

**TRADEMARK EXHAUSTION
AND
PARALLEL IMPORTS OF BRANDED GOODS**

A REPORT BY LECG LTD

APRIL 27 2000

Table of Contents

Executive Summary.....	1
1. State of the Debate.....	1
2. Trademark Branding plays a Pro-competitive Role in the European economy.....	3
3. Under World-wide exhaustion Firms will continue to protect their selective Distribution Systems, albeit less Efficiently.....	4
4. International Price Studies Mischaracterize the Issues.....	7
5. Consumer Protection a Consumer Fraud.....	8
6. Conclusion.....	9
1. INTRODUCTION.....	11
1.1. Background.....	12
1.2. State of the Current Debate and Recent Studies.....	13
1.2.1 European Commission’s Staff Working Paper.....	14
1.2.2 NERA Report for the European Commission.....	15
1.2.3 Report by the Swedish Competition Authorities.....	15
1.2.4 Report to the New Zealand Ministry of Commerce 1999.....	16
1.3. Structure of this Report.....	17
2. BRANDING AND DISTRIBUTION OF BRANDED GOODS.....	18
2.1. Introduction.....	18
2.2. The Value of Branding Strategies.....	19
2.2.1 Economic Theory of Branding: Ensuring Quality.....	20
2.2.2 Economic Theory of Branding: Promoting Investment into Reputation.....	20
2.2.3 Economic Theory of Branding: Lower Cost of Product Innovation and Introduction.....	21
2.2.4 Economic Theory of Branding: Lowering Search Costs	22
2.2.5 The Role of Distribution in Maintaining the Economic Value of Brands.....	23
2.3 Branding and Trademark Protection in an International context	25
2.3.1 Consumer Search Costs – scope for confusion	25
2.3.2 Weakening Quality Signals.....	27
2.3.3. Raising the Cost of Branding	28
2.3.4 Weakening Brand Image by Weakening the Distribution Channel	29
2.4. Summary and Conclusion	30
3. ECONOMIC ANALYSIS OF PARALLEL IMPORTS	33
3.1. Introduction	33
3.2. Empirical Studies	34
3.2.1 Size of the Grey Market	34
3.2.2 International Price Differences	34
3.3. Theoretical Studies.....	38
3.3.1 Differential versus uniform pricing in monopolistic markets	39
3.3.2 Differential Pricing in oligopolistic markets.....	41
3.3.3 Anti-competitive Effects of Uniform Pricing	42
3.3.4 Parallel Imports and Product Differentiation	44
3.3.5 Restricted Licensing and the allocation of profits from parallel imports	46
3.4. Conclusions	47

4. CONCLUSIONS ON TRADEMARK LAW AND PARALLEL IMPORTS	48
Annex I: The Current Debate	51
1. Introduction	51
2. The NERA Study	51
Annex II: International Price Differences for Consumer Goods	54
1. Introduction.....	54
2. International Price Differences	55
3. Inter-regional Price Differences	58
3.1. EU Price Studies	58
3.2. US Price Studies	59
4. Summary and Conclusion	62
Annex III: Lower Price through Parallel Trade?.....	63
1. Introduction	63
2. Price Development 1991-1998.....	63
3. Conclusion	67
Annex IV: Malueg and Schwartz made Simple	69
Annex V: Exhaustion under Restricted Licensing and Dual Branding	71
1. A homogenic model	71
2. Restricted licensing	76
3. The differentiated product case	79

Executive Summary

1. State of the political debate

The debate on parallel imports and trademark exhaustion has focused on the high price of goods in Europe; with the contention made by some that allowing world-wide trademark exhaustion would prove a panacea to Europe's alleged high cost of living. This study is aimed at re-focusing the debate on the true impact of a change in the exhaustion regime. Essential to this re-examination of the process is recognising that the immediate impact of a change in the exhaustion regime will be downstream from actual trademark holders.

The European Commission pointed in its recent Staff Working Paper, "Exhaustion of Trade Mark Rights"¹ to the Court of First Instance's decision² and stated: "In fact it appears that in the light of the recent case law on exhaustion, the purpose of trade mark is no longer to function as an indicator of source but also of goodwill ('brand') calling for specific distribution systems."³ An aspect of parallel imports which is often neglected⁴ is that they may, depending on the product, entail free riding on the distribution systems developed by branded goods manufacturers. The short-term benefits envisaged by proponents of world-wide exhaustion will be made, if they occur at all, amongst others at the expense of these distribution systems, and therefore, the debate on trademark exhaustion should also be a debate over the extent that the methods of distribution used by branded goods manufacturers are pro-competitive. If these channels serve to enhance EU-wide welfare, then efforts to erode these channels, such as a move to a wider exhaustion regime, will prove counter-productive in the long run.

Just as importantly, the long-term reaction of trademark holders cannot be ignored. All else equal, once a branded good is sold into the distribution channel, manufacturers and consumers have a common interest in keeping prices low.

¹ SEK (1999)203 3

² Javico vs. Yves Saint Laurent Case 306/96 (1998) ECR1-1983

³ SEK op cit. 2

⁴ see Ch. Joerges, E.Hiller, HW Micklitz u. K.Holzschek "Vertriebspraktiken im Automobilersatzteilstektor" p. 113

Manufacturers do not profit from the mark-ups imposed downstream, and to the extent that mark-ups lower the quantity demanded, manufacturer's profitability suffers. Therefore, when manufacturers do create specialised and exclusive channels of distribution for their goods, they do so recognising the necessary trade-off between minimising the cost of distribution and maximising the downstream provision of essential services. Weakening the ability of manufacturers to use trademark as a means of protecting those first-choice distribution channels will only lead manufacturers to seek out alternate and less efficient methods of achieving the same aim. Past studies have utterly failed to address the reactions of firms.

This study hopes to address these two critical deficiencies in the current European-wide debate, by applying rigorous, dynamic economic analysis to the issue of the long-term pricing effects of parallel trade. While the *NERA Report for the European Commission*⁵ is even-handed in presenting the pro- and anti-parallel trade arguments, and NERA recognises the potential free-rider problems of parallel imports, NERA's static approach is such that the report cannot peer beyond a one- or two-year horizon; no substantive firm reaction is envisaged. Similarly, studies of the impact of world-wide exhaustion done in Sweden and New Zealand either fail to recognise the possibility of firm reaction at all (as in the *Report by the Swedish Competition Authority*) or rely on the fact that effects in a tiny economy are unlikely to cause major changes in the strategy of global manufacturers (as in the *Report to the New Zealand Ministry of Commerce*, geared toward a market of 3.8 million inhabitants).

The LECG analysis recognises that the European Union is the biggest trading power in the world. For example German branded goods manufacturer⁶ have made in 1998 a turnover of DM 550 billion or 6% of the total national economy. With regard to the Court of First Instance's judgement⁷ it is to be reported that the German branded goods manufacturers have spent DM 50 billion in 1998 on good will and branding which guaranteed 250,000 jobs in the advertising industry⁸. It is therefore to be expected that firms will take great pains to protect value-added distributors. Analyses

⁵ National Research Associates: "The economic consequences of the choice of regime of exhaustion in the area of trademarks" see Website DG Internal Market

⁶ Mc Kinsey Report 1999 "Der volkswirtschaftliche Nutzen der Marke" p. 8

⁷ Court of First Instance Case 306/96 (1983)

⁸ Mc Kinsey Report p. 5

that ignore the impact on large markets cannot hope to capture the impact of a change in trademark regime on the EU. The results of this more complex analysis are quite different from a naïve first glance at the issue. This should serve as a warning signal to those who would undertake to change the EU's trademark exhaustion regime without due diligence into the long-term impact such a change will have on Europe's economic well-being.

2. Trademarked branding plays a Pro-competitive Role in the European economy

The full "price" consumer's pay for a product includes the value of consumer time spent searching for and purchasing the product. Brands reduce this search cost by conveying useful information at little or no cost to the consumer. More importantly, brands allow consumers to make important inferences about product quality, the brand serving as an assurance of consistency. Brand extensions lower the per-unit cost of new product launches. Similarly, global branding allows manufacturers to recoup their investments in a brand across a wider market, lowering the per-unit costs. The prevalence of branded goods throughout Europe and other industrialised economies is evidence of the value of brands.

In the EU, most branded goods are not sold to the consumer directly from the manufacturer. Intermediary distributors and retailers are a substantial component of the EU economy and play a vital role in delivering products to consumers. In a tiered distribution system, trademark protection allows manufacturers to select optimal strategies for delivering high-quality goods and downstream services to consumers through independent distributors in an efficient fashion. This protects their investment in product innovation and adds value to consumers. This added value can take a number of different forms, for example, facilities for the consumer to try out the product, advice on the capabilities of the product, or specialised servicing and repair. Its significance will vary from product to product, but for many branded goods it is very important. The brands manufacturer is supported by his retail partners, often

SMEs engaged in high street retailing and dependant on the added value their services represent for customer satisfaction.

In Europe today, firms have adopted numerous strategies to co-ordinate and control distribution and courts and competition authorities have often validated these strategies as being pro-competitive. Among these strategies are the use of trademark to prevent parallel imports, while others include the granting of exclusive territories, franchising, and other vertical restraints. Where selective distribution is difficult/expensive to protect through contractual means, trademark law offers⁹ an efficient alternative with significantly lower transaction costs. Both the US and the EU have adopted competition policies that, subject to certain safeguards, seek to facilitate the ability of firms to control the means (in the borders of abuse of market power) by which their products reach their customers. Worldwide exhaustion would harm pro-competitive branding strategies and add inefficiency to the branded goods market.

3. Under world-wide exhaustion, firms will continue to protect their selective distribution systems, albeit less efficiently

Static models of parallel imports make unrealistic assumptions about firm behaviour, limiting their practical use for policy decision-makers. Most egregiously, these models generally assume that a firm faced with threats to its optimal distribution strategy from parallel imports will continue nevertheless to provide sufficient supply to the parallel imports to erode away its exclusive distributors' pricing structure. Even after the Court of First Instance has ruled that "it is clear that an export prohibition from a third country may, under certain circumstances, be acceptable under EU competition rules"¹⁰, so a "subjective right" of participation at the Intra-European free trade does not exist. In addition, these hypothetical manufacturers will not seek alternative methods of distribution nor do they avail themselves of new pricing options. These are very limiting assumptions.

⁹ Reich points to the "reward-function" of trademark-laws, op cit. N° 107

¹⁰ Case C 306/96 ECR I 1983 - Javico vs. Yves Saint Laurent-

If faced with a change in regime, well-run manufacturers will not act the myopic part envisioned by these models. Firms that value exclusive distributors will protect their chosen partners' profits. They may fall back on tighter contractual relationships with distributors in markets from which parallel imports are likely to originate. They may vertically integrate to eliminate the threat of independent actions. They will impose additional vertical restraints, limiting distributor independence. In the event of distributor misconduct, firms will be forced to substitute costly contract litigation for the efficiency of trademark enforcement. This proves the teleos of the whole *debate ad absurdum*, more competition will not be achieved that way — the trademark owners are forced to use a means, which is well-known to be contra-competitive and is only accepted as an incentive to innovate, because anti-competitive use of trademark rights should be passed downstream particularly by reciprocal contracts of delivery, “those contracts cannot be contra European laws”¹¹. Should companies be forced to rely upon trademark rights to enforce their interests it is to be doubted that even the proponents of changing the current exhaustion regime will dare to then undermine the trademark rights themselves. In some cases firms may chose to exit “problem” markets, reducing their ability to spread fixed costs over the widest possible market. While all of these actions will allow firms to protect their valued distribution partners and thus minimise the price effects of parallel imports, moving away from the current optimum will increase costs. This will certainly lower manufacturers' profits and potentially raise prices faced by consumers.

Firms may also seek to use other pricing tools to ensure themselves of profitable sales of high value-added products. Many firms currently serve high- and low-priced markets with different products under common trademark. In countries where downstream services are valued, exclusive distribution allows distributors to recoup the costs of providing these services; in other markets the same brand is sold in a “downscale” fashion. If worldwide trademark exhaustion creates situations where parallel imports threaten this global branding strategy, firms will simply revert to national (internal-market) branding. This may seem an innocuous reaction, but the consequences are quite deleterious. Firms use global branding primarily because it is

¹¹ Reich, op cit. N° 115

efficient. Moves to less efficient national branding raise costs to firms and consumers.

The end result of a shift to worldwide exhaustion likely will be a greater reliance on contractual restraints between manufacturers and distributors, increased vertical integration, and/or duplicative branding¹². However, the conclusion should not be that a change in the trademark exhaustion regime is therefore immaterial because firms will find other ways to achieve their aims. Rather, the conclusion is that the impact on pricing is likely to be negligible, but the increased costs borne by firms will lower profits. Moreover, the independence of distributors will come under pressure as firms seek to prevent leakage from distribution channels. It is difficult to postulate what possible benefit to consumers¹³ would arise from these developments.

In the extreme, firms may simply capitulate and abandon exclusive distribution, allowing parallel imports to exert a short-term, downward pressure on prices. However, the resulting inability to use value-added distribution channels will mean diminished incentives to innovate, and firms will cease to commit to R&D or invest in selective distribution systems. The significance of this effect will vary from product to product but cannot safely be ignored. Proponents of parallel imports treat these losses as unimportant to the European economy, an argument, which might hold true if all products were simply commodities. In this brandless world, price would prove the primary determinant of market share and there would be little room for innovation or need to compensate that innovation. On the contrary, the European Union is a market in which large market shares are garnered by branded goods (the car-industry provides 0.7% of all jobs in the EU¹⁴), not their generic competition; proving that consumers do desire the innovation and value-added distribution that trademark rights (and other restraints) allow branded goods manufacturers to provide. Arguments in favour of parallel imports must balance any small, short-term pricing benefits with the potential long-term loss in innovation and investment.

¹² for a greater detail on this issue see Korah, ELR 1978,62

¹³ see Reich op cit. N° 67 and already A. Bork "The Antitrust Paradox", 1978; Posner Univ. of Pennsylvania Law Review 127 (1979) 925; O. Williamson op cit. p. 953

¹⁴ see NERA study p. 31

4. International Price Studies Mischaracterize the Issues

Studies such as NERA's provide excellent evidence that retail prices in the United States, for example, are much lower than those in Europe. What these studies fail to capture is the distinction between general price differences on the one hand, and price difference caused by regional trademark exhaustion on the other. Studies of branded good prices such as those by the British Brands Group also show major price differences between the US and Europe, but they are substantially smaller than price differences overall. Such a result is inconsistent with the theory that the current EU-wide trademark exhaustion regime is the cause of Europe's high prices relative to the United States. Moreover, prices within the EU still vary by as much as 35% (even after the establishment of the Single Market). Indeed regional price differences are a function of the differences in regional economic power and as such they are a means to develop markets. Besides a "regulatory gap"¹⁵ the dilemma of the legislative bodies gets worse, when like in the case of the public health sector¹⁶ the Member States become indirectly the main demander and therefore they to influence and manipulate the price setting themselves¹⁷. A total liberalisation has never been on the agenda¹⁸. Branded goods categories can vary within certain US metropolitan areas by up to 25%. When single markets with complete regional exhaustion display such price disparity, analysts must look for causes other than the effect of trademark exhaustion.

Furthermore, these retail-pricing studies provide no evidence of systematic wholesale price differences. This coincides with the results of price index comparison for price development in European countries, which introduced European exhaustion only in 1995, with international exhaustion regimes formerly established. The figures presented in the study give no evidence what so ever that wholesale or retail prices were increased systematically by branded goods manufacturers profiteering from the newly introduced more restrictive trademark regime allowing the trademark holder to prohibit unauthorised imports of his products into the Single Market. Therefore little can be said about where in the supply chain these price differences arise. It bears

¹⁵ Reich op cit. N°221

¹⁶ D. Hart and N. Reich "Integration und Recht des Arzneimittelmarktes in der EG" 1990 p. 263f

¹⁷ in detail concerning this problem: G. Heiduk, V. Emmerich "Arzneimittelmarkt und Europäisches Wettbewerbsrecht" p. 149 f.

¹⁸ see FN 15

repeating that efforts by manufacturers to ensure their distributors of a fair return on the downstream services they provide, reducing intra-brand competition in order to widen consumer inter-brand choice, is pro-competitive and the benefits are recognised under European competition law as long as the selection has been made from an objective point of view¹⁹. Policy makers should not confuse Europe's higher prices with the issue at hand and should resist the urge to use trademark exhaustion as a short-term "fix" to a problem that has its roots elsewhere.

5. Consumer Protection and Consumer Fraud

We have found that parallel trade isn't overall beneficial to consumers: due to price development and overall welfare effects of parallel trade. Under an international exhaustion regime, the consumer is burdened with the risk of distinguishing; whether he is buying parallel traded goods with possibly diminished after-sale service or guarantee rights. Product differentiation as a result of different market conditions muddle the identifiability of the product sold under a brand. Therefore, the benefit associated with branded goods of lowering consumer search costs is endangered.

In addition, the consumer is at greater risk of being sold counterfeits imported undetected through trade channels currently still subject to trademark law's European exhaustion regime.

¹⁹ see the not materially decided parfum-case ECJ Case 31/80 (1980) p. 3775 (3791) –L'Oréal–; ECJ Case 75/84 (1986) p. 3021 (3085) –Saba vs. Metro–

6. Conclusion

The ultimate impact of a change in the trademark exhaustion regime will probably not be the lowered prices across all products envisaged by proponents of parallel trade. Instead, the likely result is simply that current pro-competitive market structures erode and less efficient systems would be developed in their stead. Parallel imports are, first and foremost, a threat to brands and established distribution systems. By imposing intra-brand competition beyond the manufacturer's optimal choice, parallel imports directly harm inter-brand competition. It is for this very reason that the European Commission has liberalised laws on vertical restraints: to provide non-dominant manufacturers with more control of their brands, the better to compete in an inter-brand market. There are no obvious welfare costs of enforcing selective distribution of branded goods through trademark law in an environment of international competition between brands. As long as sufficient competition exists at this level, the most likely result of parallel imports is a weakening of competition among manufacturers and a decrease in total welfare.

Where inter-brand competition is weak, parallel imports should not be encouraged in lieu of legitimate enforcement of Competition Law. Abuse of market power at the manufacturer level is welfare destroying and should be rooted out by the competition authorities. However, weakening the current rights of EU trademark holders in an effort to curb market power is an over-broad solution to a specific problem, one which applies to a narrow number of cases and which creates more inefficiencies than it resolves, further disturbing the system of intellectual property protection in Europe. The legitimate goal of protecting consumers should not be confused with the issue of trademark exhaustion, and the pro-competitive role of branded goods in the New Europe.

Almost without mineral resources but being a world economic power, the European Union must be cognisant of its comparative advantages: its people and their creativity. The European Commission has stated the need for Europe to become globally competitive through an economy built of knowledge and innovation. The environment necessary to create "a competitive and inclusive knowledge-based economy which

promotes strong and sustained growth, full employment and social cohesion”²⁰ is one which respects the rights of trademark holders, to control the means by which they bring their good to market. If the new strategic goal of the European Union formulated by the Portuguese Presidency to “*make the EU the world’s most dynamic and competitive area, based on innovation and knowledge, able to boost economic growth levels with more and better jobs and greater social cohesion*”²¹ is to be achieved, the European Union will have to give Intellectual Property and its protection the necessary priority. In a high wage region as Europe, innovation and knowledge are increasingly becoming the decisive source of wealth.

Parallel imports break the link between manufacturer and distribution, weakening the incentives for innovation and superior quality and negatively affecting the value that these efforts help to create. World-wide exhaustion flies in the face of this vital goal for the future of the New Europe. It is a step toward the commodification of Europe’s valuable brands and a step away from the protection of intellectual property. They are by logical deduction based on the parasitical logic of free riding on the investments of others. It puts these investments at stake and jeopardises the return on investments of the brand owner. We should not confuse the short-term lure of cut-price Levi’s being sold out of the back of a Bulgarian lorry for the long-term health of the European Union.

²⁰ Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, Strategic Objectives 2000-2005, *Shaping the New Europe*. Brussels, 9/2/2000, COM (2000) 154 Final.

²¹ Document of the Presidency 5256/00, DG J, Council of the EU, 12.01.2000 (14.01), p.4

1. Introduction

The right of trademark holders to prevent unauthorised third parties from importing or re-importing their goods into the EU is a controversial issue, worthy of serious debate. Currently, trademark rights are not exhausted when the products are first put into circulation in a country outside the EU/EEA, and trademark holders can block any attempts at parallel importation. This power to block parallel imports pits importers and retailers against branded goods manufacturers (as well as the manufacturers' authorised distributors), who use international branding to facilitate their distribution strategies.

Although the European Commission's working paper on the issue focuses on the relevant facts, recognising the important role of the current exhaustion regime to IPR protection, the political debate has been dominated by an attempt to play up the role of retailers as the consumer's champions and the brand manufacturers as the profiteers of high prices for branded products. Less brand protection and more parallel trade is portrayed as the solution to the apparently persistent price differentials between Europe and the rest of the world, in particular the US. Relatively little factual evidence has been provided to support the notion of profiteering by brand manufacturers, or of the effectiveness of the proposed solution to change the current trademark regime in the EU.

LECG has been asked to contribute to the wider debate through an analysis of a number of relevant economic issues that have hitherto not been well covered or lack solid economic evidence. In particular, the geographic aspects of the demand and supply of branded goods and the dynamic reaction of firms to any change in regime require a more serious analysis than has so far been put forward. It is our contention that this interaction of branding, geography, and strategic responses by branded good manufacturers is central to the analysis of the effect of any change in trademark regime. Moreover, the effectiveness of trademark law in supporting an international branding strategy has to be explicitly recognised.

1.1 Background

Under current EU policy, a trademark owner can stop parallel imports from outside the EU and thereby protect established national or European-wide distribution and pricing policies. His or her rights are not exhausted when the good is sold outside Europe. In the terminology of trademark law, the principle of European exhaustion replaced the principle of national exhaustion of trademarks for goods put into circulation within the EU. The EU did not, however, go so far as to adopt the principle of world-wide exhaustion of trademarks, whereby the freedom to parallel import would then apply for all goods sold in the EU including those that were first sold outside the EU.²²

This legal regime of intra-European exhaustion was confirmed in the ruling of European Court in: *Silhouette International Schmied Ges.m.b.H. & Co. KG v. Hartlauer Handelsgesellschaft, m.b.H.*, generally referred to as the Silhouette decision²³. In this case, Silhouette, an Austrian producer of high-quality fashion spectacles, brought proceedings in Austria against an importer of sunglasses, which Silhouette had authorised, for sale only in Bulgaria and the former Soviet Union. The Court had to interpret the Council Directive with respect to the definition of the applicable exhaustion regime for products put on the market in Non-Member State countries. The court denied that it was open to Member States to choose their individual exhaustion regime and stated that only one common European exhaustion regime should govern the control of parallel imports from outside the EU. Previously, some Member States, such as Germany, allowed parallel imports under a world-wide exhaustion regime.²⁴

²² European Commission, Intellectual and Industrial Property: *Exhaustion of Trade Mark Rights*, Commission Staff Working Paper, see <http://europa.eu.int/comm/dg15/en/intprop/indprop/exhaust.htm>.

²³ Case C-355/96

²⁴ Prior to this ruling, Member States of the EU had differing laws on the legality of such extra-European parallel imports. Sweden, among others, had a very liberal parallel import regime, and specifically offered arguments against the Silhouette ruling during those proceedings. The German Supreme Court overturned a precedent from the 1960's (the Maya case, judgement of 22 January 1964, BGHZ 41, 84), which established world-wide exhaustion in Germany, in its judgement of 14 December 1995 regarding the parallel import of dyed jeans in order to conform to the European Trademark Directive. See GRUR Int., 1996, p.271.

1.2. State of the current debate and recent studies

Generally, there are two points of view on the issue of parallel trade and extensive vs. limited trademark exhaustion.²⁵ Proponents of parallel trade and world-wide exhaustion consider the scope for arbitrage restrictions in a national or intra-European trademark regime to be equivalent to a non-tariff barrier. They point to the simple rule that lower trade barriers increase the supply of a branded good in a country. This will promote competition and lead to a decrease in price. Since lower prices are generally associated with higher levels of output and societal welfare, allowing more goods to flow into a country through alternative (parallel) channels is seen as a welfare-increasing process.

Proponents of the current regional-exhaustion regime point to the dynamic effects and emphasise the potential negative impacts of a move to world-wide trademark exhaustion. They point to the need for investments in research and development as well as sales and distribution that cannot be recouped in a world of uniform, marginal cost-based prices. Protection of intellectual property, including trademark rights, was designed to allow a competitive return²⁶ on these investments on top of the recovery of direct manufacturing and distribution costs.

The debate also centres on the reasons for persistent price differentials for branded goods across countries. Proponents of parallel imports and a world-wide exhaustion regime claim that a restrictive trademark regime that prevents parallel imports is responsible in large part for the observed price differentials between EU countries and the rest of the world. The other side points to a number of factors that contribute to cross-country pricing differentials of goods in general and branded goods in particular, and to evidence that branded goods may face lower international price differences than goods in general.

²⁵ See Szymanski, S., 1999, *International Exhaustion: A Review of the Economic Issues*, Intellectual Property Institute, London for a concise summary of the economic arguments.

²⁶ Report Schricker “*Internationale Erschöpfung im Markenrecht*” p. 2 ; N. Reich cit. op. No. 107

Various studies or consultations have been undertaken in the context of this debate and in the more general process of policy review in other parts of the world. Of particular interest are the working paper recently released by the European Commission²⁷ and studies by the NERA,²⁸ the Swedish Competition Authority,²⁹ and NZIER.³⁰

1.2.1. European Commission Staff Working Paper

The Commission's working paper (elements of which form Annex I) presents the background to the current debate as well as the legal framework surrounding it. Overall the paper tries to focus discussion around four main areas:

1. Possible consequences of different regimes for national trade-marks compared to Community trade marks;
2. Differentiation of exhaustion regimes between different intellectual property rights;
3. Differentiation of exhaustion regimes for different sectors of industry; and,
4. International exhaustion through international agreements.

In addition it provides number of arguments concerning the effects of a current regime (i.e. undermining the quest against counterfeits) and a list of options available if a change in the present situation was found necessary. The working paper refers to the process undertaken by the Commission in the development of the working paper, including a summary of results from the NERA report outlined below.

²⁷ European Commission, Intellectual and Industrial Property: *Exhaustion of Trade Mark Rights*, Commission Staff Working Paper, *op cit*.

²⁸ NERA/SJ Berwin & Co., 1999, *The Economic Consequences of the Choice of a Regime of Exhaustion in the Area of Trademarks: Final Report for DGXV of the European Commission*.

²⁹ Swedish Competition Authority, 1999, *Parallel Imports – Effects of the Silhouette Ruling*, Report Series 1999:1

1.2.2. NERA Report for the European Commission

NERA's study, published early in 1999, was conducted under the auspices of the European Commission and was designed to address the question of what impact a world-wide exhaustion regime would have on the EU. In their report, NERA states that they can predict little beyond the short-term horizon (defined as one to two years).³¹ For that short term, under a unilateral change to a world-wide exhaustion regime, NERA foresees decreases in European prices between 0.5% and 2% across many branded-goods categories, with most sectors experiencing decreases in profit of 15% or more³² But is careful to point out that the short-term price decreases of a shift in exhaustion regime are not necessarily likely to last.

Although NERA' points out that parallel imports indeed increase intra-brand competition and therefore holds some price reducing potential³³, NERA's study makes a strong case for the use of inter-brand competition to prevent the exploitation of market power caused by intra-brand restraints. As a part of this argument, NERA highlights the free-rider problem inherent in markets that require investment in local channels of distribution.³⁴

Less broad in their focus are two national studies done in Sweden in New Zealand. Both countries are relatively small and are generally perceived as being high-price markets. A static analysis of a shift to uniform pricing (or a convergence of prices due to parallel imports) almost certainly suggest that Swedes and New Zealanders would be beneficiaries of such a move.

³⁰ Report to Ministry of Commerce, *Parallel Importing: A Theoretical and Empirical Investigation*, prepared by NZIER

³¹ NERA/SJ Berwin & Co., *op cit*, p. 123

³² NERA/SJ Berwin & Co., *op cit* Table 6.10, p. 125.

³³ NERA/SJ Berwin & Co., *op. cit* Section 6.2.2.

³⁴ NERA/SJ Berwin & Co., *op cit*, Section 6.2.1. This is the essence of the U.S.-style *GTE Sylvania* school of thought.

1.2.3. Report by the Swedish Competition Authority

The Swedish Competition Authority study, which makes fairly static assumptions, uses linear demand, and as a result emphasises the short-term benefits of resuming a world-wide exhaustion regime. Moreover, to the extent that the Swedish study adds a dynamic component, it only looks at the reaction of consumers. To this effect, the study makes a very strong assumption that the direct impact of the Silhouette case will be a massive increase in Internet commerce, replacing parallel imports via distributors (who employ Swedes and pay VAT) with personal parallel imports where employment occurs in the source of the e-commerce and no VAT is paid. As a result, of course, the report finds that Sweden will lose from the restriction in parallel imports imposed by the Silhouette ruling.

Because the study compares the situation pre-Silhouette with the situation afterwards, there is no real room for firms' reactions. Had the study compared the post-Silhouette world with a world in which parallel imports are re-introduced and firms are allowed to react, the result might have been quite different.

1.2.4. Report to the New Zealand Ministry of Commerce 1999

The New Zealand study makes much less speculative assumptions (e.g. there is no discussion of the Internet). Because New Zealand is a market with low elasticity (and thus generally high prices) and because NZIER feels that New Zealand is a significant net importer of trademarked goods and of innovation in general, NZIER argues that parallel imports will be good for New Zealand. However, the NZIER report recognises that New Zealand stands to lose in markets where the up-front costs associated with distribution are high, because firms may prove unwilling to make the needed investment if they face the threat of free riding from parallel importers after the initial groundwork is laid.

While the Swedish Competition Authority's report may contain some aggressive and unsupported assumptions, neither it nor the NZIER report is blatantly inaccurate. Instead, they take the point of view of a small niche market, for which large

multinational trademark holders are unlikely to revise their global strategies. This perspective is not applicable to the EU, a major market for which a change in exhaustion regime is quite likely to trigger a rethinking and likely a reaction by firms. And thus, any study that seeks to understand the impact of a change in exhaustion regime must have a dynamic model where firms react to any expansion of parallel imports.

1.3. Structure of this Report

The debate over parallel trade and the reform of the exhaustion regime in European trademark law has established a number of facts but also promoted a certain amount of fiction. The NERA report has provided a careful economic analysis of the potential scope for increased parallel trade in the short run and acknowledges it cannot be used to predict long-run effects. NERA's report advocated a degree of caution and generally dampened some of the more exaggerated expectations.

It therefore seems sensible to conduct the argument over parallel imports at a level of generality that gets away from an oversimplified view of the representation of the world. At the same time it is important to understand the subtleties introduced by different commercial and legal measures that brand owners are likely to adopt when faced with the prospect of parallel imports.

Our aim in this study is therefore to focus on (i) selected issues of branding in an international context (particularly the nexus between branding, distribution, and parallel trade), (ii) the likely impact of a shift to world-wide exhaustion, and (iii) the distribution of gains and losses from parallel trade. The analysis investigates these three key issues from an economic perspective and leads to a set of conclusions that includes a discussion of the effectiveness of the proposed solutions. The study does not seek to provide a comprehensive review of all relevant economic considerations over parallel trade. However, through a combination of sound theoretical economics and empirical illustration the study intends to raise the level of the debate over the efficiency and equity justifications of a European exhaustion regime.

2. Branding and distribution of branded goods

2.1. Introduction

Branded goods are at the heart of the debate over exhaustion of trademarks and parallel imports. As emphasised in the recent Commission Staff Working Paper,³⁵ the function of trademark law is to support trade in and the distribution of goods. Without a fundamental understanding of the theory of branding, it is not possible to explore the impact of a change in the trademark regime.

Parallel imports weaken brands in a variety of ways. Most obviously, parallel importation undermines the pricing strategies of the branded manufacturers who are selling their product in different countries, sometimes through different distribution channels and sometimes at different prices. The parallel importer capitalises on the availability of products at lower prices on foreign markets, causing a shift in sales volume from high priced markets to low priced markets. As a consequence the branded manufacturer achieves lower sales (and revenues) in high price countries designed to recuperate on his investment whilst merely being compensated by higher sales volumes in the lower priced countries. The introduction of parallel importation therefore alters the overall revenue stream, to the detriment of the manufacturer thus reducing the manufacturer's return on investment, affecting the incentive to invest in that brand.

Where parallel imports undermine selective distribution they can negatively affect brand reputation and interfere with the quality function of brands. When manufacturers are forced, through parallel importation, to sell different versions of a good in different countries parallel imports can create confusion among consumers unless the difference is clearly indicated.³⁶ In addition, if parallel imports lead manufacturers of global brands³⁷ to create secondary brands for low-price markets, they add costly new product launches to their global strategies. In all of these cases, parallel imports serve to dissipate the consumer benefits that branding provides.

³⁵ European Commission, Intellectual and Industrial Property: *Exhaustion of Trade Mark Rights*, Commission Staff Working Paper see <http://europa.eu.int/comm/dg15/en/intprop/indprop/exhaust.htm>.

³⁶ ECJ Case 102/77 –Hoffman La Roche (Valium) –; ECJ Case 1/81 –Pfizer– (p. 2926)

It makes sense therefore to start with an overview of the role of brands and the commercial strategies that branded goods suppliers adopt to compete across different geographic markets. By highlighting the value that brands provide, as well as the threat to these benefits that can arise through parallel imports, this overview sets the scene for a review of the impact of trademark regime on the consumers of branded goods.

2.2. The Value of Brands and the Role of Branding Strategies³⁸

A brand is a name, term, symbol, design, or a combination thereof that identifies a seller's products and differentiates them from competitors' products.³⁹ Brand names and trademarks aid buyers in identifying specific products that they like or do not like and also assist buyers in evaluating quality or other attributes of products. Lowering consumer search costs thus promotes economic efficiency. Likewise, reassuring consumers of the consistent quality⁴⁰ of a product is an immediate benefit. In order to provide the ultimate benefit to consumers, trademarks must protect suppliers in order to create the proper incentive structure for investing in brands. Like all forms of intellectual property rights, trademarks are designed to confer an ability to recoup investment on the trademark holder and thereby promote the development of new products and innovation.⁴¹

The economic theory of branding is now well developed. Scheffman and Cohen⁴² provide a thorough overview of the economic and marketing literature. They distinguish four main functions of branding:

- Ensuring quality and promoting investment into reputation; and,
- Lowering the costs of product innovation and product launches.

³⁷ ECJ Case 2/78 –American Home Products– (p. 1823)

³⁸ This section relies heavily on Scheffman, D.T. and M. A. Cohen, 1997, *The Function and Value of Brand Names*, Owen School of Management, Vanderbilt University.

³⁹ Adapted from Committee on Definitions, American Marketing Association, 1960, *Marketing Definitions: A Glossary of Marketing Terms*, p. 8.

⁴⁰ N. Reich cit. op No. 34; 120; ECJ Case 102/77 –Hoffma La Roche– (p. 1166)

⁴¹ Report Schricker cit. op p. 2; N. Reich cit. op No. 107

- Promoting investment into reputation
- Lowering search costs for consumers;

2.2.1. Economic Theory of Branding: Ensuring Quality

The first role for brand names identified in economic theory is that brand names can serve as an instrument for ensuring "quality" (i.e. attributes that are important to consumers) for products where quality cannot be observed prior to purchase. By putting their name on the line, firms are in effect posting a "bond" to consumers that the product being sold under their brand name is of high quality. Failing to produce a high quality product will jeopardise future sales of that brand name - and cause the firm to lose its bond - which is the value of the brand name itself.

Markets for experience goods may be plagued with low quality when consumers cannot know in advance of their purchase whether the product they are purchasing is worth its price. If consumers do not have a method of distinguishing the two types of packaged goods, they will not be willing to pay a premium for high quality. Thus, a high price cannot (by itself) credibly signal the presence of high quality. In the economics literature this is termed the "lemons" problem - if the high-quality producer cannot convince the consumer its products are of high quality, high-quality producers are not likely to survive in the face of competition from the lower-quality competitors.⁴³

⁴² Scheffman, D.T. and M. A. Cohen, 1997, *op cit*.

⁴³ Akerlof, G., 1970, The Market for Lemons: Qualitative Uncertainty and the Market Mechanism. *Quarterly Journal of Economics* 84: 488-500.

2.2.2. Promoting Investment into Reputation

Klein and Leffler⁴⁴ and Shapiro⁴⁵ argue that a high-quality firm may be able to ameliorate the above described "lemons" problem by placing assets at risk - i.e. assets that are depreciated if consumers discover that a firm's products are not of high quality.⁴⁶ One such asset is the investment in a trademarked brand. Investment in the brand's reputation for quality through costly advertising (as well as other investments such as service and exclusive distribution) can credibly differentiate the firm from its low-quality competitors and escape the "lemons" dilemma.

The normal single-market result is that, in equilibrium, high-quality firms will be able to successfully signal their higher quality and receive a higher price, by investing in assets whose value will be depreciated should these firms not produce high-quality products. Assuming that consumers value these investments, they should be encouraged.

2.2.3. Economic Theory of Branding: Lower Cost of Product Innovation and Introduction

Like any asset, the investment in brand reputation can be leveraged. In an extension of the quality signalling arguments of Klein and Leffler⁴⁷ and Kihlstrom and Riordan,⁴⁸ Wernerfelt⁴⁹ shows how brand extensions can be used to reduce the cost of new product introductions and the cost of credible signals of new product quality. In

⁴⁴ Klein, B. and K. Leffler, 1981, The Role of Market Forces in Assuring Contractual Performance, *Journal of Political Economy* 89 p. 615-641.

⁴⁵ Shapiro, C., 1983, Premiums for High Quality Products as Rents to Reputation, *Quarterly Journal of Economics* 98 p. 659-680.

⁴⁶ For other economic models of brand name reputation advertising and product quality, see Allen, F., 1984, Reputation and Product Quality, *Rand Journal of Economics* 15 (3), p. 311-327, Kihlstrom, R.E. and M.H. Riordan, 1984, Advertising as a Signal, *Journal of Political Economy* 92 p. 427-450, Milgrom, P. and J. Roberts, 1982, Predation, reputation and entry deterrence, *Journal of Economic Theory* 27, p. 280-312. Although the model assumptions may vary somewhat, the basic role of brand names as providing product quality assurance remain unchanged.

⁴⁷ Klein, B. and K. Leffler, 1981, *op cit*.

⁴⁸ Kihlstrom, R.E. and M.H. Riordan, 1984, *op cit*,

the Wernerfelt model, firms that put their brand names on new experience goods effectively post a bond equal to the sum of both the new product introduction costs, plus the value of the existing brand equity value. That is, the depreciable assets that assure the quality of their existing products are also at risk if there is disappointment with new products with the same brand name.

In single-market models, it is rational for consumers to believe that there is less uncertainty about a brand extension than for a new product with a new name, simply because of the brand-name capital put at risk by the trademark holder. A real reduction in uncertainty is of value to the consumer in reducing search costs and increasing the efficiency of decision making.

Thus, for a variety of reasons an established brand name may be able to capitalise on its reputation when attempting to introduce a new product. Nevertheless, one cannot conclude that companies with successful brand names are able to establish a reputation for high quality in a new product line at no cost. "Brand Equity" is an asset that can be depreciated without suitable maintenance, with inappropriate (or low-quality) extensions, or with other ill-advised marketing strategies.

2.2.4. Economic Theory of Branding: Lowering Search Costs

Brand names help economise on consumer search costs. Economic theory recognises that the "full price" consumers pay for a product exceeds the retail price paid, and includes such costs as transportation to the retail outlet and the value of consumer time spent searching for and purchasing the product.⁵⁰ Brand names are an effective way of reducing this search cost by conveying useful information at little or no cost to the consumer. This may either reduce the amount of actual time (or money) spent by the consumer on search activities, or it may improve the outcome of the purchase decision made by the consumer. For example, a brand name may provide an

⁴⁹ Wernerfelt, B., 1988, Umbrella Branding as a Signal of New Product Quality: An example of signalling by posting a bond, *Rand Journal of Economics* 19 (3), p. 458-466.

⁵⁰ Landes, W.M. and R.A. Posner, 1987, Trademark Law, An Economic Perspective, *Journal of Law and Economics*, 30 p. 265.

economical source of information about some of the product's attributes, such as who the target consumer is, whether the product is deemed to be expensive or inexpensive relative to its competition, etc.

Research has shown that consumers generally organise information about products by brand names.⁵¹ In particular, brands dramatically reduce the cost of searching in repeat purchases; the consumer need only look for the brand name purchased previously rather than repeat the product attribute evaluation process.

2.2.5. The Role of Distribution in Maintaining the Economic Value of Brands

Because brand equity is an asset that requires careful management, firms will not invest in that asset unless they are certain they can influence their brand image all the way to the final purchase. If that image extends beyond the product's physical attributes into consistency of quality (especially after leaving the manufacturer's warehouse), quality of pre-sale service, ambience of shopping experience, etc., then trademark owners will wish to extend their control of the brand image beyond the first sale of the trademarked good.

The need for trademark owners to control the image of their product as it moves downstream to compete in a differentiated product market is a special case of the general role of vertical (non-price) restraints (VRs). VRs are generally attempts by manufacturers to control the level of competition among their distributors. These can take the form of an exclusive territory, restrictive customer lists (for example, a retailer might be authorised to sell educational software to students only), or requirements to invest in educating the sales force through official manufacturer training sessions. All of these generally impose some costs on the distributor, and

⁵¹ Lynch, J.G. Jnr, H. Marmorstein and M.F. Wengold, 1988, Choices from Sets Including Remembered Brands: Use of Recalled Attributes and Prior Overall Evaluations, *Journal of Consumer Research*, Vol. 15, September p. 169-184 find that brand attitudes may be stored and retrieved in memory separately from the underlying attribute information. A study by Bettman, J.R. and C.W. Park, 1980, Effects of Prior Knowledge and Experience and Phase of the Choice Process on Consumer Decision Processes: A Protocol Analysis, *Journal of Consumer Research*, Vol. 7, December p. 234-248, has shown that consumers may use different types of information and heuristics at different stages of the choice process.

often require higher prices to recover these investments. VRs thus raise the cost of distribution and also the price consumers will face, but if they allow distributors to provide sufficient value-added, play both an effective and pro-competitive role.

Amongst other means, selective distributive systems, especially for luxury goods (i.e. cosmetics) or high end products (i.e. electronic equipment) are an important means for insuring consistency and quality regarding pre-sales-services, ambience of the shopping experience, etc. with the image of the brand. The importance and scale of the distribution sector is an important factor in the EU covering 4.5 million enterprises involved in distribution and/or retailing (29 percent of all business in the EU). These businesses employed 22 million people in the EC in 1994, and in 1991, 13 percent of all value-added in the EC came from distributor/retailers.⁵² These channels of distribution are of particular importance to trademark owners, who rely on their distributors to make good on the reputation for quality and service which they have developed.

This role is emphasised in the *Green Paper on Vertical Restraints in EC Competition Policy*,⁵³ which lays out the importance of providing a distribution regime that adequately aligns the interests of the manufacturer and distributor when downstream quality is at stake. In addition, the *Communication on the application of the EC competition rules to vertical agreements*⁵⁴ confirmed that there is a role for manufacturers to impose levels of exclusivity (and other vertical restraints) in order to augment the post-manufacturer value-added and thereby provide greater inter-brand competition and increase consumer welfare. The general trend in the EU is to allow manufacturers a fairly strong level of control of how its channel partners get goods to their ultimate customers, which is in keeping with the pro-competitive role that distribution can play in the sale of branded goods.

⁵² *Green Paper on Vertical Restraints in EC Competition Policy*, 1997, COM (96) 721 Final p. 18-19. See also subsequent developments leading to the adoption of regulation 1215/99 and 1216/99, 2000. *Green Paper on Vertical Restraints in EC Competition Policy*, *ibid* p. 4-5.

⁵³ *Green Paper on Vertical Restraints in EC Competition Policy*, *ibid* p. 4-5.

⁵⁴ *Communication for the Commission on the application of the Community competition rules to vertical restraints. Follow-up to the Green Paper on Vertical Restraints, 1999.*

2.3. Branding and trademark protection in an international context

Brand economics cannot be separated from the economic geography of demand and supply. Brands do not have the same value everywhere. Some markets respond differently than others to the promotion of certain products that are marketed globally. Many brands are still national and often compete with other national brands as well as some global brands. In short, local markets with different market structures yield different outcomes. A number of surveys have illustrated the effect of different market conditions on retail prices. These differences have been found not only at the world-wide level but also within countries. A selection of these surveys are presented in Annex II.

Rather surprisingly, given the heterogeneity of market and selling conditions, most studies of branding relate to a particular single-market environment. The fact that brands operate in an international context is easily ignored, particularly when dealing with larger markets (such as the US) or with national brands operating in a national context. The question relevant to the issue of trademark exhaustion bites, however, exactly at this point: what is the role of branding in an international context, and how are the central functions of brands affected by the loss of control over distribution when parallel imports can enter a market without trademark protection?

2.3.1. Consumer search costs – scope for confusion

Brands provide consumers with information about a product and its manufacturer. Trademarks support this information function by protecting consumers from brand imitations and confusion. A trademark holder can take out an injunction against a copy-cat product being circulated on the market if the copy threatens to undermine the sales of the original brand. According to some legal scholars, this is the primary function of trademark law, protecting brand owners from products that trade off the reputation of a brand and exploit the confusion of consumers. When parallel imports

contain such copy-cat products, then trademark law provides an effective instrument for protecting the brand owner and trademark holder.

Even when genuine goods are imported in parallel, search inefficiencies will still arise. When the branded product requires after-sale service from an authorised distributor⁵⁵, manufacturers face a dilemma: a system, which guarantees after-sale services and warranties only in the country where the product was first sold while parallel imports are excluded, is prohibited⁵⁶ The ECJ accepted only one exception: technically advanced goods, which require necessarily special after-sale service may be distributed through vertically restrained trading channels⁵⁷ . Parallel importation and those legal requirements may therefore create a certain degree of confusion In the extreme, the authorised dealer may be unable to compete on price and still offer these services, resulting in a market failure for these valued downstream services.

In addition, parallel imports may potentially undermine the search function of brands and trademarks related to products that are sold under the same trademark but in reality are not of the same quality. Classic examples of legitimate or even necessary product differentiations, which, if sold on parallel markets, impose an imminent threat to the brand as a result of consumer disappointment, include automobile tyres and face creams, which need to conform to the climate of the country in question. The consumer has no way of knowing that a brand carrying a particular label was produced to a different quality standard in another country and then parallel imported. International product differentiation can create confusion when the same trademark is applied to different product specifications, which strongly devalues the search function of the brand.⁵⁸ As a result, not only will the brand's search function be inhibited, but also will the understandable disappointment of consumers with products not in line with the expectations associated with high quality branded goods have repercussions on the brand and its manufacturer, who will be held responsible for the disappointment associated with the incriminated product.

⁵⁵ ECJ Case 56+58/64 –Grundig/Consten– (p. 398)

⁵⁶ Decision of the EEC 23/10/78 OJ 322/36 (16/11/1978) –Zanussi–; ECJ Case 86/82 — Hasselblad–; ECJ Case 31/85 –ETA– (p. 3933)

⁵⁷ ECJ Case 31/85 –ETA–

One of the strongest uses of brand is assuring consistent quality from purchase to purchase. While a low-quality brand may “fool” a customer once, brands that deliver quality and consistency allow consumers to make repeat purchases with confidence. However, if a good with a common brand name of differing quality (or differing formulations for different climates or regional tastes) are parallel imported into a market, that confidence can be eroded. Conveying consistent quality is an important economic role for brands. Without the ability to do so, the value of a brand can be substantially diminished; parallel imports add back some of the uncertainty that brands would otherwise remove.

2.3.2. Weakening Quality Signals

It is important to note that the standard literature on quality signalling does not take trademark exhaustion into account. Most quality-signalling models assume that there is only one market and that the high-quality firm is a single actor. As quality signalling is a process inherent to the mark, the concept of parallel trading is incompatible as far as it leads to detrimental effects distorting the brand’s quality message.

At a basic level, the physical process of parallel importation may lead to a diminution of quality. Soft drinks can go flat, packaging or the product itself can be damaged in transit, etc. However, even without these hazards of parallel importation, quality signals are put under threat by parallel imports. For example, it is common for different markets to hold different valuations for a similar good. Thus, in a multiple-market model, consumers in one market may see a firm as high quality, while consumers in other markets may perceive less “quality” (here quality is intended to capture all elements of service and quality of distribution).

In addition, firms that seek to brand across markets with different valuations for similar goods have to recognise that some markets will value (and pay for) expensive add-ons such as in-store service. Thus, two markets might perceive the level of quality

⁵⁸ Stevenson, C., 1999, Economic Issues in the Calculation of Dumping Duties, in J. Graystone (ed.), 1999, *European Economics and Law: Competition / Trade / Single Market*. Palladium

of a physically identical good to be different, and the average consumer in those markets might have a substantially different willingness to pay for the same trademarked good. In the face of the different demand curves that result, a trademark holder may seek to upgrade its style of distribution in the market in which distribution-based services are valued, while remaining “downscale” in the market where the upscale service is not valued. This is a rational and efficient response to different consumers with different marginal utilities for the additional service/quality components.

It also brings benefits to consumers in both markets. In the market where the additional service are valued, they are provided at a price that consumers are willing to pay. In the “downscale” market, non-valued services are not forced on consumers and prices are lower. Moreover, because it is an expensive process to develop and launch a new brand, any efforts to expand the total market for a common brand helps spread those launch costs over a wider base, lowering the fixed cost of branding per unit sold.

Parallel importers are able to mimic the high-quality firm more successfully than the low-quality inter-brand competitors normally considered in quality signalling models. When the physical product actually differs, this slowly depreciates the “bond” posted by the firm, damaging the firm’s brand equity in the high-quality market. In effect, this is a return of the “lemons problem” in an intra-brand context. When the products differ only on levels of investment after manufacture, this mimicry erodes the ability of the firm and its distributors and retailers to recoup their investments in the bond. In this case, high-quality firms and their agents maintain their reputation but earn insufficient (or no) return on the accompanying investment in quality, making such a strategy infeasible.

2.3.3. Raising the Cost of Branding

Firms may eliminate parallel imports by creating secondary trademarked brands in their lower-cost markets. The second brand may still flow into the market that places a higher value on the first brand, but consumers will self-select which brand they chose. Uniform pricing does not ensue, but instead the firm provides two similar goods of differing levels of quality and service (one directly, one through parallel importers), and consumers may select among them. However, a well-designed dual-branding strategy will minimise this spillover and negate the potential pricing effects of parallel trade. This will be explored further in Section 3.

However, given the enormous expense associated with launching of a new brand, and the low success rate of new brands, this “solution” to the involuntary brand extension is itself quite costly and risky. Moreover, global branding is an efficient way to amortise the high costs of branding over the largest possible markets, and moves toward dual branding eliminate these efficiency gains. If the services provided in the “upscale” market are truly valued, the parallel channel may do little to lower prices and yet the costs of the second launch must now be borne by consumers across the firm’s markets. However, if the alternative is to have the investment in reputation of a trademarked good depreciated away through parallel imports, firms might be willing to bear this addition risk and cost and to reflect those costs in their pricing. In some cases, the net effect might be higher, rather than lower, prices overall.

2.3.4. Weakening Brand Image by Weakening the Distribution Channel

At the most basic level, parallel imports are a primarily a threat to existing channels of distribution, which as stated above comprise a substantial portion of the EU economy as a whole. These channels of distribution are of particular importance to trademark owners, who rely on their distributors to make good on the reputation for quality and service, which they have developed. By offering alternative channels of distribution, parallel importers weaken the control that branded goods manufacturers can exert downstream, despite recent efforts by the European Commission to strengthen that control. Thus, parallel imports threaten the brand equity built up in a trademarked

good, and weaken the incentive for firms to build future brands. As shown above, the inability of firms to ensure their brand investments will be sustainable can lead to a decrease in investments in quality, and thus to lower consumer welfare.

The recently published Commission Staff Working Paper on the Exhaustion of Trade Mark Rights makes the direct connection between trademark and manufacturers' need to control the downstream product. By recognising that trademarks explicitly function as a property right⁵⁹ and that a signal conveyed by a brand can require "specific distribution systems,"⁶⁰ the Commission has made it clear that the impact of parallel imports on established distribution channels is a vital element of any analysis of the long-run impact of a change in the trademark exhaustion regime.

There is therefore an economic justification for using trademark law to support the distribution of branded goods in situations where other means of control are inadequate or/and expensive. As will be shown in Section 3, the strategic options open to a manufacturer facing a world-wide exhaustion regime are not limited to selective market exit or internationally uniform pricing. Firms may instead substitute other price-discrimination strategies such as replacing second-degree price discrimination with third degree and engaging in dual-branding (as that discussed above), or may choose to use vertical restraints to counter the threat posed by parallel imports. A change in the trademark exhaustion regime may simply lead to a change in firm strategy, away from using trademarks to control distribution, and toward more costly and less efficient means of price discrimination.

2.4. Summary and conclusion

Branding and trademark protection is at the heart of the parallel import debate. This section has reviewed the role of brands, the value that they create and the economic function of branding strategies in an international context.

⁵⁹ See Annex I for further information.

⁶⁰ European Commission, Intellectual and Industrial Property: *Exhaustion of Trade Mark Rights*, Commission Staff Working Paper see <http://europa.eu.int/comm/dg15/en/intprop/indprop/exhaust.htm>, Page 1.

There is an important role for branded goods in the EU economy, and as consumers from the various Member States become exposed to a greater selection of goods through the workings of the single market, the role of branding will only increase in the 21st century. The need to provide consistently high-quality goods that match the consumer's perception of a product's value will remain an essential challenge for firms, and trademarks will continue to play a role in controlling how consumers perceive goods and what faith they can place in the goods they receive.

Brands play a pro-competitive role in the economy. Where branding enables manufacturers to lower consumer search costs, signal quality, or lower the per-unit cost of new product launches, trademarks serve as the primary legal instrument to protect a manufacturer's investment in the quality and design of an existing or a new product.

Branding does not stop at the factory gate. Branding strategies extend into the distribution channels to support the main functions of branding. In other words distribution cannot be divorced from the role of brands and trademark law. Firms adopt numerous strategies to co-ordinate and control distribution and most of these strategies are today being recognised as being pro-competitive. The EU has adopted competition policies that seek to facilitate the adoption of vertical restraints by firms that do not have or share market power.⁶¹

If denied the efficient protection of trademark rights, firms will likely turn towards less efficient options for achieving sufficient return on their investments. Firms may simply prevent arbitrage through alternative means, or they may seek to strengthen their contractual ties with their distributors, substituting breach of contract lawsuits for trademark infringement complaints in the event of a perceived violation of their rights.

⁶¹ US law also explicitly recognises the benefits of vertical restraints in fostering inter-brand competition. See *Continental T. V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36 (1977) 433 U.S. 36 and *State Oil Co. v. Khan et al.* Certiorari to the United States Court of Appeals for the Seventh Circuit. No. 96-871

In any event, many firms will take these more costly steps to prevent downstream intra-brand competition if competition with parallel imports harms their bottom line. For some industries the scope for adopting alternative measures to secure the benefits from investment in quality, service and innovation, is very limited. For others structural features of the industry make it more likely that international branding strategies can be pursued. Policy analysts should not minimise the potential difficulties and costs associated with enforcing legitimate contractual arrangements in countries where the rule of law is not respected. Such difficulties make it in turn very attractive for parallel traders to use these countries as a base for re-exportation.

From an economic perspective the issue of trademark law and parallel import restrictions is not very different from the application of economic principles to vertical restraints and price discrimination. The legal framework and mechanisms may be very different but the underlying economics is not. As a matter of economics, it is generally recognised that promoting intra-brand competition (at the expense of inter-brand competition) is not necessarily best for consumers and that vigorous inter-brand competition alone is welfare enhancing.⁶² This is recognised in the application of competition law in the US where firms are allowed to exert fairly substantial control over their distributors' use of their trademarks, even after the first sale, if that control ultimately increases inter-brand competition. In Europe, the recent developments discussed above confirm the same trend in favour of closer alignment of manufacturer and distributor.

To the extent that parallel importing weakens the ability to support an international branding strategy, it can diminish the benefits of brands to the economy. Trademark protection should be viewed as an alternative to the legitimate desire of a branded goods manufacturer to protect his brand investment through contractual restraints or other commercial strategies such as dual branding or offering different versions of a product to different consumers.

⁶² Rey, P. and J. Tirole, 1986, The logic of vertical restraints, *American Economic Review*, December p. 921-939.

3. Economic analysis of parallel imports

3.1. Introduction

Economic analysis should play a primary role in the decision making of policy makers. Unfortunately, there have been few studies on this issue to date.

The most recent study by NERA, commissioned by the European Commission, analyses the likely effects of a change in the exhaustion regime and provides estimates of the short-term effects of increased parallel imports on selected sectors.⁶³ However, NERA itself recognised the shortcomings of a static approach:

*“In the long run however these [short-term] effects are likely to be much less important than the dynamic effects of any change, as trademark holders and others react to any new regime. Dynamic effects may offset and reduce any immediate effects, as trademark holders find new commercial strategies, which maintain their existing position (e.g. through exploiting other intellectual property protections). Or they may cause much more fundamental shifts in business strategy.”*⁶⁴

Work by Szymanski for the Intellectual Property Institute⁶⁵ reviewed the economics of parallel imports with respect to IPRs more generally. Szymanski’s study makes the crucial distinction between short- and long-term effects and recognises that the longer-term time horizon complicates the simple case in favour of parallel imports. Szymanski stresses the dynamic efficiency benefits to society of innovation and R&D. Parallel imports tend to undermine the profits of innovators and this in turn leads to a reduction in R&D. In his conclusions he states:

“Exhaustion reduces the incentive to innovate because the expected profitability of innovation is reduced. Even if innovation occurs,

⁶³ NERA/SJ Berwin & Co., 1999, *op cit.*

⁶⁴ NERA/SJ Berwin & Co., 1999, *op cit.*, Section 6.3.

⁶⁵ Szymanski, S., 1999, *op cit.*

exhaustion may well limit the diffusion of the benefits because it limits the incentive of IPR holders to serve consumers in low valuation markets.”⁶⁶

Furthermore Szymanski also points out that there is a need for more empirical work in this area to aid policy makers in their decision making.

3.2. Empirical studies

3.2.1. Size of the Grey Market

Because by its nature, the extent of grey-market trading is hard to measure and the literature is quite sparse. One of the few serious economic studies on the subject, by Malueg and Schwartz,⁶⁷ states that parallel imports in the mid-1980s tended to cover the same products world-wide: consumer electronics, cars, spirits, watches, cosmetics and fragrances. For each of these product groups parallel imports are believed to account for around 20-30% of sales world-wide. Malueg and Schwartz (M&S) cite a survey of US exporters to Asia, which found that 41% of those employing sole-import distributors had problems with parallel imports. Chard and Mellor⁶⁸ cite an estimate that in 1984 parallel imports accounted for 2.1% of total US imports. In some branded goods categories, the share was much higher: 6% of Mercedes Benz cars in 1986, 20% of top-quality camera equipment in the early 1980s.

3.2.2. International Price Differences

The incentive for parallel importation will remain while price differences across countries and regions persist. For parallel imports to take place it is not enough, however, to observe price differences at the retail level as these may be due to

⁶⁶ Szymanski, S., 1999, *op cit* p. 13

⁶⁷ Malueg D. and M. Schwartz M., 1994, Parallel imports, demand dispersion and international price discrimination, *Journal of International Economics* 37, p.167-195.

⁶⁸ Chard J. and C. Mellor, 1989, Intellectual Property and Parallel Imports, *World Economy*, 12 p. 69-83.

differences in the organisation and cost structure of retailing and hence be unavoidable. There must either be a price difference at the wholesale level or another cost advantage related to the distribution system adopted by a manufacturer. A manufacturer or supplier of a branded product may decide to oblige retailers to incur substantial point-of-sale or after-sale service. A retailer who obtains supplies through parallel importation rather than direct from the manufacturer can avoid such additional costs and benefit from parallel imports even in the absence of a wholesale price advantage.

It is a basic fact that prices vary for similar goods across different geographic markets. As part of the European Commission's study on Exhaustion Regimes, NERA provides a detailed analysis of OECD data on price differentials between the United States and Europe and between Japan and Europe. This analysis shows that goods generally cost substantially less in the U.S. (this is true even after higher European taxes are taken into account) and in most cases, European prices are lower than those in Japan.

While this data does not lend itself to a direct analysis of the impact of trademark regimes on these differences, it is true that many of the products sold in these categories are, in fact, branded goods.

Table 1: International Price Differentials across a wide variety of categories

Category	Ratio US: EU	Ratio Japan: EU
Men's footwear	0.57	2.19
Ladies' footwear	0.59	1.69
Children's footwear	0.64	0.67
Records, tapes, cassettes	0.74	0.97
Motor cars	0.72	0.75
Tyres, tubes, parts	0.67	0.89
Radio sets	0.82	0.92
TVs, VCRs	0.52	0.77
Record players etc.	0.59	0.56
Refrigerators	0.80	1.96
Washing machines	1.02	1.27
Cookers	0.48	2.44
Heater and air cond.	0.37	1.57
Vacuum Cleaners	0.55	1.13
Toiletries	1.05	1.50
Men's clothing	0.65	0.97
Ladies' clothing	0.59	1.48
Children's clothing	0.55	1.04
Infants' clothing	0.55	1.69
Mineral Water	0.59	2.17
Other Soft Drinks	0.61	1.79
Chocolate preparations	0.73	1.59
Confectionery	0.61	1.52
Spirits and liqueurs	0.62	1.14
Wines	1.25	2.20
Beer	1.04	2.71
Other	0.82	1.12

Source: NERA / SJ Berwin & Co., 1999, *The Economic Consequences of the Choice of a Regime of Exhaustion in the Area of Trademarks: Final Report for DGXV of the European Commission*, p. 177 Table 6.8: Dollar price relativities in OECD 1996 (retail price including tax).

Most studies of international price differences fail to demonstrate the significant influence of pricing policies by manufacturers of international brands. However, in September of 1999, the British Brands Group (BBG) published an audit of prices for goods and services in Chicago, London, and Paris that focused on branded goods. In general, the audit found a 25 - 30% gap (except for fuel) between the US and Europe when the impact of all taxes was included.⁶⁹ For all categories except fuel, when the effect of VAT and sales taxes was excluded, the gap narrowed somewhat, to 15-22%, as shown below. It is interesting to note that these price gaps are narrower than those in many of the general OECD categories, providing some evidence that branded goods do not increase price differences across countries.

Table 2: International Price Differential: Branded Goods and Services (excluding sales taxes & VAT)⁷⁰

Sector	Chicago	London	Paris
CD's, Computer Games	100	127	114
Cinema	100	89	98
Branded Clothing	100	121	115
Fuel	100	298	246
Total	100	122	115

Source: Management Horizons Europe, 1999, *Comparative Retail Costs*, Prepared for the British Brands Group, p. 16.

In addition, most studies fail to assess price differentials at the wholesale level and instead concentrate on retail price differences. Annex II provides evidence from a

⁶⁹ "Comparative Retail Costs," Prepared for the British Brands Group by Management Horizons Europe, September 1999, p. 13.

⁷⁰ Most of the BBG categories consist of branded goods. In CDs and Computer Games each title was either trademarked, copyrighted, or both. The entire Branded Clothing category was branded, as was Fuel (all the fuel was purchased at Shell Stations). Only the Cinema category was not explicitly a branded good or service.

number of studies on the differences in retail prices at the national and international level.

The case against unrestricted wholesale pricing remains, however, to be substantiated, both at the empirical and the theoretical level. A comprehensive survey of wholesale pricing is beyond the scope of this report. The theoretical analysis of the welfare effects is part of this study and is outlined below.

3.3. Theoretical studies

Despite a certain amount of academic interest in the issue of parallel imports and the exhaustion of rights there has been little or no formal economic modelling of the issue. The case is clearly complex— it is necessary to consider the impact on consumers in different markets, on the well-being of manufacturers and their channel partners as well as on the well-being of parallel traders. Not only must all of these be considered individually, but also the interaction between these actors is important. Since parallel importers must ultimately rely on the manufacturer for obtaining the right to market the product in the first place, it must be expected that if the legal rights of the parties change, then the way in which the parties contract with each other will also change. If the law was changed to make it easier to market parallel imports, then one should expect the trademark holders to be more reluctant to supply potential parallel importers in other countries, which may in turn mean reduced supplies to consumers in other countries as well. It is not immediately obvious where the balance of advantage lies.

An economic model can help to understand the interaction of different incentives by (a) identifying explicitly all of the different economic agents, (b) identifying the objectives and constraints facing each of these agents (in particular by contrasting the “with exhaustion” case to the “without exhaustion” case), (c) quantifying the potential benefits from economic activity for each economic agent, (d) identifying the optimal (and therefore most plausible) strategy for each economic agent, and (e) computing the benefits for each kind of economic agent under different policies.

3.3.1. Differential versus uniform pricing in monopolistic markets

Parallel imports are usually modelled as part of a price discriminating strategy employed by a single firm facing a downward sloping demand schedule. This is part of the wider literature on price discrimination and arbitrage, of which Tirole is an excellent example. Tirole devotes a sizeable portion of his chapter on price discrimination to “Multimarket (Third Degree) Price Discrimination.”⁷¹ Tirole concludes that the optimal strategy for a profit-maximising monopolist is to price discriminate across markets, charging more in markets with a lower elasticity of demand. Tirole also presents the standard results on welfare, namely that “a necessary condition for price discrimination, to be preferred socially, is that it raise total output.” He concludes that “The welfare affects of third-degree price discrimination are ambiguous” and that “price discrimination redistributes income away from the low-elasticity groups toward consumers in the high-elasticity groups and the monopolist. ... [T]he low elasticity groups are often (but not always) the richer consumers. Thus it is clear that one cannot *a priori* make a case against price discrimination on the basis of income distribution.”⁷²

Work by London Economics *et al* for the Single Market Review⁷³ makes similar points, emphasising that while price discrimination can lead to allocative inefficiency, that is pricing above the perfectly competitive marginal cost level, it can also expand output, with the result being ambiguous, in general. They stress that general studies assume constant returns to scale, so that doubling inputs will result in a doubling of output. However, where scale economies exist and thus increasing inputs causes a proportionately larger increase in output, price discrimination across markets can lead

⁷¹ Tirole, J., 1997, *The Theory of Industrial Organization*, MIT Press: Cambridge, Massachusetts, Chapter 3.2, p. 137-140.

⁷² Tirole, J., 1997, *ibid* p. 139-140.

⁷³ Single Market Review, 1997, Subseries V, *Impact on Competition and Scale Effects*, Volume 3: Competition Issues.

to lower prices in all markets, as expanded use of inputs at higher levels of production drives down costs of production.⁷⁴

In a direct application of the price discrimination literature to the case of parallel imports, Malueg and Schwartz⁷⁵ developed an economic model that sheds light on an important aspect of the debate by comparing uniform pricing with discriminatory pricing. The particular focus is the question of whether parallel imports of the products distributed or licensed by a monopoly manufacturer will increase or decrease global economic welfare. Malueg and Schwartz argue that a natural consequence of parallel imports is that the price of any good must be the same in all countries. Thus the real comparison to be made is between a world where a particular good is sold at the same price in all markets as against the situation where in each market prices are set according to what that particular market will bear.

Markets in this model differ in the sense that in some countries a product may be considered more valuable than in others. If the seller can price discriminate between markets, he will typically want to charge high prices in high-demand (rich) markets and low prices in low-demand (poor) markets. The seller wants to do this because it enables him to make higher profits. The manufacturer will also put more sales efforts into selling his product to high-demand countries.

The fundamental result of Maleug and Schwartz can be stated thus - if parallel trading is permitted (so that international price differentials are removed), then:

- (i) the seller will enjoy lower profits;
- (ii) buyers in high demand markets tend to gain;
- (iii) buyers in low demand markets will lose.

It is impossible to say which regime is globally desirable. The answer depends on (a) the relative sizes of the gains and losses and (b) the weights placed on the interests of

⁷⁴ Hausman, J.A. and MacKie-Mason, J.K., 1988, Price Discrimination and Patent Policy, *Rand Journal of Economics*, Vol. 19 p. 253-265.

⁷⁵ Malueg D. and M. Schwartz, 1994, *op cit*.

each group. It is not obvious that the interests of high-demand consumers outweigh those sellers and low-demand consumers combined.

Annex III presents a simplified version of the Malueg and Schwartz model to illustrate how parallel trade with uniform pricing across two countries, one rich and one poor, leads to a situation where a trademark holder may choose not to supply a poor country at all. In this case, the result is unambiguous that world-wide exhaustion (and the resulting parallel trade) decreases total welfare. This underscores the general finding of Malueg and Schwarz that with major differences between countries in terms of ability and willingness to pay parallel trade is not necessarily welfare enhancing.

It is important to recognise that total profits also affect the trademark owners' willingness to invest in branding efforts or to develop new products. The probability of innovation is increasing in the trademark holder's investment in R&D, and R&D itself will increase if the trademark holder expects profits. Thus producer welfare is important not only in its own right, but also because it contributes to innovative and creative activity which is valued by society as a whole.

3.3.2. Differential pricing in oligopolistic markets

Real markets tend to have more than one competitor and real markets also tend to exhibit some level of price disparity. Thus, it is appropriate to consider the impact of a change in the trademark exhaustion regime in the context of oligopoly pricing. Monopoly power is not a necessary condition for price discrimination to prove profitable. For example, Neven and Phelps⁷⁶ demonstrate that in a common Cournot duopoly model (where firms compete on quantity supplied rather than directly on price), geographic price discrimination is possible when the elasticity across markets varies (and no arbitrage is possible). London Economics *et al* makes the more general

⁷⁶ Neven, D.J., and L. Philips, 1985, Discriminating Oligopolists and Common Markets, *Journal of Industrial Economics*, Vol. 34 p. 133-149.

point that “*price discrimination can also arise as a result of vigorous competition for particular sub-markets.*”⁷⁷

This applies in particular to models of spatial competition where firms have a richer set of instruments to compete with their rivals if they are not constrained to charge a single price in all markets. As a result, competition may be tougher if price discrimination is allowed, because firms may prove more willing to undercut their rivals’ prices when it only affects some, rather than all, infra-marginal sales. Studies of note in this area include those by Anderson, De Palma and Thisse,⁷⁸ Thisse and Vives,⁷⁹ and Philips⁸⁰ all of whom demonstrate the potential anti-competitive effects of mandating uniform pricing.

3.3.3. Anti-competitive Effects of Uniform Pricing

Another positive effect of price discrimination relates to the scope for collusion in oligopolistic markets. Carlton and Perloff⁸¹ point out that charging uniform prices is a potential strategy for the facilitation of collusion. If a firm charges all its customers one price, lowering the price to steal customers from a competitor means that this lower price must also be offered to existing customers as well. Thus the obligation or commitment to set uniform prices lowers the firm’s gain from stealing a rival’s customers. Furthermore, if a firm charges a single price to all customers, it is easier for a rival to see when a firm has lowered its price. A law that prohibits price discrimination and enforces uniform pricing law would serve as a cartel-facilitating device thus minimising price competition.

Since 1994, antitrust officials in the United States have taken a dim view toward one particular form of mandated uniform pricing, namely most-favoured nation (MFN)

⁷⁷ Single Market Review 96: Competition Issues, *op cit* p. 99

⁷⁸ Anderson, S.P., A. De Palma and J.F. Thisse, 1989, Spatial Price Policies Reconsidered, *Journal of Industrial Economics*, Vol. 38 p. 1-18.

⁷⁹ Thisse, J.F. and X. Vives, 1988, On Strategic Choice of Spatial Pricing Policy, *American Economic Review*, Vol. 78 p. 122-137.

⁸⁰ Philips, L., 1983, *The Economics of Price Discrimination*. Cambridge University Press, p. 12-14.

⁸¹ Perloff, J. and D. Carlton, 1994, *Modern Industrial Organisation*. Harper Collins: New York.

clauses. The DOJ and FTC have taken antitrust action against several firms using MFN clauses in the healthcare industry.

At face value, MFN clauses seem to be a good thing. They ensure that all customers receive the same price. However, as the Department of Justice pointed out in *Blue Cross and Blue Shield of Ohio, v. Joel I. Klein*: “Although an MFN clause on its face may appear to have no effect except to garner for the party imposing it the best possible price, such a clause may well cause anti-competitive effects, including higher prices. It has long been recognised that MFN clauses may deter price competition... Absent the MFN clause, a seller might provide certain purchasers with greater discounts than the seller provides to other purchasers. However, the MFN clause requires granting the purchaser imposing it as large a discount as it bestows on any other purchaser. If the purchaser benefiting [sic] from the MFN clause accounts for a significant portion of the seller's revenues, the MFN clause may inhibit the seller from giving any other purchaser a greater discount.”⁸²

The DOJ has successfully argued in several cases that MFN clauses are anti-competitive and lead to higher prices.⁸³ The basic argument is that MFN clauses imposed by dominant firms can make discounting (by healthcare providers to other insurance firms) prohibitively expensive. Without a MFN clause, a new insurance entrant might be able to extract a discount from a healthcare provider (perhaps through innovation, a more restrictive plan, and/or lowered costs to the provider), and the efficiency gains to the provider might exceed the loss in revenue. However, with a MFN clause in place, the provider must also weigh the loss of revenue across many more customers, thus making it extremely unlikely that the discount will make economic sense for the provider. The Federal Trade Commission has made similar arguments: “An MFN clause imposed by a dominant group of competing sellers can establish a price floor and restrict competition that otherwise would allow prices to go

⁸² See pp. 16-17 of the Brief of the Appellee in *US v. MMO*, available at <http://www.usdoj.gov/atr/cases/f0900/0978.htm>

⁸³ These include *United States and Arizona v. Delta Dental Plan of AZ, Inc.* (1994), *United States v. Vision Service Plan* (1994), *United States v. Delta Dental of Rhode Island* (1997), and *United States v. Medical Mutual of Ohio* (1998). The Federal Trade Commission has also successfully sought the removal of an MFN clause in *RxCare of Tennessee, Inc* (1996). In addition, *CONNELL CO. v. PLUMBERS & STEAMFITTERS*, 421 U.S. 616 (1975) found that MFN clauses can be violations of the antitrust law outside of the healthcare context.

below that floor.”⁸⁴ This position is consistent with academic literature on the subject, where MFNs have been shown (1) to facilitate horizontal price co-ordination, (2) to raise rivals’ costs and (3) to dampen competition.⁸⁵

Although MFNs are a specialised example of uniform-pricing as a means of anti-competitive behaviour, this one example should be sufficient to demonstrate that the analysis of price differentials is particularly complex. Simple arguments that uniform prices are better for consumers can miss the richness of the actual situation.

3.3.4. Parallel Imports and Product Differentiation

Uniform pricing is a highly passive, non-optimal answer by a monopolist who is confronted with parallel imports. Instead, the monopolist can still try to discriminate between the consumers in the two countries due to the differing income levels. The monopolist can offer a variety of bundles, a menu of offerings, for consumers to choose from. In doing so he must, however, take into account the possibility of arbitrage, i.e. a consumer may choose another bundle than the one he was supposed to buy. This introduces incentive-compatibility or self-selection problems. Menu pricing such as this is known as second-degree price discrimination. Typically, the monopolist does better under second-degree price discrimination than under uniform pricing (uniform pricing is just a very simple form of menu).

One simple version of second-degree price discrimination, currently practised by many global brand marketers, is a dual-branding strategy. The strategy is not however solely a response to international parallel importation. In some markets two or more brands from the same manufacturer may compete in a differentiated product space. As an example, in the United States, The Gap sells similar clothing under its Gap and Old Navy brands, targeting the latter at less affluent consumers, while aiming similar goods to a more upscale consumer through The Gap flagship brand. The company

⁸⁴ FTC Press Release, January 19, 1996, available at <http://www.ftc.gov/opa/1996/9601/rxcare.htm>

⁸⁵ Baker, J.B., 1996, Vertical Restraints with Horizontal Consequences: Competitive Effects of "Most-Favoured-Customer" Clauses, *64 Antitrust Law Journal*, p. 517, 519, 525.

also offers Banana Republic; a more specialised clothing brand, at an even higher price point.

The Gap has found this to be an optimal strategy for dealing with three segments of a single geographic market (the US). The market contains segments of consumers, each with a very different willingness to pay for a given good, and a firm, which cannot explicitly prevent one group from purchasing goods aimed at a different segment. The solution for The Gap, a system whereby customers themselves choose differing versions of a similar good and thus maintain price discrimination “voluntarily” through self-selection, would remain an option.

Faced with the possibility that its product sold in, for example, Bulgaria⁸⁶ could re-enter the EU without trademark-based import restrictions, a company could choose to create a second brand for sale in its higher-elasticity (lower-price) markets. Reserving the original name and style for high-price markets, the hypothetical firm could create a second brand for the low-priced markets. Parallel imports could not be stopped under an international exhaustion regime, but a well-targeted branding strategy could be devised, at some expense, to ensure that the lower priced brand does not have much appeal in the high-end market.

We model this situation in Annex IV. The results show that it pays for the trademark holder to differentiate under a regime of world-wide exhaustion and thereby minimise the impact of parallel imports. Profits will always be higher in the foreign market when there is no differentiation. Consumers in the poor country are generally worse off because they are served an inferior product while consumers in the domestic country are no better off. Consumers would therefore benefit from a single branding strategy with no product differentiation, but the removal of trademark protection prevents this. There are also the costs of launching secondary brands that need to be taken into account. They add to the negative costs of the world-wide exhaustion regime. The net result of an effort to lower prices is lower quality and lower welfare.

⁸⁶ Of course, Bulgaria has not been chosen entirely at random, but rather to emphasise that this is a real-life example that parallels the *Silhouette* case. Had *Silhouette* been denied the use of trademark protections, other options, such as this example, would have remained open.

It is important to point out, though, that product differentiation is a phenomenon not only resulting from the brand owner's strategies on a global marketplace governed by international exhaustion, but also occurs frequently today as a legitimate and necessary means of meeting regional preferences in taste and style or climatic necessities. In a number of cases, product differentiations are necessary due to differing national technical standards, or result from the sale of specific national versions under the same brand in all countries (i.e. software or videos in different languages, plugs for electrical appliances designed to fit national standards, different voltages: US 110V, Europe: 220V). In these cases, such substantially differing products enter markets they were not intended to be sold in, with negative effects for the consumer and most detrimental effects for the brand, which is held accountable for the "deficiencies" of a product sold on the "wrong" market.

3.3.5. Restricted licensing and the allocation of profits from parallel imports

The analysis so far has been conducted under the assumption that the IPR holder marketed the product in both countries. The important role of independent distributors linked to the manufacturer through contractual arrangements has not been totally been taken into account though. These arrangements would normally include restrictions regarding the resale of the product outside the foreign territory. If the licensor is not able to enforce these contractual rights in the foreign country, then the trademark owner has to rely on his rights under trademark law in the domestic territory. Under world-wide exhaustion, the firm is, however, exposed to parallel trade from its own licensee and can use neither contract law or trademark law to protect domestic distribution systems. This situation is modelled in Annex IV. Problems of legal enforcement of contractual rights in an international context are manifold. Even with the help of code numbering of product stocks, it is most often costly and next to impossible to prove that the licensee was instrumental in the re-export of the product. It is obvious that the exposure to parallel imports by a licensee implies a threat to the profits of the trademark owner. If the licensee has the sole right to sell in the foreign territory then he can earn arbitrage profits (in fact monopoly arbitrage profits) from selling in competition with the trademark owner in the domestic market. The result is

disadvantageous not only for the trademark owner but also does not greatly benefit consumers in the domestic country. The duopoly outcome when the licensor and licensee compete with each other offers at best only slightly lower prices to the consumer. It is our finding that the negative incentive effects on R&D of such trade is very strong.

3.4. Conclusions

This section has highlighted a number of key points concerning the effects of parallel imports when manufacturers follow a strategy in which either prices or products sold under an identical brand differs from country to country. Both pricing and distribution policies have an efficiency justification and can be shown to be pro-competitive. Price differentials, such as those shown in the international price survey and in Annex II, are pervasive and occur at the retail level across countries, cities and continents. There is, however, a lack of evidence that these retail differences are caused by or significantly influenced by wholesale price differences.

Assessing the effects of parallel imports is not straightforward. There are many effects to be considered before a welfare judgement can be made. Even in the simplest model of parallel trade, the effects that need to be considered are several:

- Manufacturer's profits in relation to their incentive for investment into innovative branding and R&D;
- Consumers in home markets and foreign markets; and,
- Total welfare implying a weighting of the costs and benefits of parallel trade.

A simple model of two countries, one rich and one poor, shows that consumers will be better off in the foreign market under discriminatory pricing if uniform pricing leads to poorer markets no longer being served. This negative result is more likely when home markets are relatively small compared to foreign markets. A similar result is found when manufacturers adopt a strategy of product differentiation where poorer

countries are no longer served with the high-quality good but instead receive a cheaper, inferior product.

4. Conclusions on Trademark Law and Parallel Imports

The economic analysis in this report has aimed to inform the policy questions over the appropriate legal regime. Section 2, on the role of brands, has underlined the pro-competitive role of branding and of restrictive distribution. Where parallel imports undermine brands and their distribution channels, they interfere with the economic benefits of brands. The economic analysis of distribution and pricing policies of branded goods in an international context, outlined in section 3, fails to support the proposition that unrestricted parallel imports from outside the EU are unambiguously welfare enhancing or capable of creating lasting benefits to EU consumers. There are no obvious welfare costs of enforcing selective distribution of branded goods through trademark law in an environment of international competition between brands. Differential pricing can be pro-competitive and hence welfare enhancing policy supporting entry and tougher price competition in geographically separate markets.

In fact there are a number of significant detriments that can be identified with increased parallel imports. Amongst others, a global brand allows a firm to leverage a single signalling investment (a bond) across many markets; dual-branding requires wasteful duplication of effort in branding and signalling. Furthermore, creating new brands (rather than extending existing ones to new markets) is a risky practice, with the new brand more likely to fail in the new market than an extension of the old. A policy to promote uniform pricing, which is implicit in the argument in favour of parallel imports, may even lead to higher prices as a result of uniform pricing policies facilitating collusion in oligopolistic markets. The best decision would be to let branded goods manufacturers compete vigorously with each other (while maintaining control over the distribution of their products) and permit competition and pricing policies that take into account the different market environment across countries.

More generally, the result of the expected reaction by firms is a loss of economic efficiency. This and the consequent efficiency loss cannot be captured by traditional

static models often used to evaluate the impact of parallel imports. After firms react, consumers still face different prices in differing markets, but as firms' profits will be lower, and more resources will have to be spent on signals that would be unnecessary in a less exhaustive trademark exhaustion regime, the overall result will sell out as lower economic welfare. This is just one example of the point made by NERA in its study for the European Commission, as cited above: "*In the long run however these [short-term] effects are likely to be much less important than the dynamic effects of any change, as trademark holders and others react to any new regime. ... [They] may cause much more fundamental shifts in business strategy.*"⁸⁷

Based on this analysis the justification of the adoption of a system of world-wide exhaustion is weak. Given the strong emphasis on the need to be able to control branding and distribution strategies it remains to be evaluated whether trademark law is an appropriate instrument to support distribution and pricing policies of brands, or whether other less restrictive legal regimes could achieve the same results. As is argued in this report, there are a number of countries where the legitimate protection of contractual arrangements to sell and distribute imported products from the EU/EEA is costly or even outright impossible. Where selective distribution is difficult/expensive to protect through contractual means, trademark law offers an efficient alternative with significantly lower transaction costs, which is useful to the pro-competitive role selective distribution plays for intra-brand competition. Trademark law can be used in the country of re-importation whereas contractual arrangements governing re-exports normally have to be enforced in the country of re-exportation. This is particularly important in the context of the EU/EEA which is a net exporter of branded products and vulnerable to parallel imports.

Finally, where a trademark holder tries to use trademark law to exploit monopoly power, it is up to the courts to balance the benefits of allocative efficiency and dynamic efficiency that EU competition and trademark laws promote respectively. The EU/EEA has a powerful body of competition law to deal with those situations where the pro-competitive benefits of branding are not able to outweigh the negative effects of genuine abuse of monopoly power. As a matter of principle, brands are not

⁸⁷ NERA/SJ Berwin & Co., *op cit*, Section 6.3.

monopolies but instead compete in differentiated product markets with other brands. Trademark law must therefore be seen as a means to support inter-brand competition not as a means to suppress it.

Annex I: European Commission's Current Debate⁸⁸

1. Introduction

Identification of the Problem

The question of exhaustion of trade mark rights has become an important issue. Discussions within the Council and discussions in hearings and meetings organised by the Commission services have shown that the views between Member States as well as between the various interested circles are divided.

The actual Community exhaustion regime on trade marks within the EU constitutes an important barrier against parallel imports, as is necessary for the promotion of investment in innovation and in high-quality goods.

2. The NERA Study

With a view to obtaining a clearer picture of its economic effects, the Commission launched a study on the possible economic consequences of a possible change of the current Community exhaustion regime. The study has been carried out by the NERA institute in London and was presented to the Commission in February 1999.

According to the study the issue of exhaustion may have an impact not only on prices, but also on product quality, product availability, after-sales services (guarantees), employment, distribution agreements, market segmentation, etc. With regard to the price argument, the study shows that the impact of a change in the existing Community exhaustion regime would be minimal in certain sectors like alcoholic drinks and confectionery, whereas it may have more significant consequences in others such as consumer electronics, domestic appliances and footwear. The study calculates that the lowering effect on prices would range from “negligible” (soft

⁸⁸ European Commission, Intellectual and Industrial Property: *Exhaustion of Trade Mark Rights*, Commission Staff Working Paper, Annex III see <http://europa.eu.int/comm/dg15/en/intprop/indprop/exhaust.htm>.

drinks) to “small” (around 1% for footwear, musical recordings, motorcars) or “moderate” (around 2% for consumer electronics).

a. Arguments for the present exhaustion regime

The study lists a number of arguments in favour of retaining the present regime of Community exhaustion.

The main argument for maintaining the current exhaustion regime is that it is essential to protect EC competitiveness and innovation, in that it guarantees a return on investment in new products.

It reasons that the present exhaustion regimes provides a higher economic reward to firms that invest in the quality or style of their products, and that this incentive is necessary in order to maintain the range of products and the quality of goods and associated service that EU consumers expect. A change to world-wide exhaustion would reduce the value of intellectual property and put European companies at a disadvantage against countries not applying the same regime.

The study also indicates that a change in the exhaustion regime for trade marks would not necessarily lead to a tangible change on the market, as right holders have other means to control the distribution of their products, such as letting up selective distribution networks prohibiting sales to unauthorised dealers. The study also suggests that parallel imports may confuse the consumer as a result of problems such as instructions in foreign language, lack of after-sales service, quality etc.

Finally, it is stated that world-wide exhaustion would lead to more imports of counterfeit products, thus having a severe negative impact on health and safety of consumers.

b. Arguments for a change to world-wide exhaustion

Besides a reduction of prices, the study lists a series of other arguments in favour of changing to world-wide exhaustion.

Parallel imports would increase (intra-brand) competition, by reducing the possibility for a trade mark holder to exploit his position in that brand and to set higher prices in certain markets and by increasing competition in the distribution of the product. Besides this claimed effect from a change in the exhaustion regime, the study lists a series of other arguments in favour of changing the present regime.

Some of the interviewees' point at the fact that trade mark legislation is intended to provide assurance of origin of a product and not to be an instrument of market segmentation. Further it is stressed that there is little evidence that consumers would be confused if more parallel imports were to be permitted.

Moreover, some important trading partners partially implement world-wide exhaustion with no evidence of alleged ill effects such as poor consumer service or lack of availability.

Finally, it is stated in the study that sometimes manufacturers use parallel trade when they wish to off-load excess supplies.

Annex II: International Price Differences for Consumer Goods

1. Introduction

The primary incentive for parallel imports arises from the existence of price differences between different territories for the same good. Parallel traders seek to exploit the difference in price by obtaining supplies in a low-price country and selling them on into the high-price country. If wholesale price differences are substantial, and large enough to cover transport costs and other costs of importing goods, a parallel trader then needs to find a retailer or retail channel to sell parallel imports to end consumers. In the case of branded goods, parallel imports are often sold outside the retail channels chosen by the manufacturer.

For parallel imports to take place it is not enough to observe price differences at the retail level as these may be due to differences in the organisation and cost structure of retailing and hence unavoidable. There must either be a price difference at the wholesale level or another cost advantage related to the distribution system adopted by a manufacturer. A manufacturer or supplier of a branded product may decide to oblige retailers to incur substantial point-of-sale or after-sale service. A retailer who obtains supplies through parallel importation rather than direct from the manufacturer can avoid such additional costs and benefit from parallel imports even in the absence of a wholesale price advantage.

Most studies of international price differences deal with price differences at the retail level. The following survey illustrates this point. We have not found any evidence of wholesale price differences. This gap in the empirical evidence is relevant for the debate over trademark exhaustion and parallel imports for several reasons:

- Showing that there are significant price differences at the retail level is not direct evidence of wholesale price differences. If the proponents of parallel imports and world-wide exhaustion base their argument on the existence of

international price comparisons at the retail level then it is up to them to show that they are systematically related to international price differences at the wholesale level.

- If there is positive evidence of wholesale price differences for certain goods then it is necessary to demonstrate that there are negative welfare effects to society from strategies of branded goods manufacturers to control distribution and set different prices in countries that are characterised by differences in income and consumer preferences. This is particularly important when considering the different appreciation of quality across markets and the need for quality assurance that brands offer.
- If parallel imports are due to selective distribution systems then it is up to the supporters to show why the avoidance of certain distribution costs is justified and not merely a case of retailers free-riding on branding efforts and investments into distribution made by manufacturers and retailers in the country of importation.

2. International Price Differences

A single-category study was surveyed in the course of the 1993 monopoly enquiry in the UK.⁸⁹ This study, which analysed prices for popular-music compact discs, provided price data in the US and Europe. CD prices were found to vary fairly substantially, both within the EU and when compared to prices in the United States.

⁸⁹ BMRB International Survey of retail prices, September 1993, cited in LECG Ltd, 1999, *Quantitative techniques in competition analysis*, Office of Fair Trading Research Paper 17.

Table 3: CD Price variation

Pre-selected Titles	£				
	UK	US	F	G	DK
<i>Diva</i> – Annie Lennox	11.78	10.21	13.03	11.23	11.38
<i>Soul Dancing</i> – Taylor Dayne	11.25	9.83	12.87	11.19	11.58
<i>Zooropa</i> – U2	10.22	9.85	11.88	10.72	11.33
<i>Keep the Faith</i> – Bon Jovi	10.56	10.53	12.81	10.89	11.50
<i>River of Dreams</i> – Billy Joel	10.33	9.45	11.74	10.75	11.28
<i>Timeless</i> – Michael Bolton	11.26	10.45	12.41	11.00	11.28
<i>Tubular Bells II</i> – Mike Oldfield	11.71	10.21	12.71	10.92	11.25
<i>What's Love Got to Do With It?</i> – Tina Turner	10.06	9.67	13.12	11.15	11.44
National Average	<i>10.90</i>	<i>10.03</i>	<i>12.57</i>	<i>10.98</i>	<i>11.38</i>

Source: BMRB International Survey of retail prices, September 1993, cited in LECG Ltd, 1999, *Quantitative techniques in competition analysis*, Office of Fair Trading Research Paper 17 p. 28.

In addition, a wide variety of other studies, pre- and post-1996 have all demonstrated the persistence of price differentials across the EU and the globe. BEUC released a price study in December 1998 that demonstrated large pricing variations across the EU in a wide basket of consumer goods. BEUC also provided detail on eight branded goods in ten Member States, showing wide pricing variation.

Table 4: Intra-EU Price Differentials: selected branded goods

Member State	Swatch <i>The Classics</i>	Lacoste <i>Polo L1212</i>	LEVI'S <i>501</i>	CHANEL <i>N°5 (35ml)</i>	CANON <i>PRIMA SUPER 135</i>	Sony <i>Radio-CD cfd-V10</i>	Sony <i>Walkman FX 261</i>
Germany	32.9	60.2	75.4	42.0	201.8	85.5	50.1
Austria	35.9	68.2	71.8	43.0	215.0	93.3	49.8
Belgium	39.2	61.2	73.5	34.8	269.5	98.0	49.0
Spain	29.8	53.5	65.3	39.9	274.2	107.3	53.1
France	34.7	64.1	66.4	37.7	300.3	104.1	52.7
Luxembourg	37.5	61.2	73.5	41.2	226.9	93.2	47.8
UK	44.7	NA	68.2	55.3	348.7	131.9	60.6
Italy	25.7	66.2	56/5	43.1	282.4	107.8	53.4
Netherlands	38.1	62.8	NA	42.2	268.8	89.3	57.9
Portugal	34.1	63.5	68.2	41.8	296.4	93.8	59.2
Range⁹⁰	74%	27%	15%	59%	73%	54%	27%

Source: Bureau Européen des Unions de Consommateurs, Press Release: "A Single Price for a Single Currency" December 21, 1998.

⁹⁰ Range defined as (Highest – Lowest) / (Lowest) for each product.

3. Inter-regional price differences

3.1. EU pricing studies

Price differences can also exist within a single market. While it is the policy of the EU that these differences are rooted out, nonetheless, the reality of low- and high-priced countries remains within the Union. The Green Paper on Vertical Restraints in EC Competition Policy estimates that even after the establishment of the single market, some consumer goods' prices varied by as much as 35% across the EU.⁹¹ Many analysts expect these gaps to narrow over time, as the promise of a single market becomes reality. However, in January of 1999, the European Commission released figures showing the extent to which price differences remain among the Member States.

Table 5: Intra-EU Price Differentials: All goods (controlling for sales taxes)

	Aggregate price level (excluding tax)		Aggregate price level (excluding tax)
Belgium	102	Ireland	92
Denmark	123	Italy	88
Germany	115	Luxembourg	110
Greece	76	Netherlands	104
Spain	83	Austria	110
France	110	Portugal	68
Finland	109	Sweden	123
UK	86		

Source: European Economy: Supplement A, *Economic Trends* (N 1 – January 1999), p. 6.

These differences are attributed to a wide variety of factors including different structural/market features, regulatory barriers, and differing firm strategies in the

⁹¹ Green Paper on Vertical Restraints in EC Competition Policy, *op cit.*, and p. 22.

various Member States.⁹² It is important to note how firms find ways to take advantage of differing demand conditions even within a single market and despite an EU-wide trademark exhaustion regime. The same can be seen in the US market.

3.2. *US Pricing Differences*

As is often seen in international pricing studies, the average price in the United States often falls well below the equivalent price in Europe. However, these studies do not capture the fact that even within the United States, substantial regional price differences are quite common across a wide category of goods and services. This is true even between very close cities (some which share a consolidated metropolitan statistical areas or CMSA). These cities should be close enough for arbitrage to be fairly easy, and yet price differences remain. Unlike the EU, there was no historically fragmented market to help explain away such differences. Nor is there any currency opaqueness.

US prices differences are not small. Using a composite index of groceries, transportation, and miscellaneous goods and service (all categories with a strong presence of trademarked goods), New York City is 24.5% more expensive than New Haven, Connecticut. These two cities are less than 135 kilometres apart and are part of the same CMSA. New York's "Branded Cost of Living" comes in at 137.2, New Haven's at 110.2.

Just as striking are the price differences in the branded categories between Baltimore Maryland and Washington, DC. The two cities, only 75 kilometres apart, anchor the Baltimore-Washington CMSA and yet the branded goods sectors in Washington are, on average, 13.2% higher than those in neighbouring Baltimore (Branded COLI of 110.0 vs. 98.2).

These sorts of difference exist by region, throughout the country, and even within regions, as these two examples indicate. A sample of cities across the country is given

⁹² European Economy: Supplement A, Economic Trends (N 1 – January 1999), pp. 6-7.

in Table 10 and shows that even in a relatively homogenous and long-standing market like the United States, with a nation-wide exhaustion regime, price differences are common.

Table 6: Price comparison

Metropolitan Areas	Branded Goods Industries			
	Branded COLI ⁹³	Grocery	Transportation	Misc. Goods and Services
Atlanta, GA MSA	100.7	102.0	102.2	99.7
Baltimore, MD PSMA ⁹⁴	97.8	98.0	100.9	96.8
Boston, MA-NH PMSA	113.3	112.7	123.7	110.5
Burlington, VT MSA	104.9	104.9	103.4	105.3
Cincinnati, OH-KY-IN PSMA	92.4	89.1	95.5	93.1
Cincinnati, OH-KY-IN PSMA	100.4	97.4	99.4	102.2
Dallas, TX PSMA	99.5	95.7	106.6	99.2
Houston, TX PSMA	97.0	90.7	105.9	97.3
Las Vegas, NV-AZ MSA	97.8	103.2	99.9	94.5
Los Angeles-Long Beach, CA PMSA	110.7	116.3	112.7	107.4
Miami, FL PMSA	107.4	105.7	113.0	106.6
Minneapolis-St. Paul, MN-WI MSA	103.9	100.0	112.9	103.1
New Haven-Meriden, CT PMSA ⁹⁵	111.4	115.6	117.5	107.6
New Orleans, LA MSA	95.5	97.7	96.9	94.0
New York, NY PSMA ⁹⁶	135.0	144.4	124.0	133.7
Philadelphia, PA-NJ PMSA	110.3	107.9	120.1	108.5
Portland-Vancouver, OR-WA PMSA	104.2	101.6	115.0	102.1
St. Louis, MO-IL MSA	97.7	99.7	98.6	96.4
Washington, DC-MD-VA-WV PMSA ⁹⁷	112.8	109.7	126.1	110.2

Source: *1998 Statistical Abstract of the United States*, Table No. 775, with Branded COLI by LECG, Ltd.

⁹³ Weighting: 27% Grocery, 17% Transport, 56% Misc. Goods and Services.

⁹⁴ Baltimore and Washington D.C. are 44 miles (75k) apart and prices are 13.2% higher in Washington D.C.

⁹⁵ New York and New Haven are 80 miles (135k) apart and prices are 24.5% higher in New York

⁹⁶ See FN 75

⁹⁷ See FN 76

If the US experience can be extended to the single EU market, it may be overly optimistic to expect the EU-wide trademark exhaustion regime and other harmonisation efforts to turn the EU into a uniformly priced market.

4. Summary and conclusion

Geographic price differences are a fact of life. They exist for most traded goods at the retail level across cities, countries, regions and continents. The extent of international wholesale price differences is not well documented for branded goods (in contrast to internationally traded raw materials and intermediate goods). For the issue of parallel imports, the subject matter of this study, it is primarily wholesale prices that matter.

This section has shown how most studies of international price differences fail to demonstrate the significant influence of pricing policies by manufacturers of international brands. The case against unrestricted wholesale pricing remains to be substantiated, both at the empirical and the theoretical level. A comprehensive survey of wholesale pricing is beyond the scope of this report. The theoretical analysis of the welfare effects is part of this study and follows in the next section.

Annex III: Lower Prices through Parallel Trade?

1. Introduction

As has been shown above, price differences occur regionally and internationally at the retail level, pricing policies of the brand owner notwithstanding. Another question, which has been addressed by previous studies in view of future price development in the aftermath of the introduction of International Exhaustion, is whether prices in one market will decrease due to parallel import intra-brand competition. LECG has made the attempt to contribute to this discussion on a theoretical level within this study.

It seems prudent, though, to take a look at the price indices of the last ten years (1991 – 1998), as the current regime of European Exhaustion was introduced in 1995. Supporters of parallel trading claim that increased intra-brand competition on high priced markets through parallel imports will lead to considerable price decreases for branded goods to the benefit of consumers. It seems that, should this ratio be valid, prices for branded consumer goods should have increased considerably with the introduction of European Exhaustion at least in those member states that had formerly practised an International Exhaustion regime.

2. Price Development 1991-1998

Due to the fact that not all European Member States practised International Exhaustion prior to 1995, it was necessary to restrict the scope of this Annex to countries, which had an International Exhaustion regime prior to European Exhaustion. In addition, the study conducted by the Swedish Competition Authority and especially the study for the New Zealand Ministry of Commerce had shown the necessity to examine market large enough not to be influenced by compensating effects in their market surrounding. The scope of the findings below has therefore been focussed on the German market which practised International Exhaustion until 1995.

Our analysis has shown that from 1991 to 1998, the increase in prices for the average private household has slowed from 12.8 points from 1991 to 1995 to merely 4.3

points from 1995 to 1998. Although the introduction of European Exhaustion to the German market might have suggested an increase in prices exceeding the rate of the years before due to profiteering by European brand manufacturers, such an effect on average prices has not taken place.

Taking into account that the extent of the overall economic inflationary effect of the introduction of International Exhaustion has been estimated to be at an average of circa -0.4%, the equivalent increase in prices with the introduction of European Exhaustion has not taken place. On the contrary, our research has shown that inflation has actually slowed down since the introduction of European Exhaustion in Germany.

In a second step, we have taken a closer look at the price indices for different products identified as especially susceptible to parallel imports. A price decrease of up to 30% for such branded goods, is claimed by supporters of parallel trade as a possible result of the introduction of International Exhaustion. So for the same products following the introduction of European Exhaustion in 1995 an increase in price higher than the general price index would be expected, if branded goods manufacturers actually did use regional exhaustion as a means of shutting off markets and profiteering from reduced parallel trade.

The research shows, though, that this presumption is wrong. The empirical material provided by the German Federal Statistics Authority have shown that the average price index has increased faster than the price index for most goods typically subject to parallel trade. With the exception of two product categories (corrective glasses, red wine), all product categories examined turned out to have a lower price index development than the average price index.

TABLE 7: PRICE INDICES

	1998	1997	1996	1995	1994	1993	1992	1991
Average Price Index	104,3	103,3	101,4	100	98,3	95,7	91,6	87,2
Eye Liner	104.9	102.5	101.1	100.0	99.2	97.3	92.5	88.2
Corrective Glasses	107.2	102.7	101.1	100.0	0	0	0	0
CD, Classical Music	100.4	100.4	100.2	100.0	99.7	98.7	97.6	96.2
CD, Pop Music	99.5	99.6	99.9	100.0	99.3	97.9	95.3	94.2
CD-Player	94.4	95.6	98.0	100.0	101.5	103.3	105.1	106.1
Ladies sport shoes	102.4	101.5	101.0	100.0	99.4	98.1	94.7	92.1
Ladies Eau de Toilette	100.7	99.9	100.2	100.0	99.0	96.0	92.9	98.2
Electrical Toaster	98.6	99.3	99.7	100.0	-	-	-	-
Colour TV	91.0	94.4	98.0	100.0	101.9	104.9	105.5	106.3
Soap	99.2	98.8	99.2	100.0	100.6	99.6	96.9	93.6
Gas Lighter	103.6	102.4	100.9	100.0	99.4	98.4	96.1	94.5
Hair Shampoo	98.8	99.3	99.6	100.0	100.4	100.1	97.4	93.8
Hair spray	98.0	99.2	100.2	100.0	99.9	99.2	96.5	93.6
Hand Lotion	100.1	100.2	100.6	100.0	-	-	-	-
Mixer	101.2	101.4	100.8	100.0	-	-	-	-
Men's Shirt	101.9	101.4	100.6	100.0	99.3	98.2	98.1	93.3
Men's Shoes	101.9	101.2	100.7	100.0	99.2	97.9	95.4	93.1
Men's Slippers	103.2	102.3	101.3	100.0	98.9	97.3	94.0	91.1
Men's Sports bike	102.0	101.0	100.6	100.0	99.0	97.6	95.0	92.2

Men's Underwear	103.3	101.7	100.8	100.0	99.0	97.5	93.4	90.3
hi-fi Station with CD	91.5	94.4	97.6	100.0	0	0	0	0
Ladies Jeans	101.5	101.3	100.8	100.0	99.1	98.0	95.8	94.1
Kid's Jeans	100.1	99.7	99.9	100.0	-	-	-	-
Sports Garment	100.7	100.2	99.8	100.0	99.4	98.1	96.3	95.1
Jogging Shoes	101.7	101.4	100.7	100.0	99.4	98.1	94.7	92.1
Coffee Machine	99.0	99.8	99.9	100.0	-	-	-	-
Camera	92.3	94.5	97.4	100.0	101.5	101.1	100.9	101.1
Deodorant	99.2	99.5	100.1	100.0	99.6	98.5	96.8	95.5
Lipstick	104.2	101.5	100.4	100.0	99.4	97.4	92.9	93.3
Make-up Fluid	103.6	101.6	100.3	100.0	99.2	97.6	93.2	94.3
Motorcycles	101.2	100.9	100.9	100.0	98.3	92.1	89.6	86.6
Nail Polish	104.0	101.4	100.3	100.0	99.3	97.2	93.5	92.1
Personal Computer	83.7	91.0	95.9	100.0	113.2	108.1	114.9	120.5
After Shave	101.7	100.6	100.4	100.0	98.9	96.8	93.2	90.2
Red Wine, 1 l,	105.5	102.2	101.1	100.0	99.5	98.6	97.7	95.1
Scotch Whisky 0,7l	98.9	98.9	99.4	100.0	100.2	100.1	97.5	92.6
Men's Sun Glasses	103.5	101.5	100.7	100.0	98.9	97.2	94.4	91.9
Stereo-Radio-Recorder	96.2	97.3	98.5	100.0	102.1	103.0	103.6	105.0
Men's Business Suit	101.9	101.5	100.9	100.0	99.2	98.2	96.1	93.3
Day Cream	101.5	100.7	100.1	100.0	-	-	-	-
Radio Clock	97.8	99.0	99.2	100.0	0	0	0	0

Video Camcorder	89.1	92.9	97.0	100.0	103.0	105.9	109.8	113.3
VCR	89.0	92.8	97.0	100.0	102.6	104.7	108.3	114.5
Vitamin C Tabs	100.0	99.7	100.1	100.0	100.4	101.8	98.6	95.8
Walk-Man	97.9	98.3	99.6	100.0	100.5	100.6	102.8	103.3
Spirit 0,7l	100.7	100.8	100.4	100.0	100.2	100.6	100.0	97.5
Cigarettes	107.1	103.9	100.7	100.0		-	-	-

Source: Statistisches Bundesamt Wiesbaden, Germany

3. Conclusion

In the course of our study we have found no evidence that branded goods manufacturers have increased prices in the wake of the introduction of European Exhaustion for products typically fit for parallel trade. A price development detrimental to consumers has not taken place. There is no evidence that the prohibition of international parallel imports through the introduction of European Exhaustion has been instrumental for price increases by manufacturers profiteering from reduced intra-brand competition through parallel imported goods. On the grounds that prices for products typically subject to parallel trade have not risen in the wake of the prohibition of international parallel trade through trademark law, this study has found no evidence that prices for consumers should fall, if international parallel imports were reintroduced to the German market.

In addition, we have found that prices are likely to decrease further due to influences, which add to price development in high priced markets. Although not within the direct scope of our empirical research on price development within the last decade, which mainly covered 1991 to 1998, it seems probable that the advent of e-commerce will further enhance the current tendency of price decreases for branded consumer goods, as new retailers entering the market for consumer goods will tend to lower prices within inter-brand and intra-brand competition in order to obtain customers from established retailers. Consumer direct retailing will open additional margins for the benefit of consumers.

Moreover price-curbing trends are already dominating the global market place. In global markets with global communication, there is greater price transparency and intensified competition in consumer goods markets. These effects are responsible for the sustainable downward price development in the consumer goods sector found in the empirical data.

Annex IV: Malueg and Schwartz made simple

Suppose the monopolist produces a gadget at a constant marginal cost of 1. The monopolist can sell the product in two countries, one of which is relatively rich, and the other relatively poor. Consumers have utility $0.5\gamma[1-(1-q)^2]$ when they consume q units of the good. The taste parameter γ is different in the two countries. Let γ be 2 in the poor and 4 in the rich country. Both countries are of the same size 0.5 (demand at zero price).

Maximising utility yields demand which is $q_p=0.5 - p_p/4$ in the poor country and $q_r=0.5 - p_r/8$ in the rich country. Aggregate demand for both countries amounts to $q=1 - 3p/8$ for $p \leq 2$.

If parallel imports are not allowed, the monopolist can engage in third-degree price discrimination, i.e. charge different prices in the two countries.⁹⁸ If the monopolist engages in third-degree price discrimination, he will charge $p_r=2.5$ and sell $q_r=0.1875$ in the rich country and he will charge $p_p=1.5$ and sell $q_p=0.125$ in the poor country. Consumers in the rich country get the surplus $S_r=0.14$, consumers in the poor country get surplus $S_p=0.0312$, and the monopolist makes profits $\Pi_t=0.34$. If we are prepared to aggregate consumer welfare over the two markets and producer surplus, then we can calculate total welfare as $W_t=0.5118$.

With world-wide exhaustion there will be parallel imports, which lead to an equalisation of prices in the two countries. The monopolist thus has to charge a uniform price. If the monopolist charges a uniform price and continues to serve both markets, his optimal choice is $p=11/6$. Poor consumers demand $q_p=0.041$ units and rich consumers $q_r=0.27$. The rich consumers' surplus more than doubles to $S_r=0.293$, the poor consumers' surplus falls to $S_p=0.00345$, and the monopolist's profits fall to $\Pi_u=0.26$. Here total welfare is $W_u=0.55645$.

⁹⁸ For a definition of Pigou's typification of first-, second-, and third-degree price discrimination see, e.g., Philips, L., 1983, *op cit.* p. 12-14.

Under uniform pricing, it is possible that the monopolist may also choose not to supply the poor country at all. He will then supply only the rich country at the price $p_r=2.5$ and sell $q_r=0.1875$. His profits are then $\Pi_u=0.28$. In this case rich consumers are thus equally well off under uniform pricing as under third-degree price discrimination. Poor consumers are worse off because the poor country is no longer served. The monopolist, who has exited an otherwise profitable market to protect profits elsewhere, is also worse off.

Table 7: Pricing strategies in rich and poor country model

	Price discrimination	Uniform pricing both countries	Uniform pricing rich country only
Price rich country	2.5	1.833	2.5
Price poor country	1.5	1.833	2.5
Sales rich country	0.1875	0.27	0.1875
Sales poor country	0.125	0.041	0.0
Total sales	0.3125	0.311	0.1875
Profits supplier	0.34	0.26	0.28
Consumer Welfare rich country	0.14	0.293	0.14
Consumer Welfare poor country	0.0312	0.00345	0.0
Total Welfare	0.1712	0.29645	0.14

In our example, the monopolist will choose to no longer serve the poor country because the market is not very attractive. Accordingly, here we have a clear-cut welfare loss due to parallel imports. It should, however, be obvious that if we increase, say, the size of the poor country or the taste parameter, then serving both countries will be more attractive for the monopolist. In this case an unambiguous welfare statement is generally impossible because there will be winners and losers.

Annex V: Exhaustion under restricted licensing and dual branding

The legal principle of exhaustion of rights affects the ability of IPR holders to restrict the conditions of resale of their products. In the case of trademarks, a trademark owner can stop parallel imports from outside a national (domestic) territory only when it is accepted under domestic trademark law that his or her rights are not exhausted when the good is sold with the trademark owners consent abroad. If trademark law assumes world-wide exhaustion of IPR's then parallel imports (or re-exports from abroad) are permitted. Parallel imports occur when arbitrageurs exploit international price differentials. This has the consequence that established national distribution and pricing policies are undermined, thus reducing profitability of trademark owners (typically brand owners). In this Annex, we first develop an alternative to Malueg and Schwartz's two-country model,⁹⁹ which illustrates the welfare effect of world-wide exhaustion for a homogeneous product. We then consider the wider impact of world-wide exhaustion on the behaviour of firms holding IPRs. First we consider the position of IPR holders and arbitrageurs under a restricted licensing regime and second we consider the situation when the firm is able to differentiate its product in different countries.

1. A homogeneous product model

When there is world-wide exhaustion of rights a licensee or reseller of a product that is subject to IPR's may seek to exploit arbitrage opportunities, and this will expose the pricing policy of the IPR holder to potential arbitrage. Thus if a right owner sells its product in its own (home) country, while licensing the good for sale in another (foreign) country, world-wide exhaustion implies that the IPR holder cannot prevent the licensee

⁹⁹ Malueg D. and M. Schwartz M., 1994, Parallel imports, demand dispersion and international price discrimination, *Journal of International Economics* 37, p.167-195.

from reselling in the home country. In other words, the IPR holder cannot prevent arbitrage.¹⁰⁰

Suppose we define demand in the home (A) and foreign (B) markets to be simply

$$(1) \quad p_A = A - q_A, \quad p_B = B - q_B, \quad B = mA, \quad 0 < m < 1$$

While Malueg and Schwartz analyse the case where the demand curve rotates around the quantity axis so that both the slope of the demand curve and the intercept with the price axis differ, we assume that only the intercept differs. This means that in our model the profit maximising quantity and price will differ in each country, while in the Malueg and Schwartz model only the latter varies. This assumption allows the model to vary the relative size of each market. This reflects the situation of a small country and large country where the large country is rich and the other poor, the situation that is typical of the EU facing parallel imports from smaller countries in Eastern Europe as in the Silhouette case.¹⁰¹

As long as rights are not exhausted, the IPR holder will practice third-degree price discrimination. Assume that the marginal cost of production is zero, then it is straightforward to compute the profit maximising prices for the firm both with and without world-wide exhaustion. The derivation of profits and consumer surplus in each market under price discrimination (D) is also simple:

$$(2) \quad \begin{aligned} \pi_A(D) &= A^2/4, & \pi_B(D) &= A^2m^2/4 \\ CS_A(D) &= A^2/8, & CS_B(D) &= A^2m^2/8 \end{aligned}$$

When world-wide exhaustion of rights applies the firm faces potential arbitrage and must charge a uniform price across both markets. This “no arbitrage” condition is simply:

¹⁰⁰ In our model the situation of IPR owner selling to a licensee is exactly the same when the IPR holder markets the product in both countries (instead of licensing) because consumers are assumed to be equally able to arbitrage. The modeling is simpler if we consider the case where the IPR holder sells in both countries. The following section deals explicitly with the license case.

¹⁰¹ Case C-355/96: *Silhouette International Schmied Ges.m.b.H. & Co. KG v. Hartlauer Handelsgesellschaft, m.b.H*

$$(3) \quad A - q_A = mA - q_B,$$

Maximising profits we obtain:

$$(4) \quad \pi_A(U) = (3-m)(1+m)A^2/16,$$

$$\pi_B(U) = (3m-1)(1+m)A^2/16$$

$$\pi(U) = (1+m)^2A^2/8$$

$$CS_A(U) = (3-m)^2A^2/32$$

$$CS_B(U) = (3m-1)^2A^2/32$$

$$CS(U) = (5-6m+5m^2)A^2/16$$

Note that if $m < 1/3$ profits in the foreign market are negative. It does not pay to serve the smaller market at all. Even if profits are positive in this market, the IPR holder may prefer to serve only the domestic market if the size of the foreign market does not justify the price cut required by the no arbitrage condition. Serving both markets is only profitable if:

$$\pi(U) > \pi_A(D) \Rightarrow (1+m)^2A^2/8 > A^2/4$$

otherwise it is more profitable to abandon the foreign market. This condition implies

$$m > \sqrt{2} - 1.$$

Thus for $0 < m < \sqrt{2} - 1$, we get the results:

$$(4) \quad \pi_A(U) = \pi_A(D) = A^2/4, \quad \pi_B(U) = 0$$

$$CS_A(U) = CS_A(D) = A^2/8, \quad CS_B(U) = 0$$

Comparing the two situations:

(5) for $m > \sqrt{2} - 1$

$$\pi(D) - \pi(U) = (1-m)^2 A^2/8$$

$$CS_A(D) - CS_A(U) = (1-m)(m-5)A^2/32$$

$$CS_B(D) - CS_B(U) = (1-m)(5m-1)A^2/32$$

for $m < \sqrt{2} - 1$,

$$\pi(D) - \pi(U) = m^2 A^2/4$$

$$CS_A(D) - CS_A(U) = 0$$

$$CS_B(D) - CS_B(U) = A^2 m^2/8$$

Which we can summarise as the following proposition.

Proposition 1

Following the introduction of world-wide exhaustion:

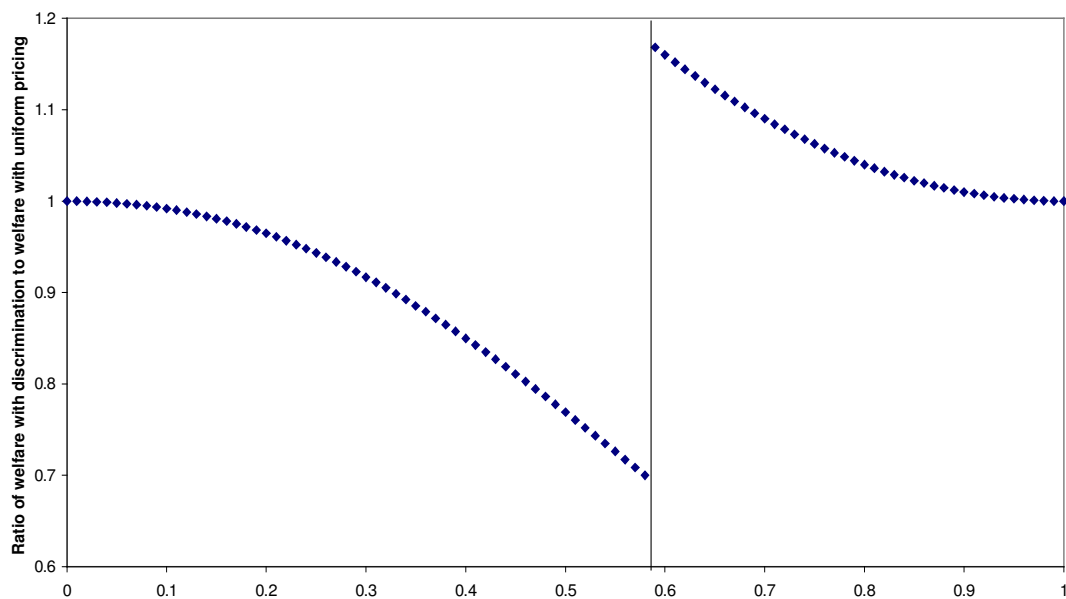
- (a) The profitability of IPR holders and investment in R&D will fall;
- (b) Consumers in the home market will be better off unless the size of the foreign market is so small that it is not served under uniform pricing, in which case consumer welfare is the same in the home market under both regimes; and,
- (c) Consumers in the foreign market will be worse off.

These results are essentially the same as those of Malueg and Schwartz. The logic behind this is that uniform pricing forces the IPR holder to average prices over the two markets. This always reduces profits, and as long as it is worth serving the foreign market, the averaging increases the welfare of consumers in the larger (high price)

market. Consumers in the smaller (low price) market always lose from the averaging effect, and if the market is too small consumers will not be served at all.

If we are prepared to aggregate consumer welfare over the two markets, then we can calculate total consumer welfare. When the two markets are of similar size there is no difference between uniform and discriminatory pricing. When the foreign market is smaller, the gain in consumer welfare in the domestic market from uniform pricing outweighs the loss in the foreign market, until we reach the point where the foreign market is not served at all. At this point, domestic consumer welfare is the same in each regime while consumer welfare is lower in the foreign market when discrimination is not possible.

Consumer welfare as the difference between the size of the home and overseas markets grows



The overall position is illustrated in the chart, which shows that the ratio of consumer welfare under discrimination relative to uniform pricing, falls as the difference in the size of the markets grows. This continues up to the point where the IPR ceases to supply the foreign market, at which point there is a discontinuity and the consumer welfare under discrimination, is actually higher.

This model assumes that \$1 of consumer welfare in the (smaller) foreign market equals \$1 of consumer welfare in the (larger) domestic market. If instead, one supposed that consumers in the smaller market were also poorer, and that a concern for redistribution meant that \$1 of consumer welfare in the foreign was worth more than \$1 of consumer welfare in the domestic market, then even for small differences in the size of the market it could be the case that discrimination led to an increase in aggregate consumer welfare.

2. Restricted licensing

The analysis so far has been conducted under the assumption that the IPR holder marketed the product directly in both countries. Extending the model to capture the more typically case of a third-party distributor is an important step in the process of matching the economic model to the reality of the market. In this extension, the IPR authorises a single reseller in the foreign territory, and only this reseller is permitted to trade the product. If unauthorised reselling by the licensee of any subsequent purchaser is not permitted under contract and this contract is legally enforceable, then world-wide exhaustion does not have any impact. If, however, the licensee is able to resell abroad without being subject to legal challenges in the foreign country (problems of legal enforcement of contractual rights) then the IPR holder relies on IPR's in the domestic territory or else is exposed to potential arbitrage by a single licensee. This is the situation we investigate in this section. Full arbitrage, equivalent to the case considered above, is not likely. The authorised reseller will move goods from the foreign market to the domestic market, but will not do so to the point when prices in the two markets are equalised. With two competitors in the domestic market, the original IPR holder and the single licensee likely we instead assume Cournot competition in the domestic market.

It is obvious that the exposure to parallel imports by a licensee implies a threat to the profits of the IPR holder. The licensee has the sole right to sell in the foreign territory and in addition can earn arbitrage profits from selling in competition with the IPR

holder in the domestic market. This situation will, if anticipated, force the IPR holder to write a licence agreement that reflects the potential earning stream of the licensee.

To model this situation we assume that the terms of sale of the license involve the possibility of both a fixed fee and a royalty per unit sold (in other words a two-part tariff). The IPR holder can calculate the fixed fee to equal the entire expected profit of the licensee, while the royalty rate can be set so as to maximise the combined value of the IPR holder's own profit in the domestic market and the fixed fee. The IPR holder is also assumed to commit (possibly contractually) not to compete in the foreign market.

The demand curve in the foreign market takes the same form as in (1), but for the domestic market we assume:

$$(6) \quad p_{A1} = A - q_{A1} - q_{A2}$$

Where A_1 denotes the output of the IPR holder placed on sale in the domestic market while A_2 denotes reselling by the licensee (parallel trade). It is straightforward to show that profit maximisation implies:

$$\pi_{A1}(L) = A(A + r)/9,$$

$$(7) \quad \pi_{A2}(L) = A(A - r)/9$$

$$\pi_B(L) = (mA - r)^2/4$$

$$V_L = \pi_{A2}(L) + \pi_B(L)$$

Where V_L is the value of the license (the fixed fee) and r is the royalty rate. From (7) it is apparent that the profit maximising royalty rate is $r = 0$. The reason is that positive royalty rates are inefficient because they needlessly diminish sales in the foreign market. While a positive royalty will redistribute market share from the licensee to the licensor, it is more efficient for the license to impose a fixed fee, which extracts all of the licensee's economic rent. Thus we can compute profits and consumer welfare as:

$$(8) \quad \pi_{A1}(L) = \pi_{A2}(L) = A^2/9, \quad \pi_B(L) = A^2m^2/4$$
$$CS_A(L) = 2A^2/9, \quad CS_B(L) = m^2A^2/8$$

If we now compare this outcome under licensing with world-wide exhaustion and the case where there is no world-wide exhaustion of rights, it is clear that the situation in the foreign market will be identical in both situations, while in the domestic market increased competition will raise consumer welfare while reducing the value of profits. Thus world-wide exhaustion in this case (recalling that the no arbitrage condition is not imposed) amounts to a redistribution from IPR holders to domestic consumers leaving foreign consumers unaffected. This outcome is a kind of intermediate case between full world-wide exhaustion of rights and no exhaustion of rights. It assumes that some restrictions on reselling remain but competition is encouraged in the domestic market. Because some price discrimination is still possible the foreign consumers do not lose out under exhaustion. However, this scheme depends on the assumption that unauthorised reselling by the licensee cannot be prevented under the contractual arrangements of the licence and that subsequent purchasers do not start engaging re-exports themselves.

Table 8 illustrates the three main outcomes analysed so far under the assumption that both markets are always served.

Table 8: Profits, Consumer Surplus and Welfare¹⁰²

	No exhaustion of rights	Full exhaustion of rights	Exhaustion with a single authorised reseller
IPR holder's profits	$(1+m^2)/4$	$(1+m)^2/8$	$(8+9m^2)/36$
Consumer surplus in the home market	$1/8$	$(3-m)^2/32$	$2/9$
Consumer surplus in the foreign market	$m^2/8$	$(3m-1)^2/32$	$m^2/8$
Aggregate welfare (unweighted sum)	$3(1+m^2)/8$	$(7m^2-4m+7)/16$	$(32+27m^2)/72$

If we assume aggregate welfare is proportional to the unweighted sum of profits and consumer surplus in each country, it is clear partial exhaustion (a single authorised reseller) dominates both no exhaustion and full exhaustion. The relationship between no exhaustion and full exhaustion depends on the value of m . If $m > 2-\sqrt{3}$, then no exhaustion dominates full exhaustion. However, if the foreign market is smaller than this critical value, full exhaustion dominates.

3. The differentiated product case

One possibility not considered by Malueg and Schwartz was that to avoid arbitrage implicit in a regime of world-wide exhaustion the IPR holder might produce a differentiated product for sale in the foreign market. This product would be inferior to the product in the domestic market (at least in the branding investment if not in product attributes themselves) and could be sold under licence. This would not prevent the licensee from reselling in the domestic market, but by increasing the differentiation the IPR holder could limit the competitive threat to its domestic market.

¹⁰² In each case the values are pre-multiplied by A^2 .

To model this situation we assume that the IPR holder envisages that the product licensed for the foreign market will re-appear as a parallel import in the domestic market. Thus there will be a demand curve for the IPR holder's product in its domestic market which will be adversely affected by the presence of the parallel import, a demand curve for the differentiated product in the foreign market, and a third demand curve for the differentiated product as a parallel import. The degree of differentiation can be parameterised by a term γ appearing in all three demand equations and which is ultimately selected by the IPR holder. It is assumed that differentiation always takes the form of placing on the foreign market an inferior product to that aimed at domestic market. Thus we can write:¹⁰³

$$p_{A1} = A - q_{A1} - \gamma q_{A2}$$

$$(9) \quad p_{A2} = \gamma A - q_{A2} - q_{A1}$$

$$p_B = \gamma mA - q_B,$$

In the usual way we can find the profit maximising solution for the IPR holder and the licensee, and on this basis calculate the value of consumer welfare.

$$(10) \quad \begin{aligned} \pi_{A1}(DD) &= A^2 \left(\frac{2 - \gamma^2}{4 - \gamma} \right)^2 & CS_{A1}(DD) &= \frac{A^2}{2} \left(\frac{2 - \gamma^2}{4 - \gamma} \right)^2 \\ \pi_{A2}(DD) &= A^2 \left(\frac{2\gamma - 1}{4 - \gamma} \right)^2 & CS_{A2}(DD) &= \frac{A^2}{2} \left(\frac{2\gamma - 1}{4 - \gamma} \right)^2 \\ \pi_B(DD) &= \frac{\gamma^2 m^2 A^2}{4} & CS_B(DD) &= \frac{\gamma^2 m^2 A^2}{8} \end{aligned}$$

¹⁰³ For the home market we can rewrite these demands as

$$q_{A1} = A(1 + \gamma) - \frac{p_{A1}}{1 - \gamma} - \frac{p_{A2}}{1 - \gamma}$$

$$q_{A2} = \frac{A(1 + \gamma)}{(1 - \gamma)} - \left(\frac{p_{A1} + p_{A2}}{1 - \gamma} \right)$$

When $\gamma=1$ these demands collapse to the homogeneous case where $p=A-q_{A1}-q_{A2}$. When $\gamma=0$ we have the case where the IPR holder serves only the domestic market.

Where DD refers to the case where the product may be differentiated. It only pays for the IPR holder to differentiate under a regime of world-wide exhaustion. This is because profits will always be higher in the foreign market when there is no differentiation (and these profits can be recouped through the license fee).

Even though world-wide exhaustion is assumed to apply in this model, the price charged in the domestic and foreign market will not necessarily be the same there may still be discrimination between the two markets. This is because the IPR holder is assumed to license only a single reseller in the foreign market. While the IPR holder cannot prevent parallel trading, it is not in the interest for the reseller to drive prices in the domestic market down to the same level as in the foreign market. Thus the reseller can in part benefit from world-wide exhaustion. In the model this benefit is recouped by the IPR holder in the form of a higher license fee. If unlimited arbitrage were feasible, then in the model prices would be driven down to marginal cost and licenses would have no value. In such a world IPR holders would never license the foreign product.

The parameter γ is constrained in the model to lie in the range from $\frac{1}{2}$ to 1. Furthermore the profit maximising solution is a corner solution- profits are maximised either when $\gamma = \frac{1}{2}$ or when $\gamma = 1$. Which of these is the profit maximising solution depends on the parameter m - i.e. the relative size of the two markets.

Proposition 2

When the foreign market is of a similar size to the domestic market, the optimal choice is $\gamma = 1$. When the foreign market is small relative to the domestic market the optimal choice is $\gamma = \frac{1}{2}$.

The choice of γ is decided by maximising $\pi_{A1} + \pi_{A2} + \pi_B$. From equation (10) it is apparent that the profit of the IPR from its own sales in the domestic market are decreasing in γ while the profit of the licensee both in the foreign and in the domestic

market is increasing in γ . Moreover, the second derivative of all three functions is increasing in the relevant range of γ . Thus the choice of γ depends on which effect dominates, the value of raising the IPR holder's own profit from the domestic market or the value of raising the licensee's profit (and hence the value of the license). If the former dominates then the IPR holder's profits are maximised when the licensee's product is made as inferior as possible. If the latter effect dominates, it is not worth degrading the licensee's product at all.

The intuition behind this is straightforward. Raising γ benefits the IPR holder by reducing the threat of parallel trade but also reduces the value of selling the license in the foreign market in the first place. Thus $\gamma = 1$ is the optimal choice when the value of the foreign market is large enough, so that the parallel trade is worth tolerating. However, if the value of the foreign market is small it is worthwhile undermining parallel traders by offering only a differentiated product in the foreign market. When $\gamma = \frac{1}{2}$ the demand for the differentiated product in the domestic market falls to zero and so the IPR holder can charge the monopoly price for the superior good.

Proposition 3

Under world-wide exhaustion there are two possible cases: if $m > \sqrt{6}-2$ both markets served under uniform pricing with no differentiation. If $m < \sqrt{6}-2$ both markets are served but the foreign market product is differentiated.¹⁰⁴

Thus the choice for the IPR holder under exhaustion lies between uniform pricing and no differentiation and differentiation. Differentiation occurs when:

¹⁰⁴ Note that when $\gamma \Rightarrow 1$ the problem reduces to the case of licensing a single authorised reseller, rather than full exhaustion. As long as $\gamma < 1$ the arbitrage problem does not arise, but arguably at the limit the relevant case is in fact full exhaustion with the no arbitrage constraint exhaustion with undifferentiated products were assumed to operate with only a single authorised reseller so that the no arbitrage condition did not apply, the critical value of m for which differentiation ($\gamma = \frac{1}{2}$) is more profitable than licensing the identical product ($\gamma=1$) is $m = 1/(3\sqrt{3})$.

Which is satisfied for $m < \sqrt{6}-2$. Note that it never pays to serve only the home market once differentiation becomes an option.

As far as consumer welfare is concerned, the comparison between full exhaustion and no exhaustion is no different to that described in the previous section as long as $m > \sqrt{6}-2$. For $m < \sqrt{6}-2$ the possibility of differentiation mitigates the adverse welfare effects of exhaustion for the IPR holder, although profits are still lower than in the absence of exhaustion. Domestic consumers are no better off under exhaustion when there is product differentiation, since their differentiation effectively eliminates domestic demand for the inferior version and hence the superior version retains a monopoly. Foreign consumers are worse off since they are sold an inferior product. These results are summarised in Table 9.

Table 9: Profits, Consumer Surplus and Welfare¹⁰⁵

	No exhaustion of rights	Product differentiation ($\gamma=1/2$) under full exhaustion of rights
IPR holder's profits	$(1+m^2)/4$	$(4+m^2)/16$
Consumer surplus in the home market	$1/8$	$1/8$
Consumer surplus in the foreign market	$m^2/8$	$m^2/16$
Aggregate welfare (unweighted sum)	$3(1+m^2)/8$	$(3+m^2)/8$

The results of the case of differentiation are striking, in that world-wide exhaustion is now a pareto inferior policy- IPR holders and foreign consumers are made worse off while domestic consumers are no better off. Results such as this only become apparent when firms in the economic model are given a full range of possible reactions – simple static models miss this completely. Policy makers should be wary of guidance provided by static models unable to capture the reality of the market.

¹⁰⁵ In each case the values are pre-multiplied by A^2 .