A Most-Favoured-Customer Guarantee with a Twist

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Abstract: This paper demonstrates that the Most-Favoured-Customer (MFC) clause identified in the Monopolies and Mergers Commission (MMC) Report on Foreign Package Holidays behaves not like an MFC but rather as if it was a variant of a so far unstudied price matching guarantee. This provides a clearer explanation than that by the MMC of why the guarantee is not in the public interest. The subsequent Court of Appeal decision focused attention on whether or not the MFC came with matching funding. It correctly identified that this made a difference, but was wrong in claiming that with matching funding the MFC would benefit consumers. As a result, the latest Foreign Package Holidays Order still does not provide the necessary prohibition of MFC clauses.

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1 Introduction

In November 1996, the Director General of Fair Trading sent two monopoly references regarding the foreign package holidays industry to the Monopolies and Mergers Commission (MMC). These were related to the supply in the UK of travel agents' and tour operators' services in relation to foreign package holidays. The resulting report[1] (the MMC Report) led to the enactment of the 'Foreign Package Holidays (Tour Operators and Travel Agents) Order 1998'[2] (the 1998 Order), making it unlawful for tour operators to include most-favoured-customer (MFC) terms in their contracts with travel agents. Thomson Holidays (Thomson) sought to challenge the validity of the 1998 Order. This challenge was rejected by the Queen's Bench Division (Crown's Office)[3] but the Court of Appeal allowed the subsequent appeal and issued an order of certiorari to quash articles 3 (a), (b) and 4 of the 1998 Order.[4] This eventually led to a much weaker new Order (the 2001 Order)[5] which allows MFC guarantees under certain conditions.

While understanding the decisions of both the MMC and the Court of Appeal in the *Thomson* case is interesting in its own right, the guarantees used in *Thomson* are not unique to this case. Moreover, as we will argue, the MFC clause found in the *Thomson* case is a somewhat peculiar guarantee, a so far unstudied variant of the class of price guarantees. Not only does this have an implication for the assessment of the decisions of both the MMC and the Court of Appeal, but because of its use in various industries and contexts, it is in itself worthy of further investigation. Thus, the aim of this paper is to clarify the effect of the actual MFC identified in the MMC Report and contained in the 1998 Order and in the light of this, to evaluate both the decision of the MMC and the courts.

The paper is organised as follows. Section two provides a general introduction to the pro- and anti-competitive effects of MFC clauses. The alleged MFC in *Thomson* was unusual in both form and effect. These peculiarities are explored further in section three, where we

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[1] 'Foreign package holidays: A report on the supply in the UK of tour operators' services and travel agents' services in relation to foreign package holidays' Cm 3813 (19.12.1997).

[2] SI 1998/1945.

[3] CO/4178/98 07.07.1999 (unreported).

[4] *R v Secretary of State for Trade and Industry, ex p Thomson Holidays* [2000] ECC 321.

[5] The Foreign Package Holidays (Tour Operators and Travel Agents) Order 2001 (SI 2001/2581).

demonstrate that the MMC mislabelled the guarantee in *Thomson*. While the report from the Commission showed an awareness of the anti-competitive effects of the clause used by Thomson and Airtours, it did not make clear precisely what was driving the effect of this clause. This may partly explain the decision reached by the English Court of Appeal in the *Thomson* case.[6] Section four highlights the arguments made by the Court of Appeal while section five, based on more formal modelling contained in the appendix, provides an intuitive explanation of why the effects of the clause in the *Thomson* case were more harmful than explained by the MMC. It also demonstrates why the Court of Appeal was wrong in its conclusion as to when the clause was not harmful. Section six provides one avenue for defending the clause by focusing on its potential fairness aspects rather than on its ability to sustain anti-competitive prices. Section seven illustrates that the clause in the *Thomson* case is not an isolated event and that the results in this paper apply to a larger set of cases. Finally section eight concludes by highlighting the importance of sound economic analysis in order to make decisions robust to future appeals.

2 Most-favoured-customer guarantees

A most-favoured-customer (MFC) clause is generally defined as a guarantee linking the prices of a particular product at a particular outlet (or chain of outlets) across time. For example, if the product in question is a durable good, the MFC clause may guarantee to someone purchasing the product today that if within the next 30 days the product is offered for sale at a lower price, the difference between the two prices will be refunded. If the customer enters a long-term agreement with a supplier, an MFC clause may guarantee that if during the life of the agreement another customer is offered better terms by the same supplier, these terms will also apply to pre-existing agreements, at least from the date of the offer.[7] The direct effect of the MFC is thus to guarantee that similar customers pay the same price for the same product purchased at the same outlet or chain of outlets. As such this form of guarantees may have positive effects on the transactors.[8]

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[6] *Thomson* (n 4).

[7] There is another closely related clause, known as a meet-or-release clause or sometimes as an English clause. The meet-or-release clause, rather than forcing a supplier to meet a better price of a rival releases the customer from any obligation to purchase when the rival's price is not met.

[8] JB Baker 'Vertical Restraints with Horizontal Consequences: Competitive Effects of "Most-Favored-Customer" Clauses' (1996) 64 Antitrust LJ 517 provides a systematic discussion of the benefits and costs of MFCs.

In business-to-business transactions, the clauses seem to result in the equal treatment of equivalent transactions by the same seller. Articles 81 and 82 EC condemn the practice of 'applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage' and Clayton Act s 2 as amended by the Robinson-Patman Act prohibits discrimination. Bearing this in mind a most-favoured-customer clauses seem to be exactly 'what competition should be all about' as the district court put it and the First Circuit approved in one of the prominent US cases.[9] A second potential benefit of an MFC clause is to enable efficient price adjustments in long term agreements where there are no natural prices to which to index the price terms.[10]

In business-to-consumer transactions, most-favoured-customer clauses can similarly be thought of as being 'fair' since they guarantee to the buyer that if the price of the good is reduced in the near future, the buyer will be able to obtain the sale price by requesting that the seller makes good on its promise. This way, the buyer will not feel as having been treated unfairly by the seller when he finds out that some other buyer has purchased the same good at a lower price within a certain, possibly short, period of time.[11] Furthermore, if it is accepted that customers react adversely to inequity[12] and abandon their custom when they feel like being treated unfairly by the seller[13], it seems to make perfect business sense for a seller to adopt most-favoured-customer clauses in order not to lose the business of customers who may punish it for treating them unfairly by discounting the same good in the future.

However, there is a darker side to the MFC clause. The indirect effect of the clause is that any change in price to a new customer comes with a penalty in terms of either refunds to be made to past consumers or less attractive contract terms. This reduces the incentive of firms

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[9] *Ocean State Physicians Health Plan, Inc v Blue Cross & Blue Shield of RI* 883 F2d 1101, 1110 (1st Cir 1989) (citing *Ocean State* 692 F Supp at 71), cert denied 494 US 1027 (1990).

[10] See KJ Crocker and TP Lyon 'What Do "Facilitating Practices" Facilitate?: An Empirical Investigation of Most-Favored-Nation Clauses in Natural Gas Contracts' (1994) 37 Journal of Law and Economics 297 for an empirical demonstration in the case of US natural gas contracts as well as DA Butz 'Most-Favored Treatment Provisions as Nondiscrimination Guarantees' (1995) 2 International Journal of the Economics of Business 1357.

[11] For a study showing that customers react adversely to seeing lower prices on items that they had previously purchased and interpreting this as customers' perception of the price they had paid as being 'unfair' see E Anderson and D Simester 'How Do Customers Respond to Paying a Higher Price Than Others?' Preliminary Draft April 2005.

[12] E Fehr and KM Schmidt 'A Theory of Fairness, Competition, and Cooperation' (1999) 114 (3) The Quarterly Journal of Economics 817, 819.

[13] M Rabin 'Incorporating Fairness into Game Theory and Economics' (1993) The American Economic Rev 1281, 1281.

to compete for marginal consumers and hence softens competition, leading to higher prices for all.[14] [15]

Although the anticompetitive effects of most-favoured-customer clauses have been the subject of academic debate and court decisions in the United States,[16] they still remain quite unexplored under EC competition law.[17] However, even in the US, notwithstanding the fact that many of their anticompetitive effects have been pointed out by academics, courts have - at least for a while - been reluctant to condemn them in antitrust cases.[18] Neither has the Federal Trade Commission always appeared to be hostile toward them. An example of this is the FTC

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[14] For an empirical demonstration of this in the agreements between pharmaceutical firms and hospitals, see eg FM Scott Morton 'The Interaction between an MFC Clause and Price Dispersion: An Empirical Examination of the Medicaid Rebate Rules of 1990' (1997) 28 Rand Journal of Economics 269.

[15] A series of economics papers have considered the effect of MFC guarantees and identified a number of anti-competitive effects, surveyed in Baker (n 8).

In two period oligopoly models, there is a series of papers, such as TE Cooper 'Most-favored-customer Pricing and Tacit Collusion' (1986) 17 Rand Journal of Economics 377; S Salop 'Practices that (Credibly) Facilitate Oligopoly Coordination' in J Stiglitz and F Mathewson (eds) *New Developments in the Analysis of Market Structure* (The MIT Press Cambridge Mass 1986); WS Neilson and H Winter 'Unilateral Most-favored-customer Pricing: a Comparison with Stackelberg' (1992) 38 Economics Letters 229; WS Neilson and H Winter 'Bilateral Most-favored-customer Pricing and Collusion' (1993) 24 Rand Journal of Economics 147. Cooper (ibid) and Salop (ibid) show that even if only one firm adopts an MFC, the equilibrium price will be above the competitive (Bertrand) level because the firm can (partially) commit to keep their price the same in both periods. This commitment allows the firm with an MFC to become a price leader in the second period with the associated price raising effects. However, Neilson and Winter 1992 (ibid) demonstrate that the prices do not rise all the way to the Stackelberg level. Moreover, Neilson and Winter 1993 (ibid) show that it is never an equilibrium for both firms to adopt an MFC. The latter could potentially be a valuable tool for anti-trust policy, since it suggests that if more than one firm in an industry adopts a MFC, then it cannot be for the anti-competitive reason identified by Cooper (ibid).

The MFC makes secret price cutting costly and hence limits the incentive of firms engaged in tacit collusion to cheat on their rivals. See JJ Simons 'Fixing Price With Your Victim: Efficiency and Collusion with Competitor Based Formula Pricing Clauses' (1989) 17 Hofstra Law Review 599; Salop (ibid).

If there is only one firm in the industry, it is also possible for the monopolist to use an MFC for anti-competitive purposes. As demonstrated in M Schnitzer 'Dynamic Duopoly with Best-Price Clauses' (1994) 25 Rand Journal of Economics 186, an MFC can at least partially prevent a firm from competing with itself and hence mitigate any affect from the Coase Conjecture that a monopolist selling a durable good cannot price above the competitive level. See also DA Butz 'Durable-Good Monopoly and Best-Price Provisions' (1990) 80 American Economic Review 1062.

The MFC can also serve to deter entry, see eg I Aguirre 'The Most-favoured-customer Pricing Policy and Competitive Advantage' (2000) 52 Bulletin of Economic Research 215.

[16] The most famous cases being *Unites States v General Electric Co* 42 Fed Reg 17,005 (1977) and *Ethyl Corp* 101 FTC 425, 628-32 (1983) *rev'd sub nom E.I. DuPont De Nemours & Co v FTC* 729 F2d 128 (2d Cir 1984).

[17] In the UK MFCs have been analysed in terms of restricted practices rather than practices which facilitate collusion, see eg O Black '"Most Favoured Customer" Clauses: Application of the Restrictive Trade Practices Act 1976' (1994) 6 European Competition Law Review 342.

[18] For the argument that most-favoured-customer clauses have been consistently upheld by the courts and a hands-off approach has been adopted by the antitrust enforcement agencies during the Reagan and Bush administrations which left its place to a more aggressive scrutiny in the Clinton administration see AJ Dennis 'Most Favored Nation Contract Clauses under the Antitrust Laws' (1995) 20 U Dayton L Rev 821, 843.

approval of the AOL/Time Warner merger. In that case, as one of the conditions of approval, the FTC required Time Warner to include 'most-favoured-nation' (MFN)[19] clauses in all alternative cable broadband ISP service agreements providing that if AOL executed a cable broadband ISP service agreement with another cable company, AOL Time Warner had to provide the Monitor Trustee with a copy of the cable company agreement, give notice of the execution of the agreement to each non-affiliated ISP that is a party to an alternative cable broadband ISP service agreement approved by the Commission, and give the non-affiliated ISPs an opportunity to opt in to the same rates and terms secured by AOL in the cable company agreement.[20] The purpose of this provision appears to be the prevention of discrimination by AOL Time Warner as to non-affiliated ISPs on the basis of affiliation.

3 The *Thomson* MFC

The MFC clause used by two dominant tour operators in the UK came to light during an MMC investigation which culminated in a report published in December 1997. The MMC Report originated in a reference from the Director General of Fair Trading concerning the existence or the possible existence of a monopoly situation in relation to the supply in the United Kingdom of travel agents' and tour operators' services in relation to foreign package holidays.

It is stated in the MMC Report that the MMC

> … were concerned here with the practice … carried on by tour operators of imposing restrictive terms on certain travel agents; in particular, with provisions in agreements between tour operators and travel agents which require those travel agents to promote the holidays of a tour operator on terms no less favourable than those on which they promote the holidays of competitor tour operators. We had put the practice to the companies in terms of "imposing restrictions", having received complaints from several travel agents that Thomson, in particular, had used provisions contained in its agency agreement with them to constrain their freedom to make mutually beneficial arrangements with other tour operators; these were tour operators who were prepared to pay them higher commission than those travel agents received from Thomson in return for higher discounting of their holidays.[21]

[19] Most-favoured-nation clauses are the equiavalent of MFC clauses, the difference being that the former were originally used in international public law as guarantees between states. After they started being used in business transactions, the concept of 'MFC' emerged and now both terms are used interchangeably.

[20] Federal Trade Commission Press Release 'FTC Approved AOL/Time Warner Merger with Conditions' 14 December 2000 http://www.ftc.gov/opa/2000/12/aol.htm.

[21] MMC Report (n 1) para 2.98.

The MMC Report dealt with most-favoured-customer clauses at various paragraphs. Paragraph 2.101 defined the guarantee. The MMC reported that in addition to the standard 'equal exposure and recommendation clause' ensuring that its foreign package holidays are not put at a disadvantage in relation to those of their competitors, Thomson has a supplementary clause that it agreed with some major account travel agents under which

> Thomson undertakes to provide various financial and non-financial benefits to the travel agent in return for certain obligations on its part during key booking periods; in particular, the travel agent undertakes that offers made to customers do not discriminate against the sales of Thomson products during the key selling periods of each year. This provision has been understood by travel agents to mean that the travel agent commits himself not to discount the holidays of other tour operators at higher levels than it discounts Thomson products during the three months or so of the key selling periods. …We term agreements between a tour operator and a travel agent which effectively require the travel agent to offer the same discount on that tour operator's foreign package holidays as it does on other tour operators' holidays 'most favoured customer' clauses.

The MFC clause found in the *Thomson* case is a somewhat peculiar guarantee since it does not relate directly to prices that the travel agent charges at different dates.[22] To understand how the guarantee identified in the MMC Report works, it is useful first to consider the flow of moneys between the tour operators and the travel agents. In the appendix we consider a case where the travel agent pays the tour operator a price per unit sold. Since in the appendix we assume that the travel agent segment is competitive, this price becomes a unit cost for the travel agent which is then passed fully on to the consumer. Thus, the tour operators control the final price through the price charged to the travel agents. More commonly, the tour operators set a list (or catalogue) price of which the travel agent retains a fraction, a commission, to cover its costs.[23] With a competitive travel agent market, this difference is not important. In either case, should the original price of a holiday be deemed too high by the supplying tour operator, it could offer the travel agent an inducement, that is a subsidy per unit sold. It would be up to the travel agent how it used this subsidy or whether it used a commission to fund any price reductions.

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[22] A classic (retroactive) MFC would offer a customer who purchased a holiday at a resort at a particular price a refund if the same holiday was later offered to another customer at a lower price. The Thomson MFC offers a customer at a given travel agent the same discount on Thomson's products as on the products of Thomson's rivals.

[23] See chapter 5 of the MMC Report for further details.

To make the effect of the clause clear, consider a case where there are two tour operators and many travel agents such that any cost and subsidy of the retailer is passed straight through to the consumer and use the following notation. Let w_i, i = 1, 2 be the (intermediate) prices the travel agents have to pay to tour operator i. Competition law does not allow sellers to discriminate among equivalent buyers, so this price offered by the tour operator has to be the same for all travel agents. For simplicity, assume that other opportunity costs for travel agents are identical and denote these c. Finally, let s_i, i = 1, 2 be the per unit subsidy offered by tour operator i to the travel agents. Again the tour operators will not be allowed to discriminate between retailers.[24]

Firstly, consider the case where neither tour operator has an MFC, so that if tour operator i offers an inducement s_i, competition among the travel agents ensures that this is passed on to the consumer in terms of a lower price for good i. The post inducement prices are:

$$p_1^{NoMFC} = w_1 + c - s_1$$
$$p_2^{NoMFC} = w_2 + c - s_2$$

where one or both subsidies could be zero. Note that the price of one product is independent of the subsidy offered by the tour operator of the other good.

Secondly, consider the case where tour operator j has an MFC, but tour operator i does not. Following the description by the MMC, we model an MFC of tour operator j as requiring that if the price of good i is reduced by $\Delta p_i > \Delta p_j$ as a consequence of a subsidy by i or for other reasons, the price of good j is reduced by (at least) the same amount. As competition between travel agents ensures that any subsidy offered by a tour operator to a travel agent is passed on in full to consumers as lower prices, we can formally write prices as:

[24] Where competition law forbids such discrimination, it is as if a contemporaneous MFC is imposed by the competition law itself. This similarity between MFCs and a no-discrimination rule has also been pointed out in the Report by the Economic Advisory Group for Competition Policy ('EAGCP') on 'An economic approach to Article 82': It has been noted that in cases of dominance, a no-discrimination requirement serves as a very effective tool to enhance the market power of the dominant firm and allow the firm to commit itself to maintain high prices similar to an MFC clause (Report available at http://europa.eu.int/comm/competition/publications/studies/eagcp_july_21_05.pdf). For an analysis of contemporaneous MFCs see D Besanko and TP Lyon 'Equilibrium Incentives for Most-favored Customer Clauses in an Oligopolistic Industry' (1993) 11 International Journal of Industrial Organization 347.

$$p_i^{jMFC} = w_i + c - \begin{cases} s_i - \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_i & \text{if} \quad s_i \le s_j \end{cases}, \quad i, j = 1, 2$$
$$p_j^{jMFC} = w_j + c - \begin{cases} s_j + \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_j & \text{if} \quad s_i \le s_j \end{cases}$$

which we can simplify to:

$$p_i^{jMFC} = w_i + c - \begin{cases} \frac{1}{2}\cdot(s_i + s_j) & \text{if} \quad s_i > s_j \\ s_i & \text{if} \quad s_i \le s_j \end{cases}, \quad i, j = 1, 2$$
$$p_j^{jMFC} = w_j + c - \begin{cases} \frac{1}{2}\cdot(s_i + s_j) & \text{if} \quad s_i > s_j \\ s_j & \text{if} \quad s_i \le s_j \end{cases}$$

Note how the MFC establishes a link between prices via the subsidies in one half of the subsidy space, namely where tour operator i has offered the larger subsidy.

Finally consider the case where both tour operators have an MFC. In that case the prices become:

$$p_i^{MFC} = w_i + c - \begin{cases} s_i - \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_i + \frac{1}{2}\cdot(s_j - s_i) & \text{if} \quad s_i \le s_j \end{cases}, \quad i, j = 1, 2$$
$$p_j^{MFC} = w_j + c - \begin{cases} s_j + \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_j - \frac{1}{2}\cdot(s_j - s_i) & \text{if} \quad s_i \le s_j \end{cases}$$

which we can write as

$$p_i^{MFC} = w_i + c - \tfrac{1}{2}\cdot(s_i + s_j)$$
$$p_j^{MFC} = w_j + c - \tfrac{1}{2}\cdot(s_i + s_j), \quad i, j = 1, 2$$

With both having an MFC, the prices are closely linked through the subsidies. Note that if the intermediate prices are identical, the MFCs ensure that the final goods prices for the two goods are tied to remaining identical, irrespective of any differences in subsidy levels. In general, the *Thomson* MFC ensures that the original (catalogue) price of a rival cannot be lowered without a matching reduction in the price of those products covered by an MFC. Since much of the benefits from lowering a price are in the competitive advantage conferred by having a lower relative price, this significantly reduces the incentives for price cutting.

As explained in the introduction, the traditional MFC clause links prices for the same good charged to different consumers at different points in time.[25] As is evident from the price equations above and from the discussion, the effect of the *Thomson* MFC is to restrict what can be done to the price of rival products without triggering an automatic response from

[25] Text after n 6.

Thomson or Airtours via their clauses. By linking prices of rival products, the *Thomson* MFC behaves much more like a price-matching guarantee (PM), which guarantees the similarity of prices of identical products, than a traditional MFC. The use of the term MFC in the MMC Report and the *Thomson* case is consequently a misnomer and it would have been better had the MMC either used a term such as most-favoured-supplier guarantee or called it a variant price matching guarantee to make clear the differentiation.

With this correct identification of the nature of the clause, the interest then shifts to the effects of price-matching guarantees. These guarantees promise to match or beat rivals' lower prices on particular goods, thereby creating a link between the price of a particular (class of) good(s) charged by one outlet to the prices charged by another outlet. The academic literature on these guarantees[26] is substantial and it identifies four potential effects. The guarantee enables firms to manage the incentives of rivals to discount prices set at supra-competitive levels, potentially leading to the industry supporting monopoly prices.[27] The guarantee enables firms to learn about secret discounting by rivals, thereby making retaliatory price wars swifter and offering greater credibility to tacit collusion.[28] The guarantees can allow firms to engage in price discrimination by offering selective matches to those who know of their existence.[29] Finally, the guarantees can affect the search behaviour of consumers, leading to less search

[26] Referred to variously as 'low-price-guarantees', 'low-price-promises', 'price-matching guarantees' etc.

[27] G Hay 'Oligopoly, Shared Monopoly, and Antitrust Law' (1982) 28 Cornell Law Review 439 and Salop (n 15) provide the first extensive analysis of price-matching guarantees as well as other practices which may facilitate collusion.

[28] This effect was first established by Hay (n 27) and Salop (n 15) and has been expanded in a number of papers such as M Arbatskaya 'Can Low-Price Guarantees Deter Entry' (2001) 42 International Journal of Industrial Organization 1387; Z Chen 'How Low Is a Guaranteed-lowest-price?' (1995) 28 Canadian Journal of Economics 683; KS Corts 'On the Robustness of the Argument That Price-Matching Is Anti-Competitive' (1995) 47 Economics Letters 417; C Doyle 'Different Selling Strategies in Bertrand Oligopoly' (1988) 28 Economics Letters 387; AS Edlin and E Emch 'The Welfare Losses from Price Matching Policies' (1999) 47 Journal of Industrial Economics 145; M Hviid and G Shaffer 'Hassle-Costs, The Achilles Heel of Price-Matching Guarantees' (1999) 8 Journal of Economics and Management Strategy 489; TR Kaplan 'Effective Price-Matching: A Comment' (2000) 18 International Journal of Industrial Organization 1291; J Logan and R Lutter 'Guaranteed Lowest Prices: Do They Facilitate Collusion' (1989) 31 Economics Letters 189 and JZ Zhang 'Price-matching Policy and the Principle of Minimum Differentiation' (1995) 43 Journal of Industrial Economics 287. These papers assume that the guarantee is actually adhered to by the firm offering it. For cases of the guarantee not being adhered to see *Link Stores Ltd v Harrow London Borough Council* [2001] WLR 1479; *Regina v Warwickshire County Council, ex p Johnson* [1993] AC 583; *Dixons Ltd v Roberts* 148 JP 513 (QBD); *DSG Retail Ltd v Oxfordshire County Council* [2001] LGR 301.

[29] For models on search and/or price discrimination motivations, see IPL Png and D Hirshleifer 'Price Discrimination Through Offers to Match Price' (1987) 60 Journal of Business 365; KS Corts 'On the Competitive Effects of Price-Matching Policies' (1997) 15 International Journal of Industrial Organization 283; AS Edlin 'Do Guaranteed-Low-Price Policies Guarantee High Prices, and Can Antitrust Rise to the Challenge?' (1997) 111 Harvard Law Review 528 and Y Chen C Narasimhan and ZJ Zhang 'Consumer Heterogeneity and Competitive Price-Matching Guarantees' (2001) 20 Marketing Science 300.

and hence more local monopoly power of firms.[30] Notice that all these effects are against the public interest,[31] although in the European context, the first two would seem to relate to concerted practices and article 81 EC, while the latter, if and only if the firms were dominant, would relate to abuse of dominance under article 82 EC.[32]

3.1 The effect of the clause according to the MMC

Given the imperfect classification of the guarantee by the MMC, how did it assess the effect of the clause? In the MMC Report, the harmful effects of most-favoured-customer clauses were explained as having the consequence of restricting the freedom of travel agents, for a specified period or indefinitely, to discount the holidays of certain other tour operators (usually Thomson's and Airtours' principal competitors) at higher levels than they discount Thomson's and Airtours' holidays.[33] Accordingly, such clauses distorted competition between travel agents in the supply of travel agents' reference services since the levels of discounts they offer were kept lower in some cases than they would otherwise be, and also distorted competition between tour operators in the supply of tour operators' reference services because some tour operators' products were discounted at lower levels than they would otherwise be. Therefore, the MMC found that the practice of agreeing most-favoured-customer clauses with certain travel agents, as carried on by Thomson and Airtours, distorted competition. It is worth noting here that Thomson and Airtours were the two largest travel groups at the time of the investigation and the MMC had found that there existed a 'complex monopoly situation' with regard to the supply of tour operators' reference services by Thomson and Airtours as these companies supplied at least 25 % of the tour operators' reference services in the UK and at

[30] For a formal modelling of the effects of these guarantees on signalling see S Moorthy and R Winter 2004, Price-Matching Guarantees, mimeo.

[31] The legal literature on low-price guarantees comprises among other Edlin (n 29); Hay (n 27); M Sargent 'Economics Upside-down: Low-price Guarantees as Mechanisms for Facilitating Tacit Collusion' (1993) 141 University of Pennsylvania Law Review 2055 and Simons (n 15). The empirical effects of the guarantees are documented in JD Hess and E Gerstner 'Price Matching Policies: an Empirical Case' (1991) 12 Managerial Decision Economics 305 and M Arbatskaya M Hviid and G Shaffer 'Promises to Match or Beat the Competition: Evidence from Retail Tire Prices' (1999) 8 Advances in Applied Microeconomics 123; M Arbatskaya M Hviid and G Shaffer 'On the Incidence and Variety of Low-Price Guarantees' (2004) 47 Journal of Law and Economics 307 documents the variation in, and the extent of the use of, price guarantees.

[32] Their anti-competitive effects do not require any dominance, see for example the analysis by Edlin and Emch (n 28).

[33] MMC Report (n 1) para 2.113.

least 25 % of the travel agents' reference services supplied in the UK are supplied for these companies.[34]

The reason why the MMC found most-favoured-customer clauses to be against public interest was explained as

> [t]hey have a direct effect on what consumers pay, because they keep the level of some discounts lower, and hence the prices of some foreign package holidays higher, than otherwise be the case. We therefore conclude that 'most favoured customer' clauses operate and may be expected to operate against the public interest, with the particular adverse effect that consumers pay more for some foreign package holidays than would otherwise be the case.[35]

The MMC Report continued to state that

> [p]rohibition of the clause would not prevent mutually advantageous agreements between tour operators and travel agents under which additional funding was made available during key selling periods or on a longer-term basis in return for additional discounting of the tour operator's holidays. Indeed, abolition of the 'most favoured customer' clauses would be likely to encourage greater activity in this respect, since travel agents would not be prevented from undercutting particular tour operators' products. We are satisfied that prohibition of these clauses will have the effect of stimulating discounting activity in the market. We recommend that 'most favoured customer' clauses be prohibited. [36]

While not stating it directly, it would appear that the MMC was aware of the price-matching-like effects of the *Thomson* MFC. The MMC Report stated that the consequence of the MFC clauses used by Thomson and Airtours was that 'discounting on other tour operators' products will sometimes have been kept at lower levels than would otherwise have

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[34] MMC Report (n 1) para 2.153. Moreover, it concluded that the monopoly situation existed not only in favour of Thomson and Airtours, but also in favour of their vertically integrated travel agents since these travel agents would benefit as most-favoured-customer clauses result in other travel agents offering lower discounts and hence higher prices than would otherwise be the case on some holidays which would make it easier for the vertically integrated travel agents to compete on discounts than those other travel agents. Even though the MMC had found at para 2.193 that as the market was not a highly concentrated one, the anti-competitive effects of vertical integration were slight, discriminating in favour of the vertically integrated travel agents by not imposing most-favoured-customer clauses on them appears to have been an important reason of the anti-competitive effects of the clauses since by discrimination, the travel agents not vertically integrated were put at a competitive disadvantage. Furthermore, paying the vertically integrated travel agents higher rates of commission than the non-integrated ones must have also allowed the former to give consumers higher discounts than the latter. Although the exact percentage is not disclosed in the Report, it was made clear that Thomson had paid a much higher commission rate to its vertically integrated travel agent than it had paid the others (para 5.15 et seq).

[35] MMC Report (n 1) para 2.167.

[36] MMC Report (n 1) para 2.184.

occurred.'[37] This does not explain why they chose the particular label nor why they did not spell out in more detail the mechanism through which the clause softens competition. Their use of the term 'distort' competition rather than 'soften' competition jars a bit as the former sounds more like actions which benefits one firm to the detriment of others, which is clearly not the effect of the *Thomson* MFC, though one should not read too much into this. However, it would be ironic if the MMC really did think that they distorted the competition between firms, since, as Edlin puts it:

> there is an important legal distinction between most-favored-customer clauses and price-matching policies. Because most-favored-customer clauses involve a promise to sell to different customers at the same price, they comply with price-discrimination laws. Price-matching policies, however, may give a different price to each customer.[38]

Thus if the MMC really believed that the clause in *Thomson* was a traditional MFC, the use of the term 'distort competition' would be particularly inappropriate. From the MMC Report it is not possible to infer whether the MMC fully appreciated the potential effects of the *Thomson* MFC.

While the MMC may have identified the effects of the *Thomson* MFC correctly, by failing to make clear the mechanism through which the effects arose, any decision based on the MMC Report would be left open to legal challenge.

4 Events following the MMC Report

Following the MMC Report, the UK Parliament passed the 1998 Order. The two most contentious provisions, articles 3 and 4, read as follows:

> **3** It shall be unlawful for a tour operator to make or carry out an agreement (whenever made) with a travel agent which:
>
> a) imposes any restriction, whether as to charges or other terms or conditions or otherwise, in respect of the supply or offer of supply by the travel agent of foreign package holidays of another tour operator; or
>
> b) requires a travel agent, when supplying or offering to supply foreign package holidays of that operator, to offer inducements at least equal in value to or marginally less in value than the inducements which the travel agent applies when supplying or offering to supply the foreign package holidays of another tour operator.

[37] MMC Report (n 1) para 2.166.

[38] Edlin (n 29) 552.

4 It shall be unlawful for a tour operator to withhold or threaten to withhold supplies of foreign package holidays from, or to discriminate in respect of the supply of foreign package holidays to, a travel agent who does not, or does not propose to, offer inducements at least equal in value to or marginally less in value than the inducements which the travel agent applies or proposes to apply, when supplying or offering to supply the foreign package holidays of another tour operator.

Note that article 3 (b) makes the inclusion of the Thomson MFC clause unlawful, and article 4 makes it unlawful to punish the breach of an informal version of the MFC.

4.1 The first appeal

The validity of articles 2, 3 (a) and 3 (b) of the 1998 Order was first challenged before the Queen's Bench Division (Crown's Office) by Thomson, claiming that its articles 2, 3 (a) and 3 (b) were either ultra vires s 56 (2) of Fair Trading Act 1973 or illegally discriminatory or Wednesbury unreasonable.[39] Owen J, following a finding that 'the meaning of "most-favoured-customer" clauses is far from clear'[40] drew on quotations from the MMC Report in reaching its decision. Thomson argued that the MMC Report had found that only the most-favoured-customer clauses where the tour operator did not at the same time provide additional funding to the travel agent which is necessary to match discount levels to be against public interest. Conversely, the Secretary of State alleged that such clauses were generally against the public interest and Thomson had misunderstood the Report. After summarising and accepting the Secretary of State's answers and dismissing the ultra vires allegations of Thomson, Owen J returned to the irrationality argument. He concluded that clauses containing a guarantee of additional funding were not outside the general Report criticism either. Nevertheless, Owen J continued with the question posed by Thomson's solicitor: how was it that a clause in a contract which required a travel agent to increase discounts to the level of discounts offered on the holidays of other tour operators, i.e. which required the agent to reduce prices to consumers, might have the effect of reducing levels of discounts? According to the solicitor, the answer was that, it would be so only where the travel agent would lose out if he abided by the clause; hence, if the travel agent was funded it would be a matter of indifference to him.[41] To this, the Secretary of State countered by observing that the Fair Trading Act was enacted to

[39] Interpreting article 4 as preventing the evasion of article 3 (b), the Queen's Bench Division (Crown's Office) has also scrutinized article 4 of the Order.

[40] In view of our arguments in section 2, this would appear to be a fair point.

[41] This argument focuses on the wrong actors. While the discount may be set by the travel agent, it is the tour operator who provides the subsidy which makes this a viable strategy. The issue is hence not just whether an action is in the interest of the travel agent, but also whether it is in the interest of the tour operators. The point here is that the tour operators have less incentive to offer a subsidy in the first place.

make provision for protection of consumers, not for the protection of travel agents or tour operators.[42] Owen J agreed with the Secretary by stating that the MMC Report did not recommend that the Secretary should prohibit only most-favoured-customer clauses without financial indemnity for travel agents.[43] As a result, the Queen's Bench Division refused the applicants the relief they claimed at all points.

Note that Thomson's solicitor raised a new issue: the funding of the MFC. Although the MMC Report pointed out the harmful effect of most-favoured-customer clauses as being the fact that they kept the discounts of some foreign holidays at lower levels than they would otherwise be, it did not respond to why such an effect would still be present if the tour operator imposing the clause also provided the additional funding necessary for it. However, the MMC Report stated that

> [i]n some cases such clauses provide that additional funding may be made available by the tour operator if, as a result of maintaining parity of discounting of that tour operators' products with other tour operators' products which the travel agent wishes to discount, the travel agent's commission would not be sufficient to cover the additional discounting. In other cases no such provision is made. In certain examples of such clauses, there is provision that additional funding *may* be made available by the tour operator in order to allow the travel agent profitably to discount other tour operators' holidays while maintaining parity in respect of the holidays of the tour operator with whom the travel agent has agreed the 'most favoured customer' clause; but we have been shown no examples of 'most favoured customer' clauses entered into by Thomson or Airtours under which such funding is guaranteed in those circumstances.[44]

The MMC Report is quite clear in prohibiting all most-favoured-customer clauses regardless of whether additional funding is provided by the tour operator as paragraph 2.184 quoted above[45] shows that the MMC considered mutually advantageous agreements by which additional funding is provided for additional discounts as separate agreements than most-favoured-customer clauses. Nonetheless, both Owen J's and the Secretary of State's counter arguments seem to be circumventing the question of what the problem really is with matching discounts when there is additional funding provided by the tour operator with the most-

[42] A better answer to this is that reducing prices are less attractive when all prices are reduced together.

[43] As we will see in section 5, the real argument against Thomson's solicitor is that because the effectiveness of the inducement in securing lower prices is reduced by the MFC, the incentive to provide them is reduced.

[44] MMC Report (n 1) para 2.111.

[45] Text after n 36.

favoured-customer clause. They did not answer why, if funded by the tour operator who imposed the most-favoured-customer clause, the travel agent could not match the discount given on the other tour operator's holidays, thus resulting in the prices of both of them going down. Nor did they consider the incentives to offer the inducements.

4.2 The second appeal

The picture changed completely after Thomson brought an appeal against the judgement of the court of first instance. The Court of Appeal reversed the decision of the court of first instance and found that

> [i]n cases where a tour operator guarantees support funding for a travel agent, there is no adverse affect consisting in higher prices for the consumer arising from a discount parity provision since the travel agent, thus supported, has no difficulty in offering discounts for the holidays of third-party tour operators equivalent to those he offers for the holidays of his principal. … Nothing in such an agreement operates to keep prices up; quite the contrary. But without guaranteed support funding, … the level of discount is driven by the principal tour operator. That is anti-competitive. But in the situation where the principal guarantees support funding to the agent, the level of discount is driven by the best offers the agent is able to make. That is pro-competitive.[46]

As a result, the Court of Appeal ruled that

> … the thrust of the report in relation to the vice of 'most favoured customer' clauses, as the MMC saw it, was focused upon and limited to the case where such a requirement is imposed by the tour operator on the travel agent without its being backed by a guarantee of additional funding.[47]

The Court allowed the appeal and issued an order of certiorari to quash articles 3 (a), (b) and 4 of the 1998 Order.

After the judgement, the 2001 Order was adopted with a provision prohibiting most-favoured-customer clauses in the agreements between tour operators and travel agents except in circumstances where the tour operator is required to compensate the travel agent for the value of the inducements required to be offered by the travel agent as a result of the clause.[48] The new articles 3 and 4 read:

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[46] *Thomson* (n 4) 341. As we shall see below, if pro-competitive has the usual meaning of lower prices, this is wrong.

[47] *Thomson* (n 4) 342.

[48] The 2001 Order (n 5) article 3.

3) It shall be unlawful for a tour operator to make or carry out an agreement (whenever made) with a travel agent which obliges the travel agent to comply with a most favoured customer requirement except in circumstances where the tour operator is required to compensate the travel agent for the value of the inducements required to be offered by the travel agent as a result of a most favoured customer requirement.

4) It shall be unlawful for a tour operator to withhold or threaten to withhold supplies of foreign package holidays from, or discriminate in respect of the supply of foreign package holidays to, a travel agent as a result of the failure of the travel agent to enter into or comply with an agreement which is or would be unlawful under Article 3.

The 2001 Order completely removed the prohibition in the 1998 Order on tour operators making an agreement with a travel agent which imposes a restriction in respect of the supply or offer of supply by the travel agent of foreign package holidays of other tour operators.

In the Regulatory Impact Assessment of the 2001 Order, under the heading '4. Issues of equity and fairness', it has been noted that the Order was likely to result in consumers paying lower prices and obtaining better value for money overall. It is stated that increased price competition is likely to result in a transfer of economic surplus from travel agents and tour operators to consumers and thus, 'assuming travel agents and tour operators do not take other actions to restore profit margins, consumers benefit via lower prices.'[49]

5 The Effect of the *Thomson* MFC Clause

The appendix contains a formal but very stylised and simplified modelling of the MFC used by Thomson and others. This section offers an intuitive explanation of the effects of the clause based on the insights from this model.

Whether or not the tour operator offering the MFC also offers matching funding, the prices resulting from the funding will be tied together, so that any reduction in the price on the holidays of tour operator i will be matched by the reduction in the price of the holiday of tour operator j. Tying prices together in this way is key to understanding the anti-competitive effects of the guarantee and where the judge in the Court of Appeal as well as the Regulatory Impact Assessment went wrong. The issue is not about whether competition is distorted, that is, one firm obtains an unfair advantage over another, but whether competition is softened by dulling the incentives to cut prices unilaterally.

[49] Regulatory Impact Assessment para 4.2.

For simplicity consider the case where there are two tour operators each offering one type of holiday and assume that the (competitive) catalogue prices are identical. Imagine that for some reason, the tour operators over-estimated demand so that the catalogue prices are higher than the competitive level with the new, lower level of demand. We can then consider the effect of the clauses.

Case 1: Neither firm has a guarantee. In this case, if tour operator i offers an inducement to a travel agent (some of) this subsidy is passed on to consumers in the form of discounts on the catalogue prices. Thus each of the tour operators can lower the price faced by the consumer. In selecting the level of discount the tour operator takes into consideration not only how much is passed on to the consumer, but also that its rival may be offering an inducement. This gives rise to a competition between the tour operators to offer a positive inducement. Note that if tour operator i can offer a larger inducement than j, then it will have lower prices than j and hence be able to obtain extra sales and market share at the expense of j. The final equilibrium level of subsidy will be positive, leading to lower prices for the consumers.

Case 2: Both firms have an MFC clause. Now the discounts have to be identical. The implication of this is that tour operator i can no longer under-cut tour operator j to steal market share from j. Both will be able to sell more holidays because their prices are lower, but that is the only motive. The business stealing motive which drives competition in oligopolistic markets and found in case 1 is no longer there. Will a tour operator then offer a subsidy? To answer this we need to ask what prices the tour operators would set were they constrained to set identical prices. In this case, it is as if one firm sets both prices. The best prices for the tour operators under this constraint would be the pair of identical prices which maximise their joint profits. Call these prices 'monopoly prices'.[50] The lower is demand, the lower is this pair of monopoly prices. The first thing we can see is that neither tour operator has an incentive to offer an inducement if the monopoly price at the new level of demand is higher than the catalogue price. The catalogue prices are the outcome of price competition driven by the same process described above for the setting of inducements when there are no MFCs. These are then lower than the monopoly prices at the original level of demand. If the level of demand has not fallen by too much, it must still be true that the catalogue prices are below the monopoly price corresponding to the new level of demand. This offers the first insight:

[50] In the case of symmetry these are exactly the prices which maximise joint profits. With asymmetries, the tour operators may not agree on which is the best pair of identical prices. Given that a tour operator can always lower both prices by the same amount, with asymmetries, the equilibrium price pair will be the lower of the price pairs.

subsidies will not be offered with MFCs unless the catalogue price is above the monopoly price. Secondly, if demand falls by so much that the monopoly price is lower than the catalogue price, there is certainly no point for either firm to offer a subsidy which would drive the consumer prices below the monopoly level. Thus prices are excessive, which is clearly not in the public interest. Note that this is independent of the funding issue raised by Thomson's solicitor which succeeded before the Court of Appeal.

The issue of matching funding. The Courts have distinguished between two different clauses, 'MFC without matching funding' and 'MFC with matching funding'. Consider the level of demand where the monopoly price is exactly equal to the catalogue price. At this level of demand, there is no incentive to offer a subsidy for the reason offered above. Now lower demand a little so that the monopoly price is below the catalogue price. Would tour operator i offer a subsidy? Not without the rival having an MFC with matching funding because otherwise tour operator i is not only getting less effect of a subsidy since only some of it gets spent on lowering i's price, it also pays for its rival having a lower, more competitive, price. Thus without matching subsidies, MFCs can lead to prices in excess of monopoly prices. With matching subsidies no such problem exists. As soon as the monopoly price is below the catalogue price, either tour operator is prepared to offer the necessary inducement to the travel agent to ensure that the price is at the monopoly level.[51]

To summarise, as shown formally in the appendix, the Court of Appeal was absolutely right to single out the MFC without matching funding as a particularly damaging clause. They were also absolutely wrong to claim that the MFC with matching funding was in the public interest, unless they were willing to claim that identical prices are an overriding concern and more important than the level of prices since the MFC lead to higher prices, potentially set at the monopoly level.

6 Fairness - how to defend the decision

The immediate effect of a usual MFC clause is to provide uniformity in the way one seller treats different customers.[52] In other words, the result of the MFC clause would be the equivalent treatment of equivalent transactions in accordance with article 82 EC and Clayton

[51] If the Thomson MFC was really a traditional MFC, then Butz demonstrates that whether or not the upstream firm (here the tour operator) offers funding can matter for the effect of the clause, DA Butz 'Does the Per Se Rule Deter Vertical Price Fixing?' (1996) 34 Economic Inquiry 770.

[52] Baker (n 8) 519.

Act s 2 as amended by the Robinson-Patman Act. The US Court of Appeals (Second Circuit) in *Ethyl* has put this as '[e]ven though such clauses arguably reduce price discounting, they comport with the requirements of the Robinson-Patman Act … which prohibits price discrimination between customers.'[53] If fairness is to be understood as equal treatment of equal parties, then the MFC clause seems to be doing just that.[54] As a matter of fact, in some US cases such clauses providing antidiscrimination has been found to make 'only good business sense'.[55]

In their empirical study, Anderson and Simester have found that customers react adversely to seeing lower prices on items that they had previously purchased and have interpreted this to be the consequence of customers' perception of the price they had paid as being 'unfair'.[56] Moreover, they have observed that many consumers reacted adversely to seeing the prices of previously purchased items lowered by the seller and the future demand for products of such sellers fell by up to 15%.[57] Their results conform to both Fehr and Schmidt's and Rabin's arguments that people are willing to sacrifice material payoffs in order to punish perceived unfairness.[58] It has also been claimed by other authors that consumers view identical prices as fair and price variation as inherently unfair.[59] According to this argument, all price evaluations, including fairness assessments are comparative and when the degree of similarity between the comparative transactions is relatively high, buyers have little differential information to explain a price discrepancy.[60] As a result, they expect or believe to be entitled to equal prices, and they are likely to judge the price discrepancy as unfair.[61] In other words, the higher the degree of similarity between two transactions, the higher the

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[53] *Ethyl* (n 16) 134 .

[54] For an argument that 'equality' is meaningless see P Westen 'The Empty Idea of Equality' (1982) 95 Harvard Law Review 537, 547.

[55] *Michigan Association of Psychotherapy Clinics v Blue Cross and Blue Shield of Michigan* 325 NW 2d 471, 482 (Michigan Court of Appeals 1982)*; Kitsap Physicians Service v Washington Dental Service et al* 671 F Supp 1267, 1269 (WD Washington 1987).

[56] Anderson and Simester (n 11) 31.

[57] Anderson and Simester (n 11) 2.

[58] Rabin (n 13) 1281; Fehr and Schmidt (n 12) 819.

[59] L Xia KB Monroe and JL Cox 'The Price Is Unfair! A Conceptual Framework of Price Fairness Perceptions' (2004) 68 Journal of Marketing 1, 4.

[60] Xia Monroe and Cox (n 59) 1, 3.

[61] Xia Monroe and Cox (n 59) 4.

perception of price unfairness.[62] Furthermore, the comparison with a similar other customer has a greater effect on price unfairness judgements than does the buyer's self-self comparison.[63]

When one takes the above arguments into consideration, MFC clauses appear to be a very appropriate way of proving to the customer that the seller is being fair and thereby preventing the customer from thinking that he is treated unfairly. By adopting such a clause, the seller guarantees to the buyer that it will not be less favourably treated than any other customer of the seller and therefore can trust the seller.[64] Hence, a seller who does not want to lose custom of its previous customers as a result of subsequent discounts offered to other customers can make use of such clauses for this purpose. Besides, according to Rabin, fairness requires one to sacrifice one's own material well-being to help those who are being kind to one.[65] Hence, one must willingly sacrifice one's own well-being to show the other party that he is being fair to that party. The MFC clause would be fair under this interpretation as well since the seller by offering the MFC clause, agrees to give the same discounts to its most-favoured customer that it gives to other customers, i.e. sacrifices its own material well being and shows that it is being fair.

In the *Thomson* case, as the MFC clause is not really a most-favoured-customer clause but rather a most-favoured-supplier clause, the fairness picture seems a bit blurred at first sight. However, there still is a fairness issue. To begin with, it must be noted that in this case, the travel agent acts as the seller and the tour operator acts as the buyer and the most-favoured customer is not a downstream customer as in the usual MFC clause, but a supplier. Thus, by giving a discount on one tour operator's holidays, the travel agent in effect reduces the price of the services it provides, i.e. the price of reference services to that tour operator. This is because when the agent sells the holiday at a discount, although it provides the tour operator the same service it provided at the higher price, the travel agent reduces its own commission to promote the holidays of that tour operator and thereby places that operator in a competitive advantage against the other operators. Therefore, the provision of an MFS clause in this case would result in the similar treatment of similar parties. In other words, the tour operator would

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[62] Xia Monroe and Cox (n 59) 4.

[63] Xia Monroe and Cox (n 59) 4.

[64] For the effect of 'trust' on price fairness perceptions see Xia Monroe and Cox (n 59) 5-6.

[65] Rabin (n 13) 1282, 1285.

be guaranteed not to be put at a competitive disadvantage compared to the other operators. This seems to be fair as long as the reference services provided by the travel agent to the tour operators and the benefits provided in return can be deemed 'equivalent' since the clause results in them being treated equivalently. Moreover, by way of the MFS clause, the tour operator also ensures that its final consumers do not feel being treated unfairly when faced with prices higher than that of competitors as the discount is an act of the travel agent rather than the operator. If the holidays of two tour operators are close substitutes, the consumers would compare the prices, view the transactions as similar and a price difference caused by the travel agent may cause the consumers to view the higher price as unfair. Since such a price difference would be wrongly attributed to the tour operator by the consumer and not to the travel agent, the MFS clause would prevent the travel agent from painting an 'unfair' picture of that tour operator.

One efficiency and perhaps fairness argument for the MFC clause occurs in long term contracts. In long term contracts, the MFC could be used as a way to test the price of the contract over time, i.e. to track the market price. As the parties to a long-term contract will usually be locked in with each other and the terms of contract, changes in the market over time may unduly disadvantage one or both of them and cause the original price to be too high or too low depending on the new conditions of the market. The MFC clause in such a case would result in the buyer of such a contract getting an 'updated' market price.[66]

The MFC clause also lowers a buyer's monitoring costs. By using the clause the tour operator does not have to monitor the competitors' prices anymore since the travel agent will have to make the necessary price adjustment for the operator in order not to breach the contract. Moreover, such clauses seem to be a way for the buyer who has enough bargaining power to get the best deal it can in a transaction. As put by Judge Posner '"[m]ost favored nations" clauses are standard devices by which buyers try to bargain for low prices, by getting the seller to agree to treat them as favorably as any of their other customers.'[67] The former FTC Chairman James Miller III has also argued in *Ethyl* that by prohibiting the use of MFC clauses, the FTC would be finding 'successful entrants liable for using practices that buyers

[66] Crocker and Lyon (n 10); Baker (n 8) 533. Baker argues that this efficiency explanation would not apply to every use of an MFC clause, however, when plausible, it must be balanced against the harm to competition under the rule of reason, ibid.

[67] *Blue Cross & Blue Shield United of Wisconsin and Compcare Health Services Insurance Corporation v Marshfield Clinic* 65 F3d1406, 1415 (7th Cir 1995).

demand', and this would discourage entry into the market.[68] The same rationale is also found in the *Ocean State* case where the US Court of Appeals (First Circuit) agreed with the district court's view that

> such a policy of insisting on a supplier's lowest price – assuming that the price is not 'predatory' or below the supplier's incremental cost – tends to further competition on the merits and, as a matter of law, is not exclusionary. It is hard to disagree with the district court's view: 'As a naked proposition, it would seem silly to argue that a policy to pay the same amount for the same service is anticompetitive, even on the part of one who has market power. This, it would seem, is what competition should be all about.'[69]

Moreover, use of the clause may assure smaller buyers that they would not be placed at a competitive disadvantage by way of discounts to bigger buyers.[70]

7 Related cases

Thomson type MFC clauses are not odd clauses practiced just in the travel industry. For example, a similar case to the *Thomson* case has occurred in the Orbitz Joint Venture Investigation in the US. In that case, the Department of Justice had investigated the most-favoured-nation agreement among the owners –five major domestic airlines- of the travel website (Orbitz) and the so-called charter associates of Orbitz stipulating that the latter would market through Orbitz any publicly available fares they offer through third party websites or their own proprietary websites.[71] The DOJ Antitrust Division examined two primary concerns, one of them being very similar to the problem in the *Thomson* case: would the Orbitz MFN facilitate coordination among the airlines or reduce their incentives to discount, resulting in higher fares.[72] After an investigation of three years, the Division concluded that such terms did not result in higher fares or make Orbitz dominant in online air travel distribution, the joint venture had not reduced competition or harmed airline consumers and thus the investigation was closed.

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[68] *Ethyl* (n 16) (dissenting statement of Chairman Miller s II).

[69] *Ocean* (n 9) 1110.

[70] *Ethyl* (n 16) 134.

[71] Statement by Assistant Attorney General R Hewitt Pate Regarding the Closing of the Orbitz Investigation 31 July 2003 http://www.usdoj.gov/atr/public/press_releases/2003/201208.htm.

[72] The other primary concern was whether the MFN agreement would make Orbitz dominant in online air travel distribution.

In theory the Orbitz agreement reduced the participating airlines' incentives to compete by offering discount fares since those fares must be offered on the Orbitz website where customers might instead buy from another carrier. The MFN also prevented these carriers from offering their best fares only on their individual websites (generally their lowest cost distribution channel). Thus, the MFN could provide a convenient means for the airlines to monitor each other's fares and improved monitoring could facilitate collusion and also curtail discounting by allowing competitors to match a carrier's discounts more quickly. Despite considering these issues, the Antitrust Division based its judgement on the empirical evidence which did not show that the MFN had resulted in a reduction in discount fares. The Division reported that since the initiation of Orbitz average airfares had decreased and the overall decrease in the fares consumers pay was inconsistent with the Orbitz MFN causing significantly higher fares. What the Division might have missed is what the decrease would have been had there not been an MFN agreement. As the Division itself stated, the decrease could have been the result of many factors, including the terrorist attacks of September 11, 2001 and airline financial difficulties. Therefore, the question to be answered by the Division should have been how much of the decrease in fares is due to these named factors and what has been the effect of the MFN on the rest of it. In other words, the question should have been whether there would have been a higher decrease in fares had there not been the MFN between Orbitz and the charter associates. The mere finding that there has been a decrease in prices to consumers does not suffice to counteract the arguments against the MFN as the *Thomson* case and in particular the analysis in the appendix below illustrates.

Another significant example is the use of most-favoured-clauses by film studios in their contracts with pay-TV companies. The EC Commission has investigated for two years the MFS clauses found in the 'output deals' between most of the major Hollywood studios and the European pay-TV broadcasters that bought the broadcasting rights.[73] 'Output deals' are agreements common in the Hollywood film industry in which the studios typically agree to sell to broadcasters their entire film production for a given number of years. The most-favoured-supplier clauses used in these gave the studios the right to enjoy the most favourable terms agreed between a pay-TV company and any one of them. According to the EC Commission's preliminary assessment, the 'cumulative effect' of the clauses was an alignment of the prices paid to the major studios since any increase agreed with one of them triggered the

[73] Press Release 26 October 2004 IP/04/1314.

right to parallel increases in the prices of the other studios. The EC Commission decided to close its investigation against six of the studios as they withdrew the clauses despite not admitting any violation of EC competition law. The investigation still remains open in respect of NBC Universal and Paramount Pictures Corp Inc as they have not accepted to withdraw the clauses in their contracts.

One other example of MFC clauses being subject to scrutiny at the EC level is the case of copyright management societies. After the EC Commission received a notification under Regulation 17/62 of bilateral agreements (collectively the 'Santiago Agreement') between royalty collecting societies within the EEA for either negative clearance or exemption under article 81 EC, the Commission sent statements of objections to the sixteen notifying societies informing them that it considered that the agreements could infringe article 81 EC and were not eligible for exemption. The Commission considered the exclusive territorial protection for each society to be an infringement of article 81 EC and was concerned that the MFN clauses in the agreements reinforced this exclusivity. The Commission intends to accept the binding commitments of two societies which would close the case against them.[74]

Moreover, UK Film Council has received a number of complaints from independent film distributors alleging that they have been unable to licence the UK pay-TV rights to films which they have acquired for UK distribution. In the supplementary memorandum submitted to the UK Parliament[75], the Film Council has interpreted this as a result of the dominant player Sky's exclusive output deals with US studios and unwillingness to deal in any significant way with other parties. According to the Council, as a result of the most-favoured-supplier clauses built into the agreements between Sky and the studios the only way left to independent distributors to access a pay-TV window was through one of the deals between Sky and studios and this has resulted in the realisation of a lower price than if Sky were willing to deal direct. The Film Council has also argued that this meant unless a studio agreed to put the film through its deal, then the distributor cannot sell UK pay-TV rights to their film and consequently, there is a clear detriment to the consumer since the available choice of films is

[74] A notice under article 27 (4) of Regulation 1/2003 inviting comments on the Commission's intention to accept these binding commitments was published in the Official Journal on 17 August 2005 ['Notice published pursuant to Article 27 (4) of council Regulation (EC) No 1/2003 in Cases COMP/C2/39152 – BUMA and COMP/C2/39151 SABAM (Santiago Agreement – COMP/C2/38126) [2005] OJ C200/11].

[75] Supplementary memorandum entitled 'UK Film Council and the Terrestrial and Pay-Television Broadcasters' 07.07.2003.

diminished. However, the Committee Report[76] on the issue did not touch upon the effects of most-favoured-nation clauses as alleged by the Film Council but merely stated at para 115 that it was unclear to the Committee how Sky could be required to pay equal prices for Hollywood blockbusters and smaller British films as they represented different commercial prospects.

8 Conclusion

We have argued that the MFC identified by the Mergers and Monopoly Commission Report on the *Foreign Package Holidays* case was in effect much closer related to a price matching guarantee. Given the anti-competitive effects of that clause, which is well established in the academic literature, the finding of the MMC that the clause was not in the public interest is uncontroversial. Moreover, with a correct identification of the clause, it is easier to see why the issue of matching funding is somewhat of a red herring. It is true that the clause is particularly anti-competitive without matching funding, leading where it does have an effect to prices above the monopoly level, and it is both in the interest of consumers and the firms to have this variety of the clause made unlawful. However, with matching funding, the *Thomson* MFC still leads to supra-competitive prices, possibly as high as monopoly prices. Thus, the claim by the Court of Appeal that with matching funding the effect of the clause was pro-competitive is simply wrong.

The misdiagnosis of the key feature of the clause in the MMC Report may help explain why in the end the Court of Appeal got its economic analysis wrong and it may be tempting to see this as a case where inadequate economic analysis has led to a poor decision. However, given the reluctance of the competition authorities in the UK and elsewhere[77] to address the anti-competitive effects of price guarantees, it is not clear what would have happened if the MMC had identified the effects of the clause correctly. One of the reasons for this might be found in a perception of price guarantees such as the *Thomson* MFC as being fair. While we have explained how such an argument could be constructed, this still leaves unanswered the issue of how one trades off 'fair' prices against 'high' prices. It is not clear that making markets work better for consumers involves stressing identical prices without regard to the level of these prices.

[76] House of Commons Culture, Media and Sport Committee 'The British Film Industry' Sixth Report of Session 2002-03 (18.09.2003) vol 1 HC 667-I.

[77] See eg Edlin (n 29) for an analysis of how US anti-trust law might deal with price guarantees.

We have also argued that understanding the *Thomson* MFC is of more than historical value. Such clauses are used in other industries and are subject to ongoing regulatory scrutiny. In particular, our discussions highlight that a detailed analysis of the wording of the clauses is important, something also illustrated in Arbatskaya Hviid and Shaffer[78].

As the analysis in the appendix makes clear, the *Thomson* MFC has the capacity to lead to monopoly pricing and hence facilitate collusive pricing. However, one of the lessons from the academic literature on price guarantees is the subtlety of their effects and one would need to carry out a more formal analysis before advocating classifying the *Thomson* MFC as a clause which can give rise to a finding of concerted practice between firms. Such a formal analysis would look at a multi-stage game in which the tour operators first set catalogue prices and agree clauses with retailers, then observe the true level of demand and offer inducements where optimal and travel agents finally decide how to use the inducements in offering discounts to consumers. This is left for future work. That said, the identification of the *Thomson* MFC as linking prices of rivals rather than offers from the same firm is robust and so is, we conjecture, the analysis of difference between clauses with and without matching funding.

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[78] Arbatskaya Hviid and Shaffer (2004) (n 31).

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Appendix: A Simple model of the effects of the *Thomson* MFC

The aim is to model the effect of the Most-Favoured-Customer guarantee offered in the *Thomson* case in the simplest possible way to highlight the effects of the guarantee. Consider the following benchmark case where there are two manufacturers, selling a differentiated product through a competitive retail market in which each retailer sells both products. The retailers are assumed to have no costs[79] other than the price they pay the

[79] This amounts to an implicit assumption that the retailer's costs are constant per unit sold. When this is the case, we can normalise these costs to zero (interpreting prices as net of costs) without any loss of generality. Had we introduced constant per unit costs, c, we would simply have $p = w + c$. The normalisation saves on notation.

manufacturer, w_i, and because the retail market is assumed competitive, they set price equal to this transfer price, $p_i = w_i$. Moreover, assume that the transfer prices are set in stone for the period, but that the manufacturers might be able to offer inducements to the retailers in the form of a per-unit subsidy, s_i. Finally demand for good i is given by:

$$q_i = \alpha - \beta \cdot p_i + \gamma \cdot p_j$$

and the costs of the manufacturers are assumed identical and normalised to zero.[80] Given the set-up, manufacturer i chooses its transfer price w_i to maximise profits:

$$\Pi_i = \left(\alpha - \beta \cdot w_i + \gamma \cdot w_j\right) \cdot w_i \qquad (1)$$

We assume that the two manufacturers choose their transfer prices simultaneously (i.e. in ignorance of the choice by their rival) and look for a Nash equilibrium to this game. The best replies of the two manufacturers are found from their respective first-order conditions from maximising profits:

$$\alpha - 2 \cdot \beta \cdot w_i + \gamma \cdot w_j = 0$$

$$\alpha - 2 \cdot \beta \cdot w_j + \gamma \cdot w_i = 0$$

Solving these two equations in two unknown, w_i and w_j, ensures that both manufacturers are choosing a best reply to the choice of their rival and that we hence have a Nash equilibrium. This yields the benchmark outcome:

$$\overline{w}_i = \overline{p}_i = \frac{\alpha}{2 \cdot \beta - \gamma} \qquad (2)$$

If during the period for which w_i is fixed demand falls, the manufacturers would like to lower the price to consumers and can, because retailers pass through any inducement, achieve this through a per-unit subsidy. For simplicity, assume that demand falls as a result of α falling to $\hat{\alpha} < \alpha$. We assume that the manufacturers are not allowed to discriminate among the retailers and they would hence have to be offered the same inducement. Competition among the retailers ensures that none of the inducement is kept by the retailer, but is instead passed on to consumers in the form of lower prices, possibly via discounts.

Introducing increasing or decreasing per unit costs would complicate the analysis unduly as would introducing non-linear payments between retailer and manufacturer, for example due to fidelity rebates.

[80] As in the case of the retailer, this helps us avoid notational clutter.

For clarity, we spell out the consequences of any subsidy for final goods. Firstly, consider the case where neither manufacturer has an MFC so that if retailer i is given an inducement s_i, this is passed on to the consumer in terms of a lower price for good i. The post inducement prices are, where one or both subsidies could be zero:

$$\begin{aligned} p_i^{NoMFC} &= w_i - s_i \\ p_j^{NoMFC} &= w_j - s_j \end{aligned} \tag{3}$$

Note that the price of one good is independent of the subsidy offered to the other good.

Secondly, consider the case where manufacturer j has an MFC, but manufacturer i does not. We model an MFC of manufacturer j as requiring that if the price of good i is reduced by $\Delta p_i > \Delta p_j$ as a consequence of a subsidy by i, the price of good j is reduced by (at least) the same amount. Formally:

$$\begin{aligned} p_i^{jMFC} &= \overline{w}_i - \begin{cases} s_i - \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_i & \text{if} \quad s_i \le s_j \end{cases} \\ p_j^{jMFC} &= \overline{w}_j - \begin{cases} s_j + \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_j & \text{if} \quad s_i \le s_j \end{cases} \end{aligned}$$

which we can write as:

$$\begin{aligned} p_i^{jMFC} &= \overline{w}_i - \begin{cases} \frac{1}{2}\cdot(s_i + s_j) & \text{if} \quad s_i > s_j \\ s_i & \text{if} \quad s_i \le s_j \end{cases} \\ p_j^{jMFC} &= \overline{w}_j - \begin{cases} \frac{1}{2}\cdot(s_i + s_j) & \text{if} \quad s_i > s_j \\ s_j & \text{if} \quad s_i \le s_j \end{cases} \end{aligned} \tag{4}$$

Note how the MFC establishes a link between prices in one half of the subsidy space, where manufacturer i has offered the larger subsidy. Note also that if only manufacturer i offers a subsidy, $p_i = w_i - \frac{1}{2}\cdot s_i$ and $p_j = w_j - \frac{1}{2}\cdot s_i$.

Finally consider the case where both manufacturers have an MFC. In that case the prices become:

$$\begin{aligned} p_i^{MFC} &= \overline{w}_i - \begin{cases} s_i - \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_i + \frac{1}{2}\cdot(s_j - s_i) & \text{if} \quad s_i \le s_j \end{cases} \\ p_j^{MFC} &= \overline{w}_j - \begin{cases} s_j + \frac{1}{2}\cdot(s_i - s_j) & \text{if} \quad s_i > s_j \\ s_j - \frac{1}{2}\cdot(s_j - s_i) & \text{if} \quad s_i \le s_j \end{cases} \end{aligned}$$

which we can write as

$$\begin{aligned} p_i^{MFC} &= \overline{w}_i - \tfrac{1}{2}\cdot(s_i + s_j) \\ p_j^{MFC} &= \overline{w}_j - \tfrac{1}{2}\cdot(s_i + s_j) \end{aligned} \tag{5}$$

With both having an MFC, the prices are closely linked. Note that if the transfer prices are identical, with an MFC, prices for the two goods are tied to remaining identical. As (5) makes clear, the *Thomson* MFC clause behaves much more like a price-matching guarantee than a traditional MFC which would merely have linked prices for the same good charged to different consumers. Indeed the effect of an MFC here is to restrict what another manufacturer can do without triggering an automatic response from its rival. The MFC does not restrict what the manufacturer with it can achieve, but it does restrict what others can achieve. This is why we argue that the use of term MFC in this case is a misnomer.

Equilibrium Inducement

We will consider a game in which both manufacturers simultaneously [that is without knowing their rivals choice of subsidy] choose a subsidy level. If both offer an inducement simultaneously and neither manufacturer has an MFC, from (3), $p_i = \overline{w}_i - s_i$ and $p_j = \overline{w}_j - s_j$. Using the equilibrium values for w_i and w_j in (2) the maximisation problem of manufacturer i reduces to choosing s_i to maximise profits which is given by:

$$\Pi_i = \left(\hat{\alpha} - (\beta - \gamma) \cdot \frac{\alpha}{2 \cdot \beta - \gamma} + \beta \cdot s_i - \gamma \cdot s_j \right) \cdot \left(\frac{\alpha}{2 \cdot \beta - \gamma} - s_i \right) \tag{6}$$

From the first order condition gives us the best reply of manufacturer i

$$-\hat{\alpha} + (\beta - \gamma) \cdot \frac{\alpha}{2 \cdot \beta - \gamma} - 2 \cdot \beta \cdot s_i + \gamma \cdot s_j + \beta \cdot \frac{\alpha}{2 \cdot \beta - \gamma} = 0 \tag{7}$$

with a similar first order condition for manufacturer j. Given the symmetry of the two first order conditions, the solution in terms of subsidies is symmetric, in the Nash equilibrium $s_i = s_j$, and we find:

$$\tilde{s}_i^{\,NoMFC} = \frac{\alpha - \hat{\alpha}}{2 \cdot \beta - \gamma} \tag{8}$$

Note that the transfer price and the final goods price become

$$\hat{w}_i = \hat{p}_i = \frac{\hat{\alpha}}{2 \cdot \beta - \gamma}$$

which, when compared with (2) is what prices would have been set at initially had they known the correct level of demand. Thus with no MFC, the counterfactual is that we would have achieved the “competitive” level of prices, i.e. the prices which would have emerged from a scenario where there are only unilateral effects. The corresponding equilibrium profits are given by:

$$\Pi_i^{NoMFC} = \beta \cdot \left(\frac{\hat{\alpha}}{2 \cdot \beta - \gamma} \right)^2 \tag{9}$$

If both manufacturers have an MFC with the retailers, final goods prices will be given by (5). Using this and the equilibrium values for the transfer prices in (2), manufacturer i chooses its level of subsidy to maximise:

$$\Pi_i = \left(\hat{\alpha} - (\beta - \gamma) \cdot \frac{\alpha}{2 \cdot \beta - \gamma} + \tfrac{1}{2} \cdot (\beta - \gamma) \cdot s_i + \tfrac{1}{2} \cdot (\beta - \gamma) \cdot s_j \right) \cdot \left(\frac{\alpha}{2 \cdot \beta - \gamma} - s_i \right) \tag{10}$$

From the first order condition

$$-\hat{\alpha} + (\beta - \gamma) \cdot \frac{\alpha}{2 \cdot \beta - \gamma} - (\beta - \gamma) \cdot s_i - \tfrac{1}{2} \cdot (\beta - \gamma) \cdot s_j + \tfrac{1}{2} \cdot (\beta - \gamma) \cdot \frac{\alpha}{2 \cdot \beta - \gamma} = 0 \tag{11}$$

again using symmetry, we get

$$s_i = \frac{1}{2 \cdot \beta - \gamma} \cdot \alpha - \frac{2}{3 \cdot (\beta - \gamma)} \cdot \hat{\alpha} \tag{12}$$

Note that for $\hat{\alpha}$ close enough to α, the inducement would be negative. A negative inducement is equivalent to the manufacturer imposing a tax on the retailers, something which is clearly impossible in this context. Thus, whenever i would like to impose a negative inducement, the best it can do is to offer no inducements. We can find the critical value of $\hat{\alpha}$, denoted α' for which the subsidy would be exactly zero by solving $s_i = 0$ in (12). This yields

$$\alpha' = \frac{3}{2} \cdot \frac{\beta - \gamma}{2 \cdot \beta - \gamma} \cdot \alpha \tag{13}$$

Note that $\alpha' < \alpha$. Taking into consideration that the subsidy can be zero, the equilibrium subsidy level is given by:

$$\tilde{s}_i^{MFC} = \begin{cases} \dfrac{1}{2 \cdot \beta - \gamma} \cdot \alpha - \dfrac{2}{3 \cdot (\beta - \gamma)} \cdot \hat{\alpha} & \text{if} \quad \hat{\alpha} \le \alpha' \\ 0 & \text{if} \quad \hat{\alpha} > \alpha' \end{cases} \tag{14}$$

Note that the inducement is more likely to be zero, the smaller the reduction in demand and the closer substitutes are the two goods, i.e. the closer is γ to β.

There are essentially two reasons why manufacturer i may decide not to offer an inducement. The first reason is that both prices will be lowered together. In our simple symmetric example, the initial prices are identical and hence any inducement leads to a

simultaneous lowering of the prices of both retailers, always keeping them the same. If prices are always constrained to be identical by the MFC, it is worth considering what the profit maximising prices would be given this constraint. For final goods prices to be the same, $p_i = p_j$, the transfer prices must be the same, i.e. $w_i = w_j$. Using this in (1), manufacturer i is choosing w_i to maximise:

$$\Pi_i = (\alpha - \beta \cdot w_i + \gamma \cdot w_i) \cdot w_i$$

From the first order condition, we find that the prices are given by:

$$p_i^m(\alpha) = \frac{\alpha}{2 \cdot (\beta - \gamma)} = w_i^m(\alpha)$$

where we have indicated the prices for arbitrary values of the demand parameter, α.These prices also maximise joint profits, i.e. they are the prices firms would set if they could collude to set identical prices.[81] With the new lower demand parameter, there is a corresponding set of prices which maximises joint profits given by

$$w_i^m(\hat{\alpha}) = p_i^m(\hat{\alpha}) = \frac{\hat{\alpha}}{2 \cdot (\beta - \gamma)} \qquad (15)$$

As long as $\overline{p}_i \leq p_i^m$, manufacturer i has no incentive to offer an inducement. The existing price is closer to the joint profit maximising prices at the new demand parameter than was the case originally and deviating by offering an inducement is simply going to lower both prices away from that preferred state given by (15). Equating the prices in (2) and (15), the critical value of α where the two prices are identical, denoted α'', is found to be

$$\alpha'' = 2 \cdot \frac{\beta - \gamma}{2 \cdot \beta - \gamma} \cdot \alpha \qquad (16)$$

There is certainly no incentive to offer an inducement when $\hat{\alpha} \geq \alpha''$ and for those values of $\hat{\alpha}$ we would expect the inducement to be set at zero. Comparing the critical value α' from (13) with α'', the critical value in (16), note that $\alpha'' > \alpha'$ so that there are values of α where $s_i = 0$ even though $\hat{\alpha} < \alpha''$. This is quite striking because it implies that for $\alpha' < \hat{\alpha} < \alpha''$ prices at the new level of demand are <u>above</u> the joint profit maximising [monopoly] levels.

The cause of this is the second reason why manufacturers may choose to have zero subsidies in the light of rival MFCs. For each amount of inducement offered by manufacturer i

[81] To see this, note that total profits is given by $\Pi = (\alpha - \beta \cdot w_i + \gamma \cdot w_j) \cdot w_i + (\alpha - \beta \cdot w_j + \gamma \cdot w_i) \cdot w_j$. Maximising this with respect to w_i and w_j yields (10).

to the retailer, only a fraction gets passed on to the consumers of manufacturer i in terms of lower prices for good i while a fraction is used to lower the price of the rival. One can either think of this as free riding by the manufacturer with the MFC or as a dilution of i's subsidy. In either case, the incentive to offer an inducement is strictly reduced.

This distortion of the prices caused by the MFC may affect the incentive to adopt the guarantee in the first place. Without the MFCs, prices will be below the joint profit maximising level given in (15) while with MFCs, prices may be above these level. We find that equilibrium profits are given by:

$$\tilde{\tilde{\Pi}}_i^{MFC*} = \begin{cases} \dfrac{2}{9\cdot(\beta-\gamma)}\cdot\hat{\alpha}^2 & \text{if} \quad \hat{\alpha} \le \dfrac{3}{2}\cdot\dfrac{\beta-\gamma}{2\cdot\beta-\gamma}\cdot\alpha \\ \beta\cdot\left(\dfrac{\alpha}{2\cdot\beta-\gamma}\right)^2 - (\alpha-\hat{\alpha})\cdot\dfrac{\alpha}{2\cdot\beta-\gamma} & \text{if} \quad \hat{\alpha} > \dfrac{3}{2}\cdot\dfrac{\beta-\gamma}{2\cdot\beta-\gamma}\cdot\alpha \end{cases} \tag{17}$$

Comparing profits in the two cases as given in (9) and (17), we find the following ranking of profits:

Table A1: profit rankings in the case where both manufacturers offer a subsidy.

	Positive subsidy in MFC case $\left(\hat{\alpha} \le \frac{3}{2}\cdot\frac{\beta-\gamma}{2\cdot\beta-\gamma}\cdot\alpha\right)$	Zero subsidy in MFC case $\left(\hat{\alpha} > \frac{3}{2}\cdot\frac{\beta-\gamma}{2\cdot\beta-\gamma}\cdot\alpha\right)$
$\beta \le 2\cdot\gamma$	$\tilde{\tilde{\Pi}}^{MFC} > \tilde{\tilde{\Pi}}^{NoMFC}$	$\tilde{\tilde{\Pi}}^{MFC} > \tilde{\tilde{\Pi}}^{NoMFC}$
$\beta > 2\cdot\gamma$	$\tilde{\tilde{\Pi}}^{MFC} \le \tilde{\tilde{\Pi}}^{NoMFC}$	$\tilde{\tilde{\Pi}}^{MFC} > \tilde{\tilde{\Pi}}^{NoMFC}$ if $\hat{\alpha} > \frac{\beta-\gamma}{\beta}\cdot\alpha$ $\tilde{\tilde{\Pi}}^{MFC} \le \tilde{\tilde{\Pi}}^{NoMFC}$ if $\hat{\alpha} \le \frac{\beta-\gamma}{\beta}\cdot\alpha$

Note that the MFC case does not always dominate. This is caused by the extra distortion caused by the attempted free-riding on the subsidy level of the rival manufacturer. We will use this information in the analysis if the asymmetric case below.

The asymmetric case where only manufacturer j has the MFC is harder to solve. The consumer prices are given by (4) which we have repeated below:

$$p_i^{jMFC} = \overline{w}_i - \begin{cases} \frac{1}{2}\cdot(s_i + s_j) & \text{if} \quad s_i > s_j \\ s_i & \text{if} \quad s_i \le s_j \end{cases}$$

$$p_j^{jMFC} = \overline{w}_j - \begin{cases} \frac{1}{2}\cdot(s_i + s_j) & \text{if} \quad s_i > s_j \\ s_j & \text{if} \quad s_i \le s_j \end{cases}$$

Note from (4) that where $s_i \le s_j$, the objective function is as in the case where neither have an MFC, given by (6), with corresponding first order condition given by (7), while for $s_i > s_j$, the objective function is as in the case where both have an MFC, given by (10), with corresponding first order condition given by (11). Because of this, there are only two candidate equilibria, $(\tilde{s}_i^{MFC}, \tilde{s}_j^{MFC})$ and $(\tilde{s}_i^{NoMFC}, \tilde{s}_j^{NoMFC})$. Because both are symmetric, a decrease by s_i or an increase in s_j would have to be evaluated using (6), while an increase by s_i or decrease in s_j would have to be evaluated using (10). We consider each of the candidate equilibria in turn.

Consider first $(\tilde{s}_i^{MFC}, \tilde{s}_j^{MFC})$. Since this maximises (10), we need only consider whether a decrease by s_i or an increase in s_j would be worthwhile for i or j. As the relevant profit expression would be given by (6), the effect of a marginal change in subsidy can be found by evaluating the first order conditions of (6) given in (7) at the equilibrium values $(\tilde{s}_i^{MFC}, \tilde{s}_j^{MFC})$. We find that

$$-\hat{\alpha} + (2\cdot\beta - \gamma)\cdot\frac{\alpha}{2\cdot\beta - \gamma} - (2\cdot\beta - \gamma)\cdot\left(\frac{1}{2\cdot\beta - \gamma}\cdot\alpha - \frac{2}{3\cdot(\beta - \gamma)}\cdot\hat{\alpha}\right) = \frac{2\cdot(2\cdot\beta - \gamma)}{3\cdot(\beta - \gamma)}\cdot\hat{\alpha} - \hat{\alpha} > 0$$

indicating that an increase in the subsidy level would increase profits. This is an admissible deviation by manufacturer j (but not manufacturer i) and hence $(\tilde{s}_i^{MFC}, \tilde{s}_j^{MFC})$ could not be an equilibrium.

Consider next $(\tilde{s}_i^{NoMFC}, \tilde{s}_j^{NoMFC})$. Since this maximises (6), we need only consider whether an increase by s_i or a decrease in s_j would be worthwhile for i or j. As the relevant profit expression would be given by (10), the effect of a marginal change in subsidy can be found by evaluating the first order conditions of (10) given in (11) at the equilibrium values $(\tilde{s}_i^{NoMFC}, \tilde{s}_j^{NoMFC})$. We find that

$$-\hat{\alpha} + \tfrac{3}{2}\cdot(\beta - \gamma)\cdot\frac{\alpha}{2\cdot\beta - \gamma} - \tfrac{3}{2}\cdot(\beta - \gamma)\cdot\frac{\alpha - \hat{\alpha}}{2\cdot\beta - \gamma} = \frac{3\cdot(\beta - \gamma)}{2\cdot(2\cdot\beta - \gamma)}\cdot\hat{\alpha} - \hat{\alpha} < 0$$

indicating that a decrease in the subsidy level would increase profits. As above, this is an admissible deviation by manufacturer j (but not manufacturer i) and hence $\left(\tilde{s}_i^{NoMFC}, \tilde{s}_j^{NoMFC}\right)$ could not be an equilibrium.

The problem is that there is no MFC to curb the incentives of manufacturer j. If an equilibrium was to exist it would be in mixed strategies with the profits bounded by the pure strategies given in (8) and (12). Rather than looking for the mixed strategy equilibrium, we use the information in table 1A. Note that where NoMFC dominates in terms of profits, manufacturer j can drop its guarantee, while where MFC dominates in terms of profits, manufacturer i can adopt one. Consequently, we should never observe the asymmetric outcome. With a symmetric model, this is unsurprising. The models of price matching which do find asymmetric outcomes where not all manufacturers adopt the guarantee in equilibrium are all asymmetric.[82] With an asymmetric model, we conjecture that we can find equilibria in which we get only a subset of manufacturers adopting the MFC. The reason for this would be similar to the one found in Hviid and Shaffer (1999), that in equilibrium, only one manufacturer has an incentive to have the lower price in which case the MFCs only restrain these manufacturers so that the other MFC is redundant.

We can then compare the final good prices when both firms can chose a subsidy. Note that the prices will be the same in equilibrium and hence we only present the ones for good i.

$$p_i^{MFC} = \begin{cases} \frac{4}{3}\cdot\frac{1}{2\cdot(\beta-\gamma)}\cdot\hat{\alpha} > \tilde{p}_i^{NoMFC} = \frac{\hat{\alpha}}{2\cdot\beta-\gamma} & \text{if} \quad \hat{\alpha} \le \frac{3}{2}\cdot\frac{\beta-\gamma}{2\cdot\beta-\gamma}\cdot\alpha \\ \frac{\alpha}{2\cdot\beta-\gamma} > \tilde{p}_i^{NoMFC} = \frac{\hat{\alpha}}{2\cdot\beta-\gamma} & \text{if} \quad \hat{\alpha} > \frac{3}{2}\cdot\frac{\beta-\gamma}{2\cdot\beta-\gamma}\cdot\alpha \end{cases}$$

Thus the presence of an MFC supports higher prices, $\tilde{p}_i^{MFC} > \tilde{p}_i^{NoMFC}$. This confirms that the MMC was correct in being concerned about the MFC not being in the public interest because it would lead to higher prices.

Paying for the subsidy

The Court of Appeal made a lot of whether or not the tour operator with the MFC compensates the retailer for any matching reduction in the price of its products. If one introduces the condition on manufacturer j's MFC that while a retailer must offer matching

[82] Asymmetric outcomes in which only some firms have low-price guarantees arise in Logan and Lutter (n 28); Corts (n 28); Hviid and Shaffer (n 28); S Jain and J Srivastava 'An Experimental And Theoretical Analysis Of Price-Matching Refund Policies' (2000) 37 Journal Of Marketing Research, 351; Chen (n 28); and Moorthy and Winter (n 30).

rebates on the prices of the goods of j's rivals, the retailer does not have to fund this itself, but the funding comes through manufacturer j, then the MFS works plainly as a price matching guarantee. This implies that if both manufacturers have an MFC, in equilibrium $p_i = p_j$ whereas if only j has one, $p_i \geq p_j$. Consider the critical value of the demand parameter $\hat{\alpha}$ where the joint profit maximising price at that parameter is equal to the original price, i.e. where $\hat{\alpha} = \alpha''$. For any drop in demand less than $\hat{\alpha}''$, if both manufacturers have an MFC, neither has an incentive to offer a positive subsidy since this would push the price further below the joint profit maximising price given in (10). This mirrors the argument in the previous subsection. If the critical value is below $\hat{\alpha}''$, then both manufacturers individually have an incentive to offer a subsidy just high enough that the final price is given by (8), the joint profit maximising level. Comparing the MFC cases with and without matching funding, we find:

Table A2: Prices when firms do and do not provide matching funding

Size of new demand	p_i if no matching funding	p_i if matching funding
$\hat{\alpha} > 2 \cdot \frac{\beta - \gamma}{2 \cdot \beta - \gamma} \cdot \alpha$	$\overline{p}_i$	$\overline{p}_i$
$2 \cdot \frac{\beta - \gamma}{2 \cdot \beta - \gamma} \cdot \alpha \geq \hat{\alpha} > \frac{3}{2} \cdot \frac{\beta - \gamma}{2 \cdot \beta - \gamma} \cdot \alpha$	$\overline{p}_i > p_i^m(\hat{\alpha})$	$p_i^m(\hat{\alpha})$
$\frac{3}{2} \cdot \frac{\beta - \gamma}{2 \cdot \beta - \gamma} \cdot \alpha \geq \hat{\alpha} > 0$	$\frac{4}{3} \cdot p_i^m(\hat{\alpha})$	$p_i^m(\hat{\alpha})$

From the table is evident that welfare losses will be greater with guarantees offering no matching funding, so at least the Court of Appeal prevented the most harmful version from being permitted. Thus the Court of Appeal did ensure that at most consumers were faced with MFCs which raised prices to the monopoly level. However, the MFC still leads to supra-competitive prices and hence the 1998 Order was right to ban these clauses.