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**An Ice-cream War: Bundling, Tying  
and Foreclosure**

by  
**Moore McDowell**

April 1995

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## An Ice-cream War': Bundling, Tying and Foreclosure.

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### Introduction

Between 1990 and 1995 the Anglo-Dutch conglomerate, Unilever, and the U.S. private corporation, Mars, were engaged in a protracted legal battle in which Mars sought to use European anti-trust legislation to curtail what it asserted were abusive practices by Unilever designed to create barriers to entry to the "impulse purchase" ice-cream market. This market covers the purchase of ice-cream for immediate consumption, as opposed to purchases of ice-cream destined for the family freezer. The end of the war appeared close in the Spring of 1995 when it was announced that the European Commission had reached a compromise settlement with one of Unilever's subsidiaries. The agreement contained some changes in the terms on which Unilever dealt with its retail customers, but for the most part left in place one of the crucial arrangements at the heart of the dispute, namely, the right to supply freezer capacity to retail outlets free of charge. This, it had been claimed by Mars, constituted an abuse of Unilever's dominant position in the impulse ice-cream market. It was a surprising outcome in one way, because it was well known that the European Commission was sympathetic to Mars, and made no secret of its view that the network of agreements between Unilever and its retailers was generally restrictive of competition<sup>1</sup>.

The dispute between Mars and Unilever is interesting from an antitrust viewpoint for a variety of reasons. In the first place, the case revolved around the question of whether a particular pricing structure should be considered as a strategic entry barrier based on raising rivals' costs. As such, it was relatively untested territory for European jurisprudence and policy making. In the second, it reveals once again the difficulties in using economic evidence in antitrust cases in European courts, at least in some jurisdictions.

<sup>1</sup> In the course of the dispute the Commission issued a "Statement of Objection", which constituted a statement of its views as to the issues involved and the merits of the cases of the complainant and defendant as they appeared to the Commission after its own investigation of the complaint. In this case, the S.O. very largely accepted the complaints made by Mars, and indicated that it found the practices at the heart of the complaint to be contrary to the requirements of Articles 85 and 86 of the Rome Treaty.



(\*with apologies to William Boyd)

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The legal battles were fought in two of the jurisdictions of the European Union, Germany and the Republic of Ireland. In the first of these Mars brought a complaint to the Competition Directorate of the E.U. Commission in Brussels, DG IV. The complaint concerned agreements between Unilever's subsidiary, Langnese-Iglo, and Scholler A.G. (with approximately 75% to 80% of the market between them) and retail outlets by which an outlet to obtain the product of either firm had to agree to sell no other ice-cream products. This vertical restraint was termed outlet exclusivity, and, given the position of Unilever and Scholler, prima facie constituted a serious problem for a potential entrant to the market.

In the second case, the complaint took the form of a High Court action in Ireland complaining of restrictive practices and abuse of dominance contrary to Articles 85, and 86 of the Treaty of Rome (and implicitly Sections 4 and 5 of the Irish statute which brought European competition law into Irish domestic law, the Competition Act of 1991). The plaintiffs also complained to the Commission.

### **The Dispute: Cabinet Exclusivity Contracts**

In Ireland there was no outlet exclusivity in force, but H.B. Ltd., the Unilever subsidiary, had a practice of providing freezers on loan free of charge to outlets which wished to take them and which (in H.B.'s view) would achieve a minimum sales throughput. If an outlet accepted such a freezer it was restricted to placing H.B. products in that freezer, but could take another firm's products if it had its own freezer, or a freezer provided by another supplier, and could stock H.B. products in those freezers. There was no requirement that an outlet had to take a freezer from H.B. in order to obtain supplies from H.B. H.B., however, made its ice-cream available to retailers at the same price whether or not the outlets had freezer space provided by H.B. This set of arrangements was termed "freezer exclusivity".

In 1990 and 1991 Mars introduced a new range of products to the impulse ice-cream market in Europe. These were frozen confectionery versions of their existing highly successful ambient temperature products: Mars, Bounty, Snickers, Opal Fruits. From Mars' point of view the ability to re-use their brand development spending from one product range to

promote a complementary range of products was very attractive. From a technical point of view, Mars were also innovating to some extent, as they were using a new technology which made more feasible the use of real chocolate coatings (up to then and still to a large extent, "chocolate" covered ice-cream bars used a chocolate substitute which was more stable at very low temperatures). To sell their products Mars had to have access to retail outlets with freezer capacity installed. The existence of a network of contracts which had the effect of barring access to such outlets would necessitate by-passing existing retailing arrangements (i.e., innovating successfully at the retail stage) or detaching existing outlets in large numbers from their supply contracts or simultaneously entering the retail distribution market. This problem was exacerbated for them by the fact that their product range was concentrated at the top end of the relevant market: unit prices were two to six times higher than prices for bottom of the range products. Hence, a retailer who switched, or a new Mars-controlled outlet, would be confined to sales at the top end of the market. These, while very lucrative, and growing, were and are a small proportion of total sales of impulse ice-cream. As such, and especially given retailers' perceptions of ice-cream as a complement to sales of other products, Mars on its own was not a very attractive proposition for a retail outlet<sup>2</sup>.

Outlet exclusivity in Germany posed greater problems in terms of the economics of competition for Unilever and Scholler than freezer exclusivity did for Unilever in Ireland. If a network of contractual arrangements between a manufacturer and distributors may be regarded as incomplete forward integration, exclusive dealing contracts, especially when of significant duration, come closer to full forward integration than freezer exclusivity contracts. If there are substantial sunk costs in entering the retail stage, and if there are scale economies in production and distribution, an entrant firm will face non-trivial barriers to entry if 70% to 80% of existing outlets are foreclosed to his product. Even if it is legally and financially easy to detach existing retailers from their contractual agreement with the supplier, if that supplier has the market leader brands and will sell to retailers only on an exclusivity basis an entrant supplier faces severe difficulties in getting his product onto the market. Admittedly, those difficulties will be less of a problem for a large scale entrant which is in

<sup>2</sup> Consider how much Haagen-Dazs ice-cream would be sold if supermarkets which stocked it could stock no other (especially cheaper) ice-cream products.

a position to use existing brand image to support his product, as was the case with Mars, than for a small scale entrant. As a result, it was widely expected that when the Commission had studied the complaint by Mars it would issue a finding that the outlet exclusivity agreements were offensive under the Treaty of Rome, and require that the agreements should be dismantled<sup>3</sup>.

Despite the economic problems inherent to outlet exclusivity, Unilever was unwilling to concede the case brought by Mars in its complaint to the European Commission concerning the position in Germany. Mars simultaneously brought an action in the Irish High Court, and as noted also complained to the Commission<sup>4</sup>. This was in response to an injunction sought and obtained by H.B. to prevent Mars from placing its products in H.B.-owned freezers<sup>5</sup>. In this action Mars sought to have the arrangement between H.B. and the retailers declared to be an abuse of a dominant position by H.B., and generally restrictive of competition.

### The Relevant Market

The charge of abuse of a dominant position under Article 86 of the Treaty necessitated first that the Irish High Court and/or the European Commission would have to decide what

<sup>3</sup> At the time of writing, a Commission finding had not yet been issued, and it remained possible that the Commission would sanction the arrangements on a basis of their being comparable to exclusive dealerships designed to promote inter-brand competition.

<sup>4</sup> As a result, H.B. was subjected to one of the Commission's (in?) famous "dawn raids" in the run-up to the Irish High Court action.

<sup>5</sup> Mars had entered into a distribution agreement with a small Irish manufacturer and distributor, Valley Icecream, Ltd., which needed top of the range products to complement its own lines. In addition to placing Mars' products in freezers in outlets in which Valley had freezer capacity installed on the same basis as H.B., Valley's distribution staff were successful in persuading retailers with H.B. freezers to take Mars' products. H.B. responded by drawing retailers' attention to the terms of the freezer agreements and threatening withdrawal of the freezers, and by seeking legal redress against the alleged trespass of Valley on H.B.'s property.

constituted the relevant market<sup>6</sup>. Ice-cream products in Ireland could be distinguished in terms of the physically different types of product and (arguably) different groups of consumers. At one extreme is the supply of ice-cream in large quantities as an input to catering and restaurant businesses. At the other is the sale of ice-cream in an enormous number of different product lines to consumers in retail outlets for immediate consumption. In between are the products sold to consumers for deferred consumption. These take two forms: products sold in packages designed to be used for meals (ice-cream desserts, cakes and tubs) and multi-pack versions of some of the products sold for immediate consumption. These are for the most part sold through supermarket outlets, although one particular take-home product line, the half litre block of ice-cream, is a major sale line for small retail outlets which account for most of the sales for immediate consumption.

Conventional marketing analysis treated the market as being divided into four segments: impulse purchase, multi-pack, take home and catering. This schematic division identified three groups of purchasers: households making immediate decisions to consume on the spot; households making consumption decisions for the short term future; and firms purchasing inputs to further production. The final products were treated as falling into four categories: whipped soft ice-cream (impulse purchase), wrapped bars (impulse when sold singly, take-home when sold in multi-packs), ice-cream blocks and dessert products (take-home) and catering volume sales (catering).

Overall consumption of ice-cream in Ireland is high: per caput it is the second highest in the EU (after Italy). In volume terms, consumption in 1989 was approximately 31,000 liquid

<sup>6</sup> Note that a breach of Article 85 or of S.4 of the 1991 Act does not require that the defendant firm should be "dominant". Under both, agreements which "...have as their object or effect the prevention, restriction or distortion of competition...are prohibited and void..." (S.4(1) of the 1991 Act; the text of Article 85 is almost identical). Given this, it may be wondered why Mars sought to prove abuse of dominance, since the abuse complained of was the set of freezer contracts, which would only be an abuse if they offended against S.4 or Article 85. The abuse complaint, therefore appears superfluous. The reason for the double charge lay in the fact that it is possible under Irish and European law to seek clearance for a practice under Article 85 and S.4, and that the courts under the Irish statute have the power to modify a contract's terms by severance so as to bring it within S.4. Such are not possible under S.5 and Article 86.

tonnes. By 1992, when litigation commenced, it had risen to 35,000 lts. This gives a per caput consumption level of about 10kg (22lbs). The estimated retail market value of this was £68m (\$100m) in 1992<sup>7</sup>.

H.B. was and remains unquestionably the leading supplier in the Irish market, although estimates as to its precise market share vary. This reflects imprecision as to total consumption and a varying presence in different parts of the overall market. H.B. is strongest in the wrapped bar segment of the retail market for immediate consumption, and has much lower shares of supermarket and catering sales. It also has a lower share of sales of soft whipped ice-cream. By its own estimates in evidence in court it believed in 1992 that it had about 75% of the impulse market. Before Mars achieved any penetration of the wrapped bar segment H.B. probably held around 80% of that category of product sale, but significantly less in whipped ice-cream. We can be sure that H.B.'s volume sales as a proportion of total impulse sales (including whipped ice-cream) in 1992 was at least 65%, and may have been 10% higher.

In terms of conventional economics as well as in terms of the curious European Court of Justice (ECJ) analysis of what constitutes market dominance<sup>8</sup> a lower market share weakens the case for treating a firm as being dominant. H.B. went to great lengths to make the case that even in the impulse market they were not dominant by pleading that the relevant market was not simply the total sales of impulse ice-cream, let alone the wrapped bar segment of impulse sales. They produced evidence that showed that nearly all sales of impulse ice-cream products were through small stores classified as TSNs (Tobacco, Stationery, Newsagents, basically convenience stores) and petrol station forecourts. They argued that their products were in the same market in these outlets as such products as colas, candy and ambient

<sup>7</sup> These figures are derived from information from H.B., and reflect estimates of overall market size derived from their own marketing department and such sources as A.C. Neilsen.

<sup>8</sup> The general principle laid down by the ECJ in *United Brands v Commission* ([1978] 3 CMLR 174) is as follows: "...The dominant position thus referred to (by Art.86) relates to a position of economic strength enjoyed by an undertaking which enable it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers".

temperature confectionery. All the evidence adduced to support this contention, however, was qualitative and opinion-based. While it might seem unlikely to a casual observer that ice-cream bars should be treated as being in the same market as candy bars, this is in the end a question which is susceptible of empirical falsification.

The problems involved in defining the market from both supply side and demand side substitutability have been usefully summarised by Schrank and Roy (1991)<sup>9</sup>. It is clear that simplistic use of measures of substitutability based on estimates of cross price demand elasticities can be misleading. They do, however, at the very least provide a starting point, and can be a good general indicator of the degree to which products should be taken as being in the market together. European jurisprudence, unfortunately, has not been based to any significant extent on the evaluation of statistical and econometric evidence designed to cast light on the problem. While the economists who work in the U.K. Monopolies and Mergers Commission or in the European Commission's DG IV may be more than adequately seized of the benefits and limitations attached to this approach, the judiciary appears less than competent to handle economic analysis based on statistical evidence<sup>10</sup>. Whish (1993. p.249) puts it as follows:

*"The ECJ has not wished to become centrally involved itself in the process of economic analysis, and there have been many unsuccessful appeals on this matter to it."*<sup>11</sup>

In the H.B. case, the defendants did not introduce any statistical evidence in support of the proposition that the relevant market should be taken as including the sales of impulse products as whole through TSNs and garage forecourts. Mars, on the other hand did

<sup>9</sup> W. Schrank and N. Roy: "Market Delineation in the Analysis of the United States Groundfish Market"; *Antitrust Bulletin*, vol.36, no.1, pp.91-154

<sup>10</sup> This may be changing slowly, but the weight of precedent is important, and the landmark cases such as *United Brands* and *Michelin* draw conclusions and offer precedents in a manner which places a low value on econometric evidence in defining markets. There is a strong preference for an inductive reasoning based on observed differences in product characteristics and/or product uses.

<sup>11</sup> R. Whish: *Competition Law* (3rd ed.); Butterworths, London and Edinburgh, 1993.

introduce evidence designed to demonstrate that there was no statistical support for the assertion that there was strong, significant positive cross-price elasticity of demand between impulse ice-cream and such products as candy and carbonated drinks. This evidence was challenged, and possibly fatally so in terms of the methodology it used to measure price variance<sup>12</sup>, but in the end the trial judge took the view that the relevant market was the impulse sales of wrapped ice-cream products<sup>13</sup>.

### Freezer Contracts and Vertical Restrictions: Efficiency Enhancement or Barrier to Entry?

Contractual arrangements between up-stream suppliers and downstream retailers which in any way limit the freedom of the latter to vary their purchases from the former are clearly a vertical restraint. There is a large literature on the issue of whether, and in what circumstances, such restraints may plausibly be regarded as efficiency enhancing devices and when they ought to be regarded as primarily aimed at restricting competition and/or reducing contestability. In the context of the H.B. case, it is interesting to note that in one well known survey article on this topic (Matthewson and Winter, 1986) a list of examples of restrictions which give rise to debate (admittedly, not said to be an exhaustive one) contains the following practices: vertical price restrictions, vertical territorial arrangements, quantity

<sup>12</sup> The economic evidence submitted by Mars included econometric work based on the U.K. market which aimed at testing for the existence of positive cross-price effects. In addition to expressing reservations concerning the underlying implications for consumer rationality of the explicit form used to test the demand relationships, H.B.'s expert econometric witness, D.R. Thom of University College, Dublin, pointed out that the price variance for ice-cream used to test for the effects was spurious. The prices for ice-cream products for retail sale are fixed by the producers for the season, and Mars' evidence purported in a cross-section study to estimate cross price effects based on regional differences in prices. Prices for the various products, however, did not vary by region, and what was being treated as a variance in price per litre sold was in fact a statistical artifact arising from regional variations in the product mix. Such a price "variable" could test for nothing as far as cross-price effects between ice-cream and other products were concerned.

<sup>13</sup> It was never explained by the judge why he excluded whipped soft ice-cream. It would not, however, have been of much importance, once colas etc., had been excluded: H.B. was not really in a position to plead plausibly that it was not dominant.

forcing, franchise fees, full-line forcing and exclusive dealing<sup>14</sup>. Only one of these was relevant to the H.B. contracts: price restrictions. Even here, the restriction was the relatively innocuous maximum price ceiling, which can be rationalised as being an essential component of the manufacturer's marketing strategy. Retailers are free to sell at less than the advertised price, but may not exceed it.

In fact, as a vertical restriction, the freezer contracts were of very limited binding power. In practice they were terminable without notice by the retailers<sup>15</sup>. The only restriction was (and remains) that only H.B. product could be stored in a freezer supplied by H.B. It seems logical, therefore, to analyze the freezer contract in another context: that of non-linear pricing, price bundling and tying.

Indeed, this was the main thrust of the economic argument used by Mars to support its claim that the freezer contracts constituted an entry deterring strategy. The structure of prices and quantity discounts subject to which H.B. supplied retailers was the same whether or not the retailers had accepted a freezer from H.B. Since the alternative to accepting a freezer from the ice-cream supplier was to purchase or rent a freezer, the effect was to make ice-cream available at a lower implicit price to a retailer if he accepted a freezer. Note, however, that the implicit price reduction to the retailer per unit sold was decreasing in volume sales. For large throughput retail outlets the implicit price discount was trivial<sup>16</sup>. For marginal retail outlets, however, the implicit price reduction could be a critical factor in a decision on selling ice-cream.

<sup>14</sup> G.F. Matthewson and R.A. Winter: "The Economics of Vertical Restraints in Distribution"; ch.7 in J. Stiglitz and G.F. Matthewson: *New Developments in the Analysis of Market Structure*, London, Macmillan (for the International Economic Association), 1986.

<sup>15</sup> Notionally, one month's notice had to be given, but in practice H.B. (and other suppliers) removed unwanted freezers immediately on demand.

<sup>16</sup> The cost to H.B. of a standard freezer unit was approximately £300 (\$450). Depreciating the freezer over 7 years (conservative: the average life expectancy of a freezer unit was nearly 10 years), and allocating a 10% interest cost of funds, plus the cost of H.B.'s maintenance programme, the total cost per freezer was about £100 per year.

The fact that H.B. supplied freezers free of charge, however, drastically reduced the demand for the independent supply of freezer services. In a sense, offering freezers at a zero price foreclosed the market for freezer services. Since freezers are a necessary input to supplying ice-cream to the public, it was argued, the non-availability of accessible, independently owned freezer space meant that a potential entrant to the market for impulse ice-cream had simultaneously to enter the market for freezer capacity and supply it at the market clearing price, which was zero. To this was added the further problem that the true cost to a retailer of a freezer should include space rental in the outlet: a freezer displaces other product lines or imposes congestion costs or both as well as using electricity and (if privately owned) having to be financed. Hence, it was argued, an entrant to the market for impulse ice-cream had also to bid away additional space in the retail outlet from other uses if he could not persuade the retailer to dump the market leader's freezer. One freezer to which all producers had access would permit the retailer to increase total ice-cream sales from a wider product range without displacing other products, although, of course, this would involve higher delivery costs per unit sold for manufacturers/distributors who would have to make more frequent drops.

The core of the case made by Mars<sup>17</sup>, therefore, was that H.B. was "bundling" the prices of freezer services and ice-cream in such a way that they prevented entry to the market for freezer services by independent suppliers and thus obliged an entrant to the market for impulse ice-cream to supply freezer services. Given sunk costs of entry into a market, this strategy raised the costs of a potential entrant into the ice-cream market. Both in a simple Stigler sense, and in the sense of Salop (1979)<sup>18</sup>, this constituted a barrier to entry. The adoption by H.B. of this pricing policy was asserted to constitute strategic behaviour to reduce contestability, and, given H.B.'s position in the ice-cream market, to be an abuse of dominance.

<sup>17</sup> In this paragraph is summarised the testimony of one of the two economist expert witnesses who gave evidence for Mars, based on the transcript of the evidence.

<sup>18</sup> cf. S. Salop: "Strategic Entry Deterrence"; *American Economic Review: Papers and Proceedings*, Vol.69, no.2, pp.335-8; also, S. Salop and D. Scheffman: "Raising Rivals' Costs"; *American Economic Review: Papers and Proceedings*, Vol.73., no.2, 1983, pp.267-71.

Whatever the intent of H.B. in making freezers available free of charge, the evidence of effect in terms of market foreclosure offered by Mars was far from being overwhelming. At the time of the Irish High Court hearing it was stated that as of mid-summer, 1991, Mars had achieved a 10% market penetration in terms of outlets. Given that they were very poorly represented in smaller volume outlets, this meant a substantially larger penetration when outlets were weighted by turnover. This was less than one year after entering the market. By mid 1993 Mars had product in 30% of outlets (unweighted) and 60% (weighted by turnover). Inevitably, this meant that the acceptability of the freezer contracts was going to be decided more on "object" than "effect". The case was, therefore, likely to turn (as far as economics was concerned) on the plausibility of the explanations offered to rationalise the freezer contracts. H.B.'s case was based on economies of scale in distribution and reduction of the cost of risk-bearing in market development. Mars' case was based on the incentive for a large incumbent firm to "raise rivals' costs" as a strategy to deter entry.

The theoretical underpinnings of the proposition that price bundling can be effective as a strategy to foreclose a market have been analyzed in a highly applicable model of bundling to achieve strategic foreclosure in a paper by Whinston (1990)<sup>19</sup>. Two of the cases analyzed by Whinston in this paper are directly relevant to the Mars complaint. The first concerns the impact of H.B.'s pricing strategy on independent freezer supply. He establishes that, provided a monopolist in the tying good market pre-commits to bundling the prices of the tying and of an independent<sup>20</sup> tied good (which is produced in a potentially competitive market), he can shift the intersection point of the reaction curves in tied good price space for the monopolist and a potential producer of the tied good downward and to the left. If the entrant faces sunk costs<sup>21</sup> the non-cooperative outcome of a pricing game is for the potential

<sup>19</sup> M.D. Whinston: "Tying, Foreclosure and Exclusion"; *American Economic Review*, Vol.80, no.4, pp.837-859.

<sup>20</sup> That is to say, the demand for the tying good is independent of consumption of the tied good.

<sup>21</sup> Any sunk costs if the incumbent's variable costs in the tied goods market are the same as the entrant's, or sunk costs per unit of prospective output in excess of the difference between the incumbent's variable costs per unit and the entrant's variable costs in the case where the entrant has a variable cost advantage.



entrant to stay out of the market. If we may regard H.B.'s position as being that of an ice-cream monopolist with a commitment to price bundling, the implication is that no competition would appear in the freezer market. This model reverses the standard "Chicago" approach to tying, which asserts that it is not possible for a monopolist in one market to use his monopoly power in that market as leverage to increase his profits by tying sales of the monopolised good to some "competitive" market good. The key to it is the sunk cost of entry to the imperfectly contestable market for the tied good, which in the Chicago story is assumed to be a competitive, constant-returns-to-scale market.

The Whinston analysis so far appears to support the allegation by Mars that H.B. was foreclosing the market for freezer space. Note, however, that for this strategy to be profitable it must be the case that (a) the implicit price for the tying good should exceed avoidable costs of production, and (b) that the same must hold for the tied good. If we could regard H.B. as being simultaneously in the market for supplying freezer space and the market for ice-cream it could maximize its profits from operations in both markets apparently by using its market power in ice-cream production to foreclose the market for supply of freezer space. Unfortunately for Mars, the facts got in the way of this otherwise plausible story.

First of all, the market for freezer space was not foreclosed: retail outlets could and did purchase or rent freezers on a competitive basis, and did so to a very considerable extent<sup>22</sup>. Admittedly, most of this "private" freezer space was for purposes other than storing impulse ice-cream products. Where retailers chose to purchase freezers specifically optimised for such

<sup>22</sup> They did so because they used freezers for other purposes besides selling ice-cream. While a particular model of freezer might be more or less suitable for selling impulse ice-cream, any freezer could do the job...and in many cases did. Freezer suppliers could and did supply different models of freezers optimized for different products, but freezer space was available at competitive prices. That said, it remained the case that the overwhelming majority of freezers optimised for impulse ice-cream product storage were in fact supplied by the manufacturers of the product. A further aspect of the problem which has to be taken into account is that ice-cream is effectively totally degraded if the temperature rises close to 0° centigrade, since it is (for the most part) air bubbles. Hence, the introduction of ambient temperature goods for freezing into freezers containing ice-cream means risking ice-cream degradation. Product quality maintenance, therefore, requires partitioning of freezer usage. H.B. and other ice-cream suppliers with an interest in reputation were concerned to limit the uses to which freezers supplied by them were put.

sales there is no reason to believe that rental or purchase costs to retailers were above competitive levels<sup>23</sup>. The product is a traded good, and supply in Ireland was reasonably competitive. It is hard to see how H.B. could increase its profits by tying ice-cream sales to freezers so as to increase the number of freezers it controlled and driving out competition for the market for ice-cream freezers (as opposed to selling more ice-cream through them). In fact, given the technology of freezer production and the existence of profitable freezer suppliers, it is doubtful whether it makes any sense to abandon the Chicago assumption identified by Whinston as the key to the rebuttal of the leverage hypothesis.

There is, however, a second aspect of the tying problem which undermines the case for strategic foreclosure. Freezer space and ice-cream sales are not independent goods. Freezers are necessary for the sale of ice-cream. They are, therefore, complements, although while freezers are a necessary component of a system for ice-cream sales, ice-cream sales are not the only purpose for which freezers are used. This can be analyzed in terms of two subsequent models treated by Whinston in the same paper.

In the first of these Whinston looks at the case of a monopoly supplier of product A (which we can think of as ice-cream) who can produce a complementary product, B, at a competitive price, and which faces other supplier(s) of B. It is easy to show that the monopolist cannot obtain a higher level of profits by bundling and tying A sales to sales of his output of B than by selling A at its reservation price and supplying B independently (if at all). With the demand for A increasing with sales of B, replacing other firms' sales of B by sales from the monopolist's production has no effect on his profits if he sells B at a competitive price, and he can only in fact increase his sales of B (foreclose the market) by selling B at below cost which will reduce his profits relative to an independent pricing game. The logic of this is that H.B. as an incumbent monopolist (or dominant firm) could not increase its profits through bundling and tying (and in any case it didn't tie) by foreclosing the market for freezer services.

<sup>23</sup> It is true, however, and this was expressly claimed by H.B. to justify providing freezers, that H.B. could obtain bulk purchase discounts on freezers, and that they could service freezers at a lower cost than independent freezer owners.

This picture changes, however, when we alter assumptions about the A market, which is the next step in Whinston's analysis. In this case he considered the possibility of using price bundling as an effective tying device where a firm, I, has market power in producing commodity A<sub>1</sub> (actually is a sole incumbent seller of a product for which a potential competitor exists) which is a complement to commodity B, which can be produced under competitive conditions by I and by II, the potential competitor in the market for product A. As before, the basis of complementarity is not simply that the first derivative of the user's objective function with respect to one commodity is increasing in the second commodity. He treats them as two components of a system, where one absolutely requires the other. It is, therefore, strictly applicable to the Irish markets for ice-cream and freezer space at the time of Mars' entry.

In Whinston's model II's product, A<sub>2</sub>, is strictly inferior to I's product, A<sub>1</sub><sup>24</sup>. Whinston demonstrates that by a commitment to bundling B and A (tying purchases of A to purchases of B from I at an inclusive price) I can increase its profits relative to an independent pricing game if it can foreclose the market for B, thus excluding II from the market for A (the full proof of Whinston's proposition is contained in appendix 1). This can be done if I commits to offering A<sub>1</sub> and B at an inclusive (bundled) price. The exclusionary price will depend on II's cost of producing A<sub>2</sub>, the margin of "inferiority" of A<sub>2</sub> and the cost of producing B. The key to Whinston's argument is the simultaneous fulfilment of two conditions: the commitment by I to sell only at a bundled price and only on a tied basis.

The problem in the H.B. case is that the second of these does not hold. Accepting the Mars' argument that H.B. were bundling (because a single price means the freezer is available at no cost, even if a retailer chooses not to accept it), supply of the A product was not tied: H.B. would supply ice-cream into non-H.B. freezers (the existence of which of course means the market was not foreclosed).

<sup>24</sup> This might at first sight suggest a conflict with the Mars/H.B. dispute. However, it is in fact consonant with the facts: Mars' range on its own was clearly inferior to the much wider H.B. range for an average retailer, and even when combined with that of Valley could plausibly be said to be a second choice at a standardised set of prices.

### Non-linear Pricing: Strategic Foreclosure?

The "freezer exclusivity" arrangement was not, therefore, a classic tying procedure. Instead, it can be seen as being a complex, non-linear pricing procedure adopted by H.B. The ability to adopt that procedure of necessity implied that H.B. enjoyed a degree of market power. Whether such a procedure should be interpreted as having "the object or effect" of restricting competitive entry to the market is another matter.

H.B.'s practice was to offer freezer free of charge to a retail outlet that was expected to achieve a minimum volume through-put in a year. The schedule of prices for the product contained volume discounts. Setting the threshold at, say, 1,000 litres a year, the offer of a "free" freezer (costing H.B., say, £100 per year) can be thought of as a discount of 10 pence per litre on the posted price for its product applied to the first 1,000 litres. Thereafter, product was supplied under a step function, with lower prices being charged for product in excess of a posted level. This last was not a pure volume discount. The discount was paid in arrears by reference to throughput on an annual basis. On the face of it this might appear simply to be an administrative procedure. When, however, it is remembered that, say, two thirds of the way through the summer peak sales season a retail outlet was effectively tied to its supplier to the extent that switching a supplier meant foregoing a quantity discount and starting the meter anew with another supplier, it will be realised that there could be said to be a short-term loyalty bonus built into the pricing structure<sup>25</sup>. This was, however, independent of the ownership of the freezer(s) in the outlet, and could at worst tie an outlet for part of a year.

Typically, non-linear price structures are decreasing in quantity. The fact that the price structure for ice-cream implicit in the freezer exclusivity agreements is increasing over a range should excite curiosity as to the rationale for adopting such a structure. This in turn

<sup>25</sup> It also emerged in court that H.B. did offer certain discounts to some (a very few, and not quantitatively significant) outlets of an undisguised loyalty type. These appeared to be a hangover from arrangements inherited from firms which had been merged into H.B., and were being phased out at the time of the High Court action.

may help throw some new light on the question of strategic behaviour and foreclosure as motivation for the practice of supplying freezers free of charge<sup>26</sup>.

The most plausible explanation of this price structure lies in the economics of small scale retailing. It is a common-place that (on average) prices are higher in small, convenience type outlets. This is only possible because they specialise in selling product to a sub-group of consumers whose price elasticity of demand is lower than that for consumers as a whole. This group may be a pre-identifiable sub-set of consumers as a whole (those with high transport costs, for example) or a random selection from all consumers (those needing to purchase in a hurry or late at night, for example). From a supply side viewpoint, margins have to be high to cover the operating costs of the outlet as well as its fixed costs given that the volume of sales is low. If product supplied at a uniform price to outlets, the higher margins take the form of higher retail prices. If the product is sold subject to a retail price ceiling, it is obvious that the source of higher margins has to be a lower supply price to the outlet.

So, given that a uniform retail price was desired, why did H.B. not simply construct a non-linear price schedule for ice-cream supply which was increasing by steps over an initial range of output levels and subsequently decreasing? There are, I think, two complementary answers to this question. The first reflects the costs to H.B. Suppose a lower price is posted for the first (say) 150 litres per month, the discount being sufficient (a) to provide the required larger margin for low sale outlets, and (b) to cover freezer costs at an annual throughput of 1,000 litres. A small outlet will, presumably, invest in freezer capacity if it believes it can achieve such a throughput. Alternatively, it may have freezer capacity and allocate some of it to H.B.'s product. In either case, the freezer represents sunk cost. For the retailer, the decision on ordering ice-cream depends on the marginal cost and the expected margin. As long as sales are expected to be positive at the required margin, the outlet has an incentive

<sup>26</sup> It is also interesting to note that, less controversially, carbonated drinks suppliers frequently install cooler cabinets in retail outlets which are subject to restrictions as to use. It is also obviously the case that many retail outlets use their own cabinets, and mix product promiscuously. Finally, dispenser units (cash in the slot machines) are equivalent to freezers subject to effective restrictions. The logic underlying the exclusivity agreements can be seen therefore as an example of an application of some broader underlying principle.

to order product from H.B. The latter, on the other hand, faces distribution costs per unit sold which are increasing in the frequency of distribution drops and decreasing in the size of drop. They will also be higher if demand from retailers is less predictable. This implies that H.B. will face higher distribution costs (and be able to offer a lower margin to retailers, *cet. par.*) under these circumstances than if it can be assured of a minimum throughput per outlet supplied. In effect, before supplying a small-scale outlet at the discount necessary to provide the required margin, H.B. will need an enforceable minimum sale contract.

If it is mistaken in its market forecast, however, an outlet entering into such a contract will incur a penalty, the probability of which constitutes a risk cost to the outlet. In addition, a substantial proportion of any investment in freezer capacity may prove to be a sunk cost. The investment is, therefore a risky one. These higher implicit costs to the outlet are the second reason for choosing a freezer exclusivity contract.

To see this, suppose, now, that H.B. has access to lower cost and/or better market information. Suppose further that it faces a low or zero sunk cost in a marginal increase in its freezer capacity. It follows that the necessary gross margin on sales allowed to the outlet will be lower when H.B. (a) can select which outlets it will supply at a minimum expected throughput, and (b) provides the higher margin by accepting the freezer cost rather than by asking the outlet to do so while offering the product at a discount.

Notice that the above holds true regardless of the structure of the market for the supply of impulse ice-cream. The implication is that we should expect to find such arrangements regardless of whether the market is as concentrated as was the case in Ireland.

### **The Evidence from Other Markets: Forward Integration and Contestability.**

In the course of the High Court action evidence was introduced concerning the practices which obtained in other markets for the distribution and sale of impulse ice-cream. These

other markets showed structures which were quite different. In the U.K., for example, while the Unilever subsidiary, Walls Ltd., was by far the largest firm (with about 60% of the market), there was one other major player, Lyons Maid, with about 20% of the market, and several smaller specialist and regional producers<sup>27</sup>. Similarly, while across the various countries of the E.U. Unilever was typically the largest supplier, in no other market than Ireland did it even approach a market share of 80%. Evidence was also introduced concerning the market in the U.S. which was of considerable importance. The U.S. market, of course, differs considerably from the Irish and other European markets in two aspects. The first is the structure: concentration among producers is lower for products such as those with which this case was concerned, and is generally lower than in Western Europe<sup>28</sup>. Secondly, the predominance of wrapped ice-cream bars in Europe is absent in the U.S.

In one respect, however, there was a feature that was common to European markets on the one hand and the U.S. market for wrapped products on the other. This was the widespread practice of variants on the freezer exclusivity practice of which Mars complained in its Irish High Court action. In particular, it was noted that even relatively small scale ice-cream distribution systems in the U.S. made use of freezer exclusivity contracts as part of normal business practices. In the eyes of the court this was a serious weakness in the case being presented to support the argument that H.B. had adopted a price bundling strategy designed to foreclose the market along the lines analyzed by Whinston, a strategy designed to raise rivals' costs.

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<sup>27</sup> The U.K. market had been the subject of an investigation by the Monopolies and Mergers Commission in the late 1970s. The M.M.C. issued a report on the industry in 1979: *"Ice Cream and Water Ices: a Report on the Supply in the United Kingdom of Ice Cream and Water Ices"*; Cmnd. 7632, London, H.M. Stationery Office, 1979. This report broadly accepted the arguments advanced by Unilever on the superior ability of the distributor to deal with the freezer-related costs of supply and the relatively higher risk borne by a small-scale retailer if he provided his own freezer, as well as the arguments on distribution economies from supplying into controlled freezers. In one respect the position in the U.K. (including Northern Ireland) differed from that in the Republic: the distributors imposed a nominal charge on retailers accepting a freezer. This was a very small fraction of the cost of the freezer service to the supplier (about \$20 per annum), and was materially unimportant.

<sup>28</sup> The evidence given in court suggested that there were at that time four more or less national producers, and several regional producers.

The organization of the U.S. market, however, does differ substantially in one respect from that of the Irish market (and to a considerable extent other E.U. markets). That is the forward integration of manufacturing into distribution. In Ireland nearly all the distribution of ice-cream to retail outlets is undertaken by the manufacturer. In some, more remote areas H.B. made use of independent distributors having freezer truck capacity. Even where they operated (a very small percentage of the market by volume) the freezer exclusivity arrangements operated: H.B.'s distributor agents were supplying in the main into H.B. owned freezers. The other suppliers operated on a similar basis. There did not exist, therefore, an independent supply of distribution services for ice-cream products. The evidence from the U.S. was of the existence of an independent distribution stage. While regional manufacturers did have integrated distribution systems, the national brands were largely distributed by independent distributors. The independent distributors and the regional producers distributors typically operated freezer exclusivity with retail outlets. An entrant manufacturer could, however, acquire distribution without establishing an integrated distribution system.

This aspect of the industry was not addressed by Mars in its complaint, possibly because it, too, had adopted an integrated distribution strategy. The integration of manufacturing and distribution when one firm has 70% plus of the market obviously raises the same kind of issue that freezer ownership raised.

The U.S. and other markets (and commonsense) demonstrate fairly conclusively that there are substantial distribution economies to be derived from selling product into controlled freezers. A distribution chain for an unstable product which was artificially terminated outside the door of the retail establishment made very little sense. This, however, does not explain the forward integration from manufacturing into distribution<sup>29</sup>. The evidence from the U.S. was that there existed a well developed market in distribution of ice-cream products, complemented in some areas by manufacturer-owned distribution systems. In terms of the

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<sup>29</sup> By way of illustration, Guinness, whose eponymous beverage commands between 80% and 90% of sales of stout in Ireland, have been moving from own to contract supply of distribution services. They do, however, retain control of the dispensing units in the bars and pubs into which the beer is sold.

contestability of the market for ice-cream products, this must be seen as being an arrangement which favoured entry, since a potential entrant would not have to enter the distribution market in order to enter the manufacturing market.

Why was distribution integrated into manufacturing in Ireland (and to a considerable extent in the rest of the E.U.)? If forward integration could have been shown to be a strategy adopted by H.B. when its market share reached some critical point the plausibility of the strategic entry barrier hypothesis would be enhanced. Again, unfortunately, the historical record simply does not bear out this proposition.

H.B. is the successor firm, formed from mergers and acquisitions, to a fairly large number of small ice-cream manufacturers. In the 1950s, in the city of Dublin, which had a population of about 500,000 at the time, there were at least a half dozen firms in the market, of which H.B. was the largest. Each of these operated its own integrated distribution system, based on freezer exclusivity. Since it might reasonably be presumed that there might be scale economies in distribution, the structure of the industry needs some explaining, especially given the counter example of the U.S.

It is not plausible to suggest that the integrated distribution system was an entry deterring device: raising rivals' costs is costly, and for one firm to adopt a deterrent strategy would be to incur costs while allowing others to free ride on the benefits in an unconcentrated market.

There is, however, a simple explanation for the integration of distribution into manufacturing. In the 1950s virtually the only food product sold frozen in Ireland was ice-cream. That in turn reflected the fact that household freezers were still virtually unknown. Food for deferred consumption was either canned or bottled or dried. A minority of households owned a refrigerator up to about 1960. Consequently, the only effective demand for frozen distribution capacity was for ice-cream, a highly seasonal product. The incentive to enter the market for frozen distribution was rather low in these circumstances, which meant that a manufacturer was obliged to make his own distribution arrangements. Hence, manufacturers integrated forward into distribution. As the integrated firms coalesced in the

1960s and 1970s, with H.B. emerging as the main survivor, the scale economies in distribution were captured within the merged firms, with a corresponding decline in the residual demand for independent distribution.

### The Outcome: (a) the High Court Decision.

The High Court approached the issues in terms of the compatibility of the freezer agreements as a vertical restriction with the requirements of the Treaty under Articles 85 and 86. Such restrictions, it has been accepted by the ECJ, do not offend per se against Article 85<sup>30</sup>. The court held that a rule of reason approach was appropriate in relation to Article 85, citing well known U.S. jurisprudence under the Sherman Act<sup>31</sup>. Interestingly, this was held despite the recognition by the court that the case for a rule of reason approach under Article 85 was inherently weaker than under the Sherman Act, and that the basis of what is to be seen as reasonable may differ as between the U.S. and Europe:

*"In considering the applicability of the "rule of reason" approach to Article 85, the differences between the United States and the European Community must be borne in mind. One of the principal objectives - some might say the paramount objective - of the Treaty is the integration of the common market. In the U.S. an integrated market and a single currency already exists. Moreover, the bald formula of the Sherman Act has already been noted: it is in stark contrast to the elaborate detail of Article 85. In particular, the machinery operated by the Commission of negative clearances and exemptions, including bloc exemptions, has no parallel in U.S. anti-trust law<sup>32</sup>. There is thus less incentive for the Court of Justice to adopt a "rule of reason" approach."*

<sup>30</sup> *Brasserie de Haecht v Wilkin*; [1967] ECR 407; also, *Pronuptia de Paris GmbH v Pronuptia de Paris Irmgard Scillgalis*; [1986] 1 CMLR 414.

<sup>31</sup> Keane J. cited *Chicago Board of Trade v U.S.*, [1918] 246 U.S. 231, *Standard Oil v U.S.*, [1911] 221 U.S. 1, and *G.T.E. v Sylvania*, [1977] 433 U.S. 36.

<sup>32</sup> This may be a slight exaggeration if Merger Guidelines are covered by what the judge had in mind.



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As regards Article 86, and the issue of abuse of dominance, the Irish court followed ECJ precedent in finding that H.B. was indeed dominant by virtue of the characteristics of the products concerned and its integrated operations<sup>33</sup> and its position as an "unavoidable trading partner", as the market brand leader<sup>34</sup>. Although Article 86 does not provide for "escape clauses" (a sort of statutory rule of reason provision) as contained in Article 85, the court noted that the question of whether a particular practice should be considered to be an abuse of dominance will be affected by whether or not the practice can be "objectively justified". The ECJ had established that, in connection with non-linear pricing, whether or not such a system was an abuse might depend on whether such practices

*"...are likely to affect the structure of a market where, as a direct result of the presence of the undertaking in question, competition has already been weakened and which, through recourse to methods differen from those governing normal competition in products or services based on traders' performance, have the effect of hindering the maintenance or development of the level of competition still existing in the market."*<sup>35</sup>  
(Keane J.'s emphasis).

In economics terms, this means that if a pricing policy would be adopted in the absence of the existence of market power, and if it does not further enhance the market power of the firm which adopts it, it does not per se constitute an abuse of dominance. This was reinforced by the persuasive opinion of the Advocate General of the ECJ that the impact on the number of competitors alone was insufficient to decide whether or not a practice was abusive: a dominant position per se is not offensive, and if it resulted or was enhanced by normal competitive behaviour that could not be said to demonstrate an abuse of dominance:

<sup>33</sup> Here it was following *United Brands v Commission* [1978] ECR 207. In addition to the definition of dominance already described, the ECJ in this case also decided that United Brands was dominant because of the large scale and high degree of vertical integration of its operations.

<sup>34</sup> *Hoffman-Laroche v Commission*, [1979] 3 CML 274.

<sup>35</sup> *NV Nederlandsche Banden-Industrie Michelin v Commission*, [1983] ECR 3461 (commonly cited as the Michelin case).

*"The EEC Treaty does not require the undertaking in a dominant position to act in a way which makes no economic sense and is against its legitimate interest"*<sup>36</sup>.

On the question of a breach of Article 85 in object, the court held that while the freezer exclusivity contracts were a vertical agreement, and therefore a vertical restriction, they did not provide for market partitioning or for price fixing; they did not constitute exclusive distribution agreements, nor were they comparable to selective distribution agreements such as motor dealerships. They had legitimate competitive objectives: control of access to H.B.'s freezers, and distribution economies. Consequently, the case that they had a restrictive intention as described by Article 85 was unproved<sup>37</sup>. As regards effect, the judge stated that if they had such an effect it would constitute an abuse of dominance and dealt with the agreements' effects in that context.

Abuse of dominance was treated under the heading of the creation of barriers to entry. The court explicitly considered whether the agreements could be treated as a strategic entry deterrence device. In terms of object, it accepted that freezer exclusivity was a strategy adopted by the firms which had merged to form H.B., and had not been adopted by H.B. as a dominant incumbent. It did not, therefore, make sense to treat them as having the object of deterring entry. The same applied to the question of bundling and tying. Effect, however, might be a different matter.

Where effect was concerned, the court held that the degree of penetration achieved by Mars did not substantiate their claim that the market, or a major part of it, was foreclosed. The key passage in his judgement was the following:

*"Undoubtedly, it would be easier for new entrants to become established in the market if freezer exclusivity and/or price 'bundling' were abandoned by H.B....But the same, no doubt, could be said if H.B. were forced to reduce drastically the huge amounts they spend on advertising and promotion. It may*

<sup>36</sup> A.G.Kirschner in *Tetra-Pak Rausing SA v Commission*, [1991] 4 CMLR 334.

<sup>37</sup> He also dismissed the complaint that the agreements imposed "ancillary" requirements on retailers, i.e., forced them to act in a way which was not necessitated in order to achieve normal commercial goals.

*well be said that strategies adopted by a firm in a dominant position will prevent competitors from eroding its market power: that is what they are intended to do. But to say that for that reason alone they contravene Article 86 is to treat the existence of the dominant position itself as a contravention of the Treaty."*

He dismissed the complaint that H.B.'s freezer exclusivity contracts were in effect abusive of dominance as unproved, and hence that they failed the effect test under Article 85.

### (b) The Compromise Settlement with the EU Commission

Having lost their case in the High Court, Mars appealed to the Irish Supreme Court. As of mid 1995 that appeal had not been heard. In the mean time they pressed their case with the EC Commission, seeking a determination that the arrangements in Ireland were in breach of Article 85 and 86. As is common in Europe in such cases, H.B. responded by negotiating with the Commission, submitting considered replies to the points made by the Commission in its Statement of Objection which was issued some time after the High Court decision. In March, 1995, while Mars' appeal to the Irish Supreme Court was still pending, it was announced that a compromise settlement had been reached between H.B. and the Commission. As will be seen, the terms of this settlement were regarded as surprising in the light of the contents of the Statement of Objection issued by the Commission after it had considered Mars' complaint and conducted its own investigation of the Irish ice-cream market.

The Statement of Objection (a form of preliminary finding) took exception to the freezer exclusivity contracts more or less for the reasons contained in the original complaint. It accepted Mars' assertion that the effect of the freezer contracts was to foreclose a significant portion of the Irish market to a potential entrant in principle and to Mars in fact. It considered that the freezer terms involved price bundling and cross-subsidisation which would raise entry costs. These would constitute a prima facie case for finding the contracts offensive under Articles 85 and 86 of the Rome Treaty. The implication of these findings was that

Unilever would have to choose between abandoning the freezer exclusivity contracts, fighting the Commission (initially in the European Court of First Instance (CFI), and possibly subsequently in the European Court of Justice as the final court of appeal) while simultaneously defending against an appeal by Mars in Ireland to the Supreme Court<sup>38</sup>, or reaching an agreed compromise with the Commission. Not surprisingly, H.B. chose to negotiate while leaving open the possibility of going to the CFI.

When the results of the negotiations became known, the principal features were as follows:

- (i) H.B. agreed to sell at attractive terms 1,750 small freezers in the smallest outlets; if an outlet took up this offer, exclusivity would lapse; this would cover about 12% of total outlets by number, but significantly less, probably about 5%, when weighted by volume.
- (ii) H.B. agreed to offer freezers on a 5-year deferred payment arrangement to outlets not covered by (i); for the duration of the contract exclusivity would apply, and would lapse after 5 years;
- (iii) H.B. agreed to make a rebate of £78 per annum to outlets which supplied their own freezers provided ice-cream sales exceeded £650 per annum (at wholesale prices);
- (iv) H.B. were permitted subject to (i) to (iii) to continue to offer "free" freezers subject to exclusivity and to charge a single price for supply.

It is hard to avoid the conclusion that this compromise was in effect a win (on points, perhaps, rather than a knock-out) for H.B. and its parent, Unilever. The concession at (i) is unlikely to increase in any serious way the ability of a new entrant to achieve a viable market share even if fully taken up by the retail outlets affected. Under point (ii) an outlet which chooses to take a freezer under a hire-purchase contract will obtain a freezer at a lower cost than at present possible because H.B. can supply at a lower price. Despite this, its net cash flow will be lower than if it accepted a free freezer. Furthermore, any disadvantages attached

<sup>38</sup> This raised interesting legal questions, since the Irish court was entitled to reach a decision, from which the only appeal was to the ECJ. Further, the Irish court was empowered independently to refer the case to the ECJ under Article 177 of the Treaty. Thus, H.B. were in effect obliged to defend themselves simultaneously in two legal systems, the end of which in both cases was the ECJ. Apart from the considerable expense involved, prima facie this offended against the doctrine of *non bis in eadem*.

to exclusivity will continue for approximately half the prospective life of the freezer, while the outlet will face the problem of (probabilistically) higher maintenance charges on a steady state own freezer capacity (because it will be in all cases at least five years old), and in the short run will not even get the advantage of the discount at (iii). The discount at (iii) it will be noted, declines asymptotically as outlet sales increase by volume and/or by value. Any incentive to move to owning freezers, therefore, declines with the sales revenue of the outlet concerned. Finally, the compromise permits H.B. to continue to offer the "bundled" ice-cream plus freezer contract subject only to (iii). The inevitable conclusion has to be that the outcome of the dispute with the Commission in the Irish case leaves H.B./Unilever very close to where it began four years previously...except of course, for legal bills likely to top \$1 million.

## Conclusions

The EU Commission did not publish its reasons for agreeing to the compromise reached with H.B. It has to be a matter for speculation as to whether this outcome represents what the Commission feels is the correct outcome, given the information at its disposal, or whether it represents the furthest it felt it could go towards achieving what was implicit in the S.O. in the light of the existing Irish High Court decision. The only reasoned decision remains that of the Irish court, and as such is of weight in terms of precedent, and needs to be analyzed carefully in terms of its economic rationale.

The basis for the High Court's rejection of the Mars complaint was as follows: Mars did not, in the Court's view, establish in terms of the balance of the probabilities that the object or effect of the freezer exclusivity arrangements was to restrict competition and/or to foreclose the market; to order H.B. to desist (as was sought by Mars) from enforcing the exclusivity aspect of the contracts with retailers would in effect deprive H.B. of its property rights in the freezers; this would offend against Article 222 of the Treaty (which deals with protection of property rights). The failure of Mars lay in the existence of a plausible alternative explanation of the object of the arrangement between H.B. and the retail outlets, the fact that the arrangement had been inherited from a time when the market was much more fragmented

(i.e., was not designed by a firm with market power) and the evidence on the question of fact concerning foreclosure and market penetration.

It will be noted that the judge did not directly address the economic logic of the cases made by the plaintiffs' witnesses or the rebuttals offered by economists for the defence. The economic case presented by Mars rested on the economics of bundling, tying and cross-subsidisation as devices to restrict competition and/or to foreclose markets. The defence rested on demonstrating the existence of non-strategic motivation for such arrangements, criticisms of the factual evidence introduced by Mars and of some aspects of the logic of the plaintiffs' economic case<sup>39</sup>.

The judge did not consider the question as to whether, even if it inherited the freezer exclusivity arrangements (so that they were not designed with foreclosure in mind), H.B.'s implicit decision not to abandon them might have had some strategic motivation in terms of market foreclosure. In fairness, this case was not made to him. Hence, it could be said that the elimination of the "object" of the arrangements as offensive by the judge may have been based on an imperfect analysis of the position. In the end, however, the analysis above suggests that such a case, had it been made, would have been shown to be unconvincing: tying and bundling in the circumstances of the ice-cream market would not have produced the market foreclosure effect described by Whinston. Similarly, the factual evidence that distributors in many (most?) markets install freezers subject to exclusivity (and bundle product and freezer prices) contributed substantially to the case made by H.B. as to the efficiency aspects of their arrangements. The court did not consider whether the fact that the

<sup>39</sup> For example, the plaintiffs claimed that one of the effects of the freezer contracts was a form of price discrimination, with retailers who supplied their own cabinets paying a higher price for their ice-cream supplies, while those who took H.B. freezers paid less. H.B., it was stated, were cross subsidising the latter group from the former in order to deter entry. Since the former were predominantly larger retailers with higher sales while the latter were disproportionately small and marginal retail outlets, such a pricing scheme would have the opposite effect from that claimed, and was contrary to what would be suggested by any non-strategic approach to profit maximization. To charge a higher (implicit) price in the more open segment of the market than in the more closed one would not help foreclose the market.



manufacturer was integrated forward into distribution might have any bearing on the effects of the exclusivity contracts<sup>40</sup>.

Once again, this was not pleaded by Mars, so it was not a case of a judge disregarding the evidence, but of the judge being limited to considering the case actually submitted by either side. It clearly calls into question the appropriateness of an untrammelled adversarial system for dealing with competition and anti-trust proceedings. Independent expert evaluation of cases would clearly be helpful to judges who, initially at any rate, are very inexperienced in dealing with economic modes of argument and statistical and econometric evidence<sup>41</sup>.

#### **Post-Script: New Entrants to the Market.**

Whether or not the object of the exclusivity contracts was to create barriers to entry, recent developments in the Irish impulse ice-cream market suggest strongly that any such effect is very weak. Not only has Haagen-Dazs succeeded in entering the impulse market, developed from its success in super-market sales of take-home luxury products, but since 1994 Nestle have imitated the strategy of Mars. Nestle took over the U.K. ambient temperature confectionery producer, Rowntree, in the early 1990s. By general agreement, the price paid by Nestle reflected the value of Rowntree's brands, especially "Smarties" and "KitKat". In 1994, in exactly the same fashion as Mars several years earlier, Nestle introduced frozen confectionery impulse products based on several of the successful brands they had acquired with the purchase of Rowntree. These they marketed, supplying freezers to outlets. The

<sup>40</sup> This was not because the court was unaware of the facts. The judge, indeed, specifically mentioned this aspect of the case in rationalising his decision to treat H.B. as dominant, using the precedent of the *United Brands* case, in which the ECJ regarded the vertical integration of manufacturing, transporting and ripening of bananas as contributing to the dominant position of United Brands.

<sup>41</sup> In this context, it should be noted that proposed reforms to the Irish competition law regime will have the effect of moving some distance in this direction.

market penetration of Rowntree and Haagen-Dazs is considerably less than that of Mars...but the product range in both cases is more limited, and, in any case if first mover advantage means anything in such circumstances one would expect later entrants to achieve market share with greater difficulty. The point, however, is that for large scale entrants, at least, freezer exclusivity did not constitute an effective method of foreclosing the relevant market.

### Appendix: Tying, Bundling and Foreclosure in Complementary Markets

In this appendix we present the relevant models analyzed by Whinston, with some minor modifications in argument and assumptions, and apply the results to the ice-cream market.

In Part III of Whinston's 1990 paper the following situation is analyzed. An incumbent firm with market power, I, produces a good, A, which requires the availability of another product, B, if it is to be consumed. I has the option of producing A only, relying on other producers to produce B, producing A and B and selling them independently or producing A and B and selling them at a bundled price, with or without tying. Tying implies a mechanism whereby it is not possible to purchase A from I without purchasing B as well. Unlike standard Chicago treatment of tying, the B good is not produced under constant returns, but is produced by one other producer. This other producer, II, can also produce an imperfect substitute for I's A good ( $A_1$ ),  $A_2$ .

In Whinston's model,  $A_2$  is treated as inferior to  $A_1$ , but in effect this can be thought of as imperfect substitutability. The inferiority is indicated by an assumption that if I charges the reservation price,  $\pi$ , for  $A_1$ , II will be able to sell  $A_2$  only if it charges a price equal to marginal cost of producing A which is assumed to be the same for both firms. Clearly, if I is a monopolist *stricto sensu* in production of A it has no incentive to foreclose the B market since it can extract all the monopoly rents from selling A at its reservation price. Furthermore, since B is a complement to A, demand for A increases with availability of B. This aspect is enhanced in Whinston's model by the specification that each unit of A requires a unit of B in order to be consumed, but nothing will be lost by relaxing this to merely requiring that demand for A should increase with sales of B. Now assume Bertrand competition, so that B is sold at a price equal to (constant) marginal cost by both producers. Profits from producing A are now independent of the identity of the producer(s) of B.

When II is assumed to present a challenge to I's position in the A market, this position changes. If I sells  $A_1$  at its reservation price,  $\pi$ , II will obtain an indeterminate share of the market at a price for  $A_2$  of  $c_A$ , the marginal cost of A. Demand for  $A_1$  is no longer strictly

increasing in supply of B. II can, however, be foreclosed from the A market and B market if I opts to pre-commit to supplying  $A_1$  and B at a bundled price and on a tied basis.

The exclusionary bundled price,  $\pi^*$ , is given by the inequality

$$\pi^* < \pi + c_B$$

At any such price if II offers product at a price of  $c_B$ , he must sell a unit of B at a price less than  $c_B$ , and incur a loss. Equally, if he covers his costs on B sales he will have to sell  $A_2$  at less than cost. Hence, if I credibly pre-commits to selling A and B on a tied and bundled basis the optimal strategy for B is not to enter either market. In effect, bundling and tying is an effective entry deterring strategy.

It would obviously be possible to adapt this model to fit the Mars and H.B. case. The inferiority margin equal to the difference between the reservation price for  $A_1$  and its production cost could be replaced by some constant leaving positive profits for Mars on any sales of its product,  $A_2$ , when H.B. sold  $A_1$  at its reservation price. The exclusionary bundled price would have to be correspondingly lowered, but H.B. could still be certain of being able to choose a bundled price which would yield positive profits while excluding Mars. Indeed, instead of discussing inferiority, the model could simply assume some first mover advantage on the demand side.

The key to the success of the strategy lies in tying. By tying  $A_1$  and  $B_1$  I ensures that a consumer who wishes to consume his A product has to consume his B product. Since, in Whinston's case it is assumed that the two goods are consumed in fixed proportions, the inability of a consumer to purchase B from I without purchasing A from him, too, means that to sell a unit of  $A_2$  requires that II also sell a unit of  $B_2$ . The core of the Mars allegation in the ice-cream case was that to enter the ice-cream market would require simultaneously entering the freezer market, but this market was already foreclosed (there being no market for freezer space), and the pricing strategy of H.B. was designed to ensure that a potential entrant's expected post entry profits were reduced sufficiently either to deter entry or to limit market penetration.



Consider, however, what happens if (a) we relax the complementarity constraint from fixed proportions to general complementarity; (b) assume the existence of other suppliers of the B product.

In the first case, bundling becomes a less well defined concept, since, marginally at least, A goods can be consumed without alteration of the volume of B goods purchased. Hence, all that the supplier of either can do is bundle prices unless he restricts sales of his A good to purchasers of his B good by some contractual device. If he cannot, or does not choose to, impose such a restriction, bundling and tying are quite different things, and bundling does not prevent a purchaser of his A good from also purchasing the other supplier's A good if he takes a B good from the other supplier, too. Whinston's conclusion, it seems, depends on the strict complementarity in purchase of the A and B goods, which clearly does not hold where ice-cream sales are concerned. In fact, H.B., while selling ice-cream and freezer services at one bundled price (by supplying the freezer at no charge) did not tie: (i) in the strict sense, since volume of ice-cream purchases by a retailer was not connected to volume of purchase of freezer space from H.B., and (ii) in the ordinary sense, since H.B. would supply ice-cream (albeit at the same price) if no freezer was taken by the retailer. This was undoubtedly an incentive to take a freezer, but, as noted in the text of this paper, one which declined with expected volume of retail sales. Any residual tying effect of the pricing arrangement declined with the importance of the retail outlet to H.B., which is hardly consistent with a strategy of tying to foreclose the market.

If we now assume there are other actual or potential suppliers of the B product (roughly, that B is available on competitive basis) there are no sunk costs for II in entering the B market, since it can acquire B goods at cost from existing suppliers and bundle them with its A good. Bundling by I at a price sufficiently low to keep II out of the A market is analytically identical to selling A and B goods independently, but pricing the A good at a level low enough to leave no expected profit for an entrant...entry limit pricing. Bundling and tying does not increase I's expected profits relative to an independent pricing game. In the Irish ice-cream market independent supply of freezer capacity on demand was a reasonable assumption: (a) Ireland is a small trading economy, so that supply via imports may be assumed; (b) there existed manufacturers of freezers who could (and did) supply to retailers

(although supply prices did reflect quantity). This is not strictly the same as a constant cost, competitive supply availability, but it is close enough to raise the question as to whether it is plausible to abandon the Chicago assumption in analyzing the motivation for bundling.