CHAPTER 6

MULTIMARKET COMPETITION:
Entry Strategies and Entry Deterrence When the Entrant
Has a Home Market

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Abstract

The multimarket perspective identifies potential entrants as existing firms in related markets, which may be regional markets of a homogeneous good or different product markets that are related technically or by goodwill. The chapter uses this framework to analyze entry strategies and entry deterrence. Successful entry and entry-deterring strategies require understanding of the feedbacks from the entry market to the home market and vice versa. In order to deter entry an incumbent firm may, for example, shift the battleground from his own home market to the entrant's. The multimarket perspective pulls together insights from industrial organization and strategic management.

1. Introduction

Potential entry is a challenge to strategic management (SM) as it raises issues such as the identification of potential entrants, the selection of entry markets and the scale of entry. SM theory recognizes the key importance of potential entry (Porter, 1980; Watson, 1982; Yip, 1982). This is an area where industrial organization (IO) has made many useful contributions, beginning with Bain (1956) and Sylos-Labini (1962). Yet it can be argued that the mainstream of IO centers on entry by new firms (Kottke, 1962). If, however, potential entrants are existing firms, their home market can be of crucial importance to their entry strategies. There is a steady flow of literature within IO and SM which emphasizes this point. This literature, however, is scattered and no consistent terminology is used. The aim of this chapter

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is to discuss concepts and insights that may help to integrate this field. Thus the chapter contributes to the exploration of the IO - SM interface, following the advice of Porter (1981), Caves (1984), Teece (1984), Camerer (1985), Shapiro (1989) and Thépot and Thiétart (1991).

The ease of entry approach emphasizes the advantages which an existing firm entrant derives from her home market (Andrews, 1949, 1964; Hines, 1957; Brunner, 1961; Kottke, 1962; Yip, 1982). Intangible assets which the firm has developed or acquired in her home market, can be transferred at low extra cost to an entry market. Examples are R&D know how, patents, and goodwill. Moreover, idle productive resources can be transferred to an entry market. In both cases the firm economizes on entry costs relative to a new or unrelated firm entrant, who has to start up an entry activity from scratch. Thus existing firms with related resources have a competitive advantage over other potential entrants. They can enter a market even if entry barriers exist which deter entry by others. They exert a competitive pressure on incumbent firms which is more intense than can be expected from new or unrelated firms.

The aim of this chapter is to pull together these and other disparate insights. The theory of multiamarket competition which emerges, informs IO and SM alike (Van Witteloostuijn and Van Wegberg, 1991a, 1991b). The key feature of multiamarket competition is that inside (that is, from within the set of related markets) rivals are able to (relatively quickly) overcome barriers which are unsurmountable to outside (that is, from outside the set of related markets) entrants. The perspectives opened up by this literature are, as we will point out, relevant for decision making by multinational, diversified and integrated enterprises.

The chapter is organized as follows. First the chapter reviews pieces of multiamarket theory within IO and SM. Next we review empirical evidence. SM theorists discuss illuminating case studies: we also present a new, tentative case study. This confirms the relevance of the models of multiamarket competition to SM. Finally, the chapter presents a conceptual framework for entry deterrence and entry strategies. The conclusion identifies adjacent literature. Following current practice, we refer to the incumbent firm with 'he' and to a potential entrant with 'she'.

2. Competition in a multiamarket environment

2.1. Multiple markets

Porter's (1980) famous schedule of 'Forces Driving Industry Competition' identifies five sources of (potential) competition. His concept of extended rivalry encompasses rivalry with other incumbent firms, threats of substitutes, potential entry and bargaining power of suppliers and buyers. These sources refer to markets in which
firms operate. Each incumbent firm buys inputs in input markets and sells output in output markets. The firm's suppliers and buyers not only exert bargaining power, but they are also potential entrants if they can consider to integrate forward or backward. Substitutes can be demand substitutes, if a technically different product serves similar needs, or technical substitutes, if an existing supplier can switch production from the substitute to the incumbent firm's product. The latter activity is a form of entry. Thus the forces of potential competition which an incumbent firm faces are related to the constellation of markets in which he operates. Figure 1 illustrates this.

![Diagram](image)

**Figure 1**

*Multiple Markets*

Figure 1 assumes that multimeter strategies (diversification and integration) and multimeter spillovers can be defined in terms of location and product. For example, I1, I2 and I3 indicate different product markets (IV and V depict horizontal product diversification and/or spillover), whereas I2, I4 and I5 are different geographical markets (IX and X denote horizontal geographical diversification and/or spillover). Broadly speaking, from the viewpoint of a firm in an intermediate market I2 five categories of multimeter strategies/spillovers can be distinguished: (1) forward
diversifying integration/spillover (I and III), (2) forward downstream integration/spillover (II), (3) horizontal diversification/spillover (IV and V), (4) backward diversifying integration/spillover (VI and VII) and backward upstream integration/spillover (VIII). The five broad categories of strategies and spillovers can be used as a heuristic device so as to distinguish pure cases.

Figure 1 makes clear that multimarket competition is related to many different branches of literature. Worthy of mention is the literature on diversification (Ramanujam and Varadarajan, 1989; Thépot, 1991), integration (Caves and Bradburd, 1988; Krickx, 1991), multiproduct firms (Teece, 1982; Shaked and Sutton, 1990), multimarket oligopoly (Bulow, Geanakoplos and Klemperer, 1985; Lal and Matutes, 1990), multinational enterprise (Caves, 1982; Dunning, 1989), interbrand competition (Judd, 1985; Sullivan, 1990), transaction costs (Williamson, 1989; Boone and Verbeke, 1991) and international trade (Brander and Krugman, 1983; Venables, 1990). This chapter can of course only refer to illustrative examples. To support the argument, a selection of exemplary pieces of literature is mentioned when convenient. By and large, this chapter's argument on strategy is concentrated on horizontal multimarket competition that ensues from diversification.

2.2. Multiple games

Competition can be associated with three categories of games. Figure 2 depicts the three games.

![Diagram of multimarket competition]

**Figure 2**

**Multimarket Competition**

First, incumbent firms play an incumbents against incumbents game: only internal market conditions determine competition (actual rivalry). This type of game is studied in the well-established theories of (im)perfect competition without (free) entry (Shapiro, 1989b). Second, incumbent firms and potential entrants are engaged
in an incumbents against entrants game: external conditions dominate over internal competition (potential rivalry). The entry (deterrence) literature focuses on the features and implications of this category of games (Gilbert, 1989). Third, potential rivals are the players in an entrants against entrants game: multiple potential entrants have to coordinate (implicitly or explicitly) simultaneous entry decisions (entry rivalry). This game is explored only sporadically (Nii, 1989). This chapter focuses on the incumbents against entrants game, where multimarket competition is in force if the entrant is an existing firm.

2.3. Scale and mode of entry

Two important determinants of the force of potential competition are the scale and mode of entry. Large-scale (or total) entry occurs if the entrant underprices (and, in the limit, threatens to fully replace) the incumbent firm, which triggers retaliation strategies by the incumbent firm such that his post-entry behavior differs qualitatively from his pre-entry conduct. Small-scale (or partial) entry indicates that the entrant merely disposes part of her excess capacity by temporary or niche entry without inducing a significant threat to the incumbent firm’s market share. The dynamic features of the process follow from the response lags of firms. The entry process involves lags: particularly worth noting are the entry lag and the incumbent firm’s response lags in his own home market respectively the entrant’s home market (the reciprocal entry lag).

Porter (1980) distinguishes two modes of entry for an existing firm. In the case of internal entry the entrant brings new production capacity, distribution networks, and know how to the market. In the case of entry by acquisition, the entrant uses productive and other resources which are already there: the entrant may instead contribute financial means and general managerial skills. In this chapter we focus on internal, large-scale entry by firms which introduce their own resources and skills into the entry market. This entry confronts the potential entrant with four types of feedback between her home and entry market.

2.4. Resource economizing entry

The prime feedback from entry on home market is that both markets compete for the entrant’s resources. An existing firm owns resources, which she can divert from her home market to the entry market. The pro of this strategy is that by using existing resources, she economizes on entry costs. This entails a competitive advantage relative to a new firm entrant. Using existing resources, however, does involve costs. First of all there are adjustment costs in production when switching from the current good to a technical substitute to be sold in a different product market. Alternatively, there can be transport costs in exporting the product from the home base to another region or country. Entry is easy if the adjustment or transport cost is low (Calem, 1988). Diverging productive resources away from the home market also entails a cost in the sense of home market profits foregone. This is the opportunity
cost of entry. The case with a binding capacity constraint offers an example. With binding capacity, goods exported to an entry market are withheld from the home market. The home market revenues foregone constitute the opportunity cost of entry (Bulow et al., 1985; Calem, 1988). The opportunity cost depends on, first, the scale at which resources are diverted and, second, the profitability of using these resources in the home market. Home market profitability, in turn, follows from many conditions. Competition is one of them. For example, entry into the home market changes home market revenues and so affects the level of home market profits foregone if the incumbent firm enters into another market. All this is to say that the opportunity cost of entry is endogenous.

A usual assumption within IO is that the opportunity cost of entry is zero. In our context (existing firm entry) that means that no home market profits are foregone for the sake of entry. This is the case where excess resources are used. Since they are not being utilized for the home market, using excess resources for an entry project does not inflict a loss upon the entrant's home market (Cairns and Mahabir, 1988). Another case is where resources have a public good character. Intangible assets, such as know how, consumer goodwill and management skills, may have this characteristic (Teece, 1980, 1982). For example, using R&D know how for an entry market does not diminish per se the amount of know how available for the home market. These competitive advantages point to cases where the most credible entry threat comes from existing rather than new firms.

2.5. Multimarket spillovers

A second major feedback from entry on the home market is that the entry activities can be associated with positive and/or negative multimarket spillovers. Multimarket spillovers are defined as externalities between two or more markets: that is, the payoffs in market A have an impact on the payoffs in market B and vice versa. Note that positive (negative) multimarket spillovers, as opposed to economized entry cost, increase (decrease) the overall profit of the entrant beyond (below) the entry profit per se (Porter, 1980). The key point is that multimarket spillovers can exert influence on strategy choice. To be precise, the opportunity to exploit (or danger to incur) multimarket spillovers can be an important motive for (refraining from) entry. For example, positive spillovers, ceteris paribus, lower entry barriers to inside firms (but increase outside firm barriers). This observation is also recognized in literature on diversification, multiproduct firm, integration and multinational enterprise. An early example of a list of sources of multimarket spillovers is Hines (1957). Table 1 lists illuminating examples.
Table 1

Multimarket Spillovers

Bulow et al. (1985) distinguish two multimarket spillover effects. Multimarket supply spillovers include (dis)economies of scale or scope between products in separate markets. Joint economies imply that a firm can decrease unit production cost of product A in market 1 by increasing supply of product A (scale economies) or B (scope economies) in market 2. Integration advantages are a second example where operating in two separate (vertically integrated) markets conveys positive spillovers between both activities (Brunner, 1961).

Multimarket demand spillovers include goodwill in the home market which carries over to the entry market. These spillovers arise if the same buyers are active in several product markets. The strategy of firms in market 2 influences the scale of demand in market 1 (and vice versa) due to a nonzero cross-elasticity of demand. The multimarket demand spillover 'is positive if a firm's demand in one market is complementary to its demand in the second ... and would be negative if selling more in one market hurts prospects in the other' (Bulow et al., 1985).

That is, complements are associated with a positive demand dependency (video recorders and cassette) whereas the demands of substitutes are negatively correlated (public and private transport). If positive multimarket spillovers dominate, entry increases the overall profits of the entrant beyond the entry profits per se (Porter, 1980).

The key point is that multimarket spillover effects can have important implications for multimarket competition. Table 1's list of examples is of course not exhaustive. For instance, Caves (1982) summarizes spillovers in the context of multinational
enterprise and Teece (1982) lists multimarket externalities which diversified firms can exploit. A key argument in this literature points to exploitation of (excess) fungible and intangible assets as an explanation of (international) diversification (for example, R&D capabilities, marketing facilities, know how, managerial skills, etcetera). An illustrative example in the IO-tradition is the impact of imputation spillovers (Dranove and Tan, 1990; Green and Laffont, 1990). This indicates that multimarket spillover effects need not to be restricted to tangible factors.

2.5. One-sided and reciprocal entry

Calem (1988) explicitly offers two economic rationales for one-sided entry. First, the incumbent firm's entry cost is sufficiently large to trigger his decision to refrain from entering the potential entrant's market (Calem, 1988). Second, legal or regulatory barriers exist which prevent incumbent firms from being potential entrant into the rival's market (Calem, 1988). However, one-sided entry is far from the only plausible case (Venables 1990). Inside firms can exert a reciprocal entry threat (Porter, 1980; Calem, 1988). So, a third feedback arises if the incumbent firm in the entry market retaliates in the entrant's home market. Attempts in this direction are key elements in understanding strategic behavior in multimarket competition. Porter (1980) summarizes the strategic implications by arguing that

'multiple markets provide a way in which one firm can reward another for not attacking it, or conversely, provide a way of disciplining a renegade.'

The impact of reciprocal entry is particularly studied in the literature on intra-industry trade and reciprocal dumping (Brander and Krugman, 1983; Calem, 1988; Dei, 1990; Salvatore, 1990; Venables, 1990).

Reciprocal entry is a response to initial entry. Bulow et al. (1985) illustrate this as follows. Suppose that entry from market 1 into market 2 reduces sales of the incumbent firm in market 2. The latter firm now faces (increased) excess capacity. Since the opportunity cost of unused capacity is less than the opportunity cost of used capacity, the initial entry reduces his opportunity cost of entry. If his expected entry profit exceeds the reduced opportunity cost, the incumbent firm will enter market 1. Hence, entry into market 2 elicits reciprocal entry into market 1. Three assumptions drive this result. First, capacity can be used for production in both markets. For example, low transport costs allow the product to be sold in both (country) markets or low switching costs permit the same capacity to be used for different products. The second assumption is a capacity constraint. Excess capacity in the home market can be used to produce goods for an entry market. If the scale of entry is insufficient to recover entry costs, entry does not occur. If the incumbent firm, however, faces entry, his home market sales fall and excess capacity increases. Consequently, the scale of entry may increase up to a level which does allow the firm to recover entry costs. Reciprocal entry then occurs as a consequence of initial entry. Third, Bulow et al.'s (1985) argument also implicitly assumes the existence
Chapter 6 - Multimarket Competition

of insurmountable exit barriers to third markets. If exit is free, the incumbent can decide to accommodate entry by (partial) exit toward another market (Judd, 1985). If, however, he faces insurmountable exit barriers to third markets, he only has one entry market - the entrant's home market.

Three examples illustrate reciprocal entry (threats). First, incumbent firms in the entry market may decide to retaliate in the entrant's home market (Calem, 1988). This strategy of counter-attack is a parry to the potential entrant's entry attack (Yip, 1989). Second, Watson (1982) identifies counter-competitive strategies which anticipate the potential rivals' entry move; counter-competition entails actions (for example, entry into the potential entrants' home market) that force the potential entrant to tie resources to her home market. Third, hostage or foothold strategies can be employed so as to keep potential entrants in check (Caves, 1982). A foothold in the potential entrants' home market signals the ability to immediately respond to the potential entrants' entry strategy by retaliation in her home market (Karnani and Wernerfelt, 1985).

2.6. Multimarket collusion

The outcome of multimarket competition (after, for example, a series of entry and reciprocal entry moves) may well be a reduction in competition. Edwards (1955) proposed the hypothesis that

'when sellers meet in several markets, their recognition of the interdependence of their operations may blunt the vigor of their competition with each other' (Scott, 1982).

Feinberg (1985) specifies Edwards' hypothesis by arguing that

'companies meeting rivals in more than one market will be able to facilitate collusion in one or all of those markets.'

Harrington (1987), Kantarelis and Veendorp (1988) and Bernheim and Whinston (1990) provide a theoretical foundation of the multimarket collusion hypothesis.

Companies with multimarket encounters are inclined to facilitate collusion if the payoff of the cooperative outcome exceeds the competitive profit. This phenomenon is also recognized in the literature on international trade (Jacquemin, 1989). For example, reciprocal dumping is the worst of both worlds (or, to be precise, four worlds in a Prisoners' Dilemma): if both parties agree upon refraining from dumping, joint profit is maximized (Pinio, 1986). The key point is however that cheating must be unattractive. Bernheim and Whinston (1990) formally show

'that multimarket contact relaxes the incentive constraints governing the implicit agreements between firms, and that this has the potential to improve firms' abilities
to sustain collusive outcomes.'

3. Current evidence

3.1. Existing firm entry and multicompetitor spillovers

Our analysis indicates that existing (related) firm entry differs qualitatively from new or unrelated firm entry. Empirical evidence supports this view. The high incidence of existing firm entry is confirmed by empirical figures on international trade. The post-war historical trend towards increased intra-industry trade, though weakened in the 1980s, is particularly illustrative (Globerman and Dean, 1990). Existing firms tend to enter at a much larger scale than new firms (Hause and Du Rietz, 1984) and to encroach on the market share of the leading incumbent firms (Berry, 1974). Existing firms in related markets seem to have a higher speed of entry than unrelated firms with few related skills and assets (Lambkin, 1988). In the Japanese semiconductor industry firms with strategic advantages in terms of tangible and intangible assets (i.e., technological innovation, broad product line and vertical linkages) develop higher rates of foreign direct investments (Kimura, 1990). Existing (diversifying) firm entry does not seem to be responsive to barriers to entry, while the opposite holds for new (or small) firm entry (Gorecki, 1975).

The argument underlying these findings is that a successful entry strategy may build upon the entrant's home market. Sullivan (1990) reports evidence on the importance of brand image spillovers. Moreover, the crucial role of synergies is emphasized in the empirical literature on related diversification (Chatterjee, 1986; Seth, 1990). If positive spillovers exist between related markets, an efficiency motive makes firms enter all of these markets. If they do so, they tend to develop high multicompetitor contact. Scott (1982) presents a test of the hypothesis that multicompetitor contact is too high to be random. His sample contains 437 of the 1000 largest U.S. manufacturers in 1974. He concludes that multicompetitor contact among these manufacturers far exceeds the level that would occur by chance. Thus systematic forces make firms tend to group in the same markets. This indicates the relevance of multicompetitor spillovers (or multicompetitor economies, in his words) to firm's decision making.

3.2. Protected markets and one-sided entry

Kotek (1962) observes that

'food distributors' entry into the bread industry illustrate the mixed results of "countervailing power". The conventional method of wholesaling bread through route salesmen absorbs about 30 percent of the price. Here chain food stores can make a large saving. But where food chains have established their own bakeries they may be tempted to go a step further, selling bread below cost and recouping on other merchandise. For the retailer who employs it, a loss leader is simply a special form
Chapter 6 - Multimarket Competition

of advertising. ... The typical retailer probably is persuaded that the leaders attract a good deal of extra business in other products. ... For the integrated food store, this practice may seem no more sinister than free delivery service, but it creates an impossible situation for non-integrated bakers.'

This is an example of one-sided entry: the chain food store enters the bread market, while non-integrated bakeries do not enter the non-bread food market. Kotke's case shows that entry deterrence is likely to fail against a combination of positive multimarket spillovers and one-sided entry. A successful entry strategy can be based upon these conditions.

Multinational enterprises (MNEs), for example Japanese firms, often engage in one-sided entry from a protected home market. This endows them with a competitive advantage:

'In the case where the U.S. market is open and a large foreign market is closed, foreign competitors would be able to achieve more efficient scale via volume in the domestic and overseas sales, while domestic competitors would be squeezed into a portion of the domestic market. ... Under these economic conditions - large scale and learning- access to foreign markets and control over the home market would become a firm's top priority' (Yoffie and Milner, 1989).

The foreign MNE benefits from a multimarket supply spillover between the entry and her (protected) home market. She recovers fixed costs of R&D and the like in her home market. This asymmetry affects pricing in the entry market as the foreign MNE prices in order to recover marginal production and transportation costs, whereas the domestic producers price in order to recover R&D and all other fixed expenses as well. Domestic suppliers perceive the MNEs pricing policy as dumping:

'Industries in Japan and other PBCs (i.e. Pacific Basin Countries) often enjoy very supportive relationships with their governments. Frequently this includes protection against imports into their domestic markets. This permits the PBCs to subsidize exports to other markets with profits from domestic sales. Zenith complained to the U.S. Trade Commission that in 1976 the least-expensive 19-inch color television set available in Japan was priced at the equivalent of $700, but the same and comparable sets were selling for less than $350 in the United States. Domestic TV set makers could not retaliate by lowering prices, since their entire domestic sales would be affected in a price war. But Pacific Basin competitors could maintain lower prices on the export portion of their sales knowing that their profitable home market was protected' (Willard and Savara, 1988).

This illustrates the importance of trade policy in enforcing one-sided or reciprocal entry. Salvatore (1990) reports the trend towards new protectionism in the form of increased incidence of antidumping cases and escape clauses. In reported cases, US
firms affected seek a strategic trade policy from the US government to enforce reciprocal access to the Japanese market (Yoffie and Milner, 1989).

3.3. Global competition and reciprocal entry

Global competition shows many examples of multimarket competition and entry by existing (foreign) firms. An entry motive for US firms in Japan is to tap local resources and skills. Production by the Japanese affiliate is then exported back into the US (Encarnation, 1987). By using Japan as an export platform the US firm exploits a multimarket supply spillover from the Japanese entry market to her home market. Watson (1982) suggests another entry motive. Firms may preempt future entrants by counter-competition. That is, the

'pursuit of a foreign competitor's domestic markets can help protect the threatened company's own home market sales.'

Counter-competition entails actions that force the foreign competitor to tie resources to her home market, thus forcing her to forego entry. These actions include: (i) entry into her home market, (ii) introducing a product innovation in her home market to force her to match this innovation and (iii) changing the terms of competition, such as aftermarket support, in one's own advantage. Counter-competition implies a first-mover advantage for it must strike before the foreign competitor has gained a foothold in one's own home market. Watson's examples suggest the realism of this assumption. In the IO-literature (in the second section) the ability of the incumbent firm to retaliate is exogenous and constant. That is, his response lag and excess capacity are given. Watson's concept of counter-competition suggests a dynamic approach of endogenous retaliation: a pre-emptive firm tries to undermine a competitor's position before she can react.

Entry by an MNE by setting up a local subsidiary can be part of a wider strategy involving competition with another MNE in other markets (Caves, 1982). That is to say, reciprocal entry requires a local subsidiary. Or, a

'subsidiary on the invader's turf establishes both a means of retaliation and a hostage that can be staked out in any subsequent understanding between the two parents' (Caves, 1982).

Karnani and Wernerfelt (1985) show that firms do indeed use a foreign subsidiary for a reciprocal entry response. Particularly illustrative are the fights between Goodyear and Michelin in the tyre market, Maxwell House and Proctor and Gamble in the roasted coffee industry and BIC and Gillette in the markets for pens and razors. For example, in the 1970s Michelin challenged Goodyear in his US home market to exploit her own lead in radial tyre technology. By 1980 she had captured an 8% market share in the US. Goodyear reacted initially in the European market by increasing his market share from 8% to 12% in less than a year. Simultaneously,
Goodyear made an effort to catch up with Michelin's radial tyre technology, which of course would pay off only later. Michelin, therefore, did enter the American market, although the American market leader Goodyear had a foothold in Europe, and did react to Michelin's entry by reciprocal entry in her home market. This prospect failed to deter Michelin, possibly because Goodyear's imitation lag implied a long response lag. Michelin may have expected that her entry profits in the American market would exceed any losses in her European home market.

The general pattern of competition between US and EC firms may run in the opposite direction, as Graham (1978) suggests. Graham reports a study of direct investments by US firms in Europe and vice versa. His finding is that an increase in the number of US subsidiaries in Europe is typically followed, after a lag, by an increase of European subsidiaries in the US. The lag is four years for industries such as chemicals, refineries and instruments. Graham suggests that this fact represents rivalry: European firms install subsidiaries as a response to previous US moves. So, he suggests that reciprocal entry explains this pattern.

3.4. Multimarket collusion

As one consequence of multimarket contact, firms (in the case below Japanese semiconductor suppliers) may develop a follow-the-leader strategy:

'Japanese companies, unlike most of their American counterparts, competed in other consumer and industrial product areas as well as in semiconductors. Such diversification heightened pressures for imitative behavior at home and abroad. Sequential foreign investment was one response' (Encarnation, 1987).

A sequence of entry and reciprocal entry moves may however well induce a reduction in competition. Caves (1982) illustrates this by an example that

'at the extreme, markets can wind up less competitive after the peace treaty is signed than they were before the initial aggressive move. An example of this adverse development was the British tobacco market after the entry of American Tobacco in 1901. Induced by the British tariff structure, American purchased a leading British producer. That event caused 13 dismayed British rivals to merge into Imperial Tobacco. After a year of duopolistic rivalry, a peace treaty gave Imperial a monopoly of the British and Irish markets, and American got a guarantee that Imperial would not sell in the United States or its dependencies. British-American Tobacco was organized as a joint venture to handle business in the rest of the world.'

Market sharing agreements, such as by American and Imperial Tobacco, are an example of multimarket collusion. Multimarket contact research seeks to verify this hypothesis (Heggestad and Rhoades, 1978; Scott, 1982; Feinberg, 1985). For example, on the basis of an analysis of 1976 data from the US Federal Trade Commission's Line of Business Program Feinberg (1985) concludes that
multimarket contacts tend to be positively correlated with price-cost margins for industries in the moderate range of concentration, which indicates the importance of multimarket collusion.

3.5. The case of the artificial sweetening industry

The artificial sweetening industry is an interesting illustration of multimarket competition (Chemical Week, August 10, 1988; Delaware State News, May 19, 1989; Financial Post, June 3, 1989; Chemical Marketing Reporter, June 6, 1989; New York Times, November 19, 1989; and Financial Times, November 26, 1990). In 1981 the US company Searle introduced the sweetening aspartame under the name of NutraSweet. Aspartame is about 200 times as sweet as sugar. Of the available intense sweeteners, aspartame is closest to the taste of sugar. The major quality of aspartame is that only fractions of a gram are required to produce the same degree of sweetness as much greater quantities of sugar. This implies that aspartame brings typically less than 1% of the calories of an equivalent amount of sugar.

Aspartame is sold as the tabletop sweetener Equal and under the brand name NutraSweet as an ingredient in 1700 products including soft drinks, puddings, dressings, ice creams and chewing gum. The demand from soft drinks producers (particularly Coca Cola and Pepsi Cola for their light versions) represent 75% of sales. NutraSweet's US market stands for $736 million sales in 1988. The U.S market counts for 90% of the combined North American - European sales in 1988. However, Europe has the growth potential. For example, a realistic assessment predicts a 50% growth by the early to mid-1990s.

NutraSweet is able to benefit from a secure and extremely profitable home market, since in the US NutraSweet's aspartame (carrying the company's name) is patented up until 1992. NutraSweet's 1988-profit was close to $330 million. During the period 1986-1987 the European patents expired, however. So, the US market and European market show(ed) blockaded entry in the period 1981-1992 and 1981-1986/1987, respectively: NutraSweet's point of departure is protected monopoly. In defence of this lucrative monopoly position NutraSweet started to erect strategic barriers to entry in light of the European patent expiration: the company's objective was to trigger effective entry deterrence.

Two entry-detering strategies worth mentioning are exclusive contracting and branding the ingredient. First, NutraSweet exploited his bargaining position as a monopolist by negotiating long-term contracts with large customers (particularly Coca Cola and Pepsi Cola): for example, NutraSweet guarded 60% of the Canadian market by signing exclusive contracts with Pepsi-Cola Canada Ltd. and T.C.C. Beverages Ltd., the Canadian bottler of Coca Cola. Second, NutraSweet forced his customers to put the company's logo on soft-drink cans, which made the mere ingredient aspartame into a household name NutraSweet.
Chapter 6 - Multimarket Competition

Notwithstanding NutraSweet's entry-deterring strategies, potential competitors started preparing entry into the European market after the expiration of the patents. In particular, the Irish company Angus Fine Chemicals (AFC) and the Dutch-Japanese joint venture Holland Sweetener Company (HSC) installed productive capacity upfront by making use of an innovative cost-reducing technology hoping to trigger a profitable market sharing arrangement in Europe. HSC, for example, appears to have a good hand as the joint venture could benefit from resource economizing entry and multimarket spillovers by exploiting the assets and experience of both partners (such as management skills, knowledge of European markets, R&D knowhow, financial resources and goodwill). Both parties in the joint venture - the chemical companies DSM and Tosoh - were engaged in horizontal diversification into a related market by broadening their product line.

After the expiration of his European patents, NutraSweet counterattacked both entrants AFC and HSC in their European home market by an aggressive strategy which reduced price to half the American level: the price in the US market ranged from $55 to $90 a pound in 1989, whereas the European level dropped to $27. NutraSweet's retaliation strategy of intense post-entry competition in Europe was partly successful as AFC decided to exit the market; AFC appeared to be the weak player in the Chicken game. However, up until the present day HSC has been able to keep up the fight. Probably, NutraSweet's post-entry strategy implies that, ceteris paribus, the market only leaves room for single entry.

HSC's response to NutraSweet's aggressiveness was twofold. First, the firm attacked and attacks NutraSweet's entry-deterring practices (charge: anticompetitive contracting) and post-entry strategy (charge: below-cost dumping) in European courts. The European Commission has declared valid both charges. NutraSweet's exclusive contracts with large customers are dissolved, and stiff antidumping duties will be imposed upon NutraSweet. The combination of NutraSweet's entry-deterring and retaliation strategies and HSC's aggressive response in court induces toughness in the European market. Second, HSC attempted and attempts to undertake reciprocal entry by penetrating the North-American market so as to break down NutraSweet's one-sided entry strategy.

On the one hand, HSC has gained a 3% Canadian market share worth $875,000 in 1989 (by selling to, for example, soft-drinks producer Schweppes) since NutraSweet's Canadian patent expired in 1987. Recently, HSC won a case against NutraSweet's exclusive contracting practice in Canadian court. On the other hand, HSC brought NutraSweet to court in the latter's home state Delaware. With the purpose to provoke a trial regarding NutraSweet's patents, HSC located an American subsidiary in Delaware. HSC announced the intention to bring a tabletop Sweetmatch (a perfect substitute for NutraSweet's Equal) to the US market. The expectation is that the procedure will take several years. NutraSweet has accepted HSC's challenge by, for example, announcing an intense promotion campaign and the buildup of productive capacity in Europe. Clearly, Nutrasweet's moves in
Europe and HSC's countermoves in North America are an example of a reciprocal entry game.

The outcome of the battle in the artificial sweetening market is a matter of guessing. The case clearly illustrates multimarket competition. Although NutraSweet's objective is to return to the pre-entry monopoly position by forcing HSC to exit the aspartame market, multimarket contact may well trigger (tacit) collusion. Multimarket cooperation can take the form of either multimarket sharing, both rivals signing a peace agreement in North America and Europe, or reciprocal exit, both firms creating their own spheres of influence (probably NutraSweet in North America and HSC in Europe). Anyway, HSC clearly intends to stay in the market: K. Dooley, vice president of HSC's Canadian subsidiary, communicated that "his company is committed to a long battle and is confident the preference of beverage makers for a second source of supply will eventually give them a competitive share of the market" (Financial Post, June 3, 1989).

4. Entry strategies and entry deterrence

4.1. Strategy choice

Multimarket competition suggests a framework for organizing experience and intuition. It suggests arguments that (should) play a role in guiding entry strategies by potential entrants as well as entry deterrence by incumbent firms. Table 2 summarizes these arguments.

By way of illustration two imperatives which determine the entry strategy are discussed: (i) protect the home market at least during the entry process and (ii) select an entry market. The next subsections discuss these imperatives and entry deterrence in turn.
### Table 2

*Entry deterrence and entry strategies*

<table>
<thead>
<tr>
<th>Key element</th>
<th>Deter entry by</th>
<th>Select a market</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Focus of rivalry</td>
<td>focusing on incumbents against entrants game</td>
<td>which does not suffer from predominant actual rivalry which drives profits down</td>
</tr>
<tr>
<td>2. Resource economizing entry</td>
<td>raising strategic entry barriers that impede economizing on entry cost</td>
<td>which permits to economize on entry cost</td>
</tr>
<tr>
<td>3. Multimarket spillovers</td>
<td>stimulating negative spillovers with potential entry market</td>
<td>where positive multimarket spillovers are eminent</td>
</tr>
<tr>
<td>4. Reciprocal entry</td>
<td>signaling a credible reciprocal entry threat</td>
<td>where incumbents fail to exert a credible reciprocal entry threat</td>
</tr>
<tr>
<td>5. Multimarket collusion</td>
<td>showing unwillingness to collude after entry</td>
<td>where incumbents are willing to collude</td>
</tr>
</tbody>
</table>

4.2. The entrant’s commitment to her home market

Low exit barriers are a strategic weakness, as Eaton and Lipsey (1980) have shown:

'To make an entry-deterring threat ... the sitting monopolist must threaten that in the event of entry, he will stay in the market long enough that the entrant’s present value at time of entry will be nonpositive. "Long enough" is \( \Delta^* \) periods. ... \( \Delta^* \) can be interpreted as the monopolist’s minimum commitment to the market or as the minimum barrier to his exit. It is in this sense that barriers to exit are barriers to entry.'

This proposition is translated into multimarket arguments by Judd (1985), and Hilke and Nelson (1988). The key point is that if a firm enters a second market, she may reduce her barriers to exit from the first. For example, Hilke and Nelson (1988)
point out that large diversified companies are likely to face lower exit barriers than less diversified firms:

'If, instead of adopting a fight-to-the-finish strategy, firms utilize the conventional model of rational disinvestment behavior, a large diversified firm may be more likely to exit than a less diversified firm under the plausible condition that diversified firms face lower marginal costs (higher opportunity costs) in shifting resources to other markets.'

This type of argument has specific strategic implications.

Entry into another market may involve partial exit: i.e., a reallocation of resources away from the home towards the entry market. Thus entry goes along with a reduction of exit barriers. This may invite entry into her own home market for two reasons. First, partial exit reduces the size of her commitment to the home market and raises expected entry profits in her home market. Second, it raises the expectation that she will react upon entry by accommodation. Since entry reduces home market profits, she may shift even more resources into her entry market, which implies that she accommodates entry by (partial) exit (Calem, 1988). Anticipating this scenario, a potential entrant may abstain from entry in the first place or she may decide to enter knowing that this implies exit from the current home market. Can a firm avoid this scenario? If available, she may select an entry market which increases the exit barrier from her home market. If an entry market induces positive spillovers to the home market, entry can raise the commitment to the home market. Suppose, for example, that a firm can only sustain her position in an entry market against competition if she benefits from joint economies of scope or any other positive multimarket spillover with her home market. Then she is credibly committed to staying in her home market.

4.3. Selection of an entry market

With multiple entry markets two criteria can be indicated which can guide selection of a specific market. The first one considers the response of the incumbent firm. The potential entrant should take into account that her entry changes the incumbent firm's opportunity cost of entry (Hilke and Nelson, 1988). The incumbent firm may respond both by reciprocal entry and by partial exit. His response is most favorable to the potential entrant if he faces an entry barrier to her home market yet low exit barriers to other markets. This rules out markets where reciprocal entry is feasible or where the incumbent is willing to fight entry (for example, as a result of insurmountable exit barriers).

The second criterion involves entry barriers and multimarket spillovers. Bain's (1956) barriers to entry can lose significance for potential entrants who are incumbent elsewhere. Economies of scale, for instance, are not a barrier if potential entrants have already realized their economies in a home market (Brunner, 1961;
Yip, 1982). Economies of scale or scope even invite entry if potential entrants exceed in size the incumbent firms in a market. Similar arguments hold for other barriers: product differentiation and absolute cost advantages. To the extent that products are differentiated by the goodwill of their supplier, a potential entrant with existing goodwill has an advantage over a young and perhaps innovating incumbent firm. For example, at the time that IBM entered the market for microcomputers, she could benefit from more goodwill among potential business users than Apple, the incumbent firm. Thus multicompany spillovers can help to overcome entry barriers. Moreover, they increase the profitability of entry without undermining the commitment to the home market. The overall effect of multicompany competition on entry barriers is ambiguous:

'Often the synergies of related diversification allow entry into industries that might in their absence seem to offer insurmountable barriers. On the other hand, the process of offensive and defensive entry into related clusters of business may ultimately lead to a significant increase in overall entry barriers by forcing a newcomer to enter the whole cluster of business (be optimally diversified) or face a serious disadvantage' (Porter, 1985).

4.4. Entry deterrence

The discussion above can also be relevant for the incumbent firm. It helps to identify existing firms in related markets who could profitably enter into his market. Moreover, the multicompany competition framework allows him to assess the relevance of a reciprocal entry threat to entry deterrence. The following strategic conditions facilitate the credibility of the reciprocal entry threat: (i) entry into the potential entrant's home market is free, (ii) exit barriers to third markets are significant, (iii) the incumbent's response lag is short, (iv) the incumbent firm correctly anticipates which markets exert a credible entry threat and (v) potential entrants in these markets are aware of (i) - (iv). All kinds of signaling devices can make potential entrants recognize the reciprocal entry threat.

5. Concluding remarks

Multicompany modeling offers a framework for analyzing entry strategies and what Yip (1982) calls 'gateways to entry'. It also explores the strategic implications of transferring the battleground from the incumbent firm's home market to the potential entrant's home market. These insights gain relevance in the context of increasing global competition. The individual firm engaged in multicompany competition faces a complex process. Multicompany competition involves first and foremost the delineation of a set of related markets. These are characterized by entry barriers to outside (new or unrelated) firms, but ease of entry for firms within the set of related markets. Related firms benefit from their tangible (for example, overcapacity, multiproduct technology and substitute products) and intangible (for instance, know how, experience and consumer goodwill) assets. In the case of
reciprocal entry each firm in one of these markets can easily enter another market within the set. If the entry possibilities between markets are asymmetrical, one-sided entry can occur, where the entrant has access to a market whose incumbent firm does not have access to the entrant's home market. Multimarket competition has several possible outcomes. For example, all firms may decide to enter into each other's home market. Thus they develop into multimarket firms. Or, conversely, neither firm enters for fear of provoking reciprocal entry into her home market. In an intermediate case, the 'mutual foothold equilibrium', firms maintain a foothold in each other's market. Thus they have a commitment to a reciprocal entry response upon entry, without the foothold itself inviting retaliation.

Adjacent literature to the multimarket framework may indicate areas where positive analytical spillovers exist. Some examples are the literature on diversification, especially in the case of diversifying entry (LeCraw, 1984). Although this chapter focuses on markets, the conceptual framework can also be applied to market segments and strategic groups (Caves and Porter, 1977). Trade models are also related: Calem's (1988) reciprocal entry game is a further development of Brandt and Krugman's (1983) reciprocal dumping model. Trade models are typically one-stage games, whereas multimarket competition models describe two-stage structures. The two-stage structure introduces a strategic dimension which we feel is typical of competition between incumbent firm and potential entrant. The distinction between trade competition and (investment in) a local foothold is also being made in literature on the entry process which considers initial trade, establishment of a local foothold, and escalating investments to be subsequent steps in an ongoing entry process (Encarnacion, 1987; Willard and Savara, 1988). This suggests a dynamic framework. The internalization theory of the MNE offers points of contact with the multimarket approach (Rugman, 1982)³.

Notes

1 Note that low entry costs can be a disadvantage if they are being associated with low exit barriers (Eaton and Lipsey, 1980; Judd, 1985). The section on strategy choice goes into this strategic weakness in more detail.

2 Compare, for example, with the internalization theory of the multinational enterprise (Rugman, 1982).

3 DeBondt and Veugelers deal with a different spillover: technology or knowledge leakages among rivals rather than between markets. Van Witteloostuijn (1990) presents a model with potential rivalry that is facilitated by multimarket R&D spillovers. Moreover, note the resemblance with SM's well-established synergy concept (Chatterjee, 1986).

4 Shakun (1965), Matutes and Regibeau (1989), Lal and Matutes (1989) and Margolis (1989), are models with multimarket demand spillovers which are worth
Chapter 6 - Multimarket Competition

noting.

5 This raises the issue of market definition, which is well-known in the literature on IO (Scherer, 1980) and SM (Abell, 1980). For this chapter's purposes, the intuition in the text suffices.

6 This is the basic insight of Andrews' theory of 'potential cross-entry' (Andrews, 1964).

7 Broadly speaking, if firms are not at par, the entry threat may be asymmetric. The literature on new firm entry illustrates this point (Gilbert, 1989).

8 A further issue is the internal organization necessary to be able to exploit multimarket spillovers (Hill, 1988; Clarke and Brennan, 1990). The design of the internal organization can even be an entry-deterring device (Hendrikse).

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Chapter 6 - Multimarket Competition


Chapter 6 - Multimarket Competition


Chapter 6 - Multimarket Competition


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