A critical re-evaluation of Hymer's contribution to the 'Theory of international operations'

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In Yamin (1991), we provided a reassessment of Hymer’s contribution to the theory of the transnational corporation (TNC) shaped largely by the debate in the mid-1980s relating to the nature of market imperfections that were held to be the drivers of the TNC. Dunning and Rugman (1985) and Casson (1987), for example, had criticised Hymer for over-emphasising structural market imperfections at the expense of transaction costs, although even in his doctoral dissertation, Hymer (1960, published in 1976) did not totally ignore transaction costs (Yamin, 1991: 74). Furthermore, in a paper written in 1968 (that came to light in 1990) he explicitly utilised Coase’s framework. Partly as a result of the discovery of this paper, it is now generally acknowledged that Hymer is the pioneer of the economic theory of the multinational company (Horaguchi and Troye, 1990). It is significant that John Dunning, commenting on the early theoretical work on TNCs, has recently remarked that ‘considering Hymer’s work as a whole, he has probably come nearest to identifying the ingredients of a general theory’ (Dunning, 1996: 33).

Controversy over which type of market failure (transactional or structural) underpins the TNC has clearly subsided and most scholars of the TNC would now view that debate as sterile. Buckley (1990: 658) has summed up the issue succinctly: ‘the internalisation and the market power explanations of the [TNC] should not be viewed as mutually exclusive or competing theories but should be combined to give a full and rich explanation of the growth of multinational firms’.

A key issue in current debates on the TNC is whether market failure per se, and irrespective of its forms, is necessarily as pivotal a concept as has hitherto been supposed. Kogut and Zander (1993), in particular, question whether market failure and hence ‘internalisation’ is necessary to explain the TNC. This view is highly pertinent to any re-assessment of Hymer’s contribution, as market failures were central to Hymer’s analyses of the TNC.

Hymer’s thesis (1976) incorporated two explanations of what he called ‘international operations’. One emphasised the possession of advantages by firms and the other the removal of conflict between them. Both explanations were heavily premised on the prevalence of structural market failures. For a number of
reasons - some of which were discussed in Yamin (1991) - during the 1970s and 1980s, the advantage explanation proved highly influential while the removal of conflict explanation was virtually ignored. In Yamin (1991) it was argued that the latter explanation was likely to be the more enduring aspect of Hymer’s contribution. As explained below, in the section entitled ‘Removal of conflict’, subsequent developments seem to have confirmed that expectation. This is not to argue, however, that this aspect of Hymer’s analyses did not suffer from any weaknesses or that it can be applied without any major alteration to current issues or problems in the world economy. On the contrary, this chapter argues that both aspects of Hymer’s contribution suffer from an over-reliance on the concept of market failure. However, this is more acute in the case of the advantage explanation.

The section that follows provides a brief review of Hymer’s overall contribution (for a more detailed exposition, see Yamin 1991). It explains the fundamental aspects of Hymer’s contribution: namely, that the exercise of control is the defining feature of direct foreign investment (DFI) and that the need for control arises from market failure.

The subsequent section, ‘A critical evaluation of the advantage theory’, sets out two related arguments. First, we argue that Hymer’s concept of advantage is too narrow: it focuses only on proprietary assets that are tradable and, as a consequence, fails to provide an adequate explanation of a firm’s ability to operate in foreign countries. Second, we argue that, as in internalisation theory, Hymer implicitly views the firm as arising only in response to market failure. As a consequence, he fails to appreciate that ‘control’ - the key difference between portfolio capital flows and international operations such as DFI - not only may be due to market failure but may also arise to facilitate the transfer of the advantage across borders. In other words, ‘control’ may simply be a manifestation of organisational ‘replication’ - the expansion of the organisation across borders.

Three points are stressed in the subsequent section ‘Removal of conflict’. First, this is a general explanation which does not rely on the possession of specific assets. Oligopolistic interdependence and rivalry are clearly important drivers of international operations, even in the absence of transactions involving firm-specific advantages. Game theoretic analyses have reinforced and formalised Hymer’s insights in this respect. Second, we argue that, as oligopolistic structures become more international and as oligopolists adopt new forms of relationships and alliances, Hymer’s removal of conflict framework remains relevant but in a modified form. Third, the downside of Hymer’s framework is its exclusive reliance on oligopolistic interdependence. Due to ever-increasing integration and globalisation in the world economy, the barriers to international operations have now fallen significantly. Consequently, transnationality is no longer the exclusive preserve of large and powerful oligopolists. This does not necessarily invalidate the removal of conflict framework. It does, however, suggest that the framework needs to be adapted to incorporate a broader rationale for interdependence between firms, such as that provided by Richardson (1990).

The final section of this chapter sets out a number of concluding remarks.

A review of Hymer’s contribution: market imperfections and the need to exercise control

The fundamental contribution of Hymer’s thesis can be summarised in two inter-related statements. First, DFI cannot be explained as inter-country flows of ‘capital’ responding to interest rate differences. Second, in order to explain DFI, it is necessary to explain why firms find it profitable to control firms in other countries. The problem with interest rate differential theory was precisely that it could not accommodate the significance of control. The importance of the concept of control in Hymer’s thinking about DFI and the TNC cannot be overstated. Hymer regarded DFI as one form of what he called ‘international operations’, by which he meant in the various ways (full or partial ownership, licensing, formal cartels or tacit collusion) in which firms of one nationality can control the decision-making of another (Hymer 1976:32). Movements of capital associated with DFI were thus not a response to higher interest rates in ‘host’ countries but took place in order to finance international operations. In order to explain DFI, it was necessary, therefore, to explain control. The exercise of control, in turn, was strictly linked with the prevalence of market failure. Hymer identified two reasons for control, one relating to the firm’s exploitation of advantages and the other based on the removal of conflict between firms. Both explanations for control rely exclusively on market failure.

So far as the advantage explanation is concerned, Hymer argued that whilst the possession of an advantage is a sufficient condition for international operations, it is not a necessary one. In the absence of some sort of failure in the market for the advantage, there will be no gains from controlling the firm wishing to ‘buy’ the advantage and, hence, international operations will not take place. An arm’s-length market transaction would enable the firm with the advantage to utilise it in other markets without incurring a profit penalty.

Hymer observed that ‘if a firm of one country possesses an advantage over firms of all other countries in a certain line of activity, that does not necessarily mean that the firm will have its own enterprises in foreign countries’ (1976: 47). In particular, it would be necessary to explain why a firm would choose to use the advantage itself instead of licensing it. His answer was that ‘decentralised decision making – the free market is defective when there are certain types of interactions between the firms; that is if each firm’s behaviour noticeably affects the other firms’ (p. 48). Thus, the main reason for preferring DFI to licensing was that the market for the advantage was typically one where there were only a few buyers of the advantage in foreign countries; DFI would remove oligopolistic competition and increase joint profits. In addition, the fact that there may be ‘a conflict of evaluation’ with regard to the worth of the advantage would create difficulties in setting up a licensing agreement. Finally, a contractual arrangement such as licensing may fail effectively to protect the property rights of the licensor: ‘a reluctance to license may arise from the inherent danger of losing the advantage’ (p. 51).

The removal of conflict reason for control also relies on market failure. Hymer pointed out that enterprises are frequently connected to each other through
markets across national boundaries. They compete by selling in the same markets or one firm may sell to another. In such a situation profits may be increased if one firm controls all the enterprises rather than having separate firms in each country. In other words, it is profitable to substitute centralised decision-making for decentralised decision-making. Whether this takes place will depend on whether markets are perfect. In particular, if there is duopolistic or oligopolistic interdependence between the firms involved in horizontal relationships, some form of collusion will increase joint profits, and once again integration or merger is possibly the most effective form of collusion. However, if there are many firms, or if entry is easy, then there is not much point in trying to control the market and international operations will not take place. A similar analysis will apply if the interdependence between firms is vertical. Again, as long as there are only a few buyers and sellers, integration or any other effective form of cooperation between the firms will increase joint profits. In neither the horizontal nor the vertical case is it necessary for one of the firms to possess an advantage over the others, although they are likely to be leading members of their respective national oligopolies. The only consideration is whether the increased profits from cooperation/collusion are more than sufficient to offset the costs of international operations. The important point is that international operation is no longer synonymous with the exploitation of some form of firm-specific asset under the firm's own control.

A critical evaluation of the advantage theory

The nature of advantages: some ambiguities in Hymer's analysis

Hymer was strongly influenced by Bain's analysis of the advantages of incumbent firms as compared to new entrants in industries with significant barriers to entry. But he was interested in barriers to entry 'not as they apply to new firms but as they apply to firms of a different nationality' (Hymer, 1976: 42-43, emphasis added). As such, however, advantages could stem from location or nationality rather than reflect skills or capabilities unique to an individual firm. For example, Hymer observed that American firms would have easier access to the US capital market compared to their foreign rivals. Similarly, skilled American workers might be willing to work for the subsidiary of an American company but not for locally owned firms in a foreign country. More generally, foreign firms will not have the same access as American firms to the general fund of skill and ability available in abundance in the USA. In Dunning's parlance, such advantages are source-country 'locational advantages'; they are not 'ownership' advantages if that is meant to describe skills or capabilities unique to a particular firm.

Hymer's rather brief and rudimentary treatment of the nature and the kind of advantages needed to support international operations betrays a confusion between locational and ownership categories. His narrative suggests that he viewed advantages as possessing the attributes of an 'item of property'—something that, potentially at least, could be bought and sold. In fact, his analysis of the choice between licensing and DFI requires the assumption that advantages are potentially sellable assets. He was inclined to the view that such assets would normally not be traded in the market as these were highly imperfect. However, the possibility that some advantages may be inherently non-tradeable was not considered. This creates an inconsistency in relation to his own description of the sources of a firm's advantage. As we have seen, some advantages mentioned by Hymer are locational in nature and it is rather problematic to treat them as items of property as, by definition, they are enjoyed by all firms of a given nationality (e.g. American) over firms of other nationalities.

More importantly, setting aside Hymer's confusion between locational and ownership advantages, it is doubtful whether all, or even most, ownership advantages can be treated as sellable assets. In the barriers-to-entry framework, which was the key influence on Hymer, only some aspects of the 'absolute-cost' and 'product differentiation' categories of entry barriers can be viewed as 'items of property', of which patents, trademarks and brand names are the main examples of sellable or tradable assets that come to mind. Presumably, Hymer would argue that tradability of ownership advantages is a matter of degree. Some, such as patents and trademarks, would be more tradable (involving, inter alia, a lower degree of 'conflict of evaluation') compared to a non-codified asset such as 'know-how'. However, this still leaves open the question of how a non-codified asset can be traded at all and, more importantly, why some assets are non-codified. Hymer does not seem to have appreciated the significance of the difference between tradable assets and non-tradable skills and capabilities; he frequently referred loosely to a firm 'selling' its skills and advantages (pp. 47, 49). We develop this point more fully below.

A firm's ability to overcome the costs of international operations is significantly strengthened by combining its tradable assets with its non-tradable skills. In fact, some authors have suggested that tradable and non-tradable elements are strictly complementary (Cantwell, 1995). In Hymer's analysis, international operations appear to be narrowly restricted to the various forms in which tradable assets or advantages are exploited across borders, where what is traded is essentially the legal right to use an asset. But legal access is not always tantamount to obtaining the capability of using the asset in a production system unless the 'buying' enterprise can also gain access to the non-tradable skills or combine the traded asset with its own know-how. At least in the context of less developed countries, where domestic enterprises may lack such skills, the advantage of foreign investors may reside more in their non-tradable skills than in their tradable assets (Davies, 1977).

Explaining the boundaries of the firm: organisational replication versus control

Hymer unambiguously adopted the view that 'the firm is a practical institutional device which substitutes for the market. The firm internalises or supersedes the
market' (p. 48). This view assumes that the function of the firm is merely to coordinate a set of activities that could in principle be coordinated by the market. In Hymer's words: "the firm" is a particular form of relating various activities in the economy" (p. 68, emphasis added).

From this perspective, the main question in the theory of international operations is how the various relationships between enterprises in one country and enterprises of another should be organised — through the market or through centralised control exercised by the firm possessing the advantage. In this analysis, control plays only one role, namely, to resolve the potential conflict in the distribution of benefits in favour of the investing firm. Hymer assumes, implicitly, that the object of an inter-firm transaction (that is, the physical transfer of an advantage from firm 1 in country A to firm 2 in country B) is itself a technically trivial issue. However, the transfer issue is trivial only if the firm's advantages have the property of a public good. Although there is no explicit reference to this in Hymer's thesis, a public good assumption is strongly implied by his analysis, in the absence of which there would be an analytical difficulty. Thus, given the extra costs of operating in foreign countries, the firm may not enjoy a net cost or revenue differential over its domestic rivals, if its advantages cannot be deployed at zero or a low marginal cost in the host country.

As we noted in the previous section, however, the advantages that underlie international operations, particularly through DFI, cannot be fully described in terms of tradable assets. Thus, for example, although a patent itself is a tradable asset, the complementary skills and knowledge associated with it are not. There are normally elements in such knowledge that are "firm specific" in the sense that the relevant knowledge or skill cannot be fully detached from the firm and be traded separately. Dunning (1993: 81) provides a fairly comprehensive list of 'ownership' advantages. Included in the category of asset ownership advantages are the 'resource structure of the firm', 'organisational and marketing systems', 'innovatory capacity', 'organisation of work and a bank of human capital experience'. While these are all assets in the sense of being capable of generating an income stream, none can meaningfully be regarded as 'items of property'.

It follows, a fortiori, that these aspects of a firm's knowledge cannot be treated as a public good if that is meant to imply that they can be transferred to another organisation at a low, let alone a zero, marginal cost. Teece (1977), in a seminal contribution, provided convincing evidence that technology, which is often considered to be the key monopolistic advantage held by TNCs, is far from being a public good. He showed that there were significant costs associated with technology transfer. These costs mainly arose from the difficulties involved in conveying and obtaining knowledge across organisational boundaries. But transfer costs are not obviously increased by transaction costs (such as legal costs or the dissipation of technology) (see also Kogut and Zander, 1993).

If we conceive of advantages as including firm-specific elements rather than as purely tradable assets, then we must allow a role for 'control' in facilitating the transfer process of firm-specific knowledge. Transfer costs analytically, if not practically, arise prior to 'transaction costs'. If the firm's advantages are deeply embedded within its internal structures and thus totally unattachable, then inter-firm transactions of these advantages is impossible and only through internal transfers via DFI can they be exploited in another country.

More generally, 'control' of the transferee by the transferor may be a technical necessity without which transfer may be either impossible or more costly. The function of control would not be to circumvent bilateral interdependence, to protect against opportunistic behaviour or to resolve the conflict of evaluation with regard to the worth of an advantage. Even if these problems were somehow to be resolved, the actual transfer of individual skills and routines (the organisational equivalent of skills; see Nelson and Winter, 1982) across a firm's boundaries would remain a task that is far from trivial. The fact that internal transfers, which by definition do not involve an exchange of ownership and hence do not incur costs associated with protecting property rights, are also costly indicates the relevance of 'transfer costs' as an independent category vis-à-vis 'transaction costs'.

There is good reason, however, to expect that external transfers may incur a higher marginal cost compared to internal transfers, even controlling for transaction costs. The reason why internal transfers may incur a lower cost is rooted in the heterogeneity of firms. The notion of firm heterogeneity was first fully articulated by Penrose (1959) and is now central to the resource-based theories of the firm (Foss, 1997). In these theories, what is distinctive about firms is that their internal capabilities — the things they know how to do — cannot be readily assembled through the market; the firm is 'a domain for organising activities in a non-market-like fashion' (Teece et al., 1997: 269; see also Kogut and Zander, 1997). In this sense, each firm is unique as it generates a differentiated set of capabilities and hence advantages. Unless firms make a conscious effort to codify their knowledge, in order perhaps to facilitate its transfer to other firms, much of what they know will be uncodified to other firms simply because the internal codes by which knowledge is transmitted and transformed within firms are different.

Thus transfer may take place within the firm (through DFI), not, as Hymer would argue, because it is necessary to control the "other" (in this case, notional) party to the transaction. Rather, internal transfer may be dictated by particular characteristics of the advantage (such as, for example, its lack of codifiability). DFI is a particular form of 'organisational replication' (Nelson and Winter, 1982). By definition, this is a process through which an organisation enacts its existing routines and standard operating procedures in a new productive entity. For this reason, organisational replication is an effective conduit for the transfer of firm-specific knowledge across borders. By contrast, when knowledge has to be transferred across firms, which, inevitably, have diverse routines and operating procedures, the effectiveness of the transfer suffers. Interestingly, Nelson and Winter note that 'the replication assumption in evolutionary models is intended primarily to reflect the advantages that favour a going concern to do more of the same as contrasted with the difficulties that it would encounter in doing something
else’ (1982: 119, original emphasis). Thus when technology is transferred across the boundaries of different firms, both parties, to an extent, are encountering ‘something else’ - that is, the unfamiliar and poorly understood work practices of the other party. This creates a difficulty that internal expansion can avoid.

Removal of conflict: its relevance and its limitations

The logic of the removal of conflict explanation

Hymer’s logic in relation to the removal of conflict explanation for international operations was straightforward. Firms in particular industries that encounter one another in markets across national boundaries are likely to be few in number. This is because there are significant barriers to cross-border business and only the largest and most powerful firms are likely to have the resources to overcome them. Inevitably, cross-border contact meant oligopolistic or even duopolistic interdependence. Whether and how such interdependence was resolved would determine the pattern and form of international operations. For example, if firms are able to collude effectively, they may arrive at a market-sharing agreement. Accordingly, each firm may be allotted a market in which it can invest without competition from the other firm(s). Alternatively, the colluding firms may set up joint ventures in a number of markets. On the other hand, if collusion fails, there may be competitive investments in all markets.

Hymer’s analysis was informal and he illustrated these possible scenarios through two case studies. One, which he took from Dunning’s early study of American investment in Britain (Dunning, 1958), was the tobacco industry. The case explained the development, after an initial period of cut-throat competition, of a market-sharing agreement according to which Imperial Tobacco obtained a monopoly in Britain and Ireland, while the US and dependent markets were to be supplied by American Tobacco. The other and contrasting example was the meat-packing industry. Both American and British firms had established meat-packing plants in Latin American countries. Bitter competition ensued, but, unlike the tobacco case, there was no successful resolution of the conflict. Both sets of firms continued to operate independently in Latin American markets.

The important feature of Hymer’s insight is that the removal of conflict explanation does not require the possession of advantage by one member of the oligopoly group vis-à-vis others. Thus, whilst his advantage explanation was premised on the assumption that ‘firms are unequal in their ability to operate in a particular industry’, the removal of conflict explanation assumed, implicitly, that the firms in question would possess roughly comparable resources and capabilities. He clearly envisaged that they would be leading members of national oligopolies (we return to this issue below).

Hymer’s analysis, though informal, showed that the existence of oligopolistic interdependence between firms across markets created a process of dynamic interaction which could, by itself, generate various patterns of international operations - an insight that has been confirmed by more formal game theoretic analyses. As examples, Dixit and Kyle (1986) show that strategic interdependence between firms in two countries can result in cross-investments even when this may not be the optimal solution for either, while Hargreaves Heap and Hughes (1990) show how multinationality may be used in the presence of strategic uncertainty to gain advantage in an oligopoly game (see also Hughes and Oughton, 1992). In a somewhat more comprehensive formal treatment, Graham (1998) shows that, in an oligopolistic setting, possessing an advantage (in the form of being a lower-cost producer) over rivals is neither a necessary nor a sufficient incentive for a firm to become a TNC.

Removal of conflict in international oligopolies

It is undoubtedly the case that, compared to the 1960s and 1970s, oligopolistic interdependence is now increasingly between firms of different nationalities. Vernon (1974, cited in Frischtak and Newfarmer, 1994: 7) noted that ‘concepts of oligopoly . . . behaviour, which heretofore have been treated within a single national market, must be applied in an international setting.’ But as Frischtak and Newfarmer (1994: 7) observe, ‘nearly two decades later, this insight is still understudied.’ It is a testimony to the enduring character of Hymer’s work that he coauthored the first and (to our knowledge) the only empirical analysis of international oligopoly (Hymer and Rowthorn, 1970).

Oligopolists are likely to have a less clear understanding of the strategies and capabilities of rivals from other nationalities compared to their domestic rivals. Furthermore, as Kogut (1987, cited in Chesnais, 1995: 87) has observed, a mature oligopoly is itself an organisation regulated by fairly stable routines. These routines ‘reflect national traits regarding anti-trust regulations, government interventions and the tolerance of competitive or co-operative behaviour’ (ibid.). Such routines are likely to be absent or less well established in an international oligopoly. These factors suggest that implicit understanding and collusion are more difficult to arrive at in an international oligopoly, at least at the early stages of industry internationalisation. Consistent with this line of reasoning, in their analysis of rivalry between European and US companies in the 1960s, Hymer and Rowthorn (1970) argued that both European and US corporations were myopic in their assessments of competitors across the Atlantic and, as a result, tended to underestimate their own relative strength.

Hymer and Rowthorn viewed international competition largely in terms of the thrusts and counter-thrusts of US and European corporations who used ‘direct foreign investment as one of their chief instruments’ for competition over shares in the world market (Hymer and Rowthorn, 1970: 57). However in at least three important and inter-related respects, this scenario is of receding relevance. First, clearly, the key players in international oligopolies are no longer only American and European firms. Second, rivals from relatively new and emerging centres of competition, such as Japan and East Asia generally, have developed organisational competencies that have undermined existing, primarily transatlantic, oligopolistic structures (Chesnais, 1995). Third, and more importantly, as such
competencies have become appreciated and valued by the longer established oligopolists, they have sought to gain access to such competencies and even to internalise them. Consequently, TNCs have increasingly adopted new types of relationships and alliances with their rivals. DFI, the traditionally favoured form of international operation, is not necessarily suitable under such circumstances. DFI is an effective instrument for market-seeking investments but not for gaining new competencies.

The emergence of alliance relationships does not mean that the tension between collusion and rivalry, which characterises traditional oligopolies, has somehow disappeared. In fact, the reverse is the case: the tension is intensified as the interdependence now occurs in a more complex organisational context. Whereas in a traditional oligopoly it was market shares that were mainly at risk, in the context of new relationships and alliances what may be at stake is the firm's core competencies and the risk of their dissipation to a rival. As research by Hagedoorn (1993: 373) has shown, in many alliances 'joint activities may be a cover-up for an attempt to quickly absorb some innovative capabilities from others'. However, the option of avoiding alliance entanglements is restricted for two reasons. First, firms often lack the full range of capabilities for remaining competitive, and, second, market-based transactions for obtaining complementary skills and capabilities are often not feasible (Yamin, 1996). Consequently, for many TNCs the handling of inter-firm relationships in the form of various types of alliances has become a central strategic concern: the key task would seem to be the success-ful management of the complex mixture of competitive and cooperative dimensions inherent in alliances. As Hamel (1991) argues, alliances should be viewed as a framework for competition between the partners over the acquisition and internalisation of competencies. Thus, alliance management does indeed appear to be a form of 'removal of conflict' but in a somewhat different context compared to that envisaged by Hymer. The fact that alliances, particularly joint-venture alliances, are frequently terminated through acquisition (of the venture) by one of the parties (see for example Kogut, 1989) does lend credence to a removal-of-conflict interpretation of alliance dynamics.

**Limitations of the removal-of-conflict explanation**

As we have already noted, Hymer's removal-of-conflict explanation was premised on there being significant barriers to international operations. Hymer regarded international operations as the province of only large and powerful oligopolists. Such a view is no longer sustainable because, owing to ever increasing integration in the world economy, the costs of international operations have fallen dramatically. The number of TNCs is simply too large to be consistent with the view that only the largest firms can become transnationalists (UNCTAD, 1997). The participation of small and medium-sized firms from developed economies and of firms from less developed countries casts doubts on the advantage explanation and also underlines the view that all TNCs necessarily operate in an oligopolistic environment.

From a theoretical standpoint, Hymer's exclusive reliance on oligopolistic interdependence, with the implication that in a more 'atmospheric' structure inter-firm dependencies would be non-existent, is not justified. As Richardson (1960) has shown, in a large group or 'atmospheric' setting an individual firm's investment plan would be indeterminate unless information about investment intentions of the rest of the group were somehow to be made available. As Richardson has argued, the often dense network of relations and co-operation between firms within and across industries is partly a consequence of informational interdependence. Interestingly, such networks can help explain the process of internationalisation of small firms from certain countries. For example, Chen and Chen (1998: 447) argue that Taiwanese firms become TNCs primarily through exploiting network linkages rather than firm-specific advantages. Furthermore, alliances between large oligopolistic firms are frequently part of a more complex network involving a great number of firms, many of whom are small firms providing technological specialisms lacked by the larger firms (Hagedoorn and Schakenraad, 1990, 1992). Even though large firms tend to have dominant nodal positions within such networks, it is unlikely that the emergence of the network itself can be explained simply in terms of oligopolistic interdependence.

**Concluding comments**

The conclusions of this chapter are somewhat similar to those in Yamin (1991), inasmuch as it has been shown that Hymer's removal-of-conflict explanation for international operations has withstood the test of time much better than his advantage explanation.

It is usual to categorise Hymer's contribution to the theory of DFI and the TNC as an 'industrial organisation' rather than a 'firm' explanation of these phenomena. This is not entirely accurate, particularly in relation to Hymer's advantage expla-nation. This chapter has hopefully demonstrated that the advantage explanation was largely cast within a particular view of the firm. Hymer's analytical portrayal of the firm was rather innovative at the time in that he viewed the firm as an instrument for internalising or superseding the market.

In retrospect, it can be seen, partly as a result of this view of the firm, that Hyner treated advantages in a rather narrow way as assets that are potentially tradable. We have argued that this is, at best, a weak basis for international operations. It is more accurate to categorise the removal-of-conflict framework as an 'industrial organisation' explanation. Hymer's principal insight that oligopo-listic interaction between firms can result in international operations and the TNC has received strong theoretical support. Nevertheless, even this aspect of Hymer's analysis requires updating in at least two respects. First, removal of conflict as a process occurs not only in battles over market share, which is how Hymer envisaged it, but also in the context of rather variegated and complex forms of organisational partnerships and alliances. Whereas battles over market share are essentially zero-sum games, competition within alliances has the potential to be a positive-sum game. Second, the oligopoly framework cannot explain either
the full extent of participation in international operations or the full range of cross-border, inter-firm linkages observed in many industries.

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Notes

1 As Hymer (1976: 1) noted, 'control is not an easy thing to define and the dividing line between some control and no control is arbitrary'.
2 Thus there are some similarities between Hymer's analysis and internalisation theory. There are also significant differences. In particular, Buckley and Casson (1976) stress the internalisation of intermediate markets (e.g. technology) whereas Hymer is mainly concerned with the internalisation of the final market (for the advantage).
3 See also Winter (1987), who provides an analytical distinction between an asset as a 'single item of property' and an asset as a 'useful thing or quality'. Significantly he points out 'it is decided problematic as to whether the realities denoted by knowledge, competence, skills, know-how or capability are the sort of thing that can be adequately discussed as an item of property' (p. 160).
4 Out of 26 transfer projects included in Teece's study, 12 were wholly owned subsidiaries (1977: 243). In these cases knowledge was transferred across organisational boundaries but within the same firm.
5 By 'transfer costs', we mean the opportunity cost of the time and effort spent by technical and managerial staff of the transferring and receiving organisations in explaining and understanding know-how and of utilising it in the production process of the receiving organisation.
6 Although Nelson and Winter consider 'perfect' replication to be a theoretical possibility, they nevertheless view the 'feasibility of close (let alone perfect) replication as being quite problematic' (1982: 118). Thus, replication is practically always partial. This is particularly likely when organisational replication takes place across borders. Note, however, that organisation replication may still be superior to an inter-firm transaction as a knowledge transfer mode.
7 It is relevant that where DFI takes place through acquisition, a number of difficulties are usually encountered in the incorporation of acquired companies into multinationals (Demson and Sutkin, 1986; Rosenzweig and Singh, 1991). However, it is also relevant that when DFI takes place through mergers or acquisitions, its main purpose is not necessarily the transfer of technology: rather, the motivation is likely to be strategic asset-seeking (Caves, 1998; Jaffeep and Kogut, 1999).
8 Such new competencies also imply an advantage explanation for international operations by newly emerging rivals. Thus new organisational skills probably compensated them for relative technological backwardness and enabled them to compete not only with domestic firms in host countries but also with the more established TNCs.

References


