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An Observation on the Transaction Cost Theory of the (Multinational) Firm

by

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As a counter-example to acknowledged theory it is argued that a subsidiary of a multinational corporation may be established even though transaction costs are not responsible for the desire to internalize (potential) high cost licence markets. As the argument is taken to be applicable to multiplant firms in general, the generality of the transaction cost theory of the firm is brought into question. (JEL: D23, F23, L80)

1. Introduction

It is widely accepted that a "market-failure" in arm's-length markets is required for the existence of the firm. This is true, for example, in the seminal work on the multinational corporation of BUCKLEY and CASSON [1976], and in Dunning's "eclectic paradigm" and it is echoed in the important contributions of WILLIAMSON [1981], TEECE [1986] and HORSTMANN and MARKUSEN [1987]. What is questioned here is the *necessity* for transactional-failure in the arm's-length market for firm-specific knowledge between its owner and a (potential) licensee to be present to explain the spread of multi-plant firms of which multinational corporations are an example. I believe that this questioning of the transaction cost theory of the multinational corporation also applies when that theory is applied in the broader context as *the* theory of the firm. But here the argument is focussed on transaction cost explanations for the existence of the multinational corporation.

It should be explicitly recognized that theories of the multinational corporation based on other than transaction cost economizing are also quite popular. Perhaps the single best review of that literature is found in CAVES [1982]. One such theory is that the multinational corporation results from oligopolistic interaction between suppliers (VERNON [1971], KNICKERBOCKER [1973], GRAHAM [1978] and [1990]). Other market structure factors, such as the desire to practice discriminatory pricing might also play a role (DUNNING [1988]). However, as previously mentioned, the emphasis in this paper is on the transaction

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cost economizing theory of the multinational corporation. A brief characterization of this theory is that, due to "market failures" in arm's-length licence markets, firms indigenous to a host-country are unwilling to pay the full value of the economic rent that the owner of that firm-specific knowledge could earn by exploiting it through direct foreign investment. The thrust of this paper is that there may be reasons other than transaction cost related failures of licence markets which discourage potential licensees in a foreign country from paying up to the value of this economic rent. The implication is that market failure of the type asserted in acknowledged theory is not a necessary condition for the existence of a multinational corporation (i.e., choice of a subsidiary over licencing). Then, if multinational corporations do not always exist to internalize markets, they must exist for some other reasons. One such is because of marketing advantages and some others are also discussed later.

2. Some Theory

Before discussing the substantive points we begin with a brief outline of the theory of *market failure* as applied to the multinational corporation, and we also outline the theory of *measurement cost economizing* which will be deployed later.[1]

Market failures. Such is the predominance of the transaction cost economizing view of the multinational corporation that many people would agree that it could be called the "dominant view" (GROSSE [1983]). Thus, the reason for the existence of the multinational corporation is seen as high transaction costs, relative to "inhouse," or hierarchical, governance, in the arm's-length markets for *intermediate* products or services. We stress the word "intermediate" because high transaction costs in the market for *final* goods and services is not stressed in this theory. One way or another, many economists have contributed to the acceptance of the predominant paradigm including HYMER [1976], KINDLEBERGER [1969], JOHNSON [1970], BUCKLEY and CASSON [1976], HENNART [1982], DUNNING [1988], TEECE [1986], and WILLIAMSON [1981] and [1985]. The quintessential argument is that firm-specific knowledge is a source of economic rent which its owner seeks to maximize. However, a problem is that as knowledge has the character of a public good, use of licence markets risks dissipation of the rent. Policing and other transaction costs incurred in preventing rent dissipation may be high. WILLIAMSON [1981], [1985] builds on the bare-bones pointing out that rent dissipation may occur with the triple coincidence of asset specificity, impacted knowledge and opportunism. Rather than use a transactionally impaired arm's-length licence market, the firm internalizes it by supplying a distant market through a wholly owned subsidiary. When the subsidiary is placed in a foreign country, *ergo*, a multinational corporation. RUGMAN [1981] and CALVERT [1981] make the very strong claim that internalization is a *general* theory of the multinational corporation.

[1] The type of direct foreign investment that we have in mind in this paper is through the establishment of wholly-owned subsidiaries. Further complications that may arise from other types of internationalized production are not considered.

HORSTMANN and MARKUSEN [1987] offer an interesting related explanation for the avoidance of licencing agreements. The type of problem that they have in mind is when a licensee free-rides on a principal's reputation (for example by not maintaining quality), so denuding the value to the principal of that very asset. Horstmann and Markusen point out that KLEIN and LEFFLER [1981] show that the solution to this type of contractual problem is for the principal to share enough of the economic rents with the agent (the licensee) for the latter to be discouraged from free-riding. In other words, by allowing the agent a greater share of economic rent, the agent is drawn to see its pecuniary interests lying with the continuance of the contractual relationship – rather than with free-riding which, when detected, will end the relationship. Thus, according to Horstmann and Markusen, the establishment of a subsidiary avoids the excessive rent-sharing necessary under a licence agreement.

This argument has one similarity with that being made here: the principal earns more rent by establishing a subsidiary than by entering into a contractual relationship with a licensee. Indeed, there is even a symmetry: they say that to sustain a satisfactory contractual relationship with the licensee the principal has to give away some rent to the agent; and I will argue that agents, for various reasons, cannot afford to pay high enough rents. Either way, the principal ends up with less rent with a contractual relationship than when operating a subsidiary (that is, setting aside the extra costs, if any, of running a subsidiary). But there is also a striking difference between our approaches. The Horstmann-Markusen argument is fundamentally a transaction cost explanation for the existence of the multinational corporation. For, absent transaction costs (e.g., the cost of policing a contractual agreement), Horstmann and Markusen's principal-agent problem would simply not arise. But the argument that I will present is that, *even in the absence of transaction costs, licencing may still not be the preferred solution to the extraction of economic rents by an owner of a firm-specific advantage.*

Measurement cost economizing. The theory of measurement cost economizing is mainly concerned with how the efficacy of arm's-length markets may be enhanced. Several authors have contributed to the development of this theory of organization including MCMANUS [1972], [1975], BARZEL [1982], CHEUNG [1983], OUCHI [1980] and CASSON [1982], [1985]. The key element in measurement-cost theory is buyer uncertainty over the attributes of goods or services exchanged. Measurement-cost theory argues that resources will be expended by rational transactors to assure that values exchanged correspond to contractual agreement. McManus points out that as transactors may cheat, use of the price-mechanism is not without cost: "measurement costs will be incurred in order to enforce a bargain" (MCMANUS [1975, 337]). BARZEL [1982, 28] argues that "virtually no commodity offered for sale is free from the cost of measuring its attributes." The analysis differs from McManus's in that costly transfers of wealth need not arise from cheating but from random variation in attributes around expected values.

Measurement-cost economizing, is aimed at discouraging oversearching, that is, investment in examining the attribute of a good or service offered for sale. It may be accomplished by investing in market efficacy-enhancing devices. These include standardization of output, product warranties, trade marking and, what is stressed in this paper, the creation of a good reputation. Barzel [1982, 36] explains that the reason for these market enhancing devices is "if the buyer is to buy without measuring every item, he has to be persuaded to rely on the seller's assertion of the prior measurement. In some instances, the seller will try to convince the buyer that his purchase will actually be representative of the lot; in others the good is quite uniform and would not vary significantly from sample to sample." Casson [1982] argues that when buyer uncertainty exists in a foreign market it may be reduced by setting up a subsidiary in that market which carries the name and good reputation of a "mother" firm.

There are cases, perhaps there are many of them, when a foreign subsidiary is established in order to enhance the efficacy of an arm's-length market rather than to replace it. Indeed, Casson [1982, 34] sees multinational corporations establishing themselves in markets where "quality is at a premium" and reputation is important. Many markets, especially service and, perhaps to a less degree, product markets (e.g. parts for automobiles) may be like this. The case of the supply of high quality intermediate inputs into offshore oil gathering is discussed in Hallwood [1990].

3. Buyouts and Takeovers

To establish the point made in this paper start by recognizing that a single act of creating a subsidiary through direct foreign investment affects two markets – the internalized intermediate product market between the "mother" firm and its subsidiary, i.e., IPM in figure 1, and the final product market between the affiliate and its customers, i.e., FPM in figure 1.

The question now addressed is as follows: is measurement cost economizing in the FPM market sufficient to explain direct foreign investment or must some transactional failure be present in the IPM market? Internalization theory asserts that, absent transaction costs in the IPM market, buyers in the foreign location will be serviced by an independent firm licenced by the "mother" firm, i.e., the IPM market will not be internalized and direct foreign investment will not occur.

However, it should be noted that internalization theory is predicated on two implicit assumptions: (i) firms exist in the host-country or targeted area that are potentially receptive of the relevant transferable knowledge. That is, it is assumed that absent transaction costs, the level of economic rent extracted from a piece of firm-specific knowledge by its owner does not depend upon which firm is doing the extracting; and (ii) that if such a host-country firm exists it is willing to pay a licence fee at least equal to the stream of profits that could be earned by the subsidiary should it be created.

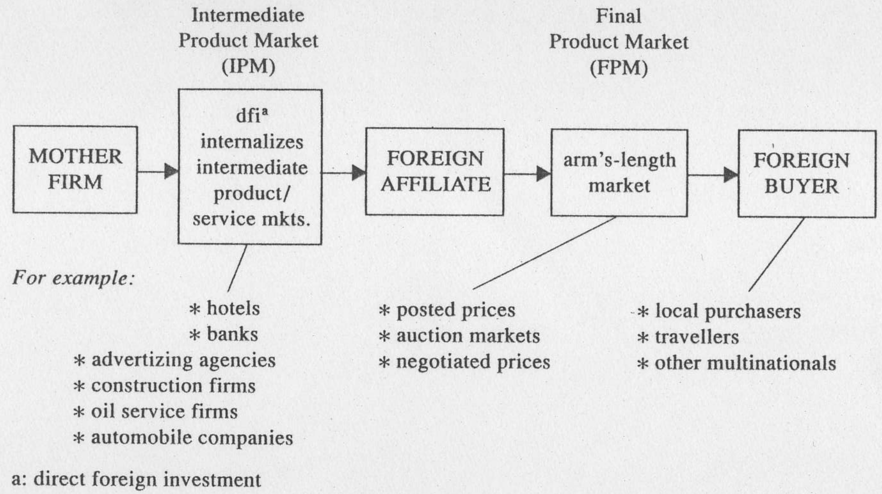

Figure 1
A Subsidiary's Intermediate and Final Product Markets

Our argument is that there may be cases when one or other (or both) of these assumptions is invalid. It turns out that the owner of firm-specific knowledge may prefer to establish a subsidiary – so creating or extending a multinational corporation, even though the IPM market does not suffer from the possibility of rent reduction as described, *inter alia*, by Buckley and Casson, Rugman, Teece, Horstmann and Markusen, and Williamson.

With respect to assumption (i), it is possible that in a given market location targeted for entry by a multinational corporation that no indigenous firms exist that have the capability to be receptive of the type of knowledge that the multinational corporation wishes to transfer into that location. This could be left as a theoretical possibility but an example may be useful. When a commercial oil province is first discovered the oil companies create a demand for inputs into offshore oil gathering at a new location. Such was the case with the major eastern hemisphere offshore oil-service base in Aberdeen, Scotland, in the early-1970s. For reasons that there is no need to go into here (but is described in Hallwood [1990a], [1993]) oil companies – as buyers of intermediate inputs into offshore oil-gathering – prefer that suppliers locate facilities within a few miles of their own offices located in the service-base. As a result, over a period of about ten years over one-thousand subsidiaries or branches providing inputs into offshore oil gathering had established themselves in the greater Aberdeen area. The "mother" firms were mainly located in the USA and England with a scattering coming from Canada, France, and Germany.

The point is that the geographic area designated by the oil companies for the development of an offshore oil industry was so tightly circumscribed that it embraced a group of existing firms that had no previous association with oil industry. These firms operated mainly in the fishing, fishmeal, agricultural and wholesale and retail businesses. It would be preposterous to theorize that such firms could be receptive of the technologically-sophisticated knowledge used in offshore oil gathering. Attempts on their part to use this technology would surely lead to extremely high production costs. Thus, if assumption (i) does not hold, the existence of a subsidiary may be due to the absence of comparable cost indigenous host-locality firms and not necessarily to high transaction costs in the IPM market. It remains true that if such firms were licenced rent would be dissipated. But this is because the high-cost producers could offer only a low rental for firm-specific knowledge, and not to opportunism or bilateral monopoly or some other factor included as a feature of transactionally-impaired markets.

The second implicit assumption identified above is that if the IPM market is not transactionally impaired a firm in the host-country will be willing to pay a sufficiently high royalty for the "mother" firm's firm-specific knowledge as to make the owner of it prefer licensing over the alternative of a subsidiary. Such a firm could be the subsidiary itself – i.e., the case of a management buyout; or, it could be another firm that takes over the subsidiary in order to access the firm-specific knowledge. We deal with these cases, respectively, as "insiders" and "outsiders."

Insiders. Without a transactional inefficiency in the IPM market it is theoretically possible that the managers of the subsidiary could purchase the subsidiary and license the relevant knowledge from the mother firm. That is, the licence market is chosen and the multinational corporation is disassembled. In the view of the transaction cost theory of the multinational corporation, and setting aside the costs of running a subsidiary at a distant site, the buyout alternative will *not* be taken only if the licence market, IPM market, is transactionally impaired.

However, suppose that the market for knowledge is indeed perfect, does this mean that the management-buyout must occur? Only if assumption (ii) holds is the answer yes. However, there are some reasons why managers may not be willing to pay a price equal to the economic rent that can be earned on firm-specific knowledge through the operation of a subsidiary. First, it is possible that the managers of the subsidiary see their long-term interests lying with continued employment with the multinational corporation rather than as independent owner-managers. This could be so if promotion within large firms in the industry (i.e. those that control many subsidiaries) is on an insider basis. A buyout would have the effect of cutting the manager off from this ladder to

higher income. A second argument is that the expected working-life of the managers of a given subsidiary may be longer than the expected life of the subsidiary. This could be the case if the expected life of a given market is short. Then the managers, having through the buyout made themselves outsiders, may not be able to achieve such high expected lifetime incomes as they would have had they not left the employment of the multinational corporation. That is, the present value of the rents due to managerial expertise could be greater as employees than as owners.

Thirdly, the individuals seeking to become owner-managers will recognize that they will be reducing the degree of diversification of their wealth. To compensate, according to DEMSETZ and LEHN [1985], they will seek an increased rate of return on their assets. To achieve this they will not be able to pay as high licence fees as otherwise for the firm-specific knowledge.

Outsiders. Outsiders are the other group which could takeover a subsidiary. What they will offer in a takeover is some proportion, which bearing in mind the previous point, may be less than unity – of the capitalized value of the expected economic rent on firm-specific knowledge earned through the subsidiary which is to be acquired. In turn, the value of expected economic rents depends upon the difference between production costs and the prices that the acquired firm achieves under the new owners.

But must economic rents under the new owners be at least equal to what the multinational corporation can earn through its subsidiary? There is in fact no necessity for this. We recognize that familiarity with production processes is relevant to the vertical integration decision. We could characterize "familiarity with process" as "dynamic idiosyncrasy." LANGLOIS [1988] considers relationships between economic change and vertical integration and concludes that asset specificity is but one of several determinants of the degree of vertical integration. In support of this, ARMOUR and TEECE [1980] find that the extent of vertical integration relates directly to the scale of a company's research and development effort – R & D effort here acting as an index of a company's dynamism. Moreover, DEMSETZ [1988, 147] argued that it is often wrong to assume that production costs are identical between firms: "the production costs of other firms might simply be too high." Indeed, Demsetz is critical of much of the transaction cost literature for assuming, usually implicitly, that firms have identical knowledge of production processes. He argues that it is through this assumption that the choice of organizational arrangement is reduced to one of comparative transaction costs. But, as a matter of fact, knowledge of production processes is not evenly distributed – a view which entirely concurs with his earlier view (DEMSETZ [1982]) that knowledge monopolies are a major barrier to entry.

In my opinion, at least equally important, is that the new owners may not be able to obtain prices in the market-place as high as those obtained by the subsidiary. Two reasons suggest not – begin with an example taken from the oil industry. First, contracts are won under a unique system of invited tender-bidding where the history of prices is not revealed (Hallwood [1990a] and [1990b]). If new owner-managers are at an informational disadvantage on the intricacies of this auction arrangement they can be expected to win contracts with lower prices than would be achieved by experienced managers employed by a subsidiary – a variety of winner's curse. Admittedly this may be only a short run problem, but the expected value of rents is reduced nevertheless.

Moreover, the organizational implications of discovering prices are not limited to a few specialized situations such as the invited tender-bid auction. Consider the surely wide-spread case where a firm's top managers have to expend effort – with an implied disutility measurable as a pecuniary value – to "discover" optimal price. Assuming that a firm wishes to maximize some function such as profit, revenue or market-share then, presumably, there is a unique price (or prices) and a unique bundle of other sales-promotion devices which maximize the objective function. The firm will not be satisfied to move along a given demand curve, it will want to shift the demand curve which it faces as far to the right as satisfies optimizing principles. Shifting the demand curve also involves top managers in devising and executing, market research, advertizing campaigns, inventory control, after-sales-service and any other relevant procedures – the organization of which involving disutility.

Now consider a firm, the "mother firm," which possesses a unit of firm-specific knowledge which is marketable in a foreign country. If we rule out exports, as we must with point-of-consumption services, the mother firm's broad choice is between licensing a firm indigenous to a host country or setting up a subsidiary – i.e. becoming a multinational corporation. As a generalization, a licensee keeps about two-thirds of profits, paying the rest over to the licensor. But it was argued above that earning profits involves disutility and, as a result, the profit-sharing formula gives the licensee an incentive to shirk. The standard argument here is due to Alchian and Demsetz [1972]: the licensee's input of productive effort is reduced because the consequent cost is shared with the licensor.

A related plausible argument is due to Minkler [1992]: firms may differ in their knowledge of different national markets for a given product. In Minkler's example host country firms have better knowledge of markets distant from a mother firm than does the mother firm itself. As a result, the mother firm licenses its firm-specific knowledge in order to draw on the local knowledge possessed by the licensee. In effect, Minkler envisages a pair of firms, each with firm-specific knowledge, and he argues that the licence agreement is the best way for maximizing joint economic rent. The basic assumption made by Minkler may be reversed by assuming that the mother firm knows best how to market a product even in distant countries. Indeed, this was the implicit assumption made in our earlier reference to the selling of intermediate inputs to oil companies. Simply, experienced gained selling at one location, yields an absolute advantage in marketing at other locations. In the oil industry we argued that this was (partly) due to experience gained with the unique price-setting arrangement utilized by oil companies. But this is only one of many possible factors that can yield up an absolute advantage to the mother firm. For example, experience may yield up firm-specific advantages in the design of advertizing campaigns, or marketing advantages may be gained from experience with inventory control or with after-sales service. If so, economic rent due to the two types of firm-specific knowledge – of product and of marketing – is best maximized within a single company. That is, the mother firm "goes multinational" by setting up a foreign subsidiary.

A second factor bearing on prices has to do with the measurement cost advantage which resides with established internationalized providers of intermediate inputs to the buyers. The ex-subsidiary – now with new owners – will be at a measurement cost disadvantage relative to established suppliers because there is no history of successful trades with the relevant firm-specific knowledge. As reputation is valued by buyers it attracts an economic rent – which is earned as buyers are willing to pay relatively higher price for services purchased. New owners would be forced to win contracts by discounting prices and so could not earn such high rents on the original firm-specific knowledge.

Under the circumstances discussed above, the conclusion must be that the capitalized value of expected rents will be lower under new ownership because the new owners face higher production costs and/or lower prices for services rendered than would be case if the production unit was retained as a subsidiary. This is true even though arm's-length markets are not transactionally impaired.

4. Final Comment

Conditions have been identified under which direct foreign investment could occur even if licence markets were not afflicted by positive transaction costs, i.e., they are "frictionless" to use Williamson's terminology [1985, page 18]. As the literature recognizes, what is necessary is that the expected value of rents on firm-specific knowledge is higher when the knowledge is commercialized through the medium of a subsidiary than when it is sold to an independent entity. It is argued here that transaction costs are not the only factors that bear on this inequality. Because independent entities may be at a production cost and, more especially, price disadvantage they are not be able to offer enough for firm-specific knowledge. Put another way, with direct foreign investment there are two markets: an intermediate product market between the "mother" firm and its subsidiary and the final product market between the subsidiary and the ultimate customer. The first of these could in theory be frictionless yet, because of measurement cost advantages in the second market, direct foreign investment may be the chosen means of exploiting rents on firm-specific knowledge. In short, circumstances can be envisaged where the *raison d'être* of a multinational corporation is not to internalize markets but to enhance the measurement cost efficacy of arm's-length markets. Thus, at least some multinational corporations are likely to exist because they have marketing advantages rather than being efficient internalizers of intermediate product markets. Furthermore, it is believed that other types of multiplant firm may exist for exactly the same reason.

Zusammenfassung

Im Unterschied zur herrschenden Theorie wird argumentiert, daß es für einen multinationalen Konzern von Vorteil sein kann, eine Tochtergesellschaft zu gründen, obwohl Transaktionskosten nicht für die gewünschte Internalisierung hoher Lizenzgebühren verantwortlich sind.

Da die hier vorgestellte These als generell auf mehrbetriebliche Unternehmen anwendbar betrachtet wird, ist die Allgemeingültigkeit der Transaktionskostentheorie der Unternehmen fraglich.

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