# Some Normative Principles
# for Direct Foreign Investment*

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## Introduction

The rate of growth of direct foreign investment (DFI) largely surpassed that of international trade in the 1980s (Julius, 1990). But the steady upward trend of DFI has been a long term trend in the international economy. For example, the stock of U.S. investment in the European Community (EC) has grown substantially faster than the value of exports: between 1960 and 1988 investment increased by a factor of 21 compared to a factor of 12 for exports. In 1988 the share of U.S. DFI stock in the EC was nearly 40% compared to 18% in 1960 (Hufbauer, 1990, p. 24). DFI was initially dominated by outflows from the United States but this process has now become multilateralised with flows of DFI among advanced industrial countries (OECD, 1989) and, increasingly, between the newly industrialised economies (NIEs) as well (Lall, 1991).

The observed trend towards the globalisation of business reflects changing competitive strategies by firms. The firm has three possible modes of foreign market servicing: through the traditional means of exporting; through licencing of its production technology to foreign producers; and through production abroad via direct foreign investment (Buckley and Casson, 1981, p. 79). Business strategy will be decided on the basis of comparative profitability of the different modes. DFI is, therefore, best understood in terms of the profit maximising strategy of a multinational enterprise (MNE). "...the

multinational enterprise is ultimately an economic creature. It exists to produce and market goods and services from which it can earn profits. I found it is not the function of the MNE to transfer profits, technology, to act as a development agency or to redistribute income" (Rugman, 1981, p. 32).

In recognition of the growing importance of foreign investment activity by firms, the relationship between international trade and investment has now been brought formally into the General Agreement on Tariffs and Trade (GATT). The agenda of the Uruguay Round negotiations includes trade related investment measures (TRIMs). These negotiations deal with interventionist measures by host country governments: the goal of the negotiations is to prohibit measures taken by host governments with respect to incoming MNEs. At the initiation of the United States, a list of eight types of measures to be prohibited in host countries was proposed:

1. Local content requirements;
2. export performance requirements;
3. local manufacturing requirements;
4. trade balance requirements;
5. production mandate requirements;
6. foreign exchange restrictions;
7. mandatory technology transfer;
8. limits on equity participation and on remittances.

The rationale of the TRIMs negotiations is that international investment policy, just like international trade policy, should be open liberal policy determined by market forces. Host governments should not have interventionist policies as they only reduce global economic welfare.

Given the multilateralisation of investment flows since the 1980s, and the fact that the trend towards the globalisation of business is accelerating, there is now need for general international rules on investment. Indeed, a General Agreement for international investment has long been advocated by economists, notably, Kindleberger (1970), Bergsten (1974) and more recently Hufbauer (1989) and Ostry (1990).

There are two sets of issues involved in the notion of an international agreement on investment. First of all, the substantive issues which must be derived from a normative theory of investment. Accordingly, investment policy would be open liberal investment policy but with legitimate exceptions allowed to justify the correction of market imperfections which lead to misallocation of resources. Then the second set of issues would pertain to the procedural issues: how such an agreement would be implemented (Bergsten and Graham, forthcoming).

This article will be concerned only with the substantive issues of international investment policy. The objective is to propose some normative principles for direct foreign investment.

## 1. Normative Theory of International Trade and Investment

### a) *Theory of Optimal Intervention*

Normative economic theory has long been concerned about imperfections in the workings of the market process pointing out different types of damage that such market imperfections can inflict on resource allocation. The normative theory of international trade has developed the theory of "optimal intervention" in terms of "first best" and "second best" policy measures for the correction of market failure (Corden, 1974). But this theoretical framework cannot simply be transposed to investment theory. The analytical instruments of normative trade theory must be modified in the light of theoretical developments in industrial organization before they can be applied to DFI.

The central normative issue with respect to DFI relates to externalities in knowledge (Johnson, 1970, pp. 37-38). The essential problem is the divergence between private and social cost in the production and dissemination of industrial knowledge. The theory of internalisation as outlined by Rugman (1981) shows how the MNE develops an internal market across borders in response to an externality. Internalisation allows the MNE to appropriate a fair return for its costly research and development expenditures for industrial knowledge. In the case where the external market mechanism fails to set a price for the private production and dissemination of knowledge, the internal market of the MNE allows proprietary knowledge to be used efficiently. The MNE endogenizes market imperfections by replacing the external market by an internal market.

The normative framework for the analysis of internalisation of externalities is that of Ronald Coase's theorem outlined in his article "The problem of social cost" (1960). The principal proposition of Coase's theorem is that internalization of externalities will permit allocative efficiency to be reached without government intervention. This conclusion is dependent on the assumption that transaction costs between the parties involved are zero. Of course, transaction costs are not zero in the case of creating an internal market as shown in the positive theory. But the theorists of internalisation postulate that internalisation is a superior mode of production to external trading because transaction costs are lower in the former than in the latter (Casson, in Rugman, 1981, p. 20).

The Coasian approach to externalities differs fundamentally from neoclassical normative trade theory which has been dominated by the Pigouvian approach of government subsidies and taxes (Pigou, 1918). In order to evaluate the internalisation approach we must specify the nature of economies of scale and show how welfare analysis has been modified by recent theoretical developments in industrial organization.

## b) *Industrial Organization and Economies of Scale*

Internal economies are those which are firm-specific. The conventional wisdom which considered internal economies of scale as synonimous with natural monopoly has been overturned by the theory of contestable markets (Baumol, Panzar, Willig, 1988) What this theory shows is that the threat of new entry is sufficient to force socially optimal behaviour on the part of firms. It is this threat of potential competition which forces average cost pricing on firms subject to decreasing costs. This satisfies the Ramsey optimality rule (Ramsey, 1927) where Pareto optimal pricing is not financially viable for firms. And, under certain conditions, large oligopolistic firms will even be forced to adopt marginal cost pricing. The implications of this theory for public policy is that a high level of industrial concentration may be compatible with optimal social welfare -- as long as the market remains contestable, that is, where there is freedom of entry and exit.[1]

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[1] The theory of contestable markets was first developed for the analysis of public monopolies which were state controlled such as telecommunications, air transport, etc. But it is now recognized as a general theory of industrial organization.

External economies of scale are not firm-specific; they result from expanded industry production that reduces costs for each firm due to either technological economies or pecuniary economies. Krugman (1987) pointed out how theoretical developments in industrial organization has modified the traditional trade theory approach to technological external economies. The traditional theory, with its reliance on perfect competition, could not explicitly recognize the most plausible source of external economies, *i.e.* incomplete appropriability of the results of R & D which has a large fixed cost component. Pecuniary external economies refer to the ability of firms to procure factors and inputs at lower prices. Given the assumption of parametric prices in perfectly competitive factor markets, pecuniary economies are impossible in the case of primary factors. They can only be observed in intermediate inputs where the supplying industry has increasing returns to scale (Chacoliades, 1988).

## 2. Some New Elements of Welfare Economics

### a) *Internalisation of External Economies*

How do we now evaluate the internalisation of external economies by MNCs in the process of DFI? In the case of DFI, the multinational firm maximizes its profits by increasing its internal economies of scale which result from international production. The international business strategy of the MNE is to augment internal economies of scale through horizontal, vertical or conglomerate integration of production across frontiers. The internal market created by DFI is considered superior to the external market because the MNE can achieve lower overall costs than through home production and exporting. The MNE can make its fixed costs lower through DFI by procuring intermediate products at internal prices. The MNE can lower its variable costs by using cheaper labour abroad than that in the home country. And economies of large scale production will lower the price of raw materials and other inputs which are also procured at internal prices. Thus the cost-minimizing/profit maximizing strategy of the multinational firm is to internalise the external economies, both technological and pecuniary.

From this we could conclude that the internalisation approach does indeed seem to suggest that government intervention is not necessary in the case of externalities relating to DFI. As long as the internal market is more efficient than the external market, the theory predicts that international production by MNEs will take place in locations of least cost and, consequently, contribute positively to world welfare.

The policy implication of the theory of international production points to the desirability of open liberal investment policy as "first best". It advocates the elimination of all host government intervention in the affairs of multinational firms. In order to maximize global welfare, host governments should not have interventionist policies as they would only reduce world welfare. This is the logic behind the trade-related investment measures (TRIMs) currently being negotiated in the Uruguay Round. All the various types of intervention by host countries which restrict MNE activities should be prohibited. But the validity of this *laissez-faire* policy has been undermined by structural developments since the 1980s.

## b) *Structural Changes in International Equity Markets*

Two major factors emerged in equity markets in the 1980s. The first was a very large increase in investment-led mergers and acquisition (M & A) activity (Moncayo von Hase, 1992). What has stimulated M & A activity rather than expansion of the firm through internal growth has been the increasing openness of national capital markets. This was largely the result of regulatory factors. The regulatory environment of national capital markets has changed dramatically since the 1970s. Starting with the liberalisation of banking (Gavin, 1985) and followed by the deregulation of national stock and bond markets in the 1980s in the major financial centres, equity (Gavin, 1985) and followed by the deregulation of national stock and bond markets in the 1980s in the major financial centres, equity bond markets have become increasingly integrated. "While restrictions on markets have become increasingly integrated. "While restrictions on foreign ownership of equities still remain arguably the largest regulatory obstacle to free international capital movement among OECD countries, they have declined" (Walter, 1990, p. 18).

As a result of liberalised financial markets, mergers and acquisitions — which are increasingly cross border – have become the main means of economic restructuring for corporations to meet changing conditions of competition. Although M & A activity has undergone a

relative decline in the United States and Britain during the last two years, it is expected to continue at a high rate in the 1990s, particularly in Europe.[2] Significant restructuring of European industry is expected to continue in the context of the implementation of the European Community (EC) directives for the internal market after 1992. Indeed, the new merger rules, adopted by the EC at the end of 1989, facilitates the practice of cross border mergers in Europe. Thus investment banks rather than governments play an increasingly important role in industrial restructuring (Smith and Walter, 1990). This is possible because, on the one hand, competition policy has been brought into harmony with liberalised financial markets, while on the other hand competition policy has been more rigorously enforced with respect to elimination of government subsidies and other state aids to industry for purposes of restructuring. A similar trend has been observed in developing countries in a recent UNCTAD report (1991).

The second major trend to emerge in the 1980s was the increasing use of non-equity forms of investment, notably in high technology industries. Since the 1980s, global multinational corporations have been characterised by a substantial amount of intra-industry and intra-firm investment which has taken the form of an interlocking network of crossborder alliances (Dunning, 1988). This has been motivated by "technology sharing" which has led to new forms of cross border investment. These new forms frequently take the form of "technology cartels" (Baumol, 1992, p. 135), whether through R & D consortia, joint ventures or other forms of strategic alliances.[3] This has created a very dynamic environment for technology innovation and dissemination when viewed from the perspective of intertemporal efficiency. As a result of this realignment of international competitive factors, firms are obliged to continually reassess their portfolio of assets with sales of assets in some sectors or countries in order to finance the increase of assets in others.

What are the implications of these structural changes for the theory of DFI? In view of the dynamic evolution in the 1980s, Dunning (1988) suggested, *inter alia*, integrating the concept of divestment into the theory of international investment.

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[2] See various editions of *Mergers and Acquisitions in Europe*.
[3] One of the most comprehensive data bases concerning inter-firm cooperation has been compiled by the research centre of the Montedison group in Italy. It has been processed by Ricotta (1987), cited in UNCTAD (1992).

Divestment has been by and large treated in the literature so far as a discrete act of asset disposal, *i.e.* the reverse of acquisition. But Dunning emphasises the 'organic' relation between investment and divestment. He says that integration and disintegration within divestment. He says that integration and disintegration within multinational corporations often go hand in hand with each other. Particularly in times of rapid technological change, growth and decline are handmaidens to each other (Dunning, 1988, p. 21). Accordingly, divestment is part and parcel of a continuous reappraisal of the amount and disposition of assets which is either desirable or feasible for the firm to hold. When incentives for internalisation are reduced or disappear, the MNC will sell some assets and acquire others. This may take the form of total divestment of its assets or more frequently, selling assets in some countries or sectors to finance the acquisition of new assets in others. Divestment is, therefore, a function of the 'cost of exit'.

We will now integrate the concept of 'freedom of exit' into the theory of investment. In order to do this, we will incorporate some elements from the theory of industrial organization, notably, the theory of contestable markets from which some welfare conclusions can be drawn.

## 3. Intertemporal Analysis of Investment in Contestable Markets

The theory of contestable markets takes its inspiration from Bain (1956) and Sylos Labini (1962) rather than from Chamberlin (1933).[4] Models of industrial organization in the Bain-Sylos tradition focus on interaction between incumbent and potential entrants (for a detailed exposition of the Bain-Sylos model see Schering, 1980, ch. 8). This is the starting point for the analysis of contestable markets (Baumol, Panzar, Willig, 1988, p. 41).

A contestable market is a market vulnerable to costlessly reversible entry – even when it is currently occupied by an oligopoly or even a monopoly. Thus in contestable markets 'freedom of exit' is of

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[4] The theory of internalisation integrates the insight of Ronald Coase (1937) on transactions costs into a Chamberlinian model of the firm with decreasing costs (see Casson, "Foreword", in Rugman, 1981).

comparable importance to 'freedom of entry'. With costless exit, supernormal profits will offer incentives for rational entrepreneurs to enter the market. Such entrants need not fear changes by incumbent firms. If the latter do engage in strategic pricing the new entrant can exit from the market. With reversibility, there is the possibility for the entrant to earn temporary profits at the initial price of the incumbents and then exit if necessary. This is the hypothetical ideal case of perfectly contestable markets.

The normative implication of perfectly contestable markets is that potential competition is sufficient to affect the behaviour of incumbent firms with positive consequences for the general welfare. The 'invisible hand' is at work in a manner in contestable markets. The threat of potential competition will force large oligopolistic firms to adopt average cost pricing. This behaviour will satisfy the Ramsey principle where marginal cost pricing is not financially viable for firms with decreasing costs. In the case of perfectly contestable markets, optimal allocative efficiency will be achieved by unregulated market forces. This is the case in static analysis. However, in intertemporal analysis we will see that the market is frequently not contestable. When this is so, the market mechanism may well produce a disorderly evolution of industry which leads to a misallocation of resources. We will now analyse the case where intertemporal investment entails sunk costs for firms as a result of which the market will not be contestable.

### a) *The Problem of Sunk Costs and Unsustainable Prices*

The theory of contestability distinguishes between fixed costs and sunk costs for the firm and brings out their vastly different implications.[5] Unlike fixed costs, sunk costs are costs that in the short or immediate term cannot be eliminated even by total cessation of production. As such once committed, sunk costs are no longer a portion of the opportunity cost of production. The issue of sunk costs will become critical in the intertemporal investment process which will result in the problem of unsustainable prices.

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[5] For a comprehensive analysis of sunk costs, fixed costs, freedom of entry and freedom of exit, see Baumol, Panzar, Willig (1988, ch. 10).

A major dilemma arises for the firm where there are economies of scale in capacity construction costs and those costs are sunk. When of scale in capacity construction costs and those costs are sunk. When efficiency requires construction to be spread over time and there are scale economies in sunk costs for construction of capacity, there will be no "sustainable" prices for the firm.[6] The incumbent can be driven from the market at precisely the time that efficiency calls for expansion. Even in the absence of technological innovation or superior efficiency, given incumbent prices, the new entrant will always have an opportunity to take at least part of the market away from the established firm if scale economies in construction are significantly strong and to do so before the incumbent can recoup its investment. This is the problem of "unsustainability" and can happen when there is no slack in the firm. The decline of the firm cannot be ascribed to the usual explanations such as technological obsolescence, deterioration of management, workmanship, etc.

Thus we see that, in a market where demand is growing, if construction costs are sunk, and if these costs are the determining component of the firm's capital costs, and if there are declining average costs in such construction, then no set of fixed product prices for the different dates will enable incumbent firms to prevent entry when it is efficient for them to expand their capacity. The incumbents' product prices will be undercut by new entrants prices. And the more rapid the expansion of demand, the greater the technical and commercial economies of scale that firms can obtain, and the lower their costs – hence their prices – will be, prices of factors of production being equal (Sylos Labini, 1984, p. 123)

The unsustainability theorem seems at first to be paradoxical. Intuitively one would think that there are strong complementarities between multiple period production by a single firm using much of the same plant in both periods. One would expect that to give the incumbent firm an advantage over any firm choosing to supply output in only one of the two periods. However, the firm that enters the in only one of the two periods may have a strong advantage vis-à-vis the market in the second period may have a strong advantage vis-à-vis the older firm. The incumbent firm has the advantage of being able to use the same plant to produce during both periods. But this advantage is overwhelmed by a growing opportunity cost over time during which resources are tied up. This is the opportunity cost of resources tied up

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[6] The material in this section is based on the theorem of "unsustainability" which is presented in a mathematical model in ch. 14 of Baumol, Panzer, Willig (1988).

by the intertemporal process which we may interpret as the interest cost, the cost of time, or any usual firm in which this phenomenon is described. If the interval between the two periods is sufficiently long, this cost rises, without let up, and does so at a compound rate.

In addition to the risk of demise and replacement of the incumbent, it also implies that, in the presence of large sunk costs, the incumbents will be vulnerable to displacement before they are able to recover their initial investment cost. If its first period price is sufficiently high to permit it to recover its costs in the absence of entry, the firm must leave itself open to successful entry and takeover in that first period. On the other hand, if the first period is low enough to prevent entry at that time, the incumbent firm cannot set the second-period price sufficiently high to recover capital cost without permitting the second period entrant to drive it from the market.

The semiconductor industry illustrates the problem of sunk construction costs in intertemporal investment. The construction of fabrication facilities for semiconductors has demonstrated increasing sunk investment costs (Flamm, 1990, pp. 229-230). Packing the maximum amount of circuitry on to a state-of-the-art chip has required increasingly expensive manufacturing equipment and facilities. The capital costs of a fabrication line for leading edge chips rose from about 15% of the total fabrication cost in the mid-1970s to about half the cost by the mid-1980s, and were projected to pass 60% of total cost by the early 1990s. Total costs for a fabrication facility rose during the same period from $30 million to $100 million and were projected to reach $300 million by the early 1990s. Much of this equipment was highly specialised; it had little or no scrap value outside the semiconductor business and, due to the rapid pace of technological change, it had a short economic life. Investment in semiconductor manufacturing facilities, therefore, were often difficult to liquidate for more than a fraction of their acquisition cost. Thus an increasingly large share of total investment in capacity construction took on the character of a sunk cost.[7]

Casual empiricism would seem to suggest that sunk costs in construction led to the problem of unsustainability for incumbent

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[7] The magnitude of sunk costs involved in developing the newly emerging technology of high definition television was so great that a pan-European consortium was established. See "Eureka-95: the European system of high definition television" (Gavin, 1991).

firms in the industry. The American semiconductor firms were the leaders in the industry in the 1960s and 1970s but there was large scale new entry in the 1980s. The American industry's share of world markets was reduced by approximately 20% and practically all of this went to the Japanese firms who were the new comers and who had substantially lower prices. The fact that the American firms were integrated across frontiers via DFI since the late 1960s did not prevent their displacement (Flamm, 1990). And the experience of the semiconductor industry in the 1980s was a repetition of history of the American television industry in the 1970s (Flamm and Grunwald, 1985).

The problem of unsustainability becomes particularly acute in the context of liberalised capital markets. Since the profitability of a firm is related to some measure of its stock market value, if that value falls sufficiently a takeover becomes inevitable. As a result of the liberalisation of capital markets the takeover mechanism has been used increasingly as a means of corporate control.

The normative implications of unsustainability will now be analysed in the context of international trade and investment. The essential problem that results from unsustainability is a divergence between private and social costs in the investment process.

### b) *The Problem of Unsustainability in the International Context*

We will start with the analysis of unsustainability in the context of international trade, that is, when the new entrant and incumbent operate in different countries. Suppose that in country $A$, a number of firms find themselves threatened with displacement by foreign entrants in country $B$. What one would expect to happen as a result of this shift in comparative advantage, *ceteris paribus*, is that $A$'s exchange rate will fall sufficiently to prevent the takeover of the market by $B$'s enterprises.

But a real change may be expected to result from the unsustainability mechanism. Country $A$'s economy will suffer a real decline in the form of higher real payments for its imports and lower receipts for its exports. The old incumbent firms are kept in $A$ at the expense of real wages and real standards of living. In this way the cost of unsustainability is spread throughout the economy. In the context of international trade, the cost of unsustainability would be a social cost.

Now let us introduce investment. We assume no barriers to mergers, acquisitions or divestment. First of all, we examine investment in the domestic context. The incumbent firm, when confronted with unsustainability will be faced with the prospect of bankruptcy, or perhaps more frequently a takeover. But whether in the case of bankruptcy or takeover, the incumbent firms assets become available at reduced prices. His prices will have to be sufficiently attractive to lead the new entrant to purchase them rather than build his own. The result will be a transfer of assets. Firm $X$ will continue to operate on the same premises, probably using the same labour force as before, but control of its assets will have passed to firm $Y$.

The problem which results here is that the transfer of assets may transform the situation of unsustainability from a social risk into a purely private one. This is so because the new entrant enjoys the fruits of the incumbents investment at knocked down prices. Here we have the situation of a divergence between private and social cost. The old problem of externalities in investment re-emerges. The divergence can have very real efficiency costs by leading to a level of investment in the industry lower than is socially optimal (Baumol, Panzer, Willig, 1988, p. 423).

Now let us introduce foreign investment. When investment includes foreign takeovers, then domestic export firms can be displaced by their foreign competitors. This cannot simply be explained in terms of shifts of comparative advantage; the role of financial markets is also important. As already stated, it is likely that the unsustainability problem will result in depreciation of the domestic currency. The relative appreciation of the foreign currency raises the book value of foreign firms compared to domestic firms. To the extent that all firms face capital constraints in that their borrowing is limited by their debt-equity ratios, the purchasing power of the foreign firms is increased by the exchange rate changes. Consequently, the foreign firm will be able to outbid the domestic firm in a takeover contest even when the expected present value of the target firm is equal to both (Froot and Stein, 1989).

The rise of foreign takeovers adds a whole new dimension to the investment process. In this context, it is important to distinguish between the principle of 'absolute' and 'comparative' advantage. It is the principle of absolute advantage which dominates the transactions of individual firms. Thus, the aggregated sum of individual transactions may not bring about equal value between exports and imports

for a country. Then macroeconomic policy instruments are used to attain equilibrium in the balance of trade. Accordingly, transactions of individual firms are affected by the overall measures and adjustments in the balance of trade. Since the system is backed up by this kind of macro adjustment, the transactions of individual firms assure "comparative" rather than "absolute" advantage. The principle of comparative advantage provides every nation with the opportunity to export as well as import thus bringing about a multilateral balance of trade (Kojima, 1978, p. 23).

Direct foreign investment follows the principle of absolute rather than comparative advantage. Thus, it is hypothetically possible that a country could lose a number of its export industries to foreign investors. In order to prevent such a situation, the host government imposes regulatory measures on foreign firms. These policies today frequently include export performance requirements by local subsidiaries of foreign corporations. The requirements are frequently imposed on grounds of creating jobs, especially by linking the performance requirement to an investment incentive. This goal is justified by national authorities in order to improve the trade balance and also to protect domestic production factors which are internationally immobile – notably labour – as against the internationally mobile factor of capital.

### c) "First Best" Policy in the Case of Unsustainability

In a situation of unsustainability, when the firms of country $A$ face threat of displacement by newcomers from country $B$, rather than take *ex post* measures regulating incoming foreign investment, the "first best" policy measure for country $A$ may be *ex ante* measures, such as to support the investment activities of domestic firms. In the absence of such measures, incumbent firms may be taken over. Commenting on the experience of the 1980s, the *Oxford Review of Economic Policy* (1991) maintained that the takeover mechanism was "expensive and inefficient ... and, above all, it has not provided the right basis for promoting long term investment. One of the more worrying aspects of this is the low percentage of R & D that is funded by the private sector" ("Economic policy in the 1980s", p. 6). In the case of bankruptcy there may be misallocation of resources as wasteful duplication of plant may not be prevented. Due to imperfect fore-

sight, the failure of the incumbent is likely to occur only after the entrant has already come into the business and demonstrated its ability to take the market away from its predecessor. If this is so the new entrant will already have built his new plant before the incumbent is forced to sell off his assets at bargain basement prices. First best policy in the case of unsustainability is demonstrated as follows.

FIGURE 1
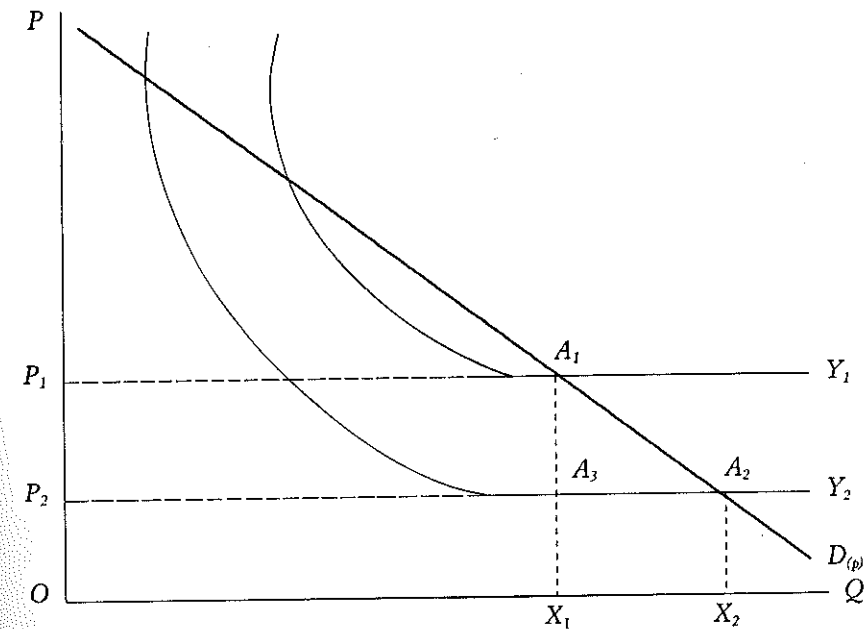


The incumbent firm's $AC$ curve is represented by $Y_1$.[8] With this plant the firm achieves its minimum efficient scale (MES) at output level $X_1$ and price is $P_1$. Now assume that due to decreasing costs in construction, the new entrant (foreign firms) can achieve a larger MES and produce output $X_2$ and sell at price $P_2$. Since the breakeven

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[8] Instead of the classic Vinerian U-shaped average cost function of the firm, Baumol assumes that the curve has a flat bottom, that AC declines through output to a given point and this point represents the minimum efficient scale (MES) and the AC remains horizontal for an interval. This assumption is consistent, qualitatively at least, with the mass of empirical evidence accumulated over the last 25-30 years beginning with the work of Bain. Baumol, Panzar, Willig (1988, p. 33).

point for the incumbent firm is $P_1$, he will have to resort to strategic pricing or be displaced. If the incumbent firm is forced to sell at $P_2$ he will incur a loss of $P_1P_2 \times P_1A_1$. If the firm were granted an investment subsidy at an *ad valorem* rate $P_1P_2/OP_2$, this would lower the cost of construction and make possible a larger plant with increased output of $OX_2$. The increase in consumers surplus is represented by $P_1P_2 A_1A_2$. The cost of the subsidy to the government is $P_1P_2 \times P_1A_1$. The net social benefit is represented by the triangle $A_1A_2A_3$.

How can such investment policy be operated in a national context where, more than likely, the very firms being subsidised are also multinational firms which produce much of their output in foreign subsidiaries? (Arndt, 1992, pp. 105-107). When a multinational firm decides to expand its facilities it must decide whether to expand foreign or domestic production. This decision will be taken on the basis of comparative profitability. Buckley and Casson (1981) presented certain criteria for "the optimal timing of a foreign direct investment". They showed that, subject to conditions specified using the theory of internalisation, foreign production will be more profitable than domestic production and exporting. In this model DFI will yield higher than competitive profit (rent). But this paper has argued that as a result of liberalised capital markets and the growth of M & A activity relative to traditional internalisation strategies, international markets for DFI have become more and more contestable. Accordingly, multinational firms will be forced to adopt average cost pricing in foreign markets.

It is therefore likely that granting a subsidy in the home country will bring about a changing balance between domestic and foreign investment of the MNE. Cairncross (1953) in a historical study showed how in successive decades a boom in foreign investment tended to alternate with a boom in domestic investment.

But some further stipulation must be made. Investment subsidies should be given for specific activities rather than to specific firms. A given amount of subsidy could be made available for a given level of performance, *e.g.* the amount of job creation, and the subsidy should be available to incumbent firms and prospective entrants alike. A public subsidy can, effectively, be in the form of a tax cut. After all tax migration is at the very heart of MNCs practice of internal (transfer) pricing. And the subsidy should be accompanied by liberal open trade policies and liberal open investment policies. In this way the market can remain contestable.

## Conclusions

This article has dealt with externalities as the fundamental normative issue with respect to DFI. The theory of internalisation of externalities is appropriate for the study of establishment of fully owned subsidiaries by MNEs abroad. In the static model of internalisation, optimal allocation of resources may be achieved without government intervention, and open liberal investment policy is "first best".

But in intertemporal analysis of the investment process, in the context of liberalised capital markets, the problem of externalities re-emerges and takes on major significance. Where there is a divergence between private and social cost of investment in intertemporal analysis, no voluntary arrangement can be relied upon to assure a socially optimal level of investment.

The case for an investment subsidy – in the form of a tax cut and linked to job creation – is situated in the wider context of the political economy debate about conflict between global corporations and national governments. It is recalled that national governments have legitimate functions as regards their role in the economic system. For example, it is a function of governments to defend national currencies. Hence they must concern themselves with exchange rates, whose determinants include the national current account and balance of trade positions. It is also a function of national governments to protect the interests of local workers who are largely immobile in contrast to capital which is almost perfectly mobile.

So it must be simultaneously recognized that national governments have legitimate functions and that the exercise of some of these functions will necessarily impose constraints on global corporations. Conflicts between a government and a company will inevitably arise from the interplay of differing national policies and different corporate strategies. As the magnitude of such conflicts rises, with the increasing globalisation of industry and the growing anxiety of many governments over its impact on its ability to pursue their own objectives, it becomes all the more necessary to construct new rules and modes of dispute settlement to order the process of direct foreign investment.

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