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GLOBAL STRATEGIES AND FOREIGN DIRECT INVESTMENT: IMPLICATIONS FOR TRADE AND THE CANADIAN ECONOMY

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GLOBAL STRATEGIES AND FOREIGN DIRECT INVESTMENT: IMPLICATIONS FOR TRADE AND THE CANADIAN ECONOMY

EXECUTIVE SUMMARY

The emergence of global multinational enterprises (MNEs) and the integration of international economic systems have strong implications for international trade and economic policy in Canada. Some traditional policy instruments are being rendered ineffective by globalization and the inter-dependence of international and domestic policies. The challenge of forming responsive, rational and efficient trade and economic policies must be met by new attitudes that will respond to the new realities.

Multinational enterprises have moved away from traditional multidomestic strategies and are adopting increasingly global strategies. This implies a new trade and investment dynamic that is dominated by concerns of profit and market-share maximization for the multinational as a whole. Home country interests do not play as major a part in an MNE's strategic decisions as they once did. However, decentralization of some aspects of production and marketing has gone hand-in-hand with continuing centralization in strategic decision-making, financial planning and research and development. Although not enough empirical evidence exists to be able to claim that MNEs are becoming increasingly stateless, their new strategies *can* be said to be global.

Although policy makers may wish to respond to the more globally focussed firm by pursuing strong policies with regard to foreign direct investment (FDI), they may find that some traditional policy options are becoming increasingly ineffective. Globalization implies that domestic polices have increasing international ramifications and vice versa. Domestic polices, such as fiscal policy, can set up barriers to FDI and trade, causing MNEs to choose to locate in other countries. Traditional policy instruments, such as performance requirements, are becoming increasingly unenforceable and irrelevant, as MNEs become more global.

Trade

It is generally agreed that FDI has a considerable and direct effect on trade. Empirically, trade and FDI are found to be complementary. Increasing absolute levels of intra-firm trade (international trade between affiliated enterprises) is one important positive effect of FDI. To the extent that trade and FDI are complementary, open polices on FDI should encourage trade.

Free trade policies, such as the NAFTA, encourage Canadian affiliates of foreign MNEs to rationalize their behaviour, become more productive and streamline operations. They must seek out a niche market to justify their existence or they could

become redundant within the strategy of the global MNE. This increased competitiveness can have positive long-run effects on productivity and Canada's international competitiveness.

Technology

R&D is an important determining factor in export and productivity performance. Because of this, the effects of FDI on R&D are of particular interest. Government policies can exploit the potential spillover benefits of R&D performed by MNEs both in the host and home countries. Certain key sectors in which the social rates of return to R&D are highest (and there is a high foreign-owned concentration) can be targeted to maximize program efficiency. The instruments used to accomplish this can be wide-ranging, such as R&D tax incentives, educational reform, etc..

Although the relationship is not as strong as might have been suspected, foreign R&D activities are found to be complementary to domestic R&D. Transmission of foreign R&D can occur through FDI, trade and joint research. Policies that encourage freer trade, reduce restrictions on FDI, and foster international and domestic information sharing should boost domestic R&D performance.

Although R&D may be becoming somewhat more internationalized in some industries, R&D performance still remains highly centralized. Therefore, FDI cannot be considered a cure-all for domestic under-investment in technology. The quality of R&D performed by MNE affiliates is also an issue. For example, routine product testing undertaken in order to fulfil host country product or safety standards does not have the same social or industrial benefits as core R&D performed at the home base.

R&D imported from foreign countries has a lower social return, i.e., fewer spillovers, for the domestic economy than R&D undertaken either by domestic firms or foreign affiliates. Canada, therefore, should not rely solely on R&D imported from abroad to boost performance. A competitive domestic scientific knowledge base, appropriate research centres and targeted academic research should continue to be encouraged so that domestic industries can more readily absorb foreign technological spillovers and pursue R&D independently. Direct encouragement of MNEs to undertake R&D in Canada, through coercion or financial inducements, should be avoided as this diverts resources away from the pursuit of longer-term, infrastructural solutions.

Canada should work multilaterally and bilaterally to restrict direct R&D locational inducements offered by other countries. Direct inducements can turn into bidding wars in which the gains from foreign-affiliate R&D are substantially eroded.

All policy makers need to be aware of the opportunity costs of their programs. If the socially efficient amount of R&D can only be achieved at a cost equalling or exceeding the whole amount of the gain over the privately efficient solution, then there is no net gain and the policy should not be pursued.

Technology transfer requirements are largely ineffective in increasing the amount of technology diffused into the host country and should not, as a general rule, be applied. At best, these requirements result in the diffusion of a larger share of a smaller stock of technology. An exception may very occasionally be warranted when there is a foreign takeover of a firm already engaged in core R&D activities. There is evidence to indicate that foreign takeovers of such firms can have negative effects on R&D performance and social benefits. Therefore, it may be important for Canada to retain the ability to impose technology-related performance requirements in carefully selected circumstances.

Competition

Competition policy has a definite role to play in ensuring that the benefits of FDI and the new, global MNE are fully absorbed while the potential costs to the host country are minimized. Although competition policy should not be used to limit FDI, it should facilitate the positive spillovers associated with the presence of foreign multinationals while guarding against over-concentration of market power. FDI should be encouraged, but with the important caveat that the MNE face competition and not be allowed substantial industry control.

Supporting competition in the industries in which MNE affiliates are present could provide several important benefits. First, the MNE is forced to adjust to competition by continually upgrading its production processes. This can benefit consumers by providing cheaper, better quality products. Second, a continuous inflow of technology, encouraged by this competitive environment, increases the spillover potential, while this same environment will increase the likelihood of spillover absorbtion by local firms. Encouraging highly competitive local industries would also have the side-benefit of improving export performance; MNEs operating in competitive sectors have higher propensities to export than those in non-competitive markets.

Economic fundamentals

Although the point that FDI is not a substitute for sound domestic economic policies and growth is seemingly obvious, it is important enough to warrant specific mention. FDI should not be viewed as a remedy for poor productivity, or inferior export or domestic investment performance. The benefits of FDI cannot be fully

realized without the macroeconomic fundamentals of sound fiscal and monetary policy. Domestic industries must be productive, adaptable and competitive in order to survive and thrive, globally and domestically. The economic environment in which these firms operate is increasingly influenced by international forces and domestic economic polices are being increasingly affected by international conditions. Canadian economic and trade policies need to be complementary with those of our trading partners in order for businesses to compete effectively at home and abroad.

RÉSUMÉ

L'émergence des grandes entreprises multinationales et l'intégration des systèmes économiques internationaux ont de profondes répercussions sur la politique commerciale et économique du Canada. Certains instruments traditionnels de cette politique ont été rendus inopérants par le phénomène de la mondialisation et de l'interdépendance des politiques nationale et internationale. Il faut développer des attitudes novatrices, adaptées aux nouvelles réalités, si on veut pouvoir mettre en place des politiques commerciales et économiques qui soient taillées sur mesure, rationnelles et efficaces.

Les multinationales se sont éloignées des stratégies nationales traditionnelles pour se tourner vers des stratégies de plus en plus mondiales. Cela implique une nouvelle dynamique du commerce et de l'investissement qui est dominée par la volonté de maximiser les profits et les parts de marché pour l'ensemble de la multinationale. Les intérêts dans le pays d'origine ne jouent plus, dans les décisions stratégiques des multinationales, un rôle aussi important que par le passé. Cependant, la décentralisation de certains volets de la production et de la commercialisation s'est accompagnée, simultanément, d'une centralisation constante du processus décisionnel stratégique, de la planification financière et des opérations de recherche et développement. Il n'existe pas suffisamment de preuves empiriques pour affirmer que les multinationales sont de plus en plus apatrides, mais on *peut* dire que leurs nouvelles stratégies sont de nature mondiale.

Il est possible que les décisionnaires veuillent répondre au phénomène de la mondialisation accrue des entreprises en mettant de l'avant de vigoureuses politiques concernant l'investissement étranger direct (IED), mais cela pourrait les amener à constater que certaines options traditionnelles en ce domaine sont de plus en plus inefficaces. La mondialisation signifie que les politiques nationales ont chaque jour davantage des ramifications internationales, et vice-versa. Les politiques nationales, dans le domaine financier par exemple, peuvent constituer des obstacles à l'IED et au commerce, ou encore amener des multinationales à s'installer dans un autre pays. Les

instruments stratégiques habituels, par exemple les prescriptions de résultats, sont de plus en plus difficiles à appliquer et de moins en moins pertinents, au fur et à mesure de la mondialisation des multinationales.

Commerce

Il est généralement admis que l'IED a un effet considérable et direct sur le commerce. De façon empirique, on constate que le commerce et l'IED sont mutuellement complémentaires. L'augmentation absolue du commerce intra-société (c'est-à-dire le commerce international entre entreprises affiliées) est un effet positif important de l'IED. Dans la mesure où le commerce et l'IED sont complémentaires, des politiques ouvertes en matière d'IED devraient donc favoriser le commerce.

Les politiques de libre-échange -- c'est le cas de l'ALENA par exemple -- incitent les filiales canadiennes de multinationales étrangères à rationaliser leur comportement, à devenir plus productives et à simplifier leurs opérations. Elles doivent se trouver un créneau pour justifier leur existence, à défaut de quoi elles pourraient devenir superflues dans la stratégie de la grande multinationale mère. Cette compétitivité accrue peut avoir des effets positifs à long terme sur la productivité ainsi que sur la compétitivité internationale du Canada .

Technologie

La R-D est un facteur décisif important en matière d'exportation et de productivité. C'est pourquoi les effets de l'IED sur la R-D présentent un intérêt particulier. Dans leurs politiques, les gouvernements peuvent exploiter les retombées possibles des activités de R-D menées par les multinationales dans le pays d'accueil aussi bien que dans le pays d'origine. Certains secteurs clés où la rentabilité sociale de la R-D est la plus élevée (et où il y a un fort coefficient de propriété étrangère) peuvent être ciblés pour maximiser l'efficacité d'un programme. Les moyens pour y parvenir peuvent être très variés, par exemple les crédits d'impôt au titre de la R-D, la réforme de l'éducation, etc.

Il a été constaté que les activités étrangères de R-D sont complémentaires de celles menées à l'échelle nationale, encore que la relation ne soit pas aussi forte qu'on aurait pu le supposer. La diffusion de la R-D étrangère peut se faire par l'IED, le commerce et la coopération. Les politiques qui encouragent la libéralisation des échanges, réduisent les restrictions à l'IED et favorisent le partage national et international de l'information devraient dynamiser les activités nationales de R-D.

Les activités de R-D demeurent toutefois largement centralisées, même si dans certaines industries elles ont tendance à s'internationaliser un peu plus. L'IED ne peut donc être vu comme une panacée au sous-investissement national dans le domaine de la technologie. La qualité de la R-D effectuée par les filiales des multinationales est aussi un problème. Par exemple, les essais de routine effectués sur des produits pour s'assurer qu'ils répondent aux normes de sécurité et autres du pays d'origine ne présentent pas les mêmes avantages sociaux ou industriels que les activités essentielles de R-D menées dans ce pays.

La R-D importée de l'étranger a, pour l'économie du pays d'accueil, des retombées sociales moins élevées que la R-D menée par des sociétés nationales ou des filiales étrangères établies dans le pays d'accueil. Le Canada ne devrait donc pas s'en remettre uniquement à la R-D étrangère pour accroître son rendement. Il faut continuer de favoriser la constitution d'une base nationale de connaissances scientifiques compétitives, d'encourager l'établissement de centres de recherche pertinents et de faciliter la recherche universitaire ciblée si l'on veut que les industries nationales puissent absorber plus aisément les retombées technologiques étrangères et mener leurs propres activités de R-D. Il faut par ailleurs éviter d'encourager directement les multinationales à faire de la R-D au Canada, par la coercition ou des incitatifs financiers, car cela mobilise des ressources qui pourraient être affectées à la poursuite de solutions infrastructurelles à long terme.

Le Canada devrait chercher, par les voies multilatérales et bilatérales, à restreindre les stimulants directs à l'implantation des entreprises offerts par les autres pays. Les stimulants directs peuvent donner lieu à une surenchère où les avantages de la R-D effectuée par une filiale étrangère sont substantiellement érodés. Tous les décisionnaires doivent être conscients des coûts alternatifs de leurs programmes. Si les activités de R-D doivent, pour être rentables socialement, s'effectuer à un coût qui égale ou dépasse la valeur des avantages escomptés, comparativement à une solution efficace du secteur privé, il n'y a aucun gain net et la politique envisagée ne devrait pas voir le jour.

Les prescriptions de transfert de technologie sont largement inefficaces lorsqu'il s'agit de vouloir augmenter le volume de la technologie diffusée dans le pays d'accueil, et on devrait, de manière générale, éviter d'y avoir recours. Au mieux, elles entraînent la diffusion élargie d'un paquet technologique restreint. Il arrive, très occasionnellement, qu'il soit justifié de déroger à cette règle, par exemple lorsqu'il y a prise de contrôle étrangère d'une société déjà engagée dans d'intenses activités de R-D. Certains indices donnent à penser que, en l'occurrence, la prise de contrôle peut avoir des effets négatifs sur les activités de R-D et sur les avantages sociaux qui en découlent. Il pourrait donc être important que le Canada conserve la capacité

d'imposer des prescriptions de résultats de nature technologique dans des circonstances très précises.

Concurrence

La politique de concurrence a un rôle précis à jouer si on veut s'assurer que les avantages de l'IED et des nouvelles grandes multinationales sont pleinement absorbés et que les coûts potentiels pour le pays d'accueil sont réduits au minimum. Si la politique de concurrence ne doit pas être utilisée pour limiter l'IED, elle devrait par contre faciliter les retombées positives associées à la présence de multinationales étrangères tout en protégeant contre la surconcentration de la puissance commerciale. Il faut encourager l'IED, tout en étant parfaitement conscient que les multinationales doivent faire face à la concurrence et qu'il ne faut pas leur permettre d'exercer un contrôle substantiel sur l'industrie.

Il pourrait être assez avantageux, sur plusieurs plans, d'appuyer la concurrence dans les industries où les filiales des multinationales sont présentes. D'abord, la multinationale est forcée de s'adapter à la concurrence en améliorant constamment ses méthodes de production. Cela peut profiter aux consommateurs, qui auront ainsi accès à des produits moins chers et de meilleure qualité. Ensuite, un apport technologique constant, facilité par cet environnement concurrentiel, augmente le potentiel des retombées, tandis que le soutien aux sociétés locales, toujours dans le cadre de cet environnement concurrentiel, accroît la possibilité d'absorption de ces retombées par les entreprises locales. Encourager les industries locales hautement compétitives aurait également pour effet positif de hausser le rendement à l'exportation; les multinationales oeuvrant dans des secteurs concurrentiels ont davantage tendance à exporter que celles opérant dans des secteurs qui ne le sont pas.

Fondements de l'économie

À l'évidence, l'investissement étranger direct ne peut tenir lieu de politique économique saine et de politique de croissance, mais il est suffisamment important pour être mentionné de manière spécifique. Il ne faut pas considérer l'IED comme un remède à la faible productivité, ou à un rendement inférieur sur le plan des exportations ou de l'investissement national. On ne peut profiter de l'ensemble des avantages de l'IED si on n'a pas mis en place les fondements macro-économiques que sont de saines politiques financières et monétaires. Les industries nationales doivent être productives, souples et compétitives si elles veulent survivre et croître, aux niveaux national aussi bien qu'international. L'environnement économique dans lequel ces industries opèrent est de plus en plus soumis aux forces internationales, et les

politiques économiques nationales sont, quant à elles, de plus en plus affectées par les conditions internationales. Les politiques économique et commerciale du Canada doivent être complémentaires de celles de ses partenaires si nous voulons que les entreprises soient à la hauteur de la concurrence, au pays comme à l'étranger.

1. INTRODUCTION

The emergence of global multinational enterprises and the integration of national economic systems have strong implications for international trade and economic policy for Canada. Some traditional policy instruments are being rendered ineffective by globalization and the new inter-dependence of international and domestic policies. Nonetheless, the challenge of forming responsive, rational and efficient trade and investment policies must be met. New attitudes need to respond to new realities, as the definition of national interests continues to evolve.

Although globalization is often touted to be an all-encompassing and rapidly growing phenomenon, some authors challenge this perspective.[1] Globalization as a process began as early as the late 1800s, with its modern development finding its roots in rapid advances in technology in the post-war period. These technological advances combined with other factors to reinforce globalization. This Paper will not examine the extent of globalization in detail. It will accept that globalization is a force in international economics and will focus on one aspect of the new economic reality: the effects of global strategies of multinational enterprises and FDI on host economies.

After examining the relative "statelessness" of MNEs and reflecting on the lack of empirical evidence concerning this subject, this Paper concludes that it must fail to accept the hypothesis that MNEs are becoming increasingly stateless. More work must be undertaken before this hypothesis can be accepted with any confidence. There exists ample evidence, however, that MNEs have opted for global strategies in profit or market-share maximization which are different from traditional strategies. These global strategies can have unique impacts on host economies and important implications for international trade and economic policies.

Global MNEs affect host country economies in a variety of ways. Trade, investment and R&D activities are all influenced by the presence of foreign-owned affiliates. Whether the presence of these affiliates is positive or negative for the domestic economy is a key issue, empirical by its very nature. Once their effects are determined, it is more clear whether policy should facilitate the activities of foreign affiliates in Canada.

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[1]For example, K. Christie, *Globalization and Public Policy in Canada: In Search of A Paradigm*, Policy Planning Staff Paper No. 93/01, External Affairs and International Trade Canada, January 1993.

This Paper is organized in three sections. The following section examines the rationale behind global strategies and examines MNEs' "globalness" and/or "statelessness". Section 3 investigates the effect of global corporations on investment, trade and R&D in the host economy. Canadian empirical evidence is also examined. The last section deals with the implications of the emergence of global corporations for Canadian international trade and economic policy. Specific policy suggestions are also put forward in this section.

2. THE EMERGENCE OF GLOBAL CORPORATIONS

2.1 What is a global MNE?

2.1.1 A definition

In order to determine the emergence, or non-emergence of "stateless" multinational enterprises (MNEs), the traditional structure of an MNE must first be defined. Statistics Canada defines a multinational enterprise as a "multicorporation enterprise with controlled corporations resident in more than one country".[2] A multicorporation enterprise consists of an enterprise head and one or more controlled corporations. By definition, then, Canada is both the home and the host country of many MNEs. This Paper examines the effects of foreign-controlled MNEs operating in Canada, i.e., Canada as host.

2.1.2 Have MNEs become global?

Although some authors use the terms MNE and global corporation interchangeably, this Paper argues that a global corporation is a special type of MNE. To explain this, it is useful to differentiate between two extreme types of industrial structures: the multidomestic and the global.[3] The two are quite different industrial structures, characterized by distinct production and financial strategies.

In the multidomestic industry, competition in each country is independent of competition in other countries. The international industry is, essentially, a collection of domestic firms that can transfer knowledge from their home-base to foreign

[2]W.E. Krause and D. Swimmer, *Foreign Investment in Canada: Measurement and Definitions*, Investment Canada Working Paper No. 12, August 1992, p. 34.

[3]Investment Canada, *The Business Implications of Globalization*, Investment Canada Working Paper No. 1990-V, pp. 44-5.

countries. The multidomestic industry is usually associated with products that require differentiation among countries. Examples of multidomestic industries are retailing, distribution and consumer finance.

A global industry is one in which a firms's competitive position in one country depends significantly upon its position in other countries. The global industry is not merely a collection of domestic firms, but one which uses integrated international strategies, exploiting benefits gained in one market for use in another. Examples of industries that have tended to become more global than others include the aeronautics, automotive and electronics industries.

MNEs traditionally adopted international strategies that could properly be called multidomestic. Originally, MNEs would set up production facilities in foreign countries in order to circumvent barriers to trade, such as high transportation costs or tariffs. The subsidiary would produce goods similar to those produced by the parent company and long-term product development and financial decisions were the responsibility of the parent. However, this type of structure did not allow the MNE to maximize global profits or increase global market share because there was no mechanism that allowed for the rationalization of the allocation of resources globally. This, for the company as a whole, was inefficient. Consequently, MNEs have increasingly tended to adopt more global strategies.

Although some authors point to decentralization of decision-making as the determining factor in the globalization of MNEs, others cite increased centralization of decision-making as the most efficient means of pursuing an effective global strategy.[4] [5] This leads to a definitional difference between "global" and "stateless" corporations. Corporations which pursue global strategies, regardless of their level of decentralization, can be called global. In fact, it is sometimes argued that greater regionalization, centralization of R&D, and financial and infrastructural planning is a natural fallout of global strategies. Corporations that are truly "stateless" should fulfil criteria other than simply pursuing global strategies. For example, the MNE should have decentralized R&D, production facilities and financial management. It must not be significantly attached to one or a few countries.

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[4]See S. Rao, *Global (Stateless) Corporations and the Internationalization of Business: Implications for Canada and Canadian Marketplace Framework (Interim Report)*, Industry and Science Canada, July 1993, for an argument supporting the decentralization of decision-making.

[5]See Investment Canada, *The Business Implications of Globalization*, for the case of centralized decision-making.

Global strategies can reinforce ties to one particular country or geographic area and discourage statelessness. For example, intellectual research tends naturally to cluster in one geographic location owing to economies of scale and scope. Also, the degree of control that subsidiaries have over longer term financial decisions or the input they have into strategic planning is still felt by these firms to be limited.[6] Global business strategies could actually reinforce ties that an MNE network has to one country or geographic region, because this is more efficient. Truly stateless firms could well be less efficient.

2.1.3 Have MNEs become stateless?

Definitions of statelessness are arbitrary. Whether "global" and "stateless" are interchangeable terms depends greatly upon which author you read.[7] Because of the lack of empirical evidence and based on the examination of certain indicators below, this Paper cannot, with confidence, accept the hypothesis that MNEs are becoming increasingly stateless. More work needs to be completed in this area before this hypothesis can be said to have been adequately tested. Nevertheless, ample evidence exists to indicate that MNEs are pursuing global strategies that could have unique and important impacts on Canada's trade and economic environment.

Indicators that could be used to measure true statelessness of a MNE are difficult to quantify. The degree of decentralization in decision-making, the degree of subsidiary participation in long-term planning, the direction of intra-firm trade flows, and the distribution and quality of R&D activities are just a few examples of indicators that could determine the degree of statelessness of an MNE.

Intra-Firm Trade[8]

The rapid growth of intra-firm trade has been cited as a result of the increasing globalization or statelessness of MNEs. Although data on intra-firm trade is at best scant and often spurious, available information indicates that it is not as important as some of the literature suggests. A 1993 OECD study on intra-firm trade (IFT) found that the proportion of U.S. intra-firm trade to total U.S. trade has remained relatively

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[6]OECD, *Structure and Organization of Multinational Enterprises*, 1987, pp. 19-20.

[7]The most frequently cited popular treatment of the "stateless" firm can be found in Robert Reich, *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*, New York: Knopf, 1991.

[8]For more detailed information, see Section 3.3.

constant during the period 1977 to 1989.[9] Although intra-firm trade was a significant proportion of total trade, parent to subsidiary trade flows were found to outweigh subsidiary to parent trade flows significantly. The direction of intra-firm trade was usually strongly one-way. The available evidence seems to indicate that MNEs are internationally integrated, with significant intra-firm trade flows, but does not necessarily support the hypothesis that MNEs are becoming stateless because foreign subsidiaries remain import-dependent on their parents.

R&D [10]

A second idea central to the argument that MNEs are becoming stateless is that R&D is becoming increasingly decentralized. If the MNE were to become more stateless, product research would be undertaken in different geographic locations in different local markets. Although some R&D is undertaken in local markets, and it can be argued that more R&D is undertaken than if MNEs were not present in the host country, there is no hard evidence of a trend to increasingly decentralize R&D activity.[11] Also, several authors have found that R&D is not only centrally controlled at the corporate level, but also is typically centrally located.[12] Patel and Pavitt (1991) found that, even in the major countries at the world's technological "core", the production of technology is highly "domesticized" and that firms' technological performance is highly dependent upon the home country's performance.

Autonomy in other decision-making

The OECD has studied subsidiary autonomy and found that parents exert considerable control in product-related areas such as product design specifications, brand name and package design.[13] Financial decisions were also found to be among the most centralized, but this varied depending on the type of decision. The highest

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[9]OECD, *Intra-Firm Trade Study*, TD/TC/WP(92)68/REV1, December 1992.

[10]For a more detailed examination, see Section 3.2.

[11]Although there may be some evidence of increasingly *internationalized* R&D.

[12]J. Markusen, "Multinationals, Multi-Plant Economies, and the Gains From Trade", *Journal of International Economics* 16 (1984). P. Patel and K. Pavitt, "Large Firms in the Productions of the World's Technology: An Important Case of Non-Globalization", *Journal of International Business Studies*, Vol. 22, No.1 (first Quarter 1991). OECD, *Structure and Organization of Multinational Enterprises*, 1987.

[13]OECD, *Structure and Organization of Multinational Enterprises*, pp. 19-20.

incidence of subsidiary independence was found in the area of short-run instruments, such as labour and other inputs purchased in the market, price on sales outside the company and physical quantities produced. There was a large distinction between strategic decisions, which generally garnered a high level of parent involvement, and operational decisions, which were more within the domain of the subsidiary.

A Conference Board of Canada survey suggests that the Canadian experience mirrors that of subsidiaries studied by the OECD.[14] Canadian affiliates of foreign-owned MNEs were found to have little authority over long-term decisions, such as acquiring assets, issuing shares and accumulating debt. They were most autonomous with respect to product pricing, advertising and input sourcing. In short, Canadian affiliates do not have significant autonomy from their parents in making strategic decisions.

Is it stateless or is it global?

As can be seen from the preceding paragraphs, the decentralization of key strategic functions in global corporations may not be the general rule; nor should it be if it infringes upon economic efficiency from the firm's point of view. However, the statelessness of these enterprises is called into question. It seems that MNEs may still, to a large degree, be tied to one country or geographic area. For example, Canadian-based MNEs can be called North American in their outlook, with a few exceptions, but may not be truly stateless. Moreover, recent work by the OECD found that Europe and Asia also followed regionalized investment patterns.[15] Global strategies are being pursued by MNEs in order to maximize global profits and increase global market share, but there is still a considerable amount of attachment to the home country or region. With the lack of empirical evidence supporting the argument for increasingly stateless corporations, it is difficult to accept, definitively, that statelessness is an important and growing trend for the future. It may well be, but more work needs to be done in this area before this conclusion can be reached. Nevertheless, there is evidence to indicate that *globally focussed* firms are a dynamic

[14]Rao, *op. cit.*, p. 7.

[15]OECD, *Globalisation of Industrial Activities: Background Synthesis Report*, COM/DSTI/IND/TD(93)109, 1993, p. 19 and Tables 9 and 10. The OECD has found that around one-half of EU investment goes to other EU countries and that around 60% of total European inward investment stock is intra-European. Also, when measuring the distribution of world stocks of inward investment, it was shown that Japan still held only 0.7% in 1991, leaving ownership of Japanese firms very Japanese.

industrial structure with potentially important and sweeping implications for international economic and trade policy.

2.2 The impetus behind the emergence of global corporations

2.2.1 The trend of globalization

Globalization has been a gradual process, with its modern history beginning in the early 1950s and its roots tracing back to the late 1800s. The term "globalization" originally referred to the emergence of global markets for standardized consumer products and the growth of worldwide firms that serviced those markets. The term has now taken on a broader meaning and refers to the integration of national economies and the interdependence of producers, consumers and governments internationally. It does not, however, preclude intensified regionalization and can encourage regional trade and investment blocs. Because of globalization, the domestic economy and its agents are increasingly exposed to international economic conditions. The result is that traditionally domestic structures, in some industries, are becoming irrelevant and non-competitive.[16]

In the post-war period, rapid advances in technology have facilitated the internationalization of business. Technological advances in areas such as communications, transportation and data management have facilitated global economic integration. Technological advances have gone hand-in-hand with a reduction in protectionist barriers and financial market integration. The development and improvement of international clearing mechanisms, international banking systems and international capital markets have facilitated international financial transactions within MNE networks. The result has been a "virtuous circle" of new technologies, integration of financial markets and internationalization of business, resulting in and reinforcing globalization.

The results of this "virtuous circle" are reflected in trade and investment data. Since the 1960s, the volume of trade in manufactured goods has consistently outperformed world output, particularly in the late 1980s and early 1990s. Since 1985, world FDI outflows have also significantly outpaced both exports and output.[17] It is this rapid growth in trade and FDI that has made the concept of globalization so

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[16]Investment Canada, *The Business Implications of Globalization*, p. 46.

[17]For more detail, see Section 3.1, Christie, *op. cit.*, and D. Seebach, *Globalization : The Impact on the Trade and Investment Dynamic,* Policy Planning Staff Paper No. 93/7, External Affairs and International Trade Canada, June 1993.

popular in economics. But why would this trend of globalization provide impetus for the emergence of stateless multinationals?

2.2.2 Why do MNEs exist?

The theory of the firm states that firms rationally maximize profits. In a perfectly competitive world, including perfect labour mobility, there would be no reason for the existence of MNEs. If there were no transportation costs, trade barriers, entry barriers, etc., firms would take advantage of economies of scale by centralizing production facilities and exporting their product abroad. Hedging against currency fluctuations and interest rate differentials would also be unnecessary. Competition in the real world, however, is not perfect.

MNEs exist because there are costs associated with exporting or contracting a foreign firm to supply the export market. "Internalization" theory provides some other insights into why a firm would not want to contract out its production to foreign firms. The theory postulates that a firm's advantages, particularly its less tangible ones, can often be best exploited through subsidiaries rather than through markets or contracts.[18] Intangible assets like property rights, patents and other forms of knowledge may be the subject of predatory behaviour on the part of the foreign firm contracted by the home enterprise. Ownership of the foreign firm substantially reduces the risk of loss of market share and helps ensure exclusive access to specialized information. Internalization, either horizontal or vertical, also has the advantages of using differential prices by markets, avoiding the costs of bilateral bargaining, using transfer pricing to minimize the effects of tariffs and other government policies. It would normally be difficult to harmonize the actions and intentions of several parties of differing nationalities, but this is facilitated by the existence of one supra-national firm.

[18]A.E. Safarian, "Government Control of Foreign Business Investment", *Domestic Policies in the International Economic Environment,* 1985, p. 13.

3. INVESTMENT, TRADE AND THE GLOBAL CORPORATION

3.1 Global corporations and patterns of investment

3.1.1 Evidence from theory

Multinational enterprises have a variety of methods of investment at their disposal. These exist along a continuum from a zero-ownership option to a wholly-owned option. Why MNEs choose one option or range of options over another is dependent upon such factors as their global strategy, the political and economic environment in the home and host countries and the type of project. For example, it is argued that a wholly-owned subsidiary is a more appropriate means for the MNE to exploit its advantages in technology and knowledge, and that looser ownership arrangements could lead to excessive leakage of the intangible assets.[19] Wholly-owned strategies also allow the MNE more flexibility in moving its assets around the world in response to increasingly rapid changes in comparative advantage and other economic conditions. The marked increase in FDI during the 1980s illustrates the MNEs' preference for this wholly-owned strategy as a response to (and partially as a precipitator of) globalization.

A more cooperative ownership strategy, including joint ventures and other strategic alliances, is becoming a popular MNE global strategy for the 1990s.[20] The rationale behind this seems to lie in risk management, both country and project-specific, although economies of scale and technological complementarity are also important reasons. The global recession, which is particularly relevant to the FDI-intensive OECD countries, led to unstable economic and political conditions in many countries, as high deficits compounded with slow growth. This instability leaves MNEs more exposed to country risks related to the economic environment and the variability of tax and investment policies of the host countries. Also, investment in large, long-term and costly projects, such as R&D projects, has increased the amount of funds needed for specific and high-risk projects. Sharing the risk, both on the country side and the project side, has become an attractive option for global MNEs.

The switch from wholly-owned to partially-owned investment strategies on the part of MNEs, if this occurs, could have a beneficial effect on the host economies. Technology may be more easily and rapidly transferred to the domestic industry and productivity gains that result from the MNE entering an industry may be more quickly

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[19] *Ibid.*, p. 12

[20] Rao, *op. cit.*, pp. 13-14.

realized. Intra-firm trade flows may be affected, with an augmentation of subsidiary to parent trade flows being one possible positive outcome.

3.1.2 Canadian data

Nominally, FDI in Canada has more than doubled over the last decade. FDI as a percentage of GDP, however, has been holding relatively steady at slightly below 20% since the mid-1980s, after experiencing a steady decline since the 1960s (Table 3.1.1). In 1992, total FDI as a percentage of GDP stood at 19.7%, up slightly from 1991. The percentage seems to have been increasing over the 1990s, but there are not enough observations to herald a trend. The data indicate that FDI, if taken relative to the size of the Canadian economy, has not exhibited the rapid growth that a simple nominal growth rate would show.

Table 3.1.1
Total FDI in Canada (Year-End) as a Share of GDP[21]

Year	FDI ($ millions)	GDP ($ millions)	FDI/GDP (%)
1950	4,098	19,125	21.42
1960	13,583	39,448	34.43
1970	27,374	89,116	30.72
1980	64,708	309,891	20.88
1985	87,226	477,988	18.25
1990	126,588	667,843	18.95
1991	131,630	674,388	19.52
1992	136,622	687,334	19.88

[21]Source: Statistics Canada Catalogue No. 67-202.

The share of total assets under foreign control in Canada, for all industries, increased during the 1980s and has levelled off from 1988 to 1992 to remain at around 20% (Table 3.1.2).[22] [23] The economic recession and a wave of corporate merger and acquisition activity caused a decline in the aggregate level of operating revenue of Canadian-controlled companies, while the long-term decline in the share of foreign-controlled revenue reversed and recorded a net increase over the 1988 to 1992 period. It is possible, however, that this is part of a cyclical adjustment and the recent increases in foreign control will be temporary.[24] Although U.S-controlled firms continued to dominate the foreign-controlled sector of the economy, strong growth from the EU and others continued to erode their dominance on both the assets and operating revenue sides.

[22]Data for 1983 to 1988 are not directly comparable with the data available from Statistics Canada for 1989 to 1992 due to changes in the data sets. There is a break between the current and historical series.

[23]Control of a corporation is the potential to make the strategic decisions of the corporation. In almost all cases, control is the result of owning greater than 50% of the voting shares. This is referred to as *majority voting ownership*. However, *effective control* can result from ownership of less than 50%, but of the largest block of voting shares. This can also be called *minority control*. For simplicity, the owner of a block of equity which has at least 33% of the voting rights is assumed to have effective control. The assigning of control based on the minority control concept was incorporated into CALURA statistics in 1986 and they were revised back to 1980. The overall percentage of cases in which control has been assigned on the basis of minority control has been relatively low. Statistics Canada Catalogue No. 61-210 and No. 61-220.

[24]A similar phenomenon was also noticeable during the early 1980s recession. During this earlier recession, the Canadian-controlled sector did not experience a decline in revenue but its growth rates were more depressed than those of the foreign-controlled sector. These led to a modest increase in the share of foreign-controlled revenue. On the evidence of these two periods, it appears that the operations of Canadian-controlled firms are more affected by recessionary forces. After the recession, the Canadian-controlled sector rebounded with growth rates of revenue that exceeded those of the foreign sector. Statistics Canada Catalogue No. 61-220, p. 16.

Table 3.1.2
Foreign-Controlled Shares of Total Assets and Operating Revenue[25]

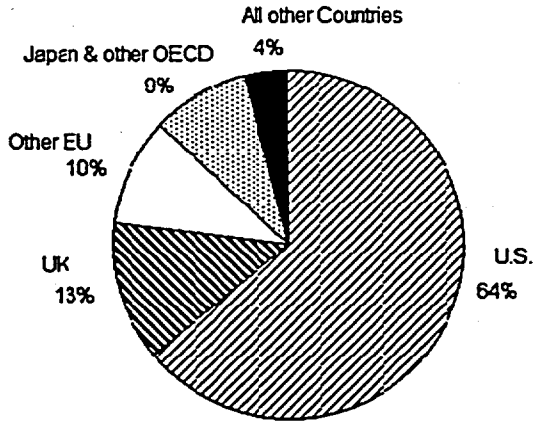
Year	Total Assets (%)	Operating Revenue (%)
1983	17.5	27.7
1984	17.7	28.0
1985	18.2	27.4
1986	18.4	26.2
1987	19.2	26.2
1988	20.2	25.7
1989	21.2	25.5
1990	21.2	26.1
1991	20.8	26.8
1992	20.8	27.6

Foreign direct investment in Canada is still dominated by the U.S., at 64% of total at year-end 1991, although this figure has fallen sharply since the mid 1970s when the U.S. accounted for about 75% of FDI in Canada (Chart 3.1.2). Increases in the shares of the EU, Japan and other Pacific Rim countries accounted for the decrease in the U.S. share. The EU, collectively, is the second-largest direct investor in Canada, accounting for 23% of the total. FDI is still overwhelmingly undertaken by OECD countries; non-OECD countries accounted for only 4% of the total.

The two specific industries that were the largest holders of total stock of FDI at year-end 1991 were the financial industry and the energy industry, at 18% and 17%, respectively (Chart 3.1.3). Of the 64% of U.S. FDI in Canada, 17% of the stock was located in the energy industry, while the financial industry held 14%. The industries that attracted FDI tend to reflect Canada's natural resource endowments.

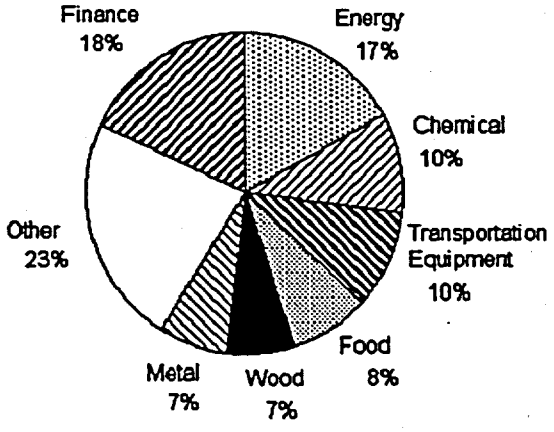
[25]Source: Statistics Canada Catalogue No. 61-220. Data for 1983 to 1988 are historical series and cannot be directly compared to current series data for the period 1989 to 1992. There is a break in the series due to changes in the data sets.

Chart 3.1.2
FDI In Canada By Geographical Area of Source, Year-End 1991



Source: Statcan Catalogue No. 67-202

Chart 3.1.3
FDI in Canada By Industry, Year-End 1991



Source: Statcan Catalogue No. 67-202

3.2 Research and development, the case of MNEs

3.2.1 Why bother with R&D?

Recent studies have shown that research and development are statistically significant determinants of differences in export and productivity performance amongst OECD countries.[26] Productivity enhancements result from two types of positive externalities or spillovers. The first, and more direct, is downstream benefits that accrue to the purchaser of technological products that enhance their own productivity in excess of the purchase cost. The second is the external effect that a research project or discovery may have on related R&D. R&D can also contribute to productivity growth through its interaction with other inputs. For example, since R&D and capital are complementary, increasing the stock of R&D will induce a firm to invest in capital equipment and employ new technology.[27] Because R&D affects future international competitiveness and dynamic comparative advantage, the specific question of how the presence of foreign-controlled MNEs affects R&D in the host country is an important one.

3.2.2 Technology transfer

In order for an MNE to be able to penetrate a local market successfully, it is logical that it must have some advantage over local firms in the industry, since local firms will have already achieved certain economies of experience. It is argued that these advantages can often be technological.[28] The international transfer of technology is more likely to take place through subsidiaries when the market alternative is costly. This is the case when the technology is relatively new or more sophisticated. Therefore, high technology transfer is more likely to take place through MNEs' affiliates, rather than through the direct import of technological goods. However, the local industry must be competitive enough and sophisticated enough to utilize the benefits of the transfer of technology. If domestic firms cannot absorb transferred knowledge, the positive effects are greatly diminished.

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[26]Patel and Pavitt, *op. cit.* P. Mohnen, *The Relationship Between R&D and Productivity Growth in Canada and Other Major Industrialized Countries*, 1992.

[27]Mohnen, *op. cit.*, p. 3.

[28]Safarian, *op. cit.*, p. 13.

3.2.3 The effects of spillovers

Spillovers, or externalities, are effects of activities undertaken by one or several agents that accrue to others that are not directly involved in the activity, or more precisely, are not paying the cost of the activity. In this case, the effects of one company's activities are said to "spill over" to a second company or a private interest. These externalities can be positive or negative.[29]

Spillovers can occur when the optimal private allocation of resources does not equal the socially optimal allocation. In a case where social and private marginal benefits differ, the socially optimal solution will not be reached by market forces because agents will "free ride" on the expenditures of other agents. If the social benefit is greater than the private benefit, there is under-investment in the resource.

Studies dealing with the Canadian and American social rates of return to R&D capital have shown that they are significantly higher than the private rates. This implies that there are significant positive spillovers associated with R&D capital formation.[30] There will, therefore, be an under-investment in R&D if the decision to undertake R&D is completely private. But, how does this relate to foreign-owned MNEs?

Bernstein (1991) found that, in Canada, there are four "strategic" industries in which there is substantial under-investment in R&D and potential social gains from increasing R&D investment. These are: non-electrical machinery; rubber and plastics; chemical products; and petroleum products.[31] In these industries, the social rates of return are *two to four times greater* than the private rates of return. Two of these industries, chemical products and petroleum products, are *foreign affiliate-intensive*. In order to increase the amount of R&D in these two important industries, and to try to reach a socially optimal level of R&D performance, the foreign affiliates in these industries should be encouraged to undertake more technological development (see Section 4.2.3 below).

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[29]An example of a negative spillover is the effect of water pollution on those living downstream from a polluting company. An example of a positive spillover would be a firm building a private road with public access. The public would benefit at the firm's expense.

[30]J. Berstein, "R&D Capital, Spillovers and Foreign Affiliates in Canada", *Foreign Investment, Technology, and Economic Growth*, 1991, p.128.

[31]*Ibid.*, p. 129.

3.2.4 Empirical work

Data concerning the effects of MNEs on R&D in host economies are limited and sometimes contradictory. The OECD has shown that R&D intensity of foreign subsidiaries operating in the manufacturing industry in Canada is, on the whole, slightly lower than for the entire manufacturing industry based in this country.[32] However, Berstein (1991) found that, for a group of "major R&D performers", the mean investment in R&D for foreign affiliates is 2.5 times greater than that of domestic firms.[33] For Canada, nonetheless, the OECD finding indicated that foreign technology could be either a complement or a substitute; the relationship either way was not strong. The OECD analysis has also shown that the foreign takeover of firms engaged in R&D activities can result in a net reduction of domestic positive externalities, although an Investment Canada study may provide some evidence to the contrary (see footnote 71).

Bernstien showed that foreign affiliates are less sensitive to business-cycles in determining their R&D capital demands, and therefore less likely to decrease investment in R&D (which would have long-run implications) due to temporary downturns. Over the long-run, domestic and foreign-owned firms were found to behave similarly.

Contradictory arguments are put forward concerning the implications of the presence of technologically active MNEs in host economies. For some countries, a high proportion of foreign-controlled multinationals is likely to augment domestic activities, while for others it is either a consequence or a cause of deficiencies in nationally-controlled activities.[34] For Canada, however, some evidence indicates that the former is probably the case, even though Canada was also found to be a country in which much of subsidiary R&D is parent-financed, which can be interpreted as parent-controlled.

Patel and Pavitt (1991) found that Canada had a greater proportion of foreign-controlled large firms engaged in technological activities than domestic large firms

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[32]OECD, *The Impact of Foreign Investment on Domestic Economies of OECD Countries*, DSTI/EAS/IND(93)3, 1993, p. 51.

[33]Bernstien, *op. cit.*, p. 115.

[34]Patel and Pavitt, *op. cit.*, p. 12.

(Table 3.2.1).[35] Of the 16.9% representing large foreign-controlled firms, however, 14.2% were from the U.S. and 2.6% from the UK, showing the regional nature of technological development and leading to the conclusion that the technological activities of large firms in Canada are heavily dependent on the U.S.. Both a high proportion of large-firm technology in Canada comes from the U.S. and a high proportion of Canadian large firms' R&D is performed in the U.S.. Although this could be assumed to bode ill for Canadian R&D, this need not be the case. The high proportion of R&D shown to be undertaken in the "Other" category in Table 3.2.1 indicates that domestic large firms are unwilling or unable to undertake R&D and, therefore, could benefit from foreign influences.[36] The high degree of foreign control could augment domestic activity because of the limited size of the Canadian market vis-a-vis its U.S. neighbour and because of the under-development of Canadian infrastructure, again in comparison to the U.S..

A recent Economic Council of Canada study also investigated the effects of foreign R&D spillovers. Foreign R&D in this study was defined as R&D activities carried out abroad and did not include the activities of foreign affiliates located in Canada. R&D was assumed to spread across borders via FDI, the sale of patents and trademarks, international trade in goods and services and the cross-border flow of scientific personnel.[37]

The study revealed a weaker than expected effect of foreign R&D, given the importance of Canadian trade with the U.S., the high percentage of foreign ownership of Canadian firms and the proximity of the U.S. market. The return on foreign R&D was drastically lower than the return on domestic R&D. The private rate of return on domestic R&D was found to be in the 10% to 40% range, whereas the private return

[35]P. Patel and K. Pavitt, "The Limited Importance of Large Firms in Canadian Technological Activities", *Foreign Investment, Technology and Economic Growth*, 1991, pp. 79-80.

[36]The category "Other" in Table 3.2.1 included government agencies, other (non-large) firms, and individuals. More than half of the patents in this category were granted to Canadian individuals, who are represented as self-employed entrepreneurs. This again underlines the structural problem of Canadian large firms not undertaking R&D, while small firms and individuals undertake a relatively high proportion.

[37]It is interesting to note that, within the framework developed by Mohnen in this study, the U.S. accounted for 98% of foreign R&D flowing into Canada. None of the other sources (i.e., West Germany, Japan, France and the UK for this study) accounted for more than 1% of the R&D accessible to Canadian manufacturing. This was attributed to the large percentage of high-tech imports coming into Canada from the U.S..

on foreign R&D was found to be 10 times lower. However, the study concluded that foreign R&D is complementary to domestic R&D and, as such, is beneficial.

Table 3.2.1

	National Sources of Patenting in U.S. (3 Columns Total 100%)		
	Large Firms:		Other
Country	Nationally controlled	Foreign Controlled	
Belgium	8.8	39.7	51.5
France	36.8	10.0	53.2
F.R. Germany	44.8	10.5	44.2
Italy	24.1	11.6	64.3
Netherlands	51.9	8.7	39.4
Sweden	27.5	3.9	68.6
Switzerland	40.1	6.0	53.9
UK	32.0	19.1	49.0
W. Europe:	44.1	6.2	49.7
Canada	**11.0**	**16.9**	**72.1**
Japan	62.5	1.2	36.3
U.S.	42.8	3.1	54.1

3.3 Trade Creation or Trade Diversion?

3.3.1 Overview

It is evident from the data presented below that most of the world's trade still takes place between unrelated parties. Intra-firm trade is not growing at the pace some authors on the subject of globalization would lead us to believe. Still, intra-firm trade is an important part of international economic transactions, especially for

Canada. There is a case to be made that, contrary to conventional economic theory, globalization of MNEs actually enhances trade flows.

Conventional international economic theory postulates that FDI and trade are substitutes.[38] The basic assumptions of traditional international economic theory do not allow for the role of MNEs as major players in trade. In reality, the most conservative estimates indicate that MNEs account for more than one third of international trade.[39] Also, empirical evidence shows that the larger part of actual direct investment is between countries with relatively similar factor endowments. Conventional theory would indicate that, if a company chooses to invest directly in a foreign subsidiary, this subsidiary's production would substitute for what the parent would have exported to the host country. This would reduce trade flows. The fact that foreign affiliates might trade goods and services with the parent, require foreign sourcing and sell into the export market (not directly to the parent) are factors that would counteract this substitution.

Although theoretical and historical reasons for MNEs establishing foreign subsidiaries would be to serve *local* markets, empirical evidence shows that their propensities to export and import are *higher than those of local firms.*[40] One reason for this is that the foreign subsidiary is likely to be a large company with a more dominant market position. Also, by their nature, affiliates are more fully integrated into world trade than are domestic firms. This is the case even if the subsidiary is established by a takeover. Links to the parent company and to the global network of the parent are immediately established and intra-firm trade flows, exports and imports, will boost trade.

A recent Investment Canada study showed that foreign-owned manufacturing affiliates had both higher export and import propensities than their domestic counterparts.[41] The export propensity of foreign manufacturing firms was found to be 73% higher than that of domestic-controlled firms. The study concluded that: "Although the tariff may have been important in inducing foreign firms to establish

[38]For more on this, see W. Ethier, "The Multinational Firm", *The Quarterly Journal of Economics*, November 1986, pp.807-9.

[39]OECD, *The Impact of Foreign Investment on Domestic Economies of OECD Countries*, p. 61.

[40]*Ibid.*

[41]R. Covari and R. Wisner, *Foreign Multinationals and Canada's International Competitiveness*, Investment Canada Working Paper No. 16, June 1993, pp. 51-60.

operations in Canada, their affiliates seem to have become competitive exporters in their own right."[42] However, this conclusion must be tempered by the fact that the motor vehicle industry was a dominant factor (and here, if we look at exports on a value-added basis, the numbers would be much lower) and Canadian subsidiary to foreign parent trade flows were not specifically addressed in the study, i.e., it is more difficult to say that affiliates have become competitive in their own right if a high proportion of their exports is to their parents.

Higher import propensities were also noted for foreign-owned affiliates, although these were upward biased because of data limitations. However, the most accurate measure showed that foreign firms had a propensity to import that was five times greater than that of domestic firms. It was noted that the age and condition of the firm had much to do with its importing behaviour, i.e., relatively newer firms were likely to source more heavily than older domestic ones, but firms of similar age may not differ as much in their behaviour.

Overall, this Investment Canada study found that foreign firms were more outward-oriented than their domestic counterparts. Foreign affiliates were found to be trade-enhancing, not trade-substituting. These results are not surprising, given the new global strategies of MNEs. However, subsidiary to parent trade flows and other forms of intra-firm trade are suspected to figure prominently in the trading behaviour of foreign affiliates and trade data may be significantly changed if exports could be calculated on a value-added basis.

[42] *Ibid.*, p. 53.

Table 3.3.1
Export Propensities of Foreign and Domestic Establishments, by Industry, 1987[43]

Industry	Exports as a proportion of total shipments		
	Foreign (%)	Domestic (%)	For./Dom.
Food and beverages	4.42	9.77	0.45
Rubber and plastics	16.61	21.19	0.78
Textiles	36.43	7.74	4.71
Wood	58.81	42.39	1.39
Paper and allied products	66.70	48.92	1.36
Primary metal	9.88	11.39	0.87
Fabricated metal	25.73	21.42	1.20
Machinery	83.02	2.37	35.03
Transportation equipment:	56.00	51.20	1.09
Motor vehicles	55.56	62.88	0.88
Other transportation	60.85	42.28	1.44
Electrical products	33.14	17.02	1.95
Non-metallic mineral products	7.06	8.60	0.82
Petroleum and coal	7.58	3.43	2.21
Chemicals	9.19	34.70	0.27
Misc. manufacturing	24.89	15.06	1.65
Total	**39.50**	**22.83**	**1.73**

[43]Source: Investment Canada Working Paper No. 16, p. 54.

3.3.2 What is intra-firm trade?

Intra-firm trade (IFT) can be regarded as the replacement of market transactions by internal transactions within MNEs.[44] Internalization theory recognizes that market imperfections and high transactions costs are incentives for firms to bypass traditional market arrangements. The literature also points out that intangible assets are particulary difficult to transfer by market mechanisms. These assets include such items as R&D, industrial expertise and firm-specific knowledge, such as of production techniques. Empirical evidence is consistent with this theory, since intra-firm trade is shown to be more highly concentrated in manufacturing industries which are R&D or knowledge intensive.[45] IFT is also postulated to be affected by different tax and trade policies. Since FDI is a pre-condition for IFT, this argument makes sense to the extent that the macroeconomic environment and the investment regime of a country must be conducive to FDI if there is to be IFT.

Most studies on IFT, however, have proven to be largely inconclusive concerning the validity of internalization theory and the importance of intra-firm trade. It is probable that IFT exists where there would not otherwise have been trade, but it is not conclusive whether this is cancelled out by lost trade by other firms or related industries. The difficulty is that there is no "control" environment in which the effects of FDI and IFT can be isolated from other economic conditions. Although, theoretically, FDI and trade in goods are considered substitutes, empirical evidence seems to indicate that they are complements. Certainly, high levels of intra-firm trade appear to go hand-in-hand with investment abroad and it seems unlikely that this is all displaced trade. Moreover, foreign-controlled firms tend to have a higher propensity to trade than domestic firms. The net effect, then, of FDI on trade would seem to be that the intra-firm and other trade created by foreign investment more than offset trade that is diverted by the investment.

3.3.3 Empirical evidence

First, some caution must be applied concerning data. Intra-firm trade refers to the international trade of goods and services within individual MNEs. Although there is general agreement that this off-market trade is a large part of total trade flows, data limitations prevent a determination of its true volume at the world, or even the OECD,

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[44]OECD, *Intra-Firm Trade Study*, para. 48.

[45]See Section 3.3.3.

level.[46] Since the OECD has data available only for the U.S. and Japan, there are statistical gaps in the data reported in Tables 3.3.2a-b because they do not report world intra-firm trade. U.S. data cannot be assumed to be representative of world data. It is also important to note that the two sets of data for exports and imports cannot be added due to double counting, i.e., one cannot add the export and import proportions to obtain the proportion of total U.S. intra-firm trade to total trade. It should also be mentioned that the U.S. Department of Commerce data upon which the OECD study is based is for non-bank U.S. parents only. Thus an important sector for foreign investment, the financial sector, is missing in the data.

The OECD, nevertheless, found that the available data safely indicated that over one third of U.S. merchandise trade was intra-firm in 1989, with intra-firm imports greater than intra-firm exports.[47] It is evident from Tables 3.3.2a-b that the proportion of intra-firm imports and exports to total imports and exports has not been increasing as rapidly and monumentally over the past decade as some authors would suggest. It is evident, however, that IFT accounts for a significant proportion of total U.S. trade. It is difficult to believe that all of this is accounted for by displaced trade.

Table 3.3.2a
Intra-firm Trade of U.S. Non-Bank Parents With Their Foreign Affiliates [48]

Year	Intra-firm exports as a % of total U.S. exports	Intra-firm imports as a % of total U.S. imports
1977	26.3	20.3
1982	21.5	16.3
1989	24.5	15.4

[46]OECD, *Symposium on Globalization of Industry: Government and Corporate Issues,* 1993, p.4.

[47]OECD, *Intra-Firm Trade Study,* para. 26.

[48]Source for Tables 3.3.2a-b: OECD, *Intra-Firm Trade Study.*

Table 3.3.2b
Intra-Firm Trade of Non-Bank U.S. Affiliates With Their Foreign Parents

Year	Intra-firm exports as a % of total U.S. exports	Intra-firm imports as a % of total U.S. imports
1977	9.5	19.2
1982	11.6	20.4
1989	9.0	26.0

In terms of geographic source, the significance of Canadian and European parent firms exporting to U.S.-based affiliates decreased over the period 1977 to 1989. These decreases were balanced by increases related to firms from Japan and "Other" countries, particularly South Korea (Table 3.3.3). Consistent with the positive R&D spillover hypothesis and with internalization theory, the composition of U.S. IFT was found to be one which concentrated in industries with relatively high R&D and human capital intensity.[49]

Table 3.3.3
U.S. Intra-Firm Imports, by Country of Foreign Parent
(as a % of total intra-firm imports by U.S.-based affiliates)[50]

Year	Canada	Europe	Japan	Other	Total
1977	10.7	41.6	44.6	3.1	100.0
1982	8.1	30.4	51.9	9.6	100.0
1989	5.7	30.9	53.5	10.0	100.0

Trade flows tended to be one-way for most U.S. affiliates located in OECD countries; parent company sales to affiliates far outweighed affiliates' sales to parents. This was not so marked for Canada, where trade between Canadian and

[49] *Ibid.*, summary para. 8.

[50] Source: OECD, *Intra-Firm Trade Study*, Table 4 and para 29.

U.S. affiliates tended to be more balanced than trade between U.S. and European affiliates. U.S. parent sales to Canadian affiliates and affiliates' sales to parents in 1989 were both approximately $32 billion (Table 3.3.4).[51] Moreover, it has been noted by McFetridge (1991) that trade between Canadian and U.S. affiliates has become more balanced over time, whereas European firms based in the U.S. have become more import-dependent.[52]

Table 3.3.4
Parent/Affiliate Trade, 1989
(in millions of $U.S.)[53]

	(A) Sales from parent to affiliates	(B) Sales from affiliates to parent	(A/B) Sales Ratio
U.S. firms in Japan	6,044	1,959	3.09
Japanese firms in U.S.	68,454	17,817	3.84
U.S. firms in Europe	26,995	13,027	2.07
European firms in U.S.	39,537	10,027	3.94
U.S. firms in Canada	**32,060**	**32,461**	**0.99**
Canadian firms in U.S.	7,235	1,428	5.07
U.S. firms in other	20,459	24,927	0.82
Other firms in U.S.	12,774	3,524	3.62

[51]However, if trade were calculated on a value-added basis, the story could be quite different. Exports to U.S. parents, particularly in the large automotive industry, can have a high U.S. origin content and this could make the balance tip substantially in the U.S. parents' favour.

[52]D. McFetrige, *Trade Liberalization and the Multinationals*, Economic Council of Canada, 1991, p. 51.

[53]Source: OECD, *Intra-Firm Trade Study*, Table 6 and para. 36.

The OECD found, however, that the relative importance of trade associated with U.S. MNEs (both exports and imports) for the U.S. fell slightly from 1982 to 1989, but this was due to a fall in trade with non-affiliated firms.[54] Trade with majority-owned affiliates did not fall. This trading pattern could be indicative of the MNE's growing preference over the 1980s for "close" trade rather than "arm's length" trade. Intra-firm trade was also found to be heavily concentrated in only three industries; transport equipment, machinery and chemicals (Table 3.3.5). However, these sectors all account for a large proportion of total exports and it may be only logical that they should also dominate IFT. With these qualifiers in mind, IFT was still shown to have represented a significant portion of total U.S. trading activity in the 1980s.

A recent Conference Board of Canada survey concerning Canada-U.S. intra-firm trade also found that intra-firm trade was significant, although it has been decreasing on both the export and import side since 1985.[55] This can be seen in Tables 3.3.6 and 3.3.7. The ratio of intra-firm exports to total firm exports fell from greater than 50% to less than one third between 1985 and 1990. The import side also shows a similar fall during that period. The Conference Board, however, still emphasized the high share of intra-firm trade. They also noted that Canadian-owned MNEs exported more to their U.S. affiliates than they imported. This is consistent with the OECD's findings and is also interesting because Canada, the small economy, is exporting more to its affiliates in the larger U.S. market.

[54]OECD, *Intra-Firm Trade Study*, para. 37. A U.S. MNE consists of a U.S. parent and its foreign affiliates. A U.S. parent is defined as a U.S. person that owns or controls 10% or more of the voting securities of an incorporated foreign business enterprise or an equivalent interest in an unincorporated foreign business enterprise. Majority ownership implies controlling 50% or more of these voting securities.

[55]S. Krajewski, *Intrafirm Trade and the New North American Business Dynamic*, Conference Board of Canada Report No. 88-92, 1992.

Table 3.3.5
U.S. Merchandise Exports Shipped by U.S. Parents, 1989[56]

	U.S. Exports Shipped by U.S. Parents ($U.S. mm)	Share	of which: to U.S. affiliates ($U.S. mm)	Share
All industries	228,576	100.0	89,151	100.0
of which:				
Manufacturing	183,510	80.3	81,597	91.5
Food & kindred products	9,828	4.3	1,589	1.8
Chemicals	24,406	10.7	11,709	13.1
Metals	7,381	3.2	1,582	1.8
Machinery (less electrical)	36,781	16.1	22,535	25.3
Electrical equipment	19,907	8.7	7,355	8.3
Transportation equipment	57,793	25.3	27,890	31.3
Other Manufacturing	27,414	12.0	8.936	10.0
Wholesale & retail trade	30,191	13.2	2,788	3.1
Petroleum & products	9,749	4.3	3,099	3.5

[56]Source: OECD, *Intra-Firm Trade Study,* Appendix Table 1.

Table 3.3.6
Intra-firm Exports to Affiliates in the U.S. as a Share of Total Firm Exports[57]

	1985	1986	1987	1988	1989	1990
Manufacturing	.517	.468	.427	.367	.280	.326
No. of firms reporting	53	59	64	75	90	91

Table 3.3.7
Intra-firm Imports from U.S. Affiliates as a Share of Total Firm Imports[58]

	1985	1986	1987	1988	1989	1990
Manufacturing	.762	.685	.661	.579	.569	.571
No. of firms reporting	37	44	49	56	70	73

Covari and Wisner (1993) found that intra-firm trade was an important part of Canada's economic development, especially regarding its trading relationship with the U.S..[59] Intra-firm trade was found to be greater in high-technology industries and those with greater vertical specialization. Therefore, IFT, particularly for the case of Canada, can be viewed as going hand-in-hand with specialization and economic development. Intra-firm trade can improve the productivity of domestic affiliates because it facilitates specialization. This was seen as being important for Canada, because of its relatively small domestic market.

[57]Source: Conference Board of Canada Report No. 88-92, p.1.

[58]Source: Conference Board of Canada Report No. 88-92, p.2.

[59]Covari and Wisner, *op. cit.*, pp. 60-65.

Table 3.3.8
Intra-Firm Imports as a Proportion of Total Imports, Canada, 1988[60]

Industry	Domestic	Foreign
Food and beverages	7.70	37.26
Rubber and plastics	2.29	69.01
Textiles	10.62	70.38
Wood	9.50	10.17
Furniture and fixtures	11.47	75.84
Paper and allied products	8.30	35.89
Printing and publishing	2.37	45.43
Primary metals	23.27	59.60
Fabricated metal	20.77	41.54
Machinery	51.06	80.49
Transportation equipment:	9.68	64.93
Motor vehicles	8.10	65.55
Other transportation	13.47	59.62
Electrical products	19.50	46.60
Non-metallic mineral products	3.25	60.71
Petroleum and coal	0.06	15.72
Chemicals	15.11	58.80
Misc. manufacturing	6.74	88.45
Total	14.51	63.29

[60]Source: Investment Canada Working Paper No. 16, p. 61.

Table 3.3.8 shows the higher proportion of intra-firm imports to total imports associated with foreign-owned firms. Foreign firms have higher proportions of intra-firm trade than domestic firms in all manufacturing categories, with "Wood" being the only one in which domestic intra-firm imports approach foreign intra-firm imports. These results are not surprising, given the finding that foreign-owned affiliates have higher import propensities (and export propensities) than domestic firms. It does, however, reinforce the importance of parent to subsidiary trade in the strategy of the global MNE. These findings for Canada are consistent with OECD findings for other OECD countries.

3.3.4 Conclusions about IFT

It is necessary, here, to say that MNEs, in terms of their merchandise trade, might be more involved with IFT and sourcing from foreign countries, but these countries tend to be located within the parent company's geographic and economic sphere of influence. Although there has been an increase of trade between the U.S. and Japan and other Pacific Rim countries, Canada is still the largest intra-firm trading partner with the U.S.. This points to the apparent paradox that increased globalization and increased regionalism are not mutually exclusive and may even be mutually reinforcing. Pursuing a global profit maximization strategy may imply increased regionalism because this is good economics. Tax regimes, market proximity and the similarity in consumer tastes may all contribute to decisions that would lead to regionalized international business development.

Although hard data on IFT is limited and often spurious, it seems that the bulk of the empirical evidence available indicates that FDI and trade are complements. IFT has been shown to be a significant, even if not an increasing, portion of total trade for both the U.S. and Canada. The importance of IFT for Canada is marked because of its strong economic ties with the U.S. and U.S. parents. Total trade would seem to be enhanced by FDI, but the net effect of FDI on exports and imports, taken separately, is more indeterminate. Nonetheless, most studies in this area agree that IFT is a significant, beneficial effect of the presence of multinational corporations in Canada.

4. POLICY IMPLICATIONS FOR CANADA

4.1 Why encourage MNEs to locate in Canada?

4.1.1 Consumer effects

The entry of foreign firms potentially increases competition in host country markets and forces inefficient domestic firms to adopt efficient methods or face bankruptcy.[61] MNE affiliate production in the host market could increase the diversity of products available to consumers, and/or lower prices. If affiliates produce goods or services (or varieties thereof) that were otherwise unavailable in the home market (and it should be noted here that these include brands like Coke or Pepsi which might compete with local brands) then the welfare of consumers can be increased because the number and variety of consumption choices has been expanded, even if disposable income has not risen. If prices are also lower as a result of increased competition in the market, this would also benefit consumers who find that their budget constraints have been relaxed and they have more money to spend on other goods. These effects increase consumer welfare.

On the other hand, if MNEs push local competitors out of the market, this could have deleterious effects on consumers. MNEs that are large and powerful could successfully pursue predatory pricing so that local firms are unable to compete. If market concentration increases as a result of MNE entry and MNEs are able to pursue monopolistic pricing and production policies, the result could be a net reduction in consumer welfare.

It should be noted that these consumer effects can be, and are often, overlooked from a policy perspective, because consumers are a large, heterogenous group with no collective political power or voice. Special interest groups such as labour unions or large domestic firms can express themselves politically and exercise influence over investment and trade policy. What these groups would see as a potential threat of job losses or increased competition is at least partially offset by the benefits received by all consumers. Policy makers should take overall social welfare into consideration when formulating policy, although this is difficult when political pressure can best be exercised by relatively homogenous, well-organized, well-funded groups.

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[61] M. Blomstrom, "Host Country Benefits of Foreign Investment", *Foreign Investment, Technology and Economic Growth*, 1991, p. 96.

4.1.2 Producer effects

Producers can also benefit from positive externalities through technological spillovers. The presence of MNEs may speed the transfer of technology and other intangible assets, such as knowledge.[62] Personnel trained and employed by the MNE in the host country might receive special training, knowledge and skills that can then be transferred to domestic firms. Since these employees would be highly sought after by domestic firms, it is argued that they would quickly be of benefit to domestic producers. Foreign scientists and R&D specialists employed in the MNE may also be induced to "jump ship" and transfer their knowledge to domestic firms. Further, the very presence of the MNE can increase domestic industry competition and cause domestic firms to increase productivity. This can lead to the employment of more sophisticated technology and increased R&D to ensure future competitiveness.

Evidence has been found in several studies that support the spillover benefits hypothesis.[63] Although analysis was not carried out in depth, it was found that productivity levels of domestic firms increased with the foreign subsidiaries' share of the market. Increasing productivity is one of the best ways to ensure continued economic growth and a rising standard of living. To the extent that domestic firms are forced to adopt more competitive production techniques, they could also become more globally competitive and increase exports.

Local competitors might, however, be concerned that the MNE's entrance will mean enhanced competition. Those local firms that cannot or will not rationalize their behaviour and become more competitive will be forced out of the industry. Although this can be seen as good from a productivity perspective, the local industry often will not be supportive. The argument that too much industry concentration is socially inefficient is also valid. MNEs may end up with too high a share of market power and may be able to squeeze even potentially competitive local firms out of the market.

4.1.3 Trade effects

The existence of MNEs has been shown empirically to have a positive impact on trade, mostly because of increased absolute levels of intra-firm trade. Whether a MNE has a high degree of exports depends more on the industry than on the host

[62]Berstein, *op. cit.* and Blomstrom *op. cit.*, for example.

[63]S. Globerman, "Foreign Direct Investment and 'Spillover' Efficiency Benefits in Canadian Manufacturing Industries", *Canadian Journal of Economics*, 12 (1), 1979.

country.[64] Industries in which there is high value-added and low transportation costs would create more of an opportunity for export. The automotive, electronics and communications sectors are examples of industries in which there could be higher propensities for the MNE to export. If the MNE is active in an industry that must produce locally in order to penetrate local markets, because of high tariffs, high transportation costs or some other reason, then there would be little scope for export.

4.1.4 How far should we go?

A relevant question is how much foreign investment is good? How much does FDI contribute to economic growth, and does this outweigh its direct costs (i.e., income paid in dividends, royalties, etc.) and indirect costs (i.e., potential market concentration or loss of sovereignty)? The encouragement of MNEs to locate in Canada must be tempered with realistic expectations of their effects on the domestic economy. Although this Paper argues that, on balance, the presence of Canadian affiliates of foreign MNEs is beneficial for the domestic economy, and that countries can no longer close themselves off from investment because of the new global competitiveness pressures, it is important to remember that MNEs and FDI will not heal all Canada's trade, investment and productivity woes. The direct and spillover benefits of foreign-owned affiliates in Canada can be noteworthy. But, the costs of encouraging very large investments need to be clearly weighed against the benefits on a case-by-case basis. A positive long-run outcome should be the criterion for the pursuit of any policy.

4.2 Policy Suggestions

4.2.1 Policy independence and globalization: a caveat

Although policy makers may wish to respond to the more globally focussed firm by pursuing strong policies with regard to FDI, they may find that some traditional policy options are becoming increasingly ineffective. Globalization implies that domestic policies have increasing international ramifications and vice versa. Domestic policies such as fiscal policy can set up barriers to FDI and trade or cause MNEs to locate in other countries. Globalization of MNEs may also result in more "footloose" production. That is, MNEs could move their affiliates from country to country more easily to exploit location advantages optimally. Traditional policy

[64] D. Seebach, *op. cit.*, p. 17.

instruments, such as performance requirements, become increasingly unenforceable and irrelevant, the more global MNEs become.

4.2.2 Trade

It is has been shown that FDI has a considerable and direct effect on trade.[65] However, little theoretical or empirical work has been undertaken that examines these effects and linkages. Theory has largely ignored the role of MNEs in trade and there is a lack of detailed, comparable and reliable data on direct investment flows and trade flows, particularly on intra-firm trade. Nonetheless, some trade policy suggestions do emerge from what little is known.

The evidence presented above indicates that trade and FDI are complementary. Although this relationship is somewhat soft, it can be stated with some conviction that FDI at least does not act as a substitute for trade. Although most trade still takes place between unrelated parties, intra-firm trade is an important part of the Canadian economic reality. Canadian affiliates of U.S.-owned MNEs show a relatively good performance in generating exports and foreign-owned manufacturing firms have relatively higher export propensities than domestic firms. To the extent that trade and FDI are complementary, open polices on FDI should encourage trade.

Free trade policies (such as the FTA and NAFTA) have been shown to affect affiliate firm behaviour.[66] Free trade provides an impetus for Canadian affiliates of foreign-owned MNEs to streamline production, become more competitive and seek out a niche that will justify their existence. Otherwise, they may become redundant within the new global strategy of the MNEs. If free trade agreements can increase global competitiveness of Canadian affiliates, domestic firms operating in the industry will also be forced to rationalize their behaviour. This will have a positive long-run effect on productivity and Canadian international competitiveness.

On the other hand, the threat of trade liberalization causing foreign parents to increase exports at the expense of host-country production appears to be minimal.

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[65]OECD, *The Impact of Foreign Investment on Domestic Economies of OECD Countries*, p. 61.

[66]Respondents to the Conference Board of Canada Survey Report No. 88-92, *op. cit*, stated that government policies had little direct effect on their behaviour, but then cited free trade agreements as an important factor pushing them to continually rationalize their production activities. This could indicate that the respondents to the survey, and perhaps the business community in general, may not consider certain international polices (such as free trade agreements) to be in the same category as domestic government policies.

There is evidence to indicate that MNEs were not reducing the size of their Canadian operations and increasing home country exports to Canada in 1988, the year leading up to the implementation of the FTA.[67] This is consistent with the hypothesis that the MNE's prime motivator in choosing a location for a firm is not to avoid tariffs but to optimize its global position.

4.2.3 Technology

R&D is an important determining factor in export and productivity performance. Its social rate of return has been shown to exceed its private rate of return by 50% to 100%. This creates an opportunity for beneficial government involvement. The effect of spillovers should not be ignored when formulating policy. It is evident that there are certain key sectors where the social rates of return to R&D are highest.[68] Policies should encourage R&D in these sectors, in order to get the most social return for total cost. Program effectiveness would then be maximized.

R&D which is undertaken outside of the domestic economy has been found to be complementary to domestic R&D, though the positive relationship is not as strong as may have been suspected. Transmission of foreign technology can occur through FDI, trade and joint research. Policies that encourage freer trade (such as NAFTA), reduce restrictions on FDI, and foster international and domestic information sharing should be beneficial to domestic R&D performance.

However, R&D remains highly centralized at or around the MNE's home base or some other central R&D location, which is not usually Canada. Therefore, FDI cannot be seen as the key remedy for domestic under-investment in technology. Although it is true that some R&D takes place in foreign affiliates in Canada, there is also the question of the quality of this R&D. For example, routine product testing and R&D undertaken in order to fulfil host country product or safety standards does not have the same social or industrial benefits as core R&D performed at the MNE's home office.

Canada should not rely solely on R&D imported from foreign countries, because of its lower social return, i.e., fewer spillovers. A competitive domestic scientific knowledge base, appropriate research centres and targeted academic research should

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[67]Covari and Wisner, *op. cit.*, p. 64.

[68]Bernstien, *op. cit.*, notes that in four special or "strategic" industries (non-electrical machinery, rubber and plastics, chemical products and petroleum products) the social rate of return is two to four times higher than the private rate of return.

continue to be encouraged so that domestic industries can more readily absorb foreign technological spillovers and pursue R&D independently. Canadian affiliates of foreign MNEs should also be encouraged to undertake at least basic research and development in-house. Instead of applying a "band-aid" solution by directly encouraging MNEs to undertake R&D in Canada through coercion or financial inducements, it would be more beneficial to channel resources into improving the domestic education system, infrastructure and scientific base. This would be a longer term, more lasting solution in which Canada could become more attractive globally as a location for R&D to be undertaken by both domestic and foreign firms.

In addition to these domestic policies, Canada should work multilaterally and bilaterally to restrict direct R&D locational inducements offered by other countries, in order to make the playing field as level as possible. Direct inducements can turn into bidding wars in which the gains from foreign-affiliate R&D are eroded.[69] All policy makers need to be aware of the opportunity costs of their programs. If the socially efficient amount of R&D can only be achieved at a cost equalling, or exceeding, the whole amount of the gain over the privately efficient solution, then there is no net gain and the policy should not be pursued.

Technology transfer requirements

Although some policy makers may suggest the use of technology transfer requirements for MNEs, there is evidence that, although conformity with the requirement may induce diffusion, at best the result is diffusion of a larger share of a smaller stock of technology, with the net effect indeterminate[70]. These types of requirements usually do not work well, because individual host countries have limited possibilities to influence MNEs in their location choices and because diffusion also depends upon the absorptive capacity of the competing domestic firms in the industry. If these firms are not at a sophisticated enough level (i.e., personnel are not competitively educated, trained, skilled or furnished with adequate capital) then it will be difficult for them to use the diffused technology efficiently. Compulsory or coercive diffusion requirements, therefore, seem to be an erroneous path to follow

[69]Some recent work by the Office of Technology Assessment of the U.S. Congress, *(Multinationals and the National Interest: Playing by Different Rules*, September 1993, p. 67) highlights this problem. The study shows that the cost of direct inducements per job created for individual states in the U.S. has been escalating rapidly, with the incentive package won in the last settlement becoming the opening bid for the next settlement. The study questions whether this competition has reached a stage where the costs of incentives outweigh the benefits, even at the local level.

[70]Blomstrom, *op. cit.*, p. 104-5.

because they target only the source of the diffusion, the MNE, but do not concern themselves with ensuring that the technology is actually used productively in the domestic economy.

An exception may very occasionally be warranted when there is a foreign takeover of a firm already engaged in R&D activities. The OECD's findings would indicate that foreign takeovers of firms engaged in R&D can have negative effects on R&D performance.[71] Therefore, it may be desirable to maintain some policy instruments preventing this, such as transfer requirements. Under the NAFTA, provisions remain to ensure that Canada holds the threat of implementing technology requirements in certain situations. For example, an MNE may wish to purchase a Canadian company that is currently actively involved in core R&D, solely for the purposes of exploiting its market access. If R&D performance is substantially threatened, it may be necessary to deploy technology performance requirements. Nonetheless, the use of this instrument should be infrequent and carefully targeted. Otherwise such government intervention could undermine Canada's profile as a preferred site for investment.

4.2.4 Fostering domestic industry competition

The salient question here is what is considered positive for the Canadian economy? If competition is considered unequivocally good, then policy makers should attempt to foster it. Competition policy should be used not to limit FDI, but to facilitate the provision of spillover benefits to domestic industries and consumers. FDI should be encouraged, but with the caveat that the MNE face domestic competition and not be allowed substantial industry control.

Supporting competition in the industries in which MNE affiliates are present would have two important benefits. First, the MNE is forced to adjust to competition by continually upgrading its production processes. This can benefit consumers by providing cheaper, better quality products. Second, a continuous inflow of technology, encouraged by this competitive environment, increases the spillover

[71]An Investment Canada study authored by Regional Data Corporation, *Business Performance Following a Takeover,* April 1992, p. 19, found that, after foreign acquisition, R&D intensity in the manufacturing industry increased substantially at a time when the intensity for manufacturing as a whole fell. These findings seem to be flawed by the dominance of the effects of acquisition of a small number of firms in the electrical industry. The use of a mean instead of a median measure drastically overstates the positive effects because the electrical industry's observation is an outlier. In fact, in almost half the manufacturing sub-categories, Canadian firms taken over by other Canadians had higher R&D intensities than those taken over by foreigners. This is more consistent with OECD findings.

potential, while this same environment will increase the likelihood of spillover absorbtion by local firms. This can result in a 'virtuous circle' of productivity and technology instead of the 'vicious circle' that can occur if an MNE is allowed to operate without competition and falls behind global standards.[72]

Encouraging highly competitive local industries would also have the side benefit of improving export performance. Studies have shown that MNEs operating in highly competitive sectors have higher propensities to export than those in non-competitive markets.[73]

4.2.5 The importance of fundamentals

Although the point that FDI is not a substitute for sound domestic economic policies is seemingly obvious, it is important enough to warrant repetition. FDI should not be viewed as the remedy for poor productivity, or inferior export or domestic investment performance. The domestic economy cannot indefinitely "borrow growth" through foreign investment. The benefits of FDI cannot be fully realized without the macroeconomic fundamentals of sound fiscal and monetary policies aimed at providing low inflation and sustainable growth. Domestic industries must be productive, adaptable and competitive in order to survive and thrive, globally and domestically. The economic environment in which these firms operate is increasingly influenced by international forces and domestic economic polices are being increasingly affected by international conditions. Canadian economic and trade polices need to be complementary with those of our trading partners in order for businesses to compete effectively at home and abroad.

[72]Blomstrom, *op. cit.*, p. 101.

[73]Seebach, *op. cit.*, p. 17.

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