

# MULTINATIONALS AND REGIONAL INTEGRATION: LESSONS FROM NAFTA

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The 1989 Canada-US Free Trade Agreement (CAFTA) and the 1994 North American Free Trade Agreement (NAFTA) are substantially liberalizing trade and investment flows in North America by creating one set of rules to govern intracontinental trade.<sup>1</sup> Thus a new and more level playing field is being created among Canada, the United States and Mexico. The purpose of this paper is to outline the likely responses of firms to NAFTA. As such, this paper builds on earlier work by Dunning (1988, Ch.12; 1993b, Ch.17; 1994) on regional integration, but applies it to the North American case.

We cannot, however, look at the impacts of regional integration without some attention to broader changes in the global economy. At the same time as intercontinental trade and investment barriers have been falling, there has been a fundamental, long-run shift in the underlying technology of production in North America. Information technologies, based on the microprocessor, are revolutionizing product markets and manufacturing processes. New production processes, known as lean production (Womack et al. 1990) and based on Japanese methods of just-in-time delivery and quality control, are slowly diffusing throughout North America.

NAFTA and technological change can be seen as the primary drivers, in addition to the globalization of markets in general, that are causing shifts in foreign direct investment (FDI). NAFTA has shaken up traditional trade and FDI patterns within the three countries. Domestic firms now have new market opportunities and feel that they must compete globally in order to survive. However, at the same time firms have a more open door to the other North American markets through NAFTA, they also face more competition in domestic markets. Thus NAFTA offers both opportunities and threats.

What strategies are firms adopting in this new regional economy? Are they passive reactors to change, shelter seekers hiding from change, or strategic managers of change? We contend that the third group -- the strategic managers -- firms that attempt to scan the international environment, anticipating technological, market and government policy changes and devising policies to take advantage of the opportunities that change offers --

will do better in the late 1990s than those firms that either passively react to change or seek government protection to delay change.

*Multinational enterprises are international actors faced by change, and, at the same time, they are agents of change.* We argue that the largest multinationals have been at the forefront of the NAFTA process, reacting to these shocks by becoming more competitive (outsourcing, forcing their captive inhouse suppliers to seek new markets, aggressively moving into unexploited markets), and more cooperative (linking with suppliers, governments, and rival firms in strategic alliances). Since multinationals are the international actors most affected by change and also the primary nonstate agents of change in the global economy, this means that the firms that are best placed to anticipate and take advantage of the new North American trade and investment regime are large multinational enterprises which are already heavily involved in North America.

In this paper we investigate the thesis that the largest MNEs in North America are the firms best placed to take advantages of the opportunities and threats presented by NAFTA. The paper is organized as follows. First, we sketch a picture of the existing North American economic relationship which we argue is in the shape of a hub (the United States) with two spokes (Canada and Mexico). We then briefly review the policy changes that NAFTA brings. Third, we identify three groups of firms (insiders, outsiders and domestics) and examine their likely reactions to these opportunities and threats. Fourth, we introduce some complications presented by technological change, and fifth, conclude with some thoughts about MNEs, strategic managers and regional integration.<sup>2</sup>

## THE NORTH AMERICAN HUB-AND-SPOKE RELATIONSHIP

In this section, we focus on the North American trade and investment linkages forged by multinationals in the three countries. We argue that *deep integration* of the Canada-US economies -- what the political scientists refer to as complex interdependence -- already exists. We argue that this integration will become more extensive and multi-faceted throughout North America as NAFTA draws Mexico into closer and deeper linkages with its Northern neighbours.

## THE NORTH AMERICAN ECONOMY

North America's economic relationships are best characterized as a hub-and-spoke pattern with one hub, the United States, linked to two spokes, Canada and Mexico (Eden and Molot 1992a,b). The term "hub and spoke" is used in this paper as a metaphor for economic relationships among the three nations in North America. This is an apt description because (i) one country (the hub, the United States) dominates the other two (the spokes, Canada and Mexico); (ii) the United States is the primary conduit through which the smaller partners are linked to one another; and (iii) the Canada-US and Mexico-US linkages are much larger than Canada-Mexico linkages.<sup>3</sup>

Some general statistics on the North American (NA) economy are provided in Table 1. The United States, with 70 percent of the population, 87 percent of the Gross Domestic Product, and a standard of living 25 percent above the North American average, clearly dominates the region. Relative to the North American average, the United States is less open in terms of trade flows (0.85) and investment stocks (0.90).<sup>4</sup> Canada, with seven percent of the population and nine percent of the GDP, stands out in terms of its relative openness (trade 2.28; investment 2.03). With 23 percent of the population, four percent of the GDP and a relative standard of living only 17 percent of the NA average, Mexico in 1990 was very different pattern from its northern neighbours.

The United States is the largest partner for both Canada and Mexico in terms of inward and outward foreign direct investment and in terms of exports and imports. US multinationals are heavily represented in the largest firms in each economy (Knubley et al. 1994). Thus the United States is both the *engine* that determines the pace of the North American economy, and the *steering wheel*, through the decisions made by US multinationals, that determines North America's direction. Below, we provide some statistics on the current North American trade and investment relationship that document these statements.

### NORTH AMERICAN TRADE AND INVESTMENT PATTERNS

Merchandise trade flows are clearly in the form of a hub-and-spoke pattern; with the United States as the hub or center of the economy and Canada and Mexico as its northern and southern spokes, respectively. The United States is the largest partner for each spoke in terms of trade. In 1991, three-quarters of Canadian exports were sold to, and 64 percent of its imports came from, the United States; trade with Mexico was minimal. The same

**Table 1**  
**Selected Economic Characteristics of NAFTA, 1990**

	<b>Canada</b>	<b>United States</b>	<b>Mexico</b>	<b>North America</b>
Population (millions)	26.5	250.0	81.7	358.2
Share of North American population (%)	7.40	69.79	22.81	100.00
Gross Domestic Product (US\$ billions)	566.7	5,464.8	241.4	6,272.9
Share of North American GDP (%)	9.03	87.12	3.85	100.00
GDP per Capita (US\$)	21,366	21,859	2,954	17,510
Relative Standard of Living (NA=1.00)	1.22	1.25	0.17	1.00
Exports as a % of GDP	23.8	7.6	12.1	9.3
Imports as a % of GDP	21.7	9.3	16.5	10.7
Relative Trade Openness (NA=1.00)	2.28	0.85	1.43	1.00
Inward FDI as % of GDP	20.0	7.2	12.6	8.6
Outward FDI as % of GDP	13.9	7.8	.03	8.1
Relative Investment Openness (NA=1.00)	2.03	0.90	0.77	1.00

Source: Canada (1994), selected tables.



pattern is true for Mexico. For the United States, on the other hand, only about one-fifth of its exports and imports were traded with Canada, and something less than one-tenth, with Mexico. Thus its reliance on North America as a source of imports and exports hovers around 25 percent, about one-third the level in the spokes. Canadian trade (exports plus imports) overall represents about 20 percent of the three countries' worldwide trade, compared to 73 percent for the United States and seven percent for Canada.

A similar pattern holds true for investment stocks, as shown in Table 3. In 1991, 64 percent of Canada's inward FDI stock (IFDI) was held by Americans and 58 percent of its outward FDI stock (OFDI) was invested in the United States. For Mexico, the corresponding percentages were 63 percent (IFDI) and 81 percent (OFDI). Canada, however, only accounted for 15 percent of US OFDI and seven percent of US IFDI; the Mexican percentages were minuscule. Again, as in trade, investment stocks reflect a hub-and-spoke pattern.

#### SUMMARY: THE HUB-AND-SPOKE RELATIONSHIP

Canada's economic relationship with the United States is its premier relationship, and is so by a large margin; Canada, on the other hand, is less important to the United States. This fact of life is also true for Mexico. We capture this idea through the metaphor of the hub and spoke: the United States is the hub around which and through which Canada and Mexico engage in most international economic transactions.

#### THE NORTH AMERICAN FREE TRADE AGREEMENT

One important locational advantage at the regional level which has influenced investment, production and trade patterns is the recent proliferation of regional trading agreements such as the Canada-U.S. Free Trade Agreement, which became law on January 1, 1989, and the North American Free Trade Agreement, which took effect on January 1, 1994.

Under a free trade agreement crossborder tariffs are eliminated, but the member countries are free to maintain their own tariffs against non-member countries. Under the NAFTA, over the next 15 years, all tariff and nontariff barriers among Canada, the United States and Mexico are to be either eliminated or harmonized. Each country can maintain its own trade barriers vis à vis non-member countries such as Japan and the United Kingdom, but intracontinental trade barriers should fall dramatically. Thus valuation of

Table 2

North American Trade Patterns, 1991  
(Exports and Imports as Percent of Total)

Trade with Country	Canada		United States		Mexico	
	Exports	Imports	Exports	Imports	Exports	Imports
Canada	---	---	20	19	5.5	0.8
United States	75	64	---	---	74	72
Mexico	0.4	2	8	6	---	---
North America	75.4	66	28	25	79.5	72.8
Japan	5	8	11	19	4	6
Europe	8	11	29	21	16	21
Other	11.6	15	32	35		
Total Trade (US\$bill.)	127.2	118.2	421.7	487.1	39.0	50.2
Share of North American exports and imports	10.2%	9.5%	33.9%	39.2%	3.1%	4.0%
	19.7		73.1%		7.1%	

Source: data for Canada and US from Knubley et al. (1994, 150-54), Mexico from Gao (1992, 52,53,56,59).

Table 3

North American Foreign Direct Investment Patterns, 1991  
(Inward and Outward FDI Stock as Percent of Total)

Investment with Country:	Canada		United States		Mexico	
	Outward FDI	Inward FDI	Outward FDI	Inward FDI	Outward FDI*	Inward FDI
Canada	---	---	15	7	1.5	1.6
United States	58	64	---	---	63.4	81.2
Mexico	0.2	0	3	0.1	---	---
North America	58.2	64	18	7.1	64.9	82.8
Japan	2	4	5	21	24.5	n.a.
Europe	25	29	50	63	30.6	20.4
Other	14.8	3	27	8.9		n.a.
Total FDI (US\$bil)	82.4	114.8	450.2	407.6	33.9	0.7
Percent share of N.S. total inward and outward investment	7.6%	10.5%	41.3%	37.4%	3.1%	0.1%
	18.1%		78.7%		3.4%	

\*Mexican outward FDI numbers are for 1990.

Source: data on Canada and US from Knubley et al. (1994, 150-56), and for Mexico inward FDI from GAO (1992, 73-74), Mexican outward FDI from Canada (1994, Table 19).

imported goods for customs duty purposes should cease to be a major factor influencing intrafirm trade; however, firms, in order to qualify for duty free status must meet certain rule of origin tests. Where these tests are not met, tariffs continue to apply.

In addition to eliminating tariffs and reducing most nontariff barriers over fifteen years, the NAFTA contains several investment provisions. The key commitment in terms of investment is nondiscrimination, defined as national treatment (NAFTA partners must be treated at least as well as domestic investors) together with most-favoured-nation treatment (NAFTA investors must be treated at least as well as any foreign investor). Nondiscrimination applies to all North American investments and investors, including firms controlled by non-North Americans. There is a list of proscribed performance requirements and most existing requirements must be phased out over ten years. Restrictions on capital movements, including all types of payments and profit remittances, are forbidden except for balance of payments reasons. Expropriation is outlawed, except for a public purpose and on a non-discriminatory basis, and full and prompt payment of fair compensation is required. Investors can seek binding arbitration against a host government for violations of NAFTA obligations (Eaton et al. 1994a; Kudrle 1994).

Thus CAFTA and NAFTA are ushering in a process of deep integration, whereby trade and investment barriers are falling within the region, inducing reactions by firms as they seek to take advantage of these policy changes.

## MULTINATIONAL STRATEGIES IN NORTH AMERICA

What impacts will regional integration have on multinational decision making? Are MNEs in North America passive reactors to change, shelter seekers hiding from change, or strategic managers of change? We contend that the third group -- the *strategic managers* -- firms that attempt to scan the international environment, anticipating technological, market and government policy changes and devising policies to take advantage of the opportunities that change offers -- are the firms that will gain the most advantage from NAFTA. The largest multinationals have been at the forefront of the CAFTA and NAFTA processes, reacting to these shocks by becoming more *competitive* (outsourcing, forcing their captive inhouse suppliers to seek new markets, aggressively moving into unexploited markets in the other regional partner countries), and more *cooperative* (linking with suppliers, governments, and rival firms in strategic alliances). We explore this argument below.



## MULTINATIONAL PLANT STRATEGIES

The basic reason why multinationals invest abroad is to engage in foreign production and intrafirm trade. The causation therefore runs from the MNE's choice of the value adding activity to its choice of plant location and thus to foreign direct investment in this plant, not vice versa (Dunning 1993b,c; Eden 1991b, 1994c). The location selected for an affiliate depends on the affiliate's role in the value chain of the firm. That is, *plant function drives the FDI choice*.

We can classify foreign affiliates according to the four basic motives the MNE parent has for setting up a foreign plant: to find raw materials (*resource seeking*), to manufacture parts and assemblies at lowest cost (*cost reduction*), to access foreign markets (*market access*), and to provide support services to other parts of the MNE group (*support services*). Each of these motives affects the value adding activities of the MNE: processing, manufacturing, distribution/sales, and support. Our four-fold list is different from John Dunning's list of motivations for FDI, and it may be useful, for the reader, if we distinguish between the two groupings.

Dunning (1993b, Ch. 3) breaks the main types of foreign production into (i) resource seekers, (ii) market seekers, (iii) efficiency seekers (rationalized investments), and (iv) strategic asset seekers. Resource seekers, for Dunning, are firms seeking all types of resources including cheap labour inputs. Thus Dunning would group our first two categories (resource seeking and cost reduction) into one category. Dunning's second category, market seeking, is the same as our third (market access).

Efficiency seeking investment, according to Dunning, is motivated by the need to rationalize either market or resource seeking investments so as to take advantage of economies of scale and scope and of differences in costs, prices and factor endowments among countries (Dunning 1993b, 59). Thus efficiency seeking FDI affects already existing foreign plants and involves rationalizing their activities. Dunning's fourth motivation, strategic asset seeking, while clear in theory, is a bit difficult to distinguish from the other forms of investment in practice. He suggests that it occurs after the first two investments and involves strategic decision making (e.g. from being in oligopolistic markets) and/or risk reduction decisions.

Thus Dunning's categories are time sequenced; the first two are *de novo* investments while the latter two are changes to existing investments. Our categories, on the other hand, do not distinguish by time, but by intent. We argue that multinationals construct their overall production structure by

choosing among a range of locational structures for their foreign affiliates. Each foreign subsidiary or branch plant normally fulfils one of these plant functions, grouped around the four general categories of resource extraction, cost reduction, market access and support services.

Once the motive for foreign production is established, the choice of affiliate location depends on the relative attractiveness of various host locations and the availability/cost of alternative contractual arrangements. Locational or country specific advantages (CSAs) are the key to determining which countries will become host countries for the MNE depending on whether the basic nature of the investment is resource seeking, cost reduction, or market access. Regional integration schemes, such as NAFTA, affect the CSAs of countries which are inside and outside the region, and therefore affect MNE investment patterns.

## MULTINATIONAL STRATEGIES AFTER NAFTA

How is NAFTA likely to affect the organizational and locational choices of MNEs? We argue that, prior to the mid-1980s, MNEs in North America established their own configuration of value adding activities in domestic and foreign plants, based on the historical "blocks" national governments had positioned on the North American "chessboard" (Eden 1994c). With governments removing these blocks, the underlying economic factors will have more impact on MNE location and organization decisions. Because MNEs are international oligopolists, concerned about their shares of global markets, they will change the configuration of their activities so as to increase their international competitiveness. Thus plant functions and locations -- through decisions on new and re-investments -- can both be expected to change over time.

The key to investment decisions in the 1990s in North America is the reduction in policy risk for firms provided by NAFTA (Eaton et al. 1994a; Eden 1994b,c; Vernon 1994).

## Insiders, Outsiders and Domestic

The strategic responses of firms to NAFTA will be partly determined by factors such as: (i) whether the firm is headquartered inside or outside the area; (ii) whether the firm has significant investments inside the region; and (iii) the industry(ies) in which the firm competes.

Following Eden (1994c), Dunning (1994) and Vernon (1994), we identify three categories of firms that are likely to have different responses to regional integration: *insiders or veterans* (well-established multinationals located inside a free trade area with significant investments in the partner countries prior to the agreement), *outsiders* (foreign firms outside the area, which may have been exporting into the area or may have investments inside the area), and *domestics* (local firms inside the area without significant investments in the other partner countries; they may or may not already be exporting to these countries).

The responses of each group should clearly vary. Dunning (1994), for example, argues that firms inside the region see benefits from lower intra-regional barriers and will rationalize product lines (horizontal integration) and/or production processes (vertical integration) to better exploit economies of scale and scope. Firms outside the region may be induced to become insiders. There should be both a short run response as MNEs engage in locational reshufflings in response to the falling trade barriers, and a long run response. In the short run, firms are likely to shift their activities to the United States, but in the longer term this tendency should be reversed (Vernon 1994). Let us look now more specifically at how each group is likely to respond to regional integration.

### The Insiders

Eden (1994c) asserts that US MNEs are the firms best placed to take advantage of the falling tariff and nontariff barriers that CAFTA and NAFTA will bring because they are already located in all three countries. After NAFTA, these veterans -- or insiders -- will locate, close and/or expand their plants with the whole North American market in mind. In terms of the value chain of primary activities (resource extraction and processing, assembly, distribution), these reshufflings should lead to reduced numbers of product lines in various plants and increasing horizontal trade among plants. MNEs are also likely to segment their production process among plants so that more vertical intrafirm trade takes place. As a result there should be more cross-border vertical and horizontal intrafirm trade flows taking place. Certain product lines, industry segments, and plant functions will shift among the three countries and these will cause job losses and plant closures in certain locations. Which ones will depend on a complicated array of factors some of which are exogenous to the firms involved (such as factor prices and transportation costs) and others which are firm specific (such as the nature of the products produced and the ingenuity and animal spirits of the individuals involved).



In terms of the support activities in the value chain (head office, R&D, support services), veteran MNEs engaged in integrated production on a North American basis are likely to center such activities in one head office. With the reduction in tariff and nontariff barriers, there is less need for a fully autonomous and large national head office; in fact, such an office can be nonproductive in a centralized, regionalized MNE. Thus, for US multinationals, we expect headquarters functions in the Canadian and Mexican spokes to become less important over time, as their activities are centralized in their US parents (Eden 1994c).

In many ways, what we are predicting has already happened in the auto industry as a result of the 1965 Auto Pact. Production is organized on a continental basis (defined, until NAFTA, as Canada and the United States) with assembly plants responsible for individual product lines, exchanging models with each other to fill out the product range, and with a wide variety of parts and components plants supplying inputs to the assembly operations. The Canadian head offices of the Big Three are small, little R&D is done here and key decisions are made in the United States (see Eden and Molot 1993). This process of vertical and horizontal rationalization, as a result of CAFTA and NAFTA, will now occur in other industries.

Veteran multinationals that are resource seeking are likely to use CAFTA and NAFTA to relocate extractor and processor affiliates where resources are relatively more abundant and capital and energy costs lower. Cost reducing affiliates may be induced to relocate to North American countries with lower unit labour costs. Market driven affiliates are likely to rationalize production in existing plants, creating more vertical integration through source factories and more horizontal integration through focused factories. MNEs that have not yet opened up branch plants in potential NAFTA members may do so. Therefore the responses of parents and affiliates will involve relocation and expansion, taking advantage of lower trade and investment barriers to develop a more integrative regional strategy. In the short run, existing plants are unlikely to be closed but in the longer term economic efficiency will determine locational decisions within North America. The key here is rationalization of demand for the regional market as a whole, and of supply to capture specialization and economies of scale (Eden 1994b).

Encarnation (1994) looks specifically at US parents and their majority owned foreign affiliates (MOFAs) in Canada, Mexico, Japan and the European Community in terms of intrafirm trade. Once established, Encarnation finds that MOFAs tend to sell primarily in the host market, with smaller amounts of exports to the parent network. Regional integration leads to tighter integration of the MNE family and greater intra-firm trade flows in



both directions. The choice between production and distribution appears to vary considerably by country of origin of the MNE, with wholesaling activities being very important for Japanese MNEs, for example, but less important for US and European MNEs. Intra-firm trade dominates MNE trade flows, particularly in the auto industry. Lastly, Encarnation argues that NAFTA will encourage the development of regional integration strategies by MNEs in North America. He predicts NAFTA will cause firms in Canada to increase their exports, FDI and local sales in the United States; a similar deepening of economic linkages should happen with US MNEs. This deepening should be seen as a positive contribution to economic growth and national welfare.

### The Outsiders

Westney (1994) looks at the outsiders -- Japanese transplants in North America -- as they deal with the challenges of (i) coping with the rising yen-dollar exchange rate, (ii) political and social pressures from host countries to become "insiders", and (iii) pressures to open up the *kieretsu* structure in Japan. She suggests that Japanese MNEs are moving towards a three-region, rather than a multi-country, organizational structure, with regional, semi-autonomous headquarters in Asia, Europe and North America. This structure may create conflicts between the goals of the parent firms for interdependent units and the desire of host countries for locally autonomous transplants.

As non-North American MNEs that have already established transplant operations within North America, if not deterred by investment barriers, they are likely to also expand and rationalize their investments to take advantage of the larger market size. Under the tighter rules of origin in NAFTA, in order to meet North American content, the transplants may be forced to upgrade production and source more inputs locally. Thus parts plants may be induced to follow distributors and assembly plants. Outsiders that are currently exporting to North America may shift to foreign direct investment. They are likely to be drawn to the larger market, the US market or the hub, unless cost differentials make location in the spokes more attractive and/or interregional barriers are completely eliminated. In terms of Canada, Westney (1994) notes that the regional strategy of the transplants has really been a one-country strategy centered on the United States. She concludes that Canada needs to articulate a clear role for itself in a North American regional strategy in order to attract new investments from Japan.

## The Domestic

For domestics -- firms without established links to other potential NAFTA members -- a free trade area will be seen as both an opportunity (i.e. new markets, access to lower cost inputs) and a threat (i.e. more competition). Such firms, with encouragement, may start or increase their exports within North America and possibly open up distributors or offshore plants where market size or costs warrant. They will, however, have to face the difficult task of breaking into established distribution networks of domestics and MNEs in the North American markets. Such firms may also be ill-equipped to cover the financial and personnel costs of penetrating the US and Mexican markets. We come back to the domestics below, in connection with technological change.

## **The Tendency to Cluster**

Where are firms likely to invest in North America under the emerging NATIR? In addition to being affected by country specific factors, location is also partly dependent on agglomeration economies, or the advantages of firms clustering in one location. Assume several locations (cities, regions) demand a particular product. Where should firms supplying this product be located?

Eaton et al. (1994b) develop a theory of agglomeration which explains geographic concentration of business activity as the outcome of two opposing forces: economies of scale at the plant level (encouraging concentration of activities in one location) and transportation and communication costs (encouraging dispersion of activities). Where transport costs dominate economies of scale, we should expect to see horizontally integrated MNEs manufacturing the same product in several different plant locations (e.g. as the Big Three auto MNEs did in the United States in until the 1970s).

High tariffs and nontariff barriers can function like transport costs, encouraging dispersion of activities. High Canadian tariffs, for example, historically led to US MNEs establishing miniature replicas of themselves north of the 49th parallel. Tariff jumping FDI is widely believed to be one of the long run causes of the noncompetitiveness of the Canadian manufacturing sector. Will regional integration -- taking down the blocks on the chessboard -- cause a massive exodus of these tariff factories? If tariffs cause dispersion, does free trade cause agglomeration.

The reverse does not necessarily follow, according to Eaton et al. (1994b). They conclude that the probable impacts of CAFTA and NAFTA on agglomeration are unclear since scale economies and asset specificity

discourage quick dissolutions, and thus have opposite effects to falling trade barriers. In addition, they argue that the new technologies of production (now called "lean production") have both reduced the importance of labour and transport and communications costs and increased the need for supplier firms to locate proximate to their downstream customers. As a result, lean production may lead to increased diversity in patterns of industrial location.

Some MNE activities, in particular R&D, have traditionally been highly concentrated in the home country. In terms of the location of R&D, Eaton et al. (1994b) find that there are strong forces favouring the centralization of R&D at the parent firm's headquarters; however, significant decentralization of R&D has occurred over the past 10 years for some countries and industries as the knowledge base becomes more geographically dispersed. If CAFTA and NAFTA encourage rationalization of firm activities and reduce the autonomy of foreign manufacturing subsidiaries, the authors conclude that the production of local R&D by subsidiaries in Canada and Mexico may also be reduced.

### Comparing North American and EC Integration

Our predictions about MNEs and NAFTA can be usefully compared with Dunning's work on regional integration in the European Community (see, in particular, Dunning 1988, Ch. 12; 1993b, Ch. 17; 1994). Dunning argues, as we have here, that firms make their investment decisions depending on whether they are inside or outside the region at the time of regional integration. Firms that are already inside the region (e.g. European firms) are more likely to respond to regional integration (e.g. the formation of the European Community, what Dunning has called "Mark I integration") by rationalizing production for the region as a whole. Firms that are outside the region, which face potential loss of markets, are likely to invest inside to protect their existing market shares.

In practice, Dunning (1988, Ch. 12) found that European MNEs, however, did not take advantage of Mark I integration because they were ethnocentric, i.e. they were too tied to their home base and unwilling to adopt a European mind set. US multinationals, which were outsiders and therefore made location decisions on economic grounds, were better able to take advantage of Mark I integration. Dunning (1993b, Ch. 17; 1994) suggests that inside multinationals, both European and longtime US insiders like Ford and IBM, will take better advantage of the reduction in internal barriers that come with Mark II integration (post EC 1992) than they did under Mark I integration because these MNEs have become more regionalized over time. Thus EC multinationals, in Mark II integration, should undertake more



efficiency seeking and strategic asset seeking FDI that will make them more competitive vis à vis outsider MNEs.

Our arguments about MNEs and regional integration in North America therefore share very much Dunning's views. One difference that is readily apparent in the two situations is the pull to the center in the NAFTA case as a result of the hub-and-spoke economic relationship that is much less obvious in the European Community. Another difference is the relative weight of US multinationals vis à vis MNEs from other member countries. These factors will clearly influence North American integration differently from EC integration in ways that we have outlined above.

## THE IMPACT OF LEAN PRODUCTION ON BUSINESS STRATEGY

North American free trade is not the only change in the North American playing field affecting firms. In addition, a fundamental shift in the underlying technology of production is in progress as information technologies and microelectronics revolutionize the workplace.<sup>5</sup> Firms that are already having difficulty adapting to the pressures of regional integration are faced with the additional costs of technological upgrading, costs for which they may be ill prepared. In this section, we briefly examine the impacts lean production can have on firm strategy.

Historically, US multinationals built their success on mass production techniques: the use of simple interchangeable parts, the division of labour and specialization of tasks, the assembly line, the stocking of inventory, and the substitution of capital for labour (Womack et al. 1990). The search for ever lower costs led to large plants built to achieve minimum efficient scale, the upstream ones close to the source of raw materials and the downstream ones close to the consumer. The middle stages, where footloose, were located where costs were the cheapest. Thus MNEs engaged in large volumes of intrafirm trade, primarily in intermediate products being shipped around the world for further processing in low cost locations prior to their final sale, mostly in the developed market economies (Eden 1991a, 1994a).

The current decade is witnessing a period of enormous technological change as a new set of organizing principles, lean production, transforms firm strategies and structures (Kogut 1994). The key characteristics of lean production are demand-driven production, minimization of downtime, pull-through work flow, inventory reduction, zero defect components, total quality control and knowledge intensive production (UNCTC 1988). A lean production strategy uses skilled labour, flexible technology and economies of



scope to shift up the value chain into higher value products. The emphasis is on achieving both low cost and higher quality in a product that closely meets consumer needs.

For Kogut, Japanese MNEs are investment bridges, diffusing lean production throughout North America and Europe.<sup>6</sup> The shift to lean or just-in-time production is changing the configuration of MNE activities and thus the pattern of intrafirm trade. A lean production strategy means the firm must be located near to the consumer, and this draws first and second tier suppliers in close to the downstream activities of the MNE. Thus some of the footloose stages of production, allocated under a mass production strategy to low labour cost countries in East Asia and Latin America, return to the country of final sales. The MNE should rely less on offshore and source factories in export processing zones, and more heavily on focused and lead factories and R&D outposts.

Economies of scale at the plant level become less important so that plants of different sizes can be equally efficient; economies of scale at the firm level however can become more important due to the high overhead costs of technology upgrading. Since the costs of robotics and information technology necessary to achieve market success at the regional or global level are high, firms may engage in selling off unrelated activities (i.e. become lean enterprises) and use strategic alliances and/or outsourcing to first tier suppliers to increase their flexibility and ability to manage change.<sup>7</sup> Multinationals are segmenting activities among their affiliates on a regional or global basis; creating complex investment, production and intrafirm trade linkages among countries; joining with other multinationals in strategic alliances; and tightening links with suppliers and buyers in business networks (Eden 1991a,b; Rugman and D'Cruz 1994; UNCTC 1993, Ch. V).

As a result, intrafirm trade in intermediate products, both goods and services, is likely to increase in lean production enterprises. The UNCTC (1993) argues that MNEs are now moving to integrated international production strategies, a form of complex integration where MNEs are "willing to locate various functional activities -- not just production, but also research and development, finance, accounting, etc. -- wherever they can best be done to fulfil the firm's overall strategy" (UNCTC 1993, 121). Foreign affiliates will be more closely tied into the overall enterprise, producing intermediate products for internal sale to other MNE affiliates, rather than acting as stand-alone affiliates selling only to local customers. Thus the autonomy and national responsiveness of these affiliates are likely to decrease.

## MULTINATIONALS AND REGIONAL INTEGRATION: LESSONS FROM NAFTA

When governments move to introduce NAFTA, a free trade area encompassing both rich and poor countries, at the same time as technology is changing rapidly, incumbent MNEs are faced with a decision: either keep their historical practices or shift to new ones that may or may not succeed. Will North American firms respond as *passive reactors*, *shelter seekers* or *strategic managers*? The answer to this question is not obvious.

Change brings in new competitors. The flow of competitors is both a benefit (better technology, lower prices, more choice) and a threat (more competition, domestic firms going out of business). Faced with the threat of competition, North American firms can respond by hiring high-skilled labour and adopting lean production techniques, or by continuing to employ low-skilled labour and mass production techniques. Firms may be reluctant to switch, at least in the short run, and are thus trapped in low-wage strategies.

The most likely response to these ongoing changes is a short-run one of cost cutting, downsizing and outsourcing (perhaps to Mexico), rather than the needed technological upgrading. Kogut (1994) suggests that firms are likely to be driven by short-run considerations and to respond by searching for low wage sites (e.g. move to the southern United States, to Mexico, or offshore), others will cluster their investments in core industrial districts in the United States. These low-cost strategies may be successful in the short run, but do not deal with the underlying differences in technology paradigms.

MOFAs with US parents are being continually re-evaluated in terms of their parents' need to keep manufacturing activities located in the spoke countries. The days of "copy cat" or miniature replica plants in Canada are gone. A Canadian plant has to fit into existing structure of the MNE by playing a role in its overall strategy. Similarly, NAFTA will lead to an end of the miniature replica plants US multinationals have in Mexico, designed solely to serve the Mexican market. Therefore US subsidiaries in Canada and Mexico are now in a critical position; they have to carve out and justify their existence as an integral component of the MNE. The responsibility to maintain manufacturing operations lies within company itself; the subsidiary has to justify its existence and place within the MNE.

From the above, we conclude that multinational strategies in a regional trade area such as NAFTA, are likely to be the following:

(i) for the insiders, rationalizing and extending existing investments throughout the region;

(ii) for the outsiders, new investments and deepening of existing investments within the region as the firms, particularly Japanese MNEs, seek to become true regional insiders; and

(iii) for the domestics, their first steps across the border, either directly or indirectly through their supplier relationships to insider and outsider MNEs.

Lean production with its just-in-time delivery schedules accentuates the need to be located in the hub (the United States), while the falling tariffs, nontariff barriers and transport costs that NAFTA brings reduce the incentives to decentralize production to the spokes (Canada and Mexico). Except for particular industries where lower costs (e.g. labour, energy, tax), higher labour quality and/or market imperatives favour location in one of the spoke countries, we therefore expect some centralization of production in the United States. Political uncertainties (the peso collapse and corruption in Mexico, the Quebec problem and the debt overhang in Canada) are further reasons for risk-averse investors to locate in the center of the continent. From this we conclude that the economic pull to the center will strengthen, at least in the short term.

The most successful firms will be the strategic managers, those firms that have the foresight to take advantages of the opportunities, and to protect themselves from the threats, that regional integration brings. Thus, we predict that the hub-and-spoke nature of the economic relationship in North America will continue to strength as US multinationals (the regional insiders) continue to dominate, and be at the forefront of, the trend to deeper integration in North America.

## ENDNOTES

\* The views in this paper are my own and I take full responsibility for them. They represent the results of many discussions and workshops on this topics where I have been fortunate to interact with MNE scholars and government policy makers, in particular, I note -- without implicating them -- the influences of John Dunning, Raymond Vernon and Maureen Molot on my own work. The paper was financed partly by a grant from the Social Sciences and Humanities Research Council of Canada. I would like to thank Max Cameron, Farok Contractor, Christopher Maule, Maureen Molot and Lee Preston for their comments on this paper; I would also like to thank Susan Forester and Colin Stacey for their research assistance.

1. See Dunning (1994), Eaton et al. (1994a), Eden (1994b,c), Hufbauer and Scott (1993) and Kudrle (1994) for details of the NAFTA.

2. This paper does not discuss policy implications; see Eden (1994d) for implications for Canadian FDI policy.

3. The term, however, has also been used by economists such as Richard Lipsey and Ronald Wonnacott to refer to a series of bilateral free trade agreements where the agreements all have one partner in common (e.g. the United States signs bilateral agreements with Canada, Mexico, Chile, Israel, and so on) so the series of agreements look like a hub and spoke arrangement.

4. Relative trade openness is defined as:

$$[(X_i + M_i)/GDP_i] / \Sigma [(X_i + M_i)/GDP_i]$$

where  $i$  is the country,  $X$  is exports and  $M$  is imports. Relative investment openness is similarly defined as:

$$[(OFDI_i + IFDI_i)/GDP_i] / \Sigma [(OFDI_i + IFDI_i)/GDP_i]$$

where OFDI is outward FDI and IFDI is inward FDI.

5. Some authors (e.g. Christopher Maule) argue that the information technology revolution is not new, but that it is a continuation of a revolution starting in the 1850s with the telegraph, typewriter, camera, telephone, radio, cinema and television, with the latest stage being the computer and its linkage with telecommunications.

6. See Eden (1991b, 1994a), Kenney and Florida (1993), Kogut (1994) and Womack et al. (1990).

7. Shrinkage in the number of suppliers and closer linkages between designated suppliers and assemblers is already happening in the Canadian auto industry. See Eden and Molot (1993).



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