CAHIER 9623

ECONOMIC INTEGRATION IN NORTH AMERICA: FORMAL, INFORMAL AND SPATIAL ASPECTS*

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September 1996

RÉSUMÉ

L'examen d'un certain nombre d'indicateurs indique que l'intégration économique dans l'hémisphère ouest (Canada-É.U.-Amérique latine) se produit sous l'effet d'ententes formelles intergouvernementales d'intégration, ainsi que sous l'effet du changement technologique, des décisions de rationalisation et de localisation des firmes multinationales, etc. - l'intégration formelle. L'article décrit brièvement le processus d'intégration nord-sud (Canada-États-Unis) et sud-nord (Amérique latine-États-Unis).

L'article présente les nouvelles théories de la croissance économique mettant en lumière les interrelations entre le développement technologique, le changement technologique et le développement spatial tout en soulignant l'influence du "milieu".

L'auteur met en lumière le potentiel d'augmentation des écarts de développement interrégionaux, les effets d'agglomération étant plus forts que les effets de convergence découlant des effets de mobilité postulés par la théorie néo-classique. Les travaux américains et européens récents concluent que l'effet de convergence est plus fort que l'effet de divergence, résultat qui devrait être inversé sous l'effet de l'intégration.

Mots clés: intégration économique, hémisphère ouest, commerce intra-firme, commerce intra-industrie, croissance économique, dynamique spatiale, espace.

ABSTRACT

An examination of a series of indicators of economic integration in the western hemisphere (Canada-USA-Latin America) indicates that it is proceeding under the influence of formal trade agreements and informal forces including technological change, multinational firm rationalization and location strategies, etc. A north-south (Canada-U.S.) and south-north (Latin-America-U.S.) integration process driven by increasing intrafirm and intraindustry trade is briefly described.

A presentation of new theories of economic growth underlines interrelationships between industrial, technological and spatial dynamics and gives special importance to " place" as a determinant.

The author emphasizes the potential for increased interregional disparities as a result of agglomeration effects overcoming the convergence effects posited by conventional neoclassical theory.

Recent american and european studies support convergence over divergence, a conclusion the author believes will likely be reversed as integration proceeds.

Keywords: economic integration, western hemisphere, intrafirm trade, intraindustry trade, economic growth, spatial dynamics, place.

INTRODUCTION

Globalization is one of the major forces which continues to influence the growth and decline of countries, regions, cities and towns throughout the world. The relative influence of firms on the allocation of resources is increasing and that of governments declining. Debate continues concerning whether the increasing transnational mobility of goods, services, capital and information, although not a new phenomenon, will produce convergence or divergence between the levels of welfare of citizens in different regions and countries.

This paper argues that economic integration driven by formal intergovernmental agreements to NAFTA and many informal forces influenced primarily by multinational corporations, is proceeding in the Western Hemisphere (i.e. Canada, the U.S.A. and Latin America [1]). Our challenge is to understand the determinants and effects of this process for it is modifying the sectoral and spatial characteristics of our national economies, and changing the relevance and efficiency of different government policies available to pursue efficiency, growth and equity objectives.

The determinants of growth and decline of countries and regions identified by new endogenous growth theories make "place" a relevant variable in attempts to understand location decisions of firms. The strength of the agglomeration economies generated in certain "places" could well make for growing disparities between different regions in Canada, the U.S.A. and Latin America. That economic integration also enhances the convergence effects well analyzed by neo-classical theories is not disputed. What is in question is the net effect of a number of forces influencing location decisions and growth.

The major elements of the framework used in this paper to understand the process of integration in the western hemisphere are: technological and organizational change in transportation and communications; the growing importance of services and information; the effects of location (place) on firms; the cumulative nature of economic growth and decline; intra-regional and inter-regional networking, intergovernment trade liberalization agreements. The role of internal and external economies of scale, of intrafirm and intra-industry trade, and multinational enterprises are emphasized.

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[1]   Latin America including Mexico except where otherwise indicated.

INTEGRATION : ITS CAUSES AND EFFECTS

Integration is a process driven by technological change, business reorganizations, intergovernmental trade liberalization agreements, deregulation and privatization, the growing services orientation of our economies, converging consumer preferences, growing similarities in resource endowments.... The process of integration is increasing the international flow of goods, services, people capital and information in its multiple forms.

Integration is diminishing the importance of political borders and modifying the economic space relevant to firms, institutions and governments.

A new technological paradigm based on generic technologies in electronics, robotics, fibber optics and ceramics, shorter product and service life cycles, with the accompanying increase in the risk and uncertainty of research, are driving firms to network, to form alliances, and to undertake other organizational modifications that have significant implications for the sectoral and spatial configuration of our economies.

As the place for local-regional networking and information, sophisticated services to firms and technological exchanges, and as the location that serves as a stepping off point for trade, certain city-regions are benefitting from the integration process. Space and proximity, conventions and untraded interdependencies and factors neglected until recently by many economists, are an important part of the story of the explanation of the growth and decline.[2]

Our purpose here is to emphasize aspects, i.e., locational and space aspects, which Canadian scholars primarily identified with the study of economic integration and multinational firms have tended to neglect[3].

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[2]   See Michael Storper, "The resurgence of regional economies, tenyears later: the region as a nexus of untraded interdependencies", *Revue d'économie régionale et urbaine*, no 4, 1995, pp. 605-644, for a discussing of this topic.

[3]   See Proulx, P.P., "Intégration économique et modèles d'associations économiques Québec-Canada", *L'avenir dans un Québec souverain*, Étude 15, Les Publications du Québec, 1995, 130 pages, for further discussion of this. Such concerns are of course present in the north american literature, but they play a much more limited role in the analysis than is the case in this paper and in much european literature on integration. See for example Eaton Curtis, Lipsey Richard, and Safarian A.E., "The Theory of Multinational Plant Location in a Regional Trading Area", in *Multinationals in North America*, Ed. L. Eden, Industry Canada research Series Volume Three, Calgary: University of Calgary Press; and idem, "The Theory of Multinational Plant Location: Agglomerations and Disagglomerations", in Eden, op. cit.

EUROPEAN ATTEMPTS TO EXPLAIN INTER-REGIONAL DISPARITIES IN EUROPE: OF RELEVANCE FOR A SIMILAR EFFORT IN THE WESTERN HEMISPHERE?

R. Camagni and his colleagues, in their attempt to explain the evolution of inter-regional disparities in Europe combine different approaches into an "eclectic view"[4].They believe that the evolution of inter-regional disparities in the EC depends on four main processes that occur on different time scales:

a) a long term process that is neoclassical and stages-of-development based. This approach posits that there exists a secular trend to reduced disparities through information diffusion, imitation processes, inter-regional movements of labor and capital, inter-regional spread of infrastructures, and policy intervention aimed at inter-regional disparities. These long term processes imply diminishing disparities between city-regions.

b) medium term processes tied to waves of economic development and technological transformation emphasized by the theory of technological spatial diffusion of innovation and by cumulative neo-classical approaches. These processes depend on clustering of innovations and investment decisions at specific points in time, on the cumulative nature of many economic processes ... According to this approach radical innovations and advanced infrastructures are more rapidly adopted and developed in advanced and "core" areas possessing better labor skills and higher demand density. This leads one to expect growing disparities between city-regions as integration proceeds, and underlines the importance of "place" as determinants of the growth of firms.

c) short term processes of a cyclical nature, both exogenous and endogenous, which "core" regions are more capable of enduring due to their stronger economic fabric; hence a consideration leading to an expectation of growing disparities;

d) institutional decisions such as the formation of the EEC, (in north America the FTA and NAFTA).

To these factors one might add political considerations which do influence investment decisions and hence growth.

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[4]   R. Camagni, et al, "Disparities in Regions 1 in Europe", photocopied, paper, DG XVI Brussels.

In a recent effort to examine the spatial aspect of integration in Europe W. Molle and A. Verkennis summarize the theories that address the development of disparities of wealth between countries and regions as follows[5]:

a) convergence theories of the neoclassical school which hold that the working of markets tend towards the equalization of the return to labour, capital and other factors of production, a process enhanced by integration which causes increased international movement of goods, services, labour and capital;

b) divergence theories that claims that a system characterized by large initial imbalances will tend toward even larger imbalances, as production factors will tend to concentrate in regions with high incomes a result of cumulative causation. Regions and countries with a technology lead exploit it and push out to low wage areas the type of activities that do not sustain high rewards to factors;

c) alternation theories, according to which both the convergence and divergence theories are aspects of a more general theory and that stages of divergence are followed by stages of convergence.

Integration and the increasing mobility of factors which accompanies it gives rise to convergence according to conventional neo-classical theory. Such mobility of factors can also give rise to divergence as cumulative growth manifests itself. We are left with an interesting empirical question to test concerning which effect dominates and in what context.

Molle and Verkennis examined the evolution of gross regional product per capita adjusted for exchange rate variations in Europe (12 countries) from 1950 to 1990. They observe that disparities among regions fell as did disparities between countries.

Their measure i.e., gross regional product per capita, is too inclusive to test our hypothesis that globalization and regionalization as manifested in the western hemisphere will increase inter-regional disparities. A more adequate measure would be earned incomes and in depth analysis of the spatial aspects of growth.

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[5]   Molle W. and Verkennis A. "Regional development and changing location factors: a challenge for regional and local authorities", Eureg, European Journal of Regional Development, 2, 1995, pp. 42-47.

The hypothesis formulated in this paper for the Western Hemisphere is that disparities are likely to grow at the sub-national level given:

a) the dislocating effects of globalization which make for inter-regional international linkages,

b) the higher mobility of factors of production, which can lead to growing disparities if feedback mechanisms are introduced into the analysis[6],

c) the acceleration of the ongoing informal process of integration by the formal NAFTA which could spread beyond Mexico to Central and other Latin American countries,

d) the strength of agglomeration economies.

Testing this hypothesis calls for research aimed at understanding the location decisions of multinational firms, for such patterns influence and reflect the above mentioned developments.

INTERRELATIONSHIPS BETWEEN INDUSTRIAL, TECHNOLOGICAL AND SPATIAL DYNAMICS: NEW THEORIES OF ECONOMIC GROWTH AND THEIR IMPLICATIONS FOR PATTERNS OF INTEGRATION IN THE WESTERN HEMISPHERE[7].

Previous sections have presented different theories that attempt to explain the spatial dimension of integration. Understanding the location decision of firms is of significant importance in examining that question. Examining the effects of spatial changes on location decision of firms is also essential to an understanding of the effects of economic integration.

P. Krugman's model shows how increasing returns give history a determining role in the explanation of the geographic location of economic activities. Krugman also indicates that increasing returns are a pervasive influence on the economy.

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[6] Brown, D., "Open Exchange: ..." in Brown, D., Lazar, F. and Shuman, D., *Free to Move*, C.D. Howe Institute, 1992.

[7] This section draws heavily on : P. Krugman, "Increasing Returns and Economic Geography", *JPE*, 1991, volume 99, no 3, pp 483-499; P. Krugman, *Geography and Trade*, Leuven University Press and MIT Press, 1991, pp.xi , 142; and B. Lecoq, "Contribution à l'analyse des dynamiques industrielles localisées", Document de travail no 2/93, CESURE, mars 1993, Université des Sciences et Technologies de Lille.

His work is much related to that of P. Romer and R. Lucas[8]. The essence of these new endogenous growth theories can be indicated as follows:

- technological progress and growth are endogenous;
- increasing returns and cumulative growth are characteristic;
- human capital has a significant role to play in explaining economic growth;
- unlike neoclassical growth theory, there is no convergence in growth between countries, and multiple equilibria can exist.

Lucas shows how an economy initially characterized by poor endowments of physical and human capital can remain dominated by a better endowed one. This is the origin of a hypothesis I have formulated to the effect that the Fta and Nafta will make for an increase in city-region disparities in north America, some city -regions (the better endowed ones) gaining ground on the poorer ones.

Krugman and Lucas also make use of Myrdal's cumulative and circular causality concept in explaining how economic forces interact and accentuate initial trends in an economy.

These models are of interest to enhance our understanding of the spatial dimension of integration for they have been applied (Krugman) to explain regional development in national economies. Krugman uses this approach to explain how the U.S. manufacturing belt persisted so long by calling upon the interaction or increasing returns and marshallian pecuniary externalities. These models help to explain the concentration of particular industries in particular areas i.e. microprocessors in Silicon Valley, traditional watches in Switzerland, microtecnics in Bade-Wurtemberg...

According to Krugman the persistence of the U.S. manufacturing belt and a centre-periphery model is the consequence of the interaction of increasing returns, transportation costs and demand. Once established, a region (city) reinforces itself through the interaction of the factors in a circular causation and cumulative Myrdal type model.

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[8] P. M. Romer, "Increasing Returns and Long Run Growth" *Journal of Political Economy*, 94(5) pp. 1002-1037 1986; and R.E. Lucas, " On the Mechanics of Economic Development", *Journal of Monetary Economics*, 22(1), pp. 3-42, 1988.

One also finds traces of J.A. Shumpeter's analysis in that historical accidents and significant shocks also have significant effects on the growth paths of cities and regions. Krugman presents a stylized story of the shift to the west (the slow departure but subsequent growth of California and Los Angeles) in which expectations also play a role. He shows that the final equilibrium depends upon the fact that firms willingness to invest depends upon their expectations concerning the investment behaviour of other firms. He writes:"the rise and decline of individual cities, and perhaps of somewhat larger regions, may indeed sometimes be the result of self-fulfilling optimism and pessimism" (Geography and Trade, p. 122).

Krugman and our European colleagues of GREMI (Groupe de Recherche sur les Milieux Innovateurs) emphasize the fact that firms permeate the environment in which they locate, and underline the fact that the growth of cities and regions cannot be understood without recall to history. Territory and space influence the development of firms, a recognition of the feedback relations between firms and the place in which they locate. Space becomes endogenized in the explanation of growth. One is led to conclude that the dynamics of city-region growth cannot rely solely upon explaining location decisions by firms, but must incorporate an understanding of the functioning of local-regional "milieux", a factor which plays a significant role in the theory I have developed[9].

SELECTED FEATURES OF ECONOMIC INTEGRATION IN THE WESTERN HEMISPHERE.

According to data compiled in Table 1, Canadian exports to Western Hemisphere countries as a percentage of Canadian exports have increased from 71% in 1980 to 82% in 1994 (the U.S. share of the total increased from 67% to 80%).

Examination of data in Table 2 on Canadian imports from Western Hemisphere countries as a percentage of Canadian imports suggests no clear pattern, the 69% share observed in 1994 being similar to the shares of imports observed in 1970- 69,5% and 1980- 72%. An increase in the share coming from Latin American countries did occur, for the U.S. share has declined from

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[9] See P. P. Proulx, "Cadre conceptuel et éléments théoriques pour l'analyse de la localisation des activités économiques: le cas des villes internationales", *Canadian Regional Science Journal*, XIV, 2, Summer 1991, for an earlier examination of this question.

68,6% in 1970 to 65% in 1994. A relative increase in the U.S. share seems to be manifesting itself since 1993, a result, among other factors of the Fta and Nafta.

In its examination of the share of intra-regional to total trade (exports plus imports) the World Trade Organization estimates that intra North-American trade (Canada plus the U.S.A.) evolved as follows: 25% in 1928, 22,4% in 1938, 27,1% in 1948, 31,5% in 1958, 30,5% in 1963, 36,8% in 1968, 35,1% in 1973, 29,9% in 1979, 31,7% in 1983, and 33,0% in 1993[10]. No clear trend is apparent, but there are indications of an increase as of late, in part presumably as a result of the Fta and Nafta.

Table 3 indicates the extent of dependence of Canada on the U.S., 75% of its exports going south, and 64% of its imports coming from its American neighbour. Canada account for 20% of U.S. exports and 19% of U.S. imports.

Mexico is not a significant direct trade partner for Canada, for only 0,4% of its exports and 2% of its imports involved Mexico in 1991.

In a recent study of western hemisphere trade patterns for Québec, I concluded that formal (i.e. Nafta) and informal integration will make for an increase but a limited increase in such direct trade flows, particularly for high value-added high-tech products. Québec's challenge is to compete against Mexican and other Latin American and offshore firms in U.S. markets, it being noted that the extent of this competition should not be overdone since many of the products involved do not "travel" and will remain "borderlands" trade[11]. A similar conclusion is probably applicable to Canada.

A comprehensive examination of integration in the Western Hemisphere would also involve examination of various indicators by industrial sector. Let us summarily examine a few, i.e., energy, services and production under foreign control.

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[10] WTO Focus, May-June, 1995, no 3, Table 3.

[11] Proulx, P.P. Manzagol C., et Amesse F., "Les échanges économiques de trois régions frontalières du Québec ... avec les États-Unis", Rapport au Ministère du Conseil exécutif du Québec, août 1994, section 17.

Canadian exports of oil to the U.S. as a percentage of Canadian production increased from 29,5% in 1980 to 55,3% in 1990. In 1990 Canadian exports represented 5.5% of U.S. demand[12].

In 1990 Canadian exports of natural gas to the U.S. represented 34,7% of Canadian production and 8,0% of U.S. demand.

Wilson[13] indicates that between 1983 and 1993 the growth rate of Canadian commercial services exports was 50% higher than that of goods exports. He shows that between 1983 and 1993 the U.S. share of Canadian commercial services exports increased from 54% to 58%. Half of these were intra-firm trade. Canada's exports of commercial services towards Latin America have increased from 34 millions of $ in 1991 to 87 millions of $ in 1992.

Integration also makes for intra-firm and intra-industry trade, partnerships, alliances, and growing trade in intermediate products between countries, a topic we shall return to below. J. McCormack in a recent paper has adjusted reported trade flows between Canada and the U.S. by subtracting intermediate U.S. product imports from Canadian exports, and by subtracting intermediate Canadian imported inputs from U.S. exports to Canada[14]. This provides another interesting measure of the extent of integration between Canada and the U.S. **According to his estimate Canada's trade surplus in goods in 1993 of 19,7$ (millions of $0 according to balance of payments statistics is rather a deficit of 4,0 (millions of$).**

J. Fujimura has recently produced an interesting review of the formation of regional blocs[15]. She examined the evolution of intra-regional imports to total imports for Canada the U.S.A. and Mexico, from 1960-1993. Graphs 1-3 taken from her study are very helpful in examining the extent to which economic integration in north America is progressing. Graph no. 1 shows that

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[12] Watkins G. and Jones S, "Free Trade in Energy Among the U.S., Canada, and Mexico: State of Play and Prospects", The Frazer Institute, Studies on the Economic Future of North America, Table III-1.

[13] Wilson, S., "Changement de partenaires et partenaires changeants", Ministère des Affaires Étrangères et du Commerce International. Canada Doc. 95/02, mars 1995.

[14] McCormack, "L'effet des exportations: analyse entrées-sorties du commerce extérieur canadien", Document du Groupe des Politiques, no 94\24, Affaires étrangères et Commerce extérieur, décembre 1994, Tableau 6.1, page 39.

[15] Fujimura, J., "Les blocs économiques régionaux: un fait accompli?", Document du Groupe des Politiques, Ministère des Affaires Étrangères et du Commerce International, Canada, Février, 1995, 95\01, SP59F.

since which time it is increasing. Examination of Graphs 2 indicates that it is a decline in U.S. imports as a share of world imports that explain the pattern observed for north America. The share of world imports Canada imported from the U.S., as shown in Graph 3, fell during the 80's but has begun to increase. After a decline until 1972, the share of Mexico's total imports coming from the U.S. stabilized at a high level i.e. in the 60%+ range, a level also indicative of the high degree of integration of the Canadian and Mexican economies with that of the U.S.

Our recent examination of regional integration patterns in the Western Hemisphere (see Table 4) also indicates that **south-north integration (between Latin America and the U.S.) is proceeding as is north south integration (between Canada and the U.S.)**. Our measure is intra-regional exports to total exports by country, by regional trade bloc[16].
The percentage of total exports from Latin America going to the U.S. increased from 36% in 1987 to 39,4% in 1992. Exports within the different Latin American trade blocs also increased as did the share of Latin American exports destined to other Latin American countries.

The south-north pattern mentioned above is an indication among other factors, of the importance and effects of informal integration led by transnational corporations and giving rise to intra-industry and intra-firm trade.

THE IMPORTANCE OF PLACE AND REGIONAL FACTORS AS DETERMINANTS OF THE NATURE OF ECONOMIC INTEGRATION IN THE WESTERN HEMISPHERE.

As indicated earlier, a main tenet of neoclassical growth theory is that per capita income levels should converge in levels over time. According to endogenous growth theory, growth is endogenous because it occurs through increasing returns to physical capital, or externalities associated with human capital complementarities. It is acknowledged that nonconvexities may generate multiple equilibria in steady-state growth paths across economies and preclude the converse process.

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[16] Proulx, P.P., Gudino P. and Cauchy G., "Les entreprises et les institutions de la région de Montréal face à l'Aléna et à l'intégration économique latino-américaine", dans Corim (Conseil des Relations Internationales de Montréal), *Le positionnement de la région de Montréal face à l'intégration économique latino-économique*, septembre 1995, p.38.

Carlino G. and Mills L.[17] point out that cross-sectional studies generally support convergence, while time series studies generally finds the opposite, although their most recent study, after allowing for a break in trend growth rates of per capita earnings in 1946, supports the convergence hypothesis.

Our hypothesis is that growing globalization will "tie" different regions of Western Hemisphere Countries increasingly to regions often in other Western Hemisphere countries and occasionally offshore. Growing agglomeration effects and regional extenalities, positive and negative, will make for winners and losers among regions, and therefore growing disparities and divergence between them and hence between different provinces in Canada, states in the U.S. and sub-national units in different Latin American countries. It is unlikely that transnational policy interventions can overcome these effects, hence the importance of studying them and estimating their effects on location patterns.

That the convergence hypothesis has to date been confirmed is not a surprise to us for two major reasons: the methodological considerations referred to above, and the fact that the ongoing process of integration is still far from spent and will progressively cause the divergence effects hypothesized.

Our own initial analysis of demographics, employment and income patterns also points to the potential for growing disparities in the U.S.[18].

According to available National Planning Association forecasts by Terlecky and Coleman[19] and more recent forecasts by Regional Planning Associates (see table 5) population growth in the U.S. should continue to be strong in the South and West, especially in metropolitan areas. The most dynamic regions for population growth would be: Southern Florida, Central Texas,

[17] Carlino G. and Mills L. " Are U.S. Regional Incomes Converging? A Time Series Analysis, *Journal of Monetary Economics*, 32, 1993, and "Convergence and the U.S. states: A time series analysis", Federal Reserve bank of Philadelphia, Working Paper no 94-13, July 1994.

[18] See Proulx P.P., "Québec in North America : from a Borderlands to a Borderless Economy", Québec Studies, 16, pp. 23-37, 1994 and "Québec's International Trade with Special Reference to Trade with American Regions", Chapter 3 in G.Lachapelle, *Quebec Under Free Trade Making Public Policy in North America*, Ministère des Affaires Internationales du Québec, November, Seattle ACSUS conference and Proulx, P.P., Manzagol, C and Demers, F., op. cit.

[19] Terlecky N. and Coleman C., "Regional Economic Growth in the U.S., Projections for the 1992-2010 Period", Report no 91 R 1, National Planning Association Data Services, Washington, 1991.

California, the Pacific Northwest, and areas adjoining Washington and Atlanta. The old industrial centers of the Northeast and Midwest would see their populations increase, but at a rate lower than that in the South and West of the U.S.

According to the NPA forecasts, 85% of the increase in employment between 1990 and 2010 will occur in MSAs, hence a significant potential for inter-regional-international trade which is a pattern of integration which has not been studied. These forecasts suggest that **the MSAs with the largest projected increases in employment (in absolute and percentage terms) between 1990 and 2010 are all located in the South and West of the U.S..**

NPA data on employment growth, suggest slow employment growth in the North East and Middle Atlantic, and fast non-farm employment growth in the Sun Belt, and individual states such as Idaho, New Mexico, and Utah. The effects of Nafta and U.S.-Mexican integration, and the effects of innovation in software are obvious here as are other determinants of the choices of individuals and firms.

Our earlier analysis[20] suggested that incomes in the North-East were holding a possible result of the location of service oriented firms there, while goods producing firms and employment migrated and grew in the Sun Belt were the population in younger, not as wealthy, and were labour incomes are lower.

NPA forecasts of Gross State Product, indicates again fast projected growth in the Sun Belt States (except California), and in Idaho, Utah, and New Mexico. The North-East is projected to grow at a slower pace as is the Middle Atlantic region where low growth rates are forecasted. The Oil states of Louisiana and Oklahoma are also in the low forecast area.

They predict that after low growth rates in the 1970's, income per capita grew at high rates in the North-East and Middle Atlantic states. Maryland with a growth of 31% during the 1980-1992 time period experiences the 4th highest growth in per capita income.

This again confirms our earlier findings and poses the question concerning whether services are responsible for these findings. *One may also ask whether services will stay in Northeastern North America or whether they will follow goods production that has been moving south where*

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[20]   See Proulx, P.P., Manzagol C. and Amesse F., op cit.

population growth has been fastest. Technological and organizational changes are presumably making this possible to a greater extent than was the case earlier, but our expectation is that services activity will, like goods production, be redeployed towards the south and west and beyond, as goods production (particularly lower technology and labour intensive) "migrates" south into Mexico and Latin America.

Our reading of the Blanchard and Katz and Sala-i-Martin and Barro studies indicate that during the postwar, firm mobility led mobile workers towards growth regions in the South and West. That labour costs are lower in these regions is however compatible with in-mobility of labour which would have subsequently induced firm mobility. These thoughts bring to mind the interesting models developed by P. Krugman to explain spatial developments and the movement west of much economic activity in the U.S. We shall not attempt to cut the Gordian knot as it relates to adjustment mechanisms in the Western Hemisphere in this article, but it should be noted that the trade and firm mobility routes are more likely adjustment mechanisms given the fact that notwithstanding Nafta clauses concerning mobility of professionals, we are living with a free trade area and not a common market.

Our research on the destination and origin of Québec's trade flows by state in the U.S.[21] indicates that the adjustment to reflect the above described demographic and employment trends in the U.S. has begun. *The percentage of Québec trade flows with adjoining states has begun to fall in relative importance* and its exports (and imports) from far away states pick up, a reflection of the fact that more and more of Québec's trade is in higher value-added and higher technology products. *Dynamic trade flows exist between borderland states, but these are often states and provinces through which trade transits towards more distant domestic and foreign destinations.*

The analysis of the spatial dimension of economic development and its linkages to location decisions of MNE'S presented herein is of course to be extended significantly. Theoretical considerations and initial descriptive empirical analysis do however point to the need to incorporate spatial dimensions explicitly into our analyses of location decisions of MNE'S and those concerning the nature and characteristics of economic integration in the Western Hemisphere.

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[21] Proulx, P.P., "Québec's International Trade", op. cit. 1995.

Table 1

Canadian Exports to Western hemisphere countries, 1980-1994.
As percent of total Exports.

	1994	1993	1992	1991	1990	1989	1988	1980
U.S.	80.49	78.83	77.25	75.15	74.73	70.01	69.99	67.53
Mexico	0.432	0.412	0.455	0.303	0.382	0.430	0.344	0.686
Brazil	0.420	0.396	0.376	0.393	0.322	0.366	0.359	1.206
Venezuela	0.206	0.271	0.287	0.279	0.173	0.113	0.272	0.981
Argentina	0.084	0.070	0.059	0.042	0.031	0.027	0.042	0.298
Chile	0.132	0.104	0.095	0.100	0.1227	0.078	0.098	0.154
Costa-Rica	0.015	0.017	0.014	0.014	0.017	0.014	0.020	0.042
Peru	0.035	0.044	0.055	0.050	0.038	0.040	0.045	0.080
Ecuador	0.036	0.028	0.041	0.031	0.024	0.029	0.030	0.119
Total:	81.86	80.17	78.64	76.37	75.85	71.12	71.20	71.10
Exports/GDP	------	------	24.65	23.52	23.20	22.04	21.68	14.71

Source: I.M.F. Direction of Trade Statistics, 1994, 1980.

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Table 2

Canadian Imports from Western hemisphere countries, 1980-1994.
As percent of total Imports.

	1994	1993	1992	1991	1990	1989	1988	1980
U.S.	68.84	64.67	62.87	61.65	32.56	63.77	64.02	67.53
Mexico	2.272	2.160	1.924	1.926	1.356	1.349	1.07	0483
Brazil	0.508	0.492	0.514	0.553	0.618	0.898	0.958	0.485
Venezuela	0.263	0.220	0.245	0.365	0.440	0.473	0.376	3.053
Argentina	0.163	0.072	0.080	0.101	0.109	0.106	0.099	0.050
Chile	0.125	0.131	0.130	0.283	0.141	0.138	0.129	0.132
Costa-Rica	0.079	0.081	0.095	0.069	0.044	0.046	0.040	0.049
Peru	0.050	0.039	0.068	0.055	0.098	0.071	0.069	0.131
Ecuador	0.066	0.081	0.077	0.117	0.11	0.855	0.069	0.057
Total:	69.37	67.95	66.01	65.12	65.49	66.94	66.84	69.51
Imports/GDP	-----	-----	23.12	22.51	21.87	21.15	20.37	5.208

Source: I.M.F. Direction of Trade Statistics, 1994, 1980.

Table 3

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

	Canada	Canada	U.S.A.	U.S.A.
To:	Exports:	Imports:	Exports:	Imports:
Canada	-	-	20	19
U.S.A.	75	64	-	-
Mexico	0.4	2	8	6
Japan	5	8	11	19
Europe	8	11	29	21
Other	11.6	15	32	35
Tot. Trade (U.S. Bn$)	127.2	118.2	421.7	478.1

Source : Data are from Knubley and al., pp. 150-154.

Table 4

Ratio of exports to the U.S. and intra-regional exports as a percentage of exports, (1987-1992)

Bloc/Country	Bloc / Total		Latin America/Tot		U.S. / Total	
	%	%	%	%	%	%
MERCOSUD	6.1	7.8	12.7	18.1	20.2	17.9
Argentina	12.9	17.0	23.7	30.4	14.6	8.9
Brazil	5.3	2.5	12.4	10.9	27.9	22.0
Paraguay	17.4	13.2	46.9	61.8	3.9	5.4
Uruguay	27.4	31.9	30.7	37.1	15.0	15.5
M.C.C.A.	13.7	17.0	18.2	23.4	43.0	61.3
Costa-Rica	9.9	11.6	16.6	18.1	45.8	63.5
El Salvador	20.3	30.0	23.2	35.8	45.0	57.9
Guatemala	23.6	27.5	29.2	36.7	41.5	60.9
Honduras	3.1	3.9	4.7	5.0	48.5	72.2
Nicaragua	12.2	12.3	16.3	21.0	18.6	20.2
Andin Group	3.6	5.7	16.4	19.7	41.4	44.1
Bolivia	6.0	12.0	63.4	60.4	18.5	22.8
Colombia	7.7	7.8	16.6	18.2	29.1	40.7
Ecuador	6.2	6.4	12.8	16.8	55.5	48.6
Peru	5.9	9.1	15.9	19.2	26.9	26.7
Venezuela	0.4	3.6	14.8	19.4	49.7	49.3
Group of Three	1.3	1.7	11.8	9.3	60.1	65.8
Colombia	4.6	4.1	17.3	17.9	39.8	40.1
Venezuela	0.1	3.7	17.0	19.4	57.3	49.3
Mexico	1.1	0.6	8.2	4.2	66.4	76.2
Other						
Chile	0.0	0.0	16.7	14.4	22.3	16.8
Global average	5.8	7.3	14.9	17.0	36.8	39.4

Source: Selected economic data, by country, Texas University, reproduced in Proulx, P.P., Gudino P. et Gauchy G. Les entreprises et les institutions de la régions de Montréal face à l'Aléna...Conseil des relations Internationales de Montréal, 1995.

Table 5
Growth Rates of Population by Regions

State	Pop. change 70/80	Growth 88-93	Growth 93-98 est.
North East			
New Hampshire	25%	0.8%	1.2%
Vermont	15%	0.9%	1.0%
Connecticut	2%	0.0%(47)	0.1%(49)
Maine	13%	0.6%	0.8%
Massachussets	0.77%	0.1%(45)	0.3%(47)
Rhode Island	-0.03%	0.1%(46)	0.5%(42)
Middle Atlantic			
New Jersey	3%	0.4%	0.5%
New York	-4%(50)*	0.3%(43)	0.3%(45)
Pennsylvania	0.5%(48)	0.3%	0.3%(46)
West Virginia	12%	-.01%	0.4%
Rust Belt			
Michigan	4%	0.6%	0.4%(3)
Indiana	6%	0.8%	0.8%
Ohio	1%(46)	0.5%	0.6%
Sun Belt			
Nevada	64%(1)	5.3%(1)	3.9%(1)
Arizona	53%(2)	2.2%(4)	2.7%(3)
Florida	44%(3)	2.1%(5)	2.3%(6)
California	19%	1.9%(9)	1.5%(4)
Farm States			
Idaho	32%	2.2%	2.9%
North Dakota	6%	-0.6%	0.0%
South Dakota	4%	0.5%	0.6%
Iowa	3%	0.3%	0.5%
Oil			
Texas	28%	1.6%	1.8%
Wyoming	43%(4)	0.2%	0.8%
Louisiana	16%	0.0%(48)	0.7%
Oklahoma	19%	0.4%	0.8%
	Utah 38%(5)	Wash 2,5%(2)	Utah 2,6%(4)
	D.C.-15%(51)		Col 2,6(5)

Source: National Planning Association, Washington.
*Figures within parentheses ( ) indicate rank among states.

18

Amérique du Nord : importations intra-régionales
par rapport aux importations
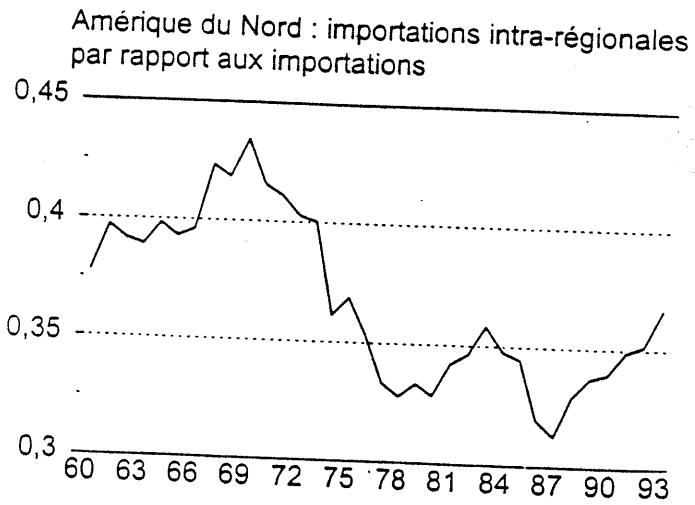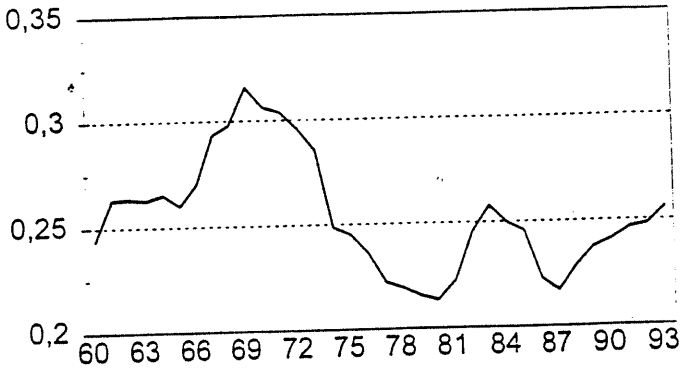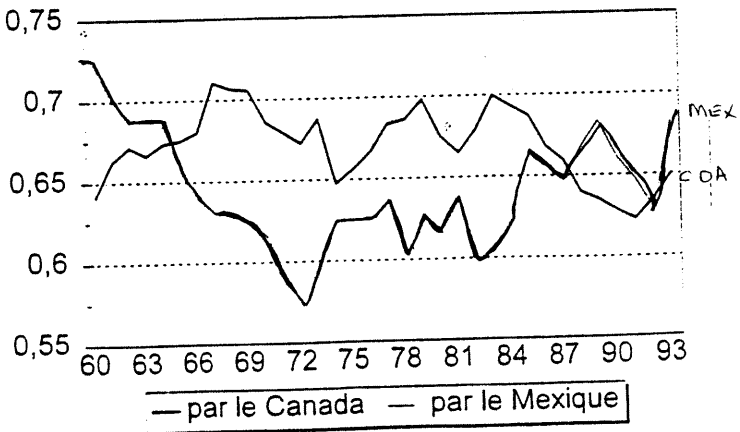

Source : Fujimura, op. cit.

GRAPHIQUE 2

États-Unis : importations de l'Amérique du Nord par rapport aux importations mondiales totales

GRAPHIQUE 3

Importations des États-Unis par rapport aux importations mondiales totales

par le Canada — par le Mexique

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