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**Convergence and Divergence in The Asia-Pacific:
Economic and Demographic Integration
between Asia and Pacific Canada**

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CONVERGENCE AND DIVERGENCE IN THE ASIA-PACIFIC: ECONOMIC AND DEMOGRAPHIC INTEGRATION BETWEEN ASIA AND PACIFIC CANADA *

By

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I. Introduction

Over the course of the last half century, the Asia-Pacific region has become increasingly integrated. By "integration" I mean the intertwining of the economic and demographic interests of individual countries within the region. That integration has strengthened over the last five decades is largely due to a set of forces simultaneously promoting divergence and convergence in the Asia-Pacific region. Convergence refers to a narrowing of gaps between countries in average standard of living, knowledge of technology, structure of production activities, and per capita levels of human and physical capital. Divergence is the widening of gaps in these same factors.

In this paper I argue three general propositions. The first is that there are seven key forces conditioning convergence and divergence: investment in physical capital, education and skill formation, diffusion of technology, international migration, international trade, policy making, and mega-city growth. Second, I provide evidence showing that the net effect of these forces is to strengthen the level of convergence, that is to weaken the degree of divergence. Third, I argue that because the degree of convergence within the Asia-Pacific region has improved, the national economies of the region have become increasingly integrated.

While this line of reasoning is abstract, my main goal is empirical. In Section II of the paper I lay out some evidence on divergence and convergence, and discuss why the seven forces conditioning convergence and divergence have the impact which I claim for them. Section III focuses on post-Cold War economic growth in the two most important economies of the region, the United States and Japan. An additional thrust of this section is to relate the recent performance of these two economies to the other countries in the region. Implicit in this treatment is the view that geopolitical changes since the late 1980s have increased the degree to which investment, trade and policy-making have improved convergence at the expense of divergence. In short, Section III offers an explanation for why both convergence and economic integration have proceeded at a relatively feverish

pace over the last decade in the Asia-Pacific sector of the globe. Section IV deals with demographic integration. It does so by contrasting the pace and nature of integration in two very sub-regions of the Asia-Pacific: "open" Pacific Canada and "closed" Japan. Picking up on the comparison developed in Section IV, Section V focuses on the changing nature of integration between Japan and British Columbia. At first glance, it would seem that structural change in Japan due to convergence and integration is driving structural change in British Columbia. I hope to convince the reader, however, that the structural shift in integration between Japan and British Columbia is a result of overall changes in convergence and integration within the Asia-Pacific region. Finally, in Section VI, I briefly summarize the key points of the paper.

II. Convergence and Divergence in the Asia-Pacific Region

A host of standard indicators of economic development point to convergence between Asia and North America/Western Europe. Of these indicators, the most commonly used is the flow of national or domestic income/product, and the level of income per capita. Measures based on estimates of national/domestic income appear in Panels A-C and E of Table 1.

Table 1: The Growing Role of Asia in the World Economy
Panel A: GNP in Billions of US $, 1995

European Union	U.S.	Asia					
		Total	Japan	NIE's [a]	ASEAN [b]	China	India
7981	7100	7464	4964	917	518	745	320

Panel B: The Share of Major Regions in World Production, 1967 and 1989 (% of World GDP); and Changes between 1967 and 1989
[Based on GDP calculated in US $ and adjusted for purchasing power parity of currencies] [c]

Year/Period	U.S.	Asia		Western Europe	Latin America	Africa (Except South Africa)	Rest of World
		Japan	Developing Asia				
1967	25.7%	5.6%	11.0%	25.9%	7.1%	3.1%	21.7%
1989	22.2	7.8	19.3	22.2	7.5	3.0	19.4
1967/1989 Net Gain	-3.7	+2.2	+8.3	-3.7	+0.4	-0.1	-2.3

Panel C: Relative Level of Per Capita GDP or GNP in US $ with U.S. = 100.0
[Converted either by exchange rate or by purchasing power parity in international dollars] [d]

Income Measure, Method of Calculation	U.S.	Asia [Selected Countries]				
		Japan	South Korea	Malaysia	Philippines	Thailand
1975 GDP, at exchange rate	100.0	62.3	8.1	10.9	5.2	5.0
1975 GDP, international $	100.0	68.4	20.7	21.5	13.2	13.0
1990 GNP, international $	10.0	82.5	35.2	26.0	9.6	19.3

Table 1 [Continued]
Panel D: Measures of Well-Being for Selected Asian Countries, Circa 1980 [(e)]

Measures of Well-Being	Country							
	NIEs			ASEAN (5)				
	Hong Kong	South Korea	Singapore	Indonesia	Thailand	Malaysia	Philippines	Vietnam
Life Expectancy at age 0	74	65	72	53	63	68	62	63
Calories per Day	2750	2980	2890	2380	2300	2680	2390	2020
Access to Safe Drinking Water: % of Urban Pop.	92%	85%	100%	41%	49%	98%	66%	n.a.
Access to Safe Drinking Water: % of Rural Pop.	50%	55%	100%	18%	12%	5%	33%	n.a.

Panel E: Migration (net labour status), 1993 GNP per capita (in US $), Economic growth rates (GNP between 1980 and 1990) [(e)]

	Labour-Receiving Countries					Countries in Transition	
Income or Growth Rates	Japan	NIEs					
		South Korea	Chinese Taipei	Hong Kong	Singapore	Malaysia	Thailand
GNP per capita	$31,450	$7,670	$10,560	$17,860	19,310	$3,160	$2,040
Growth rate	3.6%	7.8%	6.2%	5.2%	3.9%	1.1%	4.8%
Income or Growth Rates	Labour-Sending Countries						
	Philippines	Indonesia	Vietnam	China			
GNP per capita	$830	$730	$170	$490			
Growth rate	-1.3%	3.4%	n.a.	7.1%			

Notes: (a) NIE's: Chinese Taipei (Taiwan), South Korea, Hong Kong and Singapore.
(b) ASEAN (5): Indonesia, Thailand, Malaysia, Philippines, and Vietnam.
(c) For purchasing power parity, see text and Kravis, Heston, and Summers (1982).

(d) GNP = gross national product (annual flow of goods and services generated by nationals of a country); GDP = gross domestic product (annual flow of goods and services generated within the boundaries of a country). International dollar estimates are based on purchasing power calculations.

(e) n.a.= not available. Figures on access to safe drinking water for Hong Kong are for the year 1970.

Sources: International Labour Office (1985): pg. 14; Kravis, Heston and Summers (1992): Table 1-2; International Labour Office (1992): pg. 7; Lassere and Shütte (1999): pg. 5; Organisation for Economic Cooperation and Development (1996): pg. 48; Organisation for Economic Cooperation and Development (1998): pg. 24.

It is well known that national income accounting generates figures which, at best, are flawed measures of economic performance. In this paper, I can only hint at some of the problems involved in comparing income and income per capita, between one country and another. Finding a common "price" index for deflating income calculated in a standard monetary unit like the US dollar is one issue. Dealing with non-marketed home-based and self sufficient peasant production is another. In addition, national income accounting has never been able to consistently differentiate the flow of commodity and service consumption in which purchase of commodities and services takes place during the same year, from those services generated by the stock of consumer durables (e.g.: housing, automobiles and major home appliances) which are typically utilized over years, if not decades. So the figures must be treated with caution. Relying on them for precise calibration of gaps in standard of living is unwise.

But we should not throw out the baby with the bath water. As Panel D demonstrates, there is a strong association between economic development (as measured by income per capita in Panels C and E) and the quality of life as measured by life expectancy, daily calorie intake, and access to safe drinking water.

Appearing in the various panels of Table 1 are estimates of "real" income and income per capita based upon both exchange rates and purchasing power parity. For purposes of comparing standards of living, the latter estimates are usually preferred over the former because purchasing power parity computations take into account the fact that the cost of living is typically far cheaper in a less-developed country than in an industrially advanced country like Japan, the United States, or Canada. However, for appreciating the impact a country has on the demand for the products and services of other nations — that is, in assessing its purchasing power in the world — deflating nominal incomes by exchange rates surely makes sense. In any event, perusal of the various estimates given in the table shows that Asia's share of world economic activity has jumped by leaps and bounds during the period since World War II. In short, convergence in the standard of living has taken place.

The data in Table 1 also demonstrate that within Asia, Japan is the pre-eminent economy. To be sure, perceptions of Japan's relative economic importance vary with the yardstick used to measure income and income per capita. The cost of living is quite high in Japan. Using exchange rates vastly overstates Japan's performance. Using purchasing power parity helps to bring balance into the picture. But deflating by inappropriate deflators is not the only source of distortion. In contemporary Japan, non-marketed subsistence production is of marginal significance in comparison to the state of affairs in Southeast Asia and China. Still, even if Japan's relative GNP or GDP is lowered through numerical adjustments, the fact remains that Japanese technology, Japanese investment, and Japanese demand for goods and services produced in other Asian countries, is crucial to Asian economic performance. In this lies Japan's pre-eminence in Asian economic affairs.

Why has convergence occurred? The literature in economics and political economy suggests that a host of factors are at work in reducing disparities in income and in income per capita. As I shall now argue, however, these factors can also promote the diametric opposite of convergence — namely divergence. Consider the seven factors listed in Chart 1.

Chart 1: Selected Impacts of Investment, Education and Training, Technological Diffusion, International Migration, Trade, Economic Policy Making and Urbanization on International Convergence or Divergence

Item and Some of the Ways in Which it is Realized	Impact on Convergence	Impact on Divergence
Investment and Increase in Capital/Labour Ratio	Impact of rise in capital/labour ratio generally greater in lower income per capita countries	Greater capital intensity intensifies demand for higher human capital quality (complem-entarity in factor inputs). Investment subject to speculation, especially in case of short-term lending from abroad (promotes instability)

Education, Training and Skill Formation	Improves pay-off to physical capital accumulation and enhances import/adaptation of technology	Professional labour mobile internationally. In environments where there are few scale economies in new R & D, human capital depreciates; hard to predict future demands
Technology and Its Diffusion through Information Technology and through Multinational Enterprises and Aid Programs	Diffusion through imitation, adaptation and the spawning of hybrids increases total factor productivity growth	Barriers to diffusion are manifold. These include national security concerns, multinational enterprise proprietary secrets, etc.
International Migration	Depending on characteristics of emigrants and the number relative to the labour force, emigration may raise wages and reduce under-employment and unemployment in sending country	"Brain drain" may draw away the most talented from the developing country to countries where new technology is being created. Depends partly on nature of immigration policies in developed countries and to the extent to which refugee family reunification concerns take priority in receiving nations.
International Trade Expansion due to Declining Transport Costs, to International Agreements, and to expansion in global income	Labour intensive manufacturing attracted to low wage countries; Exports provide a "vent for surplus" of production	Static comparative advantage and path dependence which discourages deviating from former comparative advantage may hinder development; intra-industry trade in developed countries associated with scale economies; unions and business federations in high income countries lobby against imports, secure Voluntary Export Restrictions and other protection.
Policies (Keynesian, Input-Output Planning), Trade, Population, Education)	Aggregate monetary and fiscal instruments and institutions in developed countries serve as models for similar institutions in developing countries; Refinement policies offers rich menu of options	Conflicting models for aggregate policy in Asia-Pacific: Open (North-American) style policy approach versus Closed (Japan) style policy approach. Changes in international environment rapidly changing relative attractiveness of policy options.

Mega-city growth and Urbanization in Developing World	Facilitates emigration of semi-skilled and unskilled labour to large metropolitan centers in the developed world. Mega-cities provide scale economies in technological diffusion, infrastructure for energy, labour, capital, and for transportation.	Encourages brain drain of talented individuals to large metropolitan centers in developed world; encourages pollution, environmental degradation, and spread of some infectious diseases. Crime is often fostered in large urban centers.

As can be seen for each factor, both positive and negative impacts on convergence are possible. For instance, let us examine the case of investment in physical capital accompanied by a rise in the capital/labour ratio. In low-income countries, per capita levels of physical and human capital are low. At these low per capita levels, the marginal productivity of capital — the incremental payoff in terms of income growth arising from additional accumulation of capital — is high, while it is lower in capital-rich highly developed countries. Thus, provided rates of investment between high and low-income countries are roughly equal, convergence takes place. Thus, building plants and equipment, improving health through the application of insecticides and antibiotic drugs aimed at eliminating infectious diseases, and investing in schools and technical education, in low-income countries should promote convergence. For many types of capital investment, however, the demand for skilled labour increases with the expansion of the capital/labour ratio. In these cases, human capital is complementary to physical capital. Thus investment rates in certain industries may be higher in countries with greater levels of human capital per capita. In short, investment rates in these industries may be positively — not negatively — correlated with the standard of living and the level of education of countries. Moreover, relying on investment to shrink gaps in economic performance between countries may encourage short-term oriented speculative investment. Speculation may generate instability. Developing economies may end up riding a roller coaster of boom and bust. And instability may sow the seeds of chaos and rampant bankruptcy, thereby discouraging further investment. So divergence could also occur.

Now let us consider our second factor: education, training and skill formation. On the one hand, investing in academic infrastructure and in training programs improves the payoff to physical capital accumulation. Moreover, since technical personnel are required for successful reverse engineering and emulation of technological feats achieved in other countries, promoting scientific and engineering education will facilitate the import of technology from abroad. Thus, investing in human resources may promote convergence. On the other hand, such investments may also backfire. Unlike physical capital, human capital understands incentives. Professional labour is internationally mobile, and because it depreciates rapidly in environments where there is little R&D, it is attracted to locales where the return on the capital is potentially the highest. Thus, professionals are drawn to countries where there are substantial scale economies in research, i.e. to North America, Western Europe and Japan.

Our third candidate, technological diffusion — through imitation, adaptation and the hiving off of hybrids — is a potentially powerful impetus to convergence. Constraining this factor are strong barriers to the diffusion of technology. National security and corporate concerns over the dissemination of proprietary innovation are two prime barriers.

International migration may also promote convergence. If the population of a low-wage country is depleted by emigration — as was the case for Ireland during the middle of the 19th century — the average and marginal productivity of labour in that country is raised. From a theoretical stance, the argument is general, but from an empirical point of view, the impact on sending-country wages and per capita income depends upon the (i) ratio of emigration outflow to population size and to natural point growth (the difference between birth and death rates); (ii) the quality of the labour flowing relative to the labour staying home; and (iii) the level of remittances to the home country as a proportion of national income or exports from individuals going abroad.

Assuming labour is homogeneous, a simple elasticity measure permits "back-of-the-envelope" calculations. The elasticity (,) is the ratio of the percentage changes in wages relative to percent change in population. That is the ratio is:

[1] $, = ((dw/w)/(dP/P))$

where w stands for average wages and P stands for population. Plausible estimates for this elasticity vary widely. I have seen figures ranging from -0.5 to -1.5. Let us take the most negative figure -1.5. Surely, this figure exaggerates the impact of population decline upon that standard of living. Apply this figure to the crude estimates provided in Panels A and C of Table 2.

Table 2

Migration within Asia and Emigration out of Asia and Its Impact: Stocks and Flows

Panel A: Sizeable Countries in the Asia-Pacific Region Whose Labour Forces or Economies are Significantly Affected by International Migration, 1990

Country/Category	Foreign Born as % of Population [a,b]	Economically Active Foreign Born as % of Labour Force [a,b]	Nationals (or Economically Active Nationals) Abroad as %of Population [b]	Inflow (+) and Outflow (-) as Remittances from Stayers as % of GNP	
				Long-Term Stayers	Short-Term Stayers
Three Settlement Countries					
Australia	23.4%	24.7%	-	-	-0.2
Canada	15.1%	21.9%	-	-	-
United States	8.4%	9.4%	-	-0.1	-
Asia: Japan and Three of the NIE's					
Japan	1.1%	1.1%	-	-	-
Hong Kong	37.7%	-	-	-	-
South Korea	-	-	> 1.0%	-	-
Singapore	> 20%	> 10%	-	-	-
Asia: Four ASEAN Countries					
Indonesia	0.2%	-	> 1.0%	0.2%	-
Malaysia	> 5.6%	13.5%	> 0.6%	-	-0.4
Philippines	-	-	> 2.0%	1.4%	6.1%
Thailand	0.5%	-	> 0.9%	-	-0.3

Table 2 [Continued]

Panel B: Migrant Worker Remittances to Selected Asian/Indian Sub-Continent Countries as Percentage of GNP and of Exports

Remittances as % of:	Country					
	Bangladesh	India	Pakistan	Sri Lanka	Philippines	Thailand
GNP	2.3%	1.1%	11.3%	6.0%	2.8%	2.1%
Exports	68.7%	14.4%	71.9%	20.9%	11.6%	9.4%

Panel C: Internal Migration (Rural/Urban) and Emigration: China, Indonesia and the Philippines, Circa 1994 [(c)]

Country	Population [millions]	Increase in Labour Force (1,000's)	Rural/Urban Migration (1,000's) and %'s			Emigration Flows (1,000's) and %'s			
			Absolute	% of pop.	% of labour force increase	Absolute	As % of population	As % of rural/urban migration	As % of Labour For-ce Increase
China	1,178	12,100	80,000	6.8%	661.2%	380	0.03%	0.05%	3.1%
Indonesia	189	900	2,400	1.3%	266.7%	167	0.09%	7.0%	18.6%
Philippines	69	700	2,500	3.6%	357.1%	720	1.04%	28.8%	102.9%

Panel D: Change in Asian Immigrant Stock in the Three Major Settlement Countries, Australia, Canada and the United States During the 1980's [(d)]
And % of Total Increase in Asian Immigrants for the Three Countries within Each

	Australia, 1981/91		Canada, 1981/91		United States, 1981/91		Total of Three Countries	
	Absolute (1,000's)	% Asian of all Immigrants	Absolute	% Asian of all Immigrants	Absolute	% Asian of all Immigrants	Absolute	% Asian of all Immigrants
Asian Immigrants	450.6	60.1%	523.6	105.9%	2439.2	42.9%	3413.4	49.2%
% of Three Country Intake	13.2%		15.3%		72.5%		100%	

Table 2 [Continued]

Panel E: Labour Migrants from Seven Countries in Asia and the Indian Sub-Continent to Asia, the Middle East, and Other Regions, 1993, [1,000's]
[Sending Countries are Bangladesh, India, Pakistan, Sri Lanka, Indonesia, the Philippines and Thailand]

Absolute Numbers and Percentages	To Asian Countries, and Within the Asian Region to Five Specified Countries [Absolute Figures in 1,000's and % of All Asian Bound Labour Migrants Going to the Listed Countries]						To the Middle East	To Other Regions
	Malaysia	Singapore	Hong Kong	Japan	Taiwan	All of Asia		
Absolutes	129.9	39.7	67.8	49.1	89.9	412.8	1254.2	99.6
%'s	31.5%	9.6%	16.4%	11.9%	11.9%	23.4%	71.0%	5.6%

Notes: (a) In the case of Japan and of Malaysia, the figures refer to non-nationals as a percentage of population; and to economically active non-nationals as a percentage of the labour force. In principle, estimates of percentages based on non-nationals should fall short of those based on the foreign born since some of the foreign born become naturalized.

(b) ">" indicates "greater than".

(c) For China the figures are annual estimates, circa 1995. For Indonesia, the figures on flows are for 1989-94. For the Philippines, the figures on flows are for 1980-85.

(d) % of increase in immigrant stocks attributable to increase in Asians can exceed 100% if other immigrant stocks declined over the period.

(e) The percentage with destination "All of Asia" is the percentage out of all labour emigrants; percentages with destination "the Middle East" and "Other Regions are also percentages out of all labour emigrants. Combining this total outflow with the outflow to the three main settlement countries over the 1980's yields a total of approximately 5,180,100 emigrants out of their home countries. This is surely an underestimation of total outflow of Asians from their home countries during the decade of the 1980's. Of this approximate 5.2 million estimated emigrants, 66% went to the three main settlement countries, and 34% went to the labour importing countries in Asia, in the Middle East, and elsewhere.

Sources: Organisation for Economic Cooperation and Development (1996): pp. 80, 102, and 105; Organisation for Economic Cooperation and Development (1998): pg. 67; and Stalker (1994): pp. 275-282.

As can be seen, the putative impact on sending nations varies tremendously. For countries like the Philippines the impact was probably substantial. For instance, if we suppose the Philippine's emigrant population was 3% of its total national populace (dP/P = -3%), an elasticity of -1.5 yields a rise in wages of +4.5. But consider the far more populous Asian giant, China. Because China's emigration was a minuscule percentage of national population (and national population growth), its impact on China's standard of living was surely far less than +4.5%. Indeed, based on the logic being used here, it is difficult to believe the upward push in China's average wages due to emigration could be as high as +1.0%. But such estimates should be taken with a grain of salt. The instrument used for estimation is simply too crude. Moreover, assuming that labour is homogeneous is patently absurd.

Indeed, as noted in Chart 1, if labour is heterogeneous, international migration can be a powerful force promoting divergence. For if the best and brightest emigrate — the well educated, the talented entrepreneurs, and the ambitious — then the sending country's economic leadership may be seriously wounded. Still, as noted in Panel B of Table 2, migrant workers' remittances as a proportion of national income and national exports appear to have been substantial in the case of a number of Asian/Indian sub-continent nations. Even if the ranks of emigrants are swelled by the best and brightest, the economic impact on the sending country, which operates through remittances, is positive. Moreover, remittances provide sending nations with valuable foreign funds to cover the costs of importing capital equipment and acquiring licences for technology developed abroad.

A fifth factor promoting both convergence and divergence is international trade. Over the last half-century, the volume of international trade has greatly expanded, especially within the Asia-Pacific region. The reasons for this expansion are manifold. Nevertheless, three reasons are noteworthy: declining transportation costs (due to the building of larger and larger ships; containerization; roll-on and roll-off; the creation of Export Processing Zones; and massive investment in super ports like Rotterdam, Hong Kong, Singapore, Vancouver, and Long Beach), the forging of global agreements reducing tariffs and eliminating other institutional barriers to imports, and international convergence in incomes which has increased demand for shipment of

consumer durables and capital equipment.[1] Now, insofar as promoting international trade encourages the movement of comparatively labour-intensive production to lower wage countries, it exercises a positive influence on convergence.

Moreover, as the advanced countries move through the product cycle within specific branches of manufacturing — at first importing foreign manufactures, then substituting domestic products for imports (import substitution), moving on to becoming net exporters, and finally reverting to importing as the industry becomes mature and finds it increasingly difficult to compete against lower wage competitors — industries are pushed out into other nations nearest the most-advanced country in the region. Multinational corporations based in the advanced country encourage this diffusion from the core of an economic region into a nearby periphery as they set up subsidiaries in lower-wage nations. For instance, in the case of Japan, both "flying geese" and "billiard ball" analogies have been offered to explain the spread of labour-intensive industries from Japan into the NIEs and finally into the ASEAN countries and China (Edgington and Hayter 1999). In the "billiard ball" model, industries are pushed out into the periphery like balls. When these balls strike balls placed at specific points in the periphery, they take root at the point to which they are shot. In the process, the collision drives balls already established at this point farther out towards other countries in the periphery. For instance, textiles, and toy and bicycle production, have been largely driven out of Japan. At first, this manufacturing moved into South Korea and Taiwan. Subsequently, as television manufacturing and shipbuilding are driven out of Japan into NIEs like South Korea and Taiwan, textiles and bicycle manufacturing move from NIEs into ASEAN countries and China.

Trade also works against convergence. One reason for this is the heritage of static comparative advantage developed in the past. In any economic regime, powerful interest groups — bureaucrats, business federations and labour unions — collect economic rents from trade. When a country or region enjoys a comparative advantage in raw materials, these rents cluster around extracting, shipping and processing raw materials. As the traditional comparative

[1] On the build-up of the super port of Vancouver, see Vancouver Port Corporation (1990). On the importance of seaports and of infrastructure for the industrialization of Japan after 1970, see Mosk (1999). On the development

advantage of the region slips, these groups do not ecstatically embrace the surrendering of their rents. They dig in their heels, distorting economic outcomes through politics.

Indeed, trade seldom operates in a political vacuum. Insofar as immigration or foreign competition in the industries that generate rents shared by business and large unions cut into expected future rents, campaigns to protect vested interests naturally spring up. Politicians have an incentive to respond to these campaigns, and to formulate legislation and policies that satisfy these interests. This dynamic commonly underlies trade wars, the creation of trigger-price mechanisms and Voluntary Export Restrictions, which stymie or slow the diffusion of industries with well-developed niches in the advanced countries to the less-developed parts of the globe. The Multi-fibre Arrangement of 1974, which protected the domestic textile industries in a number of industrial nations, is an example of how international negotiation arising from domestic protests within these nations helped limit the diffusion of low wage industrial production to developing countries.

Politics is not the sole factor in hindering the international diffusion of industry as trade expands. Regional scale economies are also powerful, especially in the case of technologically intensive — and design-oriented — production.[2] Consider the land vehicle (automobiles, trucks and recreational vehicle) and aerospace industries. As Table 3 makes apparent, these are two of the most geographically concentrated industries in the world.

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of Export Processing Zones, see Shoesmith (1986).

2 For the importance of regional scale economies, and the linkage of these scale economies to the regional concentration of pools of skilled labour, see Mosk (1999).

Table 3: The Location Patterns of World Vehicle and Aerospace Production: 1970, 1989 and 1990

Panel A: World Vehicle Production [Total in million units and Percentage Share of Total in %]; Changes between 1970 and 1990

Year, Period	Total [Million units]	Percentage Shares of World Production							
		North America		Western Europe			Asia		Rest of World
		US, Canada, Mexico	US	Total	Germany, Fed Rep.	France	Japan	Asia Except Japan	
1970	33.6	32.4%	27.8%	41.5%	2.9%	9.3%	17.8%	0.1%	+8.2%
1990	45.7	28.4	22.4	35.5	10.6	7.5	30.0	3.5	2.6
1970/1990	+12.1	-4.0	-5.4	-6.0	+7.7	-1.8	+12.2	+3.4	-5.6

Panel B: Major Employers in Aerospace Manufacturing, 1989. Number of Companies and Workforce in Regions

Region/Country	Number of Companies	Workforces of Companies within Region	
		Absolute Number	Percent of Total
U.S.	12	674,517	64.6%
Western Europe	8	310,261	29.7
Other	2	58,434	5.6
Total	22	1,043,212	100.0

Notes: (a) Not adjusted for quality of vehicles (if figures were adjusted for product quality, the shares estimated for North America, Western Europe, and Japan would be higher, especially for the year 1990).
(b) Western Europe = U.K., Germany, France, Italy and the Netherlands.

Sources: International Labour Office (1992): pp. 56 and 123.

Within the industrially advanced countries of the world, some nations develop niches in one or several types of vehicles or airplanes (e.g., Germany in luxury automobiles). This specialization fosters an active intra-industry trade, which has been growing as a proportion of international trade flows over the last half-century. Consumers, largely concentrated in the advanced countries, can choose from a wide menu of options, either purchasing imports or buying domestically manufactured vehicles. While this intra-industry trade promotes investment in super ports and super boats, it does not encourage diffusion of industrial production. Hence, it tends to deter convergence. [1]

Now let us consider policy. National economic policies have played an important role in convergence. The refinement of Keynesian policy and its application to fiscal and monetary policy was important in the aftermath of World War II. And within the rubric of the neoclassical-Keynesian synthesis, which encouraged moderate government intervention in essentially freely operating private markets, at least two major models of development emerged in the Asia-Pacific region: the "open" economy approach pioneered in North America and best exemplified by the United States; and the "closed" economy approach developed in Japan and based partly upon European precedence.[2] Of course, prior to the end of the Cold War, central planning in the Communist states provided a

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[1] To some extent, diffusion has taken place in the Asia-Pacific region outside of Japan and North America. For instance, in South Korea during the 1970s and 1980s, shipbuilding, automobile manufacturing, and consumer electronics became well established branches of industry. During the late 1980s and into the 1990s, subcontracting (and the manufacture of components) for Japanese automobile companies has grown throughout Asia, especially in the ASEAN countries. And, as Hayashi (1999) demonstrates, with the establishing of subsidiaries of Japanese companies in the ASEAN countries, technology has been transferred from Japanese industrial laboratories to their subsidiaries. Hayashi (1999) notes that the length of time required for ASEAN to initiate production of technologically sophisticated products has vastly shortened over time. Once taking a decade or two, lags between the inception of new product manufacturing within Japan, and the beginning of similar production in foreign subsidiaries have been dramatically squeezed down, falling to a year or less in some cases.

The situation on the west coasts of the United States and Canada is quite different. For instance, vehicle production is well developed in California (which enjoys a population base comparable to Canada's), and Boeing in Seattle is a leading aerospace manufacturer. With its smaller domestic market, manufacturing within Canada historically has been concentrated in one region, namely in the Ontario-Quebec zone near the St. Lawrence seaway. However, this is changing as the economic structure of Pacific Canada becomes more diversified. Diversification in British Columbia is discussed in Section V of this paper.

[2] The distinction between "open" and "closed" economies is originally due to Simon Kuznets.

third model for the Asia-Pacific region. This model has fallen into disuse since the early 1990s and has been largely consigned to the dustbin of history.

Open-economy approaches naturally emerged in frontier societies like the United States and Canada in which the ratio of population to resources was initially low. In such settings, agriculture always enjoyed high productivity. Hence, real wages and living standards were always generous. Migration onto the frontier stimulated an independent approach to economic activity. Distrust of financial and governmental elites was rife on the frontier. Hallmarks of the economic philosophy developed in such a setting are the free entry of new firms — domestic or foreign — into markets, deregulation, immigration of foreigners or of those born elsewhere within the nation, and the financing of corporate investment through stock and bond markets in which information about corporate performance is (theoretically) available to the public.

Just as naturally, closed-economy approaches sprang forth in a country like Japan where the ratio of population to resources was already substantial prior to industrialization. In this environment, population pressed upon land, and per capita agricultural output and the standard of living were initially low. Reflecting the excess supply of labour relative to resources, emigration was encouraged and immigration was discouraged. Resources being scarce, the view that informed comprehensive long-range planning and rational decision making by an informed elite offered the best chance for sustained development through import of technology, naturally took root. Free entry into new markets was not embraced by bureaucrats in governments or in giant corporations who viewed their visions — fueled by information flow unavailable to the mere public — as more objective and dispassionate than that of a populace who could be easily swayed by domestic rumor or the manipulative behaviour of foreign mercantile interests.

In the closed model, elites attempt to control, limit and direct the flow of information. For instance, in Japan, regulation of financial markets through a tightly controlled banking sector, which was the principal source of private corporate investment funding during the period of catch-up with the West (a practice that encouraged exclusive information-sharing between main banks and massive industrial concerns), provided

politicians and bureaucrats with leverage over the pace and characteristics of private sector economic activity. Easy entry of foreign firms was disdained since foreign corporations could not be readily regulated like domestic enterprises. In addition, barriers were erected to the import of foreign goods and foreign investment. Finally, the Japanese government focused on developing human capital through the creation of a technologically oriented education system, so that dependence on foreign expertise was minimized, and native experts could be substituted for foreign counterparts.

The distinction between open and closed economies is highly stylized and should not be taken as a literal description of development in either North America or in Japan. Nor should the role of ecology and population density be exaggerated. For instance, British control over significant elements of Canada's agenda prior to World War I, and the presence of numerous British and Scottish labour union organizers in frontier areas like British Columbia, encouraged the diffusion of a government planning/regulation approach to development in British Columbia, which shares some features with the closed approach pioneered in Japan. Nevertheless, the distinction points to the emergence of two philosophically distinct models of development for emerging countries within the Asia-Pacific. These are the open approach as exemplified by the practices of the two huge continental frontier societies of North America stretching from the Atlantic to the Pacific; and the closed approach developed in resource-scarce, population-abundant, insular Japan. Countries in the Asia-Pacific region have learned important lessons from these two models of capitalist development, and have taken into account these two models when formulating policies, often mixing together elements from the open and closed frameworks.

Finally, a third type of policy has encouraged convergence: environmental concerns as captured in national and international regulation. Because clean environment is usually viewed as a luxury within domestic politics, demand for environmental control typically rises with income per capita as does demand for luxury goods. Hence, low income countries enjoy a competitive edge in pollution causing industries like iron and steel manufacturing visa-vis their advanced industrial competitors. Their governments find themselves contending with less vocal environmentalist movements than do those in

advanced countries. An excellent illustration of how catching up with advanced countries spurs the creation of an environmentalist movement is illustrated by Japan's ignoring of pollution concerns before the 1970s, followed by its growing embrace of regulation over environmental degradation (Ramseyer 1996, Chapter 3).

Finally, we need to consider a seventh factor listed in Chart 1: the growth of mega-cities in the third world. As is shown in *United Nations, Department of Economic and Social Affairs, Information and Policy Analysis, Population Division* (1995), most of the largest metropolitan centers within the near future will be in the developing world. Now, during the 19th century, most international migration was from one rural area to another. Today, most migration involves individuals moving from one large city to another. Thus, the proliferation of mega-cities in the developing world tends to promote emigration from these countries. The mega-cities also offer scale economies, which promote modernization of infrastructure and the attendant diffusion of technology. Thus, depending on the nature of emigration, mega-city growth promotes convergence. But as noted in Chart 1, mega-city growth in the developing regions of the Asia-Pacific joins the six factors previously considered in promoting both convergence and its opposite, divergence.

In sum, at a theoretical level, it is difficult to access whether divergence or convergence will occur, either on a global scale or within the Asia-Pacific region. The outcome depends on the strength of the opposing forces. Thus, the issue is empirical. As already noted, it appears that convergence is winning out over divergence within the Asia-Pacific. It is reasonable to conclude, therefore, that the forces promoting convergence have been stronger than those engendering divergence over the course of the last half-century.

III. Post-Cold War Expansion in the Two Main Engines of Asia-Pacific Growth: The United States and Japan

With the collapse of the central planning/non-market oriented model of economic development, three major paradigms developed to compete within the Asia-Pacific region: the North American model with its emphasis on open markets; the semi-closed/semi-open Western European or Third-Way model with its stress on welfare and redistribution; and the closed model best exemplified by Japan. Of these three models, only two are really relevant in the Asia-Pacific context: the open and the closed models. The reasons for this are geographic. The two dominant economies of the region are the American and Japanese economies. Moreover, the climate of the Asian region — namely the monsoon rain pattern, which encourages dependence on rice cultivation — promotes high population densities in agriculture because per capita calorie output under rice cultivation is high. Hence, farmland can be subdivided and subdivided until large numbers of agriculturalists are sustained on limited land areas.

In short, the Japanese model of development has special appeal in the most densely population sub-regions of the Asia-Pacific, but it vies with the North America approach, which is well entrenched in the United States. Recent economic trends over the last decade seem to suggest that the American model is performing better than the Japanese model, or least that the American economy is currently showing better growth prospects than is the Japanese economy.

An overview of growth during the last decade or so for the major geographic engines of the Asia-Pacific is shown in Panel A of Table 4.

Table 4: Japan, U.S., Europe and Canada During the 1990s
Growth Rates for GDP in four countries. Growth Rates for GDE and selected components of GDE for Japan, 1956-1996.
Private and Government Savings (S) and Investment (I) in Japan, 1967-1985 (Selected Years), Japanese Investment by Region in 1985 and 1995, and Foreign Direct Investment in Asia, 1986 and 1993

Panel A: Growth Rates for GDP

Year	Japan		U.S.	Europe [(c)]	Canada
	Series A [(a)]	Series B [(b)]			
1992	1.0%	n.e.	2.7%	1.0%	0.9%
1993	0.3	n.e.	2.2	-0.3	2.3
1994	0.6	n.e.	3.5	2.9	4.7
1995	1.5	3.0	2.0	2.4	2.6
1996	3.9	4.4	2.4	1.8	1.2
1997	0.0	-0.4	3.8	2.6	3.8
1998	n.e.	-2.2	n.e.	n.e.	3.0

Panel B: Japan. Growth Rates for Gross Domestic Expenditure (GDE) and Selected Components of GDE, 1956-1996

Category	Period						
	1956-61	1962-67	1968-73	1974-79	1980-85	1986-91	1992-1996
GDE	9.3%	9.3%	9.2%	3.5%	3.3%	4.5%	1.5%
Exports	0.4	0.6	0.8	0.7	0.9	0.3	0.5
Imports	-0.8	-0.7	-1.1	-0.3	0.1	-0.7	-0.7
Private Consumption	5.8	5.6	4.9	2.3	1.6	2.4	1.2
Private Investment	1.8	1.2	1.8	0.1	0.8	1.6	-0.3

Table 4 [Continued]

Panel C: Japan. Percentages of GNP in Private and Government Savings (S) and Investment (I), Selected Years 1967-1985

Category	Year						
	1967	1970	1971	1981	1983	1984	1985
Private							
Savings (S)	31.4%	33.3%	31.0%	27.9%	26.9%	26.7%	26.8%
Investment (I)	32.7	34.0	30.0	24.2	21.9	22.3	22.8
Government							
Savings (S)	6.3%	6.8%	7.0%	3.3%	2.8%	3.9%	4.8%
Investment (I)	5.1	5.1	5.8	7.1	6.4	6.0	5.6

Panel D: Japanese Direct Investment Abroad by Region (Million U.S. $ and Percentage Distribution), 1985 and 1995

Investment Million US $ and Regional % of Total	Region				
	Total	Asia	North America	Europe	Others
1985, US $	12,217	1,435	5,495	1,930	3,357
1985, Percentage	100%	11.8%	45.0%	15.8%	27.5%
1995, US $	50,694	12,264	22,761	8,470	7,199
1995, Percentage	100%	24.2%	44.9%	16.7%	14.4%

Table 4 [Continued]

Panel E: Direct Foreign Investment in Asia, in US Billions and as Percentages of Total, by Sub-Region, 1986 and 1993

Investment Billion US $ and Regional % of Total	Region/Sub-Region of Asia [(d)]				
	Total Asia	NIE's	Other Asian Countries (non-NIE's in Asia)		
			Total	Of which, China	Of which, other than China
US Billion $, 1986	4.8	2.1	2.7	1.4	1.3
% of Total, 1986	100%	43.8%	56.3%	29.2%	27.1%
US Billion $, 1993	34.1	2.3	31.8	23.1	8.7
% of Total, 1993	100%	6.8%	93.3%	67.7%	25.5%

Notes: n.e. = not estimated in source used.

(a) From Posen (1998).

(b) From Japanese Government. Economic Planning Agency. Coordination Bureau (1999).

(c) Defined as sum of GDP's for U.K., Germany, France, Italy, Netherlands and Spain.

(d) NIE's include South Korea, Singapore, and Chinese Taipei (Taiwan). Other Asian countries include China, Indonesia, Malaysia, Papua New Guinea, Philippines and Thailand. Japan is not included in this table (it was a net lender in both years). Percentage totals may not add to 100% due to rounding off of decimals.

Sources: Bank of Canada (1999): S6-S7 (Table A.1); Japanese Government. Economic Planning Agency. Coordination Bureau (1999): pg. 15; Lincoln (1988): pp. 72, 76-7; Nakajima, Nakamura and Yoshioka (1999): pg. 6; Organisation for Economic Cooperation and Development (1998): pp. 25 and 118; and Posen (1998): Table 1.1.

Figures for Europe are given for comparison. Figures for Canada are given in order to paint the background for our subsequent analysis of conditions in Pacific Canada. As can be readily gleaned from the data, growth in the United States has been stronger than in Japan, Europe or Canada. Moreover, growth in the United States has been less erratic than has been the case in Japan, Europe or Canada.

Although a decade is a substantial time interval, it is insufficiently protracted to support inferences concerning the superiority of the open US-style model of growth over the other models represented by the regions and countries covered in Table 4. After all, growth may be leapfrogging around the globe. It may pick up in one region and run its course there, only to move on to other global economic hot spots. However, the data may be telling us something very important about the long-run viability of the closed or semi-closed models of growth. For instance, are we to conclude that Japan is going through a "climacteric" at the end of the twentieth century, similar to the climacteric suffered by the United Kingdom at the close of the nineteenth century?

The recent abysmal performance of Japan is commonly traced back to the bursting of the bubble economy during the early 1990s. During the bubble phase, from the late 1980s until the early 1990s, asset prices - for land and for stocks - rose dramatically. Now some commentators view Japan's bubble phase as an aberration, due to a combination of misguided domestic monetary policies, the globalization of financial markets, and to rampant speculation in assets. For example, Posen (1998: 1) writes:

> [I]nadequate counter-cyclical policy response to the 1980s asset price bubble and its burst can account for most of Japanese growth slowdown in the 1990s. There appears to be little justification for invoking additional factors such as wholesale decline in Japanese economic potential or in the competitiveness of the 'Japanese model.'

This is a view to which Sasaki-Smith (1999) largely subscribes. But other commentators point to fundamental structural shifts in the Japanese economy and population which — in my view, because of path dependence (hanging on to behavioral patterns inherited from the past) — have not been sufficiently thorough. As a result, Japanese growth has been highly uneven and erratic since the early 1970s. During the

1980s, growth was too rapid, and since the early 1990s, it has been two slow. In any case, unless it makes vigorous adjustments in the near future, Japan may indeed have entered a "climacteric" period of relative decline.[1]

According to the long-term view — in which the argument that Japan insufficiently adjusted to having converged to the world of advanced countries, is basic— one or several aspects of Japan's closed economy approach to development are viewed as causing the bubble economy and its subsequent collapse. For instance, even before Japan's malaise in the 1990s became noticeable, Lincoln (1988, 1990) pointed out that the surplus of savings over investment posed a major problem for Japan (see Panel C of Table 4). Indeed, the excess of savings over investment is the mirror image of Japan's dependence on exports for generating growth in the post-1975 period (Panel B of Table 4). During the era of High Speed Growth (1955-70), when Japan caught up with the advanced industrial countries, rising savings was a necessary concomitant of investment-led growth fueled by high-expected rates of return on new capital construction. This, in turn, depended upon substantial gains in total factor productivity stemming from importing and adapting foreign technology because the Japanese government pursued a closed economic strategy. It made it difficult for foreign companies to enter the Japanese market, and it actively discouraged foreign financing of domestic investment. Rather, the Ministry of Finance and the Bank of Japan encouraged the growth of a financial system whereby "Big City Banks" channeled funds into long-term investment projects of major enterprises. The banks relied on implicit guarantees of bailout by the central bank to effectively insure the financial intermediaries.

As long as rates of return on long-term investment were high — gigantic rates of total factor productivity growth ensured that they would be high — the banking system thrived in the closed economic environment. Massive bailout was not required. By the

[1] A front page article in *The New York Times*, 1 August 1999, entitled "Empty Isles are signs Japan's sun might dim," by N. Kristof, presents a case for a "Japanese climacteric." Kristof emphasizes the excessive building of infrastructure and population decline in contemporary Japan. He ties the theme of population decline to the unwillingness of Japan to more freely open up its borders to immigration, i.e., Japan remains too closed, especially on the demographic side. This is a position with which I concur.

early 1970s, however, Japan had reached the technological frontier in most industries. Thus, total rates of total productivity growth plummeted, bringing rates of return on new capital acquisition down with them. The incentive to invest in new plants and equipment was eroded, and hence overall private investment fell. Thus, Japan entered a period when savings exceeded investment. An equivalent statement is that Japan began to run huge trade surpluses. Japan began to export capital and the yen marched upward on international exchange markets. Higher values for the yen relative to the US dollar, which served as the world's main clearing currency in handling international transactions, drove up Japanese labour costs relative to other countries. As a result, Japanese investment flowed into lower-wage countries, especially into those Asian countries nearby Japan.

Japanese capital also flowed into North America and Europe. These latter flows were driven in part by the desire of Japanese companies to stave off domestic content legislation and the impact of Voluntary Export Restraints imposed by its advanced industrial trading partners. For instance, Japanese automobile manufacturers set up production facilities in Europe and North America. Panel D of Table 4 provides a summary of the regional focus of Japanese investment in 1985 and 1995. The table suggests that exports of Japanese capital due to the search for cheaper labour, is growing at the expense of capital export designed to protect markets in other industrial economies.

As Japanese domestic investment fell, and Japanese companies increasingly focused on acquiring capital in other regions of the globe, Japanese banks were faced with a conundrum. During the heyday of the closed economy they had concentrated upon lending to corporations. Now they faced declining demand for these loans on the part of major corporations. Still awash in savings deposits, they turned to riskier corporate loans, and to real estate. This set the stage for a speculative bubble in asset prices, and to the subsequent collapse of the bubble. This story, which emphasizes excess savings and a financial system that failed to make the transition out of the era of high speed growth and Miracle Growth catch-up with the West, is told by Lincoln (1998) and by Sato (1999).

In my view, the long-term failure to adjust to its convergence with the advanced industrial world offers the best explanation for Japan's current lackluster performance. In

effect, to adequately adjust to convergence, Japan should have completely opened up during the early 1970s. It should have abandoned its closed economy approach; but path dependence is very strong. Hence, during the 1980s, Japanese policymakers operated under a bizarre illusion that high-speed growth would return to Japan, and behaved accordingly. But the days of 5 percent per annum rates of total factor productivity growth right before or during the early 1970s (Nakajima, Nakamura, and Yoshioka (1999). Growth during the 1980s was too high; and as a result, Japanese growth during the 1990s has been too slow. To be sure, Japan will return to a path of moderate growth similar to that of other advanced industrial nations. But Miracle Growth is over. Whether bureaucrats and politicians heady with the success of the closed economy of the 1950s and 1960s accept this fact is another matter.

So Japan has been adjusting. It has been opening up and abandoning its closed economy institutions. However, the pace has been painfully slow. For instance, Japan has become a leading defender of free and open trade. It has (somewhat reluctantly) joined the other advanced countries in developing policies for stopping environmental degradation, and it has even (slowly, and by a mere crack) opened its doors to immigrants from Latin America and Asia (Meissner, Hormats, Walker and Ogata 1993). Insofar as it has opened up, it has converged toward a model of economic behavior that is not exclusively rooted in a closed economy model. Further, since Japanese industries — especially raw materials heavy industry — have been moving into other regions of Asia and out of domestic production, Japan's voracious appetite for some raw materials has slackened off.[2] Japan's character as a country exporting manufactures and importing raw materials is changing. Its import of manufactured goods is rising, while its import of raw materials (as a share of imports) is falling off.

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[2] As early as the beginning of the 1970s, Japanese policy makers had been aware of a need to downsize raw material intensive, polluting industries. For instance, see Tanaka (1972). For a discussion of structural shifts within sub-sectors of Japanese manufacturing during the 1970s and early 1980s, see Dore (1986). The decline in Japan's manufacturing base has led to a degradation of the status of the Ministry of International Trade and Industry (MITI) within the tiny club of powerful ministries in Japan. It has also led to a reorientation of MITI's focus toward encouraging imports and controlling pollution. For details, see Kohno (1999).

In short, Japan is adjusting to convergence in the Asia-Pacific region. It is adjusting to its own convergence with the most advanced industrial economies of the region. It is also adjusting to convergence of other countries in Asia to levels of per capita income approximating its own. Perhaps the slowness of Japan's opening up is due in part to the fact that it has taken several decades since 1970 for the NIEs and some of the ASEAN countries to make substantial progress on the road to convergence with Japan. Path dependence, however, has also slowed Japan.

Let us now consider British Columbia as a case of adjustment of a wholly different sort to convergence within the Asia-Pacific region. In order to put this pattern of convergence into context, consider Pacific Canada's recent record of performance at the aggregate level. The following figures on real growth rates in provincial aggregate output for British Columbia show that the unevenness of growth characteristic of Canada over the last decade, has been especially pronounced in British Columbia.[3]

Growth Rates for Real Provincial GDP, British Columbia, 1992 Prices/Year				
1992	1993	1994	1995	1996
3.7%	4.0%	1.2%	1.1%	2.2%

By the standard set by the United States over the last decade, British Columbia's performance has been remarkably unstable.

If Japan has been adjusting by opening up, and by importing more and more manufactures — that is, by changing its economic structure — British Columbia has been adjusting by diversifying out of its traditional raw materials industries. If path dependence has slowed Japan's convergence towards a more balanced economy, path dependence has

[3] I am grateful to Kristeen Kennedy for providing me with these data. The figures are worked up by Statistics Canada. Because the statistical agencies of British Columbia and of Canada are in the process of reworking their methods for computing GDP in British Columbia, figures for 1998 and 1999 are unavailable.

also deterred British Columbia from rapidly adjusting to the globalization of raw materials extraction, processing and shipping, which has been ongoing for the last several decades. Convergence has undermined Japan's closed economy approach. It has also undermined British Columbia's reliance on raw materials as Pacific Canada is now facing a whole new regime in the terms of trade between raw materials and manufactures in which raw material prices have systematically dropped relative to the price of manufactures. Union leaders and bureaucrats, who once extracted rents out of the British Columbia forestry, mining and fishing sectors, have a vested interest in fighting to keep the western Canadian economy oriented around these declining sectors in which, at one time, British Columbia possessed a strong comparative advantage. So, as in Japan, path dependence is slowing the pace of adjustment.

Nevertheless, adjustment has been taking place in British Columbia. It is adjusting to the growing importance of demand for manufactures and technologically sophisticated output in the Asia-Pacific, especially in the United States and Japan. One consequence has been the expansion of greater Vancouver as a Pacific-oriented trade port (Davis and Hutton 1989; Hutton 1997; and Resnick 1985). As Vancouver's status as an Asia-Pacific-oriented metropolis has been strengthened, the interdependence of the greater Vancouver region with the resource-oriented remainder of the province has shrunk.

It is important to recognize that these recent economic adjustments in Japan and in British Columbia to Asia-Pacific convergence have been taking place during a period of uneven economic performance within the NIEs and ASEAN sub-regions of the Asia-Pacific. This unevenness has many different sources and the causes within any one country are not necessarily the same as those elsewhere. At a general regional level, however, the jerkiness of recent Asian performance stems from the growing importance of the American model of investment— whereby commitments are mainly put upon a short-term basis — within the Asia-Pacific region. For instance, consider the figures in Panel E of Table 4. As can be seen, direct foreign investment tends to move around from one sub-region to another at a very high rate. Rodrik (1999) argues that short-term capital

investment is growing within Asia, and it is generating instability there. Speculative booms and busts are growing in frequency and in magnitude.

Still, the main thrust of this section is that longer-term trends toward Asia-Pacific convergence dominate the process of adjustment within the economies of Japan and British Columbia. But convergence is not simply achieved through trade, capital movements, technology transfer and the adopting of policy models. It is also conditioned by migration of persons. Let us see how migration has shaped the process of adjustment in Japan and in British Columbia.

IV. Demographic Integration with the rest of the Asia-Pacific: Pacific Canada versus Japan

Japan and Canada are at opposite poles in terms of migration. Canada, and especially Western Canada, has been relatively open to immigrants for centuries. To be sure, Canadian openness has hardly been unconditional. For instance, until quite recently, Canada was not as open as to Asian immigrants as it was to immigrants from Europe and the United States. By comparison, Japan has been almost completely closed for centuries. After it "opened up" to the West in the 1850s and 1860s, it began to encourage emigration. Immigration, on the other hand, has been tightly controlled, and until recently it was largely restricted to Koreans and Chinese brought in involuntarily during the late 1930s and during the World War II period.

Path dependence remains strong in the Japanese case. As Table 5 demonstrates, even after Japan began to selectively open up its labour market to immigrants, the impact of immigrants upon Japanese labour market activity has remained minimal.

Table 5: Changes in Population and Components (Natural Increase, Net Migration) in Canada, British Columbia, and Japan, 1961-76 (and 1991-95 for Japan), Characteristics of Migrants to Japan and Canada (early 1990's), and Immigrant Population in British Columbia, 1986 & 1996

Panel A: Canada and British Columbia. Population Change in Periods due to Natural Increase (NI) and Net Migration (NM) and % due to Migration (PM) Population Figures in 1,000's. [(a)]

Country/ Province	Period											
	1961-66				1966-71				1971-76			
	Total	NI	NM	PM	Total	NI	NM	PM	Total	NI	NM	PM
Canada	1777	1518	259	14.6%	1553	1089	464	29.9%	1424	931	493	34.6%
B.C.	245	104	141	57.4	311	89	223	71.5	282	83	199	70.6

Panel B: Japan. Population Change in Periods due to Natural Increase (NI) and Net Migration (NM) and % due to Migration (PM), 1961-95 [Selected Sub-periods] Population Figures in 1,000's [(b)]

1961-65				1966-70			
Total	NI	NM	PM	Total	NI	NM	PM
4856	4943	-41	-0.8%	5445	5602	11	+0.2%
1971-75				1991-95			
Total	NI	NM	PM	Total	NI	NM	PM
7264	6671	-47	-47%	1958	1730	-70	-3.6%

Panel C: Percentage of Asian Foreigner Population from China, South Korea and the Philippines: Japan, 1993

Country:	China	South Korea	Philippines
Percentage:	15.9%	51.7%	5.5%

Table 5 [Continued]

Panel D: Immigrants to Canada in 1992: Asian Countries in the Top Ten According to Number of Immigrants (% of Immigrants) and the Per Capita GDP (US $) of these Countries

Rank, % of all Immigrants, % Refugees, and per capita GDP	Hong Kong	Philippines	Sri Lanka	India	China	Vietnam	Taiwan
Rank	1	2	3	4	6	7	8
% of Immigrants	15.3%	5.2%	5.1%	5.1%	4.1%	3.1%	2.9%
% Refugees	-	-	62.4%	4.8%	10.9%	29.0%	-
GDP per capita	$17,860	$830	$600	$290	$490	$170	$10,560

Panel E: British Columbia. Population, Immigrant Population, and Immigrant Population Born in Asia, 1986 and 1996
[Figures in 1,000's]

Year	BC population	Immigrant Population in BC		Immigrants from Asia in BC		Percent Increase from 1986/1996		
		Total	% of BC population	Total	% of all BC immigrants	BC population	Immigrant population	Asian immig-rant pop.
1986	2883	631	21.9%	161	25.4%	29.2%	43.2%	150.0%
1996	3725	903	24.3	401	44.4			

Notes: (a) Due to rounding, the sums of population change components may not exactly add up to the totals given.

(b) See Panel A for definition of acronyms. Because the Japanese government constantly adjusts the population figures for errors in measuring population figures in the census, the figures on population change do not equal the sum of natural increase and net in-migration.

Sources: Government of Canada (various years), Censuses for 1986 and 1996 [various volumes and tables]; Government of Japan. Management and Coordination Agency. Statistics Bureau (1998): pp. 32-3 (Table 2-1); Organisation for Economic Cooperation and Development (1996): pg. 85; Stalker (1994): pg. 179; Statistics Canada (1983): Series A339-349.

The price of keeping labour markets relatively closed is substantial. In conjunction with a low birth rate, a closed demographic policy can spawn demographic decline. Japan is now facing such a prospect with the result that in the international competition to secure highly skilled and talented professionals, or wealthy entrepreneurs from other parts of Asia, it is losing out to the relatively open countries of settlement in the Asia-Pacific — the United States, Canada and Australia.

Path dependence is far less strong in the Canadian case. It exists in the sense that the annual magnitude of immigrants allowed into Canada has not varied much over the postwar years. While annual fluctuation in numbers admitted has occurred — adjusting to changes in federal immigration policy driven in part by business conditions — the overall volume is quite stable.

Still, switching from a focus upon absolute volumes to a focus on the ethnic origin of immigrants reveals dramatic changes in Canada's immigration. As can be seen from Panels A and D of Table 2, Canada is similar to the two other settlement countries of the Asia-Pacific region — the United States and Australia — in concentrating upon absorbing persons of Asian descent over the last several decades. This focus on absorbing Asians is relatively recent. To some extent it reflects convergence: all three countries have introduced business class immigration classifications, which encourage the wealthy of Asia to seek settlement across the Pacific. For example, this accounts for the high percentages of persons of Hong Kong origin in Canada's recent immigration inflow (Panel D of Table 5). It also reflects a changing international political dynamic as pressure is applied on the three countries by lower income nations in the Asia-Pacific region. For instance, in all three countries immigration during the 19th and early 20th centuries mainly involved absorbing Europeans. In the case of Canada and Australia, the switch away from bringing in Europeans has principally meant welcoming persons from the Asia-Pacific region. In the case of the United States, the immigrant pool has increasingly been populated by persons from Central and South America, and from Asia. In short, the discontinuity in Canada's immigration is part of a general pattern of reorienting immigration in the settlement countries of the Asia-Pacific region. That reorientation has increased demographic integration across the Pacific.

In sum, demographic integration is increasing in the Asia-Pacific region. It is increasing because the traditional countries of settlement — the United States, Canada, and Australia — are absorbing increasingly large numbers of Asian immigrants. It is increasing because labour migrant flows within the Asian/Middle-Eastern region are increasing (see Panel E of Table 2) and because Japan is gradually opening itself up to immigration.

In short, demographic integration is responding to convergence in the Asia-Pacific region. As the former lower-income countries in the region close the gap between themselves and the advanced nations through high rates of economic growth, they switch from being net emigrant to net immigrant states. As they make this transition, migrants from lower-income nations in the region join their labour forces in order to fill the excess demand for labour created by the rapid rates of growth in these countries. Thus, labour migration expands integration, which in turn is increasing because of political pressure applied to the countries of settlement and because of perceived economic self interest in these nations stemming from convergence. Thus convergence fosters demographic integration which, in turn, contributes to convergence.

V. Economic Integration and Convergence: Pacific Canada and Japan

Convergence, therefore, does seem to be promoting economic and demographic integration in the Asia-Pacific region in the long-run, but because of path dependence and the difficulties of jump-starting development in some sub-regions, integration is taking place slowly. Moreover, it is occurring at the level of the entire Asia-Pacific region. For this reason, we cannot say whether any two countries — or regions of countries — are becoming more or less integrated on a bilateral basis. Indeed, one could argue that declining demand for raw materials in Japan — resulting from raw material industries moving out of Japan into the NIEs, the ASEAN countries and China — can diminish bilateral integration between Japan and its regional raw materials suppliers. Pacific Canada is currently a source of coal, minerals, fish and timber for Japan. While the United States absorbs the largest share of British Columbia's exports in general, Japan is British Columbia's biggest demander of certain raw materials exports like coal. For this reason,

while convergence could strengthen British Columbia's export flows to other countries in the Asia-Pacific region excepting Japan (but including the United States), it could undermine direct bilateral trade between Japan and British Columbia.

In particular, the paradox arising from the divergence between long-run and short-run implications of convergence in the Asia-Pacific could incite Canadian exporters in the Pacific to draw incorrect conclusions about the future of economic integration between Pacific Canada and Asia. Japan is in a period of slow growth. Yet even when the growth impulse returns to Japan, the long-term secular effect of convergence is working to reduce Japan's need for traditional British Columbia exports. Thus — from a bilateral viewpoint — Japan probably will diminish as a demander of Pacific Canada's traditional exports, regardless of the economic growth rates in Japan itself. In the long-run however, convergence should bolster British Canada's exports.[1] For this reason, investors in British Columbia should not draw unwarranted conclusions about the future of regional integration from the bilateral experience of British Columbia with its largest Asian trade partner, Japan. The paradox is that it is natural to see bilateral experience with Japan as a harbinger for diminishing future interaction with Asia when, in fact, it is really a harbinger for a brighter regime of economic integration in the future.

Recent statistical trends in British Columbia trade do support a dismal scenario for economic integration between Japan and Pacific Canada. Consider the figures in Table 6.

[1] It is important to note that Japan is the only country in Asia that uses large quantities of British Columbia's timber/processed log exports. This is because Japan alone makes heavy use of wood in housing construction. Moreover, it should also be noted that due to technological changes in the pulp and paper industry, British Columbia's traditional position in this industry is being eroded by competition from Asia, Russian Siberia, and Europe. I am grateful to George Dufour, Chief - Trade Statistics, Ministry of Finance and Corporate Relations, Government of British Columbia, for these observations.

Table 6: Exports from British Columbia to Japan [Japanese Tourism Included], 1989-1990:
Japan's Real Income in 1990 Canadian Dollars (Billions of Canadian Dollars), Exchange Rate, Exports of Major BC Commodities to Japan (in Volumes), Number of Japanese Tourists Entering Canada via British Columbia [in 1,000's]

Year	Japanese GDP in constant Canadian Dollars (billions)	Yen/Canadian Dollar Exchange Rate	Commodity Exports, Volumes [(a)]					Japanese Tourists Entering BC
			Cooper ores & concentrates	Coal	Lumber	Pulp	Newsprint	
1989	3509	116.6	557.6	13.5	3.9	994.5	23.3	162.0
1990	3422	124.1	564.7	13.6	4.0	690.8	34.5	189.3
1991	3801	117.4	552.6	13.0	4.5	640.2	49.6	191.6
1992	4288	105.2	479.3	9.3	4.6	638.5	119.4	204.1
1993	5236	86.4	327.4	10.3	5.4	0.8	138.5	219.7
1994	6085	74.8	227.7	12.1	5.3	0.9	119.8	241.3
1995	6727	68.6	219.3	10.9	5.7	1.0	146.5	307.9
1996	5985	79.9	276.7	13.4	6.2	0.8	140.7	342.1
1997	5458	88.4	321.2	12.4	5.0	0.8	164.5	317.4
1998	5542	87.4	269.6	11.1	3.7	0.8	162.5	289.0

Notes: (a) Figures are in billions of units appropriate to the type of bulk commodity listed. A series on aluminum exports is excluded due to problems in coming up with a consistent set of estimates for the entire time period.

Sources: Kennedy (1999): various tables. [Original data compiled by Statistics Canada].

As can be seen, British Columbia's major raw materials commodity exports to Japan have tended to drop precipitously. The one exception is newsprint. These declines have taken place at a time when — in terms of Canadian dollars — Japanese income has risen markedly. In short, during a period when Japan's capacity to purchase raw materials from British Columbia has dramatically improved, its actual purchases have diminished.

The one bright sign would seem to be tourism. It does seem to positively respond to Japan's purchasing capacity. The importance of Japanese tourism in British Columbia should not be exaggerated, however. In comparison to the volume of tourists coming from other Canadian provinces and from the United States, the number of Japanese tourists is not large.

It would seem, then, that economic integration between British Columbia and Japan is weakening; but this is not necessarily so. For as Japan has adjusted to convergence, and increased its imports of manufactures relative to raw materials, and stepped up its import of tourist services, the nature of British Columbia's Japan-oriented business base has shifted. Consider the figures given in Table 7 concerning Canadian companies doing business with Japan.

Table 7: Companies in British Columbia and in Canada Doing Business with Japan: 1994/95 and 1997/98

Panel A: Number of Companies in Canada and in BC Doing Business with Japan

1994-95			1997-98		
In Canada	In BC (Number & % of all Companies in Canada		In Canada	In BC (Number & % of all Companies in Canada	
	Number	Percentage		Number	Percentage
4151	880	21.2%	4856	1151	23.7%

Panel B: Change in Number of Companies Doing Business with Japan Between Two Periods, 1994-5/1997-8
[Rates of Increase are Rates per 100 Companies & are Expressed in %]

Absolute Increase			In BC: Rates of Increase (IR), Disappearance (DR), and Addition (AR) [(a)]		
In Canada	In BC (Number & % of Total Canadian Increase)		IR	DR	AR
	Total	Percentage			
705	271	+38.4%	30.8%	-14.2%	+45.0%

Panel C: Percentage of BC Companies Doing Business with Japan in 1997-98 in Ten Categories (* Indicates Increase in % Between 1994-5 & 1997-8)

Agricultural & Related	Oil and Minerals	Food & Food Processing	Fabricated Products	Forest Products
2.0%	1.6%	10.9%	1.3%	8.3%
Chemical Products	Manufacturing	Construction/ Building Equipment & Supplies	Services (Except Trading Houses & Associations)	Trading Houses & Associations
1.3%	30.1% *	10.5% *	24.7% *	10.2 *

Notes: (a) DR = rate of companies vanishing between 1994/5 and 1997/98 (&/or completely changing corporate name so that matching of old and new company names proved impossible); AR = rate of companies being newly created between 1994/5 and 1997/98 (includes comprehensive corporate name changes.

Sources: Canada

As can be seen, the percentage of Canadian companies doing business in Japan (and/or with Japanese organizations), has increased at an especially rapid rate in British Columbia during the 1990s. Indeed, the percentage of the absolute increase in number of companies that are located in British Columbia, is almost 40 percent. A large number of these companies were in manufacturing, construction/building equipment and supplies, and trade-related services. The increases have not been in the traditional raw materials industries.

In short, as Japan's economy has adjusted to convergence in East Asia, it has engendered structural change in British Columbia through its impact on the demand for goods and services in Pacific Canada. Japan's adjustment has encouraged diversification in Pacific Canada. A similar story can be told about British Columbia's exports to the United States. In 1990, 9.2 percent of British Columbia exports to the United States were in the machinery and equipment sub-sector of manufacturing. In 1998 this percentage was 15.6 percent. Including the West Coast of the United States as a key part of the Asia-Pacific region, we can say that diversification in British Columbia is being driven partly — perhaps mainly — by convergence in the Asia-Pacific region.

VI. Conclusions

Over the last half-century, the Asia-Pacific region has been increasingly integrated in both the purely economic and the purely demographic dimensions. Key to this trend towards integration is economic convergence in the region.

A number of forces — capital accumulation, education, diffusion of technology, migration, international trade, policies, and mega-city growth in developing Asia — have been at work in generating convergence and hence integration. From a theoretical point of view, these seven forces can promote both convergence and its opposite, divergence. Thus, the question why the trend towards convergence and integration has occurred is largely an empirical issue. Theory alone fails to explain why it has taken place. In the

overall opposition of convergence and divergence, impacts promoting convergence have dominated over impacts promoting divergence.

Both Japan and the Western Canada have been adjusting to convergence. Japan has been opening up, exporting capital and technology, and importing a growing number of manufactures. Increasingly, Japan is engaging in intra-industry trade, and British Columbia's economy is undergoing diversification. These adjustments taking place on opposing sides of the Pacific have affected the bilateral interaction between Japan and British Columbia.

At present it would seem that British Columbia's stake in Asia is in decline. The United States has grown as a trade partner, and Japan — British Columbia's largest Asian trade partner — has been falling off as a demander of Pacific Coast exports. In the long-run, however, convergence in the Asian sub-region of the Asia-Pacific will re-emerge as an engine of growth in British Columbia. The ongoing secular trend towards convergence, which has driven integration across the Asia-Pacific, will see to that.

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