PROSPECTS FOR TRADE GROWTH AMONG PACIFIC BASIN COUNTRIES

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INTRODUCTION

That is, they each trade much more with other Pacific basin countries than do countries outside the region. Contrary to what might be expected, this intensity is not due to strong trade complementarity between them. While the marked differences in factor-endowment ratios and hence comparative advantages within the region suggest trade complementarity should be high, actual trade complementarity is not. The reason is simply that many countries protect their least competitive industries and sectors. Scope therefore exists for substantial gains from trade liberalization in the region. And since most of the benefits from a regional trade liberalization would be reaped within the region (because of both strong intra-regional trade bias and potentially strong trade complementarity within the region), efforts should be made to encourage such a move, particularly with global trade liberalization prospects at an apparent standstill.

I. INTENSITY OF INTRA-PACIFIC BASIN TRADE

The market economies in the Pacific basin region enjoy disproportionately large trade shares with other countries in the region. In recent years trade with Pacific basin countries has been more than twice as important to countries within the region as to the rest of the world. Furthermore, this phenomenon is not solely due to the importance of a few highly intense trading relationships, such as within groups of culturally-similar neighbors (Australasia and North America) or within political groupings (ASEAN). This can be shown by making use of the intensity of trade index, defined as the share of one country's or group of countries' trade with another country or group divided by the latter's share of

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¹ The Pacific basin region is defined for present purposes as the five developed countries (Australia, Canada, Japan, New Zealand, and United States), the four Asian NICs (Hong Kong, Singapore, Taiwan, and Korea), and the other four ASEAN countries (Indonesia, Malaysia, Philippines, and Thailand).

TABLE I
INTENSITY OF BILATERAL TRADE BETWEEN PACIFIC BASIN
COUNTRY GROUPS, 1979

Exports from	Exports to	North America	Australasia	Japan	Asian NICs	Other ASEAN
	A ani an litura		1.0	1.5	1,2	1.0
North America	Agriculture		0.8	0.9	0.8	0.4
	Fuel, etc. Manufacture	_	1.4	1.6	1.0	1.0
	Total	_	1.4	1.2	1.1	1.0
Australasia	Agriculture	1.3		1.6	1.2	2.6
	Fuel, etc.	0.2		3.2	2.0	3.3
	Manufacture	0.4		1.8	1.6	2.5
	Total	0.6		2.9	1.5	2.4
Japan	Agriculture	0.8	2.5		4.1	3.9
•	Fuel, etc.	1.0	1.9	-	8.2	5.1
	Manufacture	1.4	1.5	_	3.0	2.2
	Total	1.3	2.0	. —	3.1	2.4
Asian NICs	Agriculture	0.9	2.4	2.4	<u>—</u>	4.8
	Fuel, etc.	0.3	12.5	1.7		12.1
	Manufacture	1.8	1.3	3.2	· —	3.1
	Total	1.6	2.1	1.7		4.1
Other ASEAN	Agriculture	0.9	1.9	2.0	4.0	
	Fuel, etc.	1.1	1.9	3.3	3.0	
	Manufacture	1.6	1.9	3.1	4.3	
	Total	1.1	1.2	4.3	3.6	, -

Source: Australian National University's trade data tapes, based on United Nations international trade statistics.

Note: The intensity index is the share of one country group's exports going to another country group divided by the latter's share of world imports (net of the first group's imports). See footnote 2.

world trade.² An index of more (less) than unity indicates a bilateral trade volume that is larger (smaller) than would be expected given the partner country's importance in world trade. Table I shows that the intensity of trade between almost all groups within the region is high. In 1979 the indices averaged 2.0 and were close to unity only in the case of trade with North America (due to

$$I_{ij} = \frac{X_{ij}}{X_i} / \frac{M_j}{M_w - M_i}$$
.

A group of countries is treated as one economy by subtracting intra-group trade from the group's total trade and from world trade. "World" here refers to only market economies, because detailed trade matrices for the centrally planned economies (CPE) are unavailable. The omission of CPE trade will bias the intensity index downward slightly, since the M_w used will be less than world imports.

² Following Kojima [9] and Drysdale [5], the intensity of trade index (I_{ij}) is defined for country i's exports to country j as the share of i's exports going to $j(X_{ij}/X_i)$ relative to the share of i's imports (M_{ij}) in world imports net of i's imports (M_{ij}) . That is,

Canada's weak integration with Western Pacific economies).³ Furthermore, the indices were high for trade within each of the three commodity groups shown: agriculture; fuels, minerals, and metals; and manufactures.⁴

This phenomenon of high trade intensity among these country groups is what might be expected by the casual observer familiar with trade theory and with resource endowments within the region. He would simply attribute the intensity to high trade complementarity between these groups. Moreover, he would expect that trade complementarity to have been increasing over time. Theory suggests that the higher an economy's labor/natural-resource and capital/labor ratios, the stronger its comparative advantage in manufactures vis-à-vis primary products. It also suggests comparative advantage in manufactures will grow more rapidly, the more rapidly the economy's capital/labor ratio is growing relative to the rest of the world's [10]. Thus resource-poor, rapidly-growing countries such as Japan and the Asian NICs would have a strong and increasing comparative disadvantage in primary products whereas resource-rich economies (Australasia, Canada, and, to a lesser extent, other ASEAN and the United States) would tend to have a strong comparative advantage in primary products relative to other countries with similar capital/labor ratios.

These expectations concerning comparative advantage are born out by the export trade data in Table II. Australasian and North American shares of exports from primary products are well above average for developed countries, and conversely for Japan's shares. Similarly, the Asian NIC's manufacturing export shares are well above average for developing countries. The other ASEAN countries' primary export shares were still above the developing country average in 1979 but are declining as their capital/labor ratios increase. These marked differences in comparative advantage between the economies of the region are indicated clearly in the final three columns of Table II, using Balassa's revealed comparative advantage index [3]. This is defined as the share of each commodity group in an economy's total exports divided by that commodity group's share of world exports. The more this index is above (below) unity, the stronger that economy's comparative advantage (disadvantage) in those commodities, provided the intersectoral commodity composition of exports has not been distorted by government policies.

Given these marked differences in comparative advantage as revealed by export trade data, it may seem paradoxical that complementarity in actual trade between Pacific basin countries is *not* very high. The latter can be shown using Drysdale's index of complementarity [5] to measure the extent to which one country's (or

³ The 1979 indices of intensity of Canada's exports to Australia, Japan, the Asian NICs, and other ASEAN were only 0.7, 0.8, 0.2, and 0.2, respectively, while those for the United States were 1.3, 1.1, 1.1, and 1.0, respectively. The low indices for Canada reflect its strong cultural ties with the United States and Western Europe as well as the lower transport costs from the economic center of Canada (around the Great Lakes) to Europe and the rest of the Americas relative to the Western Pacific.

⁴ Agriculture is defined as SITC items 0, 1, 2, 4 excluding 27 and 28; fuel, minerals, and metals is 27, 28, 3, 68; and manufacture is 5 to 9 excluding 68.

RESOURCE ENDOWMENT PROXIES, SECTORAL SHARES OF TOTAL TRADE, AND REVEALED COMPARATIVE ADVANTAGE OF DEVELOPED, DEVELOPING, AND PACIFIC BASIN MARKET ECONOMIES, 1970-79 TABLE II

			Real GDP	Secto	Sectoral Shares of Total Exports (%)	res of 7	Fotal E	xports ((%)	Rev	ealed (Compara	Revealed Comparative Advantage*	dvantag	*0
	Fopulation Density (Persons	GNP per Capita (U.S. \$)	Growth Rate per Capita,	Agricu	Agriculture	Fuels, Minerals, and Metals	ls, als, etals	Manufac- tures	fac-	Agriculture	ılture	Fuels, Minerals, and Metals	ils, rais, etais	Manufac- tures	fac-
	for will,	•	(% p.a.)	1970	1979	1970	1979	1970	1979	1970	1979	970	1979	1970	1979
Australasia	2	9,050	1.6	09	52	22	23	17	25	3.0	3,3	1.5	1.2	0.3	9.4
North America	13	10,540	2.2	21	24	14	12	65	64	1.0	1.5	6.0	9.0	1.0	1.0
Japan	304	8,810	4.1	3	7	7	2	93	96	0.2	0.1	0.1	0.1	1.4	1.5
Asian NICs	428	1,820	7.9	21	12	6	7	71	81	1.0	0.7	9.0	9.4	T.1	1.3
Other ASEAN	74	510	5.3	65	43	53	42	9	15	3.2	2.7	2.0	2.2	0.1	0.2
All developed	22	9,440	2.5	17	15	10	10	73	75	6.0	6.0	9.0	9.4	1.1	1.3
All developing	30	290	3.2	37	18	46	61	17	21	1.9	1.1	2.9	2.5	0.3	9.4

Sources: [8, 1981] [8, 1982] [11]; Australian National University's trade data tapes, based on United Nations international trade * Revealed comparative advantage is defined as the ratio of the share of a commodity group in total exports for a country or group

of countries to that commodity group's share of world exports.

TABLE III
COMPLEMENTARITY IN BILATERAL TRADE BETWEEN PACIFIC
BASIN COUNTRY GROUPS, 1979

Exports to Exports from	North America	Australasia	Japan	Asian NICs	Other ASEAN
North America		1.1	1.0	1.1	1.1
Australasia	0.7	_	1.7	0.9	1.0
Japan	1.1	1.3		1.2	1.2
Asian NICs	1.0	1.2	0.7	_	0.9
Other ASEAN	1.1	0.6	2.0	1.4	_

Source: Australian National University's trade data tapes, based on United Nations international trade statistics.

Note: The complementarity index measures the extent to which the commodity composition of one country group's exports matches another group's import composition relative to the rest of the world's import composition. The exact formula is given in footnote 5.

group's) commodity export pattern matches another's commodity import pattern more or less closely than it matches the pattern of world imports generally.

This index is a weighted sum of the share of each commodity in country i's exports, the weights being the share of each commodity in the imports of its trading partner (country j) relative to that commodity's share of world imports. This index therefore exceeds unity more, the more closely j's import specialization matches i's export specialization. The 1979 complementarity indices shown in Table III are not much different from unity except for exports from resource-rich Australasia and other ASEAN to resource-poor Japan. Thus the high intensity of trade between Pacific basin country groups is not explained by strong complementarity in actual trade patterns.

The explanation for high intensity in total trade between countries of the region must therefore be high intensity of bilateral trade in individual commodities. The extent to which individual commodity trade shares within the region are disproportionately high can be quantified by computing Drysdale's bilateral trade bias index. This measure indicates the average influence of relatively low or high resistances to individual commodity trade between one group of countries and another as compared with the latter's trade with the rest of the world. As with the complementarity index, a value greater than unity indicates a positive influence or bias while a value less than unity measures a negative influence.⁵ The

$$C_{ij} = \sum_{k} \left(\frac{X_i^k}{X_i} \cdot \frac{M_w - M_i}{M_w^k - M_i^k} \cdot \frac{M_i^k}{M_j} \right),$$

$$B_{ij} = X_{ij} \cdot \sum_{k} \left(\frac{M_w^k - M_i^k}{X_i^k \cdot M_j^k} \right),$$

where k refers to individual (three-digit) SITC commodities. Notice that the intensity index, I_{ij} , is the product of C_{ij} and B_{ij} . For further discussion of these indices, see Drysdale and Garnaut [6].

Using the same notation as in footnote 2, the complementarity and bias indices (C_{ij} and B_{ij}) for country i's exports to country j are as follows:

TABLE IV
BIAS IN BILATERAL TRADE BETWEEN PACIFIC BASIN COUNTRY GROUPS, 1979

Exports from	Exports to	North America	Australasia	Japan	Asian NICs	Other ASEAN
North America	Agriculture		1.3	1.2	1.0	0.8
North America	Fuel, etc.	_	1.0	0.9	0.9	0.5
	Manufacture		1.3	1.6	1.0	0.9
	Total	_	1.3	1.2	1.0	0.9
Australasia	Agriculture	1.9	······	1.4	1.4	2.7
	Fuel, etc.	0.3		2.2	2.4	4.1
	Manufacture	0.4		1.2	1.7	1.7
	Total	0.9		1.8	1.7	2.4
Japan	Agriculture	0.9	1.2		3.3	1.8
•	Fuel, etc.	1.4	2.3		9.0	5.6
	Manufacture	1.3	1.5		2.6	2.0
	Total	1.3	1.5		2.7	2.0
Asian NICs	Agriculture	0.7	1.6	2.2	<u> </u>	4.7
	Fuel, etc.	0.3	5.4	2.6		9.1
	Manufacture	1.7	1.4	2.4		4.2
	Total	1.5	1.8	2.4	• —	4.7
Other ASEAN	Agriculture	0.8	1.5	1.5	2,1	—
	Fuel, etc.	1.1	2.9	3.0	3.0	_
	Manufacture	1.5	2.3	1.8	3.7	
	Total	1.0	2.1	2.1	2.6	

Source: Australian National University's trade data tapes, based on United Nations international trade statistics.

Note: The bias index indicates the average influence of relatively low or high resistances to individual commodity trade between one country group and another compared with the former's trade with the rest of the world. The exact formula is given in footnote 5.

1979 bias indices shown in Table IV are virtually all well above unity (again, the exceptions are due mostly to Canada), with the strong bias toward trade within the region being reflected not only in total trade but also in each of the commodity groups shown. The average of these bias indices is close to 2. That is, intra-regional trade is about twice as great as might be anticipated after taking into account both the region's share of world trade and the complementarity in trade between countries of the region.

Changes in Pacific basin trade patterns over the 1970s are summarized in Table V. The first three columns show that Australasia, the Asian NICs, and the other ASEAN countries have all increased the share of their trade with Pacific basin countries while North America and Japan have decreased theirs.

From the definition of the intensity, complementarity, and bias indices given in footnotes 2 and 5, it follows that these trade shares could have changed because of a change in the rest of the Pacific basin's share of world trade, because of a change in the latter's trade complementarity with the country or group, or

TABLE V
Sources of Change in Trade Shares of Pacific Basin Country
Groups with the Rest of the Pacific Basin, 1970-79

(%)

			of Trac acific Ba		Change	ibution to in Share h Pacific B	of Trade
		1970	1979	Δ	ΔS_{j}	∆Cij	ΔB_{ij}
North America:	exports	48	48	0	19	-2	-15
	imports	59	51	- 14	22	-4	-26
Australasia:	exports	51	53	4	9	-8	3
	imports	49	57	16	-6	-3	28
Japan:	exports	58	52	- 9	6	-2	-12
	imports	54	47	-14	-9	-22	21
Asian NICs:	exports	61	63	3	1	-13	16
	imports	61	63	3	-13	5	12
Other ASEAN:	exports	73	76	4	5	-5	5
	imports	63	64	2	-10	-1	14

Source: Australian National University's trade data tapes, based on United Nations international trade statistics.

Note: The share of each country group's exports with the rest of the Pacific basin, S_{ij} , is the product of the latter's share of world imports net of the former's imports, S_j , and the indices of complementarity and bias in that trade, C_{ij} and B_{ij} . Similarly for imports. That is, $S_{ij} = S_j \cdot C_{ij} \cdot B_{ij}$, where C_{ij} and B_{ij} are defined in footnote 5. The Δ sign refers to percentage changes between 1970 and 1979. The final three columns show the hypothetical percentage change in S_{ij} due to one of the three factors shown if the other two had remained constant. They are derived from the formula,

 $(1+\Delta S_{ij}/100)=(1+\Delta S_{j}/100)\cdot(1+\Delta C_{ij}/100)\cdot(1+\Delta B_{ij}/100).$

because of a change in their bilateral trade bias. The second set of columns in Table V shows how much these trade shares would have changed as a result of a change in any one of these three influences had the other two had remained unchanged.

Two points are clear from these data. First, there has been no growth over the 1970s in trade complementarity between each of these country groups and their Pacific trading partners; indeed the complementarity indices fell in all but one case. Second, the bias indices rose in all cases other than Japan's exports and North America's exports and imports. The latter have been primarily due to declines in the extremely high biases in trade with some East Asian developing countries to the United States and Japan. The bias indices for imports from the United States into Korea, Philippines, Taiwan, and Thailand fell 23, 53, 66, and 73 per cent over the 1970s, for example, while those for imports from Japan into Hong Kong, Korea, and Taiwan fell 4, 26, and 15 per cent, respectively.

In summary, not only is trade complementarity between Pacific basin country groups not high, but it has not risen over the past decade. Both are contrary to what would be expected under free trade.

II. PROTECTIONISM: THE REASON FOR LOW TRADE COMPLEMENTARITY

The reason for neither high nor rising actual trade complementarity within the region, despite marked and growing comparative-advantage differences between country groups, is that most countries have been erecting substantial barriers to imports of numerous products in which they have a strong comparative disadvantage. While these barriers may not greatly distort the commodity composition of a country's exports (and hence not affect the revealed comparative advantage indices as shown in Table II), they affect markedly the commodity composition of a country's imports. This ensures that the complementarity indices are closer to unity than they would otherwise be.

To illustrate the point, consider the counter-example of the relatively open Asian NICs. Over the 1970s the indices of complementarity in trade between them has actually increased, albeit by an average of only 5 per cent. Despite the similarities in their comparative advantages, the indices averaged unity in 1979, the same as for trade between the country groups shown in Table III. Similarly, following the signing of a "free" trade agreement between Australia and New Zealand in 1965, complementarity in trade between these similarly-endowed neighbors has increased; their indices of bilateral trade complementarity rose by more than one-third over the 1970s. This type of increased specialization in production and intra-industry trade among similar economies is not unlike that enjoyed during the postwar period of trade liberalization in Western Europe. Clearly, even greater gains from trade specialization could occur if there were fewer trade restrictions between dissimilar economies.

The most obvious example of restrictions inhibiting trade specialization between potentially complementary country groups in the Pacific basin is the developed countries' barriers to imports of labor-intensive manufactures, the largest suppliers of which are the Asian NICs. In addition, Australasia and Canada are highly protectionist toward numerous other manufactured products, including ones important in exports from Japan and, as their industrial bases broaden, from the Asian NICs. Motor vehicles and color televisions are but two of the more important items that have attracted media attention.

A second obvious example is the extremely high and rising barriers to imports of food other than feedgrains into East Asia [1]. These have ensured that the index of food trade complementarity between Australasia and East Asia has been only around unity in recent years—although for the United States (the world's major feedgrain supplier) it was somewhat higher. The United States' meat import controls have similarly dampened Australasia's food trade complementarity with North America.

A less frequently cited example is the protection of primary processing activity through tariff escalation. Tariffs on imports of ores and concentrates into Japan and Korea are virtually zero, while those on imports of processed metals tend to be progressively higher the greater the degree of processing [12, Tables 4-4

and 4-7]. As a consequence, about 90 per cent of the value of both Japan's and Korea's imports of fuels, minerals, and metals excluding petroleum are ores and concentrates, and virtually all of the remainder is made up of lightly rather than highly processed metals [2, Table 9].

III. THE POTENTIAL GAINS FROM PACIFIC BASIN TRADE LIBERALIZATION

Given that the major countries of the region have substantial import barriers and that the import suppliers in the absence of barriers would be mainly other countries within the region (because of both strong intra-regional trade bias and potentially strong trade complementarity within the region), it follows that if there were to be a regional trade liberalization, most of the benefits would be reaped within the region. This would be true even if the liberalization was on a nondiscriminatory, most-favored-nation basis. Thus even if global trade liberalization prospects have come to somewhat of a standstill, ample scope exists for mutually beneficial gains from regional trade liberalization around the Pacific rim.

Moreover, now is an appropriate time to seek regional trade liberalization, because otherwise much less fruitful bilateral trade talks may become more common. Bilateral discussions have tended to be preoccupied with achieving balance in bilateral commodity trade flows. There is of course no economic rationale for bilateral trade balances in a many-country world with convertible currencies; the underlying objective is simply to placate domestic vested interests. But this negotiating strategy tends to have the effect of balancing trade at progressively lower levels.

Bilateral negotiations are also less desirable because they provide scope for giving the appearance of liberalizing trade when in fact they simply divert imports from one source to another. A particularly striking recent example of the latter concerns Japan's agricultural import policy. During the past six years there has been virtually no growth in the value of Japan's agricultural imports so that the agricultural share of total imports has dropped from 14 to 11 per cent. But, in response to pressure from the United States, Japan's imports of U.S. farm products have grown steadily during this period. Much of the increase in the U.S. share of Japanese agricultural imports has been at the expense of Australia's share: in 1976 the U.S. share was barely double the Australian share (28.6 compared with 13.3 per cent), but by 1982 the U.S. share was more than four

⁶ On the other hand, Southeast Asia's exports of logs, for example, are restricted in order to assist timber processing activity in these countries [4].

⁷ The bias between country groups may well increase if trade volumes and associated foreign investments grow, since there are usually economies of scale in reducing information and other cost barriers to foreign trade and investment [6]. Even though the average of the 1979 bias indices for total trade shown in Table IV is already high at 2, this is well below the 1979 average of bias indices of total trade between neighboring countries within the country groups shown in the tables: 20 between Australia and New Zealand and about 5 between the ASEAN countries, between Japan and Korea, and between Canada and the United States.

times that for Australia (37.9 compared with 8.7 per cent). By simply changing the specifications on calls for tenders to fill import quotas, Japan has diverted its source of supply from Australia to the United States. Insofar as U.S. and Australian farm products are close substitutes, not even the United States would gain much from this switch because international prices would change little if there is no net increase in world demand.

Another advantage of regional over unilateral or bilateral trade liberalizations is that the former would more readily appear to provide exporters with prospective gains from trade. This would help ensure that each country's vested interests in export expansion are brought into conflict with, and so help to offset pressure from, vested interests in protection. The formation of a Pacific economic organization which aimed at building trust and sharing perspectives on international economic policy may be a desirable first step toward negotiating such liberalizations.

8 For details of these changes, see [7].

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