APEC and its implications for Papua New Guinea

Michael G. Plummer

Papua New Guinea joined APEC in 1993—the only Pacific nation to do so—locking itself into a process that reduces barriers to trade. Though small in APEC company, Papua New Guinea has much to gain as it substantially trades within the region. Calculations and analysis undertaken here suggest that PNGcan gain significantly from APEC, provided that correct market-based reforms are implemented. Papua New Guinea's offer at Manila was at a minimum consistent with its WTO obligations. Much more needs to be done. Particularly, Papua New Guinea has to avoid seeing APEC as another vehicle for special and differential treatment—or aid. Instead, it should view reform in APEC as an opportunity to launch an effective economic reform program along with its most important economic partners. The very success of its economic development may depend on these policies.

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Papua New Guinea is at a watershed in its economic development. From independence until recently, the country was able to keep a strong exchange rate, a relatively stable macroeconomic environment, sufficient foreign exchange reserves, a fairly high per capita income and a strong source of fiscal revenues through the extraction of primary commodities. However, the PNG economy has become far more complex, and the specialisation that has resulted from its strong comparative advantage in primary products has not been able to meet all its internal needs. While the country continues to derive substantial benefits from its primary sector, the government has been looking increasingly to diversify the economy with a view to generating high-wage employment, establishing a more stable export and revenue base, and offering greater opportunities to rural communities. Economic policy reforms are being implemented in order to tap the advantages of global markets through trade and investment.

The government of Papua New Guinea is trying to set the stage for a long-run, sustainable growth path leading to higher levels of economic development. This requires the creation of a more competitive, diversified economy capable of succeeding internationally in areas in which the country has dynamic comparative advantage. In order to accomplish this, the consensus among economists in academe, the private sector and international organisations is that the government must first reform the domestic economic policy environment as a means of laying the foundation of a more efficient economy. An effective approach to reform must be devised with strong input from the private sector which, after all, will be the catalyst of economic development. Papua New Guinea must also develop closer economic links with the global economy and the Asia Pacific—Papua New Guinea does the lion's share of trade and receives the great majority of its aid and investments from the Asia Pacific region.

Papua New Guinea's decision to join the Asia Pacific Economic Cooperation (APEC) forum in 1993 was a critical one. Although its agenda continues to evolve, APEC has made considerable progress in setting up a number of important working groups and committees through which Papua New Guinea can potentially benefit. APEC's commitment to create free trade and investment in the region by the year 2010 (for industrial countries) and 2020 (for developing countries) will provide the kind of market access and trade facilitation that Papua New Guinea will need as it develops new industries. Further, the fact that the agreement allows for special consideration regarding the pace of liberalisation on the part of developing countries testifies to APEC's interest in promoting the economic development of its less-developed members. Clearly, Papua New Guinea can benefit not only from formal liberalisation of trade barriers in the region but also from many forms of special treatment in areas such as technology transfer (particularly with respect to sustainable development), data collection, enhanced training facilities, and so on.

The process leading up to the creation of APEC in 1989 was slow and gradual. The region had already developed economic cooperation fora for the private sector, academics and a combination of these two and government officials working in a private capacity. APEC can be seen as a continuing process of economic cooperation. And while the vision of APEC 2020 appears to be rather ambitious, APEC will most likely move at a gradual, deliberate pace, stressing informal over formal cooperation more characteristic of the 'Asian way' of economic integration. Papua New Guinea will gain more from trade facilitation measures, non-binding investment codes, technical interaction, and other types of more informal interaction than through the formalities of, say, a free-trade area.

This paper assesses the external challenges facing Papua New Guinea with a focus on opportunities available through closer economic integration via APEC. Although Papua New Guinea faces a number of macroeconomic, institutional, and structural-adjustment problems in building a solid economic base from which development can proceed, this paper is limited mainly to international trade (for discussions of other issues, see Naya and Plummer 1995; Fallon, King and Zeitsh 1995; Asian Development Bank 1994; World Bank 1993; SRI International 1992).

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Papua New Guinea and the world economy

In considering challenges facing Papua New Guinea in the world economy, it is important to keep in mind several issues. First, Papua New Guinea is a small country in the early stages of economic development and is therefore not very well diversified. It is dependent on world markets for trade in goods and services and access to investment capital. This smallness, along with the openness of the economy, makes Papua New Guinea susceptible to changes in the world economy which would hardly affect larger, more developed economies.

Second, Papua New Guinea faces even greater volatility in net receipts from trade than would stem from changes in volumes of imports and exports alone. Papua New Guinea is well integrated with markets for world trade. Exports of primary minerals and agricultural commodities account for nearly half of its income. The prices of these products are determined in world markets—predominantly in US dollars—in which Papua New Guinea is a small player, and such prices are notoriously volatile. Moreover, there exists a mismatch between currency denomination of exports (US dollars) and imports (Australian dollars).[1]

Third, the availability of capital in Papua New Guinea is similarly dependent on world capital markets. Again, this is typical of a small, open economy in the early stages of economic development. The relatively limited supply of capital available internally induces investors (and the government) to raise funds elsewhere. The resulting thinness of the capital markets within Papua New Guinea consequently limits the ability of the government to pursue its own financial, banking and interest rate policies. In addition to dependence on foreign capital, there has traditionally been considerable reliance on foreign aid from Australia (gifts rather than loans) to finance government expenditure. With the Australian government searching for ways to reduce fiscal deficits and restructure foreign assistance, aid to Papua New Guinea is shrinking, imposing yet another external constraint.

The combination of constraints on exports, imports, capital and aid further limits policies of the Bank of Papua New Guinea regarding exchange rates and international reserves. These policies cannot be independent because exchange rates must be flexible enough to react to events in the markets for exports and imports, and international reserves are subject to the same considerations facing international capital movements. The July 1994 run on the country's foreign exchange reserves—provoking an important crisis necessitating a bailout—is in part a reflection of this fact.

Trends in trade

Since 1980, PNG exports have amounted to more than 40 per cent of GDP and imports more than 50 per cent (South Pacific Economic and Social Database). Imports have always exceeded exports (creating a deficit on merchandise trade) until 1993, when exports exceeded imports. This would put Papua New Guinea well within the ranks of an 'average' APEC country. However, what makes Papua New Guinea stand out in the region is that, while it is open, Papua New Guinea has not become more open over the past decade and a half. While exports as a percentage of GDP have grown since 1980 to about 46 per cent from 40 per cent, imports have actually declined from 50 per cent to 40 per cent.

Exports. The PNG economy is heavily dependent on exports of primary mineral and agricultural commodities. In 1983, over half of Papua New Guinea's exports were in the category of metalliferous ores

Table 1 **Papua New Guinea exports, by direction, 1983** (US$ '000)

SITC / commodity	EC12	Others	World	Share (per cent)	ASEAN[a] (per cent)	APEC (per cent)
03—Fish and preparations	67	1	10997	1.32	0.16	99.38
07—Coffee tea cocoa spices	66581	20513	175400	21.09	11.92	50.35
08—Animal feeding stuff	1819	42	2018	0.24	-	7.78
11—Beverages	2	-	582	0.07	-	99.66
24—Wood lumber and cork	140	6	54925	6.61	0.12	99.73
28—Metalliferous ores,scrap	174793	1	436125	52.45	-	59.92
29—Crude animal,veg mat nes	1	48	1089	0.13	2.30	95.50
42—Fixed vegetable oil,fat	49677	-	52230	6.28	-	4.89
59—Chemicals nes	8	83	175	0.02	34.86	48.00
63—Wood,cork manufactrs nes	7	3	9411	1.13	-	99.89
67—Iron and steel	-	178	212	0.03	9.43	16.04
69—Metal manufactures nes	4	249	435	0.05	-	41.84
71—Machinery,non-electric	760	834	6645	0.80	1.55	76.01
72—Electrical machinery	131	93	982	0.12	2.85	77.19
73—Transport equipment	289	30	1458	0.18	1.71	78.12
86—Instrmnts,watches,clocks	109	30	785	0.09	0.64	82.29
89—Misc manufctrd goods nes	18	18	178	0.02	4.49	79.78
93—Special transactions	219	216	39766	4.78	0.81	98.91
Total all commodities	304668	25647	831524	n.a.	n.a.	n.a.
World share (per cent)	36.64	3.08	100.00	100.00	2.70	60.28

[a] ASEAN countries include Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.
Source: United Nations (various years). *Commodity Trade Statistics*, United Nations, New York.

and scrap (SITC 28), most of which is gold and copper production (Tables 1 and 2). These exports are from major mining projects in several locations throughout Papua New Guinea. Nearly all of these operations are undertaken by foreign companies, although the government of Papua New Guinea receives benefits from tax revenues directly linked to the proceeds of the mines. Most of the output of gold and copper is exported to Europe and Japan, although South Korea has recently become important. Sixty per cent of these exports are destined for APEC markets.

The second-largest export sector in Papua New Guinea in 1983 was coffee, tea, cocoa, spices (SITC 07), amounting to 21 per cent of exports. Half of Papua New Guinea's exports of these goods flow to APEC countries, and ASEAN members make up 12 per cent of the world total, with the European Union being the largest market. Metalliferous ores and coffee, tea, cocoa, spices accounted for 75 per cent of PNG exports in 1983, making it a largely specialised economy.

Since 1992, Papua New Guinea has diversified somewhat, but continues to rely on several primary products. In particular, the share of wood lumber and cork (SITC 24) grew extremely rapidly, from almost zero in 1983 to become the second-largest export product in the country, accounting for 14 per cent of the total. Papua New Guinea has also become an exporter of oil from a recently developed reserve (in Kutubu). Production of oil from another reserve (Gobe) is getting started. Data from the Bank of Papua New Guinea suggest that oil alone accounted for between 25 per cent and 33 per cent of exports in 1993 and 1994 (Bank of Papua New Guinea 1995).

In 1992 Japan continued to be the most important export market for Papua New

Table 2 **Papua New Guinea exports, by direction, 1992** (US$ '000)

SITC/commodity	EC12	Others	World	Share (per cent)	ASEAN[a] (per cent)	APEC (per cent)
03—Fish and preparations	-	101	12934	1.20	30.65	99.22
07—Coffee tea cocoa spices	53873	5438	113367	10.54	10.37	47.68
11—Beverages	11	13	79	0.01	40.51	69.62
12—Tobacco and mfrs	-	31	137	0.01	0.73	77.37
21—Hides,skins,furs undrssd	30	98	1187	0.11	3.12	89.22
22—Oil seeds,nuts,kernels	2793	388	14542	1.35	18.51	78.13
23—Rubber crude,synthetic	598	1392	1998	0.19	-	0.40
24—Wood lumber and cork	685	3974	149357	13.88	2.55	96.88
28—Metalliferous ores,scrap	120546	40909	541809	50.36	8.12	70.20
29—Crude animal,veg mat nes	138	1	2230	0.21	5.34	93.77
33—Petroleum and products	-	1632	1739	0.16	2.19	6.15
42—Fixed vegetable oil,fat	80723	4104	87780	8.16	2.59	3.36
59—Chemicals nes	15	87	225	0.02	46.22	54.67
62—Rubber manufactures nes	-	9	153	0.01	81.70	94.12
63—Wood,cork manufactrs nes	47	37	5621	0.52	0.18	98.49
64—Paper,paperboard and mfr	-	87	150	0.01	0.67	42.00
65—Textile yarn,fabric etc	-	30	178	0.02	3.93	83.15
66—Nonmetal mineral mfs nes	2	32	101	0.01	63.37	66.34
67—Iron and steel	-	20	569	0.05	3.51	96.49
69—Metal manufactures nes	7	300	6380	0.59	72.77	95.19
71—Machinery,non-electric	52	1971	54415	5.06	51.00	96.28
72—Electrical machinery	125	140	4810	0.45	65.49	94.49
73—Transport equipment	27	5873	45632	4.24	28.71	87.07
82—Furniture	29	34	117	0.01	17.95	46.15
84—Clothing	14	1	1312	0.12	0.08	98.86
86—Instrmnts,watches,clocks	73	230	3915	0.36	42.50	92.26
89—Misc manufctrd goods nes	3	28	408	0.04	6.13	92.40
93—Special transactions	761	387	5097	0.47	6.45	77.30
Total all commodities	263216	67519	1075830	n.a.	n.a.	n.a.
World share (per cent)	24.47	6.28	100.00	100.00	11.15	69.26

[a] ASEAN Countries include Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.
Source: United Nations (various years). *Commodity Trade Statistics*, United Nations, New York.

Guinea with a one-third share of the total, followed by the European Union (24 per cent) and ASEAN (11 per cent). ASEAN's share of PNG exports (mainly to Singapore and the Philippines) has grown by almost fourfold over the 1983–92 period and South Korea's share has almost tripled, while the EU's has fallen from one-third to one-fourth. Australia, which has traditionally been a key market for Papua New Guinea, has been decreasing significantly in importance, with its share falling from 11 per cent in 1983 to 7 per cent in 1992. New Zealand's share, which was small to begin with, has also declined to one-half its 1983 share. North America has increased in importance but continues to be small with a share of less than 4 per cent.

While the commodity structure of PNG exports has remained stable, the markets to which Papua New Guinea has been exporting have been changing considerably in favour of the Asia Pacific region. The prices of the primary minerals and agricultural commodities exported by Papua New Guinea are determined in large, integrated world markets in which Papua New Guinea must be a price taker. Regardless of the country purchasing the products, the prices obtained for the exports are determined in US dollars. These prices are exceptionally volatile, causing exporters to have good years and bad years based on events beyond their control. The exports of manufactures are not subject to the same sort of vicissitudes in prices on international markets. This is true both for labour, capital, and human skill-intensive manufactures as for natural resource-intensive manufactures. However, to date, Papua New Guinea's exports of manufactures have constituted only a very small percentage of overall exports—less than 12 per cent in 1992 (though this is almost double the 1983 share). The largest categories of exports are non-electrical machinery (5 per cent) and transport equipment (4 per cent), hardly what economic fundamentals would dictate to be Papua New Guinea's most competitive areas.

Imports. Papua New Guinea is highly dependent on world markets for consumption and capital goods, in which Papua New Guinea is again a price taker. The imports of Papua New Guinea are mostly manufactured goods from Australia, with prices determined in Australian dollars. In 1983, the largest import component was petroleum and products (SITC 33), coming to one-fifth of the total import bill, and the second largest was non-electrical machinery (SITC 71), with a 15 per cent share. Transport equipment (SITC 73) is also important with a 7 per cent share (Tables 3 and 4). Because of the recent development of oil deposits in Papua New Guinea, imports in the SITC 33 category fell to only 7 per cent in 1990, while non-electrical machinery emerged as the largest import category with 17 per cent of the total, followed by transport equipment and electrical machinery. Hence, in the early 1990s, the three categories making up the SITC 7 grouping were the three largest import groupings. A good deal of these machinery imports flow to the mining and petroleum sectors.

The APEC market stands out even more prominently in imports than was the case with exports. Ninety per cent of PNG imports come from APEC countries, with Australia being by far the largest (and growing) source, accounting for 46 per cent of the total, followed by Japan (13 per cent), ASEAN (11 per cent) and the United States (10 per cent). In contrast to exports, PNG imports tend to be diversified in structure but more concentrated in terms of direction of trade (in favour of APEC countries).

Table 3 **Papua New Guinea imports, by direction, 1983** (US$ '000)

SITC/commodity	EC12	Others	World	Share (per cent)	ASEAN[a] (per cent)	APEC (per cent)
01—Meat and preparations	221	56	47190	4.96	1.17	99.41
02—Dairy products and eggs	75	11	10655	1.12	2.96	99.19
03—Fish and preparations	85	588	28389	2.98	0.46	97.63
04—Cereals and preparations	32	3424	40134	4.22	2.74	91.39
05—Fruit and vegetables	371	26	12810	1.35	5.04	96.90
06—Sugar and preps honey	600	21	2807	0.30	1.35	77.88
07—Coffee tea cocoa spices	112	58	4571	0.48	30.78	96.28
08—Animal feeding stuff	2	193	5343	0.56	2.25	96.35
09—Misc food preparations	387	19	9937	1.04	1.47	95.91
11—Beverages	834	246	3213	0.34	0.25	66.39
12—Tobacco and mfrs	46	1800	6626	0.70	0.56	72.14
22—Oil seeds,nuts,kernels	-	-	167	0.02	19.16	100.00
23—Rubber crude,synthetic	4	-1	54	0.01	57.41	94.44
24—Wood lumber and cork	-	1	130	0.01	3.08	99.23
26—Textile fibres	92	-1	2315	0.24	1.56	96.07
27—Crude fertlzr,minrls nes	292	2	2038	0.21	17.17	85.57
29—Crude animal,veg mat nes	20	29	743	0.08	2.29	93.41
33—Petroleum and products	6	29	198995	20.91	51.87	99.98
41—Animal oils and fats	100	-	956	0.10	1.57	89.54
42—Fixed vegetable oil,fat	64	12	1648	0.17	21.00	95.39
43—Procesd anml veg oil,etc	4	1	411	0.04	11.44	98.78
51—Chem elements,compounds	764	1298	7840	0.82	3.67	73.70
53—Dyes,tanning,colour prod	90	5	2209	0.23	3.21	95.70
54—Medicinal etc products	9361	8429	30075	3.16	6.17	40.85
55—Perfume,cleaning etc prd	1046	64	12654	1.33	3.79	91.23
56—Fertilizers manufactured	1671	235	4100	0.43	1.34	53.51
57—Explosives,pyrotech prod	73	50	3296	0.35	0.06	96.27
58—Plastic materials etc	750	5	6005	0.63	2.78	87.43
59—Chemicals nes	724	346	6955	0.73	3.95	84.62
61—Leather,dressed fur,etc	15	4	417	0.04	0.96	95.44
62—Rubber manufactures nes	1093	106	16501	1.73	3.18	92.73
63—Wood,cork manufactrs nes	41	5	1588	0.17	10.71	97.10
64—Paper,paperboard and mfr	613	62	17607	1.85	3.83	96.17
65—Textile yarn,fabric etc	527	899	17868	1.88	19.77	92.02
66—Nonmetal mineral mfs nes	709	238	12768	1.34	1.17	92.58
67—Iron and steel	716	265	28947	3.04	1.27	96.61
68—Non-ferrous metals	71	38	2805	0.29	6.92	96.11
69—Metal manufactures nes	5161	2699	53355	5.61	2.23	85.27
71—Machinery,non-electric	22680	3479	139648	14.68	2.78	81.27
72—Electrical machinery	5265	2087	55091	5.79	2.56	86.65
73—Transport equipment	4971	857	71147	7.48	3.74	91.81
81—Plumbg,heatng,lghtng equ	95	16	3600	0.38	1.11	96.92
82—Furniture	246	17	4425	0.47	13.67	94.06
83—Travel goods,handbags	32	1	1714	0.18	16.04	98.07
84—Clothing	69	110	20235	2.13	30.69	99.12
85—Footwear	303	47	4777	0.50	10.05	92.67
86—Instrmnts,watches,clocks	1362	245	11246	1.18	2.21	85.71
89—Misc manufctrd goods nes	1623	375	23969	2.52	7.41	91.66
93—Special transactions	2285	338	7543	0.79	1.82	65.23
95—War firearms,ammunition	106	-	156	0.02	2.56	32.05
Total all commodities	65810	31524	951451	n.a.	n.a.	n.a.
World share (per cent)	6.92	3.31	100.00	100.00	14.36	89.77

[a] ASEAN Countries include Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.
Source: United Nations (various years). *Commodity Trade Statistics*, United Nations, New York.

Table 4 **Papua New Guinea imports, by direction, 1990** (US$1000)

SITC / commodity	EC12	Others	World	Share (per cent)	ASEAN[a] (per cent)	APEC (per cent)
01—Meat and preparations	3083	164	43864	3.56	0.39	92.60
02—Dairy products and eggs	62	1	14123	1.15	7.17	99.55
03—Fish and preparations	107	88	36198	2.94	3.04	99.46
04—Cereals and preparations	145	2	64955	5.27	0.41	99.77
05—Fruit and vegetables	313	21	11728	0.95	1.94	97.15
06—Sugar and preps honey	33	1	3197	0.26	9.16	98.94
07—Coffee tea cocoa spices	169	169	4478	0.36	2.64	92.45
08—Animal feeding stuff	-	-	8991	0.73	0.16	100.00
09—Misc food preparations	1387	200	18449	1.50	8.16	91.40
11—Beverages	2145	46	10298	0.84	7.96	78.72
12—Tobacco and mfrs	385	1577	5197	0.42	1.19	62.25
22—Oil seeds,nuts,kernels	27	23	167	0.01	20.96	70.06
23—Rubber crude,synthetic	1	1	143	0.01	75.52	98.60
24—Wood lumber and cork	-	-	68	0.01	16.18	100.00
26—Textile fibres	52	22	4150	0.34	6.53	98.22
27—Crude fertlzr,minrls nes	525	-2	3802	0.31	37.87	86.24
29—Crude animal,veg mat nes	56	8	922	0.07	8.89	93.06
33—Petroleum and products	24	187	83016	6.73	16.67	99.75
42—Fixed vegetable oil,fat	4	2	3366	0.27	68.39	99.82
43—Procesd anml veg oil,etc	4	-	672	0.05	9.67	99.40
51—Chem elements,compounds	2601	377	20564	1.67	8.52	85.52
53—Dyes,tanning,colour prod	263	-	3613	0.29	11.49	92.72
54—Medicinal etc products	2400	844	12578	1.02	16.74	74.21
55—Perfume,cleaning etc prd	222	60	12776	1.04	22.45	97.79
56—Fertilizers manufactured	753	92	6538	0.53	23.59	87.08
57—Explosives,pyrotech prod	309	-1	3875	0.31	4.49	92.05
58—Plastic materials etc	953	58	10360	0.84	13.89	90.24
59—Chemicals nes	2558	243	17852	1.45	11.79	84.31
61—Leather,dressed fur,etc	-	10	119	0.01	15.13	91.60
62—Rubber manufactures nes	2526	76	27936	2.27	9.20	90.69
63—Wood,cork manufactrs nes	49	13	2302	0.19	23.81	97.31
64—Paper,paperboard and mfr	1354	377	25269	2.05	16.98	93.15
65—Textile yarn,fabric etc	717	1130	24030	1.95	25.37	92.31
66—Nonmetal mineral mfs nes	1591	119	23231	1.88	37.87	92.64
67—Iron and steel	3466	2305	52682	4.27	6.42	89.05
68—Non-ferrous metals	101	47	4343	0.35	15.24	96.59
69—Metal manufactures nes	5014	1288	75358	6.11	12.83	91.64
71—Machinery,non-electric	20285	3314	214004	17.36	10.31	88.97
72—Electrical machinery	11418	1408	100239	8.13	9.91	87.20
73—Transport equipment	8705	14726	162898	13.21	8.71	85.62
81—Plumbg,heatng,lghtng equ	183	2	4824	0.39	6.94	96.17
82—Furniture	135	23	4669	0.38	32.04	96.62
83—Travel goods,handbags	212	27	2773	0.22	17.74	91.38
84—Clothing	31	55	19951	1.62	34.40	99.57
85—Footwear	34	198	7205	0.58	22.72	96.78
86—Instrmnts,watches,clocks	2202	273	20365	1.65	9.59	87.85
89—Misc manufctrd goods nes	2289	450	40783	3.31	14.89	93.28
93—Special transactions	1061	344	8584	0.70	3.52	83.63
95—War firearms,ammunition	118	-	675	0.05	1.19	82.52
Total all commodities	80089	33250	1233088	n.a.	n.a.	n.a.
World share (per cent)	6.49	2.70	100.00	100.00	11.16	90.81

[a] ASEAN Countries include Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.
Source: United Nations (various years). *Commodity Trade Statistics*, United Nations, New York.

The trade regime

Restrictions on exports by Papua New Guinea are relatively mild and should not be considered particularly distortionary. Still, there do exist some (direct or indirect) taxes on exports. While these would not be significant by developing country standards, they are non-trivial by APEC standards. For example, licenses are required to export certain goods, including logs, pearls, fishery and marine products, woodchips, sandalwood, rattan, coffee, cocoa and copra, but exports are otherwise generally uninhibited.

Export licences for logs are issued subject to minimum export price guidelines, although there is no export licence requirement on timber. Export proceeds may be received in any currency, which must then be sold to the Bank of Papua New Guinea or an authorised dealer in Papua New Guinea. (Residents are not allowed to retain foreign exchange without approval from the Bank of Papua New Guinea.)

Some unprocessed exports, including fishery and forestry products, are subject to export levies in an attempt to increase the proceeds from exports and to encourage further processing. The tax on logs has recently been raised to 20–48 per cent and the tax on fish is 10 per cent.

Altogether, export tax revenues in 1994 amounted to more than 100 million kina, or nearly 10 per cent of total government revenue. Formerly, export tax revenue had not been very important. Although these taxes provide revenue to the government, they also depress the level of exports that would otherwise occur. Papua New Guinea will most likely have to remove export taxes and other restrictions as part of its current obligations as a member of the World Trade Organisation and its eventual liberalisation within APEC.

Papua New Guinea maintains a variety of tariff and non-tariff barriers. Imports of some items are restricted in order to protect domestic production, and other imports are taxed in order to discourage their consumption and raise revenue for the government. Until recently, there were import prohibitions on meat, sugar, pork, chicken and hens, fowl, and most fresh fruits and vegetables. Contrary to the trend elsewhere in the Asia Pacific region, tariff rates have been gradually rising in Papua New Guinea over the past few years. Import duties in 1994 provided more than 200 million kina in revenue to the government, or approximately 17 per cent of total government revenue. Taken together, trade taxes come to over 25 per cent of total government revenue, high even by resource-rich developing country standards.

Table 5 gives a disaggregated breakdown of tariff rates in Papua New Guinea in 1992. It includes calculations of two types of tariffs: the first, 'nominal rates,' are merely the actual percentage tariffs that are levied on imports as they arrive in the country. The second category, 'effective rates of protection', calculates the protection accorded to value added in the country. Not only are nominal tariffs high in Papua New Guinea, the effective rates of protection tend to differ significantly from the nominal rates, thereby obfuscating to some degree the structure of protection. Many of these nominal tariffs are applied in areas in which Papua New Guinea does not have a significant industry, suggesting that they are really applied as sources of revenue. Still, tariffs tend to be a clumsy way of raising revenue, particularly since they lead to distortions in both consumption and production, whereas an across-the-board tariff structure and direct taxes tend to be less distortionary.

The high tariffs on imported inputs on many commodities constitute an important area of frustration among the business community in Papua New Guinea. While most private sector representatives believe

Table 5 **Trade protection in Papua New Guinea** (per cent)

Commodity	Nominal rate of protection (per cent) (A)	Effective rate of protection (per cent) (B)	Difference (B-A)
Beer	15.33	21.7	6.37
Biscuits	30.51	108	77.49
Chicken	30	56.07	26.07
Cigarettes	25	n.a.	n.a.
Coca-Cola	50	n.a.	n.a.
Cocoa	-	n.a.	n.a.
Coffee bean	-	-	-
Eggs	-	n.a.	n.a.
Green bean coffee	36	n.a.	n.a.
Green bean coffee	18.67	28.28	9.61
Raw coffee bean	-	-	-
Ham	70.13	n.a.	n.a.
Honey	84.21	n.a.	n.a.
Ice cream	10.34	39.53	29.19
Ice cream	18.28	n.a.	n.a.
Matches (standard)	21.43	-628.09	-649.52
Matches (tropical)	115.63	n.a.	n.a.
Noodles (instant)	n.a.	68.18	n.a.
Oil (palm)	18.18	n.a.	n.a.
Oil (coconut)	n.a.	-	n.a.
Orange juice	-	-146.43	-146.43
Sausages	75.93	-202.9	-278.83
Soft rrink	87.5	63.64	-23.86
Sugar	49.3	-355.64	-404.94
Twisties and nuts	249.67	n.a.	n.a.
Tea	-	-17.57	-17.57
Tobacco	-8.8	30.65	39.45
Footwear	25	112.73	87.73
Overalls	54.38	-	-54.38
Trousers	-	-	-
Chair (school)	64.71	137.75	73.04
Desk(school)	53.85	166.67	112.82
Furniture	50	154.03	104.03
Furniture	150	63.16	-86.84
Furniture	50	n.a.	n.a.
Log(sawn)	-	-	-
Log(round)	-	-	-
Timber	-	n.a.	n.a.
Timber (unfinished)	-	n.a.	n.a.
Timber(sawn)	-	-	-
Woodchips	-	-	-
Cardboard cartons	15	96.06	81.06
Hand towels	29.96	63.26	33.3
Toilet paper	52.63	142.86	90.23
Bleach	44.86	109.59	64.73
Bags (Plastic-HD)	54.55	86.67	32.12
Bags (Plastic-LD)	30.01	n.a.	n.a.

Table 5 (continued)

Commodity	Nominal rate of protection (per cent) (A)	Effective rate of protection (per cent) (B)	Difference (B-A)
Bags (shopping)	66.67	446.1	379.43
Detergent	7.07	n.a.	n.a.
Dip diffusion salt	-6.67	-9.06	-2.39
Pyrethrum	-	-0.41	-0.41
Retread tyre	18.9	-59.31	-78.21
Tanalith	5.91	10.63	4.72
Bottle (glass)	-27.95	-0.38	27.57
Cauldron	36.32	0.48	-35.84
Concrete	20	n.a.	n.a.
Frames (picture)	15.92	-6.31	-22.23
Generator	40	n.a.	n.a.
Gold	-	-	-
Houses	10	0.11	-9.89
Raw form metal	-	-	-
Roofing material	-	-	-
Pipes (corrugated)	-42.4	n.a.	n.a.
Pipes (corrugated)	8	n.a.	n.a.
Pipes (PVC pressure)	8	n.a.	n.a.
Pipes (PVC sewer)	8	0.3	-7.7
Roofing (corrugated)	-	-	-
Silver	-	-	-
Steel fabrication	45.83	1.13	-44.7
Steel industry	20	0.52	-19.48
Steel (reinforcing)	27.5	1.21	-26.29
Switchboard (elect.)	15	n.a.	n.a.
Tank (fuel)	-31.85	-0.57	31.28
Water tank	42.86	1.68	-41.18

Source: SRI International and ECFA (Japan), 1992. *Papua New Guinea: industrial growth strategy,* Port Moresby.

that free and open trade is best for the economy and therefore support trade liberalisation in theory, they are afraid that removing tariffs on final goods (for example, under WTO or APEC commitments) will not be matched with the removal of tariffs on intermediate inputs (information based on interviews with the foreign private sector, April–May 1995). This would put them at a disadvantage and, coupled with other *ad hoc* taxes and distortions that they maintain, would create an unfavourable environment in Papua New Guinea. This often leads them to oppose trade liberalisation (or at least not push for it).

Prospects for international trade

The adoption of free trade in APEC is likely to boost Papua New Guinea's plans to move away from being an economy dependent on exports of primary agricultural commodities, natural resources and raw materials, toward being a more diversified economy characterised by light manufacturing and tourism sectors. The *1991–95 Medium-Term Industry and Trade Development Action Plan* (of the Department of Trade and Industry) called for development of industries which use the natural resources and raw materials of Papua New Guinea as inputs. By building on its traditional comparative advantages, Papua New Guinea could capture more value added from processing. For example, nearly all of Papua New Guinea's forestry exports have been in raw form, so attempts are being made to encourage processing through production of sawn timber, plywood and furniture.

Potential sectors for export growth

In an economy that is regulated—and almost all economies are—it is often difficult to discern which non-traditional sectors offer the greatest potential for export growth. A standard neoclassical prescription would recommend that Papua New Guinea develop areas in which it has comparative advantage, that is, those sectors using intensively factors in which Papua New Guinea is relatively well endowed (labour, natural resources, and so on). Given Papua New Guinea's abundant natural resources, certainly minerals and agriculture will be important export sectors. However, it is also true that minerals production is extremely capital intensive (while this sector dominates exports, it only employs approximately 6,000 Papua New Guineans out of a population of 3.5 million) and growth in agricultural production has not been enough to absorb ever-increasing entrants into the labour force. The result has been extremely high levels of unemployment, which have been at the root of some important social problems that Papua New Guinea now faces (such as those falling under law and order). Moreover, the creation of 'niche' markets (and 'imperfect competition') in the increasingly competitive international marketplace means that traditional prescriptions as to what Papua New Guinea should be producing do not necessarily hold.

While there have been a number of studies of the PNG economy, analysis of the characteristics and competitiveness of certain sectors tends to be ambiguous as to which specific sectors of the economy have the greatest potential for growth. According to standard economic analysis, this is not surprising; the private sector is the best judge of which sectors have the most potential, so what has been 'revealed' to be the comparative advantage of the PNG economy is, in effect, its actual (static) comparative advantage. However, this sort of argument breaks down in a country with myriad trade, investment, and other fiscal distortions, such as in the case of Papua New Guinea (as well as other resource-rich developing economies). It is not until Papua New Guinea liberalises the economy that such a 'revealed' comparative advantage will be meaningful, and the government must plan for developing these sectors. Still, recent studies (Naya and Plummer 1995; ADB 1994; SRI International 1992) suggest that the following sectors will play key roles in the future growth of Papua New Guinea.

Minerals

Given the dominance of minerals in the exports of Papua New Guinea, it is no surprise that each study devotes significant attention to this sector. Economic development strategies of the government—including its involvement in APEC—will have to give a priority to this area. However, the minerals sector has never proven to be a 'leader' in the economic development process of emerging developing economies; if Papua New Guinea is to move up the ladder of economic development, it must also look elsewhere. In particular, development comes about not only through increases in real income per capita—which is a highly-imperfect proxy for level of development normally used by economists—but rather through the building of a more productive society. This underscores the necessity of training and education; while the minerals sector does train a number of indigenous PNG labourers, their numbers are small and, as this sector absorbs such little labour, minerals will have a limited direct impact on human resource development in the country.

In many ways, the minerals sector has even worked to harm development of other sectors, through what is known as the 'Dutch Disease' effect.[2] That is, the strong external performance of the minerals sector keeps the real exchange rate at a higher level than would otherwise be the case. Hence, other sectors are less competitive in international markets.

The example of Indonesia might best illustrate the point. Indonesia was once a country that was able to promote inefficient import-substitution industries by virtue of its seemingly unlimited oil revenues. Oil came to dominate the economy; not only were government proceeds from the 'rents' associated with the oil industry used inefficiently, this sector also tended to attract much of the human talent of the country, thereby drawing it away from other sectors like manufacturing. In addition, the creation of such rents leads to 'directly unproductive' activities, which leads to more inefficiencies. Finally, the gains in foreign exchange that derived from the oil boom propped up the value of the Indonesian rupiah, making other sectors less competitive in international markets and foreign products more competitive in the Indonesian market. The Dutch Disease effect, therefore, leads to greater specialisation in the primary sector.

The tremendous drop in oil prices that devastated Indonesia was a blessing in disguise for other sectors in the economy, as it set in motion 'reverse Dutch Disease' forces. A far greater diversification of the Indonesian economy, rapid gains in labour productivity, and a 'leaner and meaner' business environment ensued. While Indonesia and Papua New Guinea are different economies, they also have many similarities, and Papua New Guinea can, perhaps, learn a great deal from Indonesia's experience.

Agriculture (especially tree crops)

This sector is cited in a number of studies as a key area to Papua New Guinea's future, as labour absorption in the countryside is clearly a priority. But the sector continues to be relatively inefficient due to a number of forces, including culturally-induced (traditional landholdings and ambiguous property rights, traditional roles of female workers on the farm leading to important supply constraints) and fiscal (for example, suboptimal price support) problems. Recommendations given to improve the performance of the agricultural sector include the restoring of certain price supports, debt relief, measures to increase productivity and lower transactions costs, and the expansion of areas under cultivation.

Forestry

Papua New Guinea has large tropical forest resources which are being currently exploited beyond what has been suggested as sustainable (UNDP 1994); in this sense, the sector has actually become over-developed. In addition, the fact that it is mainly foreign logging companies that have gained the concessions means that the marginal welfare gains from exploiting this sector remain fairly low except in terms of fiscal receipts (and even here, there exist incentives for 'directly unproductive' and 'extra-legal' activities). The sector employs few local labourers. However, significant potential exists for downstream processing.

Fisheries

As Papua New Guinea is composed of many islands, fishing has been a traditional source of income in rural areas and aquatic farming has become more important over time.

Services/tourism

Balance-of-payments data indicate that the deficit on the services account has been substantial in Papua New Guinea (approximately US$300 million). Although disaggregated data are not available, it is fairly clear that exports of services (including tourism) have not been too important for Papua New Guinea to date.

Interviews suggest that tourism is the most disappointing sector in the entire PNG economy. While international travel is at an all-time high and eco-tourism (for which Papua New Guinea is one of the most promising in the world) is growing by leaps and bounds, Papua New Guinea was only able to draw 8,000 tourists to the country in 1993, compared to 50,000 in the case of Vanuatu. The major problems in this area are the lack of infrastructure, the law and order problem and the high cost of the PNG economy.

Manufactures

Most studies on Papua New Guinea do not see the development of the manufacturing sector as having a good deal of potential in the future of the economy. However, a major problem has been that the sector has never really been given a sufficient chance, as the business environment that has emerged in Papua New Guinea has been biased against the creation of a strong manufactures base built on the competitive elements of the PNG economy.

Impact of global liberalisation

Economic liberalisation in developed-country markets now taking place as part of commitments under the WTO and APEC (in line with commitments under the Osaka Action Plan and the Manila Action Plan) will have important ramifications for the PNG economy. The impact of the Uruguay Round tariff reductions and various liberalisation efforts under, say, a (hypothetical) East Asian Economic Caucus free-trade area or APEC have not been calculated for Papua New Guinea prior to this study. Some results attained through partial-equilibrium model estimation using the World Bank's SMART model are presented in Table 6. These results should be thought of as suggestive rather than definitive for a number of reasons, including the nature of the SMART model, the problem with accurately estimating non-tariff barriers to trade and imperfect estimates of the model's parameters.

It is important to note that, *a priori*, such a static model will yield very small effects on Papua New Guinea. Worldwide restrictions on primary commodities in Papua New Guinea's trading partners tend to be extremely low and, hence, the marginal impact of liberalisation will similarly be limited. In a general equilibrium model, certain dynamic effects could be incorporated, including a growth effect that results from the estimated US$200–500 billion increase in global GDP due to the Uruguay Round (see, for example, Safadi and Laird 1996), and these would lead to an increase in the demand for Papua New Guinea's exports. But again, a US$200–500 billion increase in a global economy having a GDP of almost US$25 trillion is not a large effect.

But the problem with such estimation in this discussion is that it misses the point: these models are by their nature static and extrapolate from what already exists. Suppose PNG exports no widgets today but policy reform combined with global liberalisation under the Uruguay Round would generate a tremendous market for these goods. In this case, our forecasts would generate zero change but, in effect, this commodity could play an important role in the future development of the PNG economy. And as the Uruguay Round will liberalise pervasive restrictions in areas in which Papua New Guinea does potentially have comparative advantage—such as textiles and apparel—this is an important point.

The results from simulations of trade creation under an assumption of full liberalisation of tariff barriers in selected major APEC markets for PNG exports are given in Table 6. As Papua New Guinea already enjoys duty-free treatment in developed countries for its manufactured exports—and, in fact, it faces zero tariffs on all exports to Japan according to the World Bank data used in the model—liberalisation of tariff barriers in many of these areas will yield only small degrees of trade creation. However, if we were able to quantify accurately the magnitude of non-tariff barriers that presumably would be liberalised within an APEC free-trade area, the results would be much larger. Moreover, we are unable to capture the dynamic effects of liberalisation, such as economies of scale, changes in investment flows, 'X-efficiency' and technology transfer, which would no doubt also lead to greater gains and in areas in which Papua New Guinea does not yet export. Hence, the results are only indicative of the kind of changes that would occur with liberalisation under APEC, but most likely underestimate significantly the likely changes that will transpire.

Table 6 shows trade creation for liberalisation in selected countries, both in terms of nominal values and as a percentage of total exports to these specific markets. In Australia and New Zealand, trade creation tends to be highest in the clothing sector, coming to 106 per cent and 86 per cent of existing exports in Australia and New Zealand, respectively.[3] Furniture and tobacco also experience impressive trade creation in Australia, at 69 per cent and 24 per cent of existing exports, respectively. Regarding exports to the United States (which is a much smaller export market for Papua New Guinea), trade creation as a percentage of total exports is large in textiles and furniture, at 18 per cent and 21 per cent, respectively. But given GSP preferences offered to Papua New Guinea in these developed markets, trade creation as a percentage of total exports is relatively small, coming to between 0.1 per cent and 5 per cent of total exports. Still, from Papua New Guinea's economic development perspective, exports of key manufactures are more indicative of the benefits that can be reached through liberalisation, as they will allow for greater diversification of the economy, and greater opportunities for labour absorption.

Regarding trade creation in the selected developing APEC countries of South Korea and Indonesia, trade creation as a percentage of total exports is actually large in certain areas, particularly in Indonesia, where liberalisation should lead to a 23 per cent expansion of trade under the full liberalisation scenario. While trade flows to Singapore and Hong Kong are much larger for Papua New Guinea than is the case, say, for Indonesia, as they are free ports our simulations would produce no effect because the economies are already liberalised.

While the overall 'static' effects of liberalisation on PNG exports will be relatively small, the country can expect to

Table 6 **Trade creation results of APEC 2020 for Papua New Guinea** (selected countries, latest year, US$ '000)

SITC/Comm.	Australia Exp.	Australia TC	Australia TC/exp (per cent)	New Zealand Exp.	New Zealand TC	New Zealand TC/exp (per cent)	United States Exp.	United States TC	United States TC/exp (per cent)	South Korea Exp.	South Korea TC	South Korea TC/exp (per cent)	Indonesia Exp.	Indonesia TC	Indonesia TC/exp (per cent)
03/Fish	851			19	-	-	881	-	-	-			-		
07/Cof, tea	40762	722	2	2382	4	-	17728	-	-	-			-		
11/Bevrges	2	-	1	-			-			-			-		
12/Tobaco	598	141	24	-			-			-			-		
21/Hides	-			-			723	-	-	-			-		
22/Oil sds	2	-	2	-			-			-			13	1	11
23/Rubber	269	8	3	-			-			-			-		
24/Wd, cork	1218	113	9	760	53	7	27	-	1	54729	1690	3	-		
28/Metal ore	758	18	2	-			76	-	-	88542	1052	1	-		
29/Crd. mat.	6	-	2	-			312	-	-	2302	550	24	-		
42/Veg. oil	2704	46	2	-			-			-			-		
59/Chem										-			26	7	26
65/Txt yrn	70	1	2	2	-	-	137	25	18	-			86	11	12
67/Irn, Stl	17	3	15	-			-			-			-		
71/Mach,ne										6	3	44	4	1	15
72/Elec mach										-			24	15	61
73/Trans eq.	144	47	32	46	5	12	3	-	-	-			1	1	81
82/Furniture	143	99	69	-			1	-	21	-			-		
84/Clothing	967	1029	106	4	3	86	-			-			-		
86/Instrmnts										-			-		
89/Misc mnf	314	17	5	8	-	6	72	1	-	-			2	-	-
93/Spec.trns	1	-	5	-			-			-			-		
Total	48826	2244	5	3221	65	2	19960	26	.1	145579	3295	2	156	36	23

Notes: 1. Simulations using World Bank–UNCTAD SMART Model; all numbers are rounded. 2. Exp.=Total export of Papua New Guinea to the market concerned; TC=Trade creation obtained under the scenario of full trade liberalisation applied to all tariff lines. 3. All results are based on export data as of 1988 or 1989, that is, the latest available in SMART. 4. Japan is excluded from the table because all tariff lines concerned have zero tariff rates facing Papua New Guinea. 5. Two kinds of simulations were run for each commodity group: full liberalisation of all tariff lines and trade liberalisation of tariff lines without non-tariff barriers. We include here the former simulations (which are usually the same). 6. For developed countries, simulations are done only for primary commodities and 65, 67, 73, 82, 84, 89, 93 because of GSP and other preferences. Hence, other manufactures are estimated for Indonesia and South Korea only. If exports were zero, the groups were deleted.
Source: author calculations.

expand exports in a number of specific areas that are most likely consistent with its dynamic comparative advantage. Moreover, the lack of inclusion of non-tariff barriers and dynamic effects, coupled with the general downward bias of trade expansion in these types of models, would suggest that APEC could hold important benefits indeed for PNG exporters.

APEC and Papua New Guinea

Papua New Guinea's participation in APEC has sparked a great deal of interest throughout the country, particularly in the private sector. The vast majority of Papua New Guinea's economic interaction in the global economy takes place with APEC countries; hence, the prospect of having greater access to regional markets for exports and enhanced financial flows holds considerable potential. On the other hand, the economic liberalisation that Papua New Guinea will have to embrace if it is to accept the APEC goal of free trade by the year 2020 poses a number of challenges, some of them quite serious. For example, if Papua New Guinea opens up its manufactures sector, how can it compete with low-wage APEC countries such as China? Or with the economic dynamos in the newly industrialising and ASEAN countries—among the most rapidly-growing economies in the world over the past decade? Or with the United States and Japan, which are the most technologically sophisticated and productive?

Fortunately, the answer is an optimistic one: Papua New Guinea can be competitive in a number of areas that should be able to propel economic development in the years ahead. What is necessary is the appropriate set of government policies. Trade and investment liberalisation will play a central role in this process, in combination with effective domestic policies. And the year 2020 is a quarter of a century away, suggesting plenty of time for a well-developed, gradual liberalisation strategy that minimises economic disruption. Moreover, liberalisation within APEC will be consistent with Papua New Guinea's commitments under the World Trade Organization which it joined in 1995.

Regional cooperation can be a vehicle through which a country can pursue its economic, political, and social objectives. For example, through 'open' regional cooperation, a country such as Papua New Guinea can derive benefits associated with signals of competitiveness produced by international prices, greater access to neighbouring markets, enhanced investment flows, lower 'transactions costs' of doing business, even economies of scale in 'niche' manufactured markets in which Papua New Guinea should have dynamic comparative advantage. Moreover, the greater collective weight of the group may help in securing concessions in trade, finance, and macroeconomic policy negotiations. At the very least, Papua New Guinea will be able to push its views more forcefully in international economic and political fora through its membership in APEC.

Further, it is essential to underline Papua New Guinea's stakes in the emerging global and regional liberalisation process. Even if it wanted to, Papua New Guinea could not resist the tremendous trade and investment liberalisation process that is sweeping the Asia Pacific region. For example, with the investment-friendly policies being implemented throughout the region, Papua New Guinea will have to continue to liberalise just to keep pace with the other countries. In order to stimulate inflows of direct foreign investment in downstream processing industries or labour-intensive specialty textiles, Papua New Guinea will most likely have to proceed with deeper liberalisation measures to make up for lost ground, as well as maintain a conducive macroeconomic environment. In any event, tinkering at the margin with small changes in taxation or a few import rebates will have no effect. In the 1990s, a government must either accept liberalisation or reject it.

It is also inappropriate to assume that Papua New Guinea is too small to compete in such a large regional market with such formidable competitors. Since the classical economists developed the concept of comparative advantage in the nineteenth century, it has been understood that each country has a 'niche' (or comparative advantage) in the world economy by virtue of the fact that every country is special, with unique endowments of land, labour, capital, geographical location, linguistic tradition, and so on. Papua New Guinea has the potential not only to produce primary products such as minerals, which employ very few people, but also an entire spectrum of agricultural commodities as well as manufactures and services, particularly tourism.

It is still not clear if APEC's commitment to open trade and investment implies a formal (discriminatory) free-trade area. First tabled in a speech made by the Australian Prime Minister Hawke in 1989, APEC was initially viewed as a forum at which foreign and trade ministers of the various countries could meet at an informal level to discuss frankly and openly issues germane to their respective countries. The response to APEC at the start was less than enthusiastic, with ASEAN concerned about the implications of APEC on the solidarity of their own group of Southeast Asian countries and the United States expressing a lukewarm attitude to the concept. Since the initial meeting of November 1989, ministerial meetings have been held each year with the objectives and programs of APEC being more clearly defined and focused at each gathering.

The November 1993 APEC summit in Seattle showed strong support for the APEC process, though substantive results were few. Nevertheless, the possibilities of engaging in (non-binding) common investment codes, some types of microeconomic policy harmonisation, macroeconomic coordination, and even as an 'augmented GATT' (in which the implementation of GATT agreements would be expedited) began to be openly discussed among the region's academics and businesspeople, if not its policymakers. These types of reforms would not be discriminatory and would serve to strengthen the multilateral trading system. From an original membership of 12 countries in 1989, APEC has expanded to 18 members including developed and developing countries and countries in East and Southeast Asia, Oceania, and North and South America. Papua New Guinea is one of the most recent members of APEC, joining in 1993.

From the very beginning of APEC in 1989, Papua New Guinea maintained contact with the forum through its observer status. In the earlier years of APEC, Papua New Guinea had no ambitions to participate in APEC as the economic size and political clout of the organisation's other members, most notably Japan and the United States, dwarfed that of Papua New Guinea. However, in 1993, following careful considerations—including Papua New Guinea's proximity to Asia, 80 per cent of the island's economic interaction was with APEC members, and that Papua New Guinea was already an observer to ASEAN which is closely linked to APEC—Papua New Guinea became the first (and, so far, only) Pacific island nation to join the APEC forum.

While membership in APEC offers opportunities for Papua New Guinea, the country can only realise the full potential of associated benefits by taking real and active participation in the APEC forum and targets. This will include not only the acceptance of APEC tenets and priorities, but implementation of policies and procedures that are in fact consistent with APEC principles. Papua New Guinea must continue to restructure and reform its domestic and foreign economic policies and institutions, as well as strengthen its resource capabilities before it can take any significant steps to full APEC participation.

Economic liberalisation and facilitation have as their primary purpose the reduction in the transactions costs of doing business within the area or region in question. Papua New Guinea does not face high tariff and non-tariff barriers to trade because of generally low international barriers by virtue of its access to the GSP and special preferential programs of developed countries. The simulations developed here, therefore, necessarily produced unimpressive results at the aggregate level. But APEC is about much more than just liberalising tariffs; it involves changes in a whole host of additional (often implicit) barriers to international interchange, most of which Papua New Guinea can use to its economic and social benefit. Lack of 'trade facilitation' measures is often a far greater impediment in this process; hence, advocacy of these policies could pay rich dividends for Papua New Guinea. While by its very nature analysis of changes in transactions costs within a regional grouping precludes formal quantitative analysis because it is difficult—if not impossible—to assign plausible values to these 'shocks', such an approach allows us to conceptualise the effects of various trade facilitation measures and suggest the relative importance and nature of these changes.

In Papua New Guinea, there is a clear need to push the process of trade liberalisation, though in a gradual, concerted process. Up until the mid-1980s, the real level of protection on imports was relatively low with tariffs being generally uniform and averaging 8 per cent (SRI International 1992). However, since that time, Papua New Guinea has progressively raised tariffs, introduced bans and import quotas, and granted preferential tariff rates to certain groups. As a result, the overall average nominal rate of protection is currently estimated to be 28 per cent; in terms of real or effective protection, however, the average rate is much higher at 160 per cent and varies widely. To meet the proposed APEC target of free trade by 2020—and keep recent commitments made in order to join the WTO—Papua New Guinea must begin to act soon to reduce nominal tariffs and dismantle non-tariff barriers.

Papua New Guinea has already embarked on an economic reform program, though the pace of reform has not been linear. Its offers under the APEC Manila Action Plan are encouraging (at least relative to other offers), but they tend to be more consistent with minimum obligations under the WTO. Much remains to be done. Moreover, accompanying reform will be short-term structural adjustment costs that could exacerbate existing economic and social problems. In order to deal with these difficulties, there is an urgent need to reform fiscal policies as well, both in terms of spending priorities and revenue sources and enhancements (away from reliance on distortionary trade taxes). Another option is the use of foreign aid to smooth the transition process. However, this type of strategy can be at best a partial one, particularly since aid flows have been diminishing internationally as part of overall budget deficit reductions as well as 'aid fatigue.' In addition, there is a danger in relying on aid; resource-rich ASEAN countries, for example, discovered long ago that the usefulness of aid is limited and cannot be a substitute for domestic reform.

Certainly, Papua New Guinea should not consider APEC as an additional vehicle of 'special and differential' treatment and/or aid flows. Such an approach has been opposed by most industrial countries in APEC and is more likely to be greeted by scepticism than funds.

Notes

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[1] Papua New Guinea is not unique in this regard: approximately 50 per cent of Indonesia's external debt is denominated in yen, whereas its exports tend to be denominated in US dollars. With the rising value of the yen, Indonesia has seen its debt-service payments significantly affected (and it has a strong incentive to begin to engage in yen-denominated contracts). See, for example, Hill (1996).

[2] Here, a slightly generalised definition of 'Dutch Disease' is used. In the economics literature, the definition tends to be more specific, denoting the immediate effect on a real exchange rate of, for example, the discovery of some natural resource deposit.

[3] The tariff data for the SMART model are based on 1986 nomenclatures; as Australia and New Zealand have both liberalised their tariff structures impressively since then, the marginal impact would be less. Still, the results do give an indication of what overall liberalisation in global markets can do for PNG exports.

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