Openness and Growth of the Fijian Economy[1]

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ABSTRACT

Does openness benefit small economies? The means used here for addressing this issue is an analysis of the evidence from Fiji. We find that the openness of Fiji, in both absolute and relative terms, was on the rise during 1970–2009. The increase in openness since 1988 has been sharp, mainly because of the rise in imports. Our econometric results suggest that such openness has had a positive but weak impact on the GDP growth. It has benefited the service sectors (e.g. the trading and tourism sectors) while the industrial and construction sectors have grown little and agriculture has decelerated. We further observe that benefits from intra-industry trade seem to be very low, particularly due to the lack of secondary-sector development. Therefore, for Fiji, the economic gain from trade relies primarily on comparative advantages derived from the traditional sectors. The country needs to pursue deliberate policies of integration and to encourage domestic investment for the development of modern industrial and manufacturing sectors in the economy.

INTRODUCTION

How and to what extent 'openness' has contributed to the economic growth of a small country in the world economy raises some important questions for all Pacific Islands economies. The economic gain from trade for a small economy tends to be smaller than that for a larger economy: the lack of diverse economic activities to reap benefits from trade or markets has been one of the major constraints. Therefore, one needs to examine critically whether small economies can derive substantial benefits from trade openness. 'Openness' is sometimes narrowly defined in terms of exportability of a country (Rao & Rao, 2009). Undoubtedly, exports provide gains from trade for the country. However, modern trade theories explain why imports can also help to attain the gains by increasing competition and spill-over effects from imported goods in the economy. So, openness should include both exports and imports of the economy. During the last few decades most of the economies have pursued policies of liberalisation in order to accelerate their economic growth. Contemporary empirical research has shown that in recent years openness has sharply pushed up the growth of many developing and emerging countries, and these include mainly 'the big ones' – China, India, Brazil and South Africa (Lin, 2012). While a part of the argument behind their success lies with the comparative advantage, the rest is due to intra-industry trade. It is widely observed that as an economy grows, more and more trade will take place within the industry (known as 'intra-industry trade'). Trading various goods within the same industrial groups yields a gain through economies of scale and competition.

When the issue of openness and its resultant benefits for small island countries is concerned, two contrasting arguments, following from contemporary empirical research, come into our mind immediately. First, the trade flow between any two countries in the world economy is practically limited for a small economy[i] because of its size: small economies are inevitably in a more vulnerable situation compared to large ones, particularly during the global economic crisis. Moreover, the benefits from terms of trade tend to be unfavourable when a small economy increasingly engages in the export of agricultural goods in the world market (known as Prebisch's argument; see Frankenhoff, 1962). It appears that the extent of gains from trade, due to advantages both from inter- and intra-industry, would be limited for these economies. Secondly, this may not be true, because the recent success stories of growth acceleration from openness are widely acknowledged for a number of the East Asian countries, including Singapore, South Korea, Taiwan and Hong Kong. They may be relatively small but have gained significantly from openness. This contrast has prompted us to look at the pace of openness and its impact on the economic growth with particular focus on the Fijian economy.

In recent years, researchers have investigated the impact of various aspects of trade on growth and development of the small Pacific Islands countries. For example, Prasad and Narayan (2006) found a positive impact of exportability on the GDP growth of the Fijian economy, while the productivity difference between export and non-export sectors of the economy is not substantial. Jayaraman and Singh (2007) undertook an econometric study of the impact of FDI in Fiji during a 30-year period and found its contribution to employment creation and economic growth positive. The work in Rao and Rao (2009) seems to be closer to us. The article used an improved specification to estimate the effects of openness on growth in a small open economy, namely Fiji,

and showed that trade openness and output are co-integrated after controlling some conditioned variables. The paper narrowly defined openness of a country as export–GDP ratio where this captures only a part of trade benefits (i.e. comparative advantages). However, the benefits from modern trade largely depend on the import competition and intra-industry trade. This aspect has been ignored in the existing work. Therefore, one purpose of the paper has been to estimate openness including the intra-industry trade and its effect on the economic growth anatomically. Since the sectoral trade figures are not available for long-run time series estimation, our openness variable (total trade as a percentage share of GDP) has been used as a proxy in the regression analysis. An intra-industry trade index has been constructed in order to supplement the analysis based on regression results.

After political independence in 1970, Fiji became a member of the United Nations, the Commonwealth, the Pacific Community, and the Pacific Islands Forum. It has built a deeper political link with Pacific Islands through the Melanesian Spearhead Group (MSG) and is a member of the African–Caribbean–Pacific (ACP) Group associated with the European Union. Because of its central location in the South Pacific and relatively well-developed economy and infrastructure, Fiji is the host to many regional and international organisations. Initially, after gaining independence Fiji pursued a strategy of import substitution but the strategy proved ineffective in driving economic growth. In order to gear up the growth, the country has gradually changed the trade policy and moved, since the late 1980s, toward export promotion strategies, becoming a member of the General Agreement on Tariffs and Trade (GATT) in 1993. It is now an active member of its successor organisation, the World Trade Organization (WTO), formed just a year later. After joining in the acquaintance GATT and WTO, small economies such as Fiji have accelerated the pace of trade liberalisation for achieving economic growth. This must have played an important role in the country's trade flow and had a resultant impact on the economic growth. The present study analyses the effectiveness of trade liberalisation strategies towards supporting economic growth for the period 1970–2009.

The country has not maintained a decent rate of economic growth in recent years. For example, the average growth rate over the last 5 years has been less than 1%. Sugden (2008) identifies that the binding constraints to growth in the Pacific include lack of appropriate infrastructure, political instability and security issues, market distortions created by monopolistic structures, especially in the transport and telecommunications sectors, and lack of land reform in some countries. In another study, Prasad (2010) argues that Fiji's economic performance has remained poor over the last four years, and the global economic crisis causes a further deterioration. Investor confidence is low because of the lack of clear direction on the political way forward and lack of consistency in economic policies.

The current study has particular importance in the present context for the following reasons: while economic growth of the country is constrained by global uncertainties and the frequent natural disasters, the trade is expected to play an important role. Secondly, the primary sector, particularly sugar, the principal exportable commodity, did not perform well in recent years, partly due to natural calamities and partly because of the difficulty in getting land leases for sugarcane farming. Thirdly, the financial crisis in the Western world has not only reduced demand for exports supplied by developing countries but also reduced investments and outsourcings.[2]

Given this backdrop, it is important to understand the role of trade in the economic growth of a small island country such as Fiji. The next few sections have been organised as follows: the next section discusses the general trade openness of the country. The third section deals with the effect of openness on the growth of the country and the fourth looks at the inter- and intra-sectoral trade in order to examine the dynamics of trade in the country. The last section provides some concluding remarks.

OPENNESS

This section illustrates the pace of Fiji's trade flows to the rest of world. Trade data, based at 2005 US dollar constant prices, has been drawn from UNCOMTRADE for the relatively longer period 1970–2009 (i.e. 40 years). The absolute value of exports and imports (at US dollars) has been shown in Figure 1. It clearly demonstrates a steady rise of both exports and imports during the entire period. However, cyclical fluctuation of ups and downs is also quite prominent for both exports and imports after every two or three years. In other words, a rise of trade flow is found to be followed by a drop in the volume every two or three years. Secondly, there was an increase in the volume of trade flows during the early 1990s, before its entry as a member of the GATT/WTO when the country started much of its liberalised policies. Thirdly, at the time of independence, the total volume of exports was higher than that of imports, leading to a positive trade balance. This continues up to the early 1990s and thereafter, imports dominate over exports. Interestingly, both exports and imports show a structural shift in the level during the early 1990s, but the imports have increased higher than the exports, leading to deterioration in the trade balance. Since then the trade balance has never turned into a positive figure. Rather, it tends to be widening over the years (see Figure 2).

FIGURE 1: *Exports and imports of goods and services (millions, US$) during 1970–2009*


$IM = 4563.3Year + 21153$

$EX = 2877.9Year + 49389$
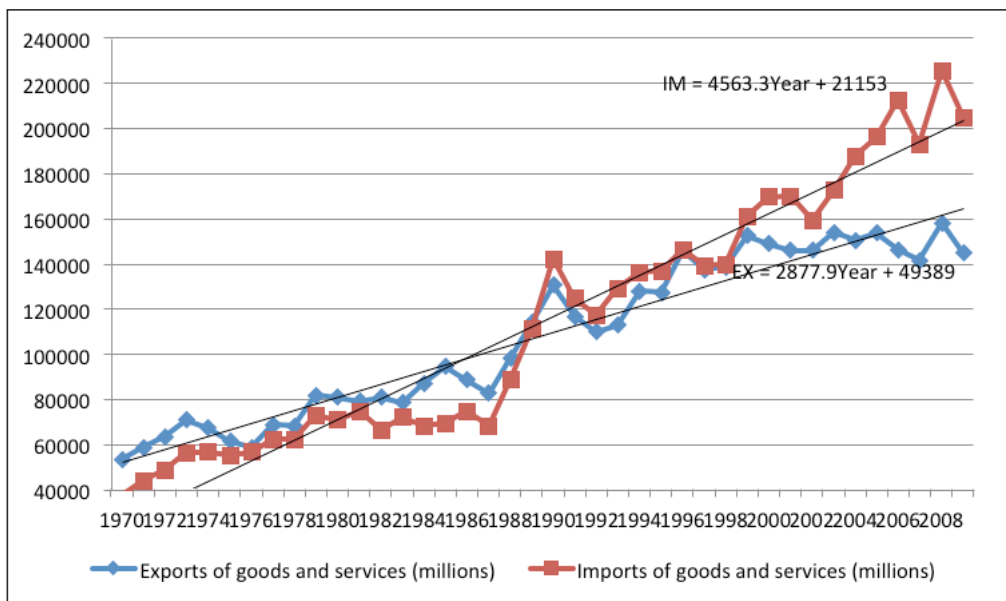
FIGURE 2: *Trade balances (exports minus Imports) of Fiji Island (millions, US$) during 1970–2009*
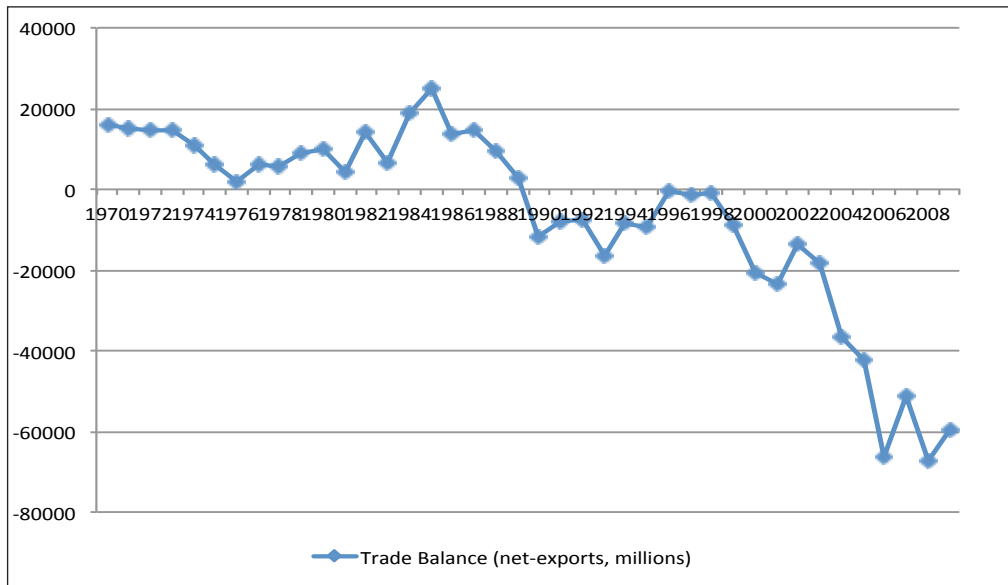
The negative in absolute trade balance does not mean that the overall openness (as a percentage of total domestic production) would be declining. Moreover, as discussed in the beginning, the imports can also play a crucial role in the economy by creating positive externalities among various other sectors. Therefore, openness should be defined as the total trade flows (including exports and imports) with respect to gross domestic product. This is no doubt a gross measure of national openness, but it captures arguments of both classical and modern trade theories. Again, a sharp jump in the level of openness has been quite visible in the early 1990s. In fact, the level of openness of the country registers a high value throughout the period. This follows a cyclical fluctuation after every two or three years (see Figure 3). When one splits up the openness into export and import shares, it demonstrates slightly different pictures. The export share (as a percentage of gross domestic product) does not show any improvement throughout the period while the import share (as a percentage of the same) registers a rising trend for the same period. Therefore, the net export share portrays a declining trend and takes negative value after the 1990s (Figure 4). These observations clearly reveal that the economy is highly influenced by external and internal shocks. Since the economy is heavily dependent on trade, any shock in the external market cannot be neutralised by the domestic market. The domestic market, however, has witnessed political and natural uncertainties, resulting in a deterioration of production, particularly in the agricultural front.

FIGURE 3: *Openness of the Fijian economy during 1970–2009*
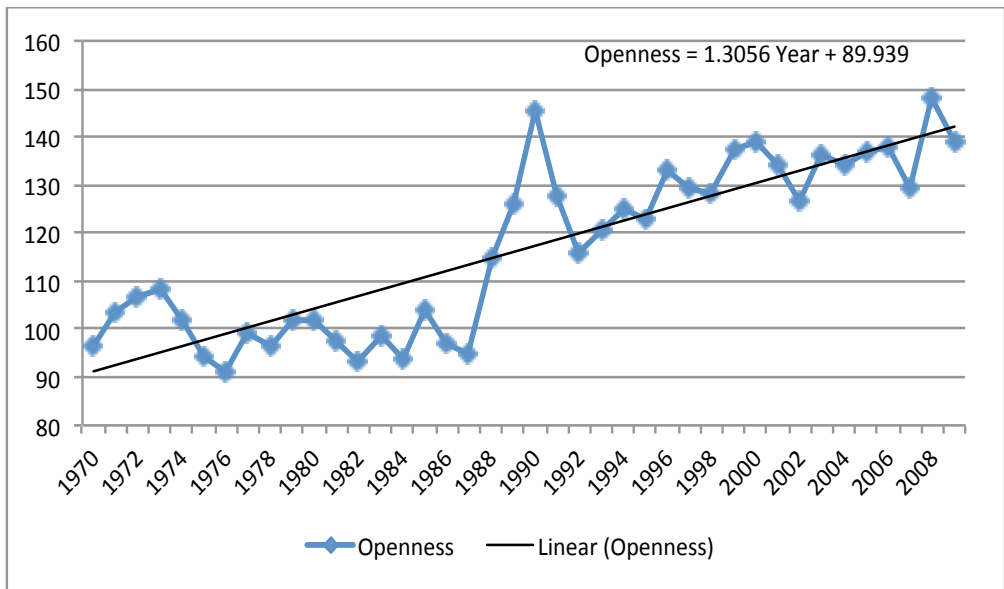
FIGURE 4: *Export share, import share and net export share of Fiji Islands during 1970–2009*
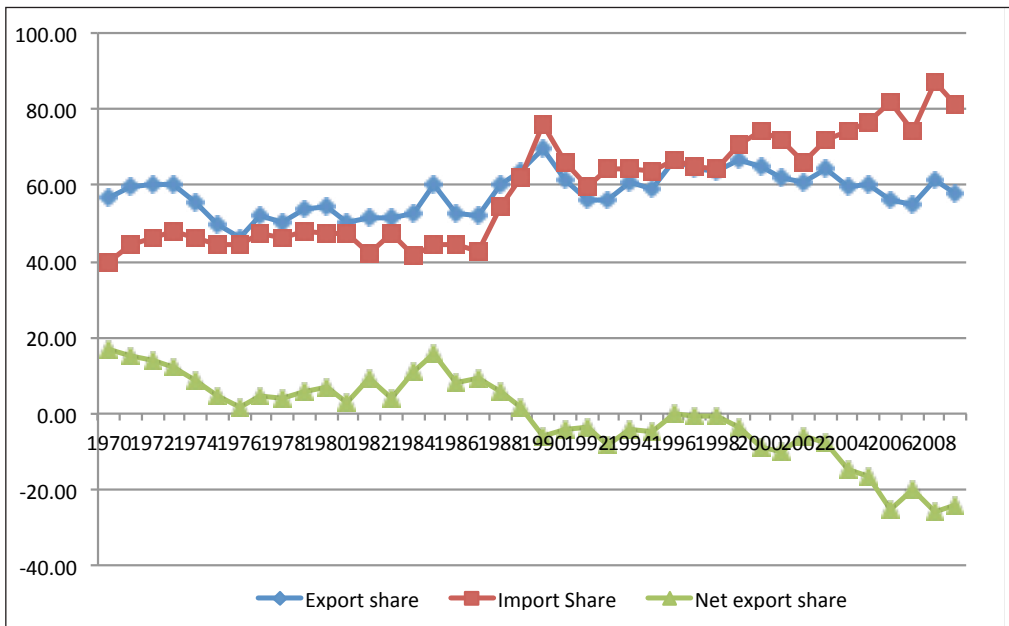
OPENNESS AND GROWTH

It is important to understand whether the openness has made any significant impact on national economic growth. According to modern trade theories the imports can also play an important role in increasing domestic production through either raising competition or accelerating spill-over effects. In fact, it is necessary for small economies to import capital goods and raw materials in order to build modern and industrial sectors of the economy.

If we look at the Gross Domestic Product (GDP) of the economy, it has increased sharply during the study period and registers an almost threefold rise within the period at constant prices. However, it should be mentioned that it accounts for a continuous decline during the last four years (Figure 5). Several scholars have pointed out this fact and the national government has also acknowledged this for possible remedies. Devaluation of exchange rate in 2009 and reduction of tax rate in 2011 were planned to boost the economy through increasing its competitiveness.

According to ISIC (International Standard Industrial Classification) definition, economic activities are broadly grouped into seven categories.[3] While GDP in all the sectors has increased by manyfold during the study period, the most from non-farm sectors, except construction, which has registered a 2 to 2.5 times rise. The value added in the farm sector (agriculture, hunting, forestry and fishing etc.) shows a moderate improvement (Table 1). The non-farm sectors that performed well during the period include wholesale, retail trades, restaurant and hotel; transport, storage and communication and other activities. While most emerging countries in the recent past have revealed a sharp and steady improvement in the construction sector, Fiji continues to experience substantial ups and downs throughout the period in the same sector (see Figure 5). Another important feature that appears from the figure is that almost all other sectors registered a deceleration during last two years.

TABLE 1: *Export share, import share and net export share of Fiji Islands during 1970–2009*

Year	Agriculture, hunting, forestry, fishing (ISIC A-B)	Mining and Utilities (ISIC C&E)	Manufacturing (ISIC D)	Construction (ISIC F)	Wholesale, retail trade, restaurants and hotels (ISIC G-H)	Transport, storage and communication (ISIC I)	Other Activities (ISIC J-P)	GNP
1970	23933.6	1260.6	14543.0	5466.7	9424.4	6672.9	33183.7	94484.9
1975	23933.6	1213.5	15308.4	6150.1	13508.4	11344.0	52904.5	124362.4
1980	29492.3	1198.0	19977.2	9021.3	15768.1	12137.6	61627.5	149222.0
1985	30070.6	2049.0	19483.9	5713.5	16846.2	16304.2	67674.6	158142.1
1990	35082.4	3242.3	24416.5	5563.2	24662.9	21738.9	72766.3	187472.6
1995	38394.1	3576.9	28513.7	6273.4	28610.6	27732.2	82515.6	215616.5
2000	35938.1	4245.0	34044.0	5647.1	34987.4	33395.7	80902.8	229160.0
2005	36013.1	4494.2	36427.1	8160.6	43286.7	38319.4	89352.8	256053.9
2009	33239.9	2714.1	35157.2	7210.0	39822.7	38054.1	95051.2	251249.2

Source UN-COMTRADE

FIGURE 5: *Gross value added (millions, US$) of Fiji Islands by sectors during 1970–2009*
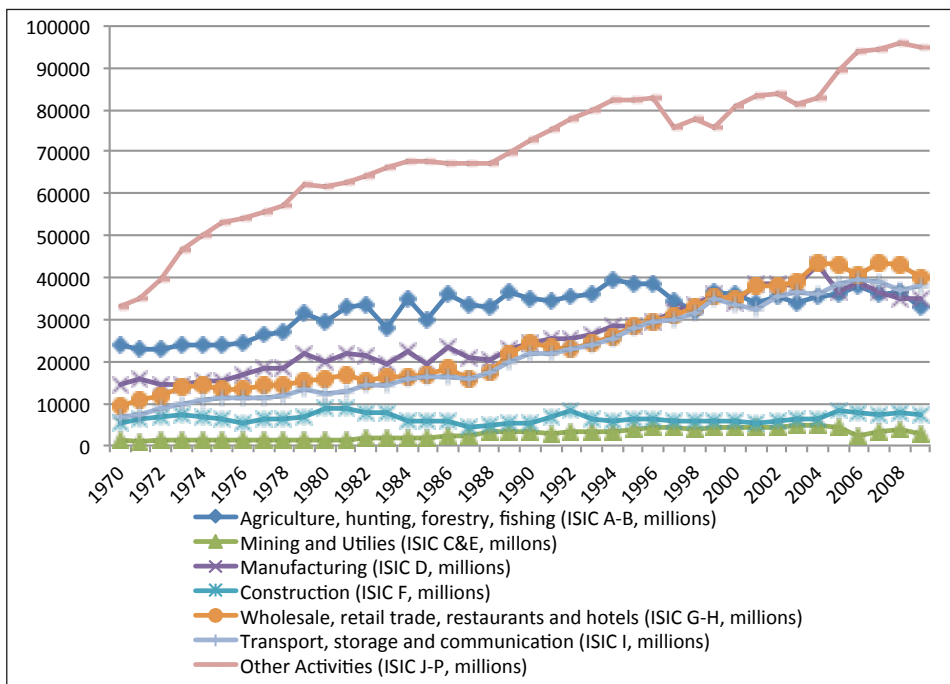
In terms of relative contribution to GDP, other service sector activities (ISIC J-P) and agriculture, hunting, forest and fishing (ISIC A-B) represent 35% and 25% respectively and they jointly capture 60% during 1970. Thereafter, these two sectors have moved in opposite directions. The relative contribution of the agriculture and allied sector has dropped steadily from 25.2% in 1970 to 13.2% in 2009. This suggests a 10% drop in both sectors. On the other hand, the contribution of other service sector activities has increased from 35.1% in 1970 to 42.8% in 1985 and then dropped to 37.8% in 2009. Growth trajectories of many developed countries in the West and East Asia demonstrate that the relative contribution of industrial and service sectors in the economies gradually moves up with a fall of primary sector contribution over the years. In the case of Fiji, the contribution of agriculture has sharply declined for two reasons. One is that the leasing of land for cultivation by agricultural tenants has always been uncertain. Many of the agricultural land leases were not renewed in the last 25 years and land under cultivation has declined (Prasad & Tisdell, 2006). Secondly, the frequent natural calamities did inflict severe damage on agricultural production in recent years.

The contribution of the manufacturing sector was 15.4% in 1970 and registered a declining trend throughout the 1980s and 1990s, leading to 14% in 2009 (see Table 1). Similarly, the percentage contribution of construction in the national income initially rises from 5.8% in 1970 to 6% in 1980 and thereafter declines all the way to 2.9% in 2009. Therefore, the contribution of the secondary sectors (including manufacturing and construction) has shown an increasing trend in absolute terms, but has registered a decreasing trend in relative terms. However, the relative contribution of service sector, particularly two leading service sectors – viz., wholesale, retail trade, restaurant,

hotels, transport, storage and communication – has improved substantially. Tourism has, in fact, grown throughout this period and boosted the allied sector, like restaurants, hotels and other trading activities, as well. The government has tried to boost the sector by providing the infrastructure and road networks in the country. This has also benefited the wholesale and retail trading activities in the country. Therefore, the service sector, in total, has played a significant role in the national economic growth. However, over-dependence on tourism could limit the growth; the earnings from the tourism sector may become uncertain, as was the case during the recent financial crisis.

TABLE 2: *Export share, import share and net export share of Fiji Islands during 1970–2009*

Year	Agriculture, hunting, forestry, fishing (ISIC A-B)	Mining and Utilities (ISIC C&E)	Manufacturing (ISIC D)	Construction (ISIC F)	Wholesale, retail trade, restaurants and hotels (ISIC G-H)	Transport, storage and communication (ISIC I)	Other Activities (ISIC J-P)	GNP
1970	25.3	1.3	15.4	5.8	10.0	7.1	35.1	100
1975	19.2	1.0	12.3	4.9	10.9	9.1	42.5	100
1980	19.8	0.8	13.4	6.0	10.6	8.1	41.3	100
1985	19.0	1.3	12.3	3.6	10.7	10.3	42.8	100
1990	18.7	1.7	13.0	3.0	13.2	11.6	38.8	100
1995	17.8	1.7	13.2	2.9	13.3	12.9	38.3	100
2000	15.7	1.9	14.9	2.5	15.3	14.6	35.3	100
2005	14.1	1.8	14.2	3.2	16.9	15.0	34.9	100
2009	13.2	1.1	14.0	2.9	15.8	15.1	37.8	100

Source UN-COMTRADE

TABLE 3: *Unit-root test of openness and GDP*

Variable	Dickey-Fuller Test Statistic	Presence of unit-root
Openness	-1.605 (0.48)	No
lnGDP	-2.278 (0.18)	No

Note: *Figures in parentheses represent level of significance.*

We apply an econometric model to see whether openness is conducive to national growth during the study period. Simple regression analysis might provide misleading results because of its endogeneity between these two variables. In other words, openness affects growth of income and this further affects openness.

Before building up the econometric model, the usual unit root test has been run using Dickey-Fuller specification (known as ADF test). The results of this test separately for lnGDP and openness state that the variables do not have unit-root problem and the series are stationary (see Table 3). One can run a simple VAR model in order to see the relationships between them. Although the series are stationary, the variables could have structural breaks somewhere in the period of analysis. Zivot-Andrews unit root test for openness has been conducted allowing for break in both intercept and trend. It shows a significant break in 1988, where the minimum test statistic is -6.13. This is significant at the 1% level. As a result, a dummy variable has been created from 1988 onward to capture this structural break. Therefore, a structural break dummy has been introduced in the model as follows:

$$\ln GDP_t = a + \sum_{i=i}^{4} \beta_i \ln GDP_{t-i} + \sum_{i=i}^{4} \gamma_i openness_{t-i} + D_t + u_t \qquad (1)$$

$$openness_t = b + \sum_{i=i}^{4} \eta_i \ln GDP_{t-i} + \sum_{i=i}^{4} \lambda_i openness_{t-i} + D_t + \varepsilon_t \qquad (2)$$

where, D_t=0 for t<1988 and 0 otherwise

The regression results are presented in Table 4. There has been a significant structural break in the openness in 1988. This structural shift of openness is highly dominated by import rise and the economy seems to be more dependent on imports thereafter. On the other hand, the significant break is not observed in the GDP growth. Openness (measured as total trade volume to GDP ratio) is significantly influenced by the level of openness observed in the previous two years. Moreover, the first year lag GDP growth has no influence on the level of openness while it turns out to be working negatively for the next two years. Interestingly, the fourth year GDP growth lag plays positively and significantly on the openness. On the other hand, only the first year lag openness influences the GDP growth significantly and otherwise it does not influence significantly. The growth itself is not highly influenced by its past values.

It is found from this regression analysis that the economy gradually depends more on imports while exports of primary commodities have been decelerated. One would expect a positive spill-over effect of imports in the domestic economy by creating a competitive atmosphere. Though it has played a positive role on the first year, but has become insignificant over the years mainly due to lack of proliferation of domestic industrial activities. Therefore, one can safely conclude that openness has made a weak but positive impact on the national growth of the country during 1970–2009.

One reason behind the drastic fall in the trade balance is the deceleration of the agricultural sector during the period and therefore, the advantage enjoyed due to comparative advantages in agriculture has not been derived by the country. On the other hand, imports have pushed up trading and allied activities and this has lifted growth of the economy, mainly due to the expansion of limited service sector activities. Tourism has been one of those that help substantially in earning foreign exchange. So, openness has mainly acted positively through the service sector expansion.

INTER- AND INTRA-INDUSTRY TRADE

For further understanding of the sources of openness, we analyse data at a more disaggregated level. As mentioned earlier, while the traditional trade theories talk about the gains from comparative advantages over inter-industry trade between countries, the modern trade theories illustrate the gain from intra-industry trade over the same production sectors between them. Moreover, the intra-industry trade starts rising with the growth of the economy. Before analysing the intra-industry trade, one should have a fair understanding of the top tradable commodities and trade partners of the country.

For the most part, the country Fiji imports manufactured commodities and exports, in the main, mining and agricultural products. Major imported commodities are Mineral fuels, mineral oils and products of their distillation, bituminous substances, mineral waxes; nuclear reactors, boilers, machinery and mechanical appliances; Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles; Cereals; Plastics and articles thereof; and Others – Table 5). Those commodities are by and large imported from Singapore, Australia, New Zealand, the USA and China (Table 6).

On the other hand, major exported commodities are Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes; Sugars and sugar confectionery; Fish and crustaceans, molluscs and other aquatic invertebrates; Beverages, spirits and vinegar; Articles of apparel and clothing accessories, not knitted or crocheted; and Other commodities (Table 7). They are by and large exported to the UK, Australia, Singapore, the USA and others (Table 8).

TABLE 4: *Openness and Growth – VAR results*

Equation	Parms	RMSE	R-sq	Chi2	P>chi2
Openness	10	4.09	0.948	654.03	0
lnGDP	10	0.04	0.984	2272	0
Openness					

Openness	Coefficient	Z	P>/z/
L1	0.268	2.31	0.031
L2	0.284	2.1	0.036
L3	0.01	0.09	0.93
L4	-0.086	-0.091	0.36
lnGDP			
L1	21.118	0.98	0.326
L2	-82.87	-4.27	0
L3	-47.87	-2.6	0.009
L4	108.57	5.16	0
break_dummy	14.873	5.03	0
Const	56.512	0.73	0.463
lnGDP			
Openness			
L1	0.002	1.77	0.07
L2	0.001	0.47	0.639
L3	-0.002	-1.33	0.18
L4	0.001	1.26	0.208
lnGDP			
L1	0.311	1.53	0.127
L2	0.141	0.76	0.445
L3	0.154	0.89	0.373
L4	0.181	0.91	0.364
break_dummy	0.368	1.31	0.189
Const	2.42	3.32	0.001

TABLE 5: *Top Imported Commodities in 2009 (billions US$)*

Code	Description	Trade Value
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	114.60
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	30.75
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	24.55
10	Cereals	14.6,4
39	Plastics and articles thereof	12.78
	Other commodities	172.77

Source: *WTO.*

TABLE 6: *Top Import Partners with Fiji (billions US$)*

Partner Country	Trade Value
Singapore	1,18.58
Australia	76.33
New Zealand	52.83
USA	21.61
China	17.58
Other partners	83.17

Source: *WTO.*

TABLE 7: *Top Exported Commodities in 2009 (billions US$)*

Code	Description	Trade Value
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	38.59
17	Sugars and sugar confectionery	27.21
03	Fish and crustaceans, molluscs and other acquatic invertebrates	17.08
22	Beverages, spirits and vinegar	12.44
62	Articles of apparel and clothing accessories, not knitted or crocheted	8.19
	Other commodities	51.54

Source: *WTO.*

According to the comparative advantage, if a country trades in a product, it should either mostly be exporting the product (based on its relatively low production costs) or mostly importing the product (because of relatively high production costs in the domestic economy). We construct an index of inter-industry trade, in which a country exports some products in trade for imports of others. In reality, much of the trade takes place within industries particularly between developed countries and this is known as intra-industry trade (IIT). IIT is quite high between European countries, between Japan and USA etc. (Pugels, 2010: 95). In agriculture and allied primary products, there is also substantial IIT – two-way trade in which both exports and imports are the same or very similar products. Therefore, IIT is the part of total trade in the product (exports and imports) that is not net trade, i.e.,

$$IIT = X + M - |X - M| \qquad (3)$$

where X is the exports of products and M is the imports of the same products. For the same inter-industry and inter-country comparison, one needs to derive the index in relative terms. One way is to measure the relative importance of IIT, as a share of total trade:

$$IIT\ Share = \frac{IIT}{Total\ Trade} = \frac{X + M - |X - M|}{X + M} \qquad (4)$$

The value of the index lies between 0 and 1. If it is 0, the intra-industry trade is assumed to be nil. If it is 1, intra-industry trade is assumed to be highest. The IIT share has been constructed for major tradable commodities and data have been drawn from the WTO website, for the period 1980 to 2009. Our attempt is to see the changes in IIT share during this entire period in the country but some information is missing for a few years (i.e., 1995–1999). Even then, it allows us to derive the value of IIT share for major commodities (see Table 9). It is interesting to note that IIT share was quite high for agricultural products (0.744) in 1980, but the share has gradually come down to 0.500 in 2009. Similarly, the IIT share was relatively high for fuels and mining products, registering 0.303 during 1980, and then dropping to 0.255 during 2009.

Modern trade theories have given much importance to the IIT share of non-agricultural goods. This indirectly relates to the development of the secondary and tertiary sectors in the country. The problem of deriving concrete inference on non-agricultural products has been due to the lack of information. Based on the information available, IIT share of non-agricultural products, except clothing, seems to be quite low. The share of clothing has sharply increased from 0.119 in 1980 to 0.795 in 2009. Manufacturing accounts for 0.079 in 1980 and then increases to 0.243 in 1994 and again drops to 0.174 in 2009. Similarly, other important industrial goods and services (like chemicals, pharmaceuticals, machinery and transport equipment, office and telecom equipment, electronic data processing and office equipment, telecommunication equipment, integrated circuits and electronic components, automobiles etc.), which play an important role in emerging countries, account for very low share in the country.

TABLE 8: *Top Exported Partners with Fiji (billions US$)*

| Partner Country	Trade Value
United Kingdom	23.13
Australia	21.38
Singapore	19.80
USA	18.25
Areas, nes	15.41
Other partners	57.08

Source: *WTO.*

One would be further interested to know the aggregate IIT share of the economy as a whole and its trend over the period. For this purpose, the weighted average of IIT share combining all tradable products has been constructed. IIT share has been calculated for each product based on (3) and then the weighted average is calculated across all these products (using the country's total trade in the product as weights, so that products with more total trade receive more weight in the overall average). The formula is given in (5).

$$Weighted\ Average\ of\ IIT\ Share = \sum_{i=1}^{n} \frac{X_i + M_i}{X + M}\ IIT\ Share_i \qquad (5)$$

where, and are respectively exports and imports of *i*-commodity. In the calculation, the above-mentioned 13 product groups are used and it gives a proxy of overall IIT share in the economy. The share shows a declining trend from 0.470 in 1980 to 0.294 in 2009 (see Table 8 and Figure 6). This is because of two factors. Agricultural and mining products, which dominate in the country's trade volume, register a declining trend in the respective shares. On the other hand, the shares of the non-agricultural sector are still too low to push up the trend. The intra-industry trade is very low and the level of competitiveness within the industry would also be very low and hence, benefits derived from economies of scale and competition would seem to be negligible. This is a real concern for the country's openness and its resultant impact on the national growth.

FIGURE 6: *Weighted IIT share of Fijian economy during 1980–2009*
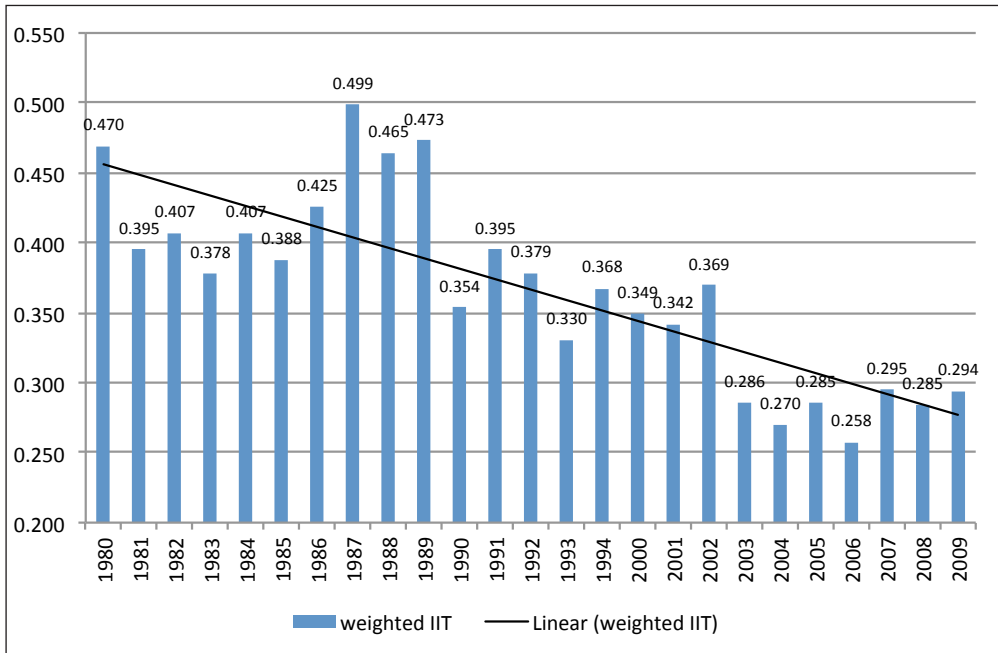
CONCLUDING OBSERVATIONS

The paper analyses the level of openness of a small economy and its impact on growth, based on the experiences of the Fijian economy during 1970–2009. While some of the Asian and Latin American economies have successfully derived benefits from openness to accelerate the economic growth during the last couple of decades, the analysis of this issue in relation to small Pacific Island nations has not been seriously considered. Fiji became a member of GATT/WTO in 1993. Since then, the country has pursued various measures to liberalise the economy. We observe that exports and imports have increased in both absolute and relative terms during 1970–2009, but the net trade balance has gone against the country from the early 1990s. There has been a significant structural break of openness in 1988, where this arose mainly because of a substantial rise of imports. Most of the existing work has seen export share as openness to investigate the benefits derived from comparative advantages. This paper takes a different approach and defines the openness as the share of trade flows to the Gross Domestic Product (GDP) which essentially capture the benefits of trade from both comparative advantages and competition. A VAR model is used to understand the systemic relationship between openness and growth. The results suggest that the openness has a positive but weak impact on national growth. This is mainly because of the slowdown in agricultural exports (e.g., sugar) and underdevelopment of the industrial sector. The economy has been boosted mainly by the limited service sector activities like tourism and allied activities, e.g., wholesale, retail trade, restaurants, hotels and transport, storage, communication etc. Manufacturing and construction activities are yet to flourish and this is one area where policy makers need to pay more attention.

The paper further constructs intra-industry trade share, both at disaggregate and aggregate level, and it reveals that the share is quite high for agriculture and mining activities and also showing a declining trend. The share is abnormally low for non-agricultural products, except clothing. This further confirms that the trade benefit of the economy lies in the comparative advantage of the agriculture and mining sectors. Since agriculture and its allied activities still play a predominant role on the trade front, the growth of the economy is highly volatile with increased natural calamities and still unresolved uncertainty about land leasing arrangements in the country. The service sector has grown significantly in recent years, but the industry sector needs to be accelerated in order to sustain it. It is very important when many of the trading partners of the country are likely to be under severe economic crisis for a relatively longer period. Continuous pursuance of liberalisation and reform is necessary but the government has a role to channalise these benefits. Bilateral negotiations, particularly with the emerging and growing countries, should be one way to achieve this. This has to be supported by domestic policies to promote competitiveness.

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