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Institutional Quality and Trade
in Pacific Island Countries

By

Azmat Gani* and Biman Chand Prasad*

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Executive Summary

This research examines the impact of institutional quality on trade in selected Pacific Island Countries (PICs). Four indicators of institutional quality are chosen: government effectiveness, rule of law, regulatory quality and control of corruption; for six PICs: Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu.

Many of the PICs have been characterised with narrow export structures. Other than Fiji, most countries reveal widening long-term balance of trade deficits. PICs export structure is largely based on land and sea resources while machines and transport equipment form the major imports. In terms of markets, USA, Australia, United Kingdom, New Zealand, Germany and Japan are the main export markets while Indonesia, Korea, China and Thailand are some of the newer export markets.

Maintaining strong institutions and achieving continued improvements in institutional quality have become a core area of policy focus for the PICs. A number of key reports prepared for the region specifically maintain the need to strengthen institutions. However, achievements in institutional quality have been disappointing with several PICs revealing low scores for indicators of institutional quality.

The results of our analysis involving the fixed effects model reveal that institutional quality matters. Our results confirm that *government effectiveness* matters more to importers than exporters while an improved *regulatory environment* positively facilitates increased levels of trade. The results of *rule of law* suggest that the deterioration in rule of law seems to be working against improved exports for the PICs. The results of *control of corruption* variable reveal that the presence of corruption tends to reduce imports significantly. Turning to the trade control variables, the level of *income* is not significant while the results of the *real exchange rate* variable do not provide strong confirmation that the appreciation of exporter's currency facilitates trade. The results of the *technology* variable provide strong support that higher levels of technological diffusion are vital for improved trade. The results of the *trade policy* variable confirm that living with the WTO principles of trade liberalization (tariff reduction) strongly facilitates more trade.

Our results support the proposition that institutional quality is an integral part of enhancing trade for PICs. We can conclude that PICs have problems with the institutions that support or facilitate trade. Exports in all the six countries have not been increasing and in some cases the exports have actually declined. Over the last decade PICs have generally pursued an outward-oriented export led growth strategy. There is now increasing realization that institutional factors may be the missing link. This study clearly points out that the institutional quality in PICs is a significant factor in determining the level of trade. From a policy perspective, PICs would need to improve institutional quality so as to facilitate trade.

Abstract

This paper examines the export, import and total trade determinants using reduced form equations for six Pacific Island countries with an institutional focus. Controlling for common determinants of trade, four indicators of institutional quality: government effectiveness; rule of law; regulatory quality; and control of corruption are chosen. The fixed effects model, controlling for AR(1) errors, indicates that improvements in institutional quality variables matter for improved levels of trade. The results also provide confirmation the appreciation of currency does not significantly harms trade; higher levels of technological diffusion are vital for improved trade; and that living with the WTO principles of trade liberalization and becoming more outward oriented strongly facilitates more trade. Some policy implications are drawn.

I. Introduction

This research examines the impact of institutional quality on trade in selected Pacific Island countries (PICs). Many of the PICs have been characterised with narrow export structures, low levels of economic growth and relative poverty resulting largely from low levels of investment. In addition, poor social and economic infrastructure and high production costs have thwarted financial incentives to attract foreign direct investment which has been relatively low. Several countries in the region also reveal low ratios of exports to GDP.

Weak institutions have been identified by many PICs as a key impediment to investment and economic growth. Recent studies indicate that for countries to fully integrate in the world economy and to benefit from outward oriented trade strategies, the functioning and quality of institutions are important. For example, ill functioning institutions can hinder trade (see Anderson, 2001), bad institutions can reduce the volume of trade (see Anderson and Marcouiller, 2002) and openness and quality of institutions are most likely to exhibit bidirectional causality (see Dollar and Kraay, 2002).

Many of the PICs are struggling to improve the institutional infrastructure but are constrained by lack of appropriate levels of public expenditure in this area. The focus of many of the PICs on trade as an engine of growth requires that they pay particular attention to developing the appropriate institutional mechanisms that support both regional and global integration of the economies. The main benefit expected out of this integration is expected to be enhancement of trade. Appropriate and quality institutions would support the PICs endeavour to enhance trade.

In this paper econometric specifications of export, import and total trade determinants are estimated including both commonly used explanatory variables and a set of indicators of institutional quality. Four indicators of institutional quality are chosen: government effectiveness, rule of law, regulatory quality and control of corruption; for six PICs: Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu.

The paper is organized as follows. Section two presents an overview of the trade structure and performance of PICs. Section three presents an overview of institutional achievements. Section four discusses the literature linking institutional quality to trade. Section five discusses the analytical model and provides a theoretical justification of chosen variables. Section six discusses the data. Section seven discusses the estimation procedure and presents the empirical results. Section eight presents the conclusion and policy recommendations.

II. Pacific Island Countries Trade Structure and Performance

      We analyse PICs trade structure and performance on the basis of core indicators of trade: export and import shares in GDP; exports and imports of main commodities; and the direction of trade.

II.I Export and Import Share in GDP

      Figures 1 to 6 depict the six PICs exports and imports of goods and services as a percent of GDP for years 1990 to 2004. Over the period, exports of goods and services as a share of GDP were slightly below that of imports of goods and services for Fiji for most of the years between 1990 and 2000. Exports of goods and services surpassed imports of goods and services in the post-2000 period, hence leaving a small trade surplus. On average, exports of goods and services as a percent of GDP for Fiji for the 1990-2004 period was 61 while average imports of goods and services as a share of GDP for the same period were 62. Since 1992, exports as well as import shares in GDP has been on a rising trend.

Figure 1.

Source of data for Figure 1: The World Bank (2006).

      Solomon Islands and Vanuatu's exports and imports of goods and services followed a similar pattern to that of Fiji (Figures 2 and 3 respectively). In Vanuatu, exports as a share of GDP averaged 47 percent for the 1990 – 2004 periods while imports as a share of GDP average 59 percent for the same period. A notable feature in Vanuatu is that the country's balance of trade has remained in deficits for the entire period although exports as a share of GDP rose in the post-2000 period.

Figure 2.

Solomon Islands: Exports and Imports
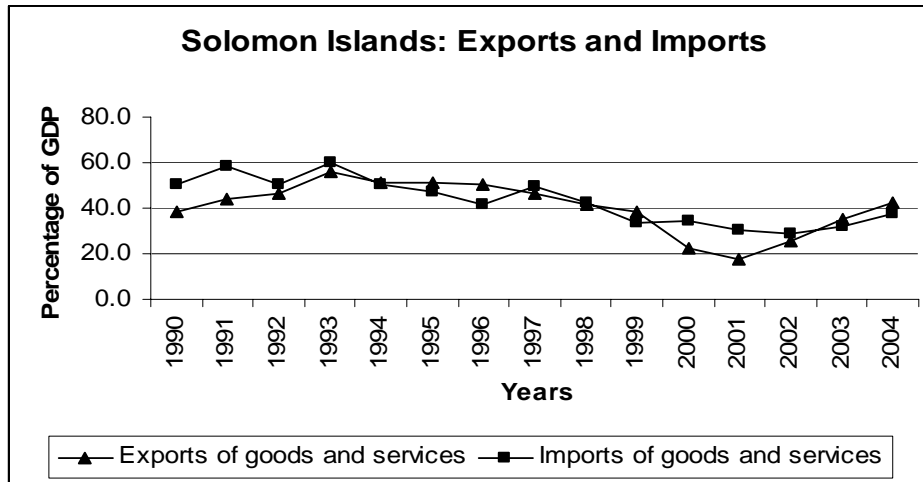
Source of data for Figure 2: Asian Development Bank (2006).

In the Solomon Islands, exports as a percent of GDP averaged 41 for the 1990-2000 periods while imports as a percent of GDP averaged 43 for the same period. While trade gap has been much narrower than that of Vanuatu, exports and imports as a share of GDP followed a downward trend from 1991-2000. However, the post-2000 period saw an upward trend in exports as a share of GDP as well as imports as a share of GDP.

Figure 3.

Vanuatu: Exports and Imports
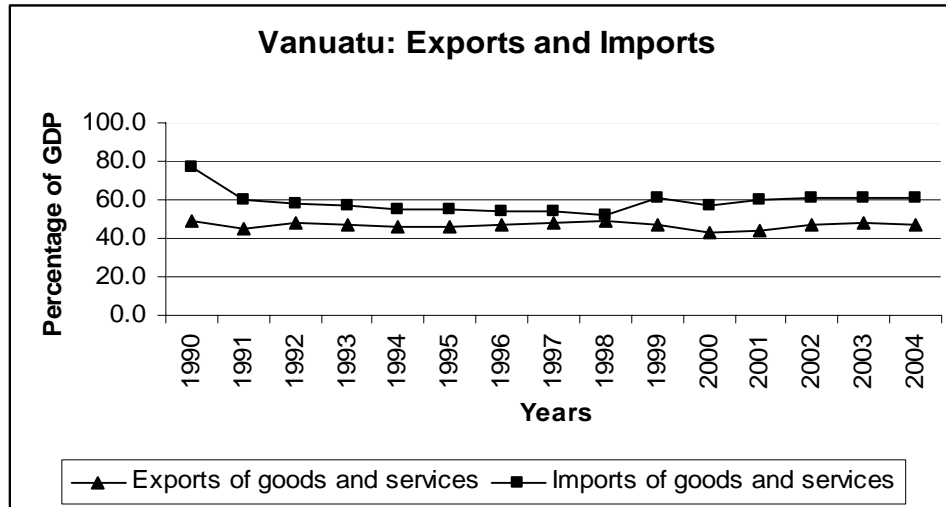
Source of data for Figure 3: The World Bank (2006).

Kiribati, Samoa and Tonga reveal huge trade gaps between exports and imports as a percent of GDP for the 1990-2000 periods (Figures 4, 5 and 6). In fact, in Samoa and Tonga, the trade gap has widened in post-2000 period. These three countries have continuously experienced massive trade deficits. Exports as a percentage of GDP averaged 24 in Kiribati; 29 in Samoa; and 19 in Tonga. On the other hand, imports as a percentage of GDP averaged 88 in Kiribati; 61 in Samoa; and 59 in Tonga. Narrow range

of export products and rising imports has been the main cause of widening trade gap among these three countries.

Figure 4.

Kiribati: Exports and Imports

Source of data for Figure 4: The World Bank (2006) and Asian Development Bank (2006).

Figure 5.

Samoa: Exports and Imports

Source of data for Figure 5: The World Bank (2006).

Figure 6.
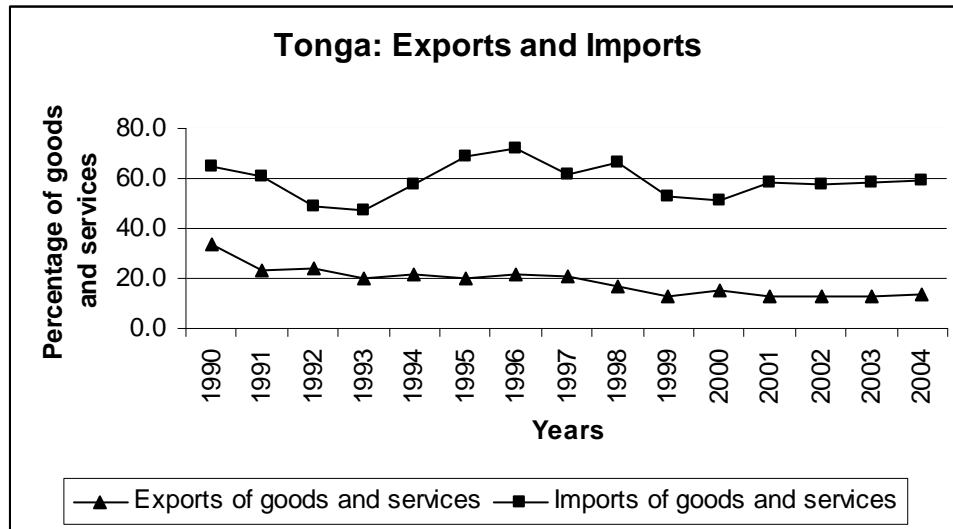
Source of data for Figure 6: The World Bank (2006).

II.II Exports of main commodities

Table 1 presents data on export composition on the basis of Standard Industrial Trade Classification (SITC) for 1990 and 2004 respectively. According to data in Table 1, in all countries, food and live animals has been the major export category. However, Fiji, Kiribati, Solomon Islands and Vanuatu reveal a fall in this in 2004 compared to 1990. In the Solomon Islands, the exports of crude material increased significantly in 2004 compared to 2001. Other major exports include re-exports for Fiji; animal, vegetable oils and fat for Kiribati; crude material in Samoa and Solomon Islands and miscellaneous manufactured goods in Tonga.

Table 1. *Exports by SITC Section (Percentage of Total)*

SITC	Fiji		Kiribati		Samoa		Solomon Islands		Tonga		Vanuatu	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
Food and live Animals	42.0	32.0	46.7	28.4	…	153.2	37.1	26.2	71.2	104.9	0.0	0.0
Beverage and Tobacco	0.1	5.1	0.0	0.0	…	20.1	0.0	0.0	0.1	0.0	0.0	0.0
Crude materials excluding fuels	5.1	4.3	0.0	0.0	…	3.6	44.7	68.1	0.2	0.6	0.0	0.0
Mineral Fuels etc	0.0	0.0	0.0	0.0	…	21.0	0.0	0.1	0.0	0.0	0.0	0.0
Animal, vegetable oils and fat	0.7	0.5	27.8	17.9	…	12.1	11.5	0.0	2.6	0.1	0.0	0.0
Chemicals	0.7	1.2	0.0	0.0	…	3.5	0.0	0.0	0.0	0.0	0.0	0.0
Basic manufactures	3.4	5.0	0.0	0.0	…	19.4	0.0	0.0	8.9	0.0	0.0	0.0
Machines, transport equipment	0.2	0.3	0.0	0.0	…	515.3	0.0	0.0	2.9	0.0	0.0	0.0
Miscellaneous manufactured Goods	17.1	25.4	0.1	0.5	…	13.0	0.0	0.0	12.1	1.3	0.0	0.0
Unclassified goods	10.7	7.8	7.2	16.5	…	0.0	6.7	5.6	2.3	0.1	0.0	0.0
Re-exports	20.0	18.6	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Asian Development Bank (2006). Author's calculation based on Asian Development
Bank (2006) data.
… indicates data not available.

Table 2 presents data on specific export commodities. In all countries, the export structure is largely based on land and sea resources. For example, in Fiji up until 1987, sugar, molasses, canned fish, fresh fish, coconut oil, and gold were the main exports. Following the trade liberalisation of 1987, its export composition began to change. There was a major industrial expansion with the setting up of light manufacturing industry, in particular garments. Since then further diversification of exports has taken place. After the mid-1990s, the export composition expanded to include additional commodities: mineral water, yaqona, copra, chemicals, textiles, and footwear. Other countries reveal much narrower range of export commodities. For example, fish, copra and seaweed in Kiribati; beer, coconut cream and taro in Samoa; fish and timber in the Solomon Islands; fish, squash and vanilla beans in Tonga; and copra, cocoa, timber and beef in Vanuatu.

Table 2. *Exports by Principal Commodity (Percentage of Total).*

	Fiji		Kiribati		Samoa		Solomon Islands		Tonga		Vanuatu	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
Sugar	20.1	0.0	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gold	6.8	0.0	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Molasses	0.6	0.0	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coconut oil	0.4	0.0	0.0	0.0	…	0.0	7.8		0.0	0.0	0.0	0.0
Fish	4.4	0.0	2.8	0.0	…	0.0	23.0	26.0	1.6	6.2	0.0	0.0
Garments	14.3	0.0	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Textile, Yarns	0.0	0.0	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Copra	0.0	0.0	3.0	0.0	…	0.0	4.7	5.0	0.0	0.0	4.7	7.7
Seaweed	0.0	0.0	2.1	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shark Fin	0.0	0.0	0.1	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beer	0.0	0.0	0.0	0.0	…	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Coconut cream	0.0	0.0	0.0	0.0	…	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Taro	0.0	0.0	0.0	0.0	…	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Cocoa	0.0	0.0	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	2.2	1.0
Timber	0.0	0.0	0.0	0.0	…	0.0	24.5	92.3	0.0	0.0	0.8	1.0
Squash	0.0	0.0	0.0	0.0	…	0.0	0.0	0.0	6.1	7.1	0.0	0.0
Vanilla Beans	0.0	0.0	0.0	0.0	…	0.0	0.0	0.0	3.5	0.3	0.0	0.0
Beef	0.0	0.0	0.0	0.0	…	0.0	0.0	0.0	0.0	0.0	3.3	2.7

Source: Asian Development Bank (2006). Author's calculation based on Asian Development
Bank (2006) data.
… indicates data not available.

II.III Imports of main commodities

Table 3 presents data on imports by SITC. Except for Kiribati, machines and transport equipment form the major import category for all other countries. In Kiribati,

food and live animals is the major import category followed by animal and vegetable oils and fats. In Samoa, major inputs are machines and transport equipment, basic manufactures, food and live animals and mineral fuels. Solomon Islands, major imports are crude materials and food and live animals. In Tonga, major inputs are machines and transport equipment, mineral fuels and food and live animals. Vanuatu's imports are machines and transport equipment followed by basic manufactures.

Table 3. *Imports by SITC Section (Percentage of Total)*

SITC	Fiji		Kiribati		Samoa		Solomon Island		Tonga		Vanuatu	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
Food and live animals	12.8	1.6	5.0	2.3	…	19.3	28.6	28.8	13.8	13.5	11.7	19.3
Beverage and tobacco	0.7	0.1	0.0	0.0	…	1.4	0.0	0.0	4.5	14.1	3.0	3.9
Crude materials excluding fuels	0.7	0.1	0.0	0.0	…	3.1	34.5	74.8	5.3	11.4	1.2	1.7
Mineral Fuels etc	14.1	1.5	0.0	0.0	…	17.8	0.0	0.1	13.2	19.3	7.7	13.1
Animal, vegetable oils and fat	1.0	0.1	3.0	1.5	…	2.4	8.8	0.0	0.2	0.6	0.3	0.5
Chemicals	7.3	0.9	0.0	0.0	…	8.1	0.0	0.0	6.3	4.9	5.7	10.9
Basic manufactures	21.9	2.2	0.0	0.0	…	31.1	0.0	0.0	18.0	0.8	17.0	14.4
Machines, transport equipment	30.7	2.5	0.0	0.0	…	23.8	0.0	0.0	19.0	15.3	34.0	21.4
Miscellaneous manufactured goods	9.6	1.1	0.0	0.0	…	14.5	0.0	0.0	10.2	4.1	12.1	10.3
Unclassified goods	1.1	0.1	0.8	1.4	…	0.0	5.2	6.1	0.9	9.0	2.6	3.0

Source: Asian Development Bank (2006). Author's calculation based on Asian Development Bank (2006) data.
… indicates data not available.

II.IV Direction of Exports

Table 4 presents data on direction of exports. High income countries like the USA, Australia, United Kingdom, New Zealand, Germany and Japan are the main export markets for the Pacific Island countries. Some countries have actively sought newer markets. For example, Samoa, Tonga, Kiribati and Portugal for Fiji; Indonesia for Samoa; Korea, China and Thailand for Solomon Islands and Korea for Vanuatu. While the newer markets are positive developments, they are, however, small. Pacific Island countries need to break into more new markets so as to maintain a viable export earning capacity.

Table 4. *Direction of Trade of Exports (Percentage of Total)*

	Fiji		Kiribati		Samoa		Solomon Islands		Tonga		Vanuatu	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
USA	8.4	23.6	8.8	…	7.0	4.9	0.0	0.0	24.5	24.9	3.8	…
Australia	17.7	19.2	0.0	…	15.0	60.7	4.6	2.2	5.8	1.6	3.7	…
United Kingdom	22.9	12.8	0.0	…	0.0	0.0	0.0	0.0	0.0	0.1	0.0	…
Samoa	0.0	6.2	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0	…
Japan	5.9	4.1	12.1	…	0.9	1.0	42.9	9.7	44.4	51.4	21.3	…
New Zealand	11.7	3.7	0.0	…	33.6	1.6	0.0	0.0	14.9	3.9	0.0	…
Tonga	0.0	3.0	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0	…
Kiribati	0.0	1.9	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0	…
Portugal	0.0	1.2	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0	…

Tuvalu	0.0	1.6	0.0	…	0.0	0.0	0.0	0.0	0.0	0.0	0.0	…
Denmark	0.0	0.0	7.8	…	0.0	1.4	0.0	0.0	0.0	0.0	0.0	…
Germany	0.0	0.0	27.5	…	13.9	0.0	0.0	0.0	0.0	0.6	29.8	…
Fiji	0.0	0.0	0.0	…	1.5	0.5	0.0	0.0	3.9	2.4	0.0	…
Indonesia	0.0	0.0	0.0	…	0.0	17.1	0.0	0.0	0.0	0.0	0.0	…
Korea	0.0	0.0	0.0	…	0.0	0.0	8.3	15.7	0.0	0.0	2.1	…
China	0.0	0.0	0.0	…	0.0	0.0	0.0	28.2	0.0	0.0	0.0	…
Thailand	0.0	0.0	0.0	…	0.0	0.0	6.6	15.7	0.0	0.0	0.0	…
Total	100.0	100.0	100.0	…	100.0	100.0	100.0	100.0	100.0	100.0	100.0	…

Source: Asian Development Bank (2005). Author's calculation based on Asian Development Bank (2005) data.

… indicates data not available.

In terms of import markets, high-income countries like Australia, Singapore, New Zealand, Japan and USA are some of the key import markets (Table 5). Fiji is also an important market for Kiribati, Samoa, Tonga, and Vanuatu. China is also a newer import market for almost all Pacific Island countries.

Table 5. *Direction of Trade for Imports (Percentage of Total).*

	Fiji		Kiribati		Samoa		Solomon Islands		Tonga		Vanuatu	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
Australia	27.8	27.7	24.6	36.4	10.9	9.6	34.2	25.3	20.0	10.3	8.8	15.5
Singapore	5.8	24.8	0.0	0.0	0.1	9.1	9.6	23.8	0.0	0.0	0.0	8.0
New Zealand	16.3	17.8	5.8	8.7	31.5	23.1	7.9	5.3	30.0	46.7	2.7	6.0
Japan	11.0	4.2	11.6	11.0	8.8	8.1	21.1	3.6	6.0	2.5	60.9	10.7
China	2.8	2.8	0.6	2.1	1.6	1.9	3.6	1.0	1.3	2.2	0.7	3.5
Hong Kong	2.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
USA	13.1	2.3	48.7	2.5	9.7	5.3	6.1	1.9	10.3	6.7	0.0	0.0
Thailand	1.7	2.9	0.0	1.8	0.0	0.0	0.0	0.0	0.7	0.8	0.0	0.0
India	0.0	2.2	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.2
Indonesia	0.0	1.7	0.0	0.0	0.0	3.3	0.0	0.0	0.1	1.2	0.0	0.0
France	0.0	0.0	0.1	4.4	0.0	0.0	0.0	0.0	0.0	0.4	2.3	1.6
Korea	0.0	0.0	0.5	0.3	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Fiji	0.0	0.0	0.0	24.8	1.8	17.9	0.2	3.8	12.1	21.1	0.0	4.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Asian Development Bank (2006). Author's calculation based on Asian Development Bank (2006) data.

III. Pacific Island Countries Institutional Quality and Achievements

Maintaining strong institutions and achieving continued improvements in institutional quality is an issue concerning many countries largely in the developing world. This issue has become a core area of discussion and theme of policy focus for the countries of the South Pacific region. A number of key reports prepared for the region specifically maintain the need to strengthen institutions. The *Pacific Plan* (see Forum

Secretariat, 2005) and the recently launched "*Pacific 2020 Report*" by the Australian Agency for International Development (2006) have strongly expressed the need to invest in institutional strengthening for the long-term growth and development of the region.

The "*Pacific Plan*" is built around four themes: economic growth, sustainable development, good governance and security through regionalism. Good governance is the thematic area that considers institutional issues such as law and order, regulatory barriers, property rights, government effectiveness and control of corruption. The *Pacific 2020 Report* notes that "reform strategies have to give much more attention to institutions than they have to date if they are to be successful in establishing an environment that is conducive to economic growth" (Australian Agency for International Development, 2006).

Researchers addressing economic and trade issues among the PICs have pointed out that the economic and social progress for several countries in the South Pacific region has been disappointing over many years (see for example Prasad, 2003 and Gani, 2005). Equally disappointing have been achievements in institutional quality. As mentioned earlier, both the *Pacific Plan* and the *Pacific 2020 Report* note that several PICs have scored on the low side when it comes to institutional quality. In a recent study on good governance index for Fiji, Gani and Duncan (2006) note low levels of achievements on rule of law and government effectiveness variables for Fiji. In addition, in his recent study Saldanha (2004) has argued that governance problems in the Pacific find their roots deeply embedded in political and social issues such as the structures of government, the quality of leadership, and the capacity of civil society to hold government accountable.

We give an overview of the achievements on institutional quality in PICs in this section. We utilize the World Bank data on good governance and analyses the achievements in institutional quality in six of the PICs. Figures 7 to 12 present the institutional quality indicators. In almost all six countries, the graphs depict low levels of achievements in institutional quality indicators.

Fiji has experienced deterioration on rule of law, government effectiveness, regulatory quality and control of corruption in the post-2002 period with scores remaining below zero (Figure 7).

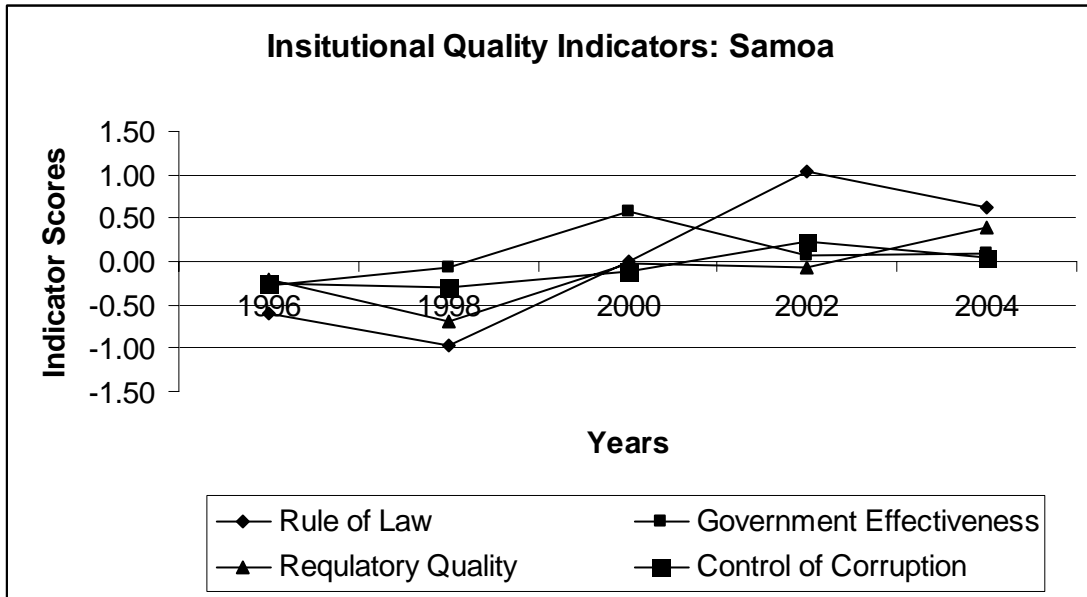Figure 7.

Institutional Quality Indicators: Fiji
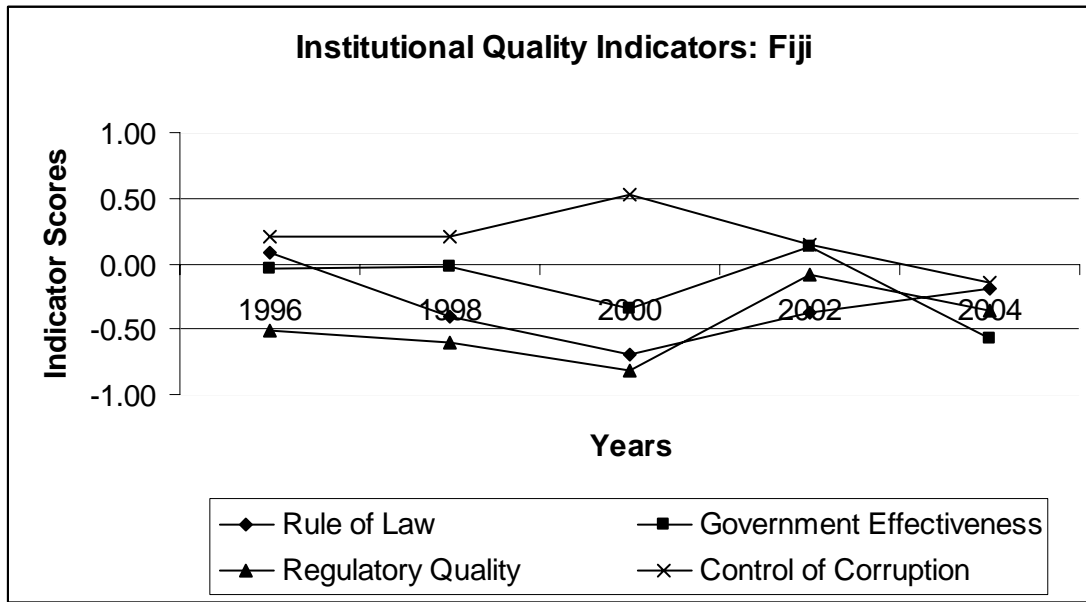
In Kiribati, government effectiveness and regulatory quality deteriorated since 2000 with scores remaining below zero (Figure 8). While control of corruption of rule of law improved since 2000, both were on the downfall since 2002 with control of corruption scoring zero since 2004.

Figure 8.

Institutional Quality Indicators: Kiribati
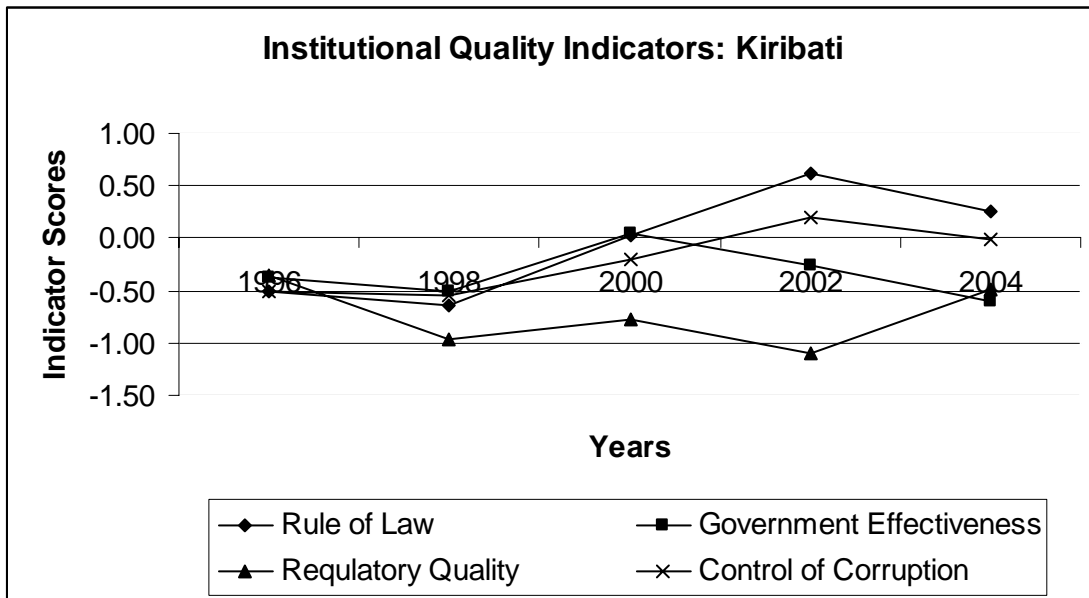
Institutional quality indicators in Samoa improve over the 1996-2004 period (Figure 9). Strong improvements are noted in rule of law remaining positive throughout 2000-04 period. Government effectiveness, regulatory quality and control of corruption also had the scores in positive numbers since 2000.

Figure 9.

Insitutional Quality Indicators: Samoa

The Solomon Islands institutional indicators reveal a unique trend of all the six (Figure 10). The rule of law, government effectiveness, regulatory and control of corruption all recorded negative scores in 1996 and worsened since then, all again scoring below zero in 2004.

Figure 10.

Institutional Indicators: Solomon Islands
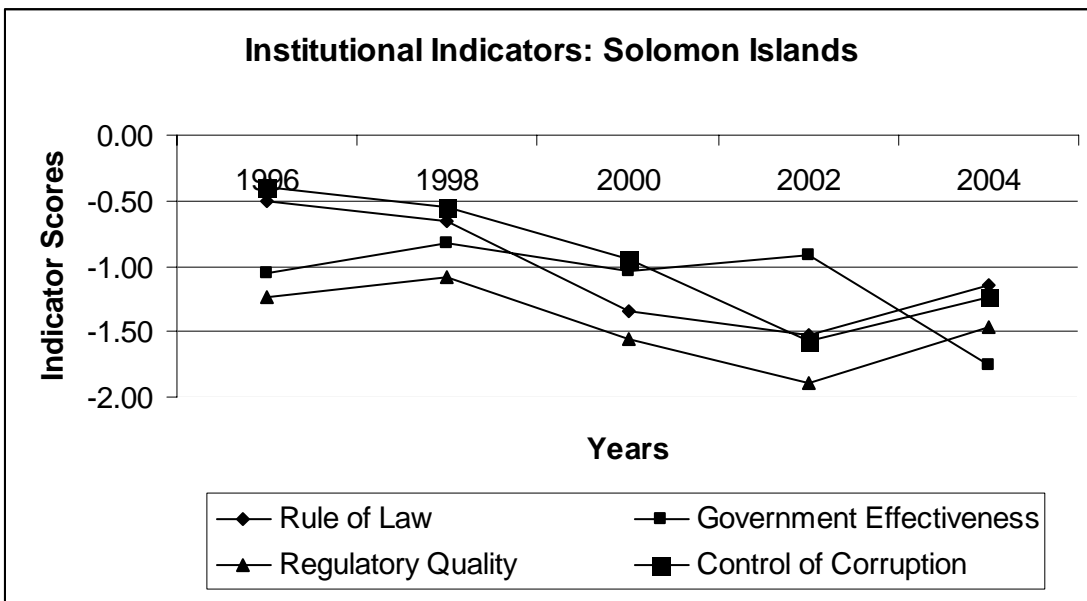
Tonga's institutional achievements are no different to that of the Solomon Islands (Figure 11). All four indicators revealed scores below zero except for the rule of law recording a positive score in 2002.

Figure 11.
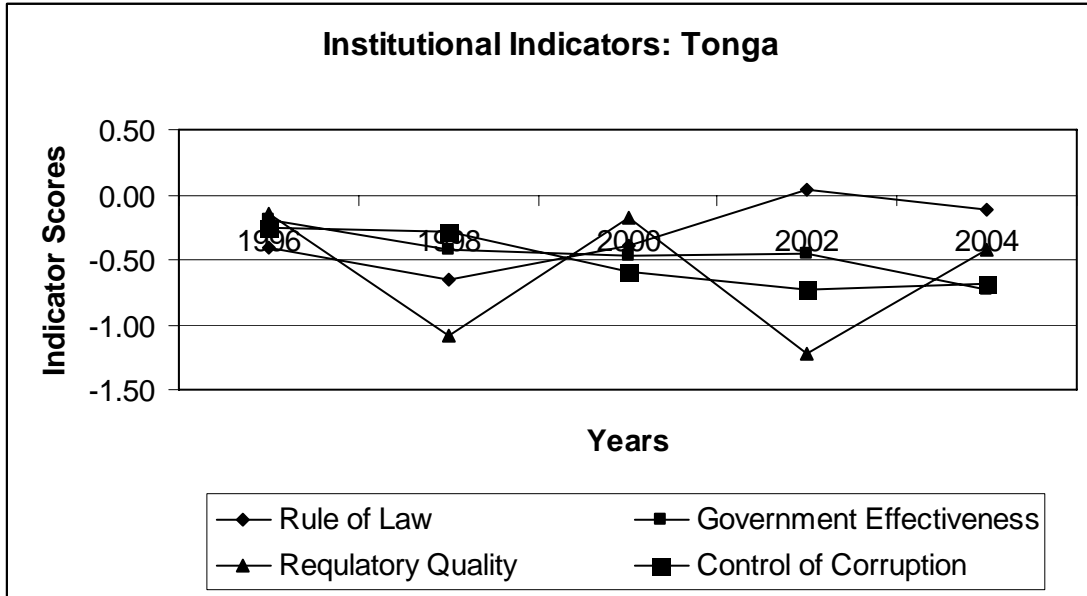
Vanuatu, too has been no different to that of Tonga and Solomon Islands (Figure 12). All four indicators recorded negative scores for the 1996-2004 periods with regulatory quality deterioration over time.

Figure 12.
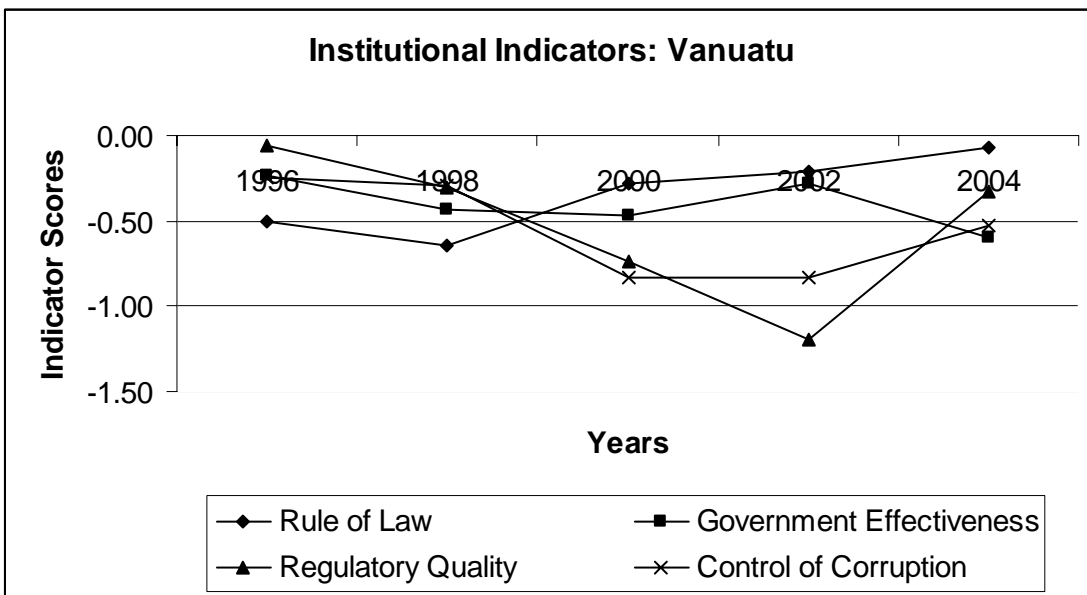
IV. Literature

An important issue deserving serious attention in connection with Pacific Island countries achievement in trade is that several countries in this region have low levels of integration, more so within the Asia Pacific region, let alone the world economy. Trade data reveals that several countries in the region have low ratios of exports to GDP. Literature in international trade reveals a number of core factors likely to affect a country's export performance. For example, restrictive trade policies and exchange rate policies are common factors for low exports for developing countries. This may well be applicable to the PICs, all of which are in the developing stage. In addition, inadequate trade facilitation infrastructure and problems with customs valuation present special challenges to the PICs.

Studies on countries in regions other than the South Pacific have shown that more liberalized economies tend to adjust more rapidly from primary to manufactured exports (see for example, Sachs and Warner, 1995). The study by Sekkat and Varoudakis (2002) investigating the links between trade policy reforms and share of manufactured exports to GDP on the Middle East and the North Africa region (MENA) confirmed that trade policy matters for the region's performance. In a recent study Meon and Sekkat (2004) found that for MENA countries, the deterioration in the quality of institutions was associated with low performance in terms of manufactured exports and foreign direct investment attractiveness. In another study by Achy and Sekkat (2003) examining the effect of exchange rate policy also confirmed similar outcomes.

However, one aspect that has received little attention in terms of trade performance is the effect of institutions. Studies addressing the effect of institutional quality on trade are rare. Achieving and maintaining strong institutions is an issue concerning many countries. Douglas North, the Nobel prize-winning economic historian has extensively emphasized the role of institutions in the process of economic progress (see North, 1990) while the new institutional economics, extending the range of neoclassical theory, shows that institutions are fundamental to the effective functioning of market-based economies (see for example Coase, 1998 and Rutherford, 2001). Past studies provide ample empirical support for this. For example, Sala-i-Martin's (1997) statistical growth study shows that institutional variables (the level of competition and government regulation of markets) are statistically significant. In addition, Hall and Jones (1997) following the works of Sala-i-Martin (1997) found that poor institutions reduce the amount of capital stock per worker, the amount of human capital per worker and total factor productivity of the economy. Further, Keefer and Knack (1997) in their study confirmed that economies that protect property rights, that adhere to the rule of law and whose bureaucracies are relatively competent catch up to developed nations quickly.

Governance, an essential component of the new institutional economics, is under widespread scrutiny in market based economies. It largely refers to the process by which governments are selected and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state of the

institutions that govern economic and social interactions among them (see Kaufmann, Kraay and Mastruzzi, 2004; Polidano, 2000; and Neumayer, 2002).

While achievements in good governance vary from country to country as noted in Kaufmann, Kraay and Mastruzzi (2004), the pace of improvements in governance certainly matters for integration in the world economy. Countries engaged in improving the dimensions that contribute to good governance are likely to improve their trade structure. This is particularly important for the lower and middle-income economies such as the PICs striving towards achieving higher levels of growth.

The link between institutional quality, governance and trade is an issue that requires further investigation. The literature in this area is generally scarce. However, some researchers have documented the increasing importance of institutional quality to trade and the process of economic integration. For example, maintaining a fair and efficient public sector administration, low corruption, effective law enforcement and sound regulation can aid trade. While the role of institutions and governance are yet to be formalized as part of a coherent economic theory and growth, there is a developing body of empirically established associations between institutional quality and trade and they are receiving increasing attention and are relevant to this study.

In their theoretical analysis, Anderson and Young (1999) suggest that the lack of enforcement of contracts may act as a tariff on risk-neutral traders and therefore reduce trade. Similar sentiments are echoed by Rodrik (2002) who notes that the main impediments to international trade may indeed be the problem of contract enforcement. Corruption is another element that can impact trade. Some studies conclude that high trade intensity and or small populations are associated with lower corruption levels (for example, Ades and Di Tella, 1999 and Wei, 2000).

In his study, Anderson (2001) suggested that the ill-functioning of institutions impairs foreign trade, as it increases both costs and risks of trading abroad. In a further study, Anderson and Marcouiller (2002) provide empirical evidence of the impact of quality of institutions in trade where deterioration in the quality of institutions reduces foreign demand. The study by Dollar and Kray (2002) report a positive correlation between openness and the quality of institutions noting a potential bi-directional causality between the two variables.

In addition to direct studies as noted above, institutions may also affect trade indirectly through their impact on other variables that determine trade. One core variable that is likely to affect trade indirectly is investment (see Rodrik, 1995; Elbadawi, 1998; Brunetti and Weder, 1998; Mauro, 1995 and Knack and Keefer, 1995). Another indirect channel is through productivity. Hall and Jones (1999) and Olson *et al*., 2000) note that deficient institutions impact productivity and growth and that lower productivity is an impediment to competitiveness which is likely to have negative effects on trade. Other similar studies include: Mauro (1995) on corruption and growth; Gould and Gruben (1996) on the role of intellectual property rights and economic growth; Safavian, Graham and Gonzalez-Vega (2001) on the impact of regulatory intrusion into enterprise activities;

Barro (2001) on the relationship between the rule of law and growth; Fischer *et al* (2001) on bureaucratic inefficiency and financial mismanagement; and Djankov *et al*. (2002) on the relationship between regulation of entry and corruption.

The above review suggests that for countries to fully benefit from openness strategies, the functioning of institutions and institutional quality might be crucial. The review here does provide the conceptual framework for testing such effects. The next section will discuss the analytical procedure on the basis of this conceptual framework.

V. Analytical Model and Theoretical Justification of Variables

The strategy that we employ to assess the impact of institutional quality on trade includes testing a set of standard variables that affect trade, hereby referred to as control variables and a set of explanatory variables that refers specifically to institutional quality. The relationship that we estimate is therefore represented by the following reduced form equations.

$$tx_{it} = \alpha_0 + \alpha_1 gnit_{it} + \alpha_2 rer_{it} + \alpha_3 tec_{it} + \alpha_4 tp_{it} + \alpha_5 ge_{it} + \alpha_6 rq_{it} + \alpha_7 rl_{it} + \alpha_8 cc_{it} + \mu_{it} \quad (1)$$

$$ti_{it} = \beta_0 + \beta_1 gnid_{it} + \beta_2 rer_{it} + \beta_3 tec_{it} + \beta_4 tp_{it} + \beta_5 ge_{it} + \beta_6 rq_{it} + \beta_7 rl_{it} + \beta_8 cc_{it} + \mu_{it} \quad (2)$$

$$tt_{it} = \delta_0 + \delta_1 gnit_{it} + \delta_2 rer_{it} + \delta_3 tec_{it} + \delta_4 tp_{it} + \delta_5 ge_{it} + \delta_6 rq_{it} + \delta_7 rl_{it} + \delta_8 cc_{it} + \mu_{it} \quad (3)$$

$$tt_{it} = \eta_0 + \eta_1 gnid_{it} + \eta_2 rer_{it} + \eta_3 tec_{it} + \eta_4 tp_{it} + \eta_5 ge_{it} + \eta_6 rq_{it} + \eta_7 rl_{it} + \eta_8 cc_{it} + \mu_{it} \quad (4)$$

Where, *tx* is total exports; *ti* is total imports; *tt* is total trade; *gnit* is gross national income for trading partners; *gnid* is the gross national income for the domestic economy; *rer* is the real exchange rate; *tec* is technology; *tp* is trade policy; *ge* is government effectiveness; *rq* is regulatory quality; *rl* is rule of law; *cc* is control of corruption; *i* is the country, *t* is the time period and υ is the error term. Equation (1) is the export equation; equation (2) is the import equation; and equations (3) and (4) represent total trade.

We include three separate measures of the dependent variable: the ratio of exports to GDP (equation 1); the ratio of imports to GDP (equation 2) and the ratio of total trade to GDP (equations 3 and 4). Our measures of trade control variables are per capita gross national income (domestic as well as the trading partners); the real exchange rate; technology and trade policy. We choose four measures of institutional quality: government effectiveness; regulatory quality; rule of law and control of corruption. The actual measures of each of these variables are discussed in section five. A discussion on the theoretical justification of our chosen variables follows.

The *per capita gross national income* is chosen as a control variable because an improvement and expansion of trade is essentially attracted by robust domestic economy, indicating that economic conditions are suitable for investment, production and sales (see for example, Frankel and Romer, 1999). A growing economy indicates the extent to which factors favour trade (right economic policies, rising incomes, price stability and so on). An economy, whose economic infrastructure favours production encourages

individuals to engage in creation and transaction of goods and services**,** contributes to exports and imports of goods and services and enhances trade. An economy in which income growth remains stagnant may discourage trade. We choose both the per capita gross national income for the domestic economy, *gnid*, and the per capita gross national income for the trading partners, *gnit*, as measures of income. The level of *gnid* matters more to importers while *gnit* matters more to exporters.

The *real exchange rate (rer)* is included as it is a useful general indicator of a country's international price competitiveness (Pugel, 2004). International price competitiveness is regarded as a key determinant of a country's international trade in goods and services. If the price of foreign goods and services relative to the price of domestic economy's goods and services is higher, domestic demand for imports tend to be lower and foreign demand for domestic goods and services tend to be higher. If competitiveness improves, exports increase and imports decline.

We include the *technology (tec)* variable as it is hypothesized that differences in production technologies is one of the basis of comparative advantage. Differences in technology between countries can be a basis for trade (Yanikkaya, 2003). In general, the technology explanation for trade is that countries export products in which they have relative technology advantages. The diffusion of new technology is also important in trade. Imports of capital goods that embody foreign technology increases the diffusion of new technology into a country thus improving its trading position.

We also control for *trade policy (tp)*. Trade policy can determine the degree of a country's outward or inward orientation (see for example, Yanikkaya, 2003). An outward oriented trade strategy is one in which trade and industrial policies do not discriminate between production for domestic markets and exports or between purchases of domestic goods and foreign goods. By contrast, an inward oriented strategy is one in which trade and industrial incentives are biased in favour of production for the domestic over the export market. Inward regimes are generally characterized by high levels of protection and direct controls on imports and investments. On the other hand, outward orientation links domestic economies to the world economy. Available evidence suggests that outward oriented trade policies have been more successful than inward oriented trade policies (for example, Krueger, 1978 and Edwards, 1993).

The indicator, *government effectiveness (ge),* captures the state's ability to develop and implement sound policies, efficiently deliver public goods and services, and enforce rules uniformly. Bureaucratic efficiency can promote speedy progress in trade and investment. But, governments that exert discretionary power over exporters and importers can have regressive effects on their production process and reduce the level of trade. The competence and efficiency of the civil service in carrying out governments day to day duties is essential for exporters and importers alike. For example, excessive red tape, bureaucratic inefficiency and perceptions of financial mismanagement can deter trade.

Regulatory quality (rq) refers to the extent to which government policies promote or inhibit market activity. Gausch and Hahn (1997) state that "the overall lesson is not that regulation is generally undesirable, but it often has undesirable economic consequences. Regulatory intrusion into market enterprise activities, largely dominated by exporters and importers, can lead to corruption. For example, Djankov et al (2002) in their analysis of regulation of entry found that heavy regulation of entry for firms is associated with greater corruption and larger unofficial economies. This certainly can work against the interest of those involved with the trade sector.

The rule of law (rl) addresses the interactions between citizens and the institutions that assist in governing these interactions. Institutions like the judiciary should exhibit characteristics such as fairness and efficiency in its delivery plays an important role in facilitating sound and fair observance of the rule of law, including the maintenance of law and order, limitations on government power to interfere in business activities and trading environment, and impartial enforcement of contracts. The maintenance of law and order, enforcement of contracts and a fair and predictable legal system can have important bearing on a country's overall trade. Countries that facilitate sound and fair observance of the rule of law are likely to enhance their exports, imports and total trade.

The presence of *corruption (cc)* (the abuse of public power for private benefit) in the public sector can also negatively affect economic activity (see for example, Bardhan, 1997). Corruption can allow politicians to skew government institutions in one's favour (Van den Berg, 2001). For example, honesty of the civil service workforce is an essential component and the absence of bribes; rent seeking through bribes by civil servants from private producers should directly encourage investment and trade. Tanzi and Davodi (1998) in their study of corruption note that "in cases of extreme corruption, maintenance of physical infrastructure is intentionally neglected thus allowing corrupt officials to extract additional commission for new investment projects. In such cases, if foreign investors are targeted, it would act as a deterrent for FDI. Since foreign investors also contribute to national trade, such practices can have negative effects.

VI. Data

We focus our discussion on PICs trade and institutional data. Our analytical procedure is largely dictated by data availability on core variables of concern. While long-term time series data on trade control variables are available, this is not the case for institutional variables. The measures of institutional variables are available for seven points in time (1996, 1998, 2000, 2002, 2003, 2004 and 2005). Further, not all of the sample countries have consistent series of data on the control variables, and where data is available the time span is limited. This is a major problem across several PICs with the exception of Fiji. We restrict our sample period that matches the period of published data on institutional variables, hence the sample time period here includes years 1996, 1998, 2000, 2002, 2003, 2004 and 2005.

The countries chosen are: Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu. While a number of other PICs have published data on institutional variables, they lack published data on trade and trade control variables. Hence, our choice of countries was limited to six.

We construct four different models of trade as represented by equations (1) to (4) in section four. In equation (1), the dependent variable is measured by total exports as a share of GDP. In equation (2), the dependent variable is measured as total imports as a share of GDP. In equations (3) and (4), the dependent variable is measured as total trade as a share of GDP. We distinguish between exports and imports because incomes and exchange rate movements are likely to affect them in different ways. The source of data for all of the three measures of dependent variable is the World Bank (2006) and the Asian Development Bank (2006). For Solomon Islands, the source of data was South Pacific Commission (2006).

The *exchange rate* is measured by real exchange rate index where the base year is 2000. While Fiji, Samoa, Solomon Islands, Tonga and Vanuatu have their own currencies, Kiribati on the other hand has adopted the Australian dollar. Hence, for Kiribati, we use the real exchange rate index for the Australian dollar where the base year is 2000. The source of data for the real exchange rate index is International Monetary Fund (2005).

The *domestic income* is measured by gross national income per capita in US dollars. The source of data is the World Bank (2006).

The *foreign income* is measured by gross national income per capita in US dollars for the major trading partners. Our scanning of trade partner statistics revealed that Australia, Japan or United States of America are one of the main trading partners of the six selected countries. Hence, we measure the foreign income as the average gross national income per capita of these three major trading partners. The source of data for this variable is the World Bank (2006).

The *trade policy* is measured by average applied tariff rates. With the exception of Kiribati and Tonga, statistics on average applied tariff rates was available for the other four countries. We used the developing country average applied tariff rates for Kiribati and Tonga. The source of data was the World Bank (2006).

The *technology variable* is measured by mobile telephone diffusion rate. This is the mobile telephone users per 1,000 people in a given country in a given year. The source of data for this variable is the World Bank (2006).

Four measures of institutional quality are chosen: the *rule of law*, *government effectiveness*, *regulatory quality* and *control of corruption*. The source of data for these indicators is the World Bank (2006). These authors also provide a comprehensive discussion of their data sources, measures and interpretation of the scores for each of these core variables.

VII. Estimation Procedure, Empirical Results and Discussion

The estimation methodology adopted here incorporates pooled data. Because of the number of observations restricting the number of degrees of freedom, the procedure of a pooled analysis of time-series cross section data is employed as it is most appropriate given the nature of the data that is available. As such a total of 6 countries and 4 time periods are used for the pooled of analysis. We utilize two separate estimation procedures: the fixed effects estimation and the fixed effects corrected for AR(1) errors.

As mentioned above the time series observation for all the countries is pooled and the regression coefficients are obtained by ordinary least square (OLS) method of estimation. While our sample of countries falls in the same geographical latitude and with somewhat similar economic structures, the trading structure differs from one country to another. For example, the trading environment of Fiji is significantly different to that of Kiribati. Our estimation procedure takes into account of such differences. Hence, we recognize the cross-country differences by allowing different intercepts in the estimation process. Cross-country variables are included as regressors and the equations are estimated, hence, the fixed effects model.

Tables 6 and 7 present the empirical results. An important concern with the use of panel data is the issue of hetroskedasticity. We account for this in our estimation phase. The results in Table 1 report the Lagrangian Multiplier statistics for testing the cross-section hetroskedasticity. The results report the Breusch-Pagan Lagrange multiplier statistic for a test for a diagonal covariance matrix. This means no cross-section correlation. We first consider the estimation results for the fixed effects model (Table 6). A separate dummy variable is included for each country. We utilize a no-constant option in our estimation procedure so as to avoid the commonly known dummy variable trap. Based on the estimated residuals, our test statistics for cross-section heteroskadasticity is 3.22 for exports, 10.33 for imports; and 2.98 and 2.19 for total exports respectively. For exports and total trade, this is insignificant. We also test the null hypothesis of equality of the country intercepts against the alternative hypothesis of some differences. The F-test statistic is low giving strong evidence to reject the null hypothesis.

Overall, while our results in Table 6 do present several expected effects, our estimation results also suggest autocorrelated errors within the cross-sections. Thus, we correct for the AR (1) errors while still utilizing the fixed effects model. We also obtain the hetroskedasticity consistent standard errors using the Beck and Katz (1995) procedure. The results are presented in Table 7. We focus our discussion of results as per estimates presented in Table 7.

Table 6. *Panel Corrected Standard Errors (Fixed Effects) Model.*

Variable	Export Equation (1)	Import Equation (2)	Total Trade Equation (3)	Total Trade Equation (4)
Per capita GNI (Trading partner)	-0.002 (0.909)	…	-0.004 (1.177)	
Per capita GNI (domestic)	…	-0.009 (2.881)*	…	0.012 (1.689)***
Real exchange rate	0.052 (0.290)	0.163 (2.007)*	0.202 (0.979)	0.091 (0.467)
Technology	0.035 (1.593)	0.013 (1.862)***	0.052 (2.298)**	0.025 (1.176)
Trade Policy	-0.579 (0.742)	-1.658 (3.414)*	-1.501 (1.868)**	-0.277 (0.239)
Government effectiveness	-6.470 (0.608)	3.199 (0.995)	-9.646 (0.862)	-3.915 (0.462)
Regulatory quality	11.480 (1.382)	9.274 (2.551)*	20.460 (2.260)**	11.139 (1.237)
Rule of law	-16.040 (3.324)*	7.755 (2.697)*	-3.665 (0.609)	-1.500 (0.229)
Control of corruption	17.371 (2.317)*	-6.389 (2.092)*	14.496 (1.823)***	17.441 (2.697)*
Cross-section intercepts				
D1	139.85 (1.440)	100.43 (7.445)*	251.10 (2.305)**	90.281 (2.580)*
D2	130.90 (1.402)	99.949 (7.757)*	242.86 (2.316)**	89.540 (2.645)*
D3	134.32 (1.413)	88.203 (7.334)*	236.67 (2.222)**	84.300 (2.561)*
D4	144.37 (1.487)	87.527 (7.326)*	245.09 (2.248)**	90.552 (2.740)*
D5	141.31 (1.357)	85.982 (7.554)*	242.93 (2.074)**	79.641 (2.547)*
D6	159.80 (1.361)	85.604 (7.348)*	263.43 (2.013)**	79.443 (2.486)*
R-square	0.33	0.81	0.56	0.57
LM (heteroskedasticity)	15.95	7.99	4.75	4.10
B-P LM	3.28	19.50	13.28	14.07

… indicates variable not estimated.

*, **, and *** indicates significant at the 1, 5 and 10 percent levels respectively.

Table 7. *Panel Corrected Standard Errors (Fixed Effects) Model Corrected for AR(1) Errors* .

Variable	Export Equation (1)	Import Equation (2)	Total Trade Equation (3)	Total Trade Equation (4)
Per capita GNI (Trading partner)	-0.003 (1.054)	…	-0.005 (1.349)	…
Per capita GNI (domestic)	…	-0.008 (2.997)*	…	0.013 (1.787)***
Real exchange rate	0.037 (0.231)	0.159 (2.714)*	0.195 (1.043)	0.087 (0.479)
Technology	0.032 (1.477)	0.009 (1.568)	0.049 (2.224)	0.022 (1.078)
Trade Policy	-0.836 (1.066)	-1.576 (3.575)*	-1.818 (-2.211)*	-0.465 (0.399)
Government effectiveness	-7.747 (0.722)	3.091 (1.122)	-11.229 (0.999)	-3.916 (0.469)
Regulatory quality	12.469 (1.453)	8.832 (3.148)*	21.908 (2.377)*	10.796 (1.191)
Rule of law	-16.665 (3.422)*	8.249 (3.072)*	-4.372 (0.724)	-2.053 (0.306)
Control of corruption	18.450 (2.423)**	-5.485 (2.057)**	15.390 (1.936)*	18.020 (2.817)*
Cross-section intercepts				
D1	157.63 (1.657)***	97.677 (7.845)*	273.43 (2.550)**	93.036 (2.641)*
D2	148.40 (1.620)***	96.507 (8.032)*	264.25 (2.559)**	91.700 (2.683)*
D3	152.06 (1.633)***	84.786 (7.425)*	258.16 (2.466)**	86.543 (2.612)*
D4	162.74 (1.708)***	84.968 (7.501)*	267.69 (2.499)**	93.156 (2.806)*
D5	160.54 (1.576)	83.958 (7.634)*	266.41 (2.319)**	82.431 (2.626)*
D6	180.43 (1.572)	82.728 (7.200)*	288.74 (2.248)**	81.573 (2.521)*
R-square	0.34	0.85	0.58	0.58

… indicates variable not estimated.
*, **, and *** indicates significant at the 1, 5 and 10 percent levels respectively.

Tables 6 and 7 report the empirical results of the fixed effects model and fixed effects model corrected for AR(1) errors respectively. The estimates obtained seem satisfactory given the data limitations among the Pacific Island countries chosen in this study. The explanatory power ranges from 0.33 to 0.85 and is considered highly satisfactory given the use of panel data. Several variables show the expected sign and some are statistically significant.

Equations (1) to (4) are estimated. In the export equation (equation 1), we include the per capita income of the trading partners where as in the import equation (equation 2) we replace this with the per capita income of the domestic economy. Equations (3) and (4) are total trade equations and we test for both, the per capita income of trading partners (equation 3) and the per capita income in the domestic economy (equation 4). The results involving the fixed effects model corrected for AR(1) errors (Table 7) reveal that the coefficient of institutional indicators with the expected positive signs in most of the equations and, thus, consistent with our *a priori* expectations.

Starting with institutional variables, g*overnment effectiveness* matters more to importers than exporters. In the export equation, the coefficient has a negative sign although statistically insignificant. In the import equation government effectiveness has a positive coefficient but statistically insignificant. The results of the import equation means that an improvement in government effectiveness is weakly associated with increased imports.

The *regulatory quality* variable is positive across all the equation and the sign obtained for the coefficient is consistent with our a priori expectations. While it is statistically insignificant in the export, the coefficient is statistical statistically significant at the 1 percent level for the import equation. Similarly, it is positive and statistically significant at the 1 percent level (equation 3) when total trade is taken into account. The results for the regulatory quality variable suggest that improved regulatory environment is essential as it positively facilitates increased levels of trade.

The *rule of law* variable has a negative and statistically significant (at the 1 percent level) coefficient for the export equation. The same effect is also shown once total trade is taken into account, however, the coefficient remains statistically insignificant. Interestingly, the coefficient of rule of law is positive and statistically significant at the 1 percent levels for the import equation. One reason for the low levels of significance when total trade is considered is that a number of Pacific Island countries (Fiji, Solomon Islands and Vanuatu) had poor scores for the rule of law indicator of institutional quality. For example, Fiji since 1987 coups has seen deterioration in its law and order situation. This further deteriorated after the attempted putsch of 2000 and likely to deteriorate further given the December 2006 military takeover of the government. In the Solomon Islands the civil war has led to a serious break down in the law and order situation. Vanuatu did not have major political or civil strife but the institutions governing law and order have been weak. The results obtained here certainly suggest that

the deterioration in rule of law seems to be strongly working against improved exports for the Pacific Island countries.

The *control of corruption* variable has the expected positive coefficient for exports and total trade and negative for imports. In all cases the coefficients are statistically significant. The negative coefficient for imports is not surprising. Its shows the presence of corruption tends to reduce imports. One possible outcome is that corruption adds more to the costs of importers and the possibility of bribery and kickbacks at ports of entry for clearance of goods is likely to eventuate. Thus, importers welfare is worsened.

Turning to the trade control variables, the results obtained are more robust. The level of *income* in three of the four equations has a negative coefficient. We expected a positive coefficient for this variable meaning that if a country's trading partners income levels rise, they will increase their demand for goods produced in that country, thereby raising its exports. Our results do support this line of contention only for total trade where income is measured by domestic per capita income.

The *real exchange rate* variable has a positive but statistically insignificant sign on its coefficient for all except the import equation, inconsistent with our a priori expectations. The results of the do not provide any strong confirmation that the appreciation of exporter's currency enhances overall trade.

We obtain highly robust results for the *technology* (total trade) and *trade policy* variable (imports and total trade). The results of the technology variable provide support that higher levels of technological diffusion are vital for improved trade. The results of the trade policy variable confirm that gradual trade liberalization through tariff reduction strongly facilitates more trade.

VII. Conclusion and Policy Recommendation

This paper investigated the determinants of export, import and total trade including both traditional explanatory variables and a set of indicators of institutional quality. Four indicators of institutional quality are chosen: government effectiveness, rule of law, regulatory quality and control of corruption; for six Pacific Island countries: Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu. Our results of fixed effects model controlling for AR(1) errors provides evidence that improvements in government effectiveness is associated with increased imports; improved regulatory environment positively facilitates increased levels of trade; deterioration in rule of law seems to be working against improved exports for the Pacific Island countries; presence of corruption tends to reduce imports; appreciation of exporter's currency does not significantly harm trade; higher levels of technological diffusion are vital for improved trade; and living with the WTO principles of trade liberalization and becoming more outward oriented strongly facilitates more trade.

Our results support the proposition that institutional quality is an integral part of enhancing trade for a country. Generally we can conclude from the results that Pacific Island countries have problems with the institutions that support or facilitate trade. It is also in keeping with trends we have seen in these countries over the last ten years. Exports in all the six countries have not been increasing and in some cases the exports have actually declined. In the case of Fiji, trade deficit has been continually rising with exports declining over the last 5 years.

Over the last decade Pacific Island Countries have generally pursued an outward-oriented export led growth strategy. However, the results from this policy approach, has been disappointing to say the least. Attempts to raise investment in key export sectors in these countries have not been successful. Many of the countries including Fiji have provided standard financial incentives such as tax free status to export industries. Many developing countries in other regions have also grappled with the lack of investment in areas which support export and trade in general. There is now increasing realization that institutional factors may be the missing link. As discussed earlier, there is more research today informing countries that they ought to improve the institutional environment to enable the growth of trade and investment.

This study clearly points out that the institutional quality in the selected countries is a significant factor in determining the level of trade. From a policy perspective, PICs would need to go beyond the study of various types of institutions to the quality of these institutions if they are to increase their export potential. It is no secret that PICs face competition from many countries which are at similar levels of development for investment and trade. It is therefore imperative for PICs to look for that marginal competitive edge to separate themselves from many others who face similar difficulties. Improving institutional quality, especially those which are required to facilitate trade and investment, may provide this edge.

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	Fiji	Kiribati	Samoa	Solomon Islands	Tonga	Vanuatu
Sugar	20.1	0.0	0.0	0.0	0.0	0.0
Gold	6.8	0.0	0.0	0.0	0.0	0.0
Molasses	0.6	0.0	0.0	0.0	0.0	0.0
Coconut oil	0.4	0.0	0.0		0.0	0.0
Fish	4.4	2.8	0.0	26.0	6.2	0.0
Garments	14.3	0.0	0.0	0.0	0.0	0.0
Textile, Yarns	0.0	0.0	0.0	0.0	0.0	0.0
Copra	0.0	3.0	0.0	5.0	0.0	7.7
Seaweed	0.0	2.1	0.0	0.0	0.0	0.0
Shark Fin	0.0	0.1	0.0	0.0	0.0	0.0
Beer	0.0	0.0	0.9	0.0	0.0	0.0
Coconut cream	0.0	0.0	0.6	0.0	0.0	0.0
Taro	0.0	0.0	0.3	0.0	0.0	0.0
Cocoa	0.0	0.0	0.0	0.0	0.0	1.0
Timber	0.0	0.0	0.0	92.3	0.0	1.0
Squash	0.0	0.0	0.0	0.0	7.1	0.0
Vanilla Beans	0.0	0.0	0.0	0.0	0.3	0.0
Beef	0.0	0.0	0.0	0.0	0.0	2.7

SITC	Fiji	Kiribati	Samoa	Solomon Islands	Tonga	Vanuatu
Food and live animals	1.6	2.3	19.3	28.8	13.5	19.3
Beverage and tobacco	0.1	0.0	1.4	0.0	14.1	3.9
Crude materials excluding fuels	0.1	0.0	3.1	74.8	11.4	1.7
Mineral Fuels etc	1.5	0.0	17.8	0.1	19.3	13.1
Animal, vegetable oils and fat	0.1	1.5	2.4	0.0	0.6	0.5
Chemicals	0.9	0.0	8.1	0.0	4.9	10.9
Basic manufactures	2.2	0.0	31.1	0.0	0.8	14.4
Machines, transport equipment	2.5	0.0	23.8	0.0	15.3	21.4
Miscellaneous manufactured goods	1.1	0.0	14.5	0.0	4.1	10.3
Unclassified goods	0.1	1.4	0.0	6.1	9.0	3.0