Assessing Trade flows of Melanesian Pacific Island Countries: An Implication on the Regional Trade Agreement

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Abstract

This paper assesses bilateral trade flows among Melanesian Spearhead Group members. The guiding framework is thin and thick bilateral trade relationship. Fiji is a dominant trade market for other member countries. The ratification of the regional trade agreement must not dilute comparative advantage of other trading partners. A heterogeneous trade cost and commodity evaluation of the Melanesian trading group will provide further insight into the implementation of the Melanesian Spearhead Group Free Trade Agreement.

1.0 Introduction

The early trading was centered around mercantilism with the motive of promoting exports and compressing imports in an effort to strengthen the wealth of nations. In this era, there was strong flow of trade between the power nations and its colonies – raw materials transported to industries (power) nation for colonies for value adding. The influential ideas of Adam Smith and David Ricardo advocated free trade and urged nation states to desist from regulating foreign trade to strengthen production and maximize the welfare of nations. The demise of mercantilism system was replaced by liberalism and free trade. The argument for free trade rests on three fundamental concepts; (1) national wellbeing is improved with greater accessibility to goods and services thus, imports are essential for expanding national consumption (imports are as important as exports), (2) importance of exports is only realized upon purchasing products to consume (exports are desirable because they pay for imports) and (3) free trade leads to a positive sum activity (Pugel, 2016).

It is a challenging task to validate determinants that influence trading between nations. The nations are sovereign and have unique resource composition. With whom do the nation's trade? What commodities are traded among nations? Are there preferred trading partners? The response to these questions is different for nations as one shoe does not fit all. Factors that assist in explaining why nations trade are: theory of absolute advantage, comparative advantage, factor availability and

proportion, market structures, product differentiation and economics of scales (Pugel, 2016). One of the key variables in ascertaining trade flows between nations has been distance. Numerous past literatures have explored on proximity of trade using gravity model. The verdict of the study being that distance is highly significant variable in trade flows.

In light of globalization and advanced logistics, the proximity issue of trading has been undermined. It has been argued that the trading partners need not worry about proximity issue due to advancement in transportation. However, Anderson and Wincoop (2004) argued otherwise that the ignorance of trading distance has been exaggerated and trade costs are larger even for highly integrated economies and higher than trade barrier costs. They specified that trade costs matter on the basis; trade costs are large; trade costs are linked to economic policies and trade costs have large welfare implications.

The Melanesian region includes four independent nations namely; Fiji Islands, Papua New Guinea, Vanuatu and Solomon Islands. Fiji Islands gained independence in 1970 and there has been ethnic tension in the country. The country has approximately 0.9 million people. The economy relies on tourism and remittance with other supplementing export commodities like mineral water, sugar, gold and garments. The economy is worth US$4.94 billion with a debt level of 83%. Foreign investment is screened and investment in land is restricted (The Heritage Foundation, 2023). Papua New Guinea gained independence in 1975 and has approximately 9 million people speaking more than 840 languages. Papua New Guinea is richly endowed with natural resources (that has led to many years of civil war) with its small formal sector focusing on exports of gold, copper, oil and natural gas. The economy produces US$24 billion value of goods and services with a 50.9% public debt and the most recent available inflation rate is 4.5%. Furthermore, the country has an overall weak rule of law, property rights score is below world average and regulatory frameworks remains poor (The Heritage Foundation, 2023).

Vanuatu has a population of 0.3 million and had gained independence in 1980 from British – French administration. The country has a GDP of US$0.98 billion, 48.2% debt level, known inflation rate of 3% and relatively well-respected rule of law with property rights score above the world average. There is very limited banking service available to rural adults restricting access to

finance (The Heritage Foundation, 2023). The Solomon Islands was a colony of The United Kingdom until 1976 and the country has witnessed years of ethnic violence. The country is rich in timber and has untapped mineral resources like lead, zinc and nickel. The population is heavily dependent on subsistence farming and fishing. The country has 0.7 million population with US$1.7 billion worth of goods and services produced. The public debt is 16.5 percent of GDP with under developed labor market and weak monetary stability (The Heritage Foundation, 2023).

The research problem evolves on the baseline that trade flows are vulnerable to distance and trade costs. Greater remoteness between trading partners impose larger trade costs. High trade costs effectively isolate countries from the world market and has implication on both the demand and supply side. On the demand side, consumers are not able to take advantage of competitively prices goods from abroad while firms cannot access high quality foreign inputs or exports to overseas market (WTO, 2015). Pacific Island Countries economic size and remoteness erodes comparative advantage and disadvantage trade flows. On the other hand, trade agreements, on case by case basis, escort higher trade flows between bilateral partners. The Melanesian Spearhead Group Trade Agreement has been ratified with the viewpoint of trading bloc. This research aims to assess the trade flows among MSG members using trade performance indicators (how much trade is being shared among MSG members?) The findings will provide insights into regional integration via Regional Trade Agreement.

2.0 Literature Review

In early literature, it has been well established that distance is a strong determinant of the intensity of the trade flows that occur between nations; nations that are geographically closer will tend to trade relatively more than nations that are far apart (Beckerman 1956; Ullman1956; Smith 1964; and Linneman 1969 as cited in Srivastava and Green, 1989). One of the well renowned studies on determinants of trade was done by Linneman (1966) regressing trade flows between 80 nations and the study concluded that variables with the greatest explanatory powers were; Gross National Product (GNP) and distance. The other variables were significant however with limited influence. The association between GNP (economic size) and trade flow is very obvious, there is tendency for larger nations to trade with larger nations (Srivastava and Green, 1986).

The standard gravity equation framework yields single coefficients to assess the trade effects of possible trade costs proxies – such as bilateral distance, dummy variables for regional trade agreements, World Trade Organization membership, etc. Thus, characterized by constant trade cost elasticity whereby trade effects are homogeneous across all country pairs. Most of the prior research have exploited trade flow effects via gravity model. Anderson and Wincoop (2003) provided a theoretical refinement of the traditional gravity model (henceforth, "theory-based" gravity model) to include multilateral trade resistance variables. The findings favor rich relationship between domestic and international trade costs, market structure and political economy. Nevertheless, they recommended; estimates based on the structural gravity models can be improved, possible extension of existing gravity models, better treatment of aggregation and endogeneity problems and better estimates of substitution elasticities are all likely to improve our understanding of trade costs.

On the other hand, Jack, Meissner and Novy (2008) derive trade costs from gravity model. They use log-linear versions of typical gravity by substituting an arbitrary trade costs function. The determinants in the log-linear model of trade costs include logarithm of distance between two countries, the log product of each country pair's ratio of customs revenue to total imports, bilateral nominal exchange rate volatility, an indicator variable for whether the two countries had a fixed exchange rate with one another and an indicator for whether the two countries were in the British Empire. Jack, Meissner and Novy (2010) derive a micro-founded measure of aggregate bilateral trade costs that is consistent with leading theories of international trade. They built on Head and Ries (2001) ideology to obtain measure by backing out the trade costs wedge that is implied by the gravity equation. The wedge captures the difference between observed trade flows and hypothetical benchmark of frictionless trade therefore inferring trade costs from trade flows. The gravity model of international trade is very much applicable now as it was in the past and the model has been theoretically and empirically valid (Jack, Meissner and Novy, 2010).

Higher trade costs hinder the ability of countries especially Landlocked Developing Countries and Small Island Developing States, to fully exploit market aspects prospects presented by multilateral trading system (UNESCAP, 2015). Trading opportunities are lost to competitors with lower trade costs and the comparative advantage is diluted by rendering their export uncompetitive. Pacific

Island Countries (PICs) trade pattern and performance reveal that they have largely followed their comparative advantage which is intrinsically linked to their sizes and remoteness and are highly concentrated in the narrow economic base whereby nearly two-third of PICs exports are primary products (agriculture and natural resources) (Chen, *et al*., 2014). Furthermore, remoteness inflates the cost disadvantage by making transportation expenses, particularly with fragmentation of production process that require frequent and timely trade in of intermediate goods. World Trade Organization (2015) acknowledged that small island developing states remain relatively marginalized from the global trading as a result of high trade costs.

The Asian Development Bank report (2008) highlighted that a trade agreement between PICs and developed countries would be welfare enhancing as the risks of trade diversion outweighing trade creation effects are much less likely. The report goes on to state that the future of Pacific trade lies in the niche markets whether in tourism, ICT -related services, labor services, manufactured goods, or even agriculture. Trading integration among Asia and the Pacific has continued to deepen in areas including new technology and digital connectivity, environmental cooperation, trade linkages, investment, and value chain participation (ADB, 2022). Chen, *et al.* (2014) highly recommended for trade integration among PICs to create economic prosperity.

The Pacific Island Countries are less competitive in manufacturing and services sectors (tradeable services involving back office processing) due to limited infrastructure and need for human capital development. Winters and Martins (2004) added that PICs have absolute disadvantage across industries due the economic size. Gani (2010) used gravity model to estimate trade flow using time series cross country data for period of 1981-2005. The findings revealed that distance is a friction to PICs trade with USA. Chen, *et al.* (2014) in the gravity model specification on Pacific Island Countries used dummy variables for same preferential trade agreements and colonial ties in addition to economic size and distance. The regression findings identified remoteness (distance) as a barrier while preferential trade agreements and colonial ties supported trade flows in the Pacific. Though trade barriers have decline substantially in the Pacific, high trade costs due to poor logistics, bureaucratic regulation and weak instructions have remained constraint to potential benefit from trade agreements (Maiti and Kumar, 2016).

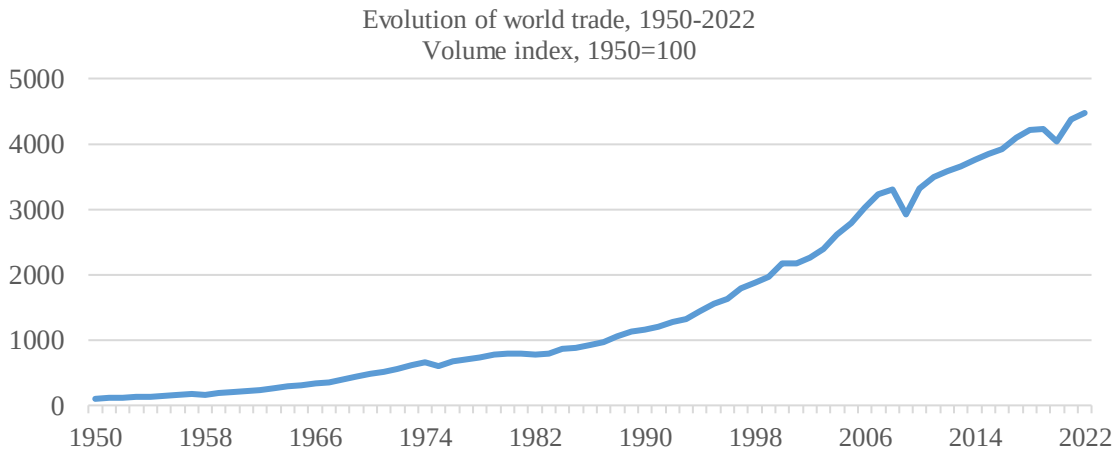
3.0 Discussion

The discussion section is divided into sub-topics; trade flows and trade openness and bilateral trade flows among MSG member.

3.1 Trade Flows and Trade Openness

In the last seventy years global trade flows have grown to an unprecedented level facilitated by lowering of tariffs and creation of a shared set of rules (Asia Society, 2023). The Asia Pacific region has been at the forefront of the remarkable growth, with trade volumes nearly quadrupling in the last twenty years (Asia Society, 2023). Furthermore, the trading paradigm has shifted from trading of final goods to intermediate goods with assembly of products in a host country, thus, products are 'Made in the world'. The World Trade Organization (2023) reported that the world trade volume is roughly 45 times the level recorded in the early days of the GATT (4500% growth from 1950 to 2022 –Figure 1) while trade value has rose by almost 400 times from 1950 levels. Ortiz-Ospina, Beltekian and Roser (2018) attributed last century trade growth to globalization (integration of national economies).

Figure 1: Evolution of World Trade, 1950 -2022, Volume Index, 1950 =100



Source: The World Trade Organization (2023)

In light of the growing trade, many nations have opted for trade agreements and trading blocs to escort trade growth. Trade agreements facilitate loosening of trade barriers among member countries. One such trading bloc is the Melanesian Spearhead Group. The Melanesian region

includes four independent nations namely; Fiji Islands, Papua New Guinea, Vanuatu and Solomon Islands.

The Melanesian Spearhead Group (MSG) was established during an informal meeting in 1986. The group initially advocated for entire decolonization and freedom of Melanesian countries and territories which were under colonial rules (MSG Secretariat, 2021). On 14th March 1988, Papua New Guinea, Solomon Islands and Vanuatu signed The Agreed Principles of Cooperation among independent states in Melanesian (MSG Secretariat, 2021). Fiji Islands joined as a member in 1996 with conclusion of MSG Trade Agreement (MSGTA). Thus, the MSG was transforming into a regional trading block with the trade agreement. The MSGTA was revised to MSGTA2 and adopted by Fiji, Solomon Islands Papua New Guinea and Vanuatu in 2005. The architectural work on the MSGTA3 (Melanesian Free Trade Agreement -MFTA) started in 2011 and negotiation began in 2013 (MSG Secretariat, 2021).

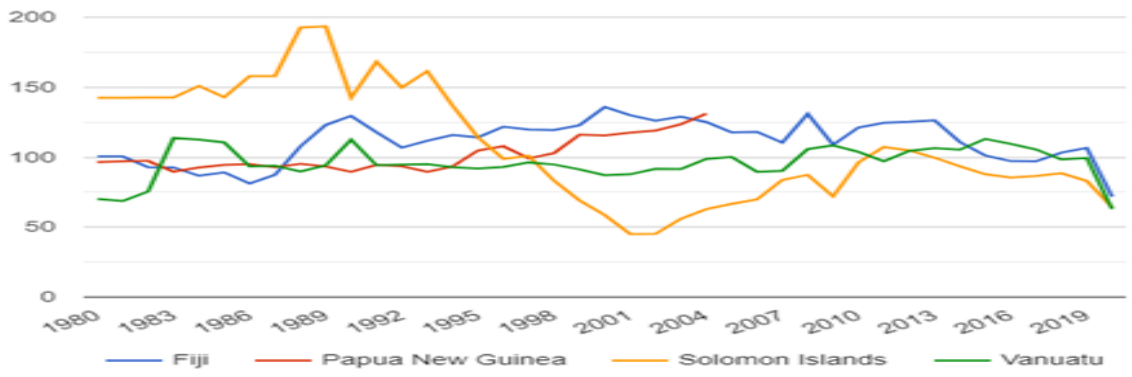
The proposed changes in MSGTA3 are: *cross border investment* (promote fair and equal treatment of foreign (MSG) investors and investments in other MSG countries. The host country decides on sector development that can be financed by foreign sectors), *labor mobility* (facilitate movement and engagement of skilled MSG workers for temporarily employment in MSG countries, each country submit a schedule in the MFTA outlining the applicable profession and qualification), *trade in services* (opportunities for trade in service) and *trade in goods* (allow free trade on products traded within the MSG countries with exception of sugar, salt and mackerel products subject to meeting the rules of origin criteria).

Trade openness highlights the strengthen of a country's trade relation with the outside world (extent a country is engaged in global trading system). Trade and market openness have a strong correlation with better economic performance whereby relatively open economies grow faster than relatively closed ones (OECD, n.d.). Trade openness benefits the firms by providing access to bigger markets, allowing them to increase the scale of their production, encouraging market competition, innovation and movement of technology (OECD, n.d.).

Figure 2 reveals that the MSG members are highly open to global trading environment. The world average for trade openness is 99.14 percent based on 133 countries. Fiji has an average of 110.42 percent for period 1980 to 2022 with a minimum of 71.71 in 2020 (Covid 19 pandemic) and maximum of 1135.9 in 2000 (The Global Economy, 2023). Political unrest and natural disasters have shaped the fluctuations in the trend for Fiji Islands. On the other hand, Papua New Guinea has average value of 87.74 for period 1961 to 2004 with minimum of 44.13 percent in 1962 and maximum of 131.08 percent in 2004. The world average based on 169 countries in 2004 was 86.41 percent (The Global Economy, 2023). Papua New Guinea has been characterized by ethnic tensions over natural resources and disregard for law (Reilly, 2008).

Furthermore, 106.36 percent is the average for Solomon Island for the period 1980 to 2022. The minimum of 45.11 percent was in 2001 with maximum of 193.46 percent in 1989 (The Global Economy, 2023). The trend has been highly volatile given that in the late 1998, the existing ethnic tension had escalated and in the year 2000 the Malaita Eagle Force had staged a Coup overthrowing the Prime Minister (The Regional Assistance Mission to Solomon Islands, n.d.). The effects of the ethnic tension have immensely affected the ability of Solomon Island participation in the global trading however, the average score is still above the world average of 99.14. There are two sharp decreases from 1993 onwards till 2001. Vanuatu has an average of 94.55 with a maximum of 113.67 in 1983. Vanuatu has a fairly smooth trend graph.

Figure 2: Trade Openness: Fiji Islands, Papua New Guinea, Solomon Islands and Vanuatu, 1980 - 2020



Source: The Global Economy (2023)

3.2 Trade Flows of Melanesian Spearhead Group Members

Table 1: Average Value of Melanesian Spearhead Group Trade, 2000 - 2018 (US$)

	(Exports)				
Imports		Fiji Islands	PNG	Solomon Islands	Vanuatu
	Fiji Islands	n/a	3,033,353	1,904,571	3,591,059
	PNG	12,296,842	n/a	1,485,667	1,959,000
	Solomon Islands	10,194,286	9,617,778	n/a	1,079,667
	Vanuatu	22,895,294	3,380,000	695,500	n/a

Source: The Observatory of Economic Complexity (2023)

Fiji has a strong outflow of trade with all the MSG members, highest with Vanuatu. A probable factor for Fiji's strong export is well established ports that facilitates re-exports. Papua New Guinea has a large export share in Solomon Islands while Fiji Islands is favored export market for Solomon Islands and Vanuatu. Furthermore, the import share of Fiji is lower than the export share of all its MGS trading partners. It can be argued that Fiji has options of trading with substitutes markets relative to MSG countries. Unlike, the other three MSG countries that rely heavily on Fiji for importation. A MSG trade agreement will further escort Fiji's export share and at the same time increase commodities available in trading partners. However, trading partners will need to caution not to forgo their prevailing comparative advantage. Thus, negotiations among MSG members will be crucial for unified growth of the Melanesian region.

Fiji's trade balance has been deficit from 1960 till 2020 with the exception of surplus balance in 1963 (Fiji Bureau of Statistics, 2020). Furthermore, Fiji's principal domestic exports are Mineral Water, Sugar, Gold and Garments. The major export destinations are United States of America (Mineral Water and Tuna), Australia (Gold and other medicament), New Zealand (Molasses and other medicament), United Kingdom (Sugar and Mineral Water) and Vanuatu (Corned meat of bovine animals and prepared or preserved mackerel) (Fiji Bureau of Statistics, 2020). Out of all the total imports, approximately 83 percent is retained while the remainder 17% is re-exported by Fiji Islands. The major retained imports are Mineral fuels, machinery and equipment and vegetable

products. The major import partners for Fiji are Singapore (fuel and aeroplane parts), Australia (oil, aeroplane parts) and New Zealand (cement clinker and butter) (Fiji Bureau of Statistics, 2020).

Papua New Guinea's main export commodities are gold, oil, copper, coffee, cocoa, vegetable oil, fish and wood. The main export partners are Australia (37 per cent share worth US$1.62billion), Japan (12 per cent share valued at US$528 million) and Germany (7.23 per cent share valued at US$318 million) (Trading Economics, 2023). Papua New Guinea's imports by category in descending order are; machinery, nuclear reactors and boilers, mineral fuels and oils and vehicles other than railway and tramway. Furthermore, 35 per cent of Papua New Guinea's import is from Australia valued at US$2.87 billion followed by 14 per cent from Singapore valued at US$ 1.19 billion and 7 per cent from China worth US$ 575m (Trading Economics, 2023).

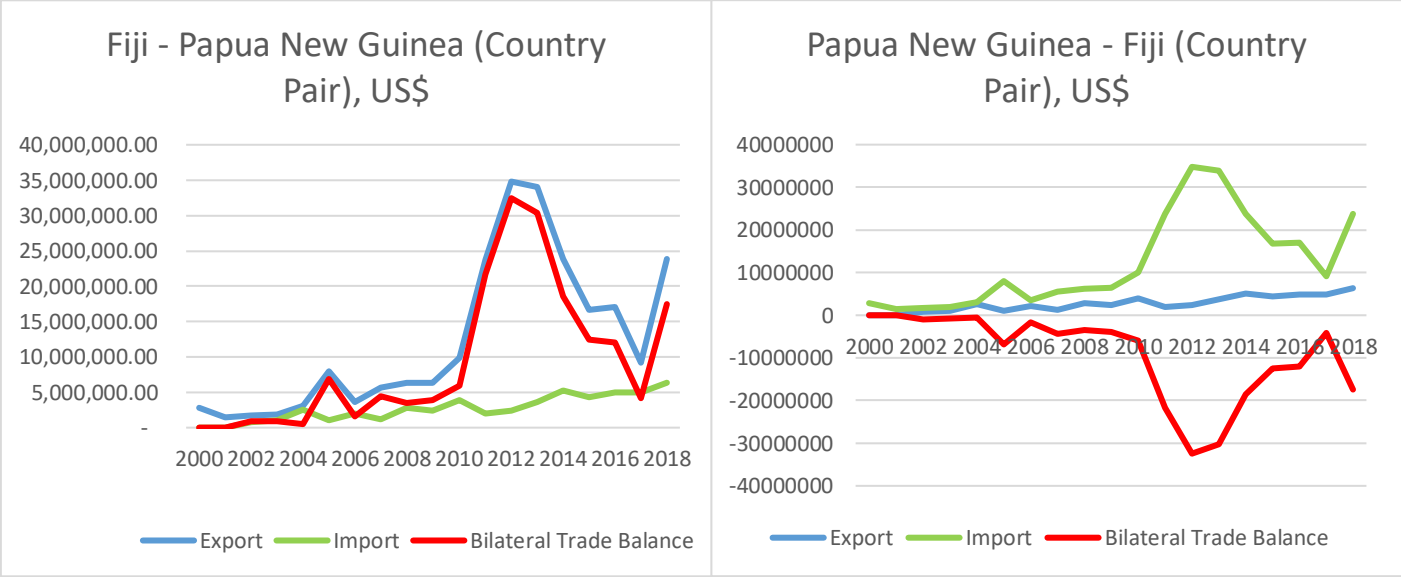
The top exports of Vanuatu in 2021 were; Non-fillet Frozen fish (US$ 114M), Special purpose ships (US$82.6m), Passenger and cargo ships (US$22.6m), perfume plants (US$13.1m) and Molluscs (US$8.25m). The main export destinations were Thailand (US$145m), Japan (US$48.2m), South Korea (US$15.8m) and China (US$11.2m) (The Observatory of Economic Complexity, 2023). On the imports, Vanuatu imported Refined petroleum (US$43.4m), Fishing ships (US$12.5m), Poultry meat (US$11.7m) and Sawn wood (US$7.76m) mostly from China (US$87.6m), Australia (US$53.9m), New Zealand (US$51.3m), Fiji (US$29.1m) and Singapore (US$23.4m) (The Observatory of Economic Complexity, 2023). In 2021, Solomon Islands main exports had been rough wood, processed fish and palm oil. The main export markets were: Chain, Italy and India. The imports compromise of refined petroleum, scrap iron and noon-fillet frozen fish and the dominant markets are: China, Singapore and Australia (The Observatory of Economic Complexity, 2023).

In analyzing the bilateral trade shares among country pairs, it is apparent that one country will dominate the export share over import share and vice –versa. The framework on flexible trade cost as proposed by Chen and Novy (2021) suggest thick and thin bilateral trade relationship on the basis of bilateral import share. A country with small bilateral import share (thin trade relationship) suggests that the importing country has potential to import from other trading partners (substitutes are available) thus, greater change in trade flow for a given change in trade costs. On the other

hand, large import share (thick trade relationship) reveals heavily reliance of the import partner on the host country. The change in trade flows is very limited for a given change in trade costs.

Figure 3: Bilateral Trade Flows between Melanesian Country Pairs, 2000 – 2021, (US$)

Panel A: Fiji Islands and Papua New Guinea

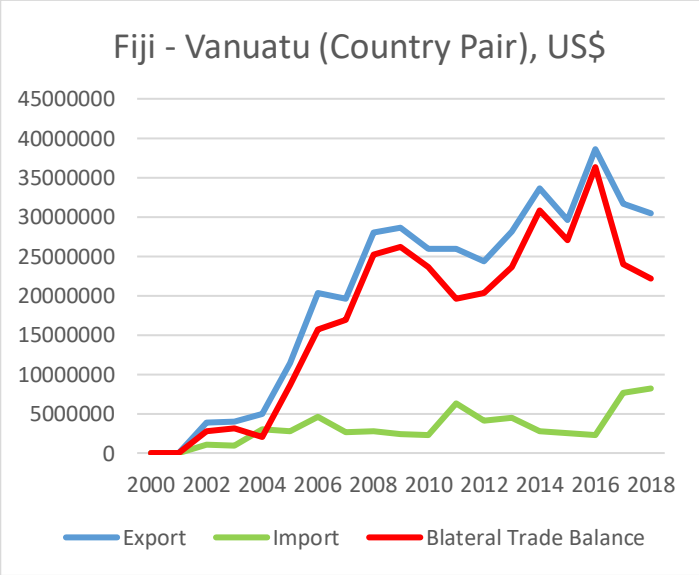


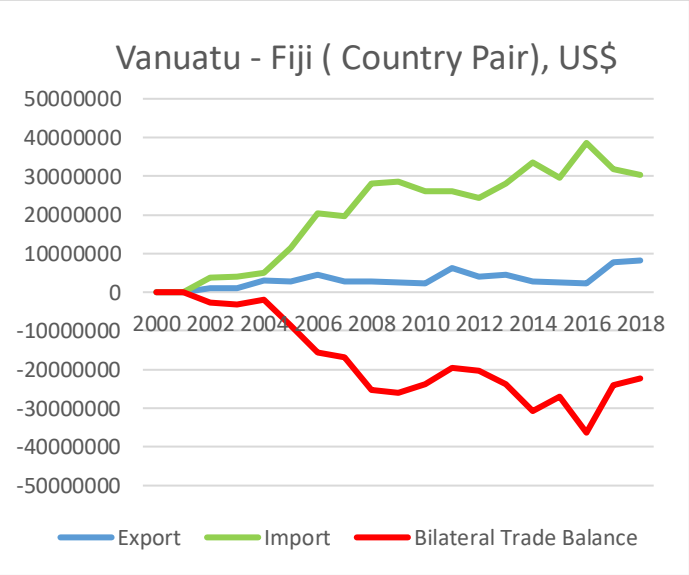
In 2021, Fiji's export to PNG was US$11.5m with main commodities being baked goods (US$2.8m), insulated wires (US$1.89m) and knit garments (US$875,000). On the other hand, Papua New Guinea exported US$5.26m worth of commodities to Fiji compromising of processed fish (US$3.81m), perfume plants (US$429,000) and wheat (US$212,000) in the country pair. During the last 23 years the exports of Fiji to Papua New Guinea have increased at an annualized rate of 8.79%, from $1.66m in 1998 to $11.5M in 2021. Moreover, exports of Papua New Guinea to Fiji have increased at an annualized rate of 9.99%, from $589k in 1998 to $5.26M in 2021 (The Observatory of Economic Complexity, 2023). Fiji has a small bilateral import share relative to PNG. Fiji is a crucial trading partner for PNG.

Fiji exported US$29.1m to Vanuatu in 2021. The top products were baked goods (US$4.15m), Wheat Flours (US$3.6m) and other prepared meat (US$2.79m). During the last 19 years the exports of Fiji to Vanuatu have increased at an annualized rate of 11.2%, from $3.85m in 2002 to $29.1m in 2021. Vanuatu's export was US$5.95m with perfumes plants (US$5.69m), coconut oil

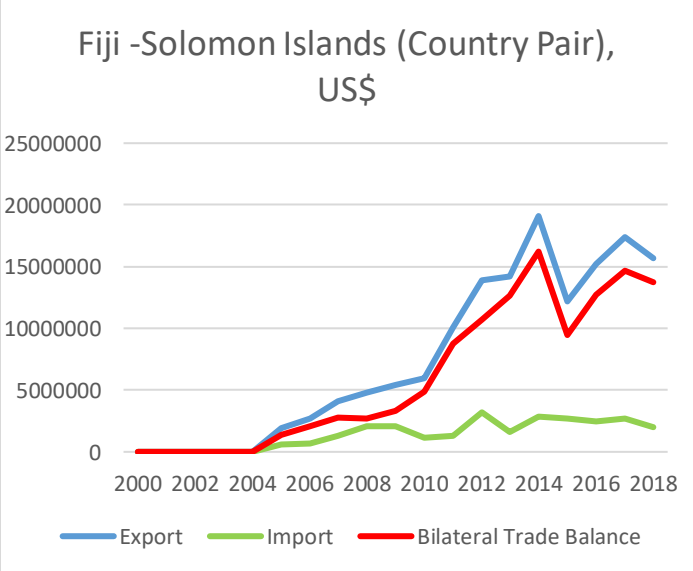
(US$83,200) and coffee (US$80,500). Exports of Vanuatu to Fiji have increased at an annualized rate of 9.63%, from $1.04m in 2002 to $5.95m in 2021 (The Observatory of Economic Complexity, 2023). Fiji has a small bilateral import share relative to Vanuatu. Fiji is a crucial trading partner for Vanuatu (Panel B).

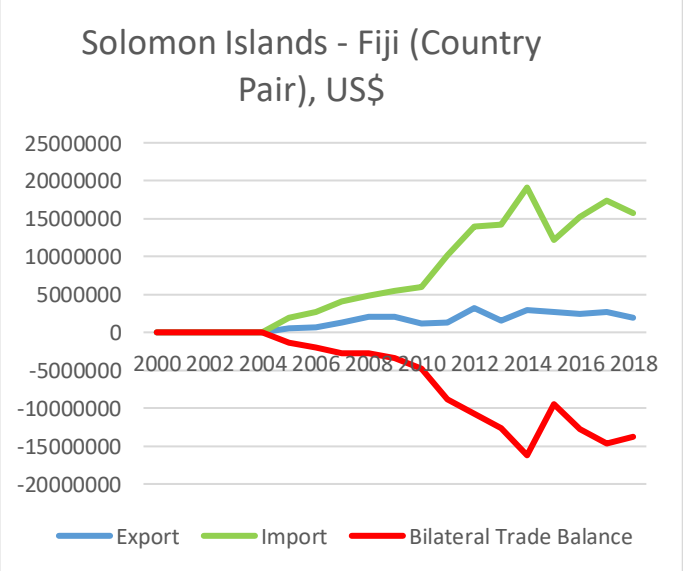
Panel B: Fiji Islands and Vanuatu





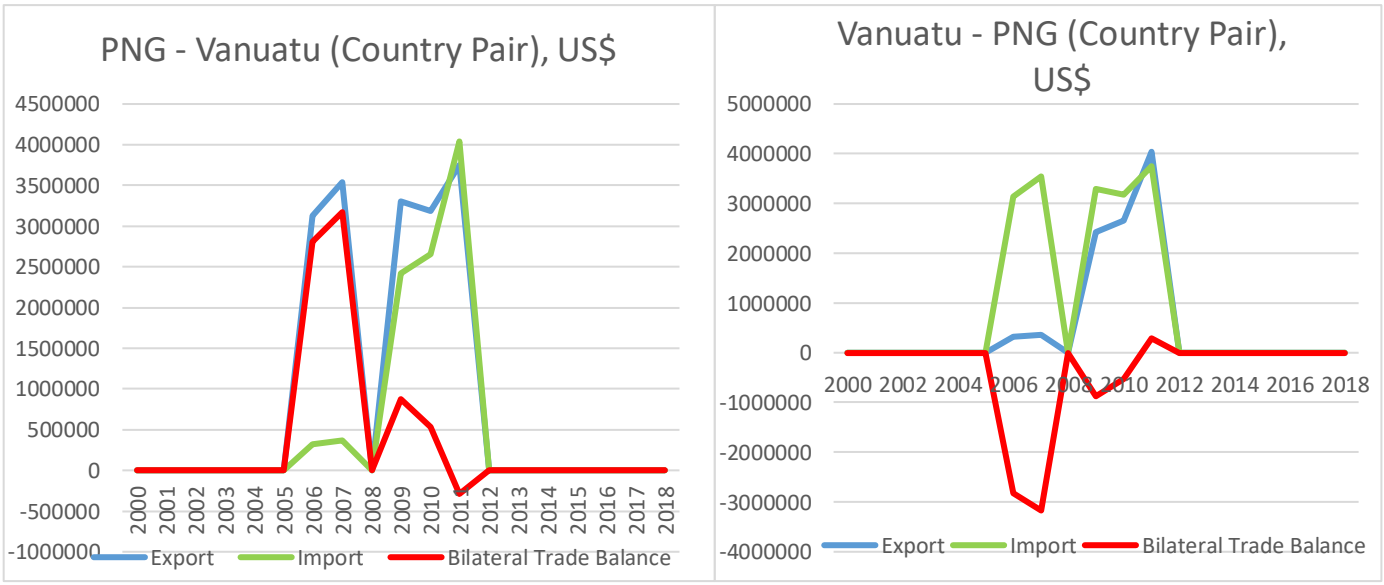
Panel C: Fiji Islands and Solomon Islands





Fiji exported commodities worth US$11.1m to Solomon Islands and imported US$1.07m in 2021. Main commodities traded were processed fish, delivery trucks, coconut oil and baked goods. In the last 16 years the exports of Fiji to Solomon Islands have increased at an annualized rate of 11.6% while , exports of Solomon Islands to Fiji have increased at an annualized rate of 4.09%, for same period. Fiji has a small bilateral import share relative to Solomon Islands. Fiji is a crucial trading partner for Solomon Islands.

Panel D: Papua New Guinea and Vanuatu

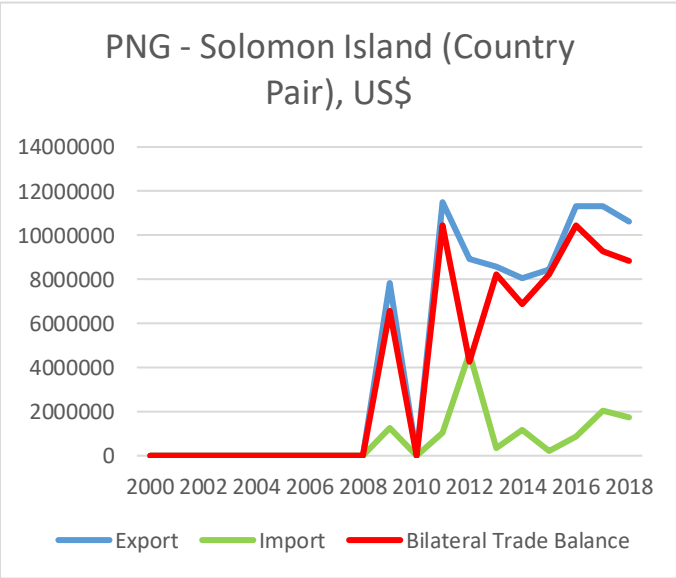


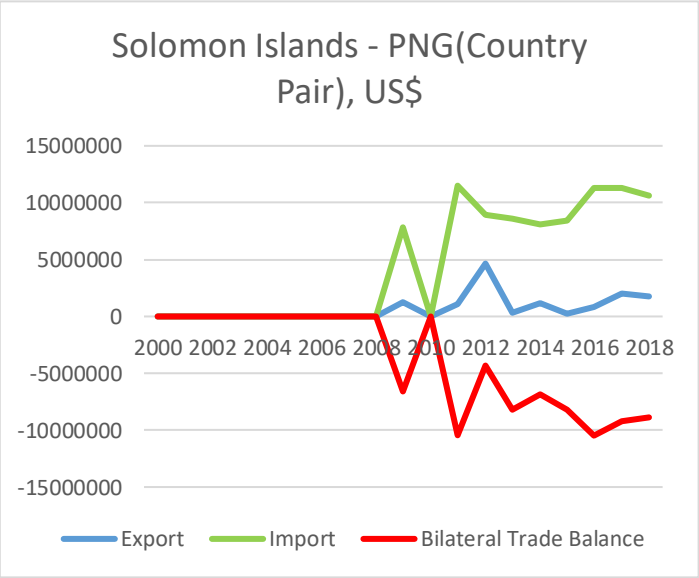
During the last 13 years the exports of Papua New Guinea to Vanuatu have increased at an annualized rate of 16.7%, from US$505,000 in 1998 to US$3.75m in 2011. On the other hand, the exports of Vanuatu to Papua New Guinea have decreased at an annualized rate of 2.97%, from $1.8m in 1998 to $1.21m in 2012 (The observatory of economic complexity, 2023).There is very limited data on trade flows between the above country pair thus, restricting conclusion on bilateral trade share.

PNG's export to Solomon Islands in 2018 was US$10.6m while import was US$1.76m. During the last 20 years the exports of Papua New Guinea to Solomon Islands have increased at an annualized rate of 5.99% compared to the exports of Solomon Islands to Papua New Guinea increase of 2.28% (The observatory of economic complexity, 2023). PNG has a small bilateral

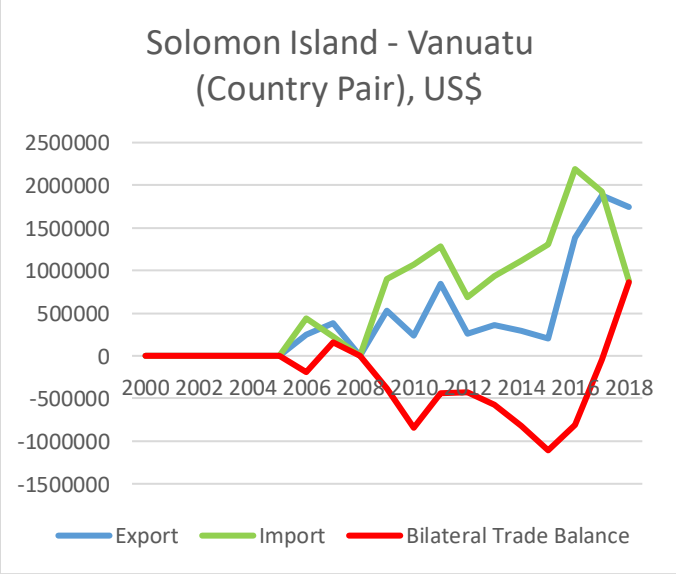
import share relative to Solomon Islands (Panel E). PNG is a crucial trading partner for Solomon Islands.

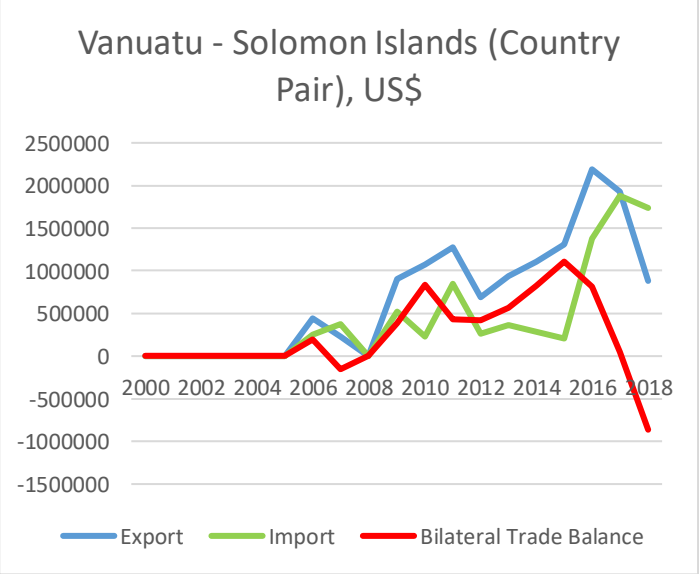
Panel E: Papua New Guinea and Solomon Islands





Panel F: Solomon Islands – Vanuatu





Solomon Islands export to Vanuatu have increased at an annualized rate of 17.6%, from $248,000 in 2006 to $1.74m in 2018. On the other hand, during the last 12 years the exports of Vanuatu to Solomon Islands have increased at an annualized rate of 5.89%, from US$441,000 in 2006 to

US$877,000 in 2018 (The observatory of economic complexity, 2023). Vanuatu has a small bilateral import share relative to Solomon Islands (Panel E). Vanuatu is a crucial trading partner for Solomon Islands. .

Grynberg and Kabutaulaka (1995) researched on Melanesian trade integration using data set till 1990 and found that Vanuatu and Solomon Islands are highly favorable for the MSG trade agreement to gain preferential access into Papua New Guinea market. However, PNG has reservation in allowing expansion to full free trade zone. Papua New Guinea wishes to maintain both a policy of import substitution and trade liberalization and thus MSG treaty will be contradicting (Grynberg and Kabutaulaka (1995). They found that Fiji has substantial export potential and has an economic interest entering into a trade relationship with the three PICs. The MSG trade agreement is more of a political agreement with few economic benefits ((Grynberg and Kabutaulaka (1995).

Furthermore, Fiji is an important trading partner in the Melanesian Spearhead Group having small bilateral import share against all the MSG members while sharing a larger export market. Large export share defines the advancement in production techniques, diversification programs, relative sound financial markets, strong labor market and relative political stability. Papua New Guinea has the potential to be highly progressive with the natural resource endowment however, ethnic tensions are a downfall. Similarly, Solomon Islands terrorized by years of ethnic violence needs to migrate from subsistence to commercial livelihood with exploration of untapped mineral resources. In addition, Vanuatu is a key trading partner for Solomon Island having smaller import share.

The trade effects of Regional Trade Agreements and the World Trade Organization membership are heterogeneous and smaller for country pairs with larger import shares thus, joining a Regional Trade Agreement is associated with 117% more bilateral trade (Chen and Novy, 2021). On the other hand, joining WTO membership leads to 34% more bilateral trade. Furthermore, Chen and Novy (2021) provided strong evidence that the aggregate trade cost elasticity is variable and heterogeneous across country pairs. One potential implication is that the gains from trade

liberalization could be mismeasured if research assume a constant trade elasticity (Arkolakis *et al*., 2012; Melitz and Redding, 2015; Bas *et al*., 2017 as cited in Chen and Novy, 2021).

4.0 Conclusion and Policy Implications

The trading shares of nations have expanded with globalization and advancement in logistics. Tradition trade theories backed distance as a very influential factor for trading among partners however, empirical evidence identified; economy size, trade agreements, cultural similarity, and product differentiation as likely significant variables. Nations have pursed bilateral or multilateral trade agreements to eliminate trade barriers and promote greater trading. However, the benefits of the trade agreements must be weighed very closely by the trading partners to avoid favoritism and dominance of one trading partner.

The Melanesian region compromising of four independent nations of Fiji Islands, Papua New Guinea, Solomon Islands and Vanuatu ratified and signed the Melanesian Spearhead Group trade agreement in 1996. The Pacific nations have been infested with ethnic tensions and violence in regards to resource ownership – potential reason for untouched resources. Furthermore, narrow export markets, restrictive comparative advantage, vulnerability to natural disasters and geographical location added to lower trading share. The MSG embarks on establishing a regional trade bloc. The MST trade agreement of 1996 was revised in 2005 and further revisions have been suggested for MSGTA3; cross border investment, labor mobility, trade in service and trade in goods.

It has been established that Fiji Island is a dominant player in the MSG with larger export share to the other members – attributed to well established ports for re-exports. On the other hand, Fiji Island has small import share suggesting availability of substitute buying markets. In the framework (thin and thick bilateral trade relationship), Fiji Island has smaller import shares (potential to import from outside MSG group countries) while other Melanesian countries have larger import share (relying heavily on MSG group countries). Grynberg and Kabutaulaka (1995) suggested that Solomon Islands and Vanuatu would loss revenue of import duties while PNG's tea will have substantial margins of trade preference in both Solomon Islands and Vanuatu upon implementation of the trade agreement. The regional trade agreement must not dilute the

comparative advantage of a trading partner while ensuring greater product market access for the region.

The caveats on the implementation of the trade agreement is to assess heterogeneous effects of trade cost on the bilateral trade. The rationale for heterogeneous trade cost is that the import share is different within country pairs and thus, we cannot assume the trade effect is homogeneous. Furthermore, a commodity based analysis together with import duty revenue for MSG members is warranted to review the possible dilution of comparative advantage.

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