Journal of Alternative Perspectives in the Social Sciences (2022) Volume 11 No 3, 305-320

Does Governance condition or economic condition determine bilateral aid flows from New Zealand to the Pacific Island countries?

Muhammad Akhtaruzzaman
Senior Lecturer, Faculty of Business Management and Legal Studies
Toi Ohomai Institute of Technology
Mokoia Drive, Rotorua 3015, New Zealand
Email: Akhtar.zaman@toiohomai.ac.nz
Tel: +6473468830

Abstract

The aid flows from New Zealand to the Pacific neighbours are large and have historical importance and economic implications. However, what drives the aid flows have never been systematically examined. This study examined whether economic interest or good governance explains the aid flows from New Zealand (NZ) to the Pacific Island countries (PIC). The analysis of the data revealed that New Zealand aid flows are higher to the countries with lower GDP per capita and to the countries with stronger trade ties with NZ. Good governance is not found to be a statistically significant determinant of NZ aid flows to the PIC. This finding can be useful to the policymakers in New Zealand to understand and to develop future strategies around aid flows to the PIC.

Key words: *Governance, Aid flows, Economic Development, Pacific Island Countries, New Zealand*

1. Introduction and background

The Oceania countries are considered to be the biggest recipient of ODA in the world (Funaki, 2016). The Pacific Island countries receive almost 60 percent of total ODA of New Zealand which reflects the importance of New Zealand in the growth and development of the region (mfta,n.d.). The aid flow from New

Zealand to the Pacific Island countries has a wide range of variations from country to country. It is observed from the data that per capita aid from New Zealand to the Pacific Island countries ranges, on average, from 0.20 USD to 1281 USD over the period from 1996-2019 with a standard deviation of 128. This suggests that there might be many reasons why some countries get so much while the others do not. The aim of this paper is to understand what explains this large variation when we investigate the aid flows against the determinants that are well-established in aid literature.

Governance is considered as an important determinant of aid flows in empirical literature and goes back to Boone (1996). One of the most influential researches in foreign aid was by Alesina & Dollar (2000) in which the authors found that political (e.g., colonial tie) and strategic (political alliance) considerations are far more dominating factors of foreign aid than traditionally considered economic factors (e.g., GDP per capita).

In line with the spirit of Alesina & Dollar (2000), this research considered economic and good policy determinants. That said, this research examines the aid flows from New Zealand (NZ) to the Pacific Island countries (PIC) and to examine whether governance (represents good policies or good institutions) or economic variables has a statistically significant impact on this large variation of aid flows.

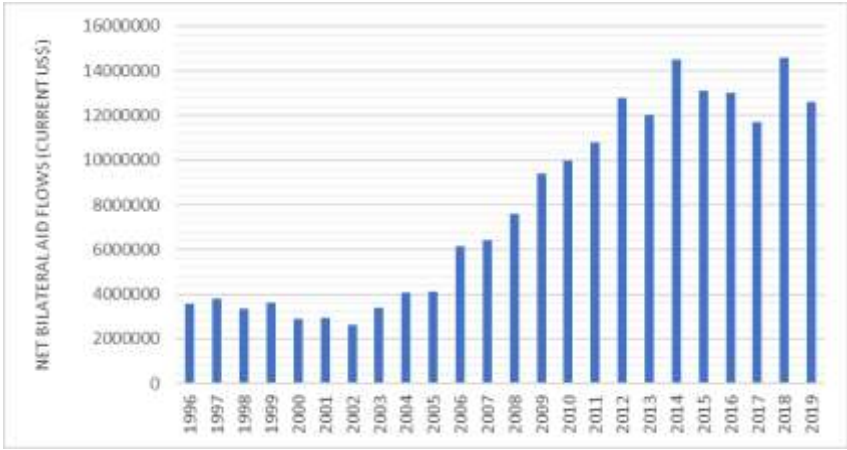

Figure 1: Panel-averaged aid flows from NZ to the Pacific Island countries

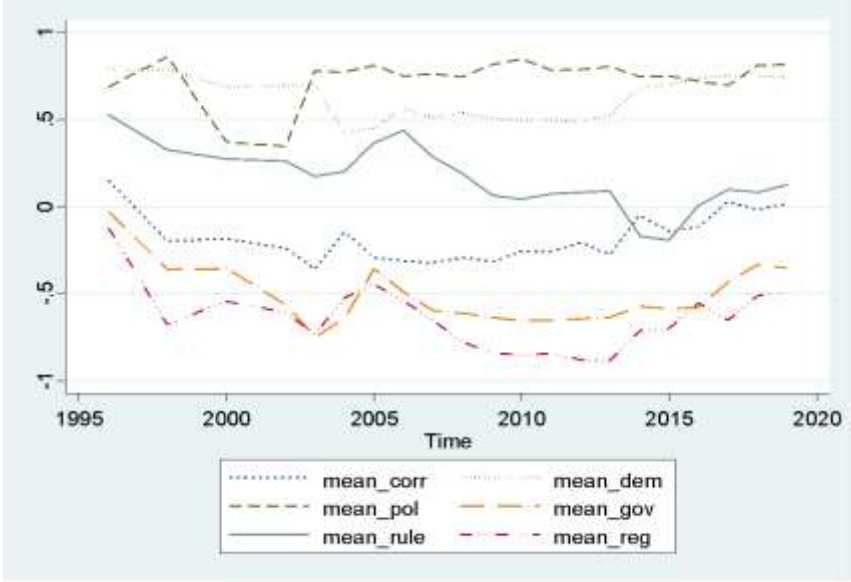

Figure 2: Six dimensions of WGI's good governance in the Pacific Island countries

The World Bank's WGI (worldwide governance indicators), a publicly available data source, was considered in this research as a measure for governance conditions in the PIC. Figure 1 shows that, on average from 1996-2019, the aid flows from NZ to the PCI show a continuous rise in the flows since 2006. Different donors have different demands against foreign aid. Improvement in different dimensions of good governance in the PCI shows a diverse pattern (see, Figure 2) along with the pattern of the aid flows from NZ to PCI (see, Figure 1). Figure 2 shows that the least performing dimension of good governance (World Governance Indicators) in the PIC is *Regulatory Quality* and the performance of other dimensions of good governance in the PIC have plateaued out. Among the six dimensions of governance, the least performing dimension is regulatory quality. This might give us an idea of examining whether this specific governance indicator had any significant impact on aid flows to the countries.

It is not unusual to see less fluctuation in the time series plot of the governance condition that takes longer time to see a visible improvement unlike many economic indicators that fluctuate more frequently. In the case of the PICs, the changes in different dimensions of governance are not different from this pattern. However, there is a mix of patterns in the development of different governance dimensions. The Rule of Law deteriorated, Improvement in political stability remained stagnant since the early 2000s, slight improvement in Corruption, Democratic Accountability has also been improved a bit; and Regulatory Quality is the least performing dimension out of the six dimensions, please refer to the Figure 2. This suggests that there are variations in governance, which is considered to be an important factor that a donor considers with great attention in giving aid to the recipient country. Again, the priorities of giving aid can be different for different countries. For example, Australia emphasises on poverty reduction whereas China's priority is on raw material sourcing (Rix, 2005; Tarte, 2010). What the priority is in case of New Zealand in

giving aid to the Pacific neighbours- is a fundamental question of this research.

The importance and the contribution of this research are two folds. Firstly, there is anecdotal evidence that aid flows the PICs have least value for money and the PIC governments are relying largely on foreign aid despite the effectiveness of the foreign aid is questioned. The continuation of this situation is not only unfortunate for the people in the aid recipient countries but also poses a question of proper and efficient utilisaiton of taxpayers money of the donor countries. Secondly, an empirical investigation of the question of whether good governance or economic interest determine aid flow from NZ to PICs remained unexplored.

Limitation of the study: Governance data are not available for all countries and all years for the Pacific countries and this database is the only available for measuring good governance in the target countries of this research. The panel has a sample of 10 countries is another limitation of this analysis; however, alternative estimators were used to check the robustness of the results.

2. Relevant Literature

Although the corruption index shows some improvement in recent years (see, Figure 1), studies found that bureaucratic and administrative corruption are the most common types of corruption in the Pacific countries ((Chêne 2010: 3). The range of corruption includes abuse of power by government officials for private gains and vote buying and illegal payments for vote are political corruption. Anti-corruption reforms aim to attract foreign aid in the Pacific countries; however, corruption remains prevalent and government officials remain engaged in corrupt practices (Walton 2019b).

Chand (2003) highlighted the high dependence of the PIC on foreign aid for delivering basic services for the people in the

countries. A very limited number of studies found on Pacific countries investigating the relationship between foreign aid and institutions. A relevant study is Gani (2008) that found several dimensions of governance (voice and accountability, rule of law and corruption) are negatively associated with regulatory quality and government effectiveness are positively associated with per capita foreign aid. The study covered a period from 1996-2004 and considers aid from all donor countries. Roberts et al. (2007) discussed the key role of institutions or good governance in the PCI as the driver for economic growth and development in the region in the light of the Pacific Plan undertaken in 2005 and explained how governance is defined and operationalised in the plan. A recent study highlighted the link between high aid dependencies and the issues around aid effectiveness and found that aid flows to the PIC are highly volatile and unpredictable and are the concerns behind the aid effectiveness (Dornan & Pyke, 2017).

3. Data and Model

3.1 Data, empirical model, and estimation technique

The empirical model was developed in the spirit of Alesina & Dollar (2000) and considered income variables (GDP per capita, GDP, trade openness) and quality of institutions and policy (six dimensions of governance indicators from the WGI, 2004); however, strategic interest variables were not considered as this empirical analysis only considers bilateral aid flows from NZ to the PIC unlike Alesina & Dollar (2000) considered multiple donors. A reason for not including the strategic interest variable is that NZ has similar or same strategic interests in each of the PIC members considering the historical background of the PIC. Considering the data generating process (DGP), the empirical specification was developed and benchmarked with Alesina & Dollar (2000).

$$ln\ ln\left(Aid_{i,t}\right) = \alpha_i + \tau_t + \beta_1\ ln\ ln\left(Gov_{i,t}\right) + \beta_2\ ln\ ln\left(Y_{i,t}\right) + \epsilon_{it} \quad (1)$$

$$ln\ ln\left(Aid_{i,t}\right) = \alpha + \gamma ln(Aid_{i,t-1}) + \beta_1\ ln\ ln\left(Gov_{i,t}\right) + \beta_2\ ln\ ln\left(Y_{i,t}\right) + \epsilon_{it} \quad (2)$$

Where, $Aid_{i,t}$ is the aid flows from New Zealand to the PIC; $Gov_{i,t}$ is the governance indicators; $Y_{i,t}$ is the economic variables, and *i* indicates PIC *and t* indicates time from 1996 to 2019.[1]

Using a cross section model in this panel data can be a concern. The country-specific time-invariant factors can have an impact on aid flows. The OLS cross-section estimates are unable to control for unobserved country-specific characteristics; relegating them to the error term may produce biased and inconsistent estimates as a consequence of omitted variables. A fixed effects (FE) estimator is more likely to reduce the bias in the estimates resulting from unobserved cross-sectional heterogeneity and to provide more convincing estimates. Although the FE model estimates the country-specific fixed parameters, it does not allow dynamics in the process which might be useful for understanding the dynamic effects of aid flows which suggests using a GMM estimator too.

3.2 Empirical results

The summary statistics (Table 1) shows that regulatory quality has the lowest and political stability has the largest mean values among all dimensions of good governance over the sample period from 1996 to 2019. Overall, the summary statistics suggest that the minima and maxima of all variables lie within six standard deviations about the corresponding mean, indicating that they are at least approximately normally distributed within a reasonable range

Table 1: Summary Statistics

[1] For the details of definition and sources of the data, please refer to Appendix 1

Variable	Obs.	Mean	Std. Dev.	Min	Max
Governance (overall)	210	-0.0356	2.1771	-5.7295	4.0416
Corruption	204	-0.1576	0.4478	-1.3400	0.7685
Gov Effectiveness	202	-0.5460	0.4969	-2.2708	0.6162
Pol Stability	190	0.7130	0.6321	-0.9263	1.4240
Reg quality	202	-0.6583	0.4185	-2.6255	0.3882
Rule of Law	210	0.0950	0.5795	-1.1385	1.3724
Dem Accountability	210	0.5358	0.5221	-1.1064	1.3208
Log (NZ Aid)	239	2.8097	1.8025	-1.6200	7.1556
Log (GDP pc)	238	7.8753	0.3212	7.1359	8.4753
Log (GDP)	238	19.8714	1.6500	16.3279	23.9353
Log (trade open)	182	4.5841	0.2165	3.8804	5.0624
Log (NZ export)	240	16.3728	1.8541	11.2403	19.6467

Table 2: Correlation coefficients

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Log (NZ Aid) (1)	1											
Governance (overall) (2)	0.2654	1										
Corruption (3)	0.1783	0.6507	1									
Gov Effectiveness (4)	0.4002	0.6909	0.4756	1								
Pol Stability (5)	0.1939	0.8092	0.4642	0.252	1							
Reg quality (6)	0.0963	0.5976	0.2588	0.756	0.166	1						
Rule of Law (7)	0.3552	0.8851	0.3931	0.5529	0.7519	0.4919	1					
Dem Accountability (8)	-0.1114	0.5702	0.2474	-0.0703	0.7059	-0.0815	0.4898	1				
Log (GDP pc) (9)	0.0422	0.4141	0.1769	0.4961	0.2009	0.031	0.3492	-0.0665	1			
Log (GDP) (10)	-0.0868	-0.2901	0.0453	0.3027	-0.6028	0.3183	-0.4266	-0.7238	0.2666	1		
Log (trade open) (11)	-0.5656	-0.0819	0.1289	-0.251	0.0055	-0.0362	-0.2329	0.0817	-0.0335	0.1037	1	
Log (NZ export) (12)	0.3298	-0.0582	0.0933	0.4986	-0.3889	0.4298	-0.0769	-0.6906	0.4618	0.7724	-0.1181	1

In Table 2, the correlation coefficients show no sign of very high level of correlation among the variables except the correlations between overall governance and specific dimensions of governance but they were not used simultaneously in one model. Other notable points are on the signs and magnitudes of a few variables, such as GDP per capita and GDP (-0.72); GDP and NZ exports (0.77).

However, such correlation and their singing have little to say about the true relationship. For a better understanding of the relationship and of what determines aid flows, this research employed empirical models that are robust for such data analysis.

The empirical models as specific in equations 1 & 2 were estimated on the data using fixed effects and GMM estimators and the results are presented in Table 3 and Table 4, respectively.

Table 3: Fixed Effects estimation: Dependent variable is Aid flows from New Zealand to Pacific Countries

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Governance (overall)	0.058						
	(0.052)						
Corruption		-0.035					
		(0.222)					
Gov Effectiveness			0.364				
			(0.220)				
Pol Stability				-0.097			
				(0.153)			
Reg quality					0.517***		
					(0.154)		
Rule of Law						-0.020	
						(0.293)	
Dem Accountability							0.228
							(0.211)
Log (GDP pc)	-2.171**	-2.620***	-2.585***	-2.705***	-2.640***	-1.891**	-2.221**
	(0.919)	(0.915)	(0.918)	(1.027)	(0.928)	(0.861)	(0.921)
Log (GDP)	3.195***	3.764***	3.505***	3.978***	3.434***	3.098***	3.313***
	(0.822)	(0.885)	(0.914)	(0.930)	(0.902)	(0.816)	(0.817)
Log (Trade open)	-0.632	-0.573	-0.831**	-0.556	-0.910**	-0.456	-0.480
	(0.412)	(0.396)	(0.404)	(0.400)	(0.413)	(0.387)	(0.395)
Log (NZ export)	0.007	0.009	-0.008	0.037	0.018	0.028	0.011
	(0.115)	(0.122)	(0.111)	(0.117)	(0.121)	(0.114)	(0.115)
Constant	-47.370***	-55.912***	-49.008***	-60.405***	-47.146***	-48.518***	-50.070***
	(12.327)	(13.270)	(14.486)	(12.581)	(13.104)	(13.386)	(12.027)

Observations	157	153	151	149	151	157	157
R-squared	0.927	0.930	0.932	0.935	0.935	0.927	0.927

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4: GMM estimation: Dependent variable is Aid flows from New Zealand to Pacific Countries

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Governance (overall)	0.034						
	(0.056)						
Corruption		0.132					
		(0.221)					
Gov Effectiveness			0.083				
			(0.201)				
Pol Stability				-0.030			
				(0.186)			
Reg quality					0.290		
					(0.212)		
Rule of Law						0.271	
						(0.265)	
Dem Accountability							0.000
							(0.233)
Log (GDP pc)	-0.613*	-0.494	-0.582*	-0.489	-0.784**	-0.699*	-0.582*
	(0.345)	(0.373)	(0.341)	(0.335)	(0.367)	(0.358)	(0.350)
Log (GDP)	0.004	-0.029	-0.014	0.020	-0.050	0.034	-0.008
	(0.238)	(0.241)	(0.238)	(0.231)	(0.236)	(0.240)	(0.251)
Log (Trade open)	-1.010**	-0.951**	-0.975**	-0.644	-1.137***	-1.032**	-0.912**
	(0.442)	(0.418)	(0.438)	(0.402)	(0.437)	(0.425)	(0.417)
Log (NZ export)	0.171*	0.163*	0.165*	0.179**	0.187**	0.170*	0.169*
	(0.088)	(0.088)	(0.088)	(0.086)	(0.087)	(0.087)	(0.089)
log (Lagged NZ aid)	0.639***	0.653***	0.640***	0.658***	0.614***	0.627***	0.651***
	(0.067)	(0.065)	(0.070)	(0.063)	(0.069)	(0.068)	(0.065)
Constant	7.540*	7.099*	7.661*	3.852	10.671**	7.757*	6.420
	(4.337)	(4.304)	(4.465)	(3.831)	(4.951)	(4.306)	(4.317)
Observations	148	148	148	144	148	148	148

# of countries	9	9	9	9	9	9	9
Sargan test (p-val)	0.69	0.72	0.69	0.38	0.65	0.68	0.71

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The fixed effects model suggests that NZ aid flows are determined by the recipients' GDP per capita and more aid goes to the poorer PIC. Also, higher levels of economic activities (measured by GDP) attracts NZ's aid flows. Overall trade openness is not found to be a consistently significant determinant of NZ aid flows where exports from NZ to the PIC are not found to be a statistically significant determinant. On the other hand, among the various dimensions of good governance estimated in the fixed effects model, only regulatory quality is found to be statistically significant (see, Model 5 in Table 3). Overall governance indicator, averages of six dimensions of good governance, was also found to be not a statistically significant determinant (see, Model 1 in Table 3). The statistically significant dimension of good governance is the regulatory quality as defined in the WGI: "*Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. This table lists the individual variables from each data source used to construct this measure in the Worldwide Governance Indicators" (Kaufman et al., 2010)*

The FE result suggests that NZ aid goes to the countries with relatively poorer countries and countries with more economic activities. Good governance is not a significant determinant of aid flows and if anything about good governance, then the only governance dimension is regulatory quality that stands out as a statistically significant determinant.

However, FE estimator cannot address the endogeneity bias in the estimator and neither captures the dynamic effects in the model estimation. Therefore, GMM estimator was employed and the results are presented in Table 4. The GMM results suggest, when

endogeneity is controlled for and dynamic effects are considered, that whether the aid recipient country is poor or rich is no longer a statistically significant determinant (i.e. GDP per capita is insignificant) rather whether the aid recipient imports goods from NZ is a statistically significant determinant (i.e., NZ exports to the PIC is significant). That said, more NZ aid flows to those countries which import more from NZ. Overall trade appears to be adversely related to the NZ aid flows meaning that NZ aid flows do not go to those countries which are open to trade in general rather to those countries which are importers of NZ exports. On the other hand, none of the good governance indicators including overall governance is found to be a statistically significant determinant for NZ aid flows to the PIC. There is a clear feedback effect and suggests that last year aid flows bring aid flows in the current year. The overidentifying restrictions of the instruments used in the GMM estimator were tested by the Sargan test. The Sargan test results confirm that the instruments used are valid.

Combining results from FE and GMM models, it suggests that aid flows from NZ to the PIC are not driven by governance quality of the aid recipient countries. In other words, the sample period and sample of countries investigated in this study provide evidence that NZ aid flows are not sensitive to governance conditions of the recipients rather sensitive economic interest of New Zealand. More specifically, NZ aid flows to the poorer PIC and current year aid flows are determined by last year flows. An interesting pattern revealed from this data analysis is that NZ aid flows to the Pacific neighbours' who import more from NZ.

3.3 Robustness checks

3.3.1: Sample sensitivity check: The sample used for empirical analysis is a small panel data due to the limited availability of the data on the PIC countries. The country-year data for the sample of nine countries are not balanced. It is observed that sample observations are not constant across different models and the reason

is that not all countries have the data for all years on the variable of interest. As observed, the sample observations range from 149-157 in the FE estimator while the range of variation is from 144 to 148 in the GMM estimator (see, sample observations in Table 3 and Table 4, respectively). Due to the small sample size of the nine country panel, a small variation in sample observations can deviate the coefficient estimates. To address this problem, the regression models were generated for a fixed sample of observations and the results are presented in the tables (Table 3a and Table 4a in Appendix 3) as appendices. The results from the fixed sample data suggest that the findings are robust to sample sensitivity.

3.3.2: Difference in governance condition is also used as a measure of institutional/governance difference between NZ and the PIC. Existing literature suggests distance between institutions/governance instead of absolute value of governance of the aid recipient countries and are considered as more reliable measures. This study replicated the FE and GMM models and used the difference in six dimensions of governance between NZ and the PIC and found that the results remained unchanged. Moreover, if a difference in governance is used, none of the governance dimensions is found to be statistically significant; however, the effects and signs of the economic determinants remain unchanged.

4. Discussion

The historical tie between NZ and the PIC is long standing and the economic and political relationship are also well-established. Aid flows from NZ to PIC on a regular basis. The pacific countries are one of the most aid dependent in the world. Also, the effective use of foreign aid in those countries is under question and is criticised. Therefore, it is important to learn whether NZ's taxpayers' money is going to the right place to meet the needs of the people and the purpose of the aid. To get an idea about this information is to

learn whether the aid recipients are promoting good governance (e.g., improving in democratic accountability, battling with corruption or following the rule of law and ensuring effective government policies). Having this motivation behind this research project, it is an important task to verify whether countries with good governance are the recipients of NZ aid. One of the biggest challenges in this process is how to measure good governance in a country. There are few suppliers of country specific good governance data despite their own limitations. Measuring good governance is a challenging question of how much these measures reflect the true condition of good governance or institutional quality in these countries. Acknowledging these limitations, this research utilised the best possible and publicly available governance data and investigated the determinants of NZ aid flows to the PIC using the empirical framework used by Alesina & Dollars (2000). World Bank's Worldwide governance indicators have been used in this research for measuring good governance.

This research examined whether good governance/institutions in the aid recipients in the PIC work as a driver (statistically significantly) of aid flows from NZ. In other words, the influence of institutions or good governance on aid flows was investigated in the data to understand whether institutional differences make any difference in giving aid to this PIC region to encourage further good governance and for a better allocation of NZ taxpayers' money as aid to the PIC. It was challenging to establish such a relationship for the region due to the limited data availability and missing country-year data for the variable of interests.

Future research on this topic can use the findings from this research for further understanding of the governance and its influence on aid flows. A country specific time series data can be analysed with other empirical techniques to identify the determinants; however, that also might be a challenge due to the fact that none of the PIC countries have long time series data available.

Alternatively, qualitative research with interview and focus group data collection can also be considered.

5. Conclusion and implications

The importance of good governance is on the rise in the context of every developing country. Many reports and anecdotal evidence are available and some of which are reported in this study signaling that there are concerns regarding good governance or lack of institution quality in the PIC. Absence of good governance has important implications on social and economic well being of the people living in the region. As a major development partner, NZ has interest in good governance in the PIC. This research attempted to understand whether aid flows from New Zealand to the PIC are impacted by good governance or economic factors by analysing historical data between NZ and PIC. This research provides a clear answer that NZ aid flows are driven by economic factors while institutional and or governance is not found to be a statistically significant determinant. The findings of this research can be useful to the policymakers in New Zealand in developing future strategies and in deciding about future aid flows. Because, encouraging good governance of the aid recipients is not only important from NZ taxpars's perspective but also necessary for promoting good policies and institutions for the aid recipients of our Pacific neighbours.

6. References

Alesina, A., & Dollar, D. (2000). Who gives foreign aid to whom and why?. *Journal of Economic Growth*, *5*(1), 33-63.

Boone, P. (1996). Politics and the effectiveness of foreign aid. *European Economic Review*, *40*(2), 289-329.

Chand, S. (2003). Economic trends in the Pacific Islands. Economic trends in the Pacific Islands.

Dornan, M., & Pryke, J. (2017). Foreign aid to the Pacific: Trends and developments in the twenty-first century. *Asia & the Pacific Policy Studies*, *4*(3), 386-404.

Funaki, K. (2016). New visions for international aid: Perspectives from the Pacific Islands. *Japan Society for Pacific Island Studies*, *4*, 39-62.

Gani, A. (2009). Governance and foreign aid in Pacific Island countries. *Journal of International Development: The Journal of the Development Studies Association*, *21*(1), 112-125.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). Response to 'What do the worldwide governance indicators measure?'. *The European Journal of Development Research*, *22*(1), 55-58.

Our aid partnerships in the Pacific. MFTA. https://www.mfat.govt.nz/en/aid-and-development/our-aid-partnerships-in-the-pacific/

Roberts, S. M., Wright, S., & O'Neill, P. (2007). Good governance in the Pacific? Ambivalence and possibility. *Geoforum*, *38*(5), 967-984.

Rix, A. (2005). Japanese and Australian Aid. *Japan's foreign aid: Old continuities and new directions. New York: Routledge*.

Tarte, S. (2010). Fiji's 'look North'strategy and the role of China. *China in Oceania: reshaping the Pacific*, 118-132.

Appendix 1: Data, definition and sources

Variables	Definitions	Data Sources
Aid flows ($Aid_{i,t}$)	Net bilateral aid flows from DAC donors, New Zealand (current US$) to the PIC	OECD's (2021) Development Co-operation Report, and International Development Statistics database
Governance indicators ($Gov_{i,t}$)	Governance (Averages (simple) of 6 WGI governance indicators)	World Bank's (2021) WGI indicators
	Control of Corruption "captures the perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well the ability of elites and private interests to manipulate policy and laws"	
	Government Effectiveness: "measures the perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation, implementation and the credibility of the government to such policies"	
	Political Stability and Absence of Violence/Terrorism: "measures the perceptions of the likelihood that the government will be destabilized or overthrown by	

	unconstitutional or violent means"	World Bank's (2021) WDI indicators
	Regulatory Quality: "captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development"	
	Rule of Law: "captures the perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police and the courts, as well as the likelihood of crime and violence"	
	Voice and Accountability: "captures perceptions of the extent to which a country's citizens are able to participate in selecting their government and freedom of expression, freedom of association, and a free media"	
Economic variables ($Y_{i,t}$)	GDP per capita in (current US$): "GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without	

	making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources”	
	GDP in (current US$): “GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources”	
	Trade (% of GDP): Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product	
	bilateral merchandise exports from NZ ($US) to the PIC	Comtrade bilateral trade flows (2021)

Appendix 2: Pacific Island county sample: Micronesia, Fiji, Kiribati, Marshall Island, Papua New Guinea, Samoa, Solomon Island, Tonga, Vanuatu

Appendix 3: Robustness check with fixed sample of observations

Table 3a: Fixed sample. Fixed Effects estimation: Dependent variable is Aid flows from New Zealand to Pacific Countries

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Governance (overall)	0.036						
	(0.051)						
Corruption		-0.078					
		(0.224)					
Gov Effectiveness			0.250				
			(0.212)				
Pol Stability				-0.085			
				(0.155)			
Reg quality					0.470***		
					(0.150)		
Rule of Law						-0.338	
						(0.233)	
Dem Accountability							0.146
							(0.201)
Log (GDP pc)	-2.829***	-2.737***	-2.759***	-2.599**	-2.827***	-2.656***	-2.904***
	(0.998)	(0.977)	(0.950)	(1.059)	(0.952)	(0.980)	(0.996)
Log (GDP)	4.002***	4.006***	3.835***	3.929***	3.749***	4.128***	4.113***
	(0.928)	(0.925)	(0.933)	(0.962)	(0.896)	(0.876)	(0.925)
Log (Trade open)	-0.653	-0.533	-0.743*	-0.527	-0.908**	-0.412	-0.561
	(0.412)	(0.409)	(0.405)	(0.405)	(0.418)	(0.404)	(0.402)
Log (NZ export)	0.024	0.045	0.023	0.041	0.040	0.053	0.026
	(0.120)	(0.124)	(0.113)	(0.118)	(0.119)	(0.113)	(0.120)
Constant	-59.303***	-61.023***	-56.595***	-61.456***	-52.864***	-65.030***	-62.499***
	(13.350)	(13.296)	(14.440)	(13.416)	(12.330)	(12.499)	(13.330)
Observations	147	147	147	147	147	147	147
R-squared	0.935	0.935	0.936	0.935	0.939	0.936	0.935

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

.

Table 4a: Fixed sample. GMM estimation: Dependent variable is Aid flows from New Zealand to Pacific Countries							
VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Governance (overall)	0.062						
	(0.055)						
Corruption		0.203					
		(0.219)					
Gov Effectiveness			0.202				
			(0.199)				
Pol Stability				-0.030			
				(0.186)			
Reg quality					0.306		
					(0.211)		
Rule of Law						0.336	
						(0.262)	
Dem Accountability							0.020
							(0.232)
Log (GDP pc)	-0.591*	-0.396	-0.534	-0.489	-0.740**	-0.674*	-0.531
	(0.341)	(0.366)	(0.335)	(0.335)	(0.363)	(0.354)	(0.346)
Log (GDP)	0.039	-0.015	0.002	0.020	-0.027	0.068	0.024
	(0.236)	(0.240)	(0.235)	(0.231)	(0.235)	(0.238)	(0.250)
Log (Trade open)	-0.843*	-0.719*	-0.810*	-0.644	-0.893**	-0.806*	-0.656
	(0.437)	(0.411)	(0.430)	(0.402)	(0.430)	(0.418)	(0.408)
Log (NZ export)	0.180**	0.169*	0.169*	0.179**	0.197**	0.180**	0.180**
	(0.086)	(0.088)	(0.087)	(0.086)	(0.086)	(0.086)	(0.088)
log (Lagged NZ aid)	0.631***	0.655***	0.626***	0.658***	0.613***	0.622***	0.652***
	(0.067)	(0.065)	(0.069)	(0.063)	(0.069)	(0.068)	(0.064)
Constant	5.175	4.400	5.628	3.852	7.740*	5.007	4.120
	(4.022)	(3.965)	(4.157)	(3.831)	(4.576)	(3.963)	(4.111)
Observations	144	144	144	144	144	144	144
# of countries	9	9	9	9	9	9	9
Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1							

Does Governance condition or economic condition determine bilateral aid flows from New Zealand to the Pacific Island countries?