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Size Matters

The Impact of Aid on Institutions

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Abstract

This paper proposes that aid flowing to smaller (less populous) countries has a negative impact on the quality of institutions in terms of performance and policy as opposed to that flowing to larger countries, where evidence suggests that the impacts are positive. The analysis here suggests that the level of development, the size of an economy, and the level of aid receipts matter for institutional performance as quantified by measures of economic freedom. Cross-country evidence is presented that suggests the impact of aid is damaging in small *vis-à-vis* large countries, and that, while aid increases economic freedom as a whole, the impact of aid on economic freedom is negative for nations with a population less than 1.4 million. This is significant for small island economies in the Pacific, where increasing amounts of overseas development assistance fund governance programmes. Case studies of Fijian economic governance initiatives are used to illustrate the difficulties encountered when donors fund institutional reform programmes in Pacific states.

Keywords: Pacific islands, aid, growth, economic freedom index, institutions

JEL classification: F35, F4, O11, O19

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1 Introduction

Modern aid is based on the fundamental assumption that economic growth reduces poverty, and therefore growth is good. This assumption underpins development activities in the Pacific. The region's largest bilateral donor, Australia,¹ articulates this in its roadmap for Pacific aid, *Pacific 2020*, which aims to 'stimulate dialogue and debate on actions to accelerate, manage and sustain economic growth', and observes that 'without an upturn in economic growth, the future for these countries is at best uncertain and at worst bleak' (AusAID 2006b: 11). As has been noted by most Pacific analysts over the past 30 years, economic growth in the Pacific has been almost non-existent, and in Melanesia it has failed to keep pace with population growth (Duncan and Chand 2002). In consequence, recent donor activity in the Pacific has focused on developing livelihoods and creating opportunities for economic activity. But despite the best of intentions, the relationship between aid and growth remains contested, and while the weight of evidence generally falls in favour of aid, enough dissent exists to ensure the supporters of aid are regularly berated by those who believe aid worsens an already bad situation. On one hand, studies such as Dalgaard, Hansen and Tarp (2004) find in favour of a relationship between aid and growth, while others (Rajan and Subramanian 2005) find no evidence of a relationship. Methodological arguments abound, and certainly donors are still struggling to determine what forms of aid are effective and under what conditions aid serves to undermine growth.

One way to approach the problem is to examine what we do know about growth. It is generally agreed that trade openness leads to growth and this has resulted in donors actively encouraging developing countries to better integrate with the global trading system. However, most recognize that trade openness is necessary, but not sufficient, for economic growth, and that knowledge and capacity constraints stop developing countries from benefiting fully from trade liberalization.² 'Aid for trade' has become the mantra of the Doha Development Round, and developing countries themselves are clamouring for trade-related technical assistance and capacity-building programmes such as the multidonor integrated framework.³

For many developing countries, the results of trade-focused strategies have been disappointing. This surprises few researchers. An extensive body of literature points to other elements that must accompany trade openness if growth is to result, with the most compelling of the elements explored over the last 30 years being institutional quality. Rodrik, Subramanian and Trebbi (2004) claim that 'institutions rule', and that institutional quality alone is responsible for growth. While this result is contested, there is a growing body of evidence to suggest that growth exists where trade openness is accompanied by fair and decent institutions. This makes intuitive sense: better institutions are better able to facilitate structural adjustment and to take advantage of the opportunities that trade openness provides.

¹ OECD-DAC figures show that Australia contributed US\$446.36 million of a total US\$1,144.5 million (39 per cent) in overseas development assistance received by developing Oceania in 2005.

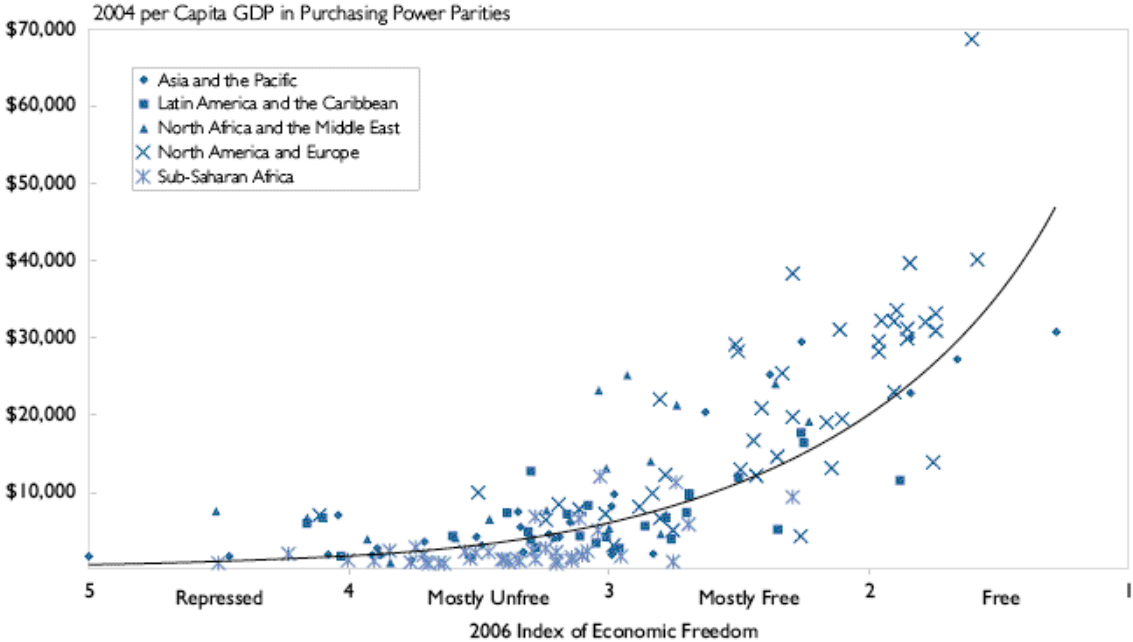
² Stiglitz and Charlton (2005) survey the arguments in detail.

³ The integrated framework is a multidonor coordinating framework for the provision of trade-related technical assistance to least developed economies: see www.integratedframework.org/ for further details.

Just as trade openness in isolation will not necessarily lead to growth, it is possible that aid, in isolation, also may not lead to growth, but it may positively influence other factors that lead to growth. If aid improves the quality of institutions, then this should ultimately contribute to growth, and thereby economic development. Despite the plethora of governance activities, anti-corruption initiatives and law-and-order programmes, there are still many critics who believe that aid actually weakens institutional capacity by allowing the state to abrogate its responsibilities. Aid is fungible, goes the refrain, therefore a dollar spent by a donor on roads is a dollar the recipient country can now spend on (insert here as appropriate: guns, beachside holiday homes, Swiss bank accounts). If this thesis is correct, then aid should weaken, not strengthen, institutions, and therefore it should ultimately be detrimental to growth.

This study looks for evidence of the impact of aid on institutional quality. Here we use a measure of economic freedom as the indicator of institutional performance. We draw on a large cross-country dataset on economic freedom produced on a consistent basis since 1995 by the Heritage Foundation⁴ which, when used in association with measures of aid inflows into these countries, provides a means of investigating the impact of aid on the level of economic freedom in the recipient country. We choose this dataset for the following reasons. First, it is readily available for a large number of countries; second, there is robust evidence to suggest that greater economic freedom is associated with higher per capita income and faster rates of growth of this income (see Figure 1); third, economic freedom has intrinsic value over and above its instrumental role in growth of income (Sen 1999); and fourth, the measure reflects deliberate actions of policymakers who in turn react to available incentives. On the last, aid may provide incentives for

Figure 1
Economic freedom and GDP per capita



Source: Heritage Foundation (2006).

⁴ The Heritage Foundation publishes indices of economic freedom for 164 countries, which are available online at: www.heritage.org/research/features/index/

particular policy choices, thus may impact on economic performance via the chosen policies.

We are careful, however, not to oversell the value of cross-country growth regressions in illuminating the issue being investigated here. While our OLS regression results support our hypothesis for small (less populous) states, the results of 2SLS regressions are less robust. Additionally, the paucity of information on the Pacific cannot illuminate us as to the specific impact of aid on institutions in this region, particularly given that only one country (Fiji) is contained in our dataset. Instead, we use the findings to guide us as we then look in more detail case at recent donor experience with economic governance programmes. Our cross-country analysis provides support to our prior observation that while aid, on the whole, has a positive impact on economic freedom overall, it has an adverse effect on the level of economic freedom in small countries and thus is more distortionary. We then examine the impact of governance aid on small island states within the Pacific to study the impact of aid on their policy choices. We use two case studies drawn from economic governance programmes funded by the Australian Agency for International Development (AusAID) during the last decade, for which we have complete sets of evaluation data and which represent a substantive proportion of the bilateral governance budget expended during those years. Unfortunately, the experience of development experts and findings from the programme-level analysis corroborate the conclusions drawn from the larger cross-country analysis.

Here we hypothesize that aid has a detrimental impact on smaller economies. We posit that foreign aid allows greater control of economic activities in small and highly divided communities compared to large and relatively homogeneous communities. The theory has two important policy implications: (i) foreign aid in small (and highly fragmented states) can undermine its own effectiveness by having a detrimental impact on policies for growth of income; and, (ii) the feedback between aid and policy can create a poverty trap, the breaking-out from which may necessitate some ‘tough love’.

Our findings from cross-country analysis suggest that while aid has an overall positive impact on institutional quality, aid is likely to undermine institutional effectiveness in small countries. This effect, captured by the impact of an interaction term between aid and population on economic freedom, is found to be statistically significant. We find that while aid increases economic freedom as a whole, the total effect of aid on economic freedom is negative for nations with a population less than 1.4 million. This finding suggests that while small countries in general have greater levels of economic freedom (a major determinant of economic performance), they also receive larger quantities of aid. This latter effect acts as a disincentive for policies to increase economic freedom. This observation is supported by country-level case studies and the experience of aid experts.

This has an important lesson for the Pacific. Aid should lead to growth in the Pacific, as these are small countries whose institutions should be able to benefit from aid, and therefore contribute to growth. But there are widespread concerns that small countries seem not to benefit from aid and experience instead deteriorating institutional performance, a sentiment supported by our findings. And indeed, if governance programmes fail to bring the required changes in economic institutions, then there needs to be a fundamental rethink in aid strategy, given that 36 per cent of the 2005/6 Australian aid budget was spent on governance programmes (Commonwealth of

Australia 2005: 9). With Australia committed to double annual aid spending to AU\$4 billion by 2010 (AusAID 2006a: ix), the results here suggest that a focus on governance may not lead to the best development outcomes for the Pacific.

2 Determinants of growth—a brief survey

New growth theory extended neoclassical growth theory beyond the Solow and Swan (1956) model which introduced technological change as the key driver of growth when economies enter a steady-state capital and labour ratio. New growth theory suggests that endogenous factors equally contribute to economic growth by driving technological change themselves, and therefore under the Solow-Swan model, growth itself.

Here we model the growth relationship based on the neoclassical framework but incorporating the endogenous factors that drive technology change. Output growth (ΔY) is a function of initial output Y and long-run or steady-state output Y^* such that:

$$\Delta Y = f(Y, Y^*) \tag{1}$$

Y^* depends on a range of endogenous factors including population, institutional quality, capital accumulation, openness, etc. For a given initial state Y , an increase in the steady-state output Y^* results in a corresponding increase in output growth ΔY . Hence growth is determined by a shift in the endogenous conditions that define the steady-state. As the initial state converges to the steady-state, growth rates fall (as predicted in endogenous growth models).

Endogenous growth theory has proposed a variety of factors that determine Y^* and which can, when shocked, spur economic growth. Country size is a contentious determinant. Kremer (1993) argues that population should matter, a larger population having more potential for technological innovation and therefore a greater chance of shocks to Y^* than a smaller population, all else being held equal (and a higher steady-state income supports higher populations, leading to continued growth and increasing populations). However, cross-country evidence over the shorter term⁵ gives this proposition little support. While Kremer uses a Malthusian model of subsistence income as a function of income over labour, Brander and Dowrick (1994) describe a ‘neo-Malthusian’ framework showing that reduced birthrates result in higher per capita incomes. Brander and Dowrick find no evidence of population as a determinant of growth, a finding that is supported by much of the subsequent cross-country evidence. Instead, factors such as openness to trade and institutional quality have proven to be more robust determinants of growth

The literature on openness and growth is extensive, and Baldwin (2003) provides a comprehensive overview of the latest thinking on openness. While some notable doubters remain,⁶ the weight of evidence has fallen in favour of trade liberalization leading to economic growth given the appropriate initial conditions—trade openness is a necessary but not sufficient precondition for growth. Two other key determinants

⁵ Kremer’s study looks at long-run evidence, using data from 1 million BC to 1990.

⁶ Notably the perennial scrutineer, Dani Rodrik.

stand out: institutional quality and distance from markets. But it can be argued that both distance from markets (or certainly the cost of trade with distant markets, cost of transport to market being a common variable in growth regressions) and market openness can be influenced by institutions, and therefore it is institutions that form the underlying endogenous determinant of growth. This is borne out in the recent highly influential work on growth and institutions, the contentiously titled ‘Institutions Rule’ (Rodrik, Subramanian and Trebbi 2004), which uses cross-country evidence to demonstrate that it is institutional quality that matters most for growth. While Rodrik, Subramanian and Trebbi contend that other factors, including openness, or as they term it, integration (with the rest of the world), do not matter for growth, subsequent work argues otherwise. Chang, Kaltani and Loayza (2005), for example, demonstrate that complementary reforms (those that facilitate competitive responses to trade openings) need to accompany liberalization if growth is to result. Evidence such as this does not diminish from the findings of Rodrik, Subramanian and Trebbi, but instead reinforces the need for a suite of changes to take place if growth is to result, and well-functioning institutions are more likely to implement effective complementary reforms to accompany opening than weak ones. Chang, Kaltani and Loayza summarize their argument nicely when they state that ‘the eventual success of openness in terms of growth performance depends on the economic and institutional characteristics that make a country able to adjust to the new conditions imposed by international competition’ (Chang, Kaltani and Loayza 2005: 5).

Other researches, such as Mehlum, Moene and Torvik (2006), use institutional quality to explain economic puzzles such as the ‘resource curse’ experienced by many resource-rich developing countries. Mehlum, Moene and Torvik propose that the resource curse is best regarded as an unlucky confluence of resource endowment with weak institutions, pointing to countries such as Norway and Botswana as resource-rich countries that have escaped the ‘curse’ thanks to good institutions.

The importance of institutions has fundamentally changed the way donors give aid. One of the most significant aid ‘trends’ of the last fifteen years has been the move to governance aid. Governance, capacity building or technical assistance, aim to address institutional constraints on economic development to create an environment that is conducive to growth. A broad literature has developed on the importance of institutions, from the seminal work of North (1989) through to more recent work by Rodrik, Subramanian and Trebbi (2004). This period has witnessed the growth of governance as a distinct and well-resourced area of bilateral aid. Of the Australian aid programme for 2006/7, 26 per cent is dedicated to governance: substantially more than is spent on health (13 per cent), education (15 per cent) or infrastructure (9 per cent). A third of these funds went to law and justice programmes, while economic and financial management and other public service strengthening activities took around a quarter each. Donors believe that by creating an institutional environment receptive to private activity, they can provide markets with the opportunity to do their work and deliver economic prosperity. Bilateral aid is necessarily a government-to-government business, and it makes sense that bilateral donors would play to their strengths by engaging with their counterparts to promote market-friendly reform. Institutional strengthening has become central to bilateral aid, and therefore leads to the question: does aid positively affect institutions in developing countries? If it does, then it follows that better institutions, coupled with an open economy, will lead to increased rates of growth.

But another important determinant of the success of trade openness in catalyzing economic growth is proposed by Alesina, Spolaore and Wacziarg (2005). They demonstrate that it is here that country size matters: country size and openness are fundamentally linked as both determine the size of domestic markets. Past studies of endogenous growth models that include country size have proven to be inconclusive, finding no evidence of size effect (see, for example, Backus, Kehoe and Kehoe 1992). But Alesina, Spolaore and Wacziarg propose that this is due to a poor choice of size proxies at the national level. They propose that an open economy has fewer frictions at borders: therefore, it has increased its market size regardless of the physical population of the country. Its potential marketplace reaches beyond the borders and it is therefore able to compensate for small size with greater reach. They show that when market size is combined with trade openness, a size effect is evident. Importantly to our study, Alesina, Spolaore and Wacziarg show that the disadvantages of having a small market can be mitigated by openness.

This brings our discussion back to aid, size and institutions. If institutions matter, and size matters in combination with trade openness for growth, then small, open economies with well-functioning institutions should be the ideal environment for growth. If aid can contribute to one of these factors, namely institutions, then growth should result.

3 Aid in the Pacific

Researchers of the Pacific are only too well aware that the region has stagnated badly over the last thirty years. Average rates of growth (Table 1) have fallen in most countries, with the remittance economies of Samoa and Tonga the only reasonable

Table 1
Average growth rates, major Pacific economies

Country	1970s	1980s	1990s	2000-05
Fiji	6.45	0.81	2.93	2.17
Papua New Guinea	3.89	1.36	4.88	0.71
Samoa	10.91	-0.23	1.39	4.90
Solomon Islands	6.72	6.03	3.23	-1.70
Tonga		2.33	2.13	2.68
Vanuatu		1.71	3.88	1.22

Source: World Bank (WDI).

Table 2
Average GDP and aid disbursed per capita, major Pacific economies

Country	Population 2000-04 (millions)	1970s		1980s		1990s		2000-04	
		GDP	Aid	GDP	Aid	GDP	Aid	GDP	Aid
Fiji	0.83	1663	121	1750	104	1993	73	2163	56
Papua New Guinea	5.54	611	241	562	151	653	96	613	54
Samoa	0.18	804	213	1122	308	1144	296	1430	233
Solomon Islands	0.44	503	391	720	260	879	149	642	191
Tonga	0.1	-	175	1192	354	1372	345	1597	255
Vanuatu	0.2	-	573	1180	495	1271	296	1188	222

Source: World Bank (WDI) constant 2005 US\$; OECD Aid Statistics, constant 2004 US\$.

performers. But in terms of GDP per capita (Table 2), even these countries have failed to perform. Unfortunately the Pacific is easily generalized as a region where economic growth has failed to keep pace with that of population.

Even the harshest critics of the Pacific agree that the region should be a success. It is perhaps this frustration that makes so many Pacific experts react negatively towards the region, as their careers end with little progress to be shown. Certainly during decolonization in the 1960s and 1970s there was every reason to be optimistic, with most countries having a good spread of mineral, agricultural, forestry and fisheries resources at their disposal. While some might argue that size and remoteness have worked against some countries, it is hard to argue that Papua New Guinea or Fiji has any reason not to be economically viable. And yet, despite years of aid and attention from the international donor community, these countries appear to be going backwards, a situation particularly stark in contrast to neighbouring Asian economies. The worst performers in the Pacific, moreover, are not necessarily the smallest economies; what is true, however, is that those rich in resources have on average done poorly compared to the rest.

Aid flows to the region have been inconsistent over the years. Levels of aid have generally fallen, particularly in per capita terms. Nonetheless, aid remains high: Vanuatu has been the highest recipient of aid per capita in the Pacific, and in fact is one of the highest per capita recipients of aid in the world along with Kiribati and the Solomon Islands (IMF 2005). Despite this high volume of aid, and despite the attention of donors to governance programmes and institutional reform, at the time of writing three Pacific countries were experiencing severe political instability and outbreaks of violence, four if East Timor is counted as a Pacific economy (as is increasingly the case, given that the mounting problems there bear a striking resemblance to those of other Pacific island states).

The small number of Pacific island nations, and the poor quality of data available for these countries, mean that any attempts to model the specific impact of aid on the Pacific will generate results likely to be less than robust. As a result, only one Pacific state, Fiji, appears in our sample data, but the experience of Fiji and other small states is generalisable to the rest of the Pacific. We complement this with two case studies of Fijian governance programmes and their impact on Pacific institutional quality.

4 Data

The data on the index of economic freedom have been obtained from the Heritage Foundation. These data have been collected annually for some 164 countries since 1995 with the scores being comparable both across countries and over time. The index of economic freedom is derived from 50 independent economic variables. These variables are grouped into ten broad categories that depict the levels of economic freedom in each sub-category. The ten groupings are: trade policy; fiscal burden of government; government intervention in the economy; monetary policy; capital flows and foreign investment; banking and finance; wages and prices; property rights; regulation; and informal market activity. The above-mentioned factors are weighted equally in arriving at the overall score for the country.

The scores on the individual components of the index are also available, thus making it possible to explore the relationship between aid and economic freedom at the aggregate level as well as within the ten separate categories comprising the overall score on economic freedom. In terms of country scores for the 164 countries for which data for 2006 are made available, Hong Kong with a score of 1.28 is the most free with Singapore with a score of 1.56 coming second while Iran and North Korea, with scores of 4.56 and 5.0 respectively, occupy the bottom two places and represent the least free (that is, most repressed) economies. While Hong Kong and Korea receive foreign aid that amounts to less than one per cent of GDP, data on aid receipts for Iran and North Korea are not available.

In terms of the individual components comprising the overall score on economic freedom, these scores vary considerably across countries: Hong Kong maintains its top rank, albeit in company with a few others on some of the scores, but Singapore while sharing the top rank with Hong Kong on trade, drops to 122 (below India and Haiti) in terms of government intervention. This variability in the values for economic freedom within the individual categories is used to investigate the impact of aid, if any, on the ten subcategories comprising the overall score for economic freedom.

While space constraints prohibit us from explaining what each measure of economic freedom captures, a sample is used to provide a flavour of what the scores depict. In the case of ‘capital flows and foreign investment’, for example, a score of 1 signifies that a country has the least restrictions and provides

equal treatment of foreign investment; transparent foreign investment code and professional, efficient bureaucracy; no restrictions on foreign investments with rare exceptions in sectors related to national security; country has legal guarantees against expropriation of property and permits international arbitration of disputes; both residents and non-residents have access to foreign exchange and may conduct international payments, transfers, or capital transactions freely (Beach and Miles 2006: 67).

In contrast, a score of 5, the most restrictive on this count, meets the following conditions:

foreign investors do not receive equal treatment; foreign investment code is discriminatory; and the approval process is opaque and corruption is widespread; foreign investment is restricted and few sectors are open to foreign investment; expropriation of property has occurred in the recent past; foreign investors may not purchase real estate; government controls or prohibits most international payments, transfers, and capital transactions (ibid: 67).

Similarly, a country receiving a score of 1 for ‘property rights’ meets the following criteria: ‘private property is guaranteed by government; court system efficiently enforces contracts; justice system punishes those who unlawfully confiscate private property; corruption nearly non-existent; and expropriation highly unlikely’ (Beach and Miles 2006: 71), while a grade of 5 signifies that: ‘private property outlawed or not protected; almost all property belongs to the state; country in such chaos (for example,

because of ongoing war) that property protection almost nonexistent; judiciary so corrupt that property not effectively protected; expropriation frequent' (ibid: 71).

Scores between 1 and 5 reflect the gradations between extremes for each category. Importantly, the index of economic freedom captures country-specific institutional factors, specifically those that fall within the realms of policy. These factors set the parameters for individuals and firms to respond to market conditions, both locally and internationally, for consumption, production, and investment. It is the freedom that policymakers have in setting these parameters that is of most relevance to this study.

Each economy, then, is graded in terms of the ten components listed above on a scale of 1 to 5 with 1 signifying polices that provide maximum economic freedom and 5 the least. The average score is used to group countries in four broad categories, namely:

- *Free*: this is for countries with an overall score of 1.99 or less;
- *Mostly free*: this is for countries with an average overall score between 2.00 and 2.99;
- *Mostly unfree*: this is for countries with an overall score between 3.00 and 3.99; and,
- *Repressed*: this is for countries with an overall score including and greater than 4.

Data on population, aid, and per capita income are drawn from the World Development Indicators (WDI) online database. These are for 2004, the most recent data available. The scores on economic freedom, in contrast, are current as of 30 June 2005 (Beach and Miles 2006).⁷ Table 3 provides summary statistics for the basic sample used in the cross-sectional analysis.

Table 3
Summary statistics for cross-sectional analysis

Variable	Obs	Mean	Std dev.	Minimum	Maximum
Overall score	164	2.98	0.70	1.28	5
Trade policy	164	3.24	1.08	1.00	5
Fiscal burden	164	3.34	0.82	1.30	5
Government intervention	164	2.68	0.86	1.00	5
Monetary policy	164	2.10	1.20	1.00	5
Foreign investment and capital flows	164	2.95	0.98	1.00	5
Banking and finance	164	2.84	1.03	1.00	5
Wages and prices	164	2.68	0.74	1.00	5
Property rights	164	3.17	1.20	1.00	5
Regulation	164	3.46	0.90	1.00	5
Informal market activity	164	3.32	1.08	1.00	5
Population ('00,000)	164	386.52	1,358.82	1.84	12,962
GDP per capita (PPP)	164	9,680.06	10,613.55	595.70	64,299
Aid (% GNI)	129	5.92	8.82	-0.01	54

Source: The Heritage Foundation (October 2006).

⁷ The monetary policy measure is a 10-year weighted average of the inflation rate to 31 December 2005.

5 Cross-country results

Cross-sectional evidence is derived using a series of ordinary least squares (OLS) and 2-stage least squares (2SLS) estimations from the data set described in Table 3. Our primary estimating equation takes the form:

$$\text{Economic freedom} = f(\text{size, aid, other controls}) \quad (2)$$

where size refers to the size of the economy given by population and gross domestic product, aid refers to aid receipts as a percentage of GNI, and other controls comprise the commonly used controls in cross-country growth regressions: per capita income; regional country dummies—those for Sub-Saharan Africa (SSA), Latin America and the Caribbean (LAC), Asia and the Pacific (AP), and North Africa and the Middle-East (NAME); distance from the equator (DistEq); and population within 100 kilometres of the ocean (Pop100km) as controls. This gives us the equation:

$$EF = \alpha + \beta_1 \ln(y) + \beta_2 \ln(\text{Pop}) + \beta_3 \text{Aid} + \beta_4 \frac{\text{Aid}}{\ln(\text{Pop})} + \beta_5 \text{SSA} + \beta_6 \text{LAC} \\ + \beta_7 \text{AP} + \beta_8 \text{NAME} + \beta_9 \text{DistEq} + \beta_{10} \text{Pop100km} + \varepsilon \quad (3)$$

Table 4 shows regression estimates for the overall score for economic freedom using the OLS and 2SLS methodologies.

Table 4
Economic freedom and foreign aid

Equation/method	1/OLS	2/OLS	3/OLS	4/2SLS ^(a)
ln(y)	-0.43 (0.06)**	-0.44 (0.068)**	-0.43 (0.071)**	-0.27 (0.14)^
ln(Pop)	0.079 (0.021)**	0.075 (0.023)**	0.11 (0.032)**	0.15 (0.048)**
Aid	-0.018 (0.0066)**	-0.016 (0.0067)*	-0.20 (0.057)**	-0.25 (0.19)
Aid/Pop			2.83 (0.88)**	3.78 (3.00)
SSA		0.034 (0.14)	0.052 (0.20)	0.23 (0.26)
LAC		0.13 (0.13)	0.16 (0.18)	0.15 (0.22)
AP		0.073 (0.14)	0.037 (0.15)	0.29 (0.18)
NAME		0.32 (0.15)*	0.38 (0.16)*	0.52 (0.18)**
DistEq			-0.00064 (0.004)	-0.0027 (0.005)
Pop100km			-0.17 (0.15)	-0.30 (0.16)^
Constant	5.52 (0.68)**	5.56 (0.82)**	4.96 (0.91)**	2.98 (1.61)^
Obs	121	121	110	87
R- squared	0.50	0.53	0.54	0.48

Notes: Robust standard errors in parentheses; ^ significant at 10 per cent; * significant at 5 per cent; ** significant at 1 per cent.
(a) Aid and Aid/Pop has been instrumented with the following instruments: ln(y); ln(Pop); SSA; LAC; AP; NAME; Pop100km; DistEq; leg_british; chmort90_04; engfrac; le04; arms02_04; armspop; lelpop; and chmort04pop.

The statistically significant coefficient on the level of (log) income across the cross-country sample shows that economic freedom differs systematically across countries depending on their level of development. This variable, therefore, is a legitimate control in the cross-sectional analysis. Similarly, larger populations are associated with lower levels of economic freedom. Combining these two observations suggests that countries with small populations and high incomes would have greater levels of economic freedom compared to the rest. Hong Kong and Singapore fit the bill well on this count. The coefficient on aid is negative and statistically significant in all of the OLS estimates, suggesting that increased aid is associated with greater levels of economic freedom. None of the country dummies are significant except for North Africa and Middle East (NAME); this region has lower levels of economic freedom compared to the other regions, in particular North America and Europe (the excluded group in these estimates).

The coefficient on the interaction term, $Aid/\ln(Pop)$ (that is, aid divided by the natural logarithm of population), is positive and statistically significant in the OLS estimate reported in Table 4. This estimate suggests that higher aid, as a per cent of GNI, has a bigger negative impact on economic freedom in countries with small populations. The point estimate reported as equation 3 in Table 4 suggests that the beneficial effect of aid flips over for countries with populations less than 1.4 million. That is, while aid increases economic freedom as a whole, the total effect of aid on economic freedom is negative for nations with a population less than 1.4 million.⁸ Pacific nations with the exception of Papua New Guinea fall well below this threshold.

The last column in Table 4 provides estimates using 2SLS; this has been done to address the potential endogeneity between aid and economic freedom. One could argue that aid is provided (or possibly denied) as a result of poor policies. This issue is handled using instruments. Alesina and Dollar (2000) and Berthélemy (2006) provide a useful basis for developing an instrumentation strategy. These authors demonstrate that foreign aid is allocated both on a needs basis (i.e., to countries with poor health conditions and low GDP per capita) as well as a donor's strategic interest. Another common instrument for foreign aid in the literature is a measure of arms imports from major donors as a percentage of total imports. This variable reflects the fact that, for strategic purposes, donors tend to give more money to countries that are militarily powerful⁹ (Burnside and Dollar 2000). The instrumentation strategy employed here follows this literature by including measures of colonial heritage, child mortality, life expectancy, fraction of the population that speak either English and/or French, and arms imports as a percentage of GDP. Given that it is also necessary to instrument for the aid and population interaction term, a number of non-linear instruments are also included.

Figure 2 shows a partial regression scatter plot of foreign aid on the overall score for economic freedom. This is done simply to gauge the contribution of outliers in our

⁸ This figure is reached by setting $\frac{\partial EF}{\partial Aid} = \beta_3 + \beta_4 \frac{1}{\ln(Pop)} = 0$, substituting in the parameters and then solving for population.

⁹ Legal arms imports also indicate that this military power is generally accepted by the international community, as it is not significant in determining the level of development assistance (Berthélemy 2006).

Figure 2
Partial regression estimates from equation 3

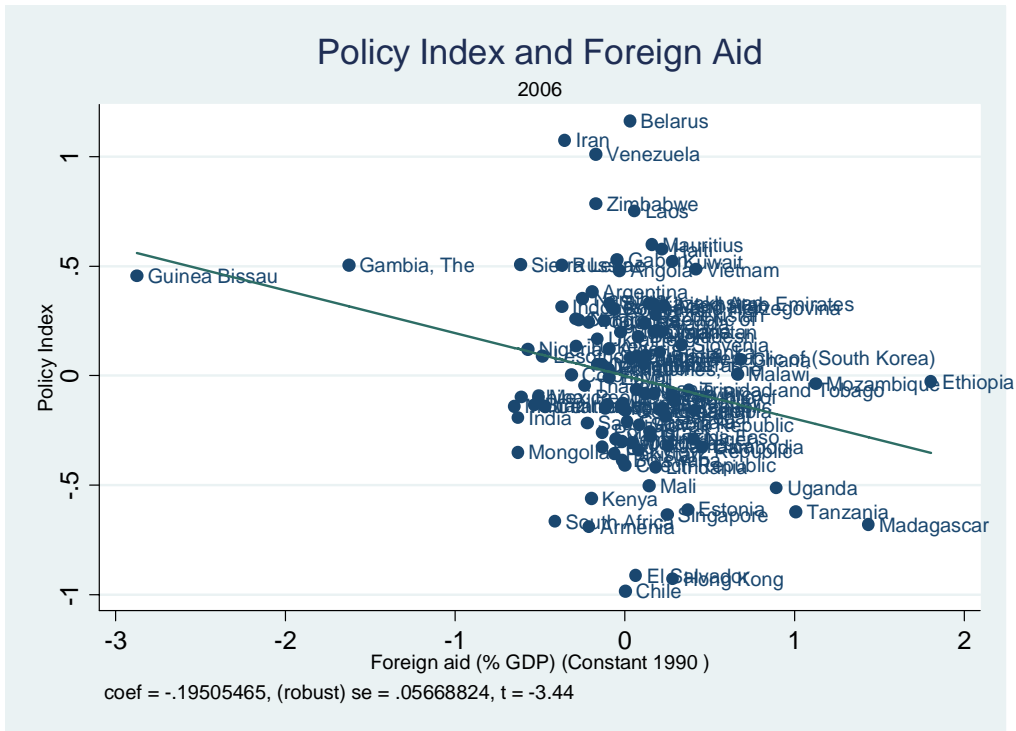
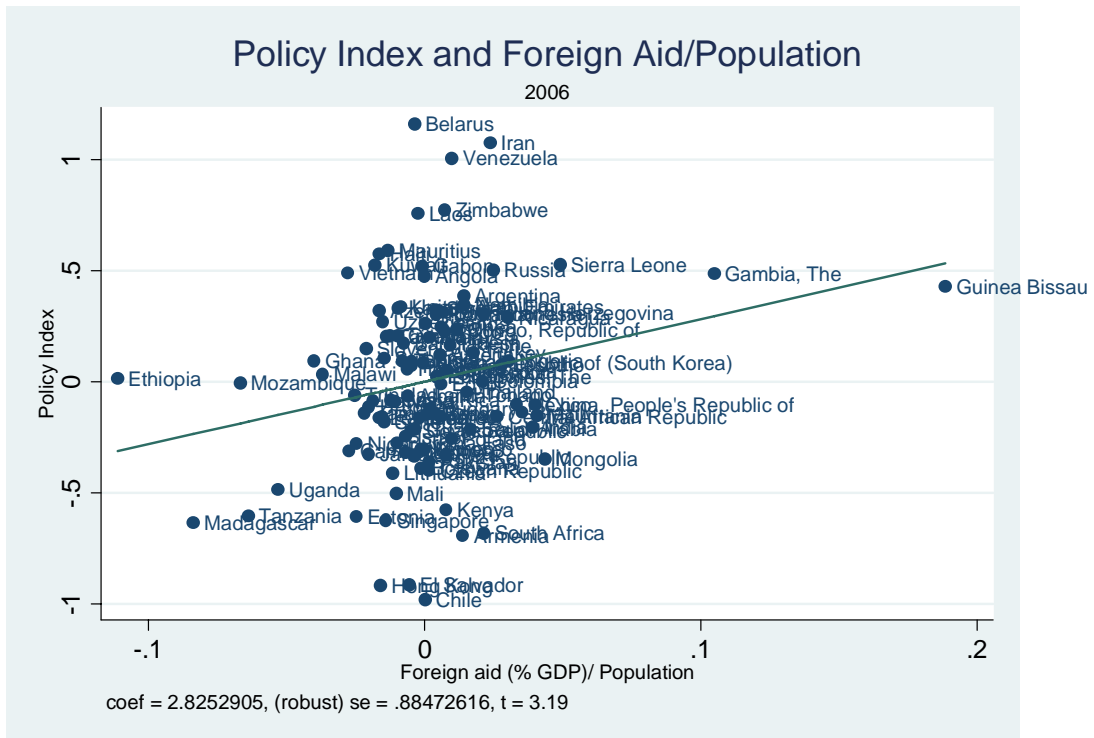


Figure 3
Partial regression estimates from equation 3



estimates; this being important given Easterly's (1999) observation that the statistical significance of cross-country regressions involving policy indicators are generally driven by a small number of outlying observations. Guinea Bissau has considerable leverage in the regression estimate but excluding this observation leaves the qualitative conclusions unaffected. Figure 3 shows the partial regression scatter plot of Aid/Pop. Guinea Bissau again has considerable leverage, but again omitting this observation does not alter the findings. We estimate Equation 3, augmented with quadratic terms for the level of aid and population to account for potential diminishing returns (or the converse) for these variables, but this once again leaves our conclusions on the impact of aid on economic freedom in small *vis-à-vis* large nations unchanged.

The level of (bilateral) aid a country receives, according to Alesina and Dollar (2000), is determined largely by political and strategic considerations with democracy (that is, an indicator of the level of freedom), the quality of policies, with recipient needs having only a marginal impact. To control for the potential endogeneity, Equation 3 is re-estimated using 2SLS procedure with colonial heritage (*leg_british*), child mortality (*chmort90_04*), life expectancy (*le04*), fraction of the population that speak either English and/or French (*engfrac*), arms import (*arms02_04*), and interactions between

Table 5(a)
Components of economic freedom (dependent variable) and foreign aid

Equation/method	5/OLS	6/OLS	7/OLS	8/OLS ^(a)
Dependent variable	Foreign investment	Monetary policy	Wages and prices	Trade policy
ln(y)	-0.39 (0.15)**	-0.27 (0.17)^	-0.23 (0.091)*	-0.62 (0.15)**
ln(Pop)	0.18 (0.062)**	0.16 (0.095)	-0.0017 (0.047)	0.14 (0.069)*
Aid	-0.28 (0.097)**	0.077 (0.22)	-0.052 (0.088)	-0.32 (0.11)**
Aid/Pop	3.99 (1.56)*	-1.09 (3.54)	0.56 (1.40)	4.48 (1.75)*
SSA	-0.075 (0.35)	0.17 (0.49)	0.08 (0.34)	0.36 (0.49)
LAC	-0.17 (0.30)	1.01 (0.42)	0.066 (0.25)	-0.14 (0.32)
AP	0.098 (0.28)	-0.17 (0.35)	0.30 (0.23)	-0.12 (0.31)
NAME	0.43 (0.34)	0.0046 (0.36)	0.41 (0.26)	0.80 (0.33)*
DistEq	-0.0093 (0.0082)	0.015 (0.01)	0.0035 (0.0068)	-0.0088 (0.009)
Pop100km	-0.44 (0.27)	-0.24 (0.36)	-0.25 (0.25)	-0.11 (0.32)
Constant	3.87 (1.83)*	1.56 (2.62)	4.59 (1.23)**	6.45 (1.89)**
Obs	110	110	110	110
R-squared	0.34	0.17	0.14	0.48

Notes: Robust standard errors in parentheses; ^ significant at 10 per cent; * significant at 5 per cent; ** significant at 1 per cent.

^(a) Aid and Aid/Pop has been instrumented with the following instruments: ln(y); ln(Pop); SSA; LAC; AP; NAME; Pop100km; DistEq; *leg_british*; *chmort90_04*; *engfrac*; *le04*; *arms02_04*; *armspop*; *lepop*; and *chmort04pop*.

the above listed and population as instruments (armslpop, lelpop, chmort04pop). While we remain to be fully convinced of the instrumentation strategy employed here, our preliminary analysis shows that the link between economic freedom and the level of development and size of an economy survives the 2SLS procedure, albeit at a lower levels of statistical significance.¹⁰ The impact of the interaction term on economic freedom, however, losses statistical significance but maintains the correct sign. We pursue this line of investigation to the ten subcategories of economic freedom next.

Table 5(a,b,c) reports OLS estimates of Equation 3, but this time using the ten separate submeasures of economic freedom as the dependent variable that is listed in the first raw. The statistically significant estimates of the coefficient on the Aid/Pop term is shaded in Tables 5(a) and 5(b). Again, aid to small nations is found to be negatively associated with the levels of economic freedom with respect to foreign investment, trade policy, banking, and property. The first two are consistent with the claims such as those of Bauer (1984) who contends that foreign aid in small states provides room for distortions with respect to foreign investment and trade policy. Foreign aid in small states, similarly, could allow greater control by the state of the banking sector, say by

Table 5(b)
Components of economic freedom (dependent variable) and foreign aid

Equation/method	9/OLS	10/OLS	11/OLS	12/OLS (a)
Dependent variable	Government intervention	Fiscal burden	Banking	Property
ln(y)	-0.067 (0.12)	-0.31 (0.12)*	-0.41 (0.12)**	-0.68 (0.13)**
ln(Pop)	0.032 (0.061)	0.17 (0.05)**	0.21 (0.06)**	0.072 (0.057)
Aid	-0.041 (0.11)	-0.11 (0.084)	-0.27 (0.12)*	-0.36 (0.089)**
Aid/Pop	0.17 (1.65)	1.71 (1.29)	3.82 (1.94)^	5.59 (1.38)**
SSA	-0.11 (0.34)	0.73 (0.32)*	1.15 (0.33)**	-0.77 (0.36)*
LAC	-0.11 (0.32)	0.63 (0.29)*	0.64 (0.35)^	-0.14 (0.36)
AP	0.14 (0.29)	0.20 (0.25)	0.79 (0.31)*	-0.39 (0.26)
NAME	1.08 (0.33)**	0.31 (0.34)	1.21 (0.29)**	-0.012 (0.27)
DistEq	-0.015 (0.007)**	-0.0011 (0.007)	0.013 (0.008)	-0.0048 (0.007)
Pop100km	-0.56 (0.26)*	0.37 (0.23)	0.33 (0.27)	-0.32 (0.24)
Constant	3.38 (1.69)*	2.68 (1.45)^	1.88 (1.63)	8.64 (1.78)**
Obs	110	110	110	110
R-squared	0.27	0.44	0.42	0.45

Notes: See Table 5(a).

¹⁰ These results are also subject to concerns over the potential for the IV strategy to be weakly identified with the endogenous regressors.

Table 5(c)
Components of economic freedom (dependent variable) and foreign aid

Equation/method	13/2SLS	14/2SLS	15/2SLS	16/2SLS (a)
Dependent variable	Foreign investment	Trade policy	Banking	Property
Aid	-0.25 (0.19)	0.50 (0.55)	-0.66 (0.47)	-0.14 (0.30)
Aid/Pop	3.78 (3.00)	-7.39 (8.60)	9.82 (7.34)	2.42 (4.57)
ln(y)	-0.27 (0.14)^	-0.047 (0.37)	-0.45 (0.28)	-0.37 (0.29)
ln(Pop)	0.15 (0.048)**	0.013 (0.11)	0.32 (0.098)**	0.096 (0.08)
SSA	0.23 (0.26)	0.04 (0.58)	1.47 (0.43)**	-0.53 (0.41)
LAC	0.15 (0.22)	-0.17 (0.40)	0.83 (0.41)**	-0.067 (0.42)
AP	0.29 (0.18)	0.062 (0.36)	1.05 (0.40)**	0.10 (0.29)
NAME	0.52 (0.18)**	1.24 (0.36)**	1.26 (0.31)**	0.34 (0.32)
Pop100km	-0.31 (0.16)^	-0.19 (0.42)	0.10 (0.31)	-0.48 (0.27)^
DistEq	-0.0027 (0.0054)	-0.017 (0.012)	0.015 (0.011)	-0.0087 (0.0079)
Constant	2.98 (1.61)^	3.75 (3.92)	0.36 (3.07)	5.51 (3.18)^
Obs	87	87	87	87
R-squared	0.48	0.20	0.36	0.33

Notes: See Table 5(a).

running state banks, or nationalizing enterprises, thus eroding security of individual rights to property. Table 5(c) re-estimates the impact of Aid/Pop using 2SLS with the same instruments as those used in estimate 3 of Table 4, but now only for those measures of economic freedom that had a statistically significant coefficient when the OLS procedure was employed. The estimate of the coefficient on the interaction term loses statistical significance and for trade policy switches sign, but the signs remain unchanged for the remaining three sub-measures of economic freedom.

Additional robustness checks were performed using the quadratic of Aid, population (Pop) and child mortality (chmort90_04). Again, results were in keeping with those of the main regression and support our thesis. The cross-country analysis thus far has exploited the available degrees of freedom much in the spirit of a grid search in identifying the role of aid on economic freedom. We narrowed down the impact of aid to four sectors, but the weakness in the 2SLS estimates suggests caution in interpreting these results.

6 Economic governance programmes in Fiji

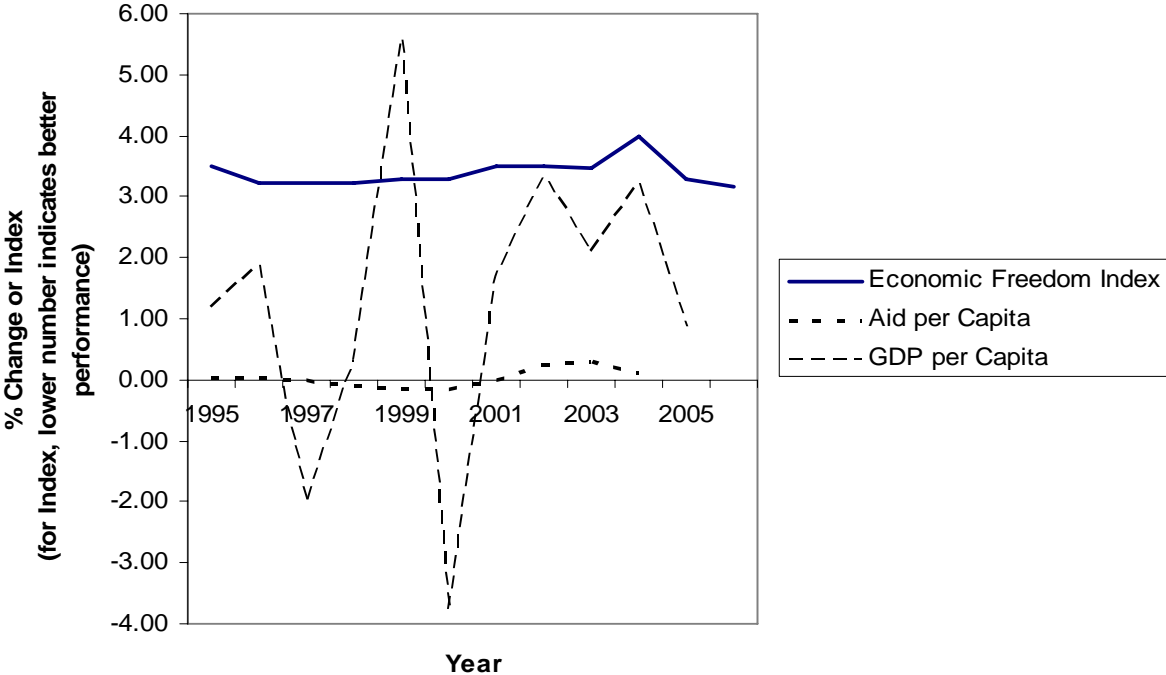
The assertion that institutions matter to development has led, as discussed previously, to a global focus on governance programmes. But the record of these governance

programmes is mixed at best. Reports on donor activity in the Pacific sway between those declaring success for specific programmes and those which make more general references, articulating an uneasy concern that things are not as rosy as they seem. GDP growth is weak at best, with targets such as the 8 per cent set by the government of Fiji almost laughable given performance to date (Table 1). The latest edition of the highly regarded World Bank’s cost of doing business survey sees Fiji slipping from position 29 to 31 and recent political activity (namely the coup in December 2006) is likely to result in a further decline.

Donors have traditionally limited the information publicly available on the performance of governance programmes in the Pacific, a rational reaction given the shortage of positive news that would reinforce calls for decreases in aid volumes. We note with pleasure that this is likely to become less the case with the introduction of AusAID’s new strategy for strengthening performance orientation, which features a risky but commendable ‘publish or perish’ approach to impact evaluation. But a review of evaluation documents by the authors indicates that relatively few evaluations have taken place, fewer still are in the public domain, and those that exist regard their programmes to have been effective.¹¹ This begs the question: why are institutions still performing so poorly?

The only Pacific country in our cross-country regressions, Fiji, is fairly typical of the region. Figure 4 shows that recent increases in aid have been followed by a decline in economic freedom (where an increase in value indicates a decline in performance). While this is indicative only, and represents only recent history, it does lend support to our thesis that small countries deal badly with aid. Given that economic governance is

Figure 4
Economic freedom and GDP per capita, Fiji



Source: Heritage Foundation (2006).

¹¹ Review of available documentation took place at AusAID in October 2006.

our indicator of institutional quality, we examined the economic governance initiatives undertaken in Fiji over the last decade. Development professionals with extensive experience in the Pacific point to three key problems that undermine the performance of economic governance initiatives: poorly understood incentives; inappropriate policy advice; and donor fatigue (Bowman 2006). All are interrelated to some degree—inappropriate policy advice often stems from poorly understood incentive structure, and donor fatigue typically leads to governments accepting inappropriate policy advice.

An example of poorly understood incentives and poor policy advice was the move in the early 1990s to introduce performance-based pay to the Fiji public service. Merit-based pay is regarded in the developed world as fundamental to efficient business systems. A common belief is articulated by Russell Miller, a principal with Washington, DC-based Mercer Human Resource Consulting, who says that a well-crafted performance pay system establishes a pact with workers that in effect says, ‘We’re going to hold you accountable, and we’re going to reward you’ (Bates, Mirza and Fox 2003: 36). It made sense, then, for consultants asked to investigate the poor productivity of the Fiji public service to recommend the introduction of a merit-based pay system called the performance management system (PMS).

But there was widespread dissatisfaction with the PMS, which was introduced in January 2004. The Arbitration Tribunal convened in 2005 pointed to ‘a lack of objectivity, difficulty in measuring performance and excessive and confusing paperwork’ that ultimately undermined the functioning of the system. The Pacific experts consulted in the preparation of this study pointed to entrenched cultural values that work counter to the concept of merit-based pay and create a set of incentives responsive to local practices but which undermine performance goals. According to one development professional, a trial of the scheme in one government department saw the majority of workers receiving a minimum of 8 on a scale from 0 to 10 for their performance appraisal, a rating of 8 or more entitling them to a merit payment. For a relatively small public sector in a community with strong kinship links and obligations, an objective merit-based system seems destined to failure, and the results of the trial surprised few with deep knowledge of Pacific society. The final cost to the government was far more than anticipated, with the initial estimate of FJD\$12 million for 2004 ultimately blowing out to FJD\$35 million.¹² The Arbitration Tribunal found that ‘the present PMS does not ensure that the Commission will achieve its objective of reducing the operating costs of the public sector in particular the wages and salaries paid to public servants’.¹³ The failure of the trial programme has resulted in the system being suspended, with the government currently undertaking a review and the reintroduction of the PMS now deferred until 2008 (Government of Fiji 2006). The original indexed remuneration system, known as the cost of living adjustment (COLA), has been reinstated.

Unintended consequences also abound in the Pacific. An example of this can be found in the Fiji Islands Revenue and Customs Authority Project funded by AusAID between 1999 and 2003. Regarded by evaluators as a successful programme, it aimed to strengthen the customs service to increase revenue collection from trade and improve

¹² Evidence presented at Arbitration Tribunal—Awards 52-57—2004 COLA, 21 October 2005.

¹³ Ibid.

the revenues and management of the inland revenue department. Fiji has indeed improved its revenue collection over this period, with a 36 per cent increase in revenue since 2000 (Table 6). However, tax revenues have actually gone backwards in most categories, the exception being revenue from customs and port duties which has more than doubled. Whether this is a good thing is questionable. A comparable island economy, Mauritius, received around 20 per cent of its income from customs duties (import taxes) in 2005 (Mauritius 2005), while in contrast customs duties made up almost 60 per cent of Fiji's 2005 tax revenue. While there is no fixed rule dictating the ideal composition of tax sources in developing countries, the IMF observes that 'the most notable shortcoming of the excise systems found in many developing countries is their inappropriately broad coverage of products—often for revenue reasons ... developing countries ... need to reduce sharply their reliance on foreign trade taxes' (Tanzi and Zee 2001). Australian aid has no doubt contributed to a tax system more effective at extracting revenues, but it is questionable as to whether the source of these revenues is best for the long-term industrial development prospects of Fiji, given the increasingly complex supply chains of modern business and the superior growth of more open economies. A doubling in the tax take from customs duties is possibly not an outcome in the best interests of Fiji's long-term growth prospects, particularly in a rapidly liberalizing global economy, and the concentration of revenue collection in a part of the bureaucracy widely regarded as a prime site for corruption¹⁴ is concerning for long-term governance.

Donor fatigue and the related problem of excessive representation plague small island nations,¹⁵ and as the volume of aid to the Pacific increases, so will the problems inadvertently caused by donors. Some countries, such as Vietnam, have attempted to limit this by keeping a tight rein on donor processes, while others such as India have

Table 6
Fiji public revenues (by source)

	2000	2001	2002	2003	2004	2005	Change, %
Total revenue	894,055	895,987	949,388	1,079,128	1,167,709	1,218,332	36.27
Customs duties and port dues	226,332	456,760	521,140	662,864	700,542	723,586	219.70
Income tax and estate and gift duties	487,517	284,387	275,427	286,336	334,608	352,498	-27.70
Fees, royalties sales and reimbursement	64,621	65,443	53,083	46,193	49,533	58,146	-10.02
All other income	115,585	89,397	99,738	83,735	83,026	84,102	-27.24
% of total revenue from customs and port duties	25.32	50.98	54.89	61.43	59.99	59.39	

Source: Fiji Islands Bureau of Statistics, current Fiji dollars

¹⁴ See, for example, Gatti (2007).

¹⁵ For a discussion of problems related to Pacific island representation at international fora, see Bowman (2005).

chosen to exclude smaller donors from managing development programmes. The Pacific remains a free-for-all and, while Australia is the dominant player, emerging donors such as China and Taiwan are increasingly making their presence felt, not necessarily in positive ways. Asymmetric power relationships are the norm, and the government-donor relationship can be best characterized as a weak government-strong donor relationship (Gibson et al. 2005). This situation is characterized by reforms that are not sustained after funding is exhausted, often resulting in a reform-reward cycle as new promises are made to attract the next round of funds. The recipient country may ultimately grow dependent on the donor government, and many would argue this is the case in the Pacific.

Donor representatives, particularly consultants, often have a disproportionate influence on recipient ministries, the leaders of which are often so overwhelmed by the demands of donors that they have little time to attend to their own work. Easterly (2006) cites the example of Tanzania, which produces more than 2,400 reports each year for its aid donors and which hosts around 1,000 donor missions per year. Development experts interviewed for this study expressed the belief that power asymmetries were behind many of the failed programmes in the Pacific, that overloaded officials had little understanding of their own Ministry as a result of the competing demands of donors and an unstable political environment. A weak recipient government is far less likely to be able to instigate and enforce donor harmonization policies, and the lack of coordination in the Pacific is regularly commented on. This will not be helped by the major increase in donor aid disbursements expected over the next decade, and there are already signs of a forthcoming “battle of the donors” in the region.¹⁶ It is quite possible that this will exacerbate the governance problems already evident, but it will certainly test the hypothesis of this study that aid to small countries can have a negative impact on institutional performance, and therefore growth.

7 Conclusion

As donors look for ways to scale up aid, and as the body of evidence supporting the importance of institutions to growth continues to grow, governance programmes will increasingly be at the forefront of development assistance. This study sounds a caution for institutional strengthening programmes in the Pacific. As demonstrated by cross-country evidence, aid can create an overall positive change to institutions. But when the country is small, this in combination with aid can lead to larger negative outcomes. Given the relationship between good institutions and growth, this in turn can lead to a lack of growth, precisely the situation we witness in the Pacific today. Studies such as Alesina, Spolaore and Wacziarg (2005) allow us to glimpse the potential that lies in the Pacific, a potential further magnified if effective institutions are married with trade openness. But the evidence here suggests that aid works against institutional strengthening in small economies, leading to some uncomfortable conclusions about the

¹⁶ Taiwan and China have become particularly active in the Pacific, attempting to outbid each other for recognition of their territories. Five Pacific countries (Palau, Kiribati, Marshall Islands, Solomon Islands and Nauru) formally recognize Taiwanese independence. The Pacific Island Forum Secretariat recognized more than US\$1 million in funding from Taiwan to Pacific island organizations in 2006, and US\$550,000 in funding from China (information obtained from press releases issued by the Pacific Island Forum Secretariat, available at: www.forumsec.org.fj, accessed February 2007).

usefulness in particular of governance interventions. This discomfort is not remedied by discussions with development experts and an examination of two economic governance programmes run in Fiji. In fact, the anecdotal evidence simply reinforces the quantitative, that aid and institutions have a fraught relationship.

Certainly there is a long way to go before growth resumes in the Pacific. In the current climate of high global commodity prices, many governments in the Pacific have the breathing space to reform their institutions and implement significant and long-lasting changes. But these governments may find it difficult even now to take advantage of this opportunity and institute changes vital to the future success of the region. Turning aid into a positive influence on institutions may prove more difficult still.

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