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Tuvalu**

by

Stephen Boland and Brian Dollery

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The Economic Significance of Migration and Remittances in Tuvalu

Stephen Boland and Brian Dollery **

Abstract

The observed importance of migration (MI), remittances (R), aid (A) and bureaucracy (B) to Small Island States (SIS) in the Pacific has led to the development of the MIRAB model to explain the economies of these countries. Scholars have questioned the long-term sustainability of MIRAB microstates in a continuing debate that cannot be settled without recourse to a detailed examination of the magnitudes and trends involved. In order to add to a small but growing empirical literature on this issue, the present paper provides an exploratory empirical investigation of migration patterns and associated remittances in the case of Tuvalu.

Key Words: migration, remittances, Tuvalu

** Stephen Boland is a freelance economist with wide experience in public finance development projects in the Pacific microstates of Tuvalu and Marshall Islands. Brian Dollery is Professor of Economics and Director of the UNE Centre for Local Government at the University of New England in Armidale NSW. Contact information: School of Economics, University of New England, Armidale, NSW 2351, Australia. Email: bdollery@une.edu.au

INTRODUCTION

The unique economic characteristics of Small Island States (SIS) in the Pacific have thwarted conventional explanations of economic development and led to the creation of an alternative theoretical model better able to incorporate these distinctive features.¹ Constructed from the observed dominance of migration (MI), remittances (R), aid (A) and bureaucracy (B) in the national income of these microstates, the MIRAB model has been advanced to account for the economic evolution of SIS nations (Bertram and Watters 1985).

The MIRAB economies are highly unusual since they represent economies that do not support themselves through local domestic production. Instead, these economies generate income by exploiting their sovereign resources and by exporting labour. In many cases, labour migration to developed economies and the subsequent flow of remittances constitute a critical element of a MIRAB nation.

Controversy surrounds the question of the long-run sustainability of MIRAB economies in general, and the robustness of migration and attendant remittances in the longer term in particular. In essence, economists and other scholars have

¹ A small but highly informative economic literature exists that seeks to explain the unusual evolution of Pacific SIS economies. See, for example, Geddes *et al.* 1979; Bertram and Watters 1985; Fairbairn 1985; Bertram 1986; 1999; 2004; Hughes 1998; Poirine 1994; 1995; 1997; 1998; Treadgold 1999; and Laplagne *et al.* 2001.

questioned the long-run viability of continuing remittances with the emergence of settled second and third generation migrant communities in their host countries abroad (Poirine 1998). However, after reassessing the MIRAB model five years after its initial development, Bertram (1999) examined the performance of the five Pacific MIRAB economies over this period and concluded that the “empirical record casts substantial doubt on the conventional wisdom that regards unrequited transfers as an unsustainable basis for material welfare” (Bertram 1999, p.111). Notwithstanding this observation, the magnitude and significance labour movements and related income remitted, as well as the long-term sustainability of labour migration flows and associated remittances back to the home country, are quintessentially empirical questions that can only be settled periodically by reference to available evidence. Moreover, it unlikely that valid generalisations can be drawn with respect to these two issues for all Pacific SIS nations. Indeed, it seems likely that cultural, economic and other differences between the various SIS countries will manifest themselves in divergent migratory and remittance behaviour over the long term. A valuable and growing empirical literature already exists on this important issue that includes *inter alia* Ahlburg and Brown (1998), Brown (1994; 1998), Forsyth (1992), Ratha (2003), and Simatti and Gibson (2001). In an effort to make a modest contribution to this literature, the present paper provides an exploratory empirical analysis of trends in migration and remittances in the case of Tuvalu.

Several caveats are necessary. The analysis of migration and remittances for Tuvalu relies mostly on statistical data compiled since Independence. Detailed time series data are not always available and additional empirical evidence is required to supplement missing data. Moreover, data sources are not always complete, nor internally consistent, and thus the statistical picture drawn of the Tuvaluan economy represents a mixture of partial information. Nevertheless, use of this imperfect data does help illuminate both the quantitative significance of migration and remittances and their trends through time.

The paper itself is divided into three main parts. Section 2 outlines migration patterns and related demographic issues in Tuvalu since Independence. Section 3 then examines the related issue of the impact of remittances on the economy, considering migration remittances as well as remittances from seamen working on merchant vessels. The paper ends with some brief concluding comments in section 4.

MIGRATION

Patterns of Migration

Tuvaluans have a long history of the travelling and working abroad ranging back to the “blackbirding” slave raids of the mid-1800s. Though this much of activity was

undertaken against the wishes of the workers, willing migration did occur during colonial times when Tuvalu was grouped with Kiribati as a British colony.

Tuvaluan labourers recruited for phosphate mining on Ocean Island during the early 20th Century represented the first organised mass migration of Tuvaluans for economic gain. After the Second World War, other avenues of emigration opened up. The expansion of the colonial administrative service in Tarawa provided employment opportunities for the Tuvaluan community that had benefited from relatively high quality and uninterrupted education during the War. Most of the jobs were located in Tarawa after the administrative centre of the Gilbert and Ellice Island Colony (GEIC) moved from Ocean Island after World War II. However, Ocean Island remained a major source of employment for Tuvaluan labour while phosphate deposits on Nauru became more important as greater numbers of Tuvaluans were employed. With the creation of the Tuvalu Maritime School (TMS) in 1979, another important avenue opened for Tuvaluans to seeking employment abroad.

Connell (1983, p.34) has argued that the economic impact of migration was largely neutral because of the circular nature migrants moving back and forth from Tuvalu. This observation remained accurate until recently with the rise in migration to New

Zealand. The rapid growth of the Tuvaluan population in New Zealand has created a new potential source of remittances. Increased migration from MIRAB nations has led to increased levels of remittances sent back to the originating country because of the existence of the “transnational corporations of kin”. Hence with these increased migration levels the Tuvaluan economy could develop into a more traditional MIRAB system along the lines of the Cook Islands, Niue and Tokelau, that have large and permanent populations living and working abroad.

Migration in the MIRAB context is normally considered to be a permanent or semi-permanent move from an originating country to a metropolitan recipient economy. “Semi-permanent” refers to the often-stated desire for migrants to return to their originating country at some time in the future. While many migrants harbour intentions to return to their home country, often in practice this does not occur. However, the mere intention to return home has been shown to increase the likelihood of sending back remittances (Ahlburg and Brown 1998).

In comparison with other Pacific MIRAB countries, Tuvalu’s migration pattern is different in that most of the migration is both temporary and circular; a longstanding feature Tuvaluan migration patterns. This pattern has been reflected in the movement

to and from Kiribati, Ocean Island and Nauru, as well as the large number of Tuvaluan seamen working on merchant vessels.

Migration and remittances are closely linked. Remittances are examined in the context of the migration patterns observed over time. Where there have been migrations, there has also been associated remittance streams, although these are difficult to adequately track without data.

The separation of the Ellice Islands from the GEIC in 1975 led to a major migration of the Tuvaluan population. Political changes and fluctuating economic opportunities around the region, such as natural resource exploitation and seafaring opportunities, have led to substantial movements of people in the past 30 years. Moreover, in the future, environmental factors may also play a part in migration as climate change and potential sea level rise threaten the habitability of the islands.

Table 1 contains data showing population changes in Tuvalu over the past 80 years that is illustrated graphically in Figure 1. Annualised growth rates have varied through time, with these variations in the growth rates often explained by political and economic developments. For instance, population growth between 1921 and 1973 was slow, averaging below 1.5 percent per annum between the censuses. This

reflected a period of political and economic stability, with the notable exception of the Second World War.

Corresponding with separation in 1975 and independence in 1978, first the Ellice Islands, and then Tuvalu, experienced rapid population growth between the 1973 and 1979 censuses. The annualised population growth rate between 1973 and 1979 averaged 3.77 percent per annum (CSD 2004, p.III). This increased growth rate was the direct result of the political changes leading to independence in 1978 that resulted in a significant shift of the population as Tuvaluans returned from Kiribati, mainly from Tarawa, to the Ellice Islands and the new administrative centre, Funafuti. This movement corresponded with the initial establishment of a Tuvaluan civil service to serve the new government.

Table 1: Tuvalu Population and Annualised Population Growth Rates 1921-2002

Census Year	Years between Census	Total Population	Annualised Population Growth Rate (for inter-census Period)
1921	-	3,457	-
1931	10	3,994	1.45%
1947	16	4,487	0.73%
1963	16	5,444	1.22%
1968	5	5,782	1.21%
1973	5	5,887	0.36%
1979	6	7,349	3.77%
1991	12	9,043	1.74%
2002	11	9,561	0.51%

Source: Central Statistics Division 2004, p.III.

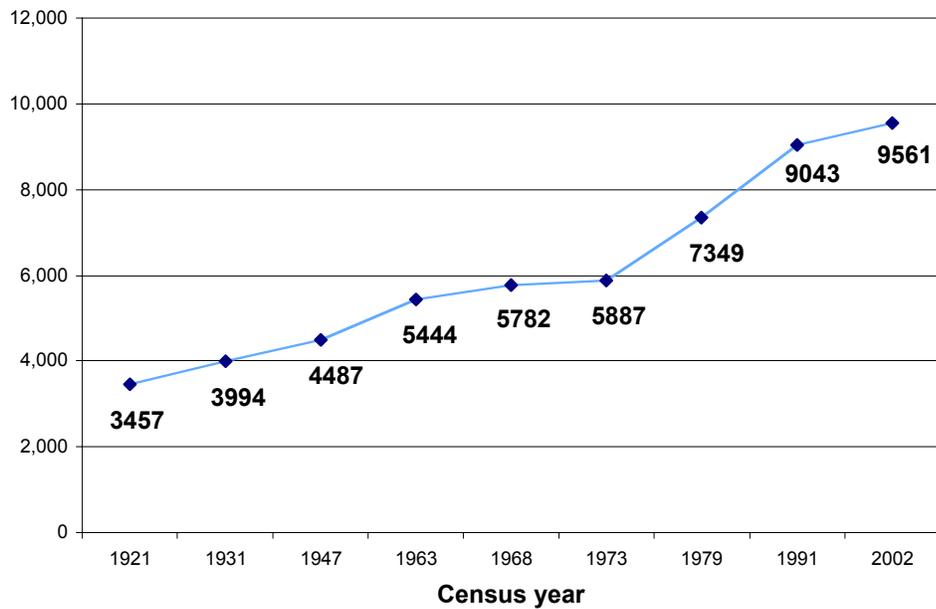


Figure 1: Tuvalu Census Populations, 1921 - 2002
 Source: Central Statistics Division 2004, p.III.

In the 12 years that followed the 1979 Census the annual population growth rate declined to 1.74 percent. This is close to the rate of natural increase of 2.1 percent per annum (CSD 1993b, p.i). The most recent population data from the 2002 Census indicate that the population growth rate has declined to 0.51 percent per annum in the 11 years to 2002. This rate of population growth rate is well below the population growth rate for the two previous inter-census periods.

In the 1991 Census the de jure population was estimated at 10,114 of which 735 workers were living in Nauru. However, over the 11 intervening years, a large

proportion of this population returned to Tuvalu, including over 150 people shortly before the Census reference night of the 22 November 2002. The current population of Tuvaluans still living in Nauru and expected to return to Tuvalu is now quite small, with estimates from the Ministry of Foreign Affairs placing the remaining population at around 200 people, mostly comprising labourers and their families.

Seafarers abroad at the time of the 2002 Census increased from 1991. The 1991 Census enumerated 272 seamen working overseas. The Tuvalu Overseas Seamen's Union (TOSU) estimated that the number of seafarers working on vessels in August 2002 was 417. For the purposes of this analysis, seafarers will be considered as migrants despite the fact that they will return to Tuvalu. This reflects an observed pattern of circular migrations in the Tuvaluan community. The number of seafarers abroad fluctuates since seafarers are continually leaving and returning from contracts that can vary in length from 6 to 24 months.

The number of seafarers has grown substantially since the early 1990s, largely because without easy migration access to any nation this has acted as a "safety valve" for Tuvalu. This growth has been a deliberate policy of the government to expand training levels and therefore the number of seafarers available for work overseas. It also provides a useful option for those male students who do not pursue

academic studies or are unable to secure jobs domestically. The number of seamen overseas does not normally vary substantially over short periods of time and these figures thus seem reasonably accurate.

The 1991 Census (CSD 1993a, p.1) reported 133 students overseas for educational purposes. Although there are no exact figures available, the number of students on scholarships has increased in recent years because the government has had increased funds to offer more people scholarships and heightened emphasis in aid programs on tertiary training. Most importantly, the government has developed and expanded its own scholarship program.

The data for the temporarily absent population tend to suppress the size of the enumerated population and thus the aggregate population growth rate. What is more interesting and especially relevant to this paper is the apparent increase in migration by Tuvaluans to New Zealand since 1991. This migration pattern is particularly interesting since it is expected to be a more permanent movement than previous “circular” migrations.

Tuvaluan Migration to New Zealand since 1991

Polynesian countries have a close affinity with New Zealand. This relationship has arisen over the years because of the openness of New Zealand to migration from the Pacific Islands, a product of a shared history and geography. Three MIRAB countries have direct migration access to New Zealand, with rights to live and work permanently. This has been a major contributor to the economies of the Cook Islands, Niue and Tokelau to the extent these countries have a greater proportion of their population residing in New Zealand than at home.

However, unlike a number of other microstates, Tuvalu has no formal relationship with a metropolitan country. Of the MIRAB economies, Niue, the Cook Islands, and Tokelau are governed under free association arrangements with New Zealand. Other MIRAB-like economies, such as the Marshall Islands and the Federated States of Micronesia, are associated with the United States or French Polynesia as a territory of France. These relationships allow the freedom of movement of people to and from the relevant metropolitan country.

Of the five MIRAB economies, the overwhelming migration flow has been people from the three nations (Cook Islands, Niue and Tokelau) that have free access to live and work in New Zealand. Table 2 below shows the substantial populations for the

MIRAB economies that reside in New Zealand as opposed to the populations resident in the originating country.

Table 2: MIRAB Economy with Population and Population in New Zealand

Country/Territory	Enumerated Population at most recent Census	Ethnic Population in New Zealand – Census 2001
Cook Islands	19,300	52,569
Niue	1,900	20,148
Tokelau	1,500	6,204
Tuvalu	9,561 (2002)	1,965
Kiribati	84,494 (2000)	n.a. ²

Source: Statistics New Zealand 2002d; Central Statistics Division 2004.

Data indicates a rapid growth in the ethnic Tuvaluan population in New Zealand over the past decade. Although absolute numbers are not large, for Tuvalu they are nonetheless significant. Tuvaluans have no formal right to live and work in New Zealand though in the past they have enjoyed visa waiver status to enter New Zealand. This has allowed initial entry to New Zealand with the potential for illegal overstaying.

Statistics New Zealand (2002c) prepared a summary paper on the characteristics of the Tuvaluan community in New Zealand, using the results of the 2001 Census. This document acknowledges a rapid growth of the Tuvaluan community since the 1991

² Kiribati figures are not available, but are included as “Other Pacific Peoples” which were enumerated as 4,338 in the 2001 Census.

Census. Moreover, the Census contains data that clearly demonstrates recent movements by Tuvaluans to New Zealand.

In 2001, the ethnic Tuvaluan population living in New Zealand was 1,965 (Statistics New Zealand 2002b). The data in Table 3 indicates that there has been rapid population growth between 1991 and 2001. Between 1991 and 1996 the population doubled, then doubled again between 1996 and 2001. This population growth is obviously unsustainable given Tuvalu’s small population. However, the migration from Tuvalu between 1996 and 2001 may partly explain the lower population growth rate in Tuvalu between the 1991 and 2002 Censuses.

Table 3: Tuvaluan Ethnicity – Figures from the New Zealand Censuses 1991, 1996 and 2001

Census Year	Number Declaring Tuvalu as Place of Birth	Inter-Census Growth - Annualised
1991	432	n.a.
1996	879	15.3 percent p.a.
2001	1,965	17.5 percent p.a.

Source: Statistics New Zealand 2002b.

Given the population increase in New Zealand between 1996 and 2001, about two-thirds of the increase is attributable to arrivals from abroad. The remainder of the

increase is attributable to a natural increase in the Tuvaluan population in New Zealand (Statistics New Zealand 2002c).

There is no information to indicate whether this rate of migration has changed since the end of visa-free access to New Zealand in 2003. However, assuming the growth rate slowed only marginally between the Census and the end of visa-free access, the Tuvaluan population in New Zealand has probably increased significantly since the August 2001 Census.

The actual size of the Tuvaluan population as enumerated in the New Zealand is also likely to be an underestimate. The Post-Enumeration Survey of the New Zealand Census estimates an undercount of 5.2 percent in Pacific Island populations residing in New Zealand (Statistics New Zealand 2002a, p.22). This underestimate also had a sample error of 1.6 percentage points so the range for the net under-enumeration was some 3.6 percent to 6.8 percent. This under enumeration is much larger than the undercount for all groups that was estimated at 2.2 percent in the 2002 Census.

The main reasons given for this large under enumeration of Pacific Islanders is the youthfulness of this population who have a large number of young children who are easily omitted during the count (Statistics New Zealand 2002a, p.11). It is uncertain,

but probable, that the overstaying problem among ethnic Pacific Islander groups in New Zealand (especially Tuvaluans) also contributed to the large undercount.

Before the visa changes there was anecdotal evidence of a large number of Tuvaluans migrating to New Zealand and working illegally. Complementing this movement was the apparently significant numbers of pregnant women leaving Tuvalu to give birth in New Zealand. If born in New Zealand, all children automatically become New Zealand citizens and therefore allow families easier access to enter New Zealand at some later date.

Despite not having free migration access, Tuvalu citizens have had some access to New Zealand under a work scheme that accommodated up to 80 Tuvaluans at any one time. This scheme, now discontinued, sent labourers to New Zealand to pick fruit on a maximum three-year contract. At the end of their contracts, workers were expected to return to Tuvalu. However, many did not return, becoming illegal residents in New Zealand.

The New Zealand Census data provides information about the arrival date of Tuvaluans now residing in New Zealand. This information is of interest since it indicates the migration flows, both legal and illegal, of Tuvaluans to New Zealand.

Table 4 shows that in each of the five years before the 2001 Census more than 100 Tuvaluans arrived in New Zealand. This rate of arrival peaked in the 12 months before the 2001 Census in 2001 when 156 Tuvaluans arrived. These figures indicate an increasing rate of migration from Tuvalu to New Zealand over this period. There is no reason to believe that this rate did not continue to increase until the end of the visa-free access period in December 2003.

Table 4: Tuvaluans – Years since arrival in New Zealand

Years Since Arrival In New Zealand	Number
Less Than One Year	156
1-2 Years	147
2-3 Years	141
3-4 Years	144
4-5 Years	105
5-9 Years	249
10-19 Years	207
20 years or more	87

Source: Statistics New Zealand 2002b.

The rapid growth in New Zealand of the ethnic Tuvaluan population eventually came to the attention of the New Zealand Government. The “overstayer problem” has also become a sensitive political issue between Tuvalu and New Zealand as the Tuvaluan community has grown. In effect, the visa-free access for Tuvaluans meant that the Tuvaluan economy became more MIRAB-like with the steady migration flow. In response, the New Zealand Government introduced visa requirements for

Tuvaluans visiting New Zealand while formalising a migration scheme in an attempt to reduce this flow.

The introduction of the Pacific Access Category (PAC) is a New Zealand-designed system under which up to 75 Tuvaluans a year can migrate to New Zealand from Tuvalu in the future. The quota includes the dependents of the principal applicant and hinges on the principal applicant meeting a number of conditions, including a verifiable offer of employment. However, thus far the quota has not been fully utilised. The issue of the large number of overstayers still in New Zealand is still unresolved since the Tuvalu component of the PAC is only available to residents of Tuvalu.

In December 2003, the New Zealand Government announced that Tuvaluans would no longer receive visa waiver access to New Zealand. Tuvaluans wishing to travel to New Zealand now must apply for a visa before travelling to New Zealand. An indication of the increases strictness of the visa application process is that female applicants (of appropriate age) must now take pregnancy tests when applying for a visa to visit New Zealand.

One of the major reasons given for the changes is that “it will reduce New Zealand’s exposure to the adverse impacts of immigration, such as overstaying” (New Zealand Immigration Service 2003, p.1). Based on anecdotal information, this appears to have already reduced the number of Tuvaluans travelling to New Zealand, with a number of Tuvaluans being refused visas to visit New Zealand.

It is questionable whether this makes Tuvalu less or more MIRAB-like. On the one hand, this move is likely to reduce the overall flow of Tuvaluan migrants to New Zealand. However, the new arrangements have formalised migration access by introducing a quota system that did not previously exist, specifically directed at Tuvaluan migrants. This allows limited legal access for Tuvaluans to the New Zealand labour market. Meanwhile, other migration options are still open to Tuvaluans who qualify for residency under other criteria.

The creation of this quota would tend to suggest that Tuvalu now has a more formal link to the New Zealand labour market. This is especially valid given the requirement for applicants to have an offer of employment, thereby creating the environment in which these workers will send remittances back to family in Tuvalu reflecting similar patterns observed in other Pacific Islander populations that have followed similar paths.

Other Migration

An important theme in the MIRAB and remittance literature has focussed on the Pacific Island populations that have migrated to Australia and New Zealand. Numbers in the US have been significant for Samoans and Tongans, but Tuvaluans are not recorded separately in US Census data and are not anticipated to migrate to America in any significant numbers.

Recent Australian census data have shown no major increase in the number of native-born Tuvaluans living in Australia at the time of the Census as indicated in Table 5. This shows a very small population of Tuvaluans by birth residing in Australia, insignificant when compared with New Zealand.

Table 5: Tuvalu as Place of Birth – Figures from the Australian Censuses 1991, 1996 and 2001

<i>Census Year</i>	<i>Number declaring Tuvalu as Place of Birth</i>
1991	73
1996	82
2001	98

Source: Information provided in an email communication on 12 November 2003 with Mr H. Garner of Australian Bureau of Statistics

However, the question in the Australian Census only sought information based on birthplace as opposed to ethnicity. This will tend to underestimate the numbers since many ethnic Tuvaluans were born outside of Tuvalu. This underestimate is likely to arise because of the previously mentioned migration patterns of Tuvaluans. Given that large expatriate communities existed in Kiribati (including Ocean Island) and Nauru before separation in 1975, a substantial number of Tuvaluans were born outside of Tuvalu. However, this means that numbers of Tuvaluans counted in the Australian Census based on birthplace would show up many ethnic Tuvaluans as born in Kiribati and Nauru. In reality, the numbers of ethnic Tuvaluans residing in Australia may be significantly greater than these figures, but nevertheless it would appear that Australia is not a large destination for Tuvaluans.

REMITTANCES

Tuvalu's population of 9,561 people is small by any standard. The absolute numbers of migrants to any recipient country will thus usually be barely discernable. This was not the case when the migration was to small Pacific nations, such as Kiribati and Nauru. However, in the larger Pacific nations, where Tuvaluans have moved in significant numbers such as Fiji, New Zealand and Australia, inflows must be significant before they become noticeable, as in the New Zealand case.

Despite these small absolute numbers, the remittance flows coming back to Tuvalu are a major contributor to the Tuvaluan economy. Until recently, remittances were mostly forthcoming from seafarers employed on foreign merchant ships or working in other Pacific Island countries, like Nauru and Kiribati, where employment opportunities were greater, although wage rates were not necessarily higher.

In assessing the migration and remittance components of the MIRAB system, it is appropriate to consider these components together since remittances are the product of migrants who have moved overseas. The size of the remittances can be expected to bear a positive relationship with the numbers of migrants. One limiting factor that will restrain remittance levels is that as more families and people move overseas, there are obviously less people in the originating country to whom to remit. Accordingly, once an extended family has fully migrated, remittance flows back to the recipient country thus usually cease.

Historically the greatest volumes of remittances are not from migrants, but rather from the large number of seafarers on merchant ships around the world. Initial remittance flows to Tuvalu were from labourers who had been recruited to live and work on Ocean Island, Kiribati. However, the requisite phosphate deposits were exhausted by the late 1970s. Nauru was also a major source of employment for

Tuvaluans and it is only in recent years that the large expatriate community has begun returning to Tuvalu or migrating elsewhere. More recently, the growing number of Tuvaluans in New Zealand has opened up a new source of remittance income for the Tuvalu economy.

Promoting remittances has been an explicit policy of the Government of Tuvalu since Independence. This policy has been most obvious in its manifestation in the creation of the TMS. Export of labour has been at the forefront of economic policy in order to generate remittances and provide crucial support for the domestic economy.

Bertram and Watters (1985) postulated the possibility of “transnational corporations of kin” as the economic unit that dominates economic activity in MIRAB economies specifically, but would also appear to have some application to island economies in general.³ For instance, remittances flow to families rather than to individuals in Tuvalu. Similar behaviour throughout the Pacific has led to the proposition of the

³ The Marshall Islands would be an interesting case study since it exhibits the opposite characteristics of a remittance culture of the MIRAB economies. Rental payments from the use of land for military and government purposes combined with compensation payments to the populations of nuclear affected atolls are substantial. Anecdotal evidence exists of many of the beneficiaries of these payments having moved to Hawaii or the US mainland and having their payments redirected from the Marshall Islands to their new residences in the US.

welfare maximising household rather than the welfare maximising individual which sits at the centre of conventional economic theory.

The sources of remittances appear to have been evolving over time with substantial remittances initially coming from labourers in the phosphate islands of Ocean Island (Banaba) in Kiribati and Nauru. Since the establishment of the TMS in 1979, merchant seamen have been trained to work on merchant vessels. Tuvaluan seamen are considered highly skilled, but are nonetheless willing to work for wages relatively low by international standards. There is the clear potential for the expanding population in New Zealand to become a significant source of remittances. This would reflect the experience of Samoa, Tonga and the Cook Islands where remittances from expatriate populations living in New Zealand and Australia underpin much economic activity.

Given the literature on the MIRAB model and its effects on the domestic labour market (Bertram 1986), it would appear that the training and employment of seafarers has met the same need as migration in the other MIRAB economies. Recent migration to New Zealand would suggest that some of the shortage of employment opportunities is now being ameliorated by emigration. This process is

likely to continue to be taken up, but at a slower rate, with the introduction of the Pacific Access Category quota.

Remittance data for Tuvalu has been sketchy since Independence. Some data is available since 1986 from information provided as part of the published balance of payments records. Some data has been reproduced in various secondary reference documents. However, as seen in Table 2, the remittance figures are not separately defined in the balance of payments tables, but are still included as part of “Compensation of Employees” and “Private Transfers”. The most recent balance of payments statistics were published for 1996-2003.

Remittance flows from seafarers since 1998 have been sourced directly from the records of the recruitment agencies based in Funafuti. The data are from the two largest agencies, Alpha Pacific Navigation Limited and the TMS, as well as cross checking the information from the Tuvalu Overseas Seamen’s Union. The Pacific Overseas Employment Agency was not able to produce figures from 1998. However, this Agency is now considered largely insignificant in the recruitment of seamen since it recruits fewer than 5 percent of all working seamen.

These agencies are the main recruitment agents for the graduates from the TMS - renamed the Tuvalu Maritime Training Institute (TMTI) since its corporatisation in 2000. Seafarers' remittances are normally remitted in US dollars converted offshore into Australian dollars. This is done since the exchange rates provided by the National Bank of Tuvalu (NBT) have a much larger "buy-sell" differential than Australian-based banks. In estimating the magnitude of remittances in the years since 1998, the average US\$/A\$ monthly exchange rates were employed to convert the US dollars to Australian dollars.

Using this assortment of data, it has been possible to estimate remittances since 1986. It is useful to note the growth in the nominal amount of remittances over the period in question. The amount has grown from less than one million dollars in the mid 1980s to a figure trending around A\$4.0 million per annum. It is interesting that since 1996, the remittance levels as a percentage of GDP have not fallen below 15 percent of GDP, while prior to this the remittance levels rarely exceeded this level. These figures are provided in Table 6 below.

Table 6: Nominal Remittances 1986 – 2002 and as a Percentage of GDP

Year	Amount (A\$)	Remittances as a Percentage of GDP
1986	\$ 649,000	9.9%
1987	\$ 1,328,000	17.5%
1988	\$ 1,145,000	11.9%
1989	\$ 1,089,000	10.5%
1990	\$ 1,151,000	9.4%
1991	\$ 1,894,000	14.5%
1992	\$ 624,000	4.3%
1993	\$ 1,116,000	7.9%
1994	\$ 1,396,000	8.9%
1995	\$ 2,016,000	12.7%
1996	\$ 2,601,987	16.5%
1997	\$ 3,263,230	19.1%
1998	\$ 4,873,241	23.5%
1999	\$ 3,510,535	16.5%
2000	\$ 3,627,094	15.1%
2001	\$ 4,221,118	16.0%
2002	\$ 4,151,490	15.1%
2003	\$ 3,598,866	n.a.

Sources: ADB 1998, 9; Central Statistics Division and Lewington 1999; Information provided in an interview with Crewing Superintendent of Alpha Pacific Navigation Limited, Eti Esela on 6 April 2004; Information provided in an interview with General Secretary, Tuvalu Overseas Seamen's Union, Tommy Alefaio, on 29 March 2004; Information provided in an interview with General Manager, Tuvalu Maritime Services, Mr Amuia Toafa, on 6 April 2004.

The migrations to Kiribati, Nauru and now New Zealand have been other sources of remittances. In recent years, the figures from Nauru were largely insignificant compared to the remittances from seafarers. Remittances from Nauru were sent through the Tuvalu Post Office, but due to poor record keeping these data are no longer available.

The only data available on remittances received from Nauru was found in a report prepared outlining the outstanding payments between the Government of Nauru and the Government of Tuvalu (Government of Tuvalu 2002). This document was prepared for a delegation that visited Nauru in 2001 to discuss this matter. The data shown in Table 7 represent payments that have not been received in the country, but are largely insignificant compared to the remittances forthcoming from seafarers. There remains a substantial dispute between the Government of Tuvalu and the Government of Nauru over unpaid remittances since the government would pay accounts to individuals before receiving funds from Nauru. With the financial difficulties experienced by the Government of Nauru, Tuvalu has not been reimbursed for these payments and thus since 1995 there has been no monetary impact on the Tuvaluan economy from these remittances.

Table 7: Outstanding Remittances from Nauru Owed to the Government of Tuvalu

Year	Remittances owing to Government of Tuvalu
1995	49,129.43
1996	84,755.44
1997	161,840.38
1998	212,184.37
1999 (1 st Quarter)	3,356.33

Source: Government of Tuvalu 2002.

These amounts above were not received and are not included in Table 6.

As we have seen migration to New Zealand provides a potentially large and growing source of remittances for the Tuvaluan economy. Unfortunately, due to the privacy concerns expressed by the NBT, it is not possible to acquire the necessary detailed information needed to assess the volume of these remittances in recent years. Despite this, the NBT was nevertheless able to provide some figures on payments received from New Zealand for 2003.

In 2003, the total amount of payments received with New Zealand as the originating country was NZ\$1.16 million. However, this figure included aid of which at least NZ\$710,000 was made in a single payment from the Ministry of Foreign Affairs and Trade in New Zealand. Along with other aid received from New Zealand, it would appear that, in 2003 at least, New Zealand was not yet a major source of remittances for the Tuvaluan economy.

Data from the New Zealand Census may provide an explanation for this surprising observation. The 2001 New Zealand Census indicates that only 612 Tuvaluans were working in New Zealand. However, the median income of these workers is only NZ\$16,300 per annum compared to NZ\$27,700 for all employed New Zealand adults (Statistics New Zealand 2002c, p.5). This indicates that Tuvaluans are in

poorly remunerated jobs. Census data also shows that their median incomes are also substantially below the median incomes of the Pacific Islander population in general.

There may also be other factors affecting the levels of remittances from New Zealand. For example, an unusually large proportion of Tuvaluan households (38 percent) contain more than one family. This compares with a figure of 20 percent for all Pacific Island peoples and only 5 percent for New Zealand as a whole. This suggests, given the Tuvaluan cultural norm of providing for the extended family, that there is significant pressure on wage earners to meet requirements of their own households. It also raises doubts about how much surplus income is available to remit back to Tuvalu.

An additional source of remittances, that has not yet been examined (and is difficult to estimate), is the value of remittances that are sent back to Tuvalu in the form cash and goods. Informal discussions with the community in Tuvalu suggest that this has a significant impact both from returning seafarers and relatives in New Zealand. Data from the Department of Customs and Taxation give some idea of the volume of goods and services that have been sent from New Zealand on a non-commercial basis. This “non-commercial basis” represents all non-business or non-government imports that have been imported from New Zealand.

Informal discussions with some members of the Tuvaluan community and customs officials strongly suggested this as a potentially large source of “gift” remittances. A number of cargo vessels that visit Tuvalu originate in Auckland as well as occasional visits by government-owned vessels. Migrants living in New Zealand will place goods on these vessels for family members still resident in Tuvalu. Among the common types of goods sent on the vessels are cars and hardware materials bought in New Zealand. Data from the Department of Inland Revenue in Table 8 shows the volume of imports using a “free-on-board” (f.o.b.) value that were imported over the years 1993 to 2003.

Table 8: Non-Commercial Imports from New Zealand 1993-2003

Year	FOB Value
1993	\$ 38,008.00
1994	\$ 55,705.00
1995	\$ 32,787.00
1996	\$ 16,571.00
1997	\$ 68,260.00
1998	\$ 22,946.00
1999	\$ 211,531.00
2000	\$ 71,746.00
2001	\$ 219,891.00
2002	\$ 326,294.00
2003	\$ 193,628.00
Total	\$ 1,257,367.00

Source: Information provided during an interview with Mainaga Taape, Department of Inland Revenue, PC Trade Database, Ministry of Finance and Economic Planning, 8 April 2004.

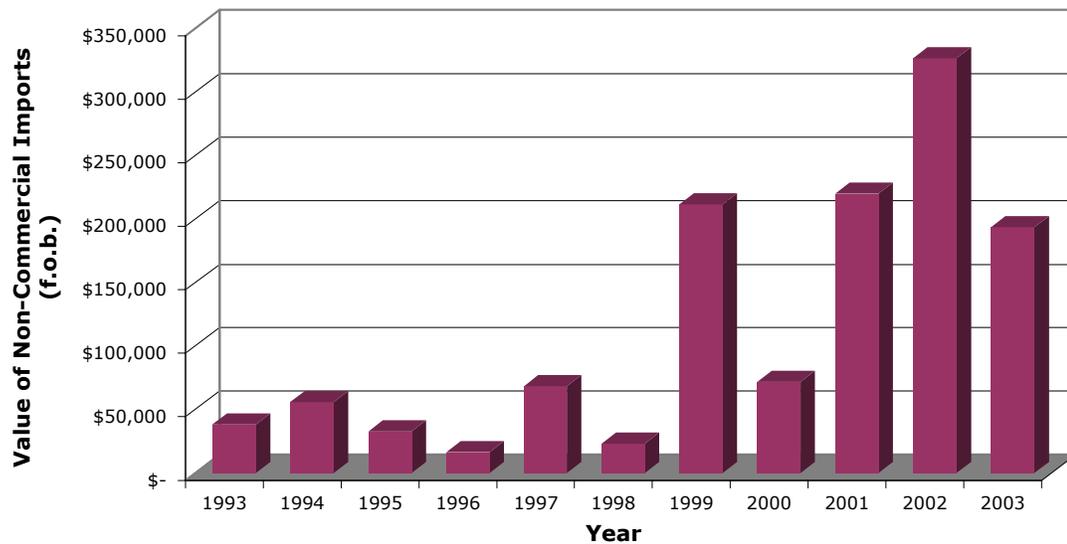


Figure 2: Non-Commercial Imports from New Zealand 1993-2003

Source: Information provided during an interview with Mainaga Taape, Department of Inland Revenue, PC Trade Database, Ministry of Finance and Economic Planning, 8 April 2004.

In securing this information considerable care was taken to check coding of large value items to ensure the veracity of the data. The trend shown in Table 8 and accompanying Figure 2 indicates a rising amount of gift remittances flowing from New Zealand in recent years, especially since 1998. The erratic nature of these imports is likely to reflect the number of vessels travelling from New Zealand to Tuvalu, especially the government-owned vessels that occasionally visit New Zealand for maintenance.

At present the sums involved are not substantial compared to the amounts coming from merchant seafarers, but they are nonetheless of interest because of the upward

trend. The data would probably underestimate the true value of gifts since these data only cover items identified by the authorities and would not necessarily capture goods transported by hand or provided in cash. If this upward trend is repeated with remittance flows from New Zealand, for which there is no conclusive data, then it reflects a move towards a more traditional MIRAB system.

The data listed here have not been included in the Table 6 showing the historical remittance figures. Moreover, inability to access figures of remittance flows has meant that it was not possible to estimate in any useful way the current remittance flows from New Zealand. Despite this, it seems possible that this source of funds will become more important as a source of remittances in future as the population grows. However, it would appear that the significance of seafarer's remittances is paramount to the operation of the Tuvaluan economy.

CONCLUDING REMARKS

Conceptual controversy over the long-term sustainability of the Pacific MIRAB microstates has generated several invaluable insights into the nature of these economies. However, the debate cannot be settled without recourse to the empirical magnitudes and trends involved. Accordingly, this paper has sought to make a modest contribution to the nascent empirical literature on this important issue (see,

for example, Ahlburg and Brown 1998; Brown 1994; 1998; Forsyth 1992; Ratha 2003; Simatti and Gibson 2001) by considering migration and remittances in Tuvalu.

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