

The MIRAB Model Twelve Years On

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It is now more than a decade since Ray Watters and I published the first of a series of papers discussing the findings of our 1984 research project into New Zealand policies toward the Pacific Islands (Bertram and Watters 1984, 1985, 1986; Bertram 1986, 1987, 1993; Watters 1987). Central to our analysis was a particular constellation of economic forces that we labeled, rather casually, the MIRAB economy—an acronym made up of Migration, Remittances, Aid, and Bureaucracy, and signifying an economic situation in which current-account transfer payments (remittances, dividends, interest earnings, social welfare payments, government budgetary subventions, and a wide variety of other official transfers generically categorized as “aid”¹) and nontradable production (generally dominated by government, hence the term *Bureaucracy*), function as the leading sectors in economic development, in place of the World Bank’s preferred mix of export-led tradable production and private-sector investment.

Our original purpose in putting forward the MIRAB model was to challenge the thinking behind the strenuous efforts of aid donors and international agencies, both then and now, to drive small island economies away from what seems to be their natural and preferred pattern of resource allocation under the international conditions of the late twentieth century, and to force them into a development model transferred from mainland Asia (and before that, from the writings of the classical economists). The usually rather limited theoretical analysis behind island development plans and international agency programs of the 1980s conceptualized the status quo in Polynesia and Micronesia as “dependent” and “unsustainable,” leading to the proposition that resources and policy support should be allocated away from, rather than toward, strengthening and developing that status quo. Enormous amounts of money and effort were then poured

into an attempt to trigger export-led growth fueled by private investment. The money was welcome and useful, insofar as it reached the island economies rather than the pockets of overseas consultants; but much of the effort was misdirected—more an ideological exercise in appeasing donor prejudices than a well-grounded program for economic development.

A decade of very little economic growth² was the result, and this real-world experience seems to have contributed to a growing interest in our 1984 attempt to understand the MIRAB system as a steady-state economic equilibrium, generated by market forces under conditions of market deregulation, fiscal and monetary discipline, minimal price distortions, and strong outward orientation. This is not to say that Pacific Island nations exhibit no policy-induced distortions and government failure; simply that these are of second- or third-order importance for understanding development performance. This is a region where governments generally balance their budgets by letting spending change with revenues, where the balance of payments current account is seldom far from balance and external debt remains modest, where the mechanisms for generating inflation are mostly missing, where gross inequalities of income and wealth are the exception rather than the rule (and equalizing social feedback loops remain operative), and where problems of dualism are muted by the close integration of informal and formal sectors of the economy. Small Pacific Island economies may not “pay their way” in the eyes of the modernization school, but they do balance their books on a period-by-period basis, thus behaving in the world economy in the same way as the cash-constrained economic agents of some recent macroeconomic models.³

The starting points for the MIRAB analysis were, first, the observed empirical anomaly that small island economies worldwide exhibit higher standards of living than is predicted by classical, modernization, or dependency growth models, combined with, second, the hypothesis that common assumptions regarding the “unsustainability” of economies based on migration, remittances, and aid might need to be reconsidered. In relation to development planning and economic policymaking, the MIRAB approach highlighted the extent to which conventional plans and analyses limit themselves to the goal of stimulating the economically marginal tradables sectors, while virtually ignoring the main existing economic locomotives.⁴ The result is that economic planners have committed themselves, usually unsuccessfully, to an attempt to subvert powerful market forces in the regional economy and to defy revealed comparative advantage.

The essential issue here is the ability of many island economies to sustain levels of expenditure (that is, standards of living) that run consistently and apparently sustainably ahead of gross domestic product. A few examples will illustrate the empirical importance of focusing on gross national expenditure (that is, material standard of living) rather than gross domestic product. Gross national expenditure is calculated by adding to gross domestic product the commercial deficit on overseas trade in goods and services. To provide a benchmark, figures 1 and 2 show the data for two non-MIRAB Pacific economies (Fiji and Papua New Guinea), illustrating the tight long-run relationship between the two predicted by modernization theory.

Figures 3 to 7 show the persistent excess of expenditure over domestic product that is one hallmark of MIRAB economies, whose spending power includes transfer income as well as income earned from onshore economic activity.

Conventional emphasis on gross domestic product as the key economic growth indicator is based on the modernization view that expenditure can only be sustained on the basis of local (geographically bounded) output. The MIRAB model suggests that, on the contrary, external sources of financing that do not leave a residue of debt—current account transfers—are the key to the economic performance of small islands. Pacific Islander populations became globalized long before most of the rest of the non-OECD world, and several of the mechanisms described by neoclassical “convergence” theory have been operative for some decades now—especially a tendency toward factor price equalization, which has underlain the tendency for Pacific Island incomes to converge toward income levels in the metropolitan Pacific Rim.

In a MIRAB economy the indigenous population maximize their material well-being by management of the globalization process. Actual and potential⁵ subsistence production from land, most of which remains unalienated under customary tenure, puts an insurance floor under living standards by providing for basic needs, and possibly also for some modest cash sales of produce to urban or export markets. However, it is the release of family members and family savings from village agriculture and fishing, and their outward movement to other sectors, other islands, and other countries, that opens the way to securing higher incomes. Released factors and cash are allocated across whatever geographical and economic space the local population has access to, with the resulting income

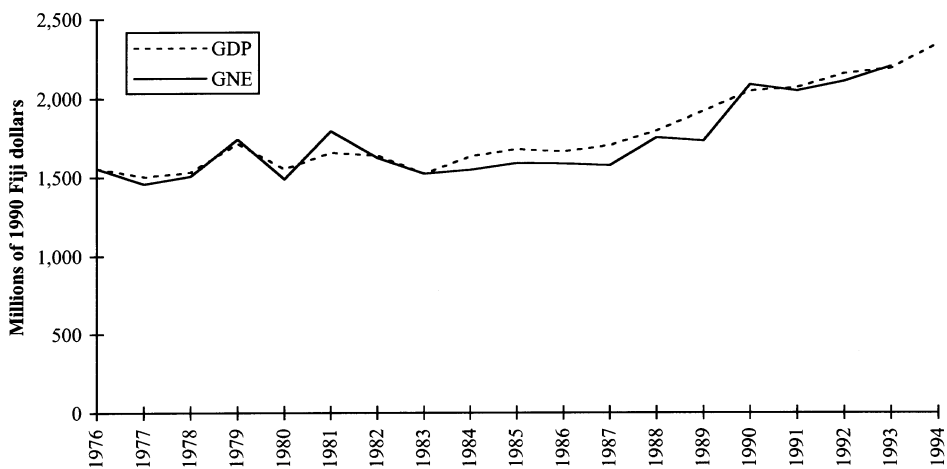


FIGURE 1. Fiji: Gross domestic product and gross national expenditure compared. *Source:* IMF 1996. GNE calculated by subtracting the commercial balance of the balance of payments from GDP.

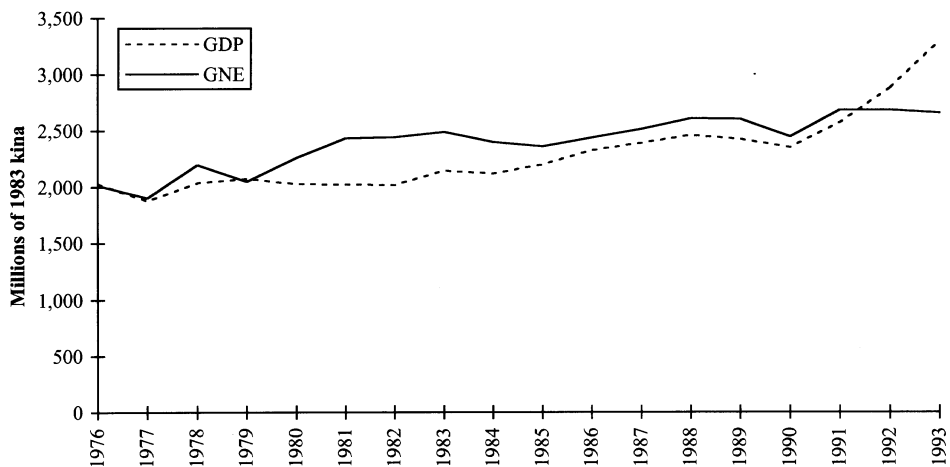


FIGURE 2. Papua New Guinea: Gross domestic product and gross national expenditure compared. *Source:* IMF 1996. GNE calculated by subtracting the commercial balance of the balance of payments from GDP.

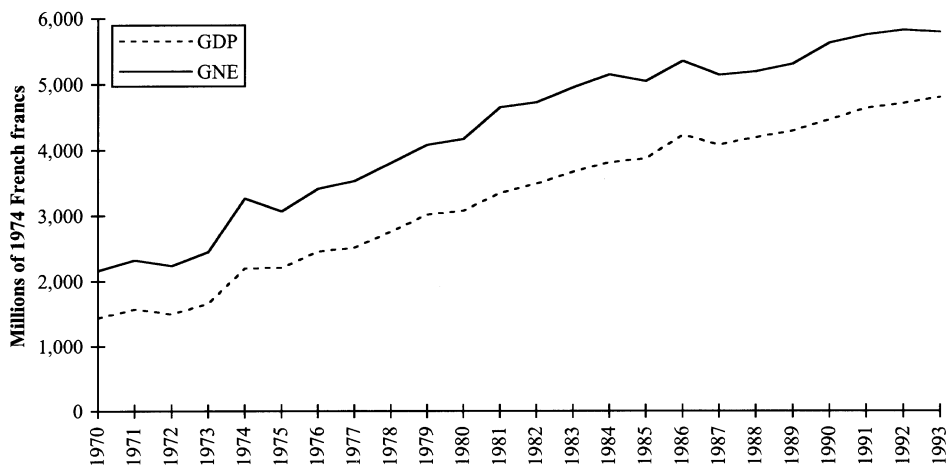


FIGURE 3. French Polynesia: Gross domestic product and gross national expenditure compared. *Sources:* Blanchet 1985; Poirine 1996. GNE calculated by subtracting the commercial balance of the balance of payments from GDP.

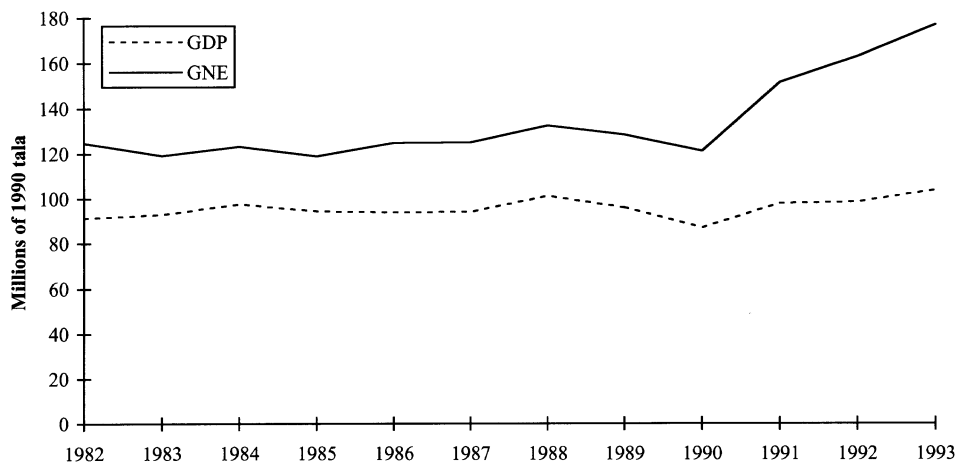


FIGURE 4. Western Sāmoa: Gross domestic product and gross national expenditure compared. *Sources:* IMF 1996; ADB 1994. GNE calculated by subtracting the commercial balance of the balance of payments from GDP.

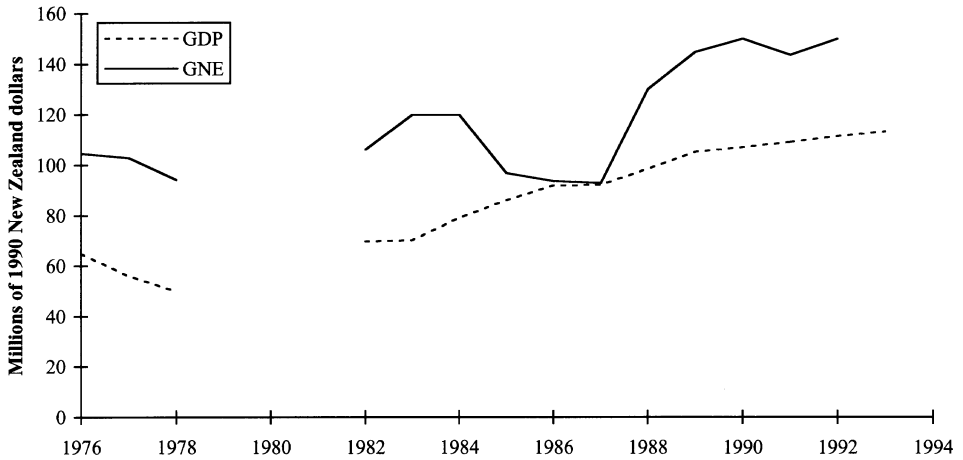


FIGURE 5. Cook Islands: Gross domestic product and gross national expenditure compared. *Sources:* ADB 1994, 1995. GNE calculated by subtracting the commercial balance of the balance of payments from GDP.

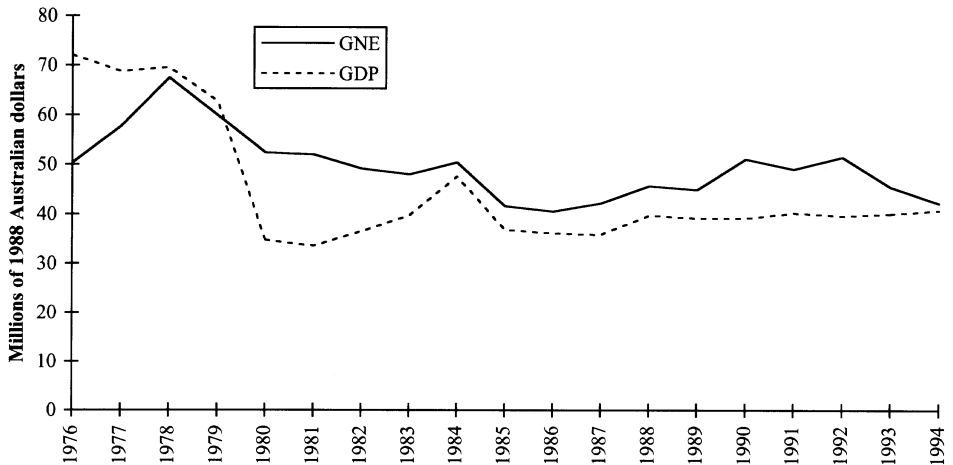


FIGURE 6. Kiribati: Gross domestic product and gross national expenditure compared. *Sources:* ADB 1994; Kim, Sidgwick, and Duprat 1995. GNE calculated by subtracting the commercial balance of the balance of payments from GDP.

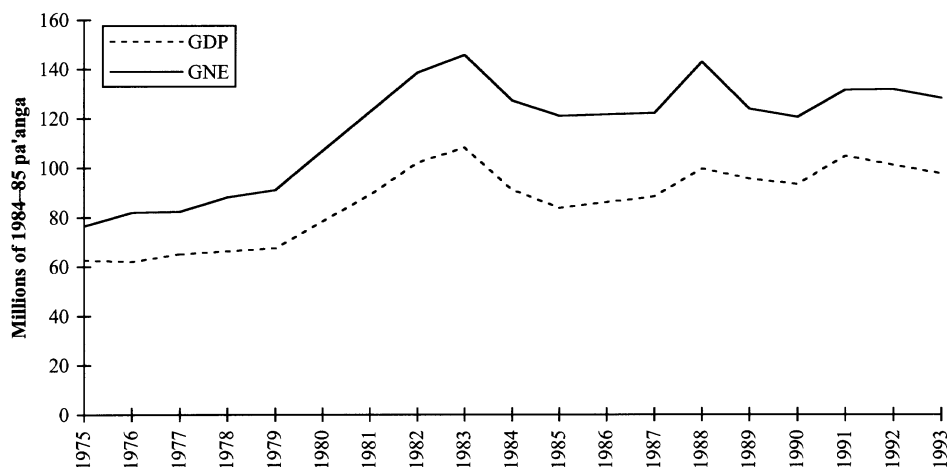


FIGURE 7. Tonga: Gross domestic product and gross national expenditure compared. *Source:* IMF 1996, 752–755, using CPI rather than the suspect GDP deflator. GNE calculated by subtracting the commercial balance of the balance of payments from GDP.

shared between migrants and their home communities by means of remittances. This process includes employment in the large externally subsidized government sectors, which puts cash into the hands of all households with members engaged in such employment.

Remittances, interest and dividend payments, aid, and other official transfer payments, are sources of disposable income that do not arise directly from the sale of commodities. Incomes in economies driven by these transfers can be sustained so long as the transfer flows continue. Over the past half-century, these funding sources have proven durable and stable—see, for example, the per capita flow of real bilateral and multilateral aid over the past three decades, shown in figure 8. This empirical record casts substantial doubt on the conventional wisdom that regards unrequited transfers as an unsustainable basis for material welfare. More fundamentally, the size and persistence of financial flows into island economies from overseas, and labor migration out, have the effect of making capitalist private-sector activity unprofitable because of the resulting combination of strong exchange rates and high wages.

A historical perspective makes it easy to “explain” the high levels of per capita expenditure in small Pacific islands by reference to the character of colonialism in the region. In all colonial Pacific spheres of influ-

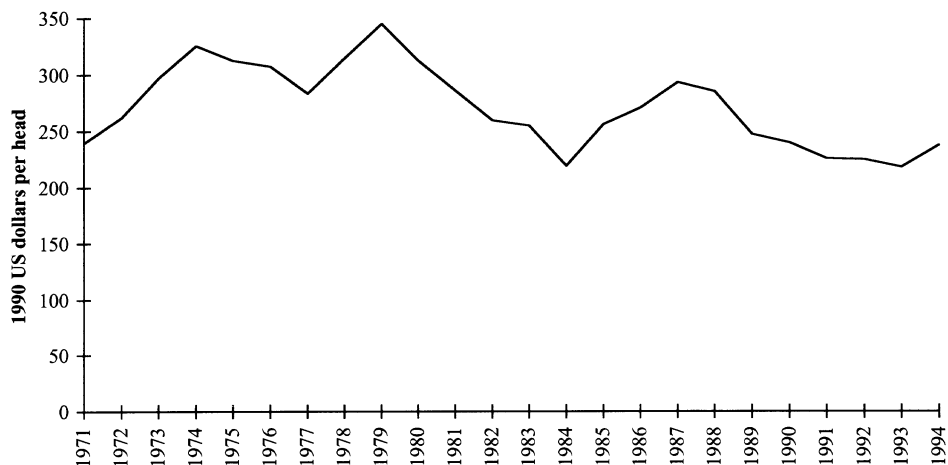


FIGURE 8. Per capita real aid to Oceania. *Source: United Nations Statistical Yearbook*, various issues. Total bilateral and multilateral aid flows in US dollars per head, deflated by US consumer price index.

ence from mid-century on, the living standards of indigenous island populations were raised and maintained by financial transfers from the metropolitan powers. The fear that decolonization might go hand in hand with “aid fatigue” among donors underlay the common ambivalence toward political independence, and the willingness of many island populations to retain a high level of political tutelage. As Harold Brookfield noted in the midst of decolonization, “if the available local resources in these countries are inevitably insufficient to support either the transformation or maintenance of welfare at present and desired levels, then there is no alternative to dependence but stagnation and retrogression. Independence may give a nation self-respect,⁶ . . . but it is a self-respect that must be severely constrained by awareness that the power of economic decision making is greatly limited. To maximise self-respect is not accordant with maximisation of either income or welfare” (1972, 141–142).

Bernard Poirine has developed, and investigated statistically, a model of the factors determining per capita aid flows (including government budgetary support) to a developing economy, and hence its ability to sustain expenditure levels greater than domestic production (1995a, 204–216). His three hypotheses are that, controlling for other factors, (i) islands receive more aid than nonisland economies because of their greater geostrategic importance and greater per capita control over territory (includ-

ing sea and air space); (ii) aid per capita is inversely related to island population (consistent with diminishing returns to variable population on an aid flow determined by fixed territorial factors); and (iii) aid per capita varies inversely with the degree of political autonomy of the territory.

In contrast to models that view aid flows as altruistic transfers subject to “donor fatigue,” Poirine has argued that financial transfers are generally determined by maximization of self-interest on the part of donors and will change only as the margin of donor calculation shifts. Aid donors to island territories are in effect purchasing a valued service in the form of a geostrategic footprint, the loss of which would have negative spillover effects on the metropolitan country.⁷ Addressing the issue of why the United States didn’t “completely abandon Micronesia after the development of detente and the ICBM,”⁸ T J Gaffaney made a similar argument but with a subtly different flavor: international moral and political pressure made it impossible for the United States to abandon prior commitments without offending international opinion. Gaffaney suggested that “even great powers in the international state of nature become bound to commitments and may change their policies towards their dependencies for reasons other than the great powers’ own interests . . . [S]uperpowers may not be completely autonomous agents, but have become involved in a complex web of international norms and standards for the treatment of nonthreatening states” (1995, 50).

The sustained aid effort associated with US and French willingness or determination to retain their Pacific presence certainly contrasts with the downward trend in British geostrategic interest in the region following Britain’s retreat from empire—but even the British withdrawal⁹ left a substantial residue of ongoing aid commitments in the region, while opening the way to expansion of the aid spheres of other rising regional powers such as Japan, Taiwan, Korea, and Australia.

Even casual inspection of the size of aid flows and the degree of mobility of labor and liquid capital points to the likelihood that the MIRAB approach is likely to apply more to Polynesia and Micronesia than to Melanesia. The Melanesian economies are characterized by relatively large populations and natural resource endowments, and by low international labor mobility. This closure of Melanesia’s international labor market, while high mobility characterizes Polynesia and Micronesia, is a reversal of the pattern in the first half of the twentieth century when the Melanesian labor pool was integrated with the Australian agricultural

Table 1. Per Capita Gross Domestic Product by Political Status, US Dollars, about 1990

	All	Excluding Papua New Guinea	Excluding Papua New Guinea and Hawai'i
Sovereign territories	1,229	1,510	1,510
In free association	2,187	2,187	2,187
Dependent	22,615	22,615	14,423
Region average	6,351	11,979	5,046

Source: Bank of Hawaii, Pacific Island Fact Sheet.

labor market while Polynesian and Micronesian populations had few migration opportunities. Melanesian island populations, however, reproduce internally—via interisland movement—the patterns of migration and remittances found on an international scale in Polynesia (Hayes 1993).

Small size combined with openness are necessary, but not sufficient, conditions for emergence of a MIRAB structure. Smallness means, above all else, price-taking status in the world or regional economy. Openness enables world prices to flow through into the local economy. Given these two, there remain two further requirements: sufficient political integration to secure access to aid and migration opportunities, and lack of a conspicuously successful export staple—since the presence of a booming staple erodes the political and social imperatives that generate aid and remittance flows.

Across small-island Polynesia and Micronesia the MIRAB model in various forms has been gaining increasing recognition. Outside the New Zealand sphere of influence where it was formulated, it has application to French Polynesia (Poirine 1994a, 1995a; Blanchet 1996), the Federated States of Micronesia (Cook and Kirkpatrick 1995; Cameron 1991; Gafaney 1995; Hezel and Levin 1996), the other small US-associated Pacific territories, Western Sāmoa and Tonga, and Chile's Pacific outpost of Easter Island (Rapa Nui). In Melanesia, as several researchers have pointed out, a migration-remittance nexus is highly developed internally in economies that lack access to overseas migration outlets—notably outlying islands of Papua New Guinea and the Solomon Islands (Hayes 1993; Friesen 1993), and Kiribati.

The model has not had a clear run from academic critics. Anthropolo-

gists have complained that it gives inadequate recognition to the negative effects of aid on the village economy (eg, Hooper 1993), and that the idea of a “transnational corporation of kin” by means of which family groups make decisions for individuals (or at least strongly condition individual decision-making) lacks empirical ethnographic support (Friesen 1993, 237; Munro 1990; Hayes 1992, 33). Others have complained that the macro-economic focus of the MIRAB approach is “remote from the domestic economies and even farther removed from the local ‘realities of place’ ” (James 1993, 147). Agricultural economists complain of a supposed rejection of the possibilities for development of village agriculture in the MIRAB model (Fleming, Hardaker and Delforce 1991, 125; Fleming and Hardaker 1995, 1–26). And a constant refrain from the mainstream of modernization theory is that the MIRAB economy cannot be sustainable in the long run, implying that islands with this type of economic structure are more, rather than less, vulnerable and fragile than traditional staple export systems. (The model has suffered also a certain amount of willful misrepresentation by bureaucratic elites in both aid-donor and aid-recipient countries, who notice that it threatens their preferred policy projects.)

I hope that I may be forgiven for not engaging in detail with all the critics in the context of this paper. Instead I shall give some sketchy history of the intellectual origins of the MIRAB concept, and then pick up three themes from the recent literature that identify, in my view, the most interesting and productive areas for further economic research work. Those themes are:

- substitutability among the MIRAB components, and thus a more detailed classification of particular island economies within the general framework and a move toward a more dynamic model;
- the microeconomics of the transnational kin or household unit and the remittance decision;
- the growing body of (relatively) robust macroeconomic data that permit cross-country comparisons to be made and the sustainability of current account transfers to be measured.

SOME PERSONAL RECOLLECTIONS

In his excellent paper on the dialectical relationship of the MIRAB model to the modernization model and its rebel offspring, dependency theory, Hayes (1991, 25–27) included a section discussing dependency theory and

world-systems theory, but neglected to mention that both Bertram and Watters were active in dependency-related research in Peru during the period 1968–1976, when Latin American dependency theory was at its zenith. Both of us were products of the radically inclined geography department at Victoria University, headed by Keith Buchanan in the 1960s. My training in development economics began with the twin influences of Arthur Lewis's two-sector classical model and Paul Baran's Marxist theory of underdevelopment (the starting-point for the regretably less rigorous later work of Gunder Frank; see Lewis 1954; Baran 1957; Frank 1967).

In Peru I first encountered a straightforward contradiction between received theoretical wisdom and daily empirical experience, and was fortunate to be part of an active social-science research community that was prepared to follow its nose and rewrite theory accordingly. The dependency model's inability to explain how dependency relations could be reproduced other than by sheer exercise of power by the dominant country led us to investigate the role of local economic and political elites in mediating and reproducing dependent incorporation of national economies into the world economy (Thorp and Bertram 1978; Bertram 1991).

Peru was on the research frontier because of the Nasserite¹⁰ political stance of military President Juan Velasco Alvarado, and the treasure trove of historical documents that surfaced during the 1969 agrarian reform and the highland peasant revolts of the era (Bertram 1974). Fitzgerald (1978) was writing on Peru as an intermediate regime (Kalecki's term for governments seeking to position their economies in the conceptual space between capitalism and socialism). Hobsbawm (1970) and Martinez-Alier (1977) were pursuing the implications of "capitalist" elites which sought to construct and sustain neofeudal modes of production to stave off a peasant drive toward petty capitalism. Long and Roberts (1978) were documenting the close organic connection of "traditional" highland peasant communities in the Mantaro Valley, with their migrant members in the formal and informal sectors of Lima's capitalist economy. Caballero (1976) and Figueroa (1984) were surveying Andean villages and discovering the importance of off-farm migrant earnings in family budgets. Research on the food supply to Lima discovered that about one-third of the nutritional needs of Peru's capital city were being supplied informally, outside any measurable market arrangements and apparently largely via remittances-in-kind from the highlands. The choice for migrants between

investing in further expanding their economic activities in Lima or in their home communities was part of the Lima scene. And the informal economy was everywhere, demonstrating the strategic entrepreneurial flair and opportunism of ordinary individuals and families in searching out niches of opportunity in an apparently hostile economic environment.

By the time I returned to New Zealand in 1976, therefore, I was already critical of dependency theory as well as the mainstream modernization model, accustomed to thinking in terms of the coexistence of modes of production within a market economy, accustomed also to the idea of individuals moving back and forth between modes and social roles, and inclined to view geographically dispersed families and communities as organic economic wholes. I had also had Keith Griffin as my tutor at Oxford and so had an interest in finding ways to push neoclassical economics to answer unorthodox questions.

My first direct collaboration with Ray Watters was a 1976–77 investigation into a New Zealand aid project to upgrade pastures in the southern Peruvian Andes. The project had been launched on the basis of an agronomist's casual observation of the apparent opportunity to introduce better grasses and lucernes and thereby raise the productivity of "traditional" pastoralism in the region. Neither a historical survey nor a sociological study of the local village economy had been done before the technical team moved in. Perhaps inevitably, our historical work showed that nearly a century of virtually identical aid projects in the area had left no trace of established improved pasture, and our sociological work suggested that local peasant incentives were not aligned with the New Zealand team's objectives, largely because the rural poor were unable to capture any of the economic surplus that might result from pasture improvement and so, sensibly enough, went for short-term gain by grazing their stock at night over the experimental plots, having first removed the protective fencing for use as building material.

In 1979 I was asked to help with the first census of independent Tuvalu, which brought me into Pacific research. We wrestled with the inadequacy of the standard census definition of "de facto" resident population in a small economy with a significant fraction of its labor force employed offshore (on Banaba and international shipping); I met for the first time the stunning discrepancy between export production and import consumption that is the defining characteristic of MIRAB economies. A week in Funafuti left me intrigued about the basis on which a small, soli-

daristic society with access to a fixed number of cash-earning migrant jobs went about the task of rationing this scarce supply of external employment opportunities across its population of young males of working age. The Marine Training School that operated as the rationing agency appeared to recruit its candidates on a basis far removed from the strongly individualistic and elite-dominated process that would have operated in Peru. Instead there seemed to be an implicit social contract embracing the entire society that enabled cash-earning opportunities to be spread, over time, across islands in the group and kin groups on each island. Individuals were expected to rotate back into the local population after a set period at sea, thus freeing up jobs for the next wave of the school's graduates—a process that made perfect sense in the Tuvalu setting but violated standard neoclassical labor-market theory.

Five years later I returned to the Pacific, this time with Ray Watters again, to evaluate New Zealand aid policies. We quickly found ourselves at odds with the New Zealand Treasury's drive to increase the notional autonomy of Niue, Tokelau, and the Cook Islands by helping their political elites to invent new "international personalities," while trying to cut them adrift from New Zealand budgetary support. Six months of research later, the MIRAB model was born, to the consternation of New Zealand officials who had commissioned what they hoped would be a comforting academic prop for their policy objectives of geographically bounded "development."

SUBSTITUTABILITY AND MIRAB TYPOLOGY

The term *MIRAB* spans two sets of current-account transfer receipts (remittances and official aid) plus one sort of nontradable output, government services (encapsulated by *B* for *Bureaucracy*). The term was coined rather casually to capture the situation in the New Zealand-associated island economies, and suffers as a result from two heuristic problems (apart from its ugliness).

First, it gives the false impression that unless all three identified components are present, an economy does not qualify for classification as a MIRAB system. Poirine (1994b) has made this point forcefully by noting the absence of out-migration from (and hence remittances into) New Caledonia and French Polynesia, at least up to the early 1990s, due to the exceptionally high local wage structure sustained by French budgetary

support. Replacing “migration and remittances” with “atomic rent,” Poirine proposed to call French Polynesia an ARAB economy. However, as he has acknowledged in other recent work, the strong family resemblance of the French Pacific territories to the structure of other Pacific MIRAB economies justifies application of the model, once it is recognized that the various components are potentially substitutes for one another,¹¹ so that a MIRAB system may operate anywhere along a remittances-aid frontier that includes the corner solutions of French Polynesia, the Federated States of Micronesia, and perhaps Hawai‘i (all aid, no remittances) at one end, and a possible future Tongan economy (all remittances, no aid) at the other.

Second, the term *MIRAB* leaves out some varieties of current-account transfers and nontraded production that belong in the model. For example, a MIRAB economy can be constructed on the basis of receipts of interest and dividends from overseas investments such as those held by Nauru (from retained phosphate earnings) and Kiribati (the Revenue Equalization Reserve Fund). Furthermore, nontradable production can take place in the private sector as well as the public sector, as the recent debate over privatization of infrastructural services illustrates.¹² “Dutch disease” does not automatically mean a disproportionately large government sector, so that the “bureaucracy” feature of Pacific MIRAB systems has to be explained by factors other than just a high real exchange rate.

It is too late to go back and fine-tune the MIRAB terminology now that it has passed into common usage. More useful and interesting is the classification of particular economies on the basis of their mix of the components, and the related issue of the dynamics, and hence sustainability, of MIRAB systems. Fortunately, due to sustained effort by a number of large international organizations (especially the World Bank, the International Monetary Fund, the United Nations, and the Asian Development Bank) the stock of reasonably consistent macroeconomic data over fairly long periods has been improving, and these data enable some comparisons to be drawn.

The best place to start is the balance of payments current account. Thinking of Pacific Island economies as cash-constrained in their ability to purchase imported goods and services (including payments of interest and dividends on foreign capital invested in the island economies) permits organization of the data around the question: How do particular island microstates finance their current-account expenditures? One extreme is typified by Fiji (figure 9), which relies almost entirely on revenues from

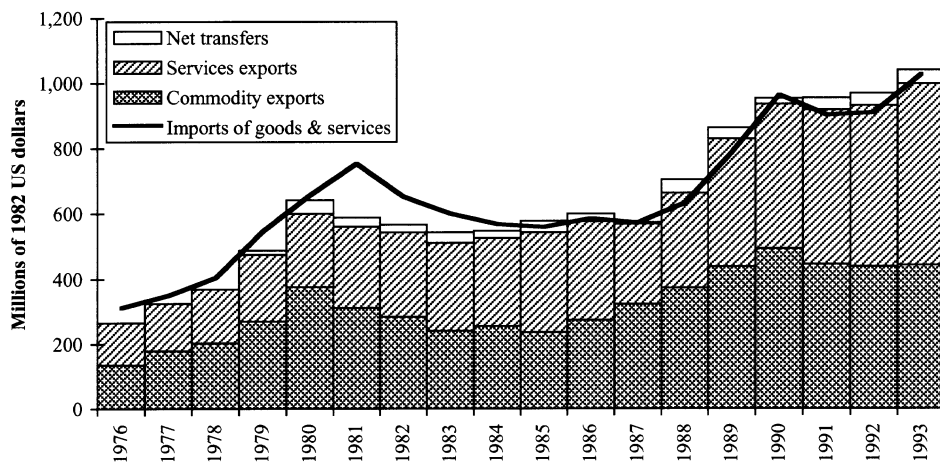


Figure 9. Fiji: Current account financing for imports of goods and services. *Source:* IMF 1996, 199–359.

sale of goods and services on international markets to finance its import requirements. A second pattern, exhibited by the Solomon Islands (figure 10) is to finance a temporary current-account deficit by heavy overseas borrowing in order to lay down investment in the development of export sectors, in the hope of moving into long-run trade balance. A third group is the MIRAB economies (figures 11 to 15), which rely on various types of current-account transfer payments to finance a large part of their import requirements. The Federated States of Micronesia (figure 11) is mainly aid-driven, though export growth in recent years has been quite impressive (due apparently to export-oriented industrialization using imported migrant labor in Yap). Kiribati (figure 12) has quite diversified sources of current-account financing, among which export earnings are insignificant. Western Sāmoa (figure 13) and Tonga (figure 14) have moved to a situation where private remittances are the dominant source of financing and a phase-out of aid has become a real prospect in the absence of any significant export-led growth. Tuvalu (figure 15) exhibits a surprisingly strong “export” base apparently composed mainly of philatelic revenues.

The structure of these diagrams sets up a framework for thinking about economic development options for small island states, and in particular the recurrent theme in Pacific discussion of whether and how aid should be phased out over time. With standards of material welfare tied

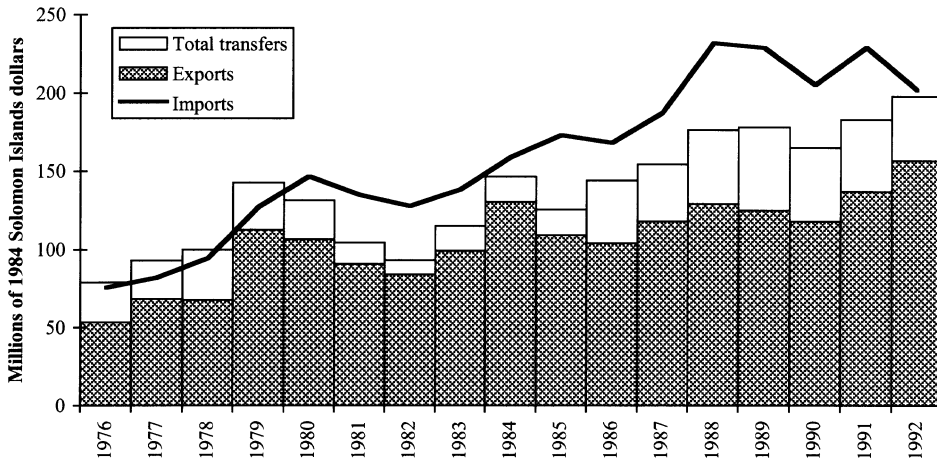


FIGURE 10. Solomon Islands: Current account financing for imports of goods and services. *Source:* IMF 1996, 692–695.

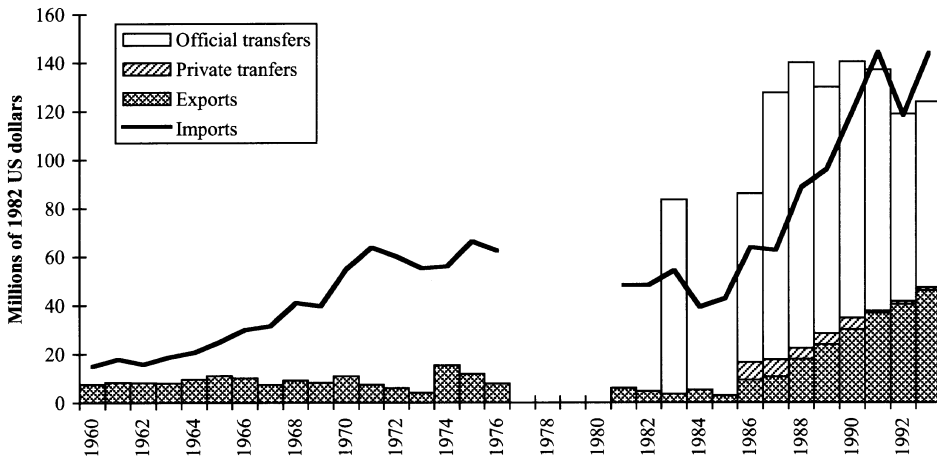


FIGURE 11. Federated States of Micronesia: current account financing for imports of goods and services. *Sources:* ADB 1994, 200–203; Cook and Kirkpatrick 1995, 10, table 6; Gaffaney 1995, 42, table 2.

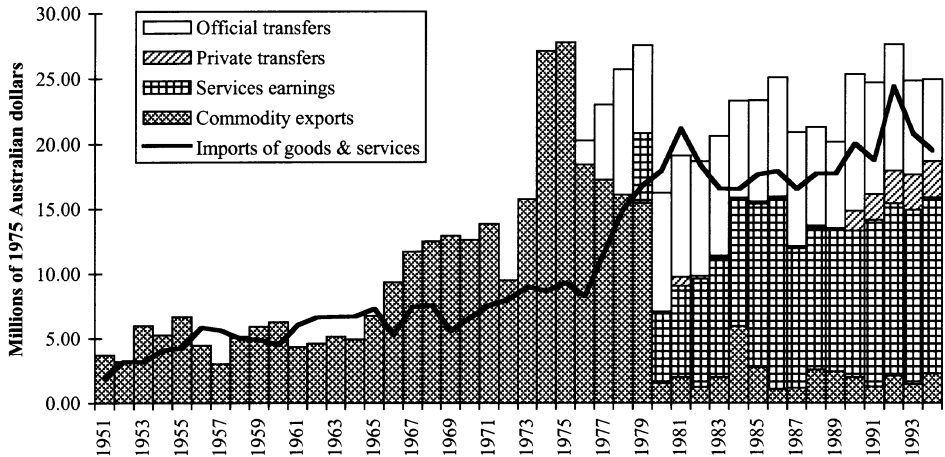


FIGURE 12. Kiribati: Current account financing for imports of goods and services. Sources: Gilbert and Ellice Islands *Blue Books* to 1975; 1976–1989 from ADB *Key Indicators . . .*, various issues; 1990–1994 from Kim, Sidgwick, and Duprat 1995, 40.

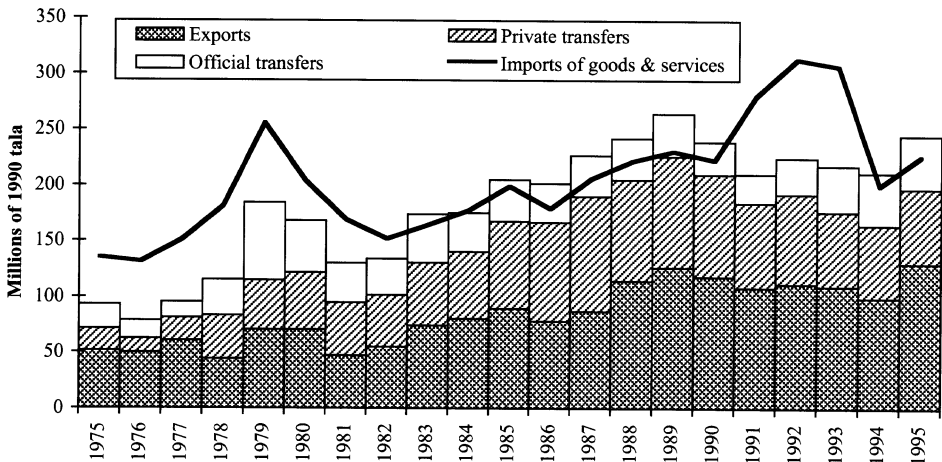


FIGURE 13. Western Sāmoa: Current account financing for imports of goods and services. Source: IMF 1996, 806–809.

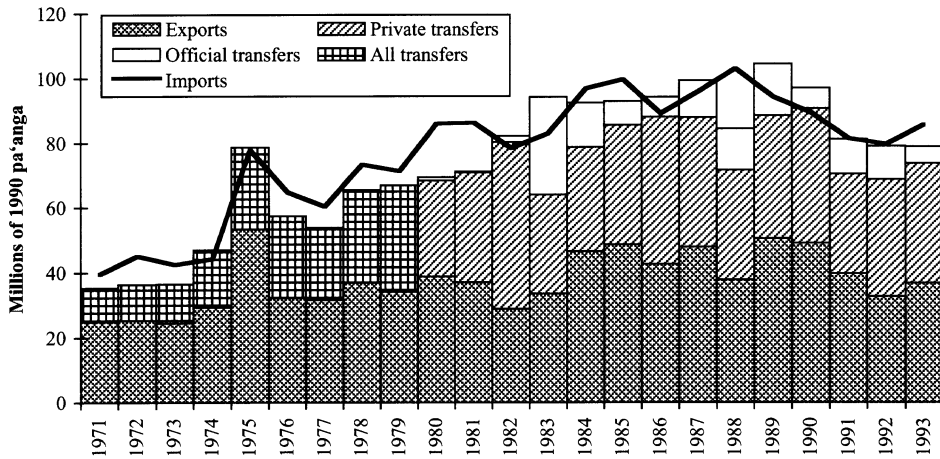


FIGURE 14. Tonga: Current account financing for imports of goods and services.
Source: IMF 1996.

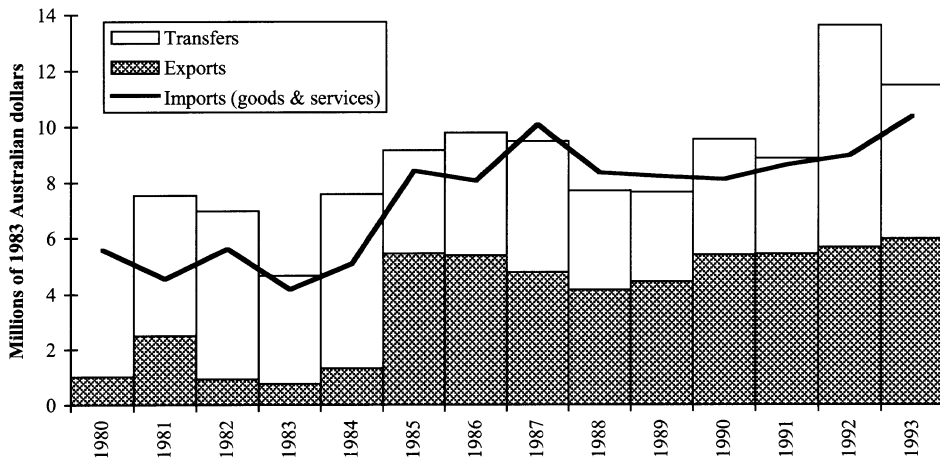


FIGURE 15. Tuvalu: Current account financing for imports of goods and services.
Source: ADB 1994, 336-337.

directly and tightly to current import capacity, with restricted opportunities for profitable foreign direct investment, and with very limited scope for sovereign-debt-financed expansion of either consumption or investment, Pacific Island economies must continue to balance their current accounts in the medium-to-long run. The more-or-less-binding identity is

$$\begin{aligned} \text{Imports of goods and services} &= \text{Commodity exports} \\ &+ \text{Services earnings} + \text{Income}^{13} \\ &+ \text{Remittances} + \text{Aid} \end{aligned}$$

Various development trajectories are consistent with this identity:

- Numerous aid donors have conceived of a process whereby commodity exports rise while aid and remittances fall, leaving imports fully financed by sales of goods and services and the national economy neatly confined within its geographical boundaries. The end-point of this transition would be the sort of current account exhibited by Fiji.
- Many observers who assume that aid and remittances must fall over time, and who discount the World Bank vision of successful export-sector development, envisage a path of economic involution as per capita import capacity falls and the economy is forced back onto its own limited domestic resources,¹⁴ with material standards of living falling accordingly, while the population remains confined within the territorial boundaries. This might be described as the Kiribati model. I am inclined to doubt that a falling path for imports and therefore domestic consumption is politically sustainable for potential aid donors, and so to think there is a donor-feedback loop that will either maintain aid levels at some floor sufficient to stave off scandalous impoverishment, or concede freer access for migrant labor to metropolitan economies. (For those island states already possessing migration entry rights, the latter mechanism is already operative, since out-migration can sustain the per capita import capacity of the remaining resident population even in the face of an aid slump. In these cases, donors face a trade-off between financial transfers and Islander migration.)
- Others, including myself, envisage Polynesian or Micronesian development as a process in which (i) commodity exports remain marginal (though any available export growth opportunities are obvi-

ously helpful); (ii) aid flows continue to be sustained (but not increased) by geopolitical competition for control of Pacific air and sea space and UN votes, or to maintain international “face”; and (iii) remittances and other repatriated earnings rise steadily as the overseas investments of transnational kin groups mature. Import capacity would thus be sustained, and potentially increased over time, by a rising flow of repatriated income earned offshore, making the developed MIRAB economy rather comparable (albeit at microcosmic level) to the UK economy of a century ago. This transition would yield a current account structured like those of Tonga and (to a lesser extent) Western Sāmoa, with import growth picking up from the slump of the first half of the 1990s.

MICROECONOMICS OF THE FAMILY

The concept of Pacific Island kin groups as transnational economic entities—what Watters and I called “transnational corporations of kin”—was poorly developed in our original work, and accordingly attracted a good deal of criticism on grounds of what Geoffrey Hayes (1991, 43) called the “fallacy of misplaced familism”—that is, a tendency to idealize the neotraditional Polynesian family as being “harmonious” and “conflict free,” and so able to make collective allocative decisions governing the geographical location of family members and the flow of remittances in a purely consensual fashion. Abundant ethnographic evidence of conflict and tension within Pacific Island kin groups, and particularly the continual dialectic between centrifugal forces of individualism and the centripetal pull of family solidarity (backed up by a variety of sanctions and rewards), makes it clear that a much richer story of the behavioral, microeconomic foundations of migration and remittance flows is required.

I concede that Watters and Bertram failed to articulate in detail the decision-making model that implicitly underlay their model of migration and remittances; but I do not accept that in using the ideal type of a family-wide decision unit we were being naively idealistic about the structure and dynamics of kin groups,¹⁵ and I still believe there is mileage to be gained from the analogy with transnational corporations. Our concern was to focus directly on what we took to be the distinctive feature of Pacific migration on a comparative basis, namely the ability of Polynesian societies to “become dispersed in space while still retaining some degree

of organic unity at the level of the social system" (Hayes 1991, 7-9). Hayes captured precisely what we had in mind: "The impression . . . is of 'transnational' communities consisting of two or more population 'nodes' separated by large distances while apparently maintaining similar social relations of rights and obligations as would be operative in a previously geographically bounded system" (1991, 9). And he noted that this view of the migration process could be compatible with either a conflict or a consensus model of social process. Watters and Bertram settled for a consensus model and thereby attracted the ire of conflict-oriented researchers, particularly anthropologists, but the resulting debate is a welcome one that can proceed within the overall framework of the MIRAB model.

Recent progress in the economic modeling of transnational family enterprise in the Pacific has been driven mainly by Bernard Poirine (1994a, 1995b), who has addressed the issue of family decision-making using an individualistic utility-maximizing neoclassical approach with a strong resemblance to Becker's work. Poirine's vision of the family consists of a coalition of individuals grouped into overlapping generations, engaged in a continually repeated optimization exercise over time. Individuals are bound into the coalition by self-interest because Pareto gains are available to all family members from joint decision-making on the education and allocation of family members, for each of whom a life strategy is planned and pursued. Migration and remittances are aspects of the implementation of a complex set of contractual relationships within the family, and the ethnographic evidence of tension, conflict, and use of social control mechanisms against errant individuals is interpreted as the usual institutional arrangements for enforcing contracts and overcoming problems of moral hazard.

A strength of Poirine's work is that it has yielded clear, testable hypotheses. It has also borne fruit in his collaboration with Richard Brown in reworking Australian survey data on Pacific Island migrant communities (Brown and Poirine 1997). More such surveys of immigrant communities, at the sending as well as the host end, would be a very valuable area of future research if funding were to become available.

My own approach to the microeconomic modeling of the transnational family enterprise has a slightly different starting point from Poirine's, insofar as he treats the family as a "household" in the economists' sense (that is, an institution devoted to meeting the long-run utility or con-

sumption goals of its members) whereas I treat it as a “firm” (that is, an institution devoted to maximizing the equity of its shareholders over time). In the long run the two concepts should converge, in that an intertemporal model of a multigeneration household yields a sequence of consumption decisions based on “permanent income”—that is, long-run wealth. Use of a “family firm” model, however, raises more directly the issue of how each period’s gross revenue across the whole enterprise is allocated between consumption and investment (acquisition of real and financial assets) and how investment flows are allocated to acquire assets in different geographic locations and political jurisdictions. Use of a firms model also avoids Poirine’s need to appeal to a market imperfection (the gap between formal and informal capital-market rates of interest) to motivate his flows of borrowing and lending. I agree that this gap probably exists, but I think that the transnational corporation of kin and its remittance behavior would survive even if present capital market imperfections were removed.

I agree with Poirine (1995b, 40 n12) that the quest for a causal relationship from aggregate remittances to aggregate savings rates in Foster (1995), Brown, Foster, and Connell (1995), and Connell and Brown (1995) was a blind alley.¹⁶ But the opposite relationship, from optimal investment planning by family firms to recorded remittance flows, remains to be explored. This really needs longitudinal survey data, but there is yet no longitudinal survey of migrant communities under way in any of the Pacific Rim destination countries. As a second-best alternative, econometric work on time-series aggregate data will be worth pursuing.

From an economist’s point of view a great advantage of the MIRAB model is that it provides optimizing micro foundations for its macroeconomic propositions, in contrast to the usual World Bank approach to Pacific development, which is restricted to manipulating disembodied economic aggregates. To capitalize on this strength, economists need more debate on the processes of resource allocation and decision making within the Pacific Island family, and more interaction with researchers from other disciplines such as geography, history, anthropology, and sociology.

* * *

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Notes

1 The term *aid* has to be used with great caution in the context of small-island macroeconomic analysis, because of the extent to which it has become identified in the minds of most economists with the subset category “development aid.” The latter concept involves the provision of finance for investment projects with clearly positive payoffs in terms of growth of gross domestic product. The former comprises a much wider variety of payments, including current payments made simply to sustain existing levels of gross domestic product, gross national expenditure, government services provision, or to restrain the extent of out-migration. Intergovernmental transfers whose purpose is to forestall economic decline will have their payoff in a zero rather than negative rate of economic growth. Evaluating the payoff to such flows by use of the incremental capital-output ratio, as several recent studies have done, will tend to lead to the unwarranted conclusion that aid has “failed.” Properly designed evaluation of South Pacific aid performance requires specification of more appropriate counterfactual elements than merely zero growth. It also requires critical scrutiny of the extent to which the reporting criteria of the Development Aid Committee of the OECD, combined with political pressure to demonstrate concern for developing economies, may have led many donor governments to classify transfer payments with no clearly identifiable investment component as “development aid.”

2 At least as conventionally measured in terms of geographically bounded gross domestic product. I and several others, including Bernard Poirine, have argued that the properly measured growth rate for Islander communities dispersed across transnational space—that is, the rate of growth of per capita wealth and hence “permanent income” for Islander kin groups—has probably continued to grow.

3 Exceptions do occur, as recent history in the Cook Islands demonstrates, but these departures from fiscal prudence are not sustainable and the subsequent experience of retrenchment and stabilization provides a salutary reminder to others.

4 A good example of this tendency is the otherwise excellent study of private sector development options in the Pacific by McGregor, Sturton, and Halapua (1992), which restricts its definition of “private sector activity” entirely to domestic productive activity and regards export earnings as the sole sustainable source of foreign exchange. Having noted the dominant role of labor remittances in the Tongan and Western Samoan balances of payments, they dismiss the entire topic of factor exports in a single sentence: “[T]he reliance on remittances is precarious should barriers to migrant labour arise and as ties to home become weakened through time” (1992, 10). Yet barriers to migration have proved consistently easier for Polynesians and Micronesians to overcome than the barriers to

successful entry to export markets (McGregor, Sturton, and Halapua's preferred strategy), and remittance flows have been empirically more sustained and more stable than export proceeds.

5 Large numbers of field studies by agronomists, geographers, and anthropologists attest to the existence of substantial excess capacity in islands subsistence agriculture, in the form of both land held out of production and reduction of labor input. Both these are, of course, reversible in the event of a change in the incentives facing the owners of land. A risk for the future is posed by the current trend toward alienation of land, often into nonindigenous hands, and sometimes encouraged by international agencies giving priority to short-run output increases over the longer-run viability of indigenous society and culture.

6 I do not, incidentally, subscribe to Brookfield's ethnocentric conceptualization of the necessary conditions for sustaining self-respect. In the cited passage Brookfield is assuming a one-for-one mapping between the objective condition of aid dependence and the subjective condition of lack of self-respect. It seems to me that the mapping will vary according to the way in which the aid relationship is mediated and sustained.

7 A graphic illustration of the footprint analogy is the substantial funding provided by the United States for airport construction on Easter Island to provide an emergency landing site for the Space Shuttle program.

8 Inter-Continental Ballistic Missile, an innovation that dramatically reduced the United States' B-52 bomber bases surrounding China and the Soviet Union.

9 This was accomplished mostly during the Thatcher government's period of office, when Britain adopted a distinctively hard-nosed personality in the international arena and refocused its geostrategic interests from the Pacific (where former colonies were allowed to drift away to other patrons) to the Atlantic (where Britain engaged in a substantial military campaign to retain control over South Georgia and the Falkland Islands, and thereby over large areas of Antarctica and potential oil reserves in the South Atlantic).

10 President Nasser of Egypt developed in the 1950s a distinctive style of nonaligned authoritarian military government committed to finding an intermediate "third way" between capitalism and communism.

11 As Poirine (1994a, 2007) put it, "Emigration is only one of the alternative strategies of international specialization for small island economies. . . . [M]ilitary or geostrategic rent . . . , international aid, and public transfer payments such as social security payments, family allowance, unemployment benefits, and minimum income allowance . . . all act as a substitute for emigrants' remittances."

12 The new focus by international agencies on microeconomic reform to raise the efficiency of nontradable production is appropriate from a MIRAB point of view, so long as it is borne in mind that the object of the exercise ought to be to raise the volume of nontradables secured for given budgetary outlays—not to

slash the budget. Expansion of efficient nontradable production brings the thrust of aid policy much closer to what a MIRAB analyst would recommend, by emphasizing the need for one-off increases in the productivity of aid expenditure and allowing scope for improved governance, accountability, and incentives to produce positive spillover benefits for the island economies. A MIRAB analysis, obviously, would expect many of these spillovers to become apparent in the emigrant as well as the locally resident components of the transnational kin economy.

13 “Income” in the International Monetary Fund’s balance of payments format covers repatriated interest and dividends on assets held overseas by the formal sector of the economy, both government and private. Informal income repatriation is classified as an unrequited transfer in the IMF presentation.

14 This process obviously includes some potential import substitution, to the extent that policy settings and regulatory barriers are designed to that end.

15 To elaborate a detailed defense would take too long for this paper. It is however standard practice for economists to treat the “household” and the “firm” as though they are maximizing individuals for the purpose of building microeconomic models, and there is a huge literature on the institutional arrangements for internal governance in these decision units by means of which maximization of their members’ welfare may be maintained as the overall objective under conditions when it might be in the interests of some individuals to defect from the club. In the particular context of peasant households, there is a long-standing sociological literature since Chayanov on the making of decisions about resource allocation (1966); the Victoria University variant is encapsulated in Harvey Franklin’s work, which gives a central role to a “*chef d’entreprise*” who may or may not be identifiable as a particular individual within the household (1969).

16 Financial aid flows, being fungible, must be conceived of as supplementing aggregate income rather than domestic savings, so that the ratio of incremental investment to incremental aid will be given by the marginal savings or investment propensity (see Griffin and Enos 1970; Papanek 1972; Gillis and others 1992, 381–385). So long as aid takes the form of a fungible flow of liquid funds, it should be expected to have the same direct causal relationship with both consumption and savings or investment as any other source of income. The same is true of remittances if they are modeled simply as aggregate flows of funds into an economy.

References

ADB, Asian Development Bank

1994 *Key Indicators of Developing Member Countries 1994*. Manila.

1995 *Cook Islands: Economic Performance, Issues and Strategies*. Manila: ADB Office of Pacific Operations.

Ahlburg, Dennis

1991 *Remittances and Their Impact: A Study of Tonga and Western Samoa*. Pacific Policy Paper 7. Canberra: Centre for Development Studies, Australian National University.

1996 Remittances and Income Distribution in Tonga. *Population Research and Policy Review* 15 (4): 391-400.

Ahlburg, Dennis, and Michael J Levin

1990 *The North East Passage: A Study of Pacific Islander Migration to American Samoa and the United States*. Pacific Research Monograph 23. Canberra: Australian National University.

Armstrong, H W, and R Read

1995 Western European Microstates and EU Autonomous Regions: The Advantages of Size and Sovereignty. *World Development* 23 (7): 1229-1245.

Armstrong, H W, R J De Kevenael, X Li, and R Read

1998 A Comparison of the Economic Performance of Different Microstates, and between Microstates and Larger Countries. *World Development* 26 (4): 639-656.

Bank of Hawaii

and *Pacific Island Fact Sheet*. Honolulu.

Baran, Paul A

1957 *The Political Economy of Growth*. New York: Marzani and Munsell Prometheus Paperbacks.

Benedict, B, editor

1967 *Problems of Smaller Territories*. London: Athlone Press.

Bertram, Geoffrey

1974 New Thinking on the Peruvian Highland Peasantry. *Pacific Viewpoint* 15 (2): 89-110.

1986 "Sustainable Development" in Pacific Micro-Economies. *World Development* 14 (7): 809-822.

1987 The Political Economy of Decolonisation and Nationhood in Small Pacific Societies. In *Class and Culture in the South Pacific*, edited by Antony Hooper and others, 16-29. Suva and Auckland: Institute of Pacific Studies, University of the South Pacific and Centre for Pacific Studies, University of Auckland.

1991 Peru, 1930-1960. In *The Cambridge History of Latin America*, volume 8: *Latin America Since 1930*, edited by Leslie Bethell, 385-450. Cambridge: Cambridge University Press.

1993 Sustainability, Aid, and Material Welfare in Small South Pacific Island Economies, 1900-1990. *World Development* 21 (2): 247-258.

Bertram, I Geoffrey, and Ray F Watters

1984 New Zealand and Its Small Island Neighbours: A Review of New Zealand Policy toward the Cook Islands, Niue, Tokelau Islands, Kiri-

- bati and Tuvalu. Study report prepared for Institute of Policy Studies, Victoria University of Wellington. Available on microfiche from Victoria University Library.
- 1985 The MIRAB Economy in Pacific Microstates. *Pacific Viewpoint* 26 (3): 497-519.
- 1986 The MIRAB Process: Some Earlier Analysis and Context. *Pacific Viewpoint* 27 (1): 47-57.
- Blanchet, G
- 1985 *L'Économie de la Polynésie Française de 1960 à 1980*. Travaux et Documents 195. Tahiti: ORSTOM.
- 1996 Quel Avenir pour la Polynésie Française? *Journal de la Société des Océanistes* 102 (1): 31-46.
- Briguglio, Lino
- 1995 Small Island Developing States and Their Economic Vulnerabilities. *World Development* 23 (9): 1615-1632.
- Brookfield, Harold C
- 1972 *Colonialism, Development and Independence: The Case of Melanesian Islands in the South Pacific*. Cambridge: Cambridge University Press.
- 1980 *Population-Environment Relations in Tropical Islands: The Case of Eastern Fiji*. Paris: UNESCO & UNFPA.
- Brown, Richard P C
- 1994 Migrants' Remittances, Savings and Investment in the South Pacific. *International Labour Review* 133 (3): 1-19.
- 1995 Hidden Foreign Exchange Flows: Estimating Unofficial Remittances to Tonga and Western Samoa. *Asian and Pacific Migration Journal* 4 (1): 35-54.
- 1997 Estimating Remittance Functions for Pacific Island Migrants. *World Development* 24 (4): 613-626.
- Brown, Richard P C, John Foster, and John Connell
- 1995 Remittances, Savings, and Policy Formation in Pacific Island States. *Asian and Pacific Migration Journal* 4 (1): 169-185.
- Brown, Richard P C, and Bernard Poirine
- 1997 *Intergenerational Transfers with Impure Altruism: An Application to Migrants' Remittances*. Paper presented at 8th Pacific Science Inter-Congress, Suva, 13-19 July.
- Browne, C, and D Scott
- 1989 *Economic Development in Seven Pacific Island Countries*. Washington, DC: International Monetary Fund.
- Caballero, Jose-Maria
- 1976 *Agrarian Reform and the Transformation of the Peruvian Countryside*. Cambridge.

Cameron, J

1991 Economic Development Options for the Federated States of Micronesia at Independence. *Pacific Studies* 14 (4): 35-70.

Campbell, I C

1992 A Historical Perspective on Aid and Dependency in Tonga. *Pacific Studies* 15 (3): 59-75.

Chayanov, A V

1966 *Theory of Peasant Economy*. Champaign-Urbana: University of Illinois Press.

Connell, John

1987 *Migration, Employment and Development in the South Pacific*. Noumea: South Pacific Commission.

1988 *Sovereignty and Survival: Island Microstates in the Third World*. Research Monograph 3. Sydney: University of Sydney.

Connell, John, and Richard P C Brown

1995 Migration and Remittances in the South Pacific: Towards New Perspectives. *Asian and Pacific Migration Journal* 4 (1): 1-34.

Cook, Paul, and Colin Kirkpatrick

1995 *Unemployment and Migration in Small Island Economies: The Case of the Federated States of Micronesia*. Paper presented at Annual Conference of the Development Studies Association, Dublin, September.

Couraud, Phillipe

1991 *The Small Island Economies in the South Pacific: French Polynesia, a Rentier Economy*. Paper presented at Society on International Development, East Asia and the Pacific Regional Conference, Jakarta.

Cumberland, Kenneth B

1954 *Southwest Pacific: A Geography of Australia, New Zealand and their Pacific Island Neighbourhoods*. Christchurch: Whitcombe & Tombs.

Demas, W G

1965 *The Economics of Development in Small Countries, with Special Reference to the Caribbean*. Montreal: McGill University Press.

Fairbairn, Te'o I J, and D Worrell

1996 *South Pacific and Caribbean Island Economies*. Brisbane: Foundation for Development Cooperation.

Fairbairn, Te'o I J, editor

1988 *Island Entrepreneurs: Problems and Performances in the Pacific*. Honolulu: East-West Center.

Figueroa, Adolfo

1984 *Capitalist Development and the Peasant Economy in Peru*. New York: Cambridge University Press.

- Fitzgerald, Valpy
1978 *The Political Economy of Peru, 1956-78*. Cambridge: Cambridge University Press.
- Fleming, Euan M, and J B Hardaker
1995 *Pacific 2010: Strategies for Polynesian Agricultural Development*. Canberra: National Centre for Development Studies, Australian National University.
- Fleming, Euan, J Brian Hardaker, and Julie Delforce
1991 Smallholder Agricultural Economy at the Crossroads: Policy Priorities for Sustained Agricultural Development in South Pacific Island Nations. *Journal de la Société des Océanistes* 92-93 (1-2): 119-126.
- Foster, John
1995 The Relationship between Remittances and Savings in Small Pacific Island States: Some Econometric Evidence. *Asian and Pacific Migration Journal* 4 (1): 117-138.
- Frank, André G
1967 *Capitalism and Underdevelopment in Latin America: Historical Studies of Chile and Brazil*. New York: Monthly Review Press.
- Franklin, S Harvey
1969 *The European Peasantry*. London: Methuen.
- Friesen, W
1993 Melanesian Economy on the Periphery: Migration and Village Economy in Choiseul. *Pacific Viewpoint* 34 (2): 193-214.
- Gaffaney, T J
1995 Linking Colonization and Decolonization: The Case of Micronesia. *Pacific Studies* 18 (2): 23-59.
- Garnaut, Ross, P Baxter, and Anne O Krueger
1983 *Exchange Rate and Macro-Economic Policy in Independent Papua New Guinea*. Port Moresby: Papua New Guinea Government Printer.
- Gilbert and Ellice Islands
var *Blue Books*. Annual. London: HMSO.
- Gillis, Malcolm, Dwight H Perkins, Michael Roemer, and Donald R Snodgrass
1992 *Economics of Development*. Third edition. New York: Norton.
- Gilson, R P
1980 *The Cook Islands 1820-1950*, edited by R Crocombe. Wellington: Victoria University Press.
- Griffin, Keith B, and John Enos
1970 Foreign Assistance: Objectives and Consequences. *Economic Development and Cultural Change* 18 (2): 313-327.
- Hardaker, J B, editor
1975 *The Subsistence Sector in the South Pacific*. Suva: University of the South Pacific.

Hardaker, J B, and E M Fleming

1994 *Pacific 2010: Strategies for Melanesian Agriculture for 2010: Tough Choices*. Canberra: National Centre for Development Studies, Australian National University.

Hayes, Geoffrey

1991 Migration, Metascience, and Development Policy in Island Polynesia. *The Contemporary Pacific* 3 (1): 1–58.

1992 Polynesian Migration and the Demographic Transition: A Missing Dimension of Recent Theoretical Models. *Pacific Viewpoint* 33 (1): 1–35.

1993 “MIRAB” Processes and Development on Small Pacific Islands: A Case Study from the Southern Massim, Papua New Guinea. *Pacific Viewpoint* 34 (2): 153–178.

Hezel, Francis X, and Michael J Levin

1996 New Trends in Micronesian Migration: Migration to Guam and the Marianas, 1900–1993. *Pacific Studies* 19 (1): 91–114.

Hezel, Francis X, and Thomas B McGrath

1989 The Great Flight Northward: FSM Migration to Guam and the Northern Mariana Islands. *Pacific Studies* 13 (1): 47–64.

Hobsbawm, Eric

1970 La Convencion, Peru: A Case of Neo-Feudalism. *Journal of Latin American Studies* 1:31–50.

Hooper, Antony

1993 The MIRAB Transition in Fakaofu, Tokelau. *Pacific Viewpoint* 34 (2): 241–264.

Hooper, Antony, Steve Britton, Ron Crocombe, Judith Huntsman, and Cluny Macpherson, editors

1987 *Class and Culture in the South Pacific*. Auckland and Suva: Centre for Pacific Studies, University of Auckland and Institute of Pacific Studies, University of the South Pacific.

IMF, International Monetary Fund

var *International Financial Statistics*. Monthly. Washington, DC: International Monetary Fund.

1996 *International Financial Statistics Yearbook 1996*. Washington, DC: International Monetary Fund.

James, Kerry

1991 Migration and Remittances: A Tongan Village Perspective. *Pacific Viewpoint* 32 (1): 1–23.

1993 The Rhetoric and Reality of Change and Development in Small Pacific Communities. *Pacific Viewpoint* 34 (2): 135–152.

Kakazu, Hiroshi

1994 *Sustainable Development of Small Island Economies*. Boulder, CO: Westview Press.

- Kim, Insu, Eric Sidgwick, and Marie-Helene Duprat
 1995 *Kiribati: Recent Economic Developments*. IMF Staff Country Report 95/117. Washington, DC: International Monetary Fund.
- Lewis, W Arthur
 1954 Economic Development with Unlimited Supplies of Labour. *The Manchester School*, May, 139-191.
- Long, Norman, and Bryan Roberts
 1978 *Peasants and Entrepreneurs: Regional Development in the Central Highlands of Peru*. Austin, TX: University of Texas Press.
- Loomis, Terence
 1989 Cook Island Remittances: Volumes, Determinants and Uses. In *Migration and Development in the South Pacific*, edited by John Connell, 61-81. Pacific Research Monograph 24. Canberra: Centre for Development Studies, Australian National University.
- Marcus, George
 1981 Power on the Extreme Periphery: The Perspective of Tongan Elites in the Modern World System. *Pacific Viewpoint* 22 (1): 48-64.
- Martinez-Alier, Juan
 1977 *Haciendas, Plantations and Collective Farms*. London: Frank Cass.
- Mayo, L W
 1988 US Administration and Prospects for Economic Self-Sufficiency: A Comparison of Guam and Select Areas of Micronesia. *Pacific Studies* 11 (2): 53-75.
- McGregor, A, M Sturton, and S Halapua
 1992 *Private Sector Development: Policies and Programs for the Pacific Islands*. Honolulu: East-West Center.
- Milner, C, and T Westaway
 1993 Country Size and the Medium-Term Growth Process: Some Cross-Country Evidence. *World Development* 21 (2): 203-211.
- Munro, Doug
 1990 Transnational Corporations of Kin and the MIRAB System. *Pacific Viewpoint* 31:63-66.
- Ogden, Michael R
 1989 The Paradox of Pacific Development. *Development Policy Review* 7: 361-373.
- Papanek, Gustav F
 1972 The Effect of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries. *The Economic Journal* 82 (327): 934-950.
- Poirine, Bernard
 1992 *Tahiti: Du Melting Pot à l'Explosion?* Paris: Editions l'Harmattan.

- 1994a Rent, Emigration and Unemployment in Small Islands: The MIRAB Model and the French Overseas Departments and Territories. *World Development* 22 (12): 1997–2010.
- 1994b *Tahiti: La Fin du Paradis?* Tahiti: Imprimeries STP Multipress.
- 1995a *Les Petites Économies Insulaires: Théories et Stratégies de Développement*. Paris: Editions l'Harmattan.
- 1995b A Theory of Remittances as an Implicit Family Loan Arrangement. In *Two Essays on Aid and Remittances*, by Bernard Poirine. Pacific Studies Monograph 19. Sydney: Centre for Pacific Studies, University of New South Wales.
- 1996 La Contribution de la Substitution d'Importation à la Croissance dans les Dom-Tom. *Revue Française d'Économie* 11 (4): 167–190.
- Robinson, E A G, editor
- 1960 *Economic Consequences of the Size of Nations*. London: Macmillan.
- Schlomowitz, Ralph, and Doug Munro
- 1992 The Ocean Island (Banaba) and Nauru Labour Trade, 1900–1940. *Journal de la Société des Océanistes* 94 (1): 103–117.
- Shand, R T, editor
- 1980 *The Island Economies of the Pacific and Indian Oceans: Anatomy of Development*. Monograph 23. Canberra: Development Studies Centre, Australian National University.
- Streeten, Paul
- 1993 The Special Problems of Small Countries. *World Development* 21 (2): 197–202.
- Thorp, Rosemary, and Geoffrey Bertram
- 1978 *Peru 1890–1977: Growth and Policy in an Open Economy*. London and New York: Macmillan and Columbia University Press.
- Tisdell, Clem, and Te'o I J Fairbairn
- 1984 Subsistence Economies and Unsustainable Development and Trade: Some Simple Theory. *Journal of Development Studies* 20 (2): 227–241.
- United Nations
- var *Statistical Yearbook*. New York: United Nations Statistical Office.
- Walker, A M, and R P C Brown
- 1995 From Consumption to Savings? Interpreting Tongan and Western Samoan Survey Data on Remittances. *Asian and Pacific Migration Journal* 4 (1): 89–116.
- Watters, Ray
- 1987 MIRAB Societies and Bureaucratic Elites. In *Class and Culture in the South Pacific*, edited by Antony Hooper and others, 32–54. Auckland and Suva: Centre for Pacific Studies, University of Auckland and Institute of Pacific Studies, University of the South Pacific.

World Bank

1991 *Pacific Island Economies: Towards Higher Growth in the 1990s*. Washington, DC.

Abstract

Developed in the mid 1980s to explain economic processes in New Zealand's sphere of influence in the Pacific islands, the MIRAB model has proved applicable across a wide range of island economies. Identifying features of a MIRAB economy are heavy reliance on transfer payments, including repatriated factor incomes, to finance current expenditure; a migration process that disperses the members of ethnic groups across geographical space while retaining the organic unity of families and communities; and a consequent transnationalization of the society's economic activity whenever external niches of economic opportunity become accessible. Production of tradable goods is marginalized by the operation of market forces in the absence of regulation, and policies to promote tradable-led development have little application. The paper presents macroeconomic data to illustrate three stylized facts for MIRAB economies: persistent gaps between national expenditure and gross domestic product, a combination of large trade deficits with balanced current accounts (and hence limited debt accumulation), and the long-run stability of per capita aid flows. Some country-specific variations on the basic MIRAB model in the recent literature are reviewed, along with some recent economic literature on the microeconomics of transnational networks of kin and community.

KEYWORDS: aid, development, globalization, migration, MIRAB