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SMALL ISLAND ECONOMIES: CARIBBEAN VERSUS PACIFIC

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Abstract. After a review of the small island economy literature, this study compares the average performance of 16 Caribbean versus 15 mainly Pacific islands with three from the Indian Ocean. Mean difference analysis is employed across 22 socio-economic and demographic variables. Results confirm previous research. The Caribbean outperforms the Pacific with higher per capita GDP and life expectancy and lower infant mortality and fertility. Different migration experiences discriminate the more dynamic Caribbean characterized by heavy immigration from the relatively stagnant Pacific marked by chronic emigration. The three determinants offered to account for these differences involve significant Caribbean advantages: (1) geographic proximity to the major global markets, (2) early post-war development of international tourism and offshore banking, and (3) a longer and more intense period of colonisation that early on established basic infrastructure and market institutions.

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Introduction

Two recent *Bank of Valletta Review* articles on small islands less than three million in population revealed useful insights about small island behaviour. For example, in their study of 35 Caribbean and Pacific islands, McElroy and Sandborn (2005) found that the politically affiliated island microstates, located primarily in the Caribbean, were significantly more affluent, socially progressive and demographically mature than their sovereign counterparts, located predominantly in the Pacific. Such evidence supported the former's persistent propensity to remain politically dependent. In a related study, Mitchell and McElroy (2011) uncovered similar results comparing 14 mainly Caribbean islands characterized by extensive immigration with 26 islands (mainly Pacific and Indian) typified by chronic emigration. The former were significantly more affluent than the latter.

In another recent study, McElroy and Parry (2010) examined 39 small islands less than three million in population to determine the characteristics of small island tourist economies, the so-called SITES (McElroy, 2006). The sample included 19 Caribbean and 20 Pacific microstates. They found that successful SITES tended to be geographically close to their main tourist origin markets in North America and Europe, politically affiliated, and relatively uncrowded. These results complemented earlier research (Parry and McElroy, 2009) that emphasized two further assets: adequate levels of modernisation, as measured by relatively high levels of per capita income, and sufficient tourism infrastructure. McElroy and Parry also found that Caribbean islands were on average significantly more affluent than their Pacific counterparts and that much of the difference seemed to be due to a greater level of tourism development in the former.

Scope

This previous research has focused on the political status, migration patterns and tourism development in small islands while treating interregional Caribbean/Pacific differences only tangentially. The present study directly examines the socio-economic and demographic differences between Caribbean and Pacific island microstates employing a very homogeneous sample of uniformly small islands defined by both

population size and area. In addition, the paper further discusses some of the fundamental forces behind the differences uncovered.

The study contains four sections. The first reviews the recent literature on tropical island economies. The second presents the methodology involving the description of some two dozen variables and the selection of islands. The third reveals the results of the mean difference analysis and discusses the underlying determinants. Finally, the conclusion summarizes the findings and offers suggestions for further research.

Literature

Small island developing states (SIDS), such as those found in the Caribbean and Pacific, make up a distinct cluster of microstates characterized among other things by their extensive vulnerability to environmental and economic shocks. In the first case, both island regions are susceptible to climate change and the vagaries of drought, flooding, landslides, hurricanes, earthquakes and tsunamis (Opadeyi, 2012). Because of ice sheet break up in Greenland and Antarctica, both oceanic regions are particularly vulnerable to sea level rise from global warming because population settlements and productive activity are located in the low-lying areas of the coastal zone. In the atoll regions of the Pacific, “several SIDS are expected to lose significant portions of their land due to sea level rise, including Tuvalu, Tonga, Kiribati, Marshall Islands [and] Tokelau . . .” (Kelman and West, 2009: 3). Some authors argue “the Caribbean is the most vulnerable region to natural disasters on a global scale” (Santos-Paulino, 2011: 10) because of the heavy spatial concentration of capital cities and tourism infrastructure along the shoreline. However, international organisations suggest the Pacific is more vulnerable (World Bank, 2000). Both regions are threatened by reef destruction from coral bleaching and exposure to damaging waves and salt water intrusion of the freshwater lens.

In the economic sphere, small islands are vulnerable because of their import dependence, export concentration and intense openness. The high degree of export specialisation, because of small domestic markets, makes these price-taking microstates susceptible to damaging price, cost and revenue swings in a global economy where most of the important factors and institutions that circumscribe their viability are established

externally. As a result, GDP growth for both island groups since the 1970s has been marked by “extreme volatility” (Chowdhury, 2008: 4) with terms of trade shocks larger in the Pacific than in the Caribbean. Moreover, according to Gibson and Nero (2008), Pacific island states in recent decades grew more slowly than any other region in the world. In addition, in selected islands across both oceanic basins, poverty rates are relatively high, in some cases approaching 20 percent (Naude *et al.*, 2009), but a more serious problem in the Pacific given the region’s continued reliance on subsistence agriculture and increasing urban/rural imbalances (Yari, 2003).

Likewise these small islands have difficulty achieving a smooth trajectory of economic growth and expansion because they share a history of commodity booms and collapses in colonial staples like sugar and bananas in the Caribbean and timber/minerals in the Pacific. Nevertheless, over time many have developed coping strategies of macroeconomic resilience. However, these economic fluctuations have also been associated with cycles of environmental damage (Bass and Dalal-Clayton, 1995). In addition, island macroeconomic policy has been constrained in at least two fundamental ways. First, monetary policy is procyclical since the domestic monetary supply is a positive function of the level of trade, and monetary flexibility is further limited by insular fixed exchange rate regimes. Second, fiscal policy, the main economic driver, also tends to operate procyclically since revenues depend in great part on trade taxes and aid flows (Chowdhury, 2008). Much recent research has focused on improving the insular capacity to deal with natural and economic shocks and mitigate their impacts through building up resilience among local institutions and fostering social cohesion and good governance (Briguglio *et al.*, 2009).

SIDS have been able to supplement their limited resources by penetrating the overseas hinterland through migration and aid, trade and other metropolitan concessions, and foreign direct investment (FDI). Aid and remittances dominate in the Pacific while FDI is more significant in the Caribbean (Santos-Paulino *et al.*, 2010). In accessing the hinterland, small islands have carved out three distinct development paths. In the first case, the propensity to migrate and remit wages home has historically become so endemic that “the life courses of island people, both present and absent, are embedded in international or transnational diasporas” (Connell and Conway, 2000: 52). In both island regions, remittances have made

substantial contributions to basic needs and, to a lesser extent, capital formation. Their importance has grown with the recent, post-Soviet decline in aid; and they remain more important in the Pacific where the classic MIRAB economies still predominate (Bertram and Poirine, 2007). In the second case, many small particularly subnational island jurisdictions (SNIJs) have become adept at manipulating their metropolitan economic linkages for local benefit: to establish export processing zones, tax havens, and offshore banking centres—Baldacchino’s (2006) PROFIT strategy. Thirdly, especially in the Caribbean, the inflow of foreign hotel investment and aid-financed transport infrastructure has created many successful small island tourist economies (SITEs) (McElroy, 2006), powered by the most durable post-war growth engine in the global economy, the demand for leisure.

Finally, in terms of political economy, the two island regions “share a common feature of their international relations and foreign policy—the overarching presence of a regional hegemon who is the self-appointed ‘policeman’ . . .” (Thorburn, 2007: 241)—the US in the Caribbean and traditionally Australia in the Pacific, although the influence of China is rapidly increasing. As a result, insular foreign policy and international relations are significantly influenced by these larger, more powerful actors (Hey, 2003). In the past both hegemonies have policed the island regions to forestall Soviet infiltration. In the present their concerns differ somewhat. For example, the US focus on its “soft underbelly” is an attempt to curb drug trafficking, money laundering, and illegal immigration. In the Pacific, besides drug trafficking, Australia is concerned with the spread of internal volatility and the harbouring of terrorists in failing states. Both hegemonies have also encouraged neoliberal economic reforms with differing results. The Caribbean remains more dependent on tourism while the Pacific is more reliant on aid and remittances.

Despite the impact of hegemon influence on their policy room to manoeuvre, and despite the many natural and economic constraints enumerated above, both island regions in the last quarter century have recorded substantial progress in living standards, life expectancy and demographic maturity (McElroy and Parry, 2012), though the interregional gains have been uneven as the following analysis suggests.

Methodology

To compare the socio-economic and demographic differences between Caribbean and Pacific islands, profiles were constructed for each grouping. The study focused on islands with less than one million in population and 5,000 km² in total land area. This very small target was chosen for three reasons: (1) to keep roughly in line with recent literature (Easterly and Kraay, 2000; McElroy, 2006; McElroy and Pearce, 2006; McElroy and Parry, 2012); (2) to develop a very homogeneous sample both in population and area; and (3) to focus on the very smallest and most vulnerable islands. Thirty-one islands met the two criteria and were classified in their respective groups. The sixteen selected Caribbean island jurisdictions were: Anguilla, Antigua/Barbuda, Aruba, Barbados, British Virgin Islands, Cayman Islands, Dominica, Grenada, Montserrat, St. Kitts/Nevis, St. Lucia, St. Marten, St. Vincent/Grenadines, Turks/Caicos and the American Virgin Islands. Twelve island jurisdictions were selected from the Pacific: American Samoa, Cook Islands, French Polynesia, Guam, Kiribati, Marshall Islands, Niue, Northern Marianas, Palau, Samoa, Tonga and Tuvalu. To balance the samples, three Indian Ocean island states similar in size and development level were added to the Pacific grouping: Comoros, Maldives and Seychelles.

Two distinct profiles were created using 22 variables from the *World Factbook* (CIA, 2012) and three indicators from the *Compendium of Tourism Statistics* (WTO, 2011). Six variables were used to measure economic differences: per capita GDP, the unemployment rate, the shares of agriculture, industry and services in GDP, and land area as a general indicator of resource availability. Thirteen variables were used to measure socio-demographic behaviour: population size, population distribution between 0-14, 15-64 and 65+ year's cohorts, median age, population growth, the crude birth, death, and net migration rates, the total fertility and infant mortality rates, and life expectancy and literacy. Three indicators were selected to measure the level of tourism penetration. Visitor spending per island resident was chosen to measure overall economic impact. The total number of hotel rooms was selected to loosely measure environmental impact. The ratio of total visitors, stopover and one-day, to the resident population was chosen as a crude indicator of tourism's social impact.

Finally, the profiles were constructed using means difference analysis and, according to previous research, it was assumed that the Caribbean islands would outperform their Pacific/Indian counterparts.

Results

Table 1 presents results of the analysis including Caribbean and Pacific (including Indian) means across the 19 socio-economic and demographic variables and the three tourism indicators.

Table 1
Comparison of Caribbean and Pacific Island Characteristics

| Variable | Caribbean Mean | Pacific Mean | P-value |
|------------------------------------|-------------------|-----------------|---------|
| Total Area (km ²) | 437 | 928 | 0.154 |
| Population | 83,950 | 153,949 | 0.206 |
| Percent Population 0-14 yrs | 22.38 | 29.66 | 0.002** |
| Percent Population 15-64 yrs. | 68.50 | 64.86 | 0.043* |
| Percent Population 65+ yrs. | 8.96 | 5.47 | 0.001** |
| Median Age | 33.49 | 26.23 | 0.000** |
| Population Growth Rate | 1.04 | 0.39 | 0.164 |
| Crude Birth Rate | 13.59 | 19.10 | 0.060 |
| Crude Death Rate | 6.57 | 4.89 | 0.169 |
| Net Migration Rate | 3.40 | -8.10 | 0.008** |
| Infant Mortality Rate | 10.52 | 20.70 | 0.050* |
| Life Expectancy at Birth | 76.97 | 72.48 | 0.007** |
| Total Fertility Rate | 1.79 | 2.67 | 0.001** |
| Literacy Rate | 95.55 | 92.90 | 0.426 |
| Per Capita GDP (US\$) | 21,947 | 9,093 | 0.013* |
| Unemployment Rate | 10.49 | 13.70 | 0.353 |
| Percent Agriculture/GDP | 3.90 | 15.30 | 0.009** |
| Percent Industry/GDP | 13.50 | 18.69 | 0.313 |
| Percent Services/GDP | 72.70 | 66.0 | 0.157 |
| Visitor Spending/Population (US\$) | 5,146 | 2,881 | 0.134 |
| Total Visitors/Population | 11.85 | 2.49 | 0.002** |
| Total Hotel Rooms | 3,749 | 2,683 | 0.374 |

**Statistically significant at the 0.05 level.*

***Statistically significant at the 0.01 level.*

With one exception, the mean differences are in the hypothesized direction, and for roughly half of the 22 variables the differences are statistically significant. This suggests that the profiles are clearly distinct clusters and at different levels of development. On the one hand, the Pacific islands are on average roughly twice as large as the Caribbean group both in area and population even in this relatively homogeneous sample of very small islands. However, the differences are not statistically significant. On the other hand, despite the Pacific's greater resource availability, the Caribbean records higher average population densities, 192 versus 165 residents per km², and these higher labour/land ratios suggest at least indirectly a higher level of potential productivity. In fact this is the case for the Caribbean dominates economically. For example, average per capita Caribbean GDP is roughly 2.5 times higher than the average Pacific figure, i.e. \$21,947 versus \$9,093. In addition, unemployment is lower and the distribution of GDP suggests the Caribbean has made further progress in restructuring the post-war economy away from income inelastic colonial agricultural staples towards income elastic international services (tourism and banking) and manufacturing.

The socio-demographic indicators parallel the differing economic fortunes of the two island groups. For example, average net migration in the Caribbean is 3.4 persons per thousand population versus an average of -8.1 persons per thousand in the Pacific. This indicates the former are dynamically developing immigrant societies importing labour to service the labour-intensive demands of tourism, offshore banking, and in some cases export manufacturing while the latter are stagnant chronic labour exporters. As a result, these differing migration experiences have produced a number of different demographic impacts. First, as expected, average annual population growth in the Caribbean (1.04%) outpaces growth in the Pacific (0.39%). Second, the age structure between the two groups is statistically distinct. Because of the influx of working-age cohorts to the Caribbean and emigration of the same from the Pacific, the percentage of the population 15-64 years old is significantly higher in the Caribbean (68.7%) than in the Pacific (64.9%). In addition, the average population of the former is significantly older as reflected in two ways: a higher average median age—33.5 versus 26.2 years—and a higher percentage of cohorts 65+ years: 8.96 versus 5.47 percent. This last result may be partly due to increasing

permanent residency among the immigrants as well as increasing North American and British retirees to the American and British Virgin Islands, Barbados, Bermuda and other popular Caribbean havens.

Along with these economic and demographic impacts, the findings also suggest differing progress in the demographic transition as well as on social and health advancement. To illustrate, the rate of natural increase (crude birth minus crude death rates) in the Caribbean averages roughly 7 persons (13.5 births minus 6.5 deaths) per thousand population, while the Pacific average is approximately 14 (19 births minus 5 deaths) per thousand. The higher level of demographic maturity in the Caribbean is further evidenced by the statistically significant lower total fertility rate of 1.79 average births per woman of child-bearing age against an average figure of 2.68 for the Pacific. In addition, the former microstates boast a very low average infant mortality rate (10.5), roughly half the average level (20.7) of the Pacific. Finally, the Caribbean islands exhibit a significantly higher average life expectancy of 77 years versus 73 for their Pacific counterparts. The former also record higher literacy rates than the latter though the difference is not significant. Nevertheless, these data indicate that Caribbean nationals on average tend to enjoy better health and educational opportunities than their Pacific neighbours.

Finally, the level of tourism penetration discriminates somewhat between the two island groups. First, in terms of economic impact, per resident visitor spending in the Caribbean averages \$5,146, roughly 80 percent higher than the Pacific average of \$2,881, although the difference is not statistically significant due in part to the small subsample sizes of the island groupings. This spending advantage is largely due to the fact that the Caribbean is considered the most tourism-dependent region in the world. The visitor industry is estimated to account for 14 percent of Caribbean GDP, 15 and 12 percent of exports and investment respectively, and 12 percent of total employment (WTTC, 2012a). Second, in terms of social impact, visitor densities are significantly higher in the Caribbean. The ratio of total visitors for the Caribbean, stopover and day-trippers combined, to the resident island population averages 11.9 versus 2.5 for Pacific microstates. Although a very crude measure, the ratio suggests visitors are markedly more visible in the Caribbean than in the Pacific. Third, in terms of environmental impact, the average number of hotel rooms in the

Caribbean (3,749) is substantially higher than the Pacific level (2,683), indicating tourism facilities are much more a part of the insular landscape in the former than in the latter group.

Determinants

A number of factors have been suggested to explain the superior performance of the Caribbean over Pacific microstates. Three are discussed here. The first is the Caribbean's early diversification of the colonial island economy. In the 1950s and 1960s, the region hitched its fortunes to the economic juggernaut of the post-war global economy, international tourism, growing annually at a sustained 4-5 percent clip. According to the World Travel and Tourism Council (2012b), tourism in 2011 accounted for roughly nine percent of world GDP and employment and between 4-5 percent of total exports and capital formation. There followed in the 1970s and 1980s the growth of Caribbean offshore banking, tax havens and export manufacturing enclaves (Baldacchino, 2010). According to Hezel (2012), the late advent of these SITE and PROFIT strategies in the Pacific partly explains that region's relatively poor showing.

A second and more important factor is the greater geographic remoteness of Pacific island states and territories. Not only are they more distant than the Caribbean from world markets, they are also more fragmented and distant from one another (Thorburn, 2007). According to Watsa (2009), based on population and income weighted distance measures, the average Pacific island is the 197th most remote in the world while the average Caribbean island is only the 100th most remote. The same result emerges using airfares as a measure of economic distance (Watsa, 2009: 8-9). On average, travelling from a Caribbean island to any of three main metropolitan hubs with strong Caribbean links (Miami, New York and London) costs US\$545 . . .

A similar trip from the Pacific islands to Auckland, Sydney and San Francisco costs an average of US\$1,289. By this measure, the Pacific islands are more than twice as remote as Caribbean islands.

Gibson and Nero (2008) suggest excessive distance yields expensive transport, energy and intermediate input costs; and these barriers partly

explain why Pacific economies are less open to trade than Caribbean economies, are less accessible for tourists and tourism development, and tend to grow more slowly. In addition to remoteness, Armstrong and Read (2006) argue Pacific islands are likely to be more archipelagic and mountainous than other small island states. Such geographical handicaps—in contrast to the locational advantages of the Caribbean, i.e. proximity to both North American and European tourist origin markets—go far in explaining differential economic performance.

A number of authors have attempted to tie different levels of modern economic performance to different historical experience in general and different degrees of colonial experience in particular. For example, Feyrer and Sacerdote (2006) find that the number of years spent as a colony is strongly positively associated with modern levels of per capita GDP in islands, and negatively associated with infant mortality rates. They also suggest that post-war development is linked to more intense colonial settlement with the Caribbean islands penetrated earlier and more extensively than the Pacific and Indian Ocean islands. They argue as evidence that some islands (Barbados, Bonaire, and Curacao) have over 400 years of colonial history. In a similar vein, Fairbairn and Worrell (1996) believe Caribbean islands had the historical advantage of an earlier start on the Pacific in resource mobilisation and infrastructure development because of their longer era of colonialism. Others have estimated that the commercial head start fostered by colonialism spawned the emergence of market-conducive institutions favourable to economic growth (Acemoglu *et al.*, 2001). Although further empirical research is warranted, the effect of different insular colonial experiences on different modern levels of economic performance and modernisation seems plausible.

Conclusion

This study has reviewed the literature on small island economies as background for comparing 31 small—less than one million population and 5,000 km² area—Caribbean and Pacific islands. Two subsamples were developed including 16 Caribbean islands and 15 mainly Pacific islands. Two distinct profiles were constructed using means difference analysis employing 22 socio-economic and demographic variables. Results confirmed the conclusion of recent literature that the Caribbean is more

economically and socially advanced that the Pacific and more demographically mature. For example, despite their relatively small size, Caribbean microstates boast significantly higher per capita GDP and life expectancy and significantly lower fertility and infant mortality than their Pacific/Indian counterparts. The variable that best discriminates the two groups is average net migration, that is substantial immigration for the more dynamic Caribbean to service the labour-intensive demands of international tourism, offshore banking and, to a lesser extent, export manufacturing in contrast to substantial emigration for the less affluent MIRAB-type Pacific islands.

Three major determinants were suggested to explain this differential microstate performance. These included, in order of importance, three major advantages of the Caribbean over the Pacific: (1) geographical proximity to global markets; (2) the early post-war development of international tourism and then offshore banking and export manufacturing, and (3) a long and intense experience of colonisation when the physical infrastructure and commercial institutions were established to germinate early on the seeds of a functioning market economy. Future research would involve expanding the sample size to include a larger definition of “small island,” and further empirical confirmation of the three determinants, in particular the role of colonialism in fostering modern socio-economic performance.

References

- ACEMOGLU, D., JOHNSON, S. and ROBINSON, J.A. (2001) “The Colonial Origins of Comparative Development: An Empirical Investigation,” *American Economic Review*, Vol. 91 (5): 1369-1401.
- ARMSTRONG, H. and READ, R. (2006) “Geographical Handicaps and Small States: Some Implications for the Pacific from a Global Perspective,” *Asia Pacific Viewpoint*, Vol. 47 (1): 79-92.
- BALDACCHINO, G. (2010) *Island Enclaves: Offshoring Strategies, Creative Governance, and Subnational Island Jurisdictions*. Montreal: McGill-Queen’s University Press.
- BALDACCHINO, G. (2006) “Managing the Hinterland Beyond: Two Ideal-type Strategies of Economic Development for Small Island

- Territories,” *Asia Pacific Viewpoint*, Vol. 47 (1): 45-60.
- BASS, S. and DALAL-CLAYTON, B. (1995) *Small Island States and Sustainable Development: Strategic Issues and Experience*. London: International Institute for Environment and Development, No. 8, (September).
- BERTRAM, G. and POIRINE, B. (2007) “Island Political Economy.” In Baldacchino, G. (ed), *A World of Islands*. Charlottetown, PEI, CA and Luqa, Malta: Institute of Island Studies, University of Prince Edward Island and Agenda Academic: 323-378.
- BRIGUGLIO, L., CORDINA, G. FARRUGIA, N. and VELLA, S. (2009) “Economic Vulnerability and Resilience: Concepts and Measurements,” *Oxford Development Studies*, Vol. 37 (3): 229-247.
- CENTRAL INTELLIGENCE AGENCY (2012) *The World Factbook*. Washington, DC: Office of Public Affairs. Available online at: <http://www.cia.gov/library/publications/the-world-factbook/> (retrieved 12 June 2012).
- CHOWDHURY, A. (2008) *Growth Oriented Macroeconomic Policies for Small Island Economies: Lessons from Singapore*. Paper No. 2008/47, Helsinki, Finland: United Nations University, World Institute for Development Economic Research.
- CONNELL, J. and CONWAY, D. (2000) “Migration and Remittances in Island Microstates: A Comparative Perspective on the South Pacific and the Caribbean,” *International Journal of Urban and Regional Research*, Vol. 24 (1): 52-78.
- EASTERLY, W. and KRAAY, A.C. (2000) “Small States, Small Problems? Income, Growth and Volatility in Small States,” *World Development*, Vol. 28 (11): 2013-2027.
- FAIRBAIRN, T.I.J., and WORRELL, D. (1996) *South Pacific and Caribbean Island Economies: A Comparative Study*. Brisbane, AU: Foundation of Development Cooperation, South Pacific Forum Secretariat.
- FEYRER, J. and SACERDOTE, B. (2006) “Colonialism and Modern Income: Islands as Natural Experiments,” *NBER Working Papers*, 12546. Available online at: <http://www.nber.org/papers/w.12546> (retrieved 11 October 2012).
- GIBSON, J. and NERO, K. (2008) “Why Don’t Pacific Island Countries’ Economies Grow Faster?” In Bisby A. (ed), *Pacific Interactions*.

- Wellington, NZ: Victoria University, Institute of Policy Studies: 191-244.
- HEZEL, F.X. (2012) *Pacific Island Nations: How Viable are their Economies?* Honolulu, HI: East-West Centre.
- HEY, J.A.K. (ed.) (2003) *Small States in World Politics: Explaining Foreign Policy Behaviour*. Boulder, CO: Lynne Rienner.
- KELMAN, I. and WEST, J.J. (2009) "Climate Change and Small Island Developing States: A Critical Review," *Ecological and Environmental Anthropology*, Vol. 5 (1): 1-17.
- MCELROY, J.L. (2006) "Small Island Tourist Economies across the Life Cycle," *Asia Pacific Viewpoint*, Vol. 47 (1): 61-77.
- MCELROY, J.L. and PARRY, C.E. (2012) "The Long-Term Propensity for Political Affiliation in Island Microstates," *Commonwealth and Comparative Politics*, Vol. 50(4): 403-454.
- MCELROY, J.L. and PARRY, C.E. (2010) "The Characteristics of Small Island Tourist Economies," *Tourism and Hospitality Research*, Vol. 10 (4): 315-328.
- MCELROY, J.L. and PEARCE, K. (2006) "The Advantages of Political Affiliation: Dependent and Independent Small Island Profiles," *The Round Table*, Vol. 95(386): 529-539.
- MCELROY, J.L. and SANDBORN, K. (2005) "The Propensity for Dependence in Small Caribbean and Pacific Islands," *Bank of Valletta Review*, Spring (31): 1-16.
- MITCHELL, S.A. and MCELROY, J.L. (2011) "Emigrant and Immigrant Small Island Profiles," *Bank of Valletta Review*, Spring (43): 1-11.
- NAUDE, W., SANTOS-PAULINO, A.W., and MCGILLIVRAY, M. (2009) *Vulnerability in Developing Countries*. New York: United Nations University Press.
- OPADEYI, J. (2012) *Building a Caribbean GeoNode Platform in Support of Climate Risk Management*. Mona, JA: University of the West Indies, Faculty of Engineering. Available at: http://www.understandrisk.org/ur/sites/default/Files/useruploads/3_ur2012_session_opadeyi_1.pdf (retrieved 23 July 2012).
- PARRY, C.E. and MCELROY, J.L. (2009) "The Supply Determinants of Small Island Tourist Economies," *ARA Journal of Tourism Research*, Vol. 2 (1): 13-22.
- SANTOS-PAULINO, A.W. (2011) *Fragility and Vulnerability in Small*

- Island Developing States: Issues and Challenges*. Address to the First Meeting of the Caribbean Development Round Table. Port of Spain, Trinidad: ECLAC (September 3).
- SANTOS-PAULINO, A.W., NAUDE, W., and MCGILLIVRAY, M. (2010) "Special Issue: Fragility and Development in Small Island Developing States," *Journal of Development Studies*, Vol. 46 (5): 815-827.
- THORBURN, D. (2007) "The 'Patch' and the 'Backyard': Caribbean and Pacific Small Islands and their Regional Hegemons," *Social and Economic Studies*, Vol. 56 (1/2): 240-260.
- WATSA, K. (ed.) (2009) *Pacific Islands Development in 3D: Reshaping Economic Geography*. Washington, DC: The World Bank.
- WORLD BANK/COMMONWEALTH SECRETARIAT (2000) Small States: Meeting Challenges in the Global Economy. Available at: siteresources.worldbank.org/PROJECTS/Resources/meetingchallengein_globeconomy1.pdf (retrieved 14 September 2012).
- WORLD TOURISM ORGANISATION (2011) *Compendium of Tourism Statistics: Data 2005-2009*. Madrid, SP: WTO.
- WORLD TRAVEL AND TOURISM COUNCIL (2012a) *Travel and Tourism Economic Impact 2012 Caribbean*. Available at: www.wttc.org/site_media/uploads/Downloads/caribbean2012.pdf (retrieved 10 October 2012).
- WORLD TRAVEL AND TOURISM COUNCIL (2012b) *2012 Annual Research: Key Facts*. Available at: www.wttc.org/site_media/uploads/downloads/world2012.pdf (retrieved 10 October 2012).
- YARI, M. (2003) "Beyond 'Subsistence Affluence': Poverty in Pacific Island Countries," *Bulletin on Asia-Pacific Perspectives 2003/4*. Bangkok, Thailand: UN ESCAP Secretariat. Available at: www.unescap.org/pdd/publications/bulletin03-04/Bulletin03-04_ch.3.pdf (retrieved 14 September 2012).