

2018

The 21st Century Maritime Silk Road

Islands Economic Cooperation Forum

ANNUAL REPORT ON GLOBAL ISLANDS

2018



Foreign Affairs Office of Hainan Province, P.R. China

Institute of Island Studies at the University of Prince Edward Island, Canada

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Islands Economic Cooperation Forum
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Goddess of Mercy statue at the seaside in Nanshan Temple—a famous tourist destination in Sanya, Hainan Province, China

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Preface

WANG SHENG, *Director General, Office of the Foreign Affairs Commission of Hainan Provincial Committee of CPC; Director General, Foreign Affairs Office of Hainan Province; Director General, Hainan Provincial Leading Group Service Office for Boao Forum for Asia*

The release of the 2017 Annual Report on Global Islands at last year's 21st Century Maritime Silk Road Islands Economic Cooperation Forum (the Forum) has attracted wide attention from researchers from home and abroad, generating a "craze" on island studies in Hainan and beyond. Through the efforts of domestic and overseas experts and scholars led by Dr. James Randall, co-holder of the UNESCO Chair in Island Studies and Sustainability and Professor at University of Prince Edward Island, Canada, the 2018 *Annual Report on Global Islands* (the Report) is being launched as planned on the occasion of the 2019 Islands Economic Cooperation Forum. This is indeed heartening news for the island studies community. The Report not only captures our persistent exploration around the sustainable development of island economies, but also reflects our aspiration for a better future of Hainan and islands around the world.

On 13 April 2018, Chinese President Xi Jinping declared in Hainan the central government's support for building an island-wide pilot free trade zone and for the phased exploration and steady development of a free trade port with Chinese characteristics in Hainan. This presents another round of opportunities for China's best-known tropical island province. However, opportunities always come along with challenges. Faced with the new situation and new missions, we are not fully equipped with a clear and precise understanding of what a free trade zone/free trade port means or what constitutes world-class standards and the best form of openness in today's world. To answer these questions, I believe we need to 'look inward'—learning from other provinces in China—and to 'look outward'—referencing the experience of developed island economies around the world. Geographical independence and unique location on international trading routes make islands the best candidates for developing free trade. There are many well-known island free trade zones and free trade ports in the world—such as Singapore, Malta, Mauritius, and Shannon, Ireland—that feature different foci, including entrepot trade, export processing, offshore finance, onshore finance, shipping registry, and home ports/ports of call for cruise ships. Therefore, in part, this year's Report will focus on internationally recognized island free trade zones and free trade ports. By describing their histories and development trajectories, it is our hope that their successes (or failures) will provide useful reference points for the free trade zone and free trade port development in Hainan.

To turn island studies into a new academic hotspot in support of the sustainable development of island economies, we established the Research Network on Island Economies at the Forum in 2017. The 1st International Conference on Island Economies was held later that year in November, with the publication of the *Hainan Statement on Island Economies*, to call for cooperative research projects on island economies. As an important academic result under the framework of the Research Network, the Report compiles key economic indicators of island economies, especially of subnational island jurisdictions, thereby implementing a significant outcome of the *Hainan Statement*. We are delighted to see that after several years of concerted efforts, Hainan has been recognized by an increasing number of policymakers, business leaders, and academics from home and abroad as a leader in promoting communication between island economies along the 21st Century Maritime Silk Road and in advancing global island studies.

To encourage participation of global island economies in the ‘21st Century Maritime Silk Road’ initiative, deepen exchange and cooperation among island economies, and strengthen project cooperation on island studies, we will leverage Hainan’s unique advantages to establish the Global Island Research Centre, forging a closer network of cooperation on island studies. This platform, building on the Report as a key outcome, will pool global island studies wisdom and build consensus to serve the development of the Hainan free trade zone and free trade port. It will also contribute Chinese wisdom and Hainan plans to a growing community looking to establish a shared future for global islands. The continued publication of these Reports stands as the best proof of our resolve, confidence, and ability to do this important job even better.

Due to limited space and editing time, there may be errors in this Report. These errors are not the fault of the individual authors. Your comments and suggestions are most appreciated.

March 5, 2019

PART I:

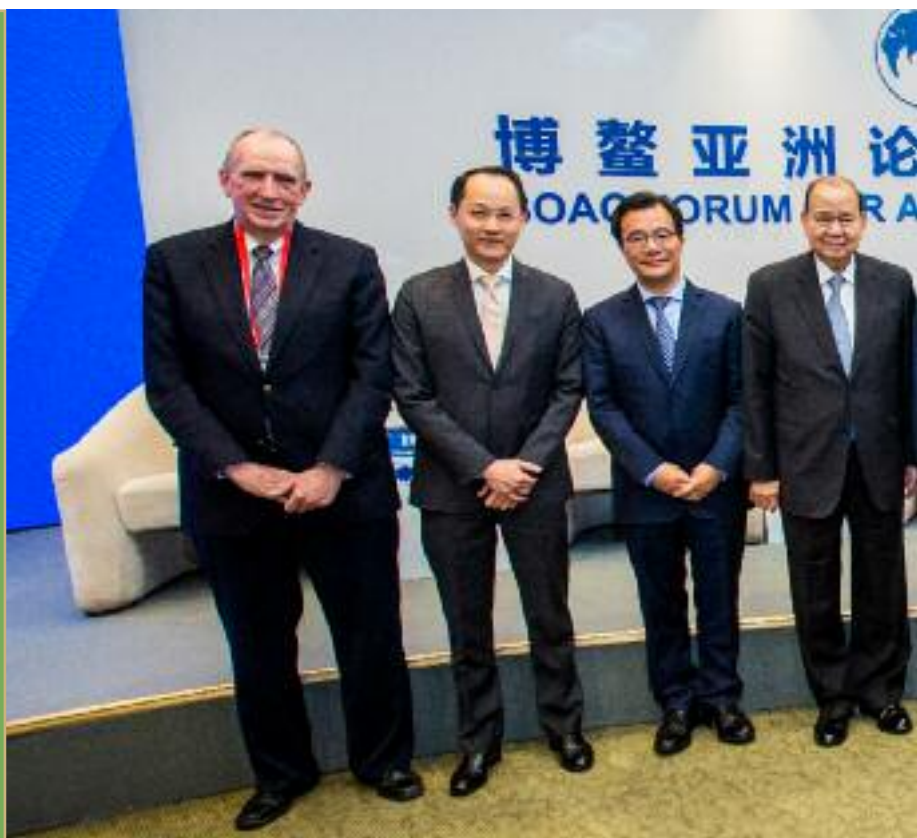
A background to island economies

Introduction

JAMES RANDALL, *University of Prince Edward Island, Canada*

At last year's Forum, we launched the 2017 *Annual Report on Global Islands*. One of the objectives of that Forum and the manuscript that emerged from it was to bring together the collective experience and wisdom of some of the leading international scholars in the interdisciplinary field of island economic change and development. This year we take that one step further. In this 2018 *Annual Report*, we focus on the themes of island openness and connectivity. We look at the movement of goods, services, capital, and people between and among islands and mainlands. This includes examining islands as offshore financial centres (see Chapter 6) and the phenomena of islands as free ports or as part of a network of free trade zones (Chapters 5, 8, and 9). We outline the importance of distance and accessibility in understanding the development trajectory of islands (Chapters 2 and 3), some of the policies that help create conducive business environments (Chapter 7), and how the 'marine economy' allows us to better understand how economic change that takes place on the land is closely linked with that which takes place in the surrounding sea (Chapter 4). We hope that this engages

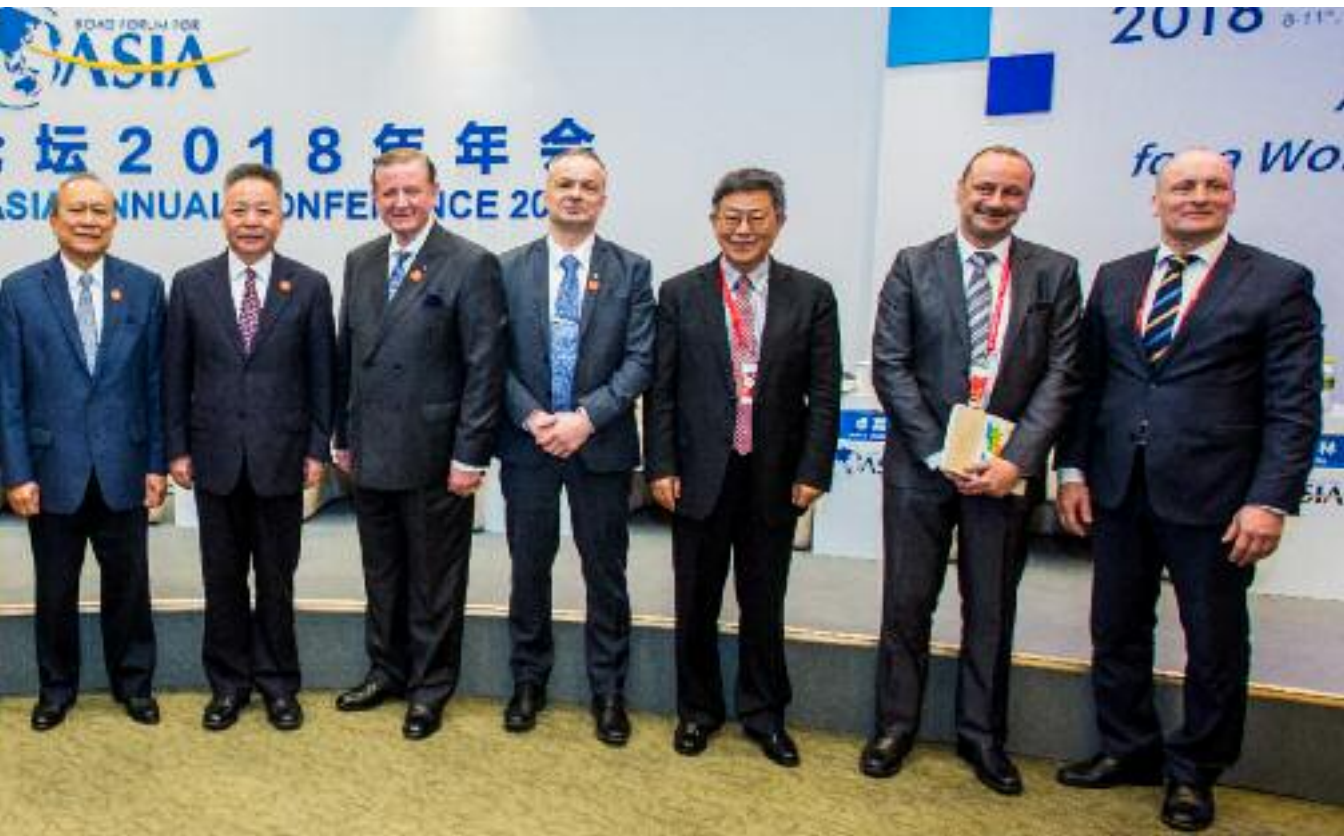
Participants of
the 2018 Islands
Economic Cooperation
Forum, left to right:
James Randall,
Larry Chan,
Wang Sheng,
Carlos Chan,
Jose Chaves Alvarez,
Shen Xiaoming,
John Aquilina,
Willy Ørnebakk,
Chi Fulin,
Godfrey Balddachino,
and Johan Graberg.



readers, inspires further discussion on island development, and strengthens the role that the island of Hainan plays as one of the key sites leading this discussion.

Summary of the 2018 21st Century Maritime Silk Road Islands Economic Cooperation Forum

I had the honour and privilege of moderating this 3rd Annual Islands Economic Cooperation session on 9 April 2018. Consistent with past practice, the session consisted of two parts. First, several senior-level government officials from China and elsewhere in the world gave short keynote speeches. Then a panel of experts from academia, the private sector, and government assembled on stage and were asked to respond to some of the key points raised in the keynote addresses. For this year's session, the keynote speakers and the panelists were asked in advance to address two questions: 1) the role that cooperation and/or collaboration have played in achieving island economic development, and 2) the practices or strategies that island economies could offer to achieve inclusive development through this collaboration. Speakers had the flexibility to examine how partnerships could play out at a variety of scales and among a diverse set of stakeholders, including those internal to one island, those that are part of a network of interconnected islands (e.g., an archipelago in the same island state), or those that might be more applicable across groups of island states or territories. We encouraged



speakers to be more applied in their answers, speaking directly to ‘best practices’ and practical strategies to develop meaningful partnerships that will in turn lead to meaningful economic development.

The keynote speakers included the Governor of Hainan Province, Mr. Shen Xiaoming; the Assistant Minister of Foreign Affairs for the P.R. of China, Mr. Chen Xiaodong; the Minister of Culture, Mr. Vira Rojpojchanarat, from Thailand, a mainland country that includes a large number of islands or ‘ko’; and Mr. Willy Ørnebakk, Chair of the Troms County Government in Norway. Like Thailand, Norway’s coastal counties incorporate a large number of near-shore islands, thereby providing them with an appreciation for the significance of islands as part of their cultural identity, economic development, and ecological preservation.

As with many of the speakers, Governor Shen spoke to the importance of openness to further development on islands. In his words: “Openness is not only a development need, but also a survival imperative.” Given his role as political leader on the island of Hainan, it is not surprising that he spoke to the changes that have taken place on this island since gaining its status as a province thirty years ago and how openness is synonymous with progress. This includes a rapid diversification of the economy, moving from a largely agricultural dependence in the past to a much more vibrant and diversified economy now, including the aerospace launching centre at Wenchang and a deep-sea research institute at Sanya. The importance of improving internal connectivity is reflected in the completion of a high-speed rail line encircling the entire island, and the Chinese phrase stated by Governor Shen: “if you want to get rich, build roads first.”

Mr. Chen, China’s Assistant Minister of Foreign Affairs, noted how the global marine economy is one of the fastest-growing sectors in the world and is estimated to grow to \$3.3 trillion US by 2030. He spoke to the fact that Hainan is in a critical location on the Maritime Silk Road, being a fulcrum between China and other island economies. He expressed strong support for the free(r) flow of goods and factors of production as being essential for development, a point emphasized in several of the chapters in this Report.

One of the underlying themes of the keynote presentations and the panelist contributions was the situation of various islands in relation to the rest of the world. Several speakers and panelists seemed to be trying to make the case that their islands were centrally located in relation to the rest of the world. Forget for a moment that there is no mathematical centre on the surface of a round sphere like the Earth. The notion that so many participants from different parts of the world might believe that each of their islands is central seems to contradict the stereotype of islands as inaccessible and isolated, far from the mainstream of trade and population. So what might explain this contradiction? Is it boastfulness or pride on the part of these islanders? Or is it rooted in something else? Perhaps one part of the explanation is that islanders intuitively think of themselves in relation to all other places around them. Because their societies have been open and connected with the rest of the world for so long, the perception

that they are central, regardless of their measured distance to other world ports, may seem natural to them. Dr. Godfrey Baldacchino suggested that, so long as the Boao Forum is taking place, maybe we should consider this the centre of the world!

This concept of centrality or connection extended to a discussion of inter-island transportation, especially between islands within an archipelago. Mr. Larry Chan, the Chairman of the Liwayway (China) company, noted that one of the greatest challenges to improving connectivity was on the smaller, outlying islands in the Philippines. The fact that perishable produce could not be shipped on or off these islands quickly not only meant that these islands could not develop their commercial agricultural sector but also that islanders on these more remote islands were more likely to consume processed food, and this in turn adversely affected their health. Building an infrastructure to assist these islanders requires cooperation but also investment in crops that might be less perishable.

The moderator challenged the panelists to think about how islands and island governments can play a role in showing all jurisdictions of the world how they might achieve the United Nation's Sustainable Development Goals (SDGs) by 2030. Mr. Chi Fulin, President of the China Institute for Reform and Development, said that by promoting island interconnectivity or "opening up", it provides islands with opportunities to achieve these goals. He used the example of Hainan and how much it had changed in the past thirty years. Governor Shen noted that because islands are so sensitive to environmental change, they are able to show the rest of the world the perils of not striving to achieve the SDGs. This idea that islands can serve as "green incubators"



Director General Wang Sheng and Dr. James Randall, UNESCO Co-Chair in Island Studies and Sustainability and Executive Editor-in-Chief of the 2017 Annual Report, with the 2017 Report in English and in Chinese, at the report's release at the 2018 Boao Forum.

means that some of the most effective solutions can be scaled up and/or adapted to other jurisdictions. He went on to point specifically to the example of using renewable energy in the transportation sector. Although achieving substantial gains in this sector might be challenging in large jurisdictions, starting at a small scale such as on Jeju Island in South Korea may provide us with lessons that can be used on places as large as Hainan.

Since the theme of this session was about cooperation and collaboration among islands, the moderator also asked the panelists how they were able to maintain long-term collaboration among individuals and groups when decisions often create winners and losers. The panelists agreed that this was a difficult issue. For example, even though Hainan has seen tremendous development over the past thirty years, there are likely some sectors of the community that regret the impacts of these changes. The Maltese Ambassador to China, Mr. John Aquilina, perhaps stated it best by noting that in your decision-making you have to create an environment that serves the greatest good for the greatest number of people. Despite short-term disagreements, islanders understand that in the long term they need to cooperate as a matter of survival.

The session ended with two recommendations for the future. First, there was a call to build upon the good work that has taken place at these sessions and as a result of this partnership. One way to achieve this might be to establish a more formal administrative network that would engage in projects between the annual Forums. This could take the form of a Secretariat, based on Hainan, which would focus on important topics, such as regional tourism integration, expansion of markets for island economies, and research collaboration. This Secretariat could also build intellectual capacity by encouraging exchanges of practitioners, faculty, and students across and beyond the Maritime Silk Road.

Second, there was a call for islands in this region to cooperate specifically on international tourism. Tourism was seen as a basic foundation of shared experiences and cultures. There is a perception that every island is competing for the same group of tourists. In reality, the tourist market is highly differentiated. Each island has its own strengths and attractions that appeal to different kinds of tourists. By cooperating, the region as a whole can achieve the greatest good for the greatest number of people. This discussion of cooperation regarding international tourism could form the theme for the next Boao Islands Economic Cooperation Forum in 2019.



Rows of newly planted potatoes, the largest crop of Prince Edward Island

1

JAMES
RANDALL

University of Prince Edward
Island, Canada



with



A D A M
B R I M A C O M B E

The ongoing state of island economies

In last year's (2017) Annual Report, the point was made that island states and island territories are incredibly important in their own right and are also important in what they tell us about economic development, connectivity, and interaction more generally throughout the world. In this year's version of the Report, we update the statistics on many of these islands (i.e., in this current chapter); provide additional information on island free trade and port infrastructure; and provide new perspectives on island free trade, free zones, and the many ways that island regulatory, economic, and physical environments affect their futures.

SECTION 1: ISLAND STATES

Island states may be small in size but their global geopolitical presence is much greater than their share of land area and world population would suggest. They have been quite influential in shaping the narrative regarding global sustainable development, for example, through the Sustainable Development Goals (SDGs). As a group, through the Small Island Developing States (SIDS) and the Alliance of Small Island States (AOSIS), they have encouraged world international bodies such as the United Nations to take action to slow, stop, or even reverse human-induced global warming. In Tables 1.1 to 1.14 of this chapter, we update essential statistics on a select group of island states.

See Table 1.1 on following pages

The indicators used throughout the 2018 report demonstrate a prominent characteristic inherent in the island states listed: that of their incredible diversity. This variation can be seen quite clearly when we compare their total populations and population densities (Table 1.1). At one extreme, we have the island archipelago and mainland territory of Indonesia which consists of a population of over 260 million people. At the other extreme, we have the small island nation of Niue consisting of only 1,626 people. The heterogeneity that is so apparent in these population values is also seen in other island characteristics and reinforces the point that islands are not monolithic entities with identical challenges, strategies, and development trajectories. For example, the average annual population growth rates from 2010 to 2018 continue to show considerable variation with the rates of change being generally lower in developed island countries. It should be noted that population growth rates are not measuring the same thing as the Natural Rate of Increase (i.e., the difference between Birth Rate and Death Rate) because overall growth rates also include immigration and emigration. Therefore, islands in the Americas/Caribbean region, which are experiencing positive natural population growth (see Table 1.2) while also experiencing low or negative Growth Rates, are doing so presumably because emigration off the islands is exceeding immigration to the islands. Population density is an interesting characteristic. Small island ‘city states’ such as Singapore have exceptionally high population densities while large countries such as Indonesia have relatively lower population densities. This characteristic does not account for either the distribution of the population or the carrying capacity of the island. Carrying capacity refers to the ability of a jurisdiction to support its population, whether that is through agriculture, manufacturing, or services. For example, although Iceland has a very low population density, most of the population is confined to the coastal areas while the inhospitable interior is sparsely populated. Iceland’s carrying capacity is based less on agricultural production and more on fisheries, tourism, and services. Finally, some archipelagic island countries like the Maldives have a wide variation in population densities across their many islands, with some main islands being densely settled and some more remote islands being uninhabited.

TABLE 1.1: Population, Population Density, and Average Annual Population Growth Rate, 2010 to 2017

Continent	Island Country	Population (people) 2017	Population density (people /km ²) 2016	Growth Rate % 2010–2017
Asia	Japan	126,451,398	348	-0.2
	Singapore	5,888,926	7909	1.8
	Indonesia	260,580,739	144	0.9
	Timor-Leste	1,291,358	85	2.4
	Brunei Darussalam	443,593	80	1.6
	Philippines	104,256,076	348	1.6
	Sri Lanka	22,409,381	347	0.8
	Maldives	392,709	1392	-0.1
Europe	Bahrain	1,410,942	1848	2.3
	Cyprus	1,221,549	127	1.3
	Iceland	339,747	3	1.1
	United Kingdom	64,769,452	271	0.5
	Ireland	5,011,102	69	1.2
	Malta	416,338	1365	0.3
Africa	Cabo Verde	560,899	134	1.3
	Madagascar	25,054,161	43	2.5
	Seychelles	93,920	206	0.8
	Mauritius	1,356,388	622	0.6
	Comoros	808,080	428	1.6
	Sao Tome and Principe	201,025	208	1.7
Oceania	New Zealand	4,510,327	18	0.8
	Papua New Guinea	6,909,701	18	1.7
	Solomon Islands	647,581	21	1.9
	Vanuatu	282,814	22	1.9
	Fiji	920,938	49	0.6
	Tonga	106,479	149	-0.1
	Samoa	200,108	69	0.6
	Nauru	9,642	652	0.5
	Micronesia, Fed. States	104,196	150	-0.5
	Marshall Islands	74,539	295	1.6
	Kiribati	108,145	141	1.1

Continent	Island Country	Population (people) 2017	Population density (people /km ²) 2016	Growth Rate % 2010–2017
	Tuvalu	11,052	370	0.9
	Palau	21,431	47	0.4
	Cook Islands	9,290	–	-2.8
	Niue	1626 (2015)	–	-0.03 (2014)
Caribbean/ Americas	Cuba	11,147,407	110	-0.3
	Haiti	10,646,714	394	1.3
	Dominican Republic	10,734,247	220	1.2
	Jamaica	2,990,561	266	0.7
	Bahamas, The	329,988	39	0.8
	St. Kitts and Nevis	52,715	211	0.7
	Antigua and Barbuda	94,731	229	1.2
	St. Vincent and the Grenadines	102,089	281	-0.3
	St. Lucia	164,994	292	0.3
	Grenada	111,724	316	-0.3
	Barbados	292,336	663	0.3
	Trinidad and Tobago	1,218,208	266	-0.2
	Dominica	73,897	98	0.2

TABLE 1.2: Crude Birth Rate, Crude Death Rate, and Life Expectancy at Birth, 2017

Continent	Island Country	Crude Birth Rate /1000	Crude Death Rate /1000	Life Expectancy at Birth
Asia	Japan	7.7	9.8	85.0
	Singapore	8.6	3.5	85.0
	Indonesia	16.2	6.5	73.0
	Timor-Leste	33.4	5.9	68.4
	Philippines	23.7	6.1	69.4
	Sri Lanka	15.2	6.2	76.9
	Maldives	16.1	4.0	75.8
	Bahrain	13.3	2.8	79.0
Europe	Cyprus	11.3	6.8	78.8
	Iceland	13.7	6.4	83.0
	United Kingdom	12.1	9.4	80.8
	Ireland	14.1	6.6	80.9
	Malta	10.1	9.4	80.5
Africa	Cabo Verde	20.0	6.0	72.4
	Madagascar	31.6	6.5	66.3
	Seychelles	13.7	7.0	74.9
	Mauritius	13.0	7.1	75.8
	Comoros	26.1	7.2	64.6
	Sao Tome and Principe	32.4	6.8	65.3
Oceania	New Zealand	13.2	7.5	81.3
	Papua New Guinea	23.7	6.6	67.3
	Solomon Islands	24.9	3.8	75.6
	Vanuatu	24	4.0	73.7
	Fiji	18.6	6.1	73.0
	Tonga	22.2	4.9	76.4
	Samoa	20.4	5.3	74.0
	Nauru	24.0	5.9	67.4
	Micronesia, Fed. States	20.0	4.2	73.1
	Marshall Islands	24.4	4.2	73.4
	Kiribati	21.2	7.0	66.5
	Tuvalu	23.7	8.5	66.9

Continent	Island Country	Crude Birth Rate /1000	Crude Death Rate /1000	Life Expectancy at Birth
	Palau	11.3	8.1	73.4
	Cook Islands	14.0	8.4	76.0
	Niue	–	–	–
Caribbean/ Americas	Cuba	10.7	8.7	78.8
	Haiti	23.0	7.6	64.2
	Dominican Republic	18.4	4.7	78.3
	Jamaica	17.9	6.8	73.7
	Bahamas, The	15.3	7.2	72.6
	St. Kitts and Nevis	13.2	7.1	75.9
	Antigua and Barbuda	15.7	5.7	76.7
	St. Vincent and the Grenadines	13.2	7.3	75.5
	St. Lucia	13.3	7.7	77.9
	Grenada	15.5	8.2	74.5
	Barbados	11.7	8.6	75.5
	Trinidad and Tobago	12.7	8.8	73.1
	Dominica	15.1	7.9	77.0

As is the case for mainland countries, Table 1.2 shows that there is a general distinction between developed and developing island countries in terms of their Birth Rates (BR), Death Rates (DR), and Average Life Expectancies. Almost all the developed island countries, such as Malta and the United Kingdom, continue to show a Birth Rate that is only slightly higher than their Death Rate, or, as in the case of Japan, a Birth Rate that is lower than their Death Rate or a negative Natural Rate of Increase. Average Life Expectancies of developed economy islands in the North Atlantic and Mediterranean, as well as Japan, Singapore, and New Zealand, continue to be consistently higher than island countries in Oceania and the Caribbean/Americas. In general, island states in the Caribbean/Americas have lower Birth Rates and higher Death Rates than island states in Oceania. However, on average there is a greater gap between BR and DR in Oceanic countries than Caribbean/Americas islands. All other factors being equal (e.g., population changes as a result of differences in migration), this means that population increases are going to be greater in Oceanic islands.

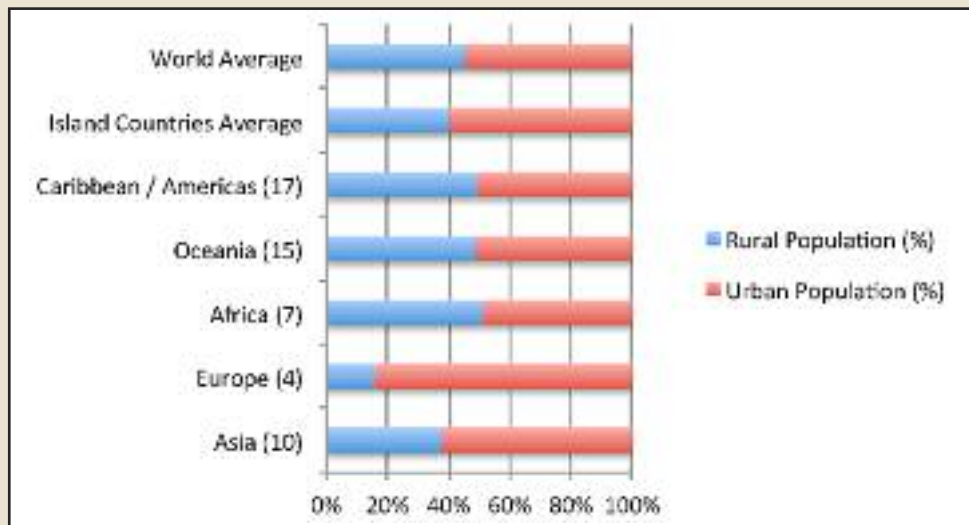
TABLE 1.3: Percentage of Rural and Urban Populations, 2015 and 2018

Continent	Island Country	RURAL POPULATION (%)		URBAN POPULATION (%)	
		2015	2018	2015	2018
Asia	Japan	6.5	8.4	93.5	91.6
	Singapore	0	0	100	100
	Indonesia	46.3	44.7	53.7	55.3
	Timor-Leste	67.2	69.4	32.8	30.6
	Brunei Darussalam	22.8	22.4	77.2	77.6
	Philippines	55.6	53.1	44.4	46.9
	Sri Lanka	81.6	81.5	18.4	18.5
	Maldives	54.5	60.2	45.5	39.8
Europe	Bahrain	11.2	10.7	88.8	89.3
	Cyprus	33.1	33.2	66.9	66.8
	Iceland	5.9	6.2	94.1	93.8
	United Kingdom	17.4	16.6	82.6	83.4
	Ireland	36.8	36.8	63.2	63.2
	Malta	4.6	5.4	95.4	94.6
Africa	Cabo Verde	34.5	34.3	65.5	65.7
	Madagascar	64.9	62.8	35.1	37.2
	Seychelles	46.1	43.3	53.9	56.7
	Mauritius	60.3	59.2	39.7	40.8
	Comoros	71.7	71.0	28.3	29.0
	Sao Tome and Principe	34.9	27.2	65.1	72.8
Oceania	New Zealand	13.7	13.5	86.3	86.5
	Papua New Guinea	87.0	86.8	13.0	13.2
	Solomon Islands	77.7	76.3	22.3	23.7
	Vanuatu	73.9	73.2	26.1	26.8
	Fiji	46.3	43.8	53.7	56.2
	Tonga	76.3	76.9	23.7	23.1
	Samoa	80.9	81.8	19.1	18.2
	Nauru	0	0	100.0	100.0
	Micronesia, Fed. Sts.	77.6	77.3	22.4	22.7
	Marshall Islands	27.3	23.0	72.7	77.0
	Kiribati	55.7	45.9	44.3	54.1
	Tuvalu	40.3	37.6	59.7	62.4
	Palau	12.9	20.1	87.1	79.9

Continent	Island Country	RURAL POPULATION (%)		URBAN POPULATION (%)	
		2015	2018	2015	2018
	Cook Islands	25.0 (2014)	24.9	75.0 (2014)	75.1
	Niue	62.0 (2014)	55.2	38.0 (2014)	44.8
Caribbean/ Americas	Cuba	22.9	23.0	77.1	77.0
	Haiti	41.3	44.7	58.7	55.3
	Dominican Republic	21.1	18.9	78.9	81.1
	Jamaica	45.2	44.3	54.8	55.7
	Bahamas, The	17.1	17.0	82.9	83.0
	St. Kitts and Nevis	67.9	69.2	32.1	30.8
	Antigua and Barbuda	76.2	75.4	23.8	24.6
	St. Vincent + Grenadines	49.4	47.8	50.6	52.2
	St. Lucia	81.5	81.3	18.5	18.7
	Grenada	64.4	63.7	35.6	36.3
	Barbados	68.4	68.6	31.6	31.4
	Trinidad and Tobago	91.5	46.8	8.5	53.2
	Dominica	30.5	29.5	69.5	70.5

The world is becoming a more urbanized place, and this is also reflected in the island countries listed in Table 1.3. Even after only three years (2015 to 2018), almost every island has a higher percentage of their population living in urban areas; the difference is in the level of urbanization. For example, the island city state of Singapore and the small formerly mining-dependent island of Nauru continue to be at 100% urbanization. Other developed island countries with economies focused primarily on services and manufacturing, such as Malta, the United Kingdom, and Japan, have only a small share of their population living in rural areas. However, outside of these cases, many of the small islands of the world are still largely rural, with populations engaged primarily in agriculture and fisheries. As can be seen in the table, it is still not uncommon for islands in Oceania and the Caribbean/Americas to have more than 60% of their population still living in non-urban areas even with the recent increases in urbanization seen in 2018 for some.

FIGURE 1.1: Percentage of Rural and Urban Populations of Island Countries on Each Continent, 2017



At a more aggregate level, Figure 1.1 continues to show that island countries are slightly more urbanized than countries in the world as a whole. The highest levels of urbanization among regional groupings of islands are for those found in Europe (the North Atlantic and Mediterranean), while those island countries situated around Africa still have the highest percentage of their populations living in rural areas.

See Table 1.4 on following pages

Gross Domestic Product (GDP) is a measure of the total value of all goods and services produced in a country. Although it does not include goods and services produced and exchanged informally—for example, through the barter system, the volunteer sector, and criminal activities—it is still the most frequently used measure of economic prosperity, change, and comparison. Table 1.4 uses GDP in several ways: first as an aggregate measure of the size of an island’s economy, then standardized by the size of the population (i.e., GDP per capita), and finally in terms of how an island’s economy has changed over time (i.e., growth rate of GDP from 2015 to 2017, and growth rate of GDP/capita over that same time period).

In terms of the total size of the economy, large island countries such as Japan and the United Kingdom continue to be much greater than all the other islands listed in this Table. However, some ‘developing’ countries such as Indonesia and the Philippines also have very high levels of GDP. When GDP is standardized by dividing by the population, the basic two-group distinction between developed and developing island states that was apparent when looking at the Gross National Income/ capita reasserts itself. One of the more fascinating aspects of this Table is comparing the growth rate of GDP to the growth rate of GDP/capita. This is really a measure of the difference in the growth of the economy and the growth in the population. If the change in GDP is greater than the change in GDP/capita, it means that the economy is growing faster than the population. If the change in GDP is lower than the change in GDP/capita growth, it means that the population is growing faster than the economy. As seen in the previous report, almost every one of the islands in this table has an economy that is not keeping pace with the growth in the population. Furthermore, the importance of scale of the jurisdiction in interpreting change should not be overlooked. On small islands, a relatively modest increase or decrease in economic production or population can have a much greater impact on the percentage change in GDP and GDP/capita because you are starting from a relatively small base. This can be seen in the case of the small island developing states (SIDS) of Samoa and Nauru whose growth rates may not be persistent over a long period of time. In 2016, they both showed large increases in their GDP/capita (of 5.8% and 5.5% respectively), but this has fallen one year later to 1.8% and -0.4% respectively.

TABLE 1.4: Gross Domestic Product (GDP) and Change in GDP; Per Capita GDP and Change in GDP/capita, 2017

Continent	Island Country	GDP 2017 in millions of USD (World Bank)	Growth rate of GDP % (World Bank)	GDP per capita 2017 in USD (CIA)	Growth rate of GDP per capita % (World Bank)
Asia	Japan	4,872,137	1.7	42,800	1.9
	Singapore	323,907	3.6	93,900	3.5
	Indonesia	1,015,539	5.1	12,400	3.9
	Timor-Leste	2,954,620	-8	5,400	-9.96
	Brunei Darussalam	12,128	1.3	76,900	-3.8
	Philippines	313,595	6.7	8,300	5.1
	Sri Lanka	87,175	3.1	19,100	2.0
	Maldives	3,4597	8.8	15,500	6.7
	Bahrain	35,307	3.88	48,500	-0.81
Europe	Cyprus	21,652	3.9	37,000	3.5
	Iceland	23,909	7.2	49,200	6.1
	United Kingdom	2,622,434	1.8	44,100	1.1
	Ireland	333,731	7.8	75,500	6.5
	Malta	12,538	6.4	42,200	4.2
Africa	Cabo Verde	1,754	3.9	6,900	2.6
	Madagascar	11,500	4.2	1,600	1.4
	Seychelles	1,486	4.2	21,600	2.9
	Mauritius	13,338	3.8	20,400	3.7
	Comoros	649	2.5	1,600	0.2
	Sao Tome and Principe	391	3.9	3,200	1.6
Oceania	New Zealand	205,853	3.0	38,900	0.9
	Papua New Guinea	21,088,760	2.2)	3,700	0.14
	Solomon Islands	1,303	3.2	2,200	1.2
	Vanuatu	863	4.5	2,700	2.3
	Fiji	5,061	3.8	9,800	3.0
	Tonga	426	2.7	5,600	1.9
	Samoa	857	2.5	5,700	1.8
	Nauru	114	4.2	12,200	-0.4
	Micronesia, Fed. Sts.	336	2.0	3,400	1.4

Continent	Island Country	GDP 2017 in millions of USD (World Bank)	Growth rate of GDP % (World Bank)	GDP per capita 2017 in USD (CIA)	Growth rate of GDP per capita % (World Bank)
	Marshall Islands	199	2.5	3,400	2.4
	Kiribati	196	3.1	2,000	1.3
	Tuvalu	40	3.2	3,800	2.4
	Palau	292	-4	16,200	-5
	Cook Islands	–	–	16,700(2010)	–
	Niue	–	–	5,800 (2003)	–
Caribbean/ Americas	Cuba	87,132.8 (2015)	4.4 (2015)	12,300	–
	Haiti	8,408	1.17	1,800	-0.1
	Dominican Republic	75,932	4.6	16,900	3.4
	Jamaica	14,768	0.5	9,200	0.2
	Bahamas, The	12,162	1.4	31,200	0.4
	St. Kitts and Nevis	946	1.7	26,800	0.8
	Antigua + Barbuda	1,532	3.3	26,300	2.3
	St. Vincent+Grenadines	790	1.6	11,500	1.4
	St. Lucia	1,712	2.7	14,400	2.2
	Grenada	1,119	3.7	14,900	3.2
	Barbados	4,797	1.7	18,700	1.4
	Trinidad and Tobago	22,105	-2.3	31,400	-2.6
	Dominica	563	-4.2	11,100	-4.7

TABLE 1.5: Gross National Income (GNI) per Capita, 2017

Continent	Island Country	Gross National Income per capita, Purchasing Power Parity (international \$) (World Bank)
Asia	Japan	44,850
	Singapore	90,570
	Indonesia	11,900
	Timor-Leste	6,330
	Brunei Darussalam	83,760
	Philippines	10,030
	Sri Lanka	12,470
	Maldives	15,350
	Bahrain	42,930
Europe	Cyprus	33,610
	Iceland	53,280
	United Kingdom	42,560
	Ireland	61,910
	Malta	36,740
Africa	Cabo Verde	6,570
	Madagascar	1,510
	Seychelles	26,860
	Mauritius	22,570
	Comoros	1,570
	Sao Tome and Principe	3,370
Oceania	New Zealand	39,740
	Papua New Guinea	4,040
	Solomon Islands	2,270
	Vanuatu	3,170
	Fiji	9,090
	Tonga	6,050
	Samoa	6,390
	Nauru	17,960
	Micronesia, Fed. Sts.	4,210
	Marshall Islands	5,560
	Kiribati	3,850
	Tuvalu	5,780
	Palau	13,950

Continent	Island Country	Gross National Income per capita, Purchasing Power Parity (international \$) (World Bank)
	Cook Islands	N/A
	Niue	N/A
Caribbean/ Americas	Cuba	18,630 (2011)
	Haiti	1,830
	Dominican Republic	15,290
	Jamaica	8,690
	Bahamas, The	29,790
	St. Kitts and Nevis	26,300
	Antigua and Barbuda	22,980
	St. Vincent and the Grenadines	11,770
	St. Lucia	13,230
	Grenada	14,410
	Barbados	17,830
	Trinidad and Tobago	30,520
	Dominica	10,170

Gross National Income (or GNI) is a measure of the total value of all goods and services produced in a country (i.e., the GDP) plus all income received from other countries, including interest and dividends. Table 1.5 shows that developed island economies continue to exhibit very high GNI levels per capita (e.g., Singapore 90,570 USD, Brunei Darussalam 83,760 USD, Iceland 53,280 USD, and Ireland 61,910 USD). Although these island countries have increased their GNI per capita, most developing island countries, especially those in Oceania, still exhibit very low values. For example, the Solomon Islands, Madagascar, and the Comoros continue to have only one-tenth the GNI/capita as in the developed islands.

Caution needs to be exercised when interpreting these values. First, GNI does not account for income distribution across the population. A highly inequitable distribution of wealth may not be conducive to development. Furthermore, this variable does not account for 'income' earned informally, where cash or informal and reciprocal exchange is more prominent. This is especially the case in developing islands. Regardless, two patterns are apparent: on average, the GNI per capita appears to be much higher in the Americas/Caribbean than in Oceania. This could be attributed to the importance of tourism and financial services. The GNI levels for heavily populated islands in both regions with tourism-reliant Cuba (18,630 USD) and Trinidad and Tobago (30,520 USD) exhibit higher values compared to that of Papua New Guinea (4,040 USD). Another interesting comparison that reflects the importance of tourism is between the two island countries that share Hispaniola: Haiti and the Dominican Republic (DR). Haiti is one of the poorest countries in the Western Hemisphere and the GNI/capita bears this out, with a value of only 1,830 USD compared to the DR with a GNI/capita of 15,290 USD.

TABLE 1.6: Labour Force, Participation Rate, and Unemployment Rate

Continent	Island Country	Labour Force est. (2017)	Labour Force participation rate % (World Bank)	Unemployment Rates % est. (2017)
Asia	Japan	66,504,000	77	2.9
	Singapore	3,267,000	76	2.2
	Indonesia	127,111,000	68	5.6
	Timor-Leste	283,000	40	4.4
	Philippines	44,643,000	64	5.7
	Sri Lanka	8,725,000	58	4.5
	Maldives	220,000	69	2.9
	Bahrain	865,000	74	3.8
Europe	Cyprus	616,000	74	11.8
	Iceland	211,000	89	2.8
	United Kingdom	33,870,000	77	4.4
	Ireland	2,263,000	71	6.4
	Malta	217,000	69	4.4
Africa	Cabo Verde	230,000	63	9.0
	Madagascar	13,054,000	88	2.1
	Seychelles	39,560 (2006)	—	4.1
	Mauritius	606,000	66	6.9
	Comoros	211,000	44	6.5 (2014)
	Sao Tome + Principe	68,000	60	12.2
Oceania	New Zealand	2,662,000	80	4.9
	Papua New Guinea	3,696,000	71	2.5 (2014)
	Solomon Islands	267,000	72	NA
	Vanuatu	125,000	71	1.7 (1999)
	Fiji	377,000	61.5	5.5
	Tonga	41,000	61	1.1 (2011)
	Samoa	39,000	33	NA
	Cook Islands	5,774 (2011)	71 (2011)	8.2 (2011)
	Niue	663 (2001)	—	12 (2001)
Caribbean/ Americas	Cuba	5,249,000	65	2.2
	Haiti	5,014,000	69	40.6

Continent	Island Country	Labour Force est. (2017)	Labour Force participation rate % (World Bank)	Unemployment Rates % est. (2017)
Caribbean/ Americas	Dominican Republic	5,081,000	71	5.5
	Jamaica	1,502,000	73	10.4
	Bahamas, The	238,000	74	10.0
	St. Kitts and Nevis	18,170 (1995)	—	4.5 (1997)
	Antigua and Barbuda	30,000 (1991)	—	11 (2014)
	St. Vincent + Grenadines	58,000	75	18.8 (2008)
	St. Lucia	99,000	75	20 (2003)
	Grenada	59,900 (2013)	—	24.0
	Barbados	152,000	78	10.5
	Trinidad and Tobago	674,000	70	4.5
	Dominica	25,000 (2007)	—	23 (2014)

For most islanders and other analysts, labour force participation and the unemployment rates displayed in Table 1.6 are the most important economic variables due to their direct relevance of these indicators for the everyday lives of their populations. Table 1.6 for the 2018 Annual Report displays the overall labour force, labour force participation, and unemployment rates for the island countries listed. The rate of change in all three variables has seen a slight shift since the 2017 report, in that the unemployment rate, for the most part, has decreased while the labour force and labour force participation has seen a slight increase.

The labour force participation rate (LFPR) is a measure of those currently employed or actively looking for employment from among all those who could potentially be in the labour force. According to this measure, one of the healthiest island economies continues to be the island of Madagascar located off the east coast of Africa. Even though it faces socio-economic and developmental challenges as suggested by other indicators throughout this report, it displays one of the highest LFPR at 88%. By contrast, the lowest labour force participation rates are in Timor-Leste (40%), Samoa (33%), and Comoros (44%).

Based on the unemployment rates in this table, several island countries are almost at full employment, such as Singapore (2.2%), Iceland (2.8%), Cuba (2.2%), and Madagascar (2.1%). Two major outliers in this category continue to be Haiti with an unemployment rate of 40% and Grenada with 24%. Together, both Caribbean islands have much higher levels of unemployment than any other island country listed. However, Grenada has seen a positive rate of change in this indicator by 9 percentage points from 33% in the 2017 report. However, this still occupies the second highest unemployment rate among the list of island countries.

TABLE 1.7: Human Development Index, 2017

Island Country	Island Country Ranking	World Ranking	Value
Ireland	1	4	0.938
Iceland	2	6	0.935
Singapore	3	9	0.932
United Kingdom	4	14	0.922
New Zealand	5	16	0.917
Japan	6	19	0.909
Malta	7	29	0.878
Cyprus	8	32	0.869
Brunei Darussalam	9	39	0.853
Bahrain	10	43	0.846
Bahamas	11	54	0.807
Barbados	12	58	0.800
Palau	13	60	0.798
Seychelles	14	62	0.797
Mauritius	15	65	0.790
Trinidad and Tobago	16	69	0.784
Antigua and Barbuda	17	70	0.780
St. Kitts and Nevis	18	72	0.778
Cuba	19	73	0.777
Grenada	20	75	0.772
Sri Lanka	21	76	0.770
St. Lucia	22	90	0.747
Fiji	23	92	0.741
Dominican Republic	24	94	0.736
Jamaica	25	97	0.732
Tonga	26	98	0.726
St. Vincent and the Grenadines	27	99	0.723
Maldives	28	101	0.717
Dominica	29	103	0.715
Samoa	30	104	0.713
Philippines	31	113	0.699
Indonesia	32	116	0.694
Cabo Verde	33	125	0.654

Island Country	Island Country Ranking	World Ranking	Value
Micronesia, Fed. States	34	131	0.627
Timor-Leste	35	132	0.625
Kiribati	36	134	0.612
Vanuatu	37	138	0.603
Sao Tome and Principe	38	143	0.589
Solomon Islands	39	152	0.546
Papua New Guinea	40	153	0.544
Madagascar	41	161	0.519
Comoros	42	165	0.503
Haiti	43	168	0.498

The Human Development Index is a composite indicator that incorporates variables across three dimensions: the economy (Gross National Income/capita), education (mean years of schooling), and health (Average Life Expectancy at birth). With a theoretical range of between 0 and 1, the higher the value, the greater the level of development of the population in that jurisdiction. Values greater than 0.800 are considered Very High (green rows), values between 0.700 and 0.799 are considered High (red rows), values between 0.550 and 0.699 are considered Medium (blue rows), and any value less than 0.550 is considered Low (brown rows). It is not uncommon for islands to score relatively high compared to mainland countries, especially in comparison to Gross Domestic Product by itself. As shown in Table 1.7, only five of the islands fall into the Low category: Papua New Guinea, Solomon Islands, Madagascar, Comoros, and Haiti. The remaining island countries continue to fall in the Very High or High Groups; this includes the new addition of Barbados in the High Human Development category. Not surprisingly, the island countries in the developed world are all in the Very High category. However, the top six island countries in this category have changed their World Ranking since 2017, with Singapore (9th), New Zealand (16th), and Japan (19th) dropping by between two and four positions. At the same time, Ireland (4th), Iceland (6th), and the United Kingdom (14th) have risen in their ranking by two to four positions.

The difference in value between the Very High category island countries and the five Low ranking ones can be attributed to their balance of trade, with the former recording trade surpluses and the latter trade deficits. An association exists between high human development indicators and trade liberalization which is magnified in the context of small islands with Singapore being the best example.

TABLE 1.8: Consumer Price Index, Compared to Base Year of 2010

Continent	Island Country	2010	2015	2016	2017
Asia	Japan	100	104	104	104
	Singapore	100	113	113	113
	Indonesia	100	132	137	142
	Timor-Leste	100	143	141	142
	Brunei Darussalam	100	100	102	99
	Philippines	100	116	120	120
	Sri Lanka	100	131	134	147
	Maldives	100	132	135	136
	Bahrain	100	111	114	115
Europe	Cyprus	100	102	100	101
	Iceland	100	118	120	122
	United Kingdom	100	112	113	116
	Ireland	100	105	105	105
	Malta	100	108	109	110
Africa	Cabo Verde	100	109	107	108
	Madagascar	100	140	149	161
	Seychelles	100	121	120	123
	Mauritius	100	120	121	125
	Comoros	100	98	–	–
	Sao Tome and Principe	100	154	162	172
Oceania	New Zealand	100	108	109	111
	Papua New Guinea	100	128	136	–
	Solomon Islands	100	125	126	126.54
	Vanuatu	100	107	108	–
	Fiji	100	116	121	125
	Tonga	100	110	113	–
	Samoa	100	108	110	112
Caribbean/	Haiti	100	139	158	181
Americas	Dominican Republic	100	123	124	129
	Jamaica	100	141	144	151
	Bahamas, The	100	110	109	111
	St. Kitts and Nevis	100	106	105	106

Continent	Island Country	2010	2015	2016	2017
Caribbean/ Americas	Antigua and Barbuda	100	110	110	112
	St. Vincent and Grenadines	100	105	105	107
	St. Lucia	100	111	108	108
	Grenada	100	104	106	107
	Barbados	100	117	119	124
	Trinidad and Tobago	100	134	138	140
	Dominica	100	103	103	103

The Consumer Price Index measures the cost of living in a jurisdiction and how it has changed. For the updated 2018 report, it continues to be useful to show how the cost of living has changed in a given place relative to a base year as it may be misleading to compare changes across different countries. In Table 1.8, the base year is 2010 and the values for 2015, 2017, and now 2018 suggest how much that cost of living has changed over five, seven, and now eight years respectively. For example, the cost of living in Japan increased by 4% from 2010 to 2015 and has remained the same from 2015 to 2016 and from 2016 to 2017. In 2018, island countries such as Sao Tome and Principe (72% from 62%), Haiti (81% from 58%), Jamaica (51% from 44%), and Madagascar (61%) continue to see very high levels of inflation in the cost of goods and services over the same seven-year period. However, most island countries continue to see very little change over this period (e.g., Cyprus, Ireland, Dominica).

FIGURE 1.2: GINI Coefficients of National Incomes, Various Dates

FIGURE 1.2 provides a list of island countries in accordance with their Gini Coefficients (GC). A Gini Coefficient measures the degree of equality in the distribution of income within a jurisdiction. If every household in a country had the same household income, the Gini Coefficient for that country would be 0.0. At the other (hypothetical) extreme, if all national income in a country was concentrated in one household, the Gini Coefficient for that place would be 1.0. In this Figure, the values have been multiplied by 100 so they range from 0 to 100. This measure is a useful complement to the Gross Domestic Product/capita and the Human Development Index because, unlike those other indicators, the GC measures the geographical or class distribution of a measure of well-being or wealth. Although in general this Figure shows a similar pattern among island countries, with the most developed islands having the most equal distributions of income, there are some exceptions. For example, the country of Timor-Leste, which shares the island of Timor with Indonesia, has one of the most equal distributions of income, while at the same time it continues to have a relatively low GDP/capita and a Medium to Low Human Development Index value. Part of the explanation for this anomaly may be the high proportion of the population living in rural areas. Sao Tome and Principe is another island country that also exhibits this trend. Both cases reinforce the view that a population that is primarily agrarian would be expected to have a more equal distribution of wealth.

TABLE 1.9: Foreign Direct Investment, Net Current, 2017
(in 100 million USD)

Continent	Island Country	2017 FDI Inflows	2017 FDI Outflows	Total FDI
Asia	Japan	10,430	160,449	170,879
	Singapore	62,006	24,682	86,688
	Indonesia	23,063	2,912	25,975
	Timor-Leste	7	0	7
	Philippines	9,524	1,614	11,138
	Sri Lanka	1,375	72	1,447
	Bahrain	519	229	748
Europe	Cyprus	6,343	1,332	7,675
	Iceland	-5	-85	-90
	United Kingdom	15,090	99,614	114,704
	Ireland	28,975	18,614	47,589
	Malta	3,185	-7,115	-3,930
Africa	Cabo Verde	109	-14	95
	Madagascar	389	-1	388
	Seychelles	192	6	198
	Mauritius	293	61	354
	Comoros	9	0	9
	Sao Tome + Principe	41	0	41
Oceania	New Zealand	3,572	582	4,154
	Papua New Guinea	-200	0	-200
	Solomon Islands	37	6	43
	Vanuatu	25	1	26
	Fiji	270	-23	247
	Tonga	14	1	15
	Samoa	9	0	0
	Micronesia, Fed. Sts.	0	0	0
	Marshall Islands	21	0	21
	Kiribati	1	0	1
	Tuvalu	0.3	0	0.3
	Palau	35	0	35
	Cook Islands	16	1,133	1,149
Caribbean/	Haiti	375	0	375
Americas	Dominican Republic	3,570	27	3,597
	Jamaica	888	43	931

Continent	Island Country	2017 FDI Inflows	2017 FDI Outflows	Total FDI
Caribbean/ Americas	Bahamas, The	928	132	1,060
	St. Kitts and Nevis	127	0	127
	Antigua + Barbuda	61	2	63
	St. Vincent +Grenadines	87	5	92
	St. Lucia	92	22	114
	Grenada	79	0	79
	Barbados	286	-28	258
	Trinidad + Tobago	179	84	263
	Dominica	19	-4	15

Foreign Direct Investment (FDI) measures the inflows and outflows of investment capital to and from a jurisdiction. For the data in Table 1.9 from the United Nations Conference on Trade and Development (UNCTAD), FDI is defined as “an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor.” Inflows represent investments to companies in that jurisdiction while outflows are investments by a jurisdiction’s companies elsewhere in the world. Both can vary considerably. This can be seen in the contrasts between two of the most successful island economies, Japan and Singapore. Japanese companies received about 10.4 billion USD in FDI (1 billion less than in 2016) but they send more than ten times that amount (160 billion USD) outside of the country. In comparison to 2016 levels, Japanese outflows have seen an increase of 15 billion USD. In contrast, Singapore receives approximately three times more in FDI (62.0 billion USD) than they send elsewhere (24.7 billion USD). Table 1.9 demonstrates that most island states receive more investment than they send. One such example is that of the FDI for the Indian Ocean island state of Seychelles in 2017, in which it received 192 million USD but sent out only 6 million USD. The total of inflows and outflows combined could be considered an indicator of the openness of an economy. Large developed capitalist islands such as Japan, the United Kingdom, and Ireland continue to have large total FDI values. Certain small islands such as Singapore that have built their economies on the basis of trade in financial services show a large total Foreign Direct Investment. Islands in the Caribbean/Americas tend to show a higher level of FDI flowing into their economies and a higher total FDI than do island countries in Oceania. For certain island economies that are very small in scale, such as Tuvalu and Micronesia, the level of FDI shows up as a zero.

TABLE 1.10: Rankings and Scores of Globalization Index, 2015

Island Country	GLOBALIZATION INDEX				Economic global- ization	Social global- ization	Political global- ization
	Island country ranking	World ranking	Score	Change in World ranking 2014-15			
United Kingdom	1	8	87.23	–	77.58	88.05	97.82
Ireland	2	13	83.53	-11	86.19	88.12	76.27
Singapore	3	23	80.01	-3	92.47	80.63	66.98
New Zealand	4	32	75.00	-2	70.39	86.88	76.73
Malta	5	34	77.51	2	86.73	83.30	62.50
Japan	6	35	77.30	4	64.10	76.32	91.48
Cyprus	7	38	75.60	-24	74.93	85.82	66.05
Iceland	8	48	70.62	2	64.65	85.33	61.90
Mauritius	9	52	69.60	4	80.12	73.30	55.38
Bahrain	10	67	65.95	-24	74.05	71.45	52.84
Jamaica	11	72	64.36	13	56.89	67.71	68.62
Philippines	12	74	64.08	14	48.20	59.27	84.76
Trinidad and Tobago	13	75	63.73	-7	62.37	70.49	58.62
Seychelles	14	77	63.29	3	77.64	72.82	39.80
Brunei Darussalam	15	82	62.15	-30	64.59	75.48	48.27
Indonesia	16	83	62.04	-1	44.23	52.91	88.97
Dominican Republic	17	86	61.52	-27	56.00	64.90	63.67
Barbados	18	93	59.94	–	52.03	81.26	47.49
Cuba	19	98	59.24	36	–	52.58	69.79
Fiji	20	102	56.76	-16	48.94	67.91	52.99
Antigua and Barbuda	21	105	56.38	15	66.86	70.61	35.67
Sri Lanka	22	112	54.45	-2	33.74	49.95	49.95
St. Lucia	23	115	53.87	33	57.55	68.44	38.40
Papua New Guinea	24	116	53.68	22	62.47	41.15	57.91
Grenada	25	119	30.0	-17	47.29	68.92	44.60
Timor-Leste	26	125	52.70	33	74.97	53.75	34.70
Dominica	27	127	52.59	37	55.76	70.41	35.13
Samoa	28	132	51.35	17	51.49	70.89	32.71
Cape Verde	29	137	50.81	-4	50.50	65.46	38.27
Maldives	30	138	50.65	18	67.68	68.95	22.24
Vanuatu	31	139	50.56	–	65.00	60.68	32.34

Island Country	GLOBALIZATION INDEX				Economic global- ization	Social global- ization	Political global- ization
	Island country ranking	World ranking	Score	Change in World ranking 2014-15			
St. Vincent + Grenadines	32	141	50.11	31	48.52	73.32	31.43
Bahamas	33	145	48.23	-49	37.54	73.03	33.87
Palau	34	149	47.91	-9	–	80.33	12.44
Haiti	35	150	47.33	19	52.94	40.20	48.98
Tonga	36	151	47.12	31	54.76	66.43	25.52
Madagascar	37	153	46.78	–	38.57	38.29	63.49
Marshall Islands	38	156	45.74	46	–	72.33	12.77
Micronesia	39	157	45.66	33	–	62.44	13.97
St. Kitts and Nevis	40	161	45.47	10	52.22	71.21	20.17
Kiribati	41	165	44.56	9	72.97	57.44	15.08
Sao Tome and Principe	42	166	44.37	21	57.61	57.17	23.78
Solomon Islands	43	177	40.97	17	50.41	55.07	20.88
Comoros	44	179	40.20	10	39.87	47.74	34.25

The Globalization Index in Table 1.10 is a composite indicator of the openness of an economy compiled by the KOF Swiss Economic Institute. It incorporates three dimensions: the economic (extent of cross-border trade and investment and revenue flows in relation to a country's GDP, as well as the impact of restrictions on trade and capital transactions); social (cross-border flows of information, people, access to the Internet, the presence of major global corporations); and political (numbers of embassies, international organizations to which a country belongs, United Nations peacekeeping missions, and bilateral/multilateral agreements signed since 1945). The Western capitalist island countries tend to be ranked the highest on this list across all three dimensions. However, since the 2017 report, there have been changes—albeit minimal—in the ranking of most of these developed island economies. For example, the United Kingdom has replaced Ireland as the top-ranking country across all three dimensions with the latter dropping to second place. Bahrain and Cyprus have both dropped in world ranking by 24 places each. Brunei Darussalam has dropped in ranking by 30 places from 52nd in 2017 to 82nd in 2018. An interesting development in Table 1.10 has occurred in those places where the value of one of the component scores is much higher or lower than one would expect from the overall score. For example, although Singapore and Bahrain continue to be very open economically and socially,

their political globalization scores are low. Furthermore, Cuba, Papua New Guinea, and Madagascar score relatively higher on the political openness dimension compared to their overall score.

Constructed by the World Intellectual Property Organization (WIPO), the Global Innovation Index in Table 1.11 measures the innovation performance of countries across seven dimensions and multiple variables. Five of those dimensions represent inputs to innovation, including institutions/environment (regulatory, political, business), human capital and research (education; research and development), infrastructure, market sophistication (credit and investment climate), and business sophistication (knowledge workers and innovation linkages). The remaining two dimensions are measures of innovation outputs, such as knowledge and technology (e.g., patents, new businesses) and creativity (e.g., trademarks, printing and publishing, online creativity). The rankings and scores have changed little from the previous Report's figures. It continues to show a greater divide between the island countries in the developed world, with islands in the North Atlantic/Mediterranean having higher values than island countries elsewhere in the world. The final Efficiency Ratio column is simply a ratio of the Output Sub-Index over the Input Sub-Index; it represents a surrogate measure of how effective those jurisdictions use their inputs. On this measure, Ireland, Iceland, and Malta continue to be more efficient than places that have more innovative capacities.

TABLE 1.11: Global Innovation Index, 2018

Island Country	Global Innovation Index				Innovation Output Sub-Index		Innovation Input Sub-Index		Efficiency Ratio	
	Island country ranking	World ranking	Score	Change in World ranking 2017-18	World ranking	Score	World ranking	Score	World ranking	Score
United Kingdom	1	4	60.10	1	6	52.37	4	67.89	21	0.77
Singapore	2	5	59.8	2	15	45.43	1	74.23	63	0.61
Ireland	3	10	57.20	–	9	51.25	18	63.14	13	0.81
Japan	4	13	55.00	1	18	44.49	12	65.41	44	0.68
New Zealand	5	22	51.30	-1	30	39.17	15	63.41	59	0.62
Iceland	6	23	51.24	–	19	44.3	22	58.22	23	0.76
Malta	7	26	50.3	–	14	45.84	28	54.74	7	0.84
Cyprus	8	29	47.80	1	22	42.30	33	53.36	18	0.79
Brunei Darussalam	9	67	32.80	4	112	15.63	37	50.05	124	0.31
Bahrain	10	72	31.70	-5	74	22.41	70	41.05	84	0.55
Philippines	11	73	31.60	–	68	24.00	82	34.14	62	0.61
Mauritius	12	75	31.30	-11	89	19.40	61	42.72	105	0.47
Jamaica	13	81	39.40	3	76	22.03	83	38.75	80	0.57
Indonesia	14	2	29.8	2	73	22.47	90	37.12	66	0.61
Dominican Republic	15	87	29.30	-8	77	21.9	92	36.77	71	0.60
Sri Lanka	16	88	28.70	2	80	21.06	95	36.26	78	0.58
Madagascar	17	111	24.80	5	85	20.21	119	29.30	40	0.69

TABLE 1.12: Quality of Port Infrastructure, WEF, 2017

Continent	Island Country	2017 Quality of Port Infrastructure
Asia	Japan	5.3
	Singapore	6.7
	Indonesia	4.0
	Timor-Leste	2.4
	Brunei Darussalam	3.9
	Philippines	2.9
	Sri Lanka	4.5
	Maldives	–
	Bahrain	5.1
Europe	Cyprus	4.6
	Iceland	5.9
	United Kingdom	5.5
	Ireland	5.1
	Malta	5.3
Africa	Cape Verde	3.6
	Madagascar	3.6
	Seychelles	4.5
	Mauritius	4.2
	Comoros	–
	Sao Tome et Principe	–
Oceania	New Zealand	5.5
	Papua New Guinea	–
	Solomon Islands	–
	Vanuatu	–
	Fiji	–
	Tonga	–
	Samoa	–
	Nauru	–
	Micronesia, Fed. Sts.	–
	Marshall Islands	–
	Kiribati	–
	Tuvalu	–
	Palau	–
	Cook Islands	–
	Niue	–

Continent	Island Country	2017 Quality of Port Infrastructure
Caribbean/ Americas	Haiti	2.6
	Dominican Republic	4.8
	Jamaica	4.9
	Bahamas, The	–
	St. Kitts and Nevis	–
	Antigua and Barbuda	–
	St. Vincent and the Grenadines	–
	St. Lucia	–
	Grenada	–
	Barbados	5.6
	Trinidad and Tobago	3.8
	Dominica	–

Note: WEF is an abbreviation for the World Economic Forum's Global Competitiveness Report.

Given the emphasis of this year's Report on the island marine economy and trade, we felt it was important to provide several additional data files to complement these themes. These include the role and significance of international trade as a share of island states' economies and an assessment of the quality of island seaport infrastructure. This last characteristic is provided in Table 1.12 as part of the World Economic Forum's Global Competitiveness Report. The values in the table range from one to seven, where one suggests that the island state's ports are "extremely underdeveloped" and seven is associated with countries whose ports are "well developed and efficient." Although the data is missing for many of the islands' ports that are part of this Report, those that are listed show a wide variation in this assessment of their quality. The ports with the best ratings are in Singapore, with a value of 6.7. Given the importance of international trade to this small island state, this should not come as a surprise. At the other extreme in these ratings are Timor-Leste located on the eastern end of the island of Timor in Southeast Asia (with a rating of 2.4) and, at 2.6, the other "divided" island state of Haiti on the Caribbean island of Hispaniola. Unlike some of the other economic development indicators referred to earlier, there does not seem to be any world regional pattern to the quality of port infrastructure. However, in general, higher rankings here are linked to islands that have a high level of trade dependency (Tables 1.13 and 1.14), which may, arguably, lead to higher rates of human development (Table 1.7). Ireland, Iceland, and Malta, for example, are small island states (SIS) that have high levels of human development, very open and trade-dependent economies, while having well developed port infrastructures.

TABLE 1.13: Imports and Exports of Goods and Services (% of GDP) in 2010, 2016

Continent	Island Country	2010 Imports %	2010 Exports %	2016 Imports %	2016 Exports %
Asia	Japan	13.58	15.04	–	–
	Singapore	173.70	199.75	146.27	172.15
	Indonesia	22.40	24.30	18.31	19.08
	Timor-Leste	114.74	9.86	–	–
	Brunei Darussalam	27.96	67.41	37.38	46.04
	Philippines	36.62	34.80	36.93	27.97
	Sri Lanka	26.81	19.55	29.08	21.44
	Maldives	72.88	86.40	89.03	93.76
	Bahrain	50.94	69.54	–	–
Europe	Cyprus	57.48	50.21	62.43	62.02
	Iceland	43.47	53.67	42.55	49.10
	United Kingdom	30.97	28.26	29.99	28.09
	Ireland	86.72	103.39	96.74	119.93
	Malta	154.17	153.26	129.50	141.43
Africa	Cape Verde	61.77	32.67	–	–
	Madagascar	43.05	24.97	35.60	32.50
	Seychelles	108.08	93.80	–	–
	Mauritius	62.22	51.24	–	–
	Comoros	51.68	16.48	47.40	17.30
	Sao Tome et Principe	–	–	–	–
Oceania	New Zealand	27.97	30.26	–	–
	Papua New Guinea	–	–	–	–
	Solomon Islands	82.31	50.04	–	–
	Vanuatu	52.74	46.63	–	–
	Fiji	63.89	57.84	–	–
	Tonga	60.25	13.31	–	–
	Samoa	53.12	29.22	49.88	29.35
	Palau	75.34	52.05	–	–
	Kiribati	79.89	13.32	101.04	11.70
Caribbean/ Americas	Haiti	–	–	–	–
	Dominican Republic	33.26	22.65	28.90	25.17
	Jamaica	49.59	31.34	47.25	31.13
	Bahamas, The	49.24	40.75	44.03	40.39

Continent	Island Country	2010 Imports %	2010 Exports %	2016 Imports %	2016 Exports %
Caribbean/ Americas	St. Kitts and Nevis	52.10	30.10	60.75	43.91
	Antigua and Barbuda	59.14	45.63	47.39	42.72
	St. Vincent + Grenadines	57.13	26.89	51.08	25.70
	St. Lucia	63.41	49.03	53.17	47.77
	Grenada	49.23	23.83	41.85	23.71
	Barbados	50.37	46.20	–	–
	Trinidad and Tobago	31.10	54.67	50.67	48.14
	Dominica	53.57	35.57	54.93	41.54

There is a pervasive notion that small islands are isolated and disconnected from the world economy. Although the total volume of trade to and from small islands may be small as a share of world trade, Tables 1.13 and 1.14 reveal that trade, and therefore the degree to which small island states are economically connected to the rest of the world, is extremely important to many of these places. The Organization for Cooperation and Development (OECD) defines trade openness as a percentage of Gross Domestic Product (GDP); or the degree to which international trade constitutes a share of an economy as determined by the aggregate sum of imports and exports. By measuring the value of imports and exports combined as a share of the total GDP in 2010 and 2016, Table 1.13 represents one indicator of the overall importance of trade (imports and exports) to these island countries. This Table shows that almost one-third of the island countries listed with data in 2016 had their value of trade that was greater than their total Gross Domestic Product. In addition to the obvious example of Singapore, several smaller island archipelagos such as the Maldives, Kiribati, and St. Kitts and Nevis were also highly trade-dependent. Ireland and Malta are interesting examples of ‘gateway’ trading islands, with a high percentage of imports and exports flowing to and from other European Union members. This high dependence on international trade makes these island jurisdictions particularly vulnerable to fluctuations in the larger global economy.

From this same Table, the least trade-dependent island countries tend to be those that have a larger internal economy, such as Japan, the United Kingdom, Indonesia, and the Philippines. This is not to say that these are not major international trading nations; in absolute terms they have extensive trade relationships. It is just that this international trade is overshadowed by the even larger internal production and consumption of goods and services. To put this into the context of populations, Singapore

TABLE 1.14: Trade (% of GDP) in 2010, 2016

Continent	Island Country	2010	2016
Asia	Japan	28.61	–
	Singapore	373.44	318.42
	Indonesia	46.70	37.39
	Timor Leste	124.60	–
	Brunei	95.37	83.43
	Philippines	71.42	64.90
	Sri Lanka	46.36	50.52
	Maldives	159.28	182.80
	Bahrain	120.47	–
Europe	Cyprus	107.69	124.45
	Iceland	97.14	91.65
	United Kingdom	59.22	58.08
	Ireland	190.11	216.67
	Malta	307.42	270.93
Africa	Cape Verde	94.44	–
	Madagascar	68.02	68.10
	Seychelles	201.88	–
	Mauritius	113.46	–
	Comoros	68.16	64.70
	Sao Tome et Principe	–	–
Oceania	New Zealand	58.23	–
	Papua New Guinea	–	–
	Solomon Islands	132.35	–
	Vanuatu	99.37	–
	Fiji	121.73	–
	Tonga	73.56	–
	Samoa	82.34	79.23
	Palau	127.39	–
	Kiribati	93.21	112.74
Caribbean/ Americas	Haiti	–	–
	Dominican Republic	55.91	54.07
	Jamaica	80.92	78.38

Continent	Island Country	2010	2016
Caribbean/ Americas	Bahamas, The	89.99	84.41
	St. Kitts and Nevis	82.20	104.66
	Antigua and Barbuda	104.78	90.10
	St. Vincent and the Grenadines	84.02	76.78
	St. Lucia	112.43	100.93
	Grenada	73.06	65.56
	Barbados	96.58	–
	Trinidad and Tobago	85.76	98.82
	Dominica	89.13	96.47

has a population of 5.9 million (Table 1.1) whereas Japan's population of 121 million is ten times greater. Given that figures are provided for 2010 and 2016, it is useful to ask if there has been any systematic change in the degree of trade dependence over this six-year period. In fact, there has not been much change. Of the 25 island states with data available from both dates, there has been virtually no change in the mean share of trade as a percent of GDP. In 2010 it was 108.8% of GDP and in 2016 it had declined only slightly to 106.7% of GDP. Although these mean values could be influenced by extreme outliers, in 2010 there does not seem to be any systematic trends taking place between these two points in time.

In Table 1.14 we take the total imports and exports from Table 1.13 and disaggregate them into their two component parts. This allows us to distinguish between four groups: 1) those places with a relatively even balance between imports and exports and a high level of trade dependence; 2) those that are balanced but with a low share of trade as a proportion of their overall economies; 3) those where imports are relatively much more important than exports; and, finally, 4) those where exports are significantly more important than imports. The “balanced high trade” group is roughly the same group as identified in Table 1.13 as highly trade-dependent overall. This includes Singapore, Malta, and Ireland. Although we do not have 2016 numbers, we should include the Seychelles in this group based on their 2010 data. Those in the second “balanced low trade” group, including Japan, the UK, and Indonesia, also correspond with the low overall trade percentage group from 1.13. They are joined by the Dominican Republic (28.9% imports; 25.2% imports).

Perhaps more interesting are those places where either imports or exports differ significantly. In the Comoros, Samoa, Timor-Leste, Cape Verde, Kiribati, St. Vincent &

the Grenadines, and Grenada, imports greatly exceed exports as a share of total GDP. Many of these small island countries generate significant international cash from either resource exports or international tourism and, because of either an absence of domestic producers or a preference for international suppliers, this produces a trade imbalance that favours imports. Although conceptually we need to include the last category—i.e., those places where there is a trade imbalance that favours exports over imports—other than perhaps Brunei Darussalam there are no examples among those listed where they are relatively oriented towards exports over imports. This tells us that, no matter how well connected they are with the rest of the world, most island states have relatively small economies specializing in fewer, low-value goods and services that are unlikely to generate a positive balance of payments, especially when compared to the imports of high-value good and services.

SECTION 2: SUBNATIONAL ISLAND JURISDICTIONS

Although most attention has focused on island states, there are many more ‘quasi-independent’ island jurisdictions that are just as important as the independent island countries. Sometimes called subnational island jurisdictions (SNIJs), it is often difficult to categorize these places. They include islands that are fairly autonomous within a larger federation/country, such as the state of Hawai’i in the United States, Hainan in China, Prince Edward Island in Canada, and Tasmania in Australia. SNIJs may also include territories, dependencies, or autonomous regions that are remnants of a colonial past, such as Martinique, Guadeloupe and French Polynesia (France), the British Virgin Islands, Cayman Islands, and Anguilla (United Kingdom), Greenland (Denmark), the Azores (Portugal), and the Canary Islands (Spain). Some of them have a more recent colonial strategic relationship, such as the American territories of Guam, American Samoa, Puerto Rico, and the US Virgin Islands. And they also include oddities, such as the United Kingdom’s distant and tiny Pitcairn Island, the home of the descendants of the British ship *HMS Bounty* mutineers, or the Isle of Man and the Channel Islands of Guernsey and Jersey that are much closer to mainland France than they are to Britain. In the Pacific, the Cook Islands and Niue are jurisdictions ‘in free association’ with the unlikely neo-colonial country of New Zealand, and Åland, an island archipelago in the Baltic Sea, is an autonomous region of Finland whose citizens identify much more with Sweden culturally and linguistically than they do with Finland. Stuart (2009) and her colleagues list a total of 116 of these SNIJs that cross all of these categories.

These islands tend to receive less attention than island states because their collective voice internationally is subsumed within the larger federal or state entities of which they are a part. For the same reason, data on these politically semiautonomous island jurisdictions are more difficult to obtain and are less comparable among

the various islands. However, this does not diminish their importance and the need to describe their economic and demographic characteristics. This next section represents a modest attempt to describe some of the most important features of a selection of these islands using data that are provided primarily by the national or regional island governments of which they are a part. Several of these islands, including Bali, Gotland, Hawai'i, Jeju, Phuket, and Prince Edward Island, are sister islands of Hainan province.

As seen in Table 1.15, SNIJ's exhibit a diversity similar to that of Small Island States. At one extreme is Greenland, the largest island and SNIJ in the world at roughly 2.2 million km². It occupies the designation of "autonomous constituent country" within the Kingdom of Denmark. In the case of island studies as a discipline, it is important to note that the real extent of places may not be reflected in larger populations, larger economies, or the overall carrying capacity of a jurisdiction. For example, Greenland's population of over 56,000 is concentrated primarily in the capital of Nuuk and other small fishing outposts along the coast with virtually no population in the interior ice sheet.

At the other extreme is the tourist-dependent island province of Phuket, in the Thailand archipelago. It is only 576 km² in size but

contains almost seven times the population of Greenland. These land areas do not include the marine Exclusive Economic Zones (EEZ). As with island states, these EEZs for SNIJs are often many times larger than their land areas. Yet, the difference between those affiliated with SNIJs and those of island states is based in jurisdiction. Decision-making and management control over the resources within these marine waters may be ambiguous and partly shared with the larger federal or national government.

TABLE 1.15: Area of island, in km² (Subnational)

Bali, Indonesia	5,780
Gotland, Sweden	3,184
Greenland, Denmark	2,166,000
Hainan Island, China	35,400
Hawai'i, USA	28,311
Java, Indonesia	128,297
Jeju, South Korea	1,849
Luzon, Philippines	104,688
Okinawa, Japan	1,207
Phuket, Thailand	576
Prince Edward Island, Canada	5,660
Taiwan, China	36,193
Tasmania, Australia	68,401

TABLE 1.16: Population Characteristics (Subnational)

	Year	Population	Population Density people/km ²	Population Growth Rate % over 1 year
Bali, Indonesia	2014	4,225,000	730	2.15
Gotland, Sweden	2017	58,595	18.5	1.10
Greenland, Denmark	2017	56,171	0.14	-0.03
Hainan Island, China	2016	9,171,300	260	1.07
Hawai'i, USA	2017	1,427,538	50.57	0.24
Java, Indonesia	2015	141,300,000	1,136	1.01
Jeju, South Korea	2016	661,190	357.6	3.02
Luzon, Philippines	2015	53,336,134	480	1.95
Okinawa, Japan	2015	1,434,138	1,206.20	3.00
Phuket, Thailand	2017	537,900	990.6	0.34
Prince Edward Island, Canada	2018	153,244	25.1	1.80
Taiwan, China	2018	23,716,146	669	3.00
Tasmania, Australia	2017	519,166	7.70	0.13

Although the population of several of these SNIJs was alluded to above, Tables 1.16 to 1.18 provide a more complete description of the population and demographic characteristics of the 13 SNIJs listed. In Table 1.13, the populations of islands such as Java, Indonesia (141 million), Luzon, Philippines (53 million), Taiwan (23.7 million), and Hainan (9.2 million) show that several of these islands are not only among the most populous islands in the world, but they are also among the largest jurisdictions in the world.

Even though some SNIJs such as Gotland, Sweden, and Greenland, Denmark, may have similar populations, their respective population densities of 18.5 and 0.14 persons per km² reflect differences in their economies. As noted earlier, Greenland's economy is still based primarily on fishing and seafood processing with populations hugging the coastline. On the other hand, Gotland's population is more evenly distributed and is based on agricultural activities and tourism.

High population densities in places such as Phuket, Luzon, Okinawa, Java, and Bali also reflect a high degree of urbanization. Many of these densely populated island jurisdictions are also among the fastest-growing places. For example, Okinawa, Jeju, and Taiwan have all experienced a one-year population growth of approximately 3%.

TABLE 1.17: Birth and Death Rates (Subnational)

	Year	Crude Birth x / 1,000 people	Crude Death x 1,000 people	Fertility Rate x 1,000 people	
Bali, Indonesia	2010	–	–	2.13	
Gotland, Sweden	2016	8.80	11.10	1.90	(Sweden)
Greenland, Denmark	2016	14.80	8.70	2.00	
Hainan Island, China	2016	14.57	6.00	1.50	
Hawai'i, USA	2016	12.60	7.70	1.97	
Java, Indonesia	2014	17.04	6.34	2.18	(Indonesia)
Jeju, South Korea	2013	9.10	5.70	1.43	
Luzon, Philippines	2015	21.30	5.50	2.60	
Okinawa, Japan	2013	–	7.74	1.94	
Phuket, Thailand	2012	25.18	4.71	–	
Prince Edward Island, Canada	2015	8.90	9.00	1.63	
Taiwan, China	2018	–	–	1.13	
Tasmania, Australia	2016	12.00	8.90	1.90	

Populations can increase when in-migration exceeds outmigration and when birth rates exceed death rates. Although the data are not available for all of these subnational island jurisdictions, Table 1.17 shows that birth rates are much higher than death rates in several of these islands. For example, the difference between Phuket's birth rate of 25.18/1,000 population and death rate of 4.71/1,000 means that the natural rate of increase was greater than 20/1,000. Similar large differences in birth and death rates are apparent in Luzon and Java. The birth and death rates on islands such as Prince Edward Island, Canada, are almost identical, suggesting that the population is neither increasing nor decreasing as a result of natural demographic change.

TABLE 1.18: Life Expectancy, by Gender (Subnational)

	Year	Life Expectancy (females, in years)	Life Expectancy (males, in years)	
Bali, Indonesia	–	–	–	
Gotland, Sweden	2016	83.1	79.90	
Greenland, Denmark	2017est	75.5	69.90	
Hainan Island, China	2010	80.01	73.20	
Hawai'i, USA	2014	84.72	78.00	
Java, Indonesia	–	–	–	
Jeju, South Korea	–	–	–	
Luzon, Philippines	2010	75.4	68.70	
Okinawa, Japan	2016	87.02	79.40	
Phuket, Thailand	2016	79	72.00	(Thailand)
Prince Edward Island, Canada	2015	83.2	78.60	
Taiwan, China	2017	83.6	77.10	
Tasmania, Australia	2015	82.5	78.80	

Life expectancy is not only a characteristic of the demographics of a jurisdiction, it also reflects the health system and infrastructure of the place in question. Table 1.18 shows that Okinawa, Japan, has the highest female life expectancy at just over 87 years, and the second-highest male life expectancy at 79.4 years of age. Unlike many of the economic indicators, life expectancies only show modest differences between islands in the developed and developing worlds. The lowest life expectancies for both males and females continues to be in Luzon, Philippines, followed closely by Greenland.

TABLE 1.19: Rural and Urban (Subnational)

	Year	Rural Population %	Urban Population %	
Bali, Indonesia	2013	5.7	94.3	
Gotland, Sweden	2016	59	41	
Greenland, Denmark	2017	13	87	
Hainan Island, China	2010	50.3	49.7	
Hawai'i, USA	2014	8.1	91.9	
Java, Indonesia	2018	44.7	55.3	(Indonesia)
Jeju, South Korea	2016	5	95	
Luzon, Philippines	2010	54.7	45.3	(Philippines)
Okinawa, Japan	2016	20	80	
Phuket, Thailand	2017	82	18	
Prince Edward Island, Canada	2016	60	40	
Taiwan, China	2018	22	78	
Tasmania, Australia	2008	20	80	

The percentages of the SNIJ populations living in rural and urban areas (Table 1.19) continues to mirror those of the island states (Table 1.3). The economies of many of the SNIJs in this sample are agricultural and this is reflected in a larger proportion of the population living in rural areas. For example, Bali, Java, and Prince Edward Island all have populations that are at least 60% rural. Some of the islands are highly urbanized with a vast majority of residents living in built-up urban areas. For example, in Hawai'i, US, more than 90% of the population lives in urban centres and in Tasmania, Australia, 80% of the population lives in cities.

TABLE 1.20: Labour Force Characteristics (Subnational)

	Year	Labour Force	Labour Force Participation Rate %	Unemployment Rate %
Bali, Indonesia	–	–	–	–
Gotland, Sweden	2016	27,000	47.00	6.4
Greenland, Denmark	2015	26,840	47.70	9.10
Hainan Island, China	2016	5,581,400	61.00	2.40
Hawai'i, USA	2016	688,900	97.00	2.20
Java, Indonesia	–	–	–	–
Jeju, South Korea	2016	–	67.00	–
Luzon, Philippines	2015	–	–	–
Okinawa, Japan	2010	650,307	89.00	5.10
Phuket, Thailand	2013	167,883	–	0.50
Prince Edward Island, Canada	2017	81,700	66.00	9.80
Taiwan, China	2018	11,454,000	59.03	3.70
Tasmania, Australia	2015	259,200	61.60	6.50

The total labour force (Table 1.20) is usually a surrogate indicator for population. Labour force participation rates may be defined differently in different jurisdictions, but they are normally a measure of those currently employed or actively looking for a job as a share of the total employable working-age population. A low participation rate is a warning of potential problems in the economy. Despite the missing data, the highest labour force participation rates continue to be in Hawai'i at 97% and Okinawa at 89%. When this indicator is combined with the unemployment rate, you have a more complete picture of employment. Some jurisdictions are experiencing full employment, a situation that may be less than 100% due to job mobility and seasonality of jobs. Phuket is reporting an unemployment rate of only 0.5% and several others (e.g., Hainan at 2.4% and Hawai'i at 2.2%) are also close to full employment status.

TABLE 1.21: Gross Domestic Product (Subnational)

	Year	Gross Domestic Product (GDP) in USD	GDP per capita in USD
Bali, Indonesia	2010	4,935,104,252	1,268
Gotland, Sweden	2012	2,345,180,970	41,194
Greenland, Denmark	2015	2,200,000,000	39,569
Hainan Island, China	2016	62,277,364,980	6,814
Hawai'i, USA	2016	73,252,000,000	51,577
Java, Indonesia	2010	310,473,486,174	1,127
Jeju, South Korea	2013	11,933,295,920	41,172
Luzon, Philippines	2012	154,051,608	2,227
Okinawa, Japan	2011	33,855,556,720	23,867
Phuket, Thailand	2009	1,880,512,500	5,695
Prince Edward Island, Canada	2017	4,883,000,000	22,358
Taiwan, China	2017	579,300,000,000	24,577
Tasmania, Australia	2016	22,000,884,000	42,382

As was the case with population, the total value of the goods and services produced on these SNIJs—namely, the Gross Domestic Product—is considerable and highly variable. For example, Taiwan had a GDP of 579 billion USD in 2017. If this was compared to the GDP on island states (Table 1.4), it would be the fourth-largest island economy, behind only Japan, the United Kingdom, and Indonesia. The smallest economies from this group at approximately 2 billion USD are Phuket, Greenland, and Gotland. This makes the economies of these SNIJs still larger than 20 of the island state economies listed in Table 1.4. Although it does not account for the purchasing power of this income, the GDP per capita for these subnational islands shows a similar level of variation as in island states. The ‘wealthier’ islands of Tasmania, Gotland, and Jeju have per capita Gross Domestic Products that are more than 20 times greater than in Bali, Java, and Luzon.

CONCLUSIONS

The data presented in this chapter show that the economies and societies of island states and subnational island jurisdictions are both substantial and highly differentiated. Some are among the most populous and economically robust jurisdictions in the world, while others are small in size, in numbers of people, and in the scale of their formal economies. As is the case with mainland jurisdictions, we should not be surprised to find the challenges and accomplishments of islands to be very contextual. The openness and innovation of some island economies also rivals those of mainland states. For example, Singapore is ranked first in the world in innovation input (Table 1.11) and Ireland is the third most ‘globalized’ world jurisdiction (Table 1.11). Some islands are among the most important sources of international investment capital (e.g., Japan), while companies in places like Indonesia and Cyprus are much more likely to receive capital investment than send it elsewhere (both from Table 1.9).

This discussion of the status of island economies would not be complete without a comment on the availability, accuracy, and comparability of data. The contributors to this Annual Report are among the leading experts on island economic change and free trade and they take care and attention that their analyses and conclusions are evidence-based. Moreover, the confidence we place in national and international policy decisions is also dependent on the accuracy of the data. It could be argued that the economic and demographic data on island states is relatively accurate and comparable to the data available for mainland jurisdictions. Even so, it is not unusual to find that data for the smallest island states can be outdated and unreliable. This is even more problematic with composite indicators such as the Globalization and Innovation indices, where multiple variables are bundled into aggregate measures. The data challenges are magnified when we turn our attention to the many subnational island jurisdictions. As suggested from the tables in this chapter, it is not uncommon for even basic data on the population and the economies of these places to be outdated or missing. Since the statistics for these places are normally compiled by individual national governments, there may also be problems associated with the comparability of the data that does exist. The CIA World Factbook and the United Nations may provide basic economic data on a small subset of SNIJs, but this set of islands rarely includes island provinces or states such as Hainan, Hawai’i, or the Åland Islands that are part of larger mainland federations. Researchers are thus forced to undertake their research and draw conclusions using subsets of places for which they are more confident of the accuracy of the data. If we truly wish to understand island economies and implement effective policy, we must pursue a coordinated approach at a global scale to compile the data that at least rivals that available for non-island states.

SOURCES AND NOTES FOR TABLES AND FIGURES

Table 1.1:

Population and Population Growth rates are from the CIA World Factbook; Population density is from the World Bank (data.worldbank.org/indicator/en.PoP.dnst). A dashed line in a cell (-) indicates missing values.

Table 1.2:

From the CIA World Factbook, various links (www.cia.gov/library/publications/the-world-factbook/). No information was available for Niue.

Table 1.3:

From the CIA World Factbook.

Figure 1.1:

Averages based on the data provided in Table 1.3.

Table 1.4:

From the CIA World Factbook (www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html) and the World Bank (data.worldbank.org/indicator/nY.GdP.mKtP.cd).

Table 1.5:

From the World Bank.

Table 1.6:

Data on the labour force and the labour force participation rate are from the World Bank. The unemployment rates are from the CIA World Factbook. Values listed may not necessarily correspond to the data from these sources because the latter are updated when new information is available.

Data for the Cook Islands is from the Ministry of Finance & Economic Management, Government of the Cook Islands, 'Economic activity and Labour Force 2015' (www.mfem.gov.ck/statistics/census-and-surveys/economic-activity-and-labour-force).

Table 1.7:

From the United Nations Development Program (UNDP) (http://www.hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf).

Table 1.8:

From the World Bank. Blank cells indicate that the values have not been updated since 2015.

Figure 1.2:

From the Development Research Group, World Bank (data.worldbank.org/indicator/si.PoV.Gini).

Table 1.9:

From the World Investment Report 2018, United Nations Conference on Trade and Development (UNCTAD) (https://unctad.org/en/PublicationsLibrary/wir2018_en.pdf).

Table 1.10:

From the KOF Swiss Federal Institute of Technology in Zurich (globalization.kof.ethz.ch/).

Table 1.11:

From the World Intellectual Property Organization (WIPO) (www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2017-annex1.pdf). For the 2018 source material, see (<https://www.globalinnovationindex.org/analysis-indicator>).

Table 1.12:

From the World Bank (<https://data.worldbank.org/indicator/IQ.WEF.PORT.XQ>). Data for Timor-Leste and Barbados are from 2013.

Table 1.13:

From the trade stats section under 'development' in the World Bank's World Integrated Data Solutions (WITS) database. For 2010 and 2016 imports, see:

<https://wits.worldbank.org/CountryProfile/en/country/bycountry/startyear/LTST/endyear/LTST/indicator/NE-IMP-GNFS-ZS>. For exports, see: <https://wits.worldbank.org/CountryProfile/en/country/bycountry/startyear/LTST/endyear/LTST/indicator/NE-EXP-GNFS-ZS>.

Table 1.14:

From the trade stats section under 'development' in the World Bank's World Integrated Data Solutions (WITS) database. For 2010 and 2016 trade as % of GDP, see: <https://wits.worldbank.org/CountryProfile/en/country/by-country/startyear/LTST/endyear/LTST/indicator/NE-TRD-GNFS-ZS>

Table 1.15:

From individual pages in Wikipedia.

Table 1.16:

Population data for Bali and Jeju are from www.knoema.com. Other Subnational Island Jurisdictions' (SNIJ) data are from the following sources:

Gotland: www.gotland.se/86116 and www.citypopulation.de/php/sweden-gotland.php?adm2id=0980; Greenland: data.worldbank.org/ and tradingeconomics.com/greenland/population-density-people-per-sq-km-wb-data.html; Hainan: www.statista.com/statistics/279013/population-in-china-by-region/; Hawai'i: census.hawaii.gov/home/population-estimate/; Java: citypopulation.de/indonesia-mU.html; Luzon: psa.gov.ph/; Okinawa: www.knoema.com and www.japanupdate.com/ 2016/03/okinawa-population-grows-at-highest-rate-in-nation/; Phuket: www.citypopulation.de/php/thailand-prov-admin.php?adm2id=83; Prince Edward Island: www.princeedwardisland.ca/sites/default/files/publications/web_asr.pdf. For the Prince Edward Island Population Report 2018, see (https://www.princeedwardisland.ca/sites/default/files/publications/pt_pop_rep_1.pdf); Taiwan: www.worldometers.info/world-population/taiwan-population/; Tasmania: stat.abs.gov.au/itt/r.jsp?databyregion and www.population.net.au/population-of-tasmania/.

Table 1.17:

Data on this table for Bali, Jeju, Hainan, Luzon, Okinawa, and Phuket are from www.knoema.com. Data for Gotland and Greenland are from the World Bank. Other SNIJ data are from the following sources: Hawai'i: health.hawaii.gov/vitalstatistics/preliminary-2016/; Java: factsanddetails.com/indonesia/People_and_life/sub6_2a/entry-3972.html; Prince Edward Island: www.statcan.gc.ca/pub/84f0210x/2009000/t005-eng.htm; Taiwan: www.worldometers.com; Tasmania: http://www.justice.tas.gov.au/bdm/about_us/life_event_statistics. Fertility rates for Gotland and Java are at the country level.

Table 1.18:

Data on this table are from the following sources: Gotland: www.gotland.se/86116; Greenland: the CIA World Factbook; Hainan: www.stats.hainan.gov.cn/2017nj/indexeh.htm; Hawai'i: www.worldlifeexpectancy.com/usa/hawaii-life-expectancy; Luzon: www.knoema.com; Okinawa: stats-japan.com/t/tdfk/okinawa; Phuket: www.who.int/countries/tha/en/; Prince Edward Island: www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/health26-eng.htm; Taiwan: www.indexmundi.com/taiwan/life_expectancy_at_birth.html; Tasmania: www.abs.gov.au/aUsstats/abs@nsf/Previousproducts/3101.0feature%20article-1jun%202016. Values for Phuket are for the country of Thailand as a whole.

Table 1.19:

Data on this table are from the following sources:

Bali: www.knoema.com; Gotland: www.citypopulation.de/php/sweden-gotland.php; Greenland: the World Bank; Hainan: www.stats.hainan.gov.cn/2017nj/indexeh.htm and www.knoema.com; Hawai'i: files.hawaii.gov/dbedt/census/census_2010/other/2010urban_rural_report.pdf; Jeju: www.citypopulation.de; Luzon: psa.gov.ph/tags/urban-rural-classification (for the Philippines as a whole); Okinawa: dc-office.org/basedata#p1; Phuket: www.citypopulation.de/php/thai-land-prov-admin.php?adm2id=83; Prince Edward Island: www.princeedwardisland.ca/sites/default/files/publications/web_asr.pdf; Taiwan: www.worldometers.info; Tasmania: www.tasmaniatopen.com/lists/population_centres.php. Values for Luzon are for the Philippines as a whole. Values for Java are for Indonesia as a whole.

Table 1.20:

Data on this table are from the following sources:

Gotland: www.gotland.se/86116; Greenland: www.indexmundi.com/greenland/labor_force.html; Hainan: www.stats.hainan.gov.cn/2017nj/indexeh.htm and www.knoema.com; Hawai'i: health.hawaii.gov/vitalstatistics/preliminary-2016/ and <http://dbedt.hawaii.gov/economic/qser/labor-force/> for 2018 update; Jeju: www.hiwi.org/gsipub/index.asp?docid=417; Okinawa: stats-japan.com/t/tdfk/okinawa; Phuket: www.knoema.com; Prince Edward Island: https://www.princeedwardisland.ca/sites/default/files/publications/fin_statcan_lab.pdf; Taiwan: tradingeconomics.com/taiwan/unemployment-rate; Tasmania: stat.abs.gov.au/ and www.knoema.com for 2015 data.

Table 1.21

Data for Bali, Gotland, Hainan, Java, Jeju, Luzon, Okinawa, Phuket, and Taiwan are from www.knoema.com. Other SNIJ data are from the following sources: Greenland: tradingeconomics.com/greenland/gdp; Hawai'i: www.deptofnumbers.com/gdp/hawaii/; Prince Edward Island: www.princeedwardisland.ca/sites/default/files/publications/web_asr.pdf; Tasmania: www.treasury.tas.gov.au/documents/state-accounts.pdf.

PART II:

Island Development



Sanya City, Hainan Province, China

2

Distance matters:

Near islands, remote islands,
and the effect of distance on
island development

ABSTRACT

With a population of just 9 million, Hainan is China's smallest province. It is also China's southernmost province. This presents the island with a unique opportunity to offer specialized national services that speak to its natural competitive assets: its islandness, its tourism potential, its proximity to the equator—significant for rocket launch facilities—and its location as the natural gateway to the South China Sea. At the same time, and in spite of its 30-km strait from mainland China, and the difficulties of constructing a fixed link over the typhoon-prone Hainan Strait, Hainan has the opportunity to operate as

GODFREY
BALDACCHINO

University of Malta



a ‘near’ island, pursuing niche development goals supported by Beijing; while enhancing its jurisdictional status and leveraging this in order to consolidate its status as a province supporting strong economic growth.

This exploratory chapter offers a first insight into how distance from the mainland (and from central government) impacts on an island’s ability to determine its own destiny. It does so by adopting a global perspective and examining the manner in which near islands and remote islands have (a) nurtured different levels of jurisdictional status and autonomy; and (b) used that jurisdictional resource, where available, to chart their own development path, in ways that may be similar, complementary, different, and outright in opposition to mainland ambitions and plans. In these ongoing relationships, remote islands have a much stronger likelihood of departing from mainland agendas than near islands.

INTRODUCTION: PROFILING ISLAND DEVELOPMENT

What is the profile of island development and how does it differ, if at all, from that of its ‘mainland’? This is an important question to ask of all those inhabited islands that are members of larger political units, be they other islands or mainlands. Hence, in the case of countries that either are, or include, archipelagos, there will be a relationship between mainland (or main island) and smaller island/s which can be reflected in specific economic and development approaches.

In this chapter, we will review if, and the extent to which, the physical distance of an island from its contiguous mainland creates conditions for both self-government as well as for a development trajectory distinct from mainland blueprints and ambitions. It explores situations where islands will deviate from the development plans proposed by their central governments, and will wield the tools of governance at their disposal to confront such a development agenda or else to try and shift it in order to best meet their interests. While doing so, we acknowledge earlier work in island and small state studies that has established the significance of geographical location and accessibility as a “key determinant of economic performance” of such entities (Armstrong & Read, 2014, p. 367; also McElroy & Lucas, 2014); however, here we extend this analysis beyond economics, to the realm of governance and political autonomy.

Since we are dealing with discrete islands, and not necessarily with islands that are in themselves political units, one challenge of such an investigation deals with the absence of official and reliable data. This chapter restricts its analysis to island units of larger countries that enjoy a regional and/or juridical identity, enough for them to appear as discrete units in national statistics. Luckily, since most islands that are remote from their mainlands are also distinct political, and therefore statistical, units—singly or collectively, as an archipelago—then, the problem of missing or poor data is less severe.

The chapter reserves a special focus on Hainan, the southernmost province of China and also its smallest province in terms of land area. For centuries, Hainan was part of Guangdong province, but in 1988 this resource-rich tropical region became a separate province. This jurisdictional identity creates an additional layer of administration that provides further influence and interest in determining the development trajectory of this island.

One example of this development trajectory is the Wenchang Satellite Launch Centre on Hainan, which is the Chinese rocket launch facility closest to the equator—and therefore the most fuel-efficient. The Centre began operations in June 2016 with the inaugural flight of the Long March 7 rocket (China Daily, 2016).

Additionally, in April 2018, a plan was announced to turn Hainan into a free trade zone by 2020, and transform the entire island into a free trade port by the year 2025. This would allow foreign and multinational companies to set up regional and international headquarters in Hainan. Thus, the whole island of Hainan will become China's largest free trade zone.

DEATH OF DISTANCE?

The globalization of consumer tastes, the rapid dispersion of information and communication technologies, and the relentless flow of information has led to arguments about the end, or death, of geography. In today's "global village" (McLuhan & Powers, 1992), there is a definitive compression and convergence of time and space: a consequence of things becoming easier and cheaper to communicate faster (Harvey, 1989; Janelle, 1969, p. 359; Ohmae, 1991). This concept has become a fashionable narrative in business and marketing circles, thanks to improvements in transportation, hyper-mobile finance, footloose capital, and media technologies. The actual physical site of things blurs immaterial, so much immigration is circular rather than unidirectional, and even the location of physical customers becomes irrelevant to their ability to receive seamless service from their preferred suppliers (Martin, 1996; Morgan, 2004; O'Brien, 1992).

And yet, the "death of distance" (Cairncross, 1997) has been grossly exaggerated. A place-based, protectionist surge has emerged as an alternative political narrative, confronting the neoliberal doctrine (Giddens, 1999). Ethnonationalism has galvanized secessionist politics (Connor, 2018); and place branding seeks to profile specific locations, including islands, for competitive advantage (Baldacchino & Khamis, 2018; Papadopoulos, 2004).

In this chapter, we argue that distance remains relevant also in the field of island governance; to the extent that an island's development agenda is significantly determined by the effects of distance from the locus of its central government. We opine that physical remoteness suggests that a subnational island unit has more jurisdic-

tional autonomy, at law and in practice, to determine its own future. Closeness to the heartland of the country reduces such room for manoeuvre, as well as restricts access to the governance tools that would be required for the island's citizens to legitimately pursue any development route that is different from that proposed and driven by the central government.

We are not making a case for geographical determinism. This has been argued earlier in relation to island studies generally: distance, like islandness, “does not cause anything” (Baldacchino, 2013a, p. 16). However, geographical circumstance may act

like an intervening variable: it can contour and condition physical and social events in distinct, and distinctly relevant, ways (Baldacchino, 2004, p. 278). In this chapter, the issue of political status is singled out for scrutiny from this list of “events”. We specifically argue here that the logistical challenges involved in administering islands remotely from mainlands (or larger islands) obliges that such remote islands be granted a modicum of political autonomy as a measure of administrative expediency and pragmatism.

Thus: how far one can go—in terms of a specific, island-driven, development agenda—may really have something to do with how far one is. There is, as yet, no economic model for constitutionalism, but this chapter may be a useful start. And islands lend themselves as “natural experiments” to such an analysis, given that there are ample examples of both near and remote islands at different distances from mainlands (Diamond & Robinson, 2010).

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Thus: how far one can go—in terms of a specific, island-driven, development agenda—may really have something to do with how far one is.

REMOTENESS IN ISLAND STUDIES

For those studying islands, it is the natural scientists that are likely to quickly recognize a causal relationship between remoteness and island life. An increasing distance of islands from mainlands, and therefore from the main source of species pools, leads to reduced rates of new species immigrating to the island, impacting on the right-sloping curve of the MacArthur and Wilson species-area relationship (MacArthur & Wilson, 1963, 1967 [2001]).

Economists have also reviewed the dependency of outlying islands in terms of their continued reliance on trade with their former metropolitan countries (rather than neighbouring states), even though such countries may be located very far away. While this may sound irrational, those island economies whose close political linkages to

former colonial powers survived the transition to the postcolonial era have been the ones to experience higher per capita levels of economic prosperity (Bertram, 2004).

But how does distance, or the lack thereof, impact on governance and the “resourcefulness of jurisdiction” (Baldacchino & Milne, 2000)? First, there are obvious logistical challenges involved in trying to administer remote islands remotely. It becomes quickly clear that an executive body on site is needed for effective government in such locations. This executive experience of self-determination is often (but not always) sticky and irreversible, and paves the way to claims and requests for even greater autonomy by the island from its mainland (though often stopping short of sovereignty) (Prinsen et al., 2017; Rezvani, 2014).

Let us start by identifying various islands that could lend themselves to our analysis. We exclude unitary island states (Barbados, Cyprus, Iceland, Nauru, ...), all landlocked states (Botswana, Luxembourg, Nepal, Paraguay, ...) and the many coastal states that do not have island units or whose island units do not constitute inclusive and self-contained politically administrative units (municipalities, prefectures, provinces, regions).

ISLANDS, PARTS OF ARCHIPELAGOS

When dealing with jurisdictions that are made up exclusively of a group of islands, one island typically stands out as the ‘mainland’: indeed, in some archipelagos, such as Orkney or Shetland, the largest or most populated island is called ‘Mainland’. This may be the island boasting the administrative capital of the country and/or the island with the main (international) airport and seaport. It, however, does not have to be the island with the largest land area (as in such cases as the Bahamas or the Maldives).

Tensions can be quite pronounced in the smallest archipelagic states, with two-island configurations that may even be constitutionally recognized. Take the case of St. Kitts-Nevis (174 km²; population: 55,000), where Nevis (93 km²; 11,000) actually held a referendum on secession from St. Kitts in 1998 and which was lost by a mere 200 votes (Premdas, 2001). Or consider Antigua and Barbuda (440 km²; 82,000) where secessionist tendencies on Barbuda (160 km²; 1,100) have flared when, in the wake of the terrible destruction wrought by Hurricane Irma in 2017, the central government has proposed a major private hotel development on Barbuda which would challenge the commonwealth-held land tenure system long practised on that island (Parker, 2017). In the Malta archipelago (316 km²; 440,000), the sister island of Gozo (67 km²; 31,000) enjoys a coordinating ministry and is recognized as a region for electoral purposes but otherwise lacks jurisdiction. There have been only two, Gozo-based, political parties contest national elections in Malta since 1921: and this happened only once, in the 1947 election. Would a proposed tunnel linking the two islands snuff out any aspirations for some kind of formalized autonomy (Baldacchino, 2007b)?

Not all archipelagos are small island states. Still in the Pacific, we find Japan (378,000 km²; 127 million), the world's second most populated archipelagic state (after Indonesia). Its largest island, Honshu, at 228,000 km², is the world's second most populated island (after Java, also in Indonesia). It is the home of the capital city (Tokyo), its main international airports (Haneda, Narita), and seaport (Yokohama). Just over 100 million people live here. Japan claims to have 6,852 islands, of which 421 are inhabited. It has only one recognized island prefecture out of 47: Okinawa, itself consisting of dozens of small islands, and with the main island, also called Okinawa, with 1,210 km², having 1.3 million inhabitants.

These examples confirm the hypothesis that island units suffer from 'centrifugal politics', with the smaller and outlying members nurturing the strongest aspirations to secede, or at least carve out some autonomy from their respective mainland/main island (LaFlamme, 1983; also Bogdanor, 1999; Crist, 1966).



Aerial photo of Okinawa, Japan

ISLANDS, PARTS OF CONTINENTAL STATES

Let us now turn to islands that form parts of countries that have a mainland, continental component. Starting with Italy, a European country of some 60 million people, with just over 10% of its population living on islands: mainly on Sicily—25,700 km², the largest island in the Mediterranean sea, and with the largest island population in that sea, at 5.1 million—and Sardinia—24,100 km², the second largest island in the Mediterranean, and with the second largest island population in that sea, at 1.65 million.

Still in Europe, we find Greece, a country with a population of around 11.2 million, of which 90% live on the mainland (3 million in Greater Athens alone). Of the country's nine geographical regions, three deal only with islands: the Ionian cluster; the Aegean cluster; and the island of Crete (at 8,300 km², Greece's largest island, and the fifth largest in the Mediterranean sea) with a population of 620,000.

Croatia (land area: 56,600 km²; population: 4.2 million) is another, but much smaller, European country with a sizable island component. The total area of the 59 inhabited islands of Croatia is 3,140 km², or 5.6% of the total area of the Republic. The total island population is slightly over 100,000 (or just over 2% of the total Croatian population). Forty-one of these inhabited islands have local boards, and are not self-contained municipalities. With a population of around 19,000 and a land area of 406 km², Krk is the Croatian island with the largest area and population in the Adriatic Sea. The island, however, does not comprise its own administrative division: along with Cres Lošinj and Rab, it forms part of the region of Primorje-Gorski Kotar.

Next, we visit France (644,000 km²; 67 million), and its current 100 departments (or administrative regions). Of these, the very distant islands of Guadeloupe, Martinique, and Réunion have been departments since 1946; and the island of Mayotte since 2011. The closer island of Corsica—with a land area of 8,680 km², it is the fourth largest island in the Mediterranean sea; and has a population of 330,000—is back to being one, single department in 2018 (after having been divided into two departments since 1975).

Within the United Kingdom (242,500 km²; 65.6 million), there are only five island local councils that do not have mainland attachments: the Isles of Scilly (actually five populated islands; land area of 16 km²; population of 2,300) and the Isle of Wight (384 km²; population of 141,000), both in England; and then the Outer Hebrides (3,059 km²; population of 27,000), Orkney (990 km²; 22,000), and Shetland (1,466 km²; 23,000), all in Scotland. Should we include the British Isles, we would need to add the Channel Islands (Jersey, Guernsey, and its dependencies, as well as Alderney and Sark) and the Isle of Man, which are 'crown colonies' and enjoy a special and unique relationship with the British Crown.

There are fifty states in the United States of America (9,148,000 km²; 330 million); but only the fiftieth, Hawai'i, is a fully island state. It is also the only state in the US



Oahu, Hawai'i: Makapuu Beach during the summer from the neighbouring ridge

with a significant and vocal indigenous minority that also harbours secessionist sentiments (Osorio, 2001). By virtue of the 1993 Public Law (103-150), the US Congress formally apologized “for the overthrow and the deprivation of the rights of Native Hawaiians to self-determination” when groups sympathetic to the US deposed the Queen and Government of Hawai’i in 1893, and led to its eventual annexation as a US state in 1959.

Turning now to Asia, consider the situation of the Republic of (South) Korea (100,210 km²; population: 51 million). South Korea has some 470 populated islands, with a total population of just over 1 million. However, only one of these islands is a special, self-governing province, and one of the nine provinces of Korea: Jeju (1,800 km²; population: 600,000). Jeju is the largest island off the coast of the Korean Peninsula.

Lastly, let us consider the most populous country in the world: China (9,634,000 km²; population: 1.3 billion). The largely island territories of Hong Kong (a peninsula plus 263 islands) and Macau are recognized as special administrative regions (SARs); while the island of Taiwan—35,800 km², population: 23.5 million—along with its own dependencies (also islands) is also treated as an SAR. Hainan (35,400 km²; population: 9.2 million) is the only tropical island province of China; it is a special economic zone and a designated free port region. Chongming (1,000 km²; population: 660,000), an alluvial island, is China’s third largest, and is connected to the mainland by bridge and tunnel; while Zhoushan (500 km²; population: 1.15 million) is the fourth largest island,

located in China's largest archipelago with its 1,390 islands, and linked to the mainland with a bridge since 2009.

DISTANCE, SIZE, AND JURISDICTION

These random observations of islands that are parts of other, larger jurisdictions, allow us to propose a few interesting claims.

First, the larger the island's size and population are relative to those of the rest of the country, and the farther the island lies from the rest of the country, the more likely it is for that island to enjoy some level of jurisdictional identity and authority. Such jurisdictional status is likely also to be unitary, meaning that the whole island is treated as one governing unit: divided islands seem abhorrent and unnatural (Baldacchino, 2013b).

Second, relative distance and size, especially in relation to a largely continental and coastal state, also increase the likelihood that the island contributes significantly to the size of the exclusive economic zone (EEZ) of the country as a whole. It also pushes the maritime boundary of a largely coastal and continental country outwards into the high seas, with the island invariably assuming the status of a gateway to the country's maritime aspirations. Such ambitions could be military, economic, and commercial/industrial, or a combination of these. At the very least, and where such motivations may not yet exist, these islands can still serve as natural 'hot spots' or enclaves for tourism, satisfying continental travellers who can enjoy the island's biota, attractions, and hospitality without having to leave their own country. Such islands tend to see population levels that are either stagnant or in decline, with net outmigration to the mainland.

Third, and in contrast, so-called "near islands" (Starc, 2020), relatively close to the mainland of their country, also tend to be bridgeable. Some islands continue to hold on to their geographical status: Vancouver Island, Canada; Sicily, Italy; Kangaroo Island, Australia; Hainan, China. However, sooner or later, they are likely to find themselves connected with a fixed link—a causeway, tunnel, or bridge—to the mainland section of their country. Since they are so much more accessible, they are tempting targets for short-term tourists (such as day-trippers) and second-home tourism. This permanent physical connectivity is also symbolic of the development thrust that the island adopts, or is forced to adopt: most often, such near islands become extensions of the mainland: materially, demographically, and metaphorically. Such islands tend to see population increases, with migration from the mainland.

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In places like Hong Kong, “fixed links have been continuously expanded and further proposals from the government have been made to connect several outlying islands to create land for future urban development” (Leung et al., 2017, p. 63; also Hong Kong Development Bureau, 2016). Zhoushan was set up as a National District with the theme of marine economy by China’s State Council in 2011; and the archipelago “has undergone a gradual industrial transformation and continually strengthening mainland-island contact” (Yue et al., 2017, p. 48).

Thus, these islands’ development is a reflection, extension, or prolongation of what unfolds on the contiguous, typically urbanized, territory. In such cases, and because of this geographical disambiguation between island and mainland, the island has a much reduced political and jurisdictional clout, if at all (Baldacchino, 2017; Baldacchino & Pleijel, 2015). In such circumstances, and as this Irish poet laments following the bridge linking mainland Ireland to the island of Valentia, fixed links permit:

*... islands to become like a landlocked place.
Surrendering their separateness,
to loop with these larger shores,
becoming both part and prisoners of the whole* (Murray, 2003).

The trend is statistically significant: within the European Union, there are 2,152 populated islands, located in three broad areas: the Mediterranean, the Baltic, and the North Atlantic. Among these, 1,840 would be considered near islands, while the remaining 285 would be considered remote islands. Out of the first batch, 1,722 islands (93.6%) have no formal jurisdictional status. Whereas, out of the latter group, 183 (64.2%) have a similar lack of jurisdiction. Clearly, at least in Europe, distance of an island from its continent exacerbates the tendency, and the inevitability, of some kind of island self-governance: by almost 30 percentage points. See Table 2.1.

TABLE 2.1: Relationship between European islands with NO jurisdictional status and their distance from the mainland

	Bridged and Coastal (N, %)	High Seas (N, %)	TOTAL (N)
North Atlantic	139/177 (78.5)	38/75 (51)	252
Baltic	1,478/1,525 (96.9)	49/64 (76.6)	1,589
Mediterranean	105/138 (76.1)	96/146 (65.8)	284
TOTAL	1,722/1,840 (93.6)	183/285 (64.2)	2,125

(N=2,125) (Baldacchino, 2017; Baldacchino & Pleijel, 2015).

The list of 119 subnational island jurisdictions compiled by Stuart (2008) contains former colonies, island components of federal states, and islands with a *sui generis* status resulting from international treaties. In practically all these cases—Prince Edward Island, Canada, being one notable exception—the islands with these high levels of autonomy sit at the far physical end of the country in question, and as far as one can imagine from the national centre of administration.

Meanwhile, on the high seas and at greater distance from the mainland, the stakes are higher and the ambitions of the central government bolder. Here, a dynamic relationship unfolds whereby the island may be gifted more powers of autonomy and self-governance by the central state in recognition of its special calling; while the development paradigm pedalled by the central government may not be welcomed by the islanders, who may even resist it, flexing their jurisdictional powers in the process.

TENSIONS BETWEEN ISLANDS AND MAINLANDS (I): REMOTE ISLANDS

In Okinawa, US military bases occupy almost one-fifth of the island's land area. Mass public demonstrations against the presence, relocation, or expansion of the various military bases there continue: one demonstration, in June 2016, was triggered by the death of a twenty-year-old female resident and linked to a US Marine Veteran, and is claimed to have drawn 65,000 protesters. It is unlikely that the Abe government in Tokyo would want to see US military strength in Japan diminished. Yet, demonstrations on land and at sea continue in Okinawa in the face of plans for extending Camp Schuab, a US military base. Takeshi Onega, Okinawa's governor for 2014–18, had pledged to stop the project (Tanji & Broudy, 2017).

In Jeju, the South Korean Government has built a military naval base, which was finally opened in 2016, so as to extend its Navy's operational and rapid response capability into the East China Sea. However, the locals have protested, preferring to see their island home as a 'peace island' (Gwon, 2013; Yeo, 2013).

In the United Kingdom, the three fully and exclusively island local councils in Scotland, and which are also the most remote from mainland Britain—Western Isles, Orkney, and Shetland—capitalized on discussions leading to the run-up to the Scottish independence referendum of 2014. They published a joint mission state-

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ment in 2013 signalling that, should Scotland vote for independence one day, they would wish to decide their own future for themselves, while also suggesting that such a future would include devolved powers to the islands for control over seabed resources, marine renewables, fishing, and transport (Joint Mission Statement, 2013). In response, the Scottish Government issued the Lerwick Declaration, setting up a ministerial working group to examine decentralizing powers to these three island council areas (BBC News, 2013). The three island councils are the only local authorities among the thirty-two in Scotland where independent councillors form a majority: tendencies for secession and local self-determination tend to be stronger when island-based political parties are not mere copies or branches of mainland parties (Hepburn & Baldacchino, 2016).

Something similar has happened in Corsica (8,700 km²; 330,000), which, in 2015, elected a regionalist coalition to its Assembly. As a territorial collectivity, Corsica already enjoys a greater degree of autonomy than other French regions; thus, the Corsican Assembly is able to exercise limited executive powers (Fourquet, 2017).

In neighbouring Sardinia (24,000 km²; 1.6 million), an Italian island province, a suite of island-based ethno-regionalist parties, with no affiliation to parties on the Italian mainland, have also been active in local politics for many years, advancing a non-dependency discourse (e.g., Seddone & Giovannini, 2014).

On the other side of the world lies the semi-autonomous and most remote province of Bougainville (9,300 km²; 235,000) in Papua New Guinea (462,840 km²; 8.1 million). An independence referendum is expected there in June 2019. This is a direct result of the 2001 Bougainville Peace Agreement which brought a violent civil war to an end (Boege, 2018).



The village on the water, Papua New Guinea

And on the other (western) side of the island of New Guinea lies Papua (320,000 km²; 3,486,000), the largest and easternmost province of Indonesia (1,905,000 km²; 261 million). Since 2002, Papua province enjoys a special autonomy status. Such powers may have been granted to stave off secessionist sentiment in the province (Timmer, 2008).

THE CENTRE STRIKES BACK: ISLAND DEVELOPMENT ACTS

The emergence and growth of secessionist sentiments on distant islands may be difficult to prevent. Islanders may be fed up with being notionally part of a larger jurisdiction which, however, may harbour no sensibility to their specific needs. Where island-specific plans are lacking, such islands end up with structural handicaps that could easily see the quality of life of their inhabitants slide. Once this starts to happen, a “cycle of decline” (Royle & Scott, 1996) can kick in, leading to the exodus of both young people and entrepreneurs, and heralding long-term economic and demographic deterioration. Moreover, in spite of being often in a clear minority, secessionist or autonomist parties can still smartly and successfully shift mainstream politics to accommodate their aspirations, in part or in full (Baldacchino, 2019).

In such circumstances, granting some measure of self-determination has been a useful antidote. The measure may not necessarily stifle demands for more autonomy, however: in places like Scotland, it fuelled even more demands, leading to the Scottish National Party, a pro-independence party, becoming the largest political force in Scotland (Hassan, 2009).

Other measures have involved passing legislation that recognizes the peculiarities of (especially remote) islands and provides the groundwork for specific development policy initiatives, and funding, in their favour.

Japan was the first country to adopt such an approach. The Remote Islands Development Act was enacted in 1953, ushering the first of ten-year development plans, with the aim of “eliminating backwardness” and “rectifying gaps caused by their isolation or remoteness from the mainland” of such remote islands. This was done by implementing major public works projects to improve such infrastructure as road and sea transport, information and communication technology, industry, and national land conservation. This focus has shifted of late: there is now a greater effort towards environmental protection, with many remote islands becoming better appreciated for their natural qualities (including rich culture and biodiversity). Since 2002, there is also recognition that remote islands are important to Japan in order to secure and protect national territory (Kuwahara, 2012).

In the Bahamas, the Family Island Development Encouragement Act came into force in 2008. It provides duty concessions on the importation of building materials, equipment, and supplies for commercial and/or residential developments on specified ‘Family Islands’ (Government of the Bahamas, 2018).

In Finland, the Island Development Act came into force in 1981. It obliges all authorities to take note of the special status of islands, and so, for example, extending additional support to secure the provision of basic services, suitable island-mainland and island-island transport, and agriculture (Government of Finland, 2018).

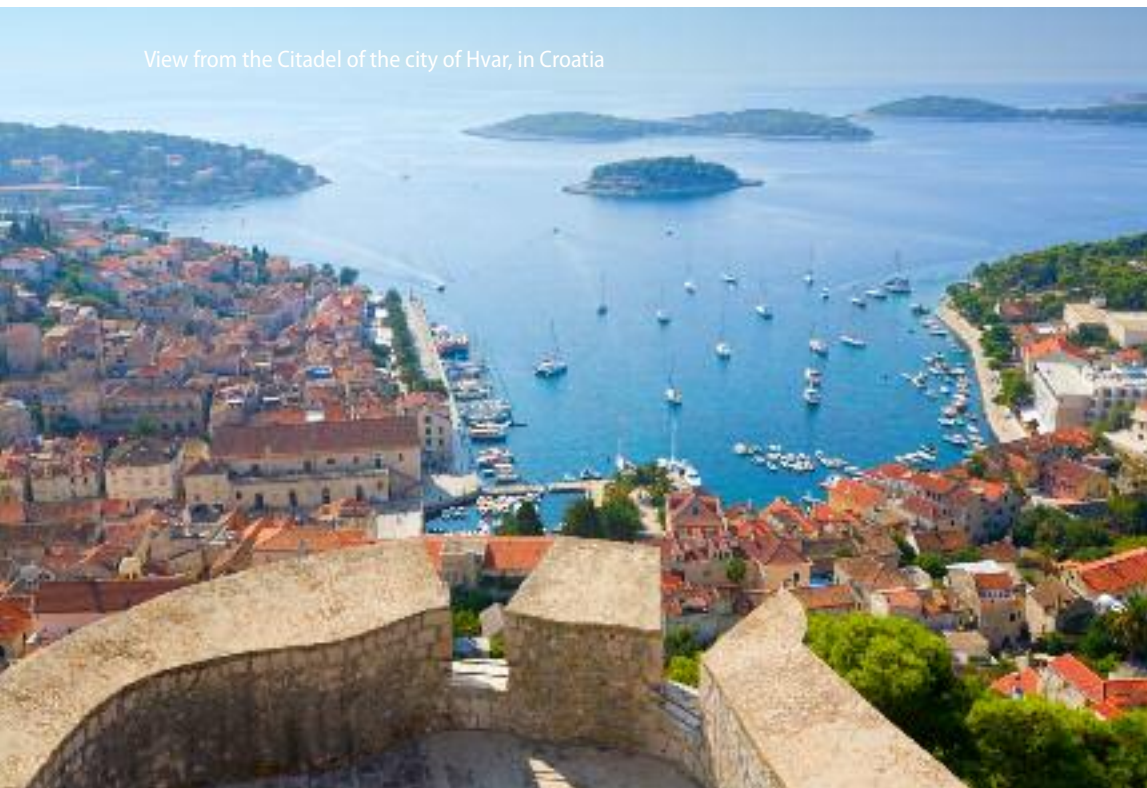
Croatia is the most recent country to pass an ‘island development act’. The Croatian Island Act, which was enacted in 1999, was significantly amended and adopted by its Parliament in November 2018 (Starč, 2018).

The European Union similarly recognizes its nine “outermost regions”, eight of which are islands “located thousands of kilometres from continental Europe”. These regions are acknowledged as having to deal with various challenges arising from their remoteness, but also small size, islandness, and economic dependence on very few products; these features collectively are seen to thwart the islands’ development potential (European Parliament, 2018).

TENSIONS BETWEEN ISLANDS AND MAINLANDS (II): NEAR ISLANDS

For those islands that are located ridiculously close to the mainland, their geography often prevents them from taking a different tack to what the continental government

View from the Citadel of the city of Hvar, in Croatia



proposes. Their destiny is often to be subsumed within the development plans of the political centre, possibly losing identity and jurisdiction in its wake.

In the sprawling capital cities that have been built on islands, a series of civil engineering works have connected former islands into the expanded metropolis. Major population centres of larger islands and archipelagos include Abu Dhabi, Amsterdam, Bruges, Florianópolis, Gothenburg, Hong Kong, Lagos, Leiden, Mombasa, Miami Beach, Montreal, Mumbai, St Petersburg, Stockholm, Tromsø, and Xiamen (Grydehøj, 2014, p. 185).

Other islands have, to some degree, resisted the continental onslaught and its homogenizing effects. These tactics have included price differentials, gentrification, access tolls, and lobbying against seamless connectivity with the respective mainland. Stakeholders here realize that a fixed link can shift the power dynamic between island and mainland (Baldacchino, 2007a).

On the island of Fårö, off the island region of Gotland, in Sweden, residents voted—twice—against a proposal to have a fixed link connecting their island to Gotland (Kållgård, 2007). One has to cross over by ferry. In spite of this, “there are about 250 residential homes on Fårö and over 1,000 summer homes” (Pergament, 2007).

The island of Ré (85 km²; 18,000) lies very close to the city of La Rochelle (80,000), in Western France; its cuisine, landscape, and beaches attract thousands of French

On Fårö, an island off the island of Gotland, Sweden, there is an old, small village of fisher cabins called Helgumannen.



holidaymakers annually. When a bridge was proposed linking the island to the mainland—at 3 km, the second longest bridge in France—the islanders and those with second homes protested because they expected a massive influx of visitors and day-trippers. The eventual decision was to build the bridge and charge a toll to all vehicle users, with those having an island address benefitting from a discounted rate. Since 2009, those with an island address cross the bridge free of charge, while all others pay a €15 ‘eco tax’ which is also meant to inhibit usage. In any case, since the bridge was opened in 1988, the population of Ré has doubled, to 18,000. From attracting 670,000 visitors a year pre-bridge, the island lured three million visitors in 2012; and the value of property on the island has increased five-fold between 2000 and 2012 (Barthon, 2008; Lichfield, 2008).

On Martha’s Vineyard (260 km²; 16,000), an island group off Cape Cod, Massachusetts, US, “the cost of living on the island is 60% higher than the national average, and housing prices are 96% higher” (Seccombe, 2017): this renders the island de facto inaccessible as a place of residence except to the very rich.

On the Toronto Islands, in Ontario, Canada—a 15-island archipelago, with 250 homes—the residents mounted a long campaign against the Toronto City Council and its plans for demolishing their homes and turning the islands to parkland. A compromise solution has been worked out, whereby Billy Bishop (Toronto City) airport (code: YTZ) has expanded operations (and is the national hub for Porter Airlines), while contained residential, leisure, and managed natural spaces have been preserved. The

Toronto Islands community is credited as the largest urban car-free settlement in North America; it sits very close to the continent’s fourth largest urban conurbation (Longley, 2017). The airport opened a pedestrian tunnel linking the airport (and the islands) to the mainland and Canada’s largest city in 2015, after previous plans to build a bridge were aborted (Taylor, 2016). Proximity to a large and bustling metropolis reduces the chances of an island to embark on its own development path; and instead locks it firmly in the orbit of its city neighbour, with its own ‘island plans’.

PROXIMITY TO A LARGE and bustling metropolis reduces the chances of an island to embark on its own development path; and instead locks it firmly in the orbit of its city neighbour, with its own ‘island plans’.

CONCLUSION

“What is the influence of distance from an island’s metropolitan gravitational attractor?” asks Bertram (2017, p. 76) when discussing the nature of island trade links with, often distant, metropolitan markets. This chapter also looks at distances, but of that between islands or between islands and mainlands within the same country, and their implications for governance and development. It is a modest contribution to the (still early) debates about the nature of ‘near islands’ (or continental islands) versus ‘remote islands’ (or oceanic islands) beyond the established geophysical distinction that is now a classic opening staple in island studies texts. There is a significant relationship between island status and governance capacity: so much is clear, even in the sheer number of sovereign states that are islands or archipelagos: 52 out of 193. This jurisdictional condition is also a consequence of the logistical necessity of island-based governance; this, then, becomes its own promoter for further island autonomy and self-determination.

Whether there is a significant difference between *near* and *remote* islands in their governance capacity is a different question, and calls for additional research that lies beyond the scope of this chapter. Having an aquatic obstacle matters; and if this water barrier is not narrow enough to afford bridgeability, then it matters even more. But: would increasing island-mainland distance make any additional difference in, say, the degree of difficulty in administration? Does being *even further* removed from an administrative capital render an island public, and its political cadres, more susceptible to claims of being forgotten and neglected, thus nurturing separatist or secessionist sentiment?

What we *do* know is that plans for the endogenous development of remote islands can clash with those hatched by central governments. In such situations, outcomes will depend on power play, bargaining, and nervous negotiation. Very often, central governments can still sway remote islands to pursue the development path that the centre has determined through *force majeure*. In other cases, a complementarity of interests can be sought and found between central and island governments: this is easier when the same political forces and coalitions are involved.

With *near* islands, the hand of the central government is heavier and closer. The absence of jurisdictional clout facilitates the use of such island spaces by central regimes in two broad ways: either as extensions of their urban and continental projects, often cemented via bridges and tunnels that irrevocably connect and fix such islands to mainlands; or else as tourism escapes and/or natural reserves, offering some nearby reprieve to the urban masses.

VERY OFTEN, CENTRAL governments can still sway remote islands to pursue the development path that the centre has determined through *force majeure*. In other cases, a complementarity of interests can be sought and found between central and island governments: this is easier when the same political forces and coalitions are involved.

Contemporary Hainan is the ‘Hawai’i of China’: its sandy beaches attract millions of continental Chinese every year.



Contemporary Hainan fits within both these profiles; it is the ‘Hawai’i of China’, and its sandy beaches attract millions of continental Chinese every year (Westcott, 2017). As of May 2018, residents of 59 countries have been granted visa-free access to the island, enhancing its appeal as an international tropical island tourism destination (Li, 2018). At the same time, foreign workers are being encouraged to come and settle in Hainan: the resident population is projected to grow by one million by 2025 (Wang, 2018). Should a permanent link—probably a tunnel—connect the island and its capital, Haikou, to the Chinese mainland (Holland, 2018), it would become increasingly likely for Hainan to grow even faster, economically and demographically. Although Hainan may come across as a remote island, it is increasingly behaving as a near island; after all, the strait separating the island from mainland China is about 30 km wide. A tunnel to the mainland would cement that status, perhaps providing the infrastructure to propel Hainan on a trajectory of economic development similar to Shenzhen: here is a city, also formerly part of Guangdong province, that was elevated to near provincial status at around the same time as Hainan, and which has done extremely well for itself as China’s Silicon Valley (Gnikivar, 2018). Hainan and Shenzhen were identified for development and given the same legal status together in 1988, but Shenzhen galloped ahead while Hainan faltered. It is now getting a second chance.


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Ba River, Navala village, Viti Levu island, Fiji

3

The impact of natural and ecological factors

on the development of
South Pacific island economies*

ABSTRACT

The South Pacific region consists of numerous loosely scattered islands. The remote geographical locations and weak infrastructure of those island economies make them difficult to attract external funding for economic development. The lack of resource diversity of those economies results in a specialized economic structure. Due to their small domestic markets and small economic volume they are susceptible to external economic shocks, and their economies often suffer roller-coaster growth trajectories. Their economic growth is often hindered by

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severe bottlenecks in capital, technology, and human talent. As a result of their special geographical location and land size, these economies are also more likely to be exposed to the consequences of natural disasters. Excessive human activities have already exacerbated ecological and resource degradation. Greenhouse effects and rising sea levels now pose another serious threat to the survival of these economies.

In the face of these and other environmental challenges, those island states and territories may benefit from the synergies associated with international collaboration. Individual states can also deal with these challenges through strengthening their legislation and restructuring their economies. This chapter suggests that these small island economies would be better served by stronger regional integration through trade and cooperation to achieve resources complementarity. They could also attract more foreign investment and enhance programs on improving their human resource training through cooperation with countries outside the region.

INTRODUCTION

There are about 100,000 inhabited islands in the world, which are home to more than 600 million people (Wu, 2006). The land area of islands accounts for about one-fifteenth (Cui & Ying, 2016) of the world's total. Thus, islands are both important homes to human and other species, and significant anchors to protect and utilize the surrounding ocean. For thousands of years, islands have been important sites for human life and economic production.

Island economies share the following features. First, an island economy could be an independent island, or part of a group of islands. Second, the land and marine resources both on land and in its surrounding sea have been exploited and utilized to develop its own economy. Third, although islands vary significantly in size, from several million km² to only a few dozen km², an island economy has a certain level of administrative and economic organization. The administrative units could be a country or part of a country. The economic development of island economies differs by a substantial margin. Some have advanced economies and complete industrial systems while others may still remain in a mono-economic structure or in a high level of foreign dependency. Because of an ever-expanding global footprint of human activities, the ecosystems of islands are increasingly susceptible to human impacts. Due to its unique nature, an island ecosystem is highly sensitive to natural and human interference. Once disrupted, the ecosystem will face severe dysfunction and structural imbalance, which in turn will threaten the survival and development of its inhabitants.

South Pacific islands are small specks of land scattered in the vast Pacific Ocean. Thus, their economic development is heavily impacted by their unique natural conditions and ecological environments. At present, most island economies in the region face such challenges as climate change, natural disasters, environmental pollution, coastal and marine resource mismanagement, ecological imbalance, inconvenient transportation, lack of funds and technology, as well as slow economic growth. This chapter focuses on the impact of natural geographical conditions and ecological factors on South Pacific island economies.

NATURAL CONDITIONS AND ECOLOGICAL FEATURES OF SOUTH PACIFIC ISLAND ECONOMIES

Geographical conditions

South Pacific island economies generally refer to the 27 island economies situated between 30°N-50°S and 120°E-150°W. Comprised of over 10,000 islands, this expansive region covers a land area of around 550,000 km² and has a total population of 6.9 million (Peng, 2012). Based on geographical and cultural characteristics, the South Pacific islands can be divided into three major groups: Melanesia, a diagonal expanse of islands running from northwest to southeast, situated to the south of the Equator and to the west longitude 180°; Micronesia, extending from east to west, located largely to the north of the Equator and to the east longitude 180°; and Polynesia, stretching from northwest to southeast, located to the east longitude 180° and between 30°N-30°S. Generally speaking, these island economies have the following natural and geological features.

Small in land size and vast in sea area. The islands of the South Pacific, or Oceania as islanders prefer to call the region, vary greatly in land area. Papua New Guinea, the Solomon Islands, Fiji, and Vanuatu, which have land areas of 462,800 km², 28,000 km², 18,000 km², and 12,000 km², respectively, are relatively large. However, Samoa, which covers less than 3,000 km² and other similar islands are quite small in size, ranging from several hundred km² to as small as 26 km² (Tuvalu) and 21 km² (Nauru). However, this is not the complete story. According to the United Nations Convention on the Law of the Sea, islands which are able to “sustain human habitation or economic life of their own” have responsibility for an area extending roughly 200 nautical miles from the furthest point of land (i.e., the Exclusive Economic Zone or EEZ). Therefore most of these island economies control decision-making over vast marine areas. For instance, the Cook Islands, which possesses a land area of only 240 km², has a massive sea area of 1.83 million km². The Marshall Islands has 2.13 million km² of sea area compared to a mere 181 km² of land area (see Table 3.1).

TABLE 3.1: Basic information about South Pacific island economies

Island economy	Land area (km ²)	Sea area (km ²)	Population (2016)
Papua New Guinea	462,840	2,400,000	8,084,991
Solomon Islands	28,450	1,600,000	599,419
Fiji	18,333	1,290,000	898,760
Vanuatu	12,190	680,000	270,402
Samoa	2,934	120,000	195,125
Kiribati	812	3,500,000	114,395
Tonga	747	700,000	107,122
Micronesia	702	2,980,000	104,937
Palau	458	629,000	21,503
Cook Islands	240	1,830,000	13,100 (2015)
Marshall Islands	181	2,131,000	53,066
Tuvalu	26	750,000	11,097
Nauru	21	320,000	13,049

Source: Ministry of Foreign Affairs, P. R. China; the World Bank; Xu, 2003.

Islands are numerous and scattered, resulting in difficulties in both internal and external transportation. The over 10,000 islands in the South Pacific Ocean, which are scattered sporadically in the vast waters between Asia, Oceania, South America, and North America, are far away from landmasses and other islands. For instance, the Solomon Islands is 4,000 km away from Sydney, and 2,900 km from Tokyo; Fiji is 2,797 km from Sydney and 1,840 km from Auckland, New Zealand; Tonga is 4,827 km away from Hawai'i, 1,770 km from New Zealand, and 650 km from Fiji; the Solomon Islands is 306 km away from Kiribati; Vanuatu is 965 km away from Fiji, and 170 km away from the Solomon Islands (see Table 3.2). These island economies rely primarily on air and sea routes for external transportation. Intra-regional transportation is limited, comprised mainly of roads within individual islands and air and sea routes between the islands. In terms of rail transportation, Fiji has 820 km of railway and Nauru has only about 5 km of dedicated railway lines for phosphate minerals transportation; other islands have no railways. Among the few roads built, most of them are dirt paths. Nauru, with the least mileage, has only 30 km of roads. For the few economies that do have asphalt roads, due to poor construction quality and heavy rainfall, the roads are pitted with holes and dilapidated and thus extremely difficult to drive on (see Table 3.3).

TABLE 3.2: Distribution of Pacific Island states

Island State	Distribution of islands	Distance to landmasses or other islands
Papua New Guinea	600 islands distributed between 141°-156° E and 2°-12° S	—
Solomon Islands	6 major islands and 900 smaller islands scattered between 157°-170° E and 7°-13° S	1,600 km to Australia
Fiji	332 islands (106 inhabited) scattered between 175° E-178° W and 15°-22° S	2,797 km to Sydney; 1,840 km to Auckland, New Zealand
Vanuatu	83 islands (68 inhabited) scattered between 166°-171° E and 13°-21° S	About 1,600 km to Australia; 965 km to Fiji
Samoa	9 islands scattered between 171°-173° W and 13°-15° N	128 km to East Samoa
Kiribati	33 islands (21 inhabited) scattered between 169° E-150° W and 13° N -12° S	722 km to Tarawa to Nauru; 265 km to Ocean Island of Nauru
Tonga	172 islands (36 inhabited) scattered between 175°-177° W and 15°-23°30' S	4,827 km to Hawaii; 650 km to Fiji; 1,770 km to New Zealand
Micronesia	607 islands (65 inhabited) scattered between 137°-135° E and 6°-8° N	—
Palau	340 islands (9 inhabited) scattered between 134°-162° E and 2°-10° N	—
Cook Islands	15 islands scattered between 156°-167° W and 8°-23° S	1,100 km to French Polynesia
Marshall Islands	1,225 islands (24 inhabited) scattered between 160°-173° E and 5°-15°N	—
Tuvalu	9 islands scattered between 176°-180° E and 5°-11° S	1,300 km to Fiji
Nauru	167°E and 0°32'S	4,000 km to Sydney; 4,160 km to Hawai'i

Source: Ministry of Foreign Affairs, P. R. China; Xu, 2003.

TABLE 3.3: Transportation infrastructure

Island State	Railway	Traffic roads
Papua New Guinea	No railway	Around 30,000 km
Solomon Islands	No railway	1,900 km of mostly rural mud roads
Fiji	820 km	5,300 km of roads, including 1,340 km of asphalt roads
Vanuatu	No railway	around 1,900 km of roads
Samoa	No railway	976 km of roads, including 332 km of asphalt roads
Kiribati	No railway	—
Tonga	No railway	950 km
Micronesia	No railway	240 km
Palau	No railway	61 km
Cook Islands	No railway	—
Marshall Islands	No railway	152 km
Tuvalu	No railway	—
Nauru	5 km	30 km of roads, including 24 km of asphalt roads

Source: Ministry of Foreign Affairs, P. R. China

Rich marine and tourism resources, but limited terrestrial resources for most economies. South Pacific island economies have 17,296 million km² of exclusive economic zone, which is 8% of the world's total surface area and 10% of the world's sea area (Yao, 2014). The region is endowed with abundant fishery resources. Tuna production in these economies in 2007 reached 2.396 million tons, accounting for 55% of the world's total (Cui & Ying, 2016). Among the major tuna producers, Papua New Guinea has an annual catch potential of 300,000 tons and an annual production of around 200,000 tons (MFA, PRC, n.d.); the Solomon Islands has an annual catch of

around 80,000 tons (MFA, PRC, n.d.); and Palau's annual production stands at 60,000-70,000 tons. In terms of tourism resources, the Solomon Islands, Palau, Micronesia, and Vanuatu are well-known paradises for divers. In terms of forest resources, Papua New Guinea and the Solomon Islands have a forest stock volume of 1.2 billion cubic metres and 127 million cubic metres, respectively (MFA, PRC, n.d.). Fiji and Samoa, respectively have about 250,000 hectares and 13,600 hectares of economically recoverable forests (MFA, PRC, n.d.), while other Pacific island economies do not have reasonably large stretches of forest with economic recoverability. In terms of mineral resources, Papua New Guinea has 20 million tons of copper deposits, 3,110 tons of gold deposits, and around 400 million tons of copper-gold ores (MFA, PRC, n.d.). Gold and copper production in the country ranks 11th and 10th in the world, respectively (MFA, PRC, n.d.). While most of the phosphate minerals have already been mined, Nauru still has a small quantity. In comparison, most other Pacific island economies are short of mineral resources.

Ecological features

The ecological environment is of vital importance to the sustainable social and economic development of a region. Without a sound ecological environment, it is impossible to sustain the long-term and healthy development of such industries as agriculture, fishery, and tourism. The South Pacific island economies, mostly remote and small islands with simple terrains far away from landmasses and other islands, have extremely vulnerable ecologies. Their eco-environments have the following features.

Small animal and plant populations and a single ecological structure. According to ecological theories, there are four types of natural speciation: allopatric, sympatric, peripatric, and parapatric. In addition, continuous geological distribution, diversity of species, balanced biotic components, and matching environments are also necessary conditions for sound ecological sustainability. The size of an island and its distance from landmasses has a huge impact on the heredity of biotic populations and diversity of species thereon. Studies suggest that most species on islands are built up after immigration. According to Arhenius and Gleason's theory (Tjørve, 2003), the number of species in a habitat is closely related to the area of that habitat. For every tenfold increase in area, the number of species doubles on average. Among the South Pacific island economies, the larger islands include the Island of New Guinea (on which Papua New Guinea is located); Viti Levu (10,429 km²) and Vanua Levu (5,587 km²) of Fiji; Guadalcanal (5,336 km²), Malaita (3,840 km²) and Choiseul (3,294 km²) of the Solomon Islands; and Santo (3,947 km²) of Vanuatu. Other islands are all very small, some even only a couple of square kilometres in size. Most of these small islands have thin and barren soil; therefore terrestrial vegetation on the islands lacks diversity. In addition, difficult immigration into these faraway habitats, along with food and space constraints, has resulted in limited species, small populations, and simple biotic structures.

Ecological structures and functions are susceptible to damage. Diversity of species is not only the foundation of a diverse ecosystem, but also serves as a major stabilizer of the system. Each species is like a rivet in a machine in the ecosystem: damage or loss of a single species may not have a severe impact on the ecosystem in the short term, but will probably lead to a breakdown in the long term. In an ecosystem, once a species experiences a certain level of loss, the whole ecosystem may become undermined. As a general law, a wild animal species needs to sustain at least 500 individuals to achieve a certain level of evolution through natural selection, or else it may end up in extinction. Since South Pacific islands are extremely isolated, only highly migratable species can enter. This usually brings about the following consequences. First, there is limited gene exchange among species. The small biotic population on islands may lead to inbreeding, simple hereditary structure, and easy extinction of local species: the smaller the island, the more likely the extinction. Second, the small number of a species and lack of competition between populations on islands have resulted in poor adaptation and competitiveness of those species, and those species easily fall prey to invading ones. Due to the simple structure of native species and limited space on islands, the invasion of alien species will pose a serious threat to the growth and development of native species, therefore wreaking havoc on biodiversity on islands. Some experts believe that 90% of the extinct species on the South Pacific islands since 1800 are victims of alien species invasion (Peng, 2012), many of which come via the shipping industry—an important way for South Pacific islands to communicate with the outside world. According to statistics, the South Pacific region is home to over 400 types of unique birds and 30% of rare plants unseen anywhere else. Endangered birds there account for 25% of the world's total, and most have already become extinct (Peng, 2012).

Once damaged, the ecological system is difficult to recover. The ecological system on islands is a composite system of natural and cultural elements. Along with the increasing types, scope, and intensity of human activities, the island ecological system faces ever more human interference and significantly higher risk of damage. Far away from landmasses, South Pacific islands have small animal and plant populations and simple hereditary structures because of little exchange of substance and hereditary information with the outside world. Due to poor self-adjustment and vulnerability to external interference, the ecosystem, once undermined, can hardly recover to pre-damage conditions through self-adjustment. Besides, South Pacific island economies are plagued by frequent natural disasters. No sooner has the impact of the previous disaster been digested than another one hits, which brings new damage to the ecosystem under recovery. Finally, to recover the island ecological system through artificial measures is costly; thus it is an unaffordable burden for those island economies with lean budgets.

CONSTRAINTS OF NATURAL CONDITIONS ON INDUSTRIAL DEVELOPMENT OF SOUTH PACIFIC ISLAND ECONOMIES

Small land area, inconvenient transportation, and uneven distribution of resources severely constrain economic development of these island economies and subject them to extreme vulnerability. Although since the 1960s the South Pacific island economies have adopted various measures to diversify their economies, to boost national income, and to satisfy people's living requirements, due to their geological disadvantage, weak economic base, and inadequate funds, technology, and labour forces, most economies still have to rely on fishing, mineral resources, and tourism as their foundation for survival and development. Some countries need to rely on foreign aid to make up for their budgetary deficits.

"Specialized economies"

Resources are of critical importance in a country or region's economic development, and the South Pacific island economies are no exception. Due to an uneven distribution of resources, these economies have long formed a specialized economic structure with tropical cash crop farming as a key economic sector; mineral resources and agricultural produce as the main source of foreign exchange; and tourism and marine fishing as pillar industries. Economies in this region, which rely on tourism, include the Cook Islands, Micronesia, Fiji, Vanuatu, Kiribati, Palau, and the Marshall Islands. Among them, tourism revenues account for approximately 50% and one third of the national GDP of Palau and Vanuatu, respectively, and takes up 15% of the entire labour force of Fiji (MFA, PRC, n.d.). Economies that rely on fishing as a pillar industry include the Solomon Islands, Tonga, the Cook Islands, Palau, Tuvalu, and the Marshall Islands. For example, the annual tuna catch in the Solomon Islands and Palau stands at around 80,000 tons and 60,000-70,000 tons, respectively (MFA, PRC, n.d.). A total of 85% and 40% of labour forces in Papua New Guinea and Tonga, respectively, are engaged in agriculture (MFA, PRC, n.d.). Samoa is an agricultural nation where 77% of the total population is involved in agriculture (MFA, PRC, n.d.). Most of Tonga's exports are agricultural and fishing products (MFA, PRC, n.d.). Economies that rely on mining as a main source of economic income include Nauru, Papua New Guinea, and New Caledonia. In addition, sugarcane processing is the key industry of Fiji (MFA, PRC, n.d.). In Tonga, agriculture and fisheries combine to provide the majority of foreign exchange earnings (MFA, PRC, n.d.).

DUE TO AN UNEVEN distribution of resources, these economies have long formed a specialized economic structure with tropical cash crop farming as a key economic sector; mineral resources and agricultural produce as the main source of foreign exchange; and tourism and marine fishing as pillar industries.

Attracting external investment

Far away from the centre of world economic development and constrained by expensive transportation and specialized resources, South Pacific island economies generally suffer from slower development. Since the 1960s, when South Pacific island states emerged from their colonial past as independent economies, they have relied mainly on farming and the export of tropical cash crops grown on plantations. After independence, these isolated economies found it difficult to attract external technical skill. Therefore, industrial and agricultural production of most economies in the region is extremely underdeveloped. Agricultural production in some economies still remains at the subsistence level. Major industrial products and even grain are mostly imported. Some economies don't even produce food or vegetables for their own consumption. For instance, Nauru has very limited amounts of agricultural produce and nearly all its food and drinking water is imported; the Marshall Islands needs to import food; Tuvalu almost has no industry; agriculture in Micronesia is heavily dependent on climate conditions; Kiribati does not have any grain crops or vegetable farming; and the industry accounts for only 5% of the national GDP of the Solomon Islands (MFA, PRC, n.d.).

The rural population on the Solomon Islands, who mainly engage in crop farming, accounts for over 90% of the nation's total population and agricultural income makes up 60% of the country's GDP (MFA, PRC, n.d.). In addition, the manufacturing industry in these economies has an extremely weak base. For instance, the Solomon Islands relies on imports for most of its manufacturing and fossil fuels; Vanuatu has only a small level of production of food, wood products, and soap; Micronesia has practically no manufacturing; and the Marshall Islands, Tuvalu, and Kiribati need to import most of their industrial products. Although there are recent signs of improvement, several of the South Pacific island economies are listed among the world's least developed countries. For instance, the United Nation's Least Developed Countries Report 2018, issued by the United Nations Conference on Trade and Development, listed Kiribati, the Solomon Islands, Tuvalu, and Vanuatu among the group of least developed countries (UNCTAD, n.d.).

Volatile economic development

South Pacific island economies generally have small populations. With the exception of Papua New Guinea (8.08 million), Fiji (approximately 900,000), and the Solomon Islands (approximately 600,000), most of the other island economies in the region have populations ranging from only 10,000 to 100,000. Based on 2016 data, in terms of economic volume—except for Papua New Guinea, Fiji, and the Solomon Islands whose GDP stood at USD 19.905 billion, USD 4.67 billion, and USD 1.3 billion, respectively—these other island economies have annual GDPs of only a few hundred million dollars

TABLE 3.4: Annual GDP of each economy (USD 100 million)

Economies	2013	2014	2015	2016	2017
Papua New Guinea	212,61	230.6	206.39	199.05	–
Fiji	41.9	44.83	43.62	46.71	50.61
Solomon Islands	11.3	11.7	11.55	12.33	13.03
Vanuatu	8.01	8.14	7.37	7.87	–
Samoa	8.04	8.03	8.03	7.86	–
Tonga	4.50	4.43	4.35	4.01	4.26
Tuvalu	3.75	3.72	3.55	3.65	–
Micronesia	3.16	3.17	3.15	3.29	3.36
Palau	2.25	2.45	2.93	3.02	2.92
Marshall Islands	1.90	1.83	1.79	1.94	–
Kiribati	1.87	1.78	1.69	1.81	1.96

Source: The World Bank.

each. The Marshall Islands and Kiribati, with the smallest economic volume, only have a GDP of USD 194 million and USD 181 million, respectively (GDP of each economy found in Table 3.4). For such a small market, it is difficult to drive economic development primarily through domestic demand. Any changes in external markets will have a major impact on its development and lead to a roller-coaster growth trajectory. Take Palau as an example: its economic growth rate reached 4.234%, 9.384%, and 5%, respectively, in 2014, 2015, and 2017. But growth rates in 2013 and 2016 were -2.409% and 0, respectively. Vanuatu saw a 4% and 4.5% growth rate in 2016 and 2017, respectively, but in 2015 it dropped to as low as -0.801% (see Table 3.5).

TABLE 3.5: Growth rate of South Pacific island economies

Economies	2013	2014	2015	2016	2017
Papua New Guinea	–	–	5.3	1.9	-1.7
Solomon Islands	2.95	–	3.734	3.5	3.2
Fiji	3.47	–	3.6	0.4	3.8
Vanuatu	1.969	2.331	-0.801	4	4.5
Samoa	-1.931	1.196	1.635	3.015	1.509
Kiribati	5.782	2.409	3.497	3.075	2.479
Tonga	-0.566	2.897	3.412	2.726	2.441
Micronesia	-3.562	-3.403	-0.165	1.054	0.722
Palau	-2.409	4.234	9.384	0	5
Marshall Islands	-1.074	0.398	1.379	1.745	1.75
Tuvalu	1.292	2.236	2.642	3.952	2.268

Source: The World Bank.

Heavy reliance on external aid

Poor economic development has resulted in insufficient fiscal revenues in most economies. Some island economies rely on long-term foreign aid to make up for their fiscal deficits. For instance, in 2017, Papua New Guinea had USD 3.567 billion of fiscal revenue and USD 4.123 billion of expenditure, running a deficit of USD 556 million (MFA, PRC, n.d.). In fiscal year 2017/2018, Papua New Guinea received AUD 546 million of aid from Australia alone (MFA, PRC, n.d.). In fiscal year 2016/2017, the estimated foreign aid in Tonga and Samoa was respectively USD 88.17 million and 1.569 million (MFA, PRC, n.d.), and Tonga was listed as a “high risk” country by the World Bank. Foreign aid that Vanuatu and the Marshall Islands receive annually accounts for, respectively, 17% of Vanuatu’s GDP annually and more than 60% of the financial budget of the Marshall Islands (MFA, PRC, n.d.). The Cook Islands received aid from New Zealand and Australia totaling NZD 19.3 million and AUD 3.4 million in the fiscal year 2016/2017, respectively (MFA, PRC, n.d.). In addition, according to the Compact of Free Association between the Federated States of Micronesia and the United States renewed in 2003, Micronesia will receive a total of around USD 1.85 billion in aid from the United States from 2003 to 2023 (MFA, PRC, n.d.).

MAJOR CHALLENGES

Due to their geographical location, South Pacific islands are especially prone to natural disasters such as earthquakes, hurricanes, and storm surges. Excess human activities have also exacerbated ecological degradation. Lacking in human capacity and financial resources, these island states find it difficult to implement national or regional resource conservation and management measures, consequently endangering sustainable management on natural resources. Regional political instability, along with major flaws in administrative mechanisms and governance capacity, has rendered these economies particularly vulnerable to natural disasters. Ecological degradation and natural disasters have posed a serious threat to the very survival of some island economies.

Impacts of global warming and rising sea levels

In recent years, the build-up of human-induced greenhouse gases has resulted in rising sea levels and shrinking land area on these islands, posing a threat to their very survival. According to the IPCC Fifth Assessment Report (IPCC, n.d.), the global average and combined land and ocean surface temperature show a

warming of 0.85 (0.65 to 1.06) °C in the period 1880 to 2012. The Arctic sea ice shrank at an average rate of 3.5 to 4.1% every ten years in the period 1979–2012 (0.45 to 0.51 million km² every ten years). Global average sea level rose at an average rate of 1.7 (1.5 to 1.9) millimetres per year in the period 1901–2010, 2.0 (1.7 to 2.3) millimetres per year in the period 1971–2010, and 3.2 (2.8 to 3.6) millimetres per year in the period 1993–2010. By the end of 2100, global average sea level is predicted to rise by 0.52 to 0.98 metres. The average elevation of many Pacific islands is generally very low. For example, the land area of the Marshall Islands, most islands in Micronesia, the Gilbert Islands, the Phoenix Islands, and the Line Islands of Kiribati and Tuvalu are between 3 and 5 metres above sea level. At this rate, many islands in the South Pacific island economies will be inundated. Mr. Tavalakate—Chief Forecaster at the Tuvalu Meteorological Administration—said in an interview that sea levels at Tuvalu had risen by 9.12 centimetres during the 16 years between 1993 and 2009 (Wang, 2009). At this rate, Tuvalu’s sea level will rise by 37.6 centimetres in 50 years, which means 60% of



The Samoan islands were battered by a tsunami in 2009.

the country, with a maximum sea level of 4.5 metres, will sink below the sea (Wang, 2009). If the sea level continues to rise at such a rate, other countries and regions with a low average elevation above sea level, such as Nauru, Vanuatu, Eastern Samoa, Tonga,

IF SEA LEVELS CONTINUED TO rise, over 70% of the surveyed households in Kiribati and Tuvalu would consider moving their families overseas.

Although climate change is only one of many factors related to emigration, it should be noted that from 2005 to 2010, 15% and 10% of the respective populations in Tuvalu and Nauru had already moved abroad.

and Kiribati, will also be faced with serious threats. According to a Kayodo News report, the United Nations University's Institute for Environment and Human Security showed at the United Nations Framework Convention on Climate Change, COP21 in Paris, that based on a survey of around 7,000 residents in Kiribati, Tuvalu, and Nauru, if sea levels continued to rise, over 70% of the surveyed households in Kiribati and Tuvalu would consider moving their families overseas (Wang, 2015). Although climate change is only one of many factors related to emigration, it should be noted that from 2005 to 2010, 15% and 10% of the respective populations in Tuvalu and Nauru had already moved abroad (Wang, 2015).

Impacts of marine and geological disasters

Situated near the Equator, South Pacific islands are particularly prone to tropical hurricanes and marine storm surges. Disastrous waves and storm surges will sabotage coastlines, ports, dikes, houses, and the ecological environment on the islands, jeopardizing residents' lives and triggering coastline erosion and salt-water intrusion. For instance, large areas of forests in the Samoan Islands were devastated due to the impact of tropical cyclones in 1990, 1991, and 1993 (Cui & Ying, 2016). On 13 March 2015, Vanuatu was hit by tropical cyclone Pam. At least eight people died and 90% of the houses in Port Vila were destroyed (Zheng, 2015). Vanuatu's President Baldwin Lonsdale said in an interview that annual economic losses in Vanuatu as a result of natural disasters were equivalent to 6% of its GDP (Wang, 2015). On 20 February 2016, cyclone Winston slammed into Fiji, causing at least five deaths (Chunmei, 2016). It also disrupted power and communication in many locations, inflicting huge losses on the local economy. Located at the intersection of the Pacific Plate, the American Platen, and the Antarctica Plate, South Pacific islands are also frequently struck by earthquakes and volcanic activities. Due to the special geological formation and topography of islands, strong interaction between land and ocean, and frequent geological activities in the region, these islands are easily affected by geological disasters. Rockslides, landslides, mudslides, and other disasters triggered by earthquakes and volcanic eruptions are detrimental to the landform, vegetation, and facilities on the islands. South Pacific



Flooded land in Fiji

islands are also frequent victims of earthquakes and tsunamis. About 80% of the world's earthquakes and tsunamis happen in the Pacific arc-trench areas (Yang & Wei, 2005). In the Pacific Ocean, there is a level-4 earthquake-tsunami with a maximum surge of 20 metres every ten years, a level-3 earthquake-tsunami with a maximum surge of 10 metres every three years, a level-2 earthquake-tsunami with a maximum surge of 5 metres every year, and four level-0 earthquake-tsunamis with a maximum surge of one metre every year (Yang & Wei, 2005). According to media reports, on 30 September 2009, the Samoan Islands was hit by a severe earthquake measuring 8.0 on the Richter scale, which triggered a 4.5-metre tsunami and caused at least 113 deaths. Several villages and holiday resorts were devastated (Wang, 2009).

Effects of environmental pollution and resource degradation

There are multiple reasons for extreme environmental pollution in South Pacific Island economies. First, South Pacific islands constitute a vital communication line connecting Asia, Oceania, and the Americas, and comprise an important fishing area in the world; thus it is easily prone to pollution damage from oil spills and waste dumping from ships and fishing boats. Second, island tourism is an important driver for

socioeconomic development in South Pacific island economies; therefore the construction of tourism facilities might erode island topography, invade habitats, and cause biomass losses. For instance, Vanuatu and Fiji have severely damaged the ecosystems in mangroves and estuaries through deforestation and reclamation for the purpose of tourism (Lu, 2007). Third, due to limited land area, these islands lack the space and facilities to dispose of domestic and industrial solid wastes, thus causing harm to the ecological environment. Fourth, the exploitation of mineral resources seriously strains the ecological environment. In Nauru, for example, trees and plant wastes are burned in landfill zones during the exploitation of phosphates, and topsoil is not replaced. Such an irresponsible approach has wreaked havoc on the ecological environment. Fifth, it is hard to clear up the pollution resulting from nuclear tests carried out by western powers in the Pacific region. Statistics suggest that from the 1940s to the

1990s, the United States conducted 23 and 43 nuclear tests on the Bikini Atoll and Eniwetok Island of the Marshall Islands, respectively, and the pollution and damage from the tests still remain a serious problem to the local environment (Xu, 2003).

PROBLEMS AFFLICTING South Pacific island economies, including pollution of the marine environment, abuse of marine resources, fragile natural environments, and vulnerability to natural disasters, have drawn close attention from other islands and the international community.

Despite rich fishing resources in the South Pacific island economies, interest-driven local fishermen have adopted unsustainable ways of operation. They use boats with large power engines to maximize the catch; fishing methods have changed from traditional free diving to diving with the assistance of underwater breathing apparatuses; they fish through destructive means, such as the use of explosives and toxicants, and through gill nets and other damaging tools. Such ways of operation have led to severe degradation of local fishing resources.

Moreover, most economies in the region do not have armed forces, and their police forces are rather weak. For instance, there are only about 100 police officers in Nauru, 110 in the Cook Islands, 300 in Kiribati, and 400 in Tonga (MFA, PRC, n.d.). Economies with stronger enforcement, such as Samoa and the Solomon Islands, only have about 500 and 800 police officers, respectively (MFA, PRC, n.d.). Therefore, despite the existence of a licensing system for foreign fishing boats, it is difficult for the South Pacific island economies to exercise effective control over environmental pollution and illegal fishing given the hundreds of thousands or even millions of square kilometres of sea area under their jurisdiction.

MAJOR RESPONSE MEASURES FROM THE INTERNATIONAL COMMUNITY AND SOUTH PACIFIC ISLAND ECONOMIES

Problems afflicting South Pacific island economies, including pollution of the marine environment, abuse of marine resources, fragile natural environments, and vulnerability to natural disasters, have drawn close attention from other islands and the international community.

The United Nations Conference on Trade and Development in 1972 specifically addressed the unique problems facing island developing countries for the first time (Qi et al., 2013). To advance the interests of small island residents, the first Global Conference on the Sustainable Development of Small Island Developing States was held in Barbados in 1994, which adopted the Barbados Declaration and a Programme of Action for the Sustainable Development of Small Island Developing States. The International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States was held on 10 January 2015 in Mauritius to discuss such issues as global warming, rising sea levels, environmental pollution, and sustainable development. It also sought international aid to prepare for such natural disasters as earthquakes and tsunamis. A dedicated UN fund was set up on 15 February 2008 to help small island states address the impact of climate change on their social and economic development. The government of Greece provided one million Euros as a start-up fund (Qi et al., 2013). Private academic groups have also intensified research on island issues. Since 1986, the International Small Islands Studies Association has hosted a biennial academic conference to discuss common environmental problems and response strategies of island states and jurisdictions (Qi et al., 2013).

Regional cooperation

Pacific island economies depend heavily upon fishing resources as a major source of income and an important guarantee of food security. Tuna is the most valuable fishing resource for most Pacific island economies. In recent years, tuna resources have witnessed a declining trend due to overfishing, which poses a serious threat to the sustainable development of the major fish resources in the region. To protect and sustainably develop fishery resources, Micronesia, the Marshall Islands, Kiribati, Nauru, Palau, Papua New Guinea, and the Solomon Islands signed the Nauru Agreement in 1982 and the Palau Agreement in 1992 on coordinated management of purse seine fishing in the Western and Central Pacific. The agreements stipulate that the total number of foreign purse seine fishing boats in the region should not exceed 205 and quotas are allocated to each country (Wang & Wu, 2014). On 23 April 2010, it was announced at the Conference of Parties to the Nauru Agreement held in the Marshall Islands that starting 1 January 2011, purse seine fishing of tuna is prohibited in the 4.555 million km² of sea area between 10°N-20°S and 170°-150°E (MFC, PRC, n.d.). An observer

mechanism was instituted by relevant countries to supervise the fishing ban. Parties to the Nauru Agreement also stipulate that fishing boats are prohibited from using fish-aggregating devices for three months a year. Dedicated bodies such as the Pacific Islands Forum Fisheries Agency (FFA) and the Secretariat of the Pacific Community (SPC) provide technical consulting, professional services, and support for the parties.

Improved environmental protection mechanisms

The Solomon Islands has made offshore fishery and marine resource management a national strategy. Given the fact that tribes and clans are in charge of land and sea areas, the country adopted a community-based approach in the management and utilization of marine resources. For instance, Tetepare Island established the Tetepare Descendants Association (TDA), the largest association of island owners in the Solomon Islands, to protect resources and the environment on the island through management plans to ban development of Tetepare Island and its water resources. A TDA patrol was also formed to monitor resource development on the island.

In 2015, Fiji launched the Green Growth Framework to protect its primeval natural environment. In addition, the Fiji government also called on tourism organizations

around the world to raise the environmental awareness of tourists in collaboration with Tourism Fiji, so that tourists could have a better knowledge and understanding of the country and learn to respect and protect the local natural environment while appreciating its beauty. In order to protect the marine ecosystem, enable fish stocks to grow and reproduce, and to bring the coral reefs back to life, the Fiji government has made the commitment that, by 2020, with the World Wildlife Fund (WWF) support, it will establish the world's largest management network of marine protection zones in 30% of its sea areas.

Palau established a national marine protection zone in 2015, becoming the first country in the world to set up a shark protection zone in the national sea, and the first to ban bottom trawling. With the increase of inter-

WITH THE INCREASE OF international tourists, in order to prevent Palau's pristine environment and culture from being damaged by tourists' negligent behaviours, the Palau government introduced the Palau Pledge which stipulates that all tourists, before entry, must make a pledge to protect the ecology.

national tourists, in order to prevent Palau's pristine environment and culture from being damaged by tourists' negligent behaviours, the Palau government introduced the Palau Pledge on 8 December 2017, which stipulates that all tourists, before entry, must make a pledge to protect the ecology. Palau's immigration officials will stamp the "Palau Pledge" on the inner pages of all foreign visitors' passports upon entry. Only those who express a commitment to local ecological protection, with their signatures, are allowed to enter the country. Moreover, the Palau government has developed policies to penalize violators who may face a maximum fine of one million dollars.



CONCLUSION

Far away from the centre of world economic development, South Pacific island economies, with their small land territories and vast sea areas, suffer from uneven distribution of resources, specialized economic structures, and great economic and ecological vulnerability. Accelerated development of marine resources may compensate for the lack of terrestrial resources and drive economic growth. But taken too far, it will cause irrevocable harm to the weak ecological environment and forestall sustainable development of the economy. Therefore, these island economies should prioritize an inclusive development strategy to foster the circular economy and green industries. Environmental issues, for all their complexities and interconnectedness, require extensive and inclusive participation to form a strong synergy. For instance, global warming and rising sea levels cannot be effectively addressed through the efforts of a single state or jurisdiction; only collaboration within the international community will work. Ecological problems within individual economies can only be fixed through a series of measures including stronger legislation and industrial restructuring. Although South Pacific states have had challenges in developing their economies, regional economic integration, trade connectivity, and stronger communication can promote resources complementarity among the economies and boost faster development. At present, due to a severe shortage of funds, technology, and human capacity, South Pacific island economies lack drivers for endogenous growth. It is therefore critical for them to enhance their cooperation with countries outside the region.

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Supply vessel entering the port of Appilatoq, Greenland

4

Marine island economies:

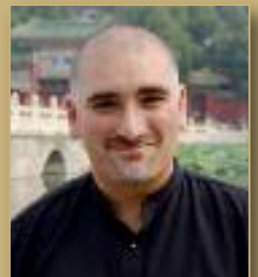
Drivers, roles, and challenges

ABSTRACT

Islands may be defined by a particular relationship between land and water, but discussions of island development often focus on either land-based activities or on sea-based activities, with little attention to how the terrestrial and marine realms interact. This chapter argues that islands possess a number of spatial characteristics related to coast/area ratios, land scarcity, comprehensive coastlines, transport benefits, and territorial benefits that serve as drivers for the marine economy and that boost marine island economy competitiveness. Today's marine economy is, however, dependent upon onshore

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infrastructure; labour; expertise; and healthy and stable ecological, social, and political environments, none of which can simply be taken for granted. The very factors that make islands ideal for hosting marine activities—such as an extensive land-sea interface and density-facilitated agglomeration economies—may be placed at risk by marine economy-oriented island development. It is thus that economic activities on the land-sea interface—whether port services or coastal tourism—can reduce islanders’ access to the sea as well as lead to environmental degradation that threatens the continued viability of the economic activities in question. Those pursuing island development should take care to balance short-term and long-term objectives while leveraging the very real competitive advantages that arise from island spatialities.

INTRODUCTION

Recent years have shown an increasing emphasis within Chinese research on defining, quantifying, and assessing the marine economy as well as its relationship with the wider economy (e.g., He et al., 2018; Wang & Wang, 2019; Yang et al., 2016; Yin et al., 2018). As China moves into a new stage of industrial development, it becomes increasingly important to understand how economic processes on land and in the sea interact.

This would seem to highlight the importance of taking a marine economy approach to islands, which are fundamentally defined by a particular relationship between land and water. Nevertheless, discussions of island development per se have often focused on either land-based activities or on sea-based activities, with little attention to how the terrestrial and marine realms interact. This chapter seeks to provide a framework for understanding marine economy processes on islands and in archipelagos, laying the groundwork for future quantitative and data-driven studies on how to optimize marine island economic outputs over long periods and for the benefit of the wider society. The chapter will discuss how a place’s island status can affect the marine economy as well as how the marine economy may interact with various aspects of islandness to produce wider social, cultural, economic, and political impacts.

THE LAND-SEA INTERFACE

When it comes to understanding the meaning of ‘islandness’, it is the interface between land and sea—and the ways in which this interface is approached and exploited—that is significant. A place’s status as an island only matters to the extent that its land-sea interface is activated. One manner in which this land-sea interface can be activated is when an island’s comprehensive coastlines are used to create mental borders, as shall be discussed below in the context of island territoriality. Such bordering practices represent a way in which people—both island residents and outsiders—may work to isolate an island from its surroundings. The land-sea interface

can also, however, be used to connect an island with its surroundings, both with other pieces of land and with the sea itself.

The marine economy encompasses a great variety of industries. It is vital to recall, however, that the marine economy is not just about the sea. For all the talk of an increasingly seamless global economy, the vast majority of marine activities continue to require onshore infrastructure and facilities, not to mention labour, resources, and consumers. It is because of this that islands—particularly small islands—often have a crucial advantage in the marine economy. Although coastal zones in mainland areas provide an interface between land and sea, this interface is exceptionally comprehensive on small islands, where all areas provide close access to the water. Thus, for example, Hainan, a large island, has around 1,800 km of coastline and a land area of 35,000 km², resulting in a coast/area ratio (m/km²) of around 51 (Zhao et al., 2017). Meanwhile the relatively small and elongated islands of the Zhoushan archipelago have around 1,200 km of coastline and a land area of 1,000 km² (Qiu et al., 2017), resulting in a coast/area ratio of around 1,000. All else being equal, high coast/area ratios represent enhanced accessibility of the sea from the average point in a territory and are beneficial for the marine industries and industries directly or indirectly related to them.

THE MARINE ECONOMY encompasses a great variety of industries. It is vital to recall, however, that the marine economy is not just about the sea. For all the talk of an increasingly seamless global economy, the vast majority of marine activities continue to require onshore infrastructure and facilities, not to mention labour, resources, and consumers. It is because of this that islands—particularly small islands—often have a crucial advantage in the marine economy.

Frequently, however, all else is not equal. It may be that a long stretch of coastline on the mainland or on a large island provides superior conditions for industry than does the coastline of a small island that lacks land for development. Indeed, extreme land scarcity is a characteristic of small islands and would seem to inhibit development of the marine economy. Although some marine industries are relatively undemanding in terms of land use, others require the allocation of significant terrestrial space. Whereas a subsistence fishing economy requires little more than a protected beach, residential housing, and basic processing facilities, a modern, export-oriented fishing economy with some degree of local processing both consumes more terrestrial space and requires a greater degree of infrastructural development.

This might seem to place small islands at a disadvantage, yet it seems that lack of developable land is itself a driver for the marine economy on small islands. This is in part because many alternative industries are equally if not more demanding of space. For example, terrestrial primary-sector activities (agriculture, forestry, mining, etc.) tend to be highly land-intensive. As such, even if land scarcity places small islands at an immediate disadvantage relative to mainlands and large islands as far as the marine

economy is concerned, small island spatiality nevertheless encourages development of the marine economy because marine industries remain more feasible than alternative terrestrial industries.

It is also necessary to consider the effect of comprehensive coastlines on territorial seas and exclusive economic zones (EEZs). Here, even islands with relatively low coast/area ratios possess a distinct advantage over mainland territories in terms of control over marine resources such as fish and minerals beneath the sea bed. Widely dispersed archipelagos such as French Polynesia and Kiribati can create enormous EEZs. In the case of independent states or highly autonomous subnational island jurisdictions, this can result in a regime of local resource exploitation and/or the sale of quotas and licenses to overseas businesses or jurisdictions. In the case of islands and archipelagos that are fully integrated into a mainland jurisdiction, the presence of extensive adjacent marine territory also has the potential to create considerable employment onshore.

These issues explain in part why even islands with poor natural harbours and/or difficult landscape features for development may be pushed in the direction of the marine economy. For example, both the small subtropical island of Lanyu/Pongso no Tao (southeast of the large island of Taiwan) and the enormous arctic archipelago of Greenland are strongly reliant on fishing while increasingly looking to coastal nature and cultural tourism to generate foreign exchange: not because their coastal zones are particularly easy to develop for fishing harbours, tourism accommodation, and ancillary services but because it is easier to develop the mountainous and difficult landscape for these industries than for alternative industries. Mountainous, nearshore Hong Kong Island's historic growth as a site for port services lay both in its exceptional, island-conditioned jurisdictional status and its strategic location, but it also lay in its difficult geography, which occasioned rapid densification, as we shall discuss below. Archipelagos such as Guadeloupe and the Seychelles lack developable land but are located both far offshore from their continental hinterlands and are poorly positioned to play key roles in today's global shipping networks. Their high coast/area ratios are nevertheless beneficial for coastal tourism development. All this is to say that the degree to which high coast/area ratios push island societies toward the marine economy is not necessarily completely explained by straightforward opportunities for harbour development but is instead a result of a complex interplay of terrestrial and marine characteristics.

In this section, we have seen some of the reasons why small islands—both nearshore and oceanic—may be pushed toward reliance on the marine economy. It is worth noting, though, that similar factors may affect development and economic potential on large islands and peninsulas. Chinese examples of major port development in peninsular geographies include Dalian, Kowloon, Qingdao, and Weihai. Peninsulas, however, lack many of the territorial benefits possessed by islands that are discussed below.

Next, we will consider why islands are especially likely to gain a competitive advantage in the marine economy relative to mainland areas.

PROCESSES OF ISLAND URBANIZATION AND DENSIFICATION

Throughout history, though in different places at different times, small islands rose to prominence due to a number of interconnected benefits to island spatiality (including benefits involving territoriality, defence, and transport), which made them ideal sites for nurturing and projecting political and economic power (Grydehøj, 2015).

Historically, it is this combination of spatial benefits that has made small nearshore islands important nodes for trade and centres of government, particularly at the intersections of rivers and the sea. European island cities such as Cádiz, Lübeck, Rotterdam, and Venice developed as easily defended, territorialized, and accessed ports from Ancient times through the Medieval and Early Modern periods. This type of island port city was later replicated in European colonies in the Americas (e.g., Rio de Janeiro, Belize City, and São Vicente) and in the Persian, Arab, and European colonies of East Africa (e.g., Lamu, Ilha de Moçambique, Zanzibar, and Mombasa), serving as trading posts that connected products from mainland industries with capital from the metropole.

In Asia, European powers established a succession of small island trading posts with similar purposes. The Portuguese created trading posts on various Chinese small islands (Shangchuan and Lampacau) before entrenching in Macau (1557). The British colonies on the strategically located islands of Penang (1786) and Singapore (1819) preceded the annexation of Hong Kong Island (1841), and even Germany's trading posts in China were located on islands at the mouth of Jiaozhou Bay (Qingdao and Huangdao) (1891). Such European enclaves were, however, preceded by the rise of genuinely Chinese island port cities: just as colonialists seeking trade with powerful overseas actors often opted for the territoriality, defensibility, and accessibility of island enclaves, local authorities often preferred to restrict foreign traders to small islands in an effort to contain their political influence. This not only made islands and archipelagos such as Guangzhou and Xiamen ideal places for hosting foreign trade visits and foreign businesspeople; it also meant that foreign trading operations were sometimes allocated even smaller islands on which to live, such as Shamian in Guangzhou and Gulangyu off Xiamen.

The above examples are all nearshore islands, but strategically positioned oceanic islands or islands far off-shore from the continent have also played important roles as centres of regional economic, political, and military power, with historical examples including Gotland, Malta, Jeju, and Tonga.

BENEFITS ASSOCIATED WITH island spatiality help explain why some important trading centres and centres of government were historically established on small islands, yet it is the aforementioned characteristic of land scarcity that helps explain why small islands have remained significant economic players and have often developed dense urban landscapes that support the marine economy and related industries and functions.

Benefits associated with island spatiality help explain why some important trading centres and centres of government were historically established on small islands, yet it is the aforementioned characteristic of land scarcity that helps explain why small islands have remained significant economic players and have often developed dense urban landscapes that support the marine economy and related industries and functions. Although land scarcity clearly inhibits certain kinds of development, the restrictions that it places on small islands often seem to be offset by the benefits that residents, governments, and businesses gain from the tight clustering of residential, administrative, industrial, transport, and service functions—all with good water access.

One result of land scarcity is the development of agglomeration economies. Agglomeration economies are typically balanced by dispersion forces, with “excess concentration” producing “negative externalities due to congestion, such as longer commuting costs and scarce land for housing and offices” (Tabuchi, 1998, pp. 333-334). Dispersion forces encourage the movement of residents and industries out into the hinterlands, leading to the development of urban sprawl, commuter cities, and/or new urban centres. Yet islands—by their very nature—lack immediate hinterlands. Once an island’s developable land has been developed, the processes of dispersion meet the border of the sea. Although islands may possess connective infrastructures such as bridges, tunnels, and ferry terminals, and although island industrial zones can and are extended to other nearby islands and mainland areas, the lack of territorial contiguity renders such development less attractive than it otherwise might have been.

It is worth emphasizing that even as mechanized land transport and travel by air have revolutionized the movement of goods and people, water remains the preferred medium for moving large loads long distances (Urry, 2014). As marine technologies have become more sophisticated and specialized, industrial harbours have increasingly moved outside city centres and into dedicated port zones, which are often constructed on islands or branching peninsulas of ‘reclaimed’ or manufactured ground. This removes some of the ‘natural’ spatial advantage that small islands once held. Nevertheless, port towns and cities (which are located disproportionately on islands) may retain their economic importance even after the advantages linked to comprehensive water access have disappeared or become less significant. As Fujita and Mori suggest, “Given that cities develop due to their self-reinforcing agglomeration economies, their very presence generates the lock-in effect in the location space, from which individual agents find it difficult to escape, and to which new agents tend to be attracted” (Fujita & Mori, 1996, pp. 94-96). That is, economic benefits encourage agglomeration, and agglomeration produces further economic benefits. These processes are enhanced on small islands, where land scarcity-induced densification tightens clustering and where dispersion forces are weakened due to a lack of hinterlands.

TERRITORIAL BENEFITS TO ISLAND SPATIALITY

We have already touched upon the transport benefits of small island spatiality, but equally important—if more abstract—are benefits relating to territoriality. Territoriality in this case refers to the ability to conceive of a space as a cohesive place: being surrounded by water provides apparently natural borders that help distinguish the island from other places, providing it with an exceptional degree of “geographic legibility” (Grydehøj, 2018). This assists in nation-building processes (Grydehøj et al., 2018), but it also assists in efforts to brand islands as especially sustainable, innovative, dynamic, or pure (Baldacchino & Kelman, 2014; Grydehøj & Kelman, 2016, 2017; Krieg, 2018). The island becomes a synecdoche for the processes that occur within it. When it comes to the production of a strong “place image” (Selby & Morgan, 1996), the ability to present an area as a single, cohesive space is of great benefit. Legal formalization of territorial difference is typically preceded by local and outsider perceptions of difference, and the power of formalized difference is enhanced by perceived difference. These are aspects of what Baldacchino (2010) refers to as the “resourcefulness of jurisdiction.”

Some islands—such as Jeju, Hainan, Sri Lanka, New Zealand, and even Greenland—may be so large in size, with such strong internal geographical diversity, as to be little different from a mainland when it comes to factors that are frequently associated with small island spatiality, such as transport (Karampela et al., 2014; Larjosto, 2018; Leung et al., 2017), governance (Corbett, 2015; Kwong & Wong, 2017; Veenendaal, 2018), and social capital (Baldacchino, 2005; Neilson & São Marcos, 2016; Perumal, 2018). All else being equal, however, territorial benefits are characteristic of islands both small and large. Thus, for example, Hainan as a whole is exceptionally capable of laying claim to localized industrial specializations—ranging from seaside tourism to port services to science and technology to aquaculture to policy expertise—and making them part of a series of island-wide place images relevant to the marine economy. In the game of entrepreneurial governance, islands possess a distinct advantage, assuming that island policymakers are capable of effectively mobilizing the resources necessary to make their territories competitive to begin with.

We can also see these processes at work in Zhoushan, which in recent times has emerged as the site of two of the world’s busiest ports. This is due in large part to Zhoushan’s combination of archipelago spatiality and proximity to major industrial and commercial centres on the mainland, which have encouraged marine economy industrialization. This has also been due to the effect of island spatiality on the establishment of territorial distinctions: Zhoushan’s status as a National New Area (Qiu et al., 2017) is—like the Special Economic Zone status of Hainan and Xiamen, the Pingtan Comprehensive Pilot Zone, and the continued Special Administrative Zone status of Hong Kong and Macau—easier both to create and to maintain as a result of its island-ness. In order to remain exceptional, special zones must be clearly bounded and



bordered. Such boundaries and borders are exceptionally visible and conceptualizable in island contexts (Grydehøj, 2018). Special economic zones, special administrative regions, and similar designations are examples of territorial exceptionalism that has been formalized in law, yet the perception of these places as territorially distinct typically preceded their being legally recognized as special. There are exceptions to this rule, of course, but such exceptions are themselves sometimes jurisdictional reactions to territorially distinct island spaces, as in the case of the special status of Shenzhen and Zhuhai, which is implicitly crafted as an economic interface of the adjacent islanded Special Administrative Regions.

We saw above how a combination of high coast/area ratio and land scarcity could serve as a spatial driver toward the marine economy as well as how the densification occasioned by these small island spatial characteristics can further enhance the importance of the marine island economy and increase its competitiveness. In this section, we have seen how territorial benefits can contribute to these other spatial attributes or, in the cases of large islands, represent a benefit on their own. These drivers and advantages may differ somewhat for nearshore islands and oceanic islands, yet both categories of island have played and have the continued capability of playing important roles in global and regional shipping networks, food supply, tourism, and other parts of the economy. (It is problematic for our analysis that nearshore islands remain undertheorized and under-researched in the island studies literature [Hong, 2018].) Nevertheless, successful advanced marine economies depend on more than just straightforward spatial characteristics. As suggested above, they also require a number of less tangible resources. For certain kinds of island and archipelago territories, focus

on the marine economy may be the most obvious and/or the best choice, but that is no guarantee that all of these territories will engage in the marine economy in a manner that is both internationally competitive and beneficial to the island society itself.

CONDITIONS FOR THE MARINE ISLAND ECONOMY

Islands possess a tendency to engage and succeed in the marine economy because of their exceptional land-sea interface, frequent land scarcity, and territorial benefits. Container-based shipping, offshore mineral extraction, industrial fisheries, global tourism, aquaculture, and a raft of other technology-enabled economic activities have increasingly come to rely on islands as hubs that facilitate terrestrial-marine interchange and as nodes in wider marine networks. The conditions for industries cannot, however, be reduced to the mere availability of land or coastline or the mere territoriality of a place. The increasing globalization of the marine economy raises the competitive bar and demands increasingly more of host communities in terms of onshore infrastructure; labour; expertise; and healthy and stable ecological, social, and political environments. As such, while islands may develop marine economies due to a lack of better options or due to interventions by individual business actors, sustained success requires appropriate and informed governance.

Advances in shipping technology have placed new infrastructural demands on ports and associated industries, sometimes necessitating the construction of entirely new harbours (accessed by new roads) and the adoption of new equipment both in and beyond the port itself. The plummeting costs of long-distance air travel and the rise of global tourism have for their part increased expectations for coastal tourism, with island destinations competing with one another at regional and global scales (Almeida-Santana & Moreno-Gil, 2018) for the best, cheapest, most convenient, most spectacular, and most unique island experiences. At the same time, the increasingly globalized and mechanized nature of the marine economy has heightened the need for skilled and educated labour. For islands with relatively low populations, this presents a problem, given that the locally available set and range of skills and competencies will likely be insufficient to serve an advanced marine economy. Furthermore, many islands have historically been subject to demographic processes involving high levels of emigration, as young people travel

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to the mainland or to larger islands in search of work and education that is not available locally. As a result, even if young people wish to remain in their communities and potentially gain skilled employment in the marine economy, this often involves them first leaving their communities in order to receive training and education—with the attendant uncertainty as to whether they will wish to or be able to return home in the future (Cooke & Petersen, forthcoming 2019).

Many island territories have sought to address this by investing in infrastructure and services (culture, entertainment, higher education, sport, transport) that can make remaining on the island more attractive to young people. Yet such is the globalized nature of today's marine economy and the highly specialized skills it requires that it is simply impossible for a single small territory to provide training and education in the full range of necessary services. A successful advanced marine economy thus requires the importation of off-island skills, which frequently spurs programmes to make island life more attractive to skilled labour from the mainland and/or from overseas. Unfortunately, as a result, population retention strategies risk perpetuating a situation in which talented young people who are encouraged to remain on the island end up with fewer or inferior qualifications to those of imported labour, thereby creating a problematic divide in skills and opportunities between locals and incomers. This emphasizes the importance of efforts not just to retain island residents but also to encourage islanders who have acquired skills off-island to return home and potentially to encourage cyclical emigration-immigration of islanders for training and education.

These processes are not unique to the marine economy of course. Small islands, in particular, struggle with skills gaps in many areas. Furthermore, although some skilled jobs in the marine economy require truly specialized knowledge (e.g., marine engineering, shipping logistics, maritime law), many others require high levels of training in more or less transferrable skills (e.g., accounting, hotel management, operations management), with the result that the marine island economy is competing for skilled labour with other segments of the island economy. However, it is also the case that the infrastructure and services that form a part of the marine island economy can be complementary with more straightforwardly terrestrial activities. Marine transport infrastructures can serve not just as hubs in the global maritime network but can also service local industries. Certain kinds of coastal tourism can, for example, boost the surrounding tertiary sector, increasing the demand for and economic value of lifestyle services (e.g., dining and entertainment, beaches, museums) that can also be enjoyed by island residents; encouraging specific kinds of environmentally sensitive land use; or increase the demand for local primary- and secondary-sector products (e.g., fish, fruit and vegetables, art and handicrafts). Indeed, innovative tertiary-sector activities in the marine economy can throw a lifeline to more traditional marine livelihoods, as may occur, for example, when homestay or community-based tourism increases the appeal of small-scale fishing, hunting, and/or agriculture (e.g., Su et al., 2017). Meanwhile, the rollout

of the “smart” infrastructures that are necessary for global business also holds the potential to benefit local business operations and to increase local quality of life.

VICTIMS OF THEIR OWN SUCCESS

None of the above benefits can be taken for granted. In fact, there are a number of ways in which the marine island economy can become a victim of its own success.

Unequal distribution of benefits from the marine island economy

One major risk is that policies that seek to promote the marine island economy may overlook the impact on other segments of society and parts of the economy. Special economic zones of various kinds may involve mechanisms that weaken the local tax base, increase pollution, and worsen working conditions, while profits from the industries within the zone may be overwhelmingly exported out of the territory (Easterling, 2014). Of course, part of the appeal to placing special economic zones on subnational island jurisdictions, in particular, is that this allows the state to accrue economic benefits from the territorial containment of lucrative economic processes that the state nevertheless does not desire to implement across the country as a whole. For example, export processing zones and tax-free zones may support kinds and scales of industry that would otherwise be difficult to attract and maintain, yet few policymakers in large countries wish to see such legal regimes become the general condition.

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The South Korean island of Jeju offers an example of the dangers of special territorial status. Over the past decade, the autonomous province of Jeju has experienced strong economic growth, supported not only by its island advantages in terms of coastal tourism and favourable location but also by its special legal regime, which permits visa-free travel for citizens of many states and encourages foreign direct investment through the Jeju Special Investment Zone system. The booming tourism, construction, and service industries in Jeju have undoubtedly created jobs and new opportunities for islanders, but they have also led to rising property and commodity prices that have a crowding-out effect on other industries, including Jeju’s traditionally strong agricultural industry and its culturally significant fishing industry.

Jeju is a relatively large island, but such crowding-out effects have the potential to be even more acute on smaller islands. In a study on the relationship between tourism and offshore finance on Jersey (one of the Channel Islands of the United Kingdom),

Fishing is a culturally important industry in Jeju



Hampton and Christensen (2007) cast doubt on claims to synergies and complementarities between related island industries. Although “both industries have common characteristics including high mobility, rising global demand, and labor-intensive customer-services operations [and] both require advanced transport and telecommunications infrastructure” (Hampton & Christensen, 2007, p. 999), “beyond a certain stage of development the link between tourism and offshore finance becomes one of intense competition for scarce resources.” That is, one can only take island agglomeration economies so far: both offshore finance and tourism can benefit from island spatiality, but when confronted by limits to growth, it is the more profitable industry that typically wins out. In the case of offshore finance centres such as Jersey and the Isle of Man, the tourism industry—which produces less direct profit for the state but may nevertheless be more capable of providing livelihoods for islanders—ends up dwindling.

Even in cases in which an area does not fall under a special regulatory regime, certain kinds of industrial promotion and success can prove harmful to island society more generally. All too often, new transport infrastructure, coastal tourism, and IT upgrades are enclavized and separated from the surrounding economy, sometimes even physically ‘islanded’. Improved transport and infrastructure may be provided only to special industrial areas or high-income residential districts. Transport infrastructure may be laid out in such a way as to reduce pre-existing mobility between low and high income

The difficult landscape of Nuuk, Greenland's capital city



areas or between tourist and non-tourist areas. Coastal tourism may be limited to resort zones that reduce islanders' access to the coast as well as contain tourist spending within the resort. Similarly, yacht harbours, central business districts, and other results of 'urban renewal' that are targeted largely at tourists or skilled immigrants may displace or remove access to the livelihoods of existing residents (e.g., Grydehøj & Ou, 2017).

From a governance standpoint, much of the problem here involves a tension between state revenues (local, municipal, provincial, or national) that can be used to support welfare and development on the one hand and more subtle issues of societal economic well-being on the other. For example, we can take the case of Greenland, an autonomous island territory with vast natural resources but limited human resources and very difficult internal and external transport challenges. In Greenland, there has been long-running political debate regarding competing aims for fishing, the island's major export industry: should the state seek to boost export competitiveness by pursuing economies of scale and encouraging concentration within the industry, or should it seek to boost employment opportunities in economically marginal regions by further dispersing fishing quotas? Greenland's decades-old struggle with a public administration and business elite dominated by non-locals can be viewed in a similar light: should the state seek to discourage certain kinds of labour immigration in order to enhance employment opportunities for islanders, even if it comes at a short- and medium-term

cost in terms of managerial effectiveness? Furthermore, should population and services continue to be concentrated in Greenland's capital (the town of Nuuk), thereby improving efficiency and laying the groundwork for future high-value marine industries (such as port services, coastal tourism, and marine logistics), or should emphasis be

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placed on maintaining livelihoods on the island's economic periphery, which significantly depends upon subsistence hunting of marine mammals? These precise tensions are in some senses highly specific to the Greenlandic context, yet they reflect wider dilemmas in island policymaking and in managing the marine island economy.

Destruction of spatial advantages

Another issue that may arise in cases of successful engagement in the marine economy is that the spatial advantages that islands and archipelagos possess in terms of the marine economy are not always open to unlimited exploitation. These advantages may represent a kind of spatial resource that is at risk of destruction.

For example, although many island territories gain great benefit from their extensive territorial seas and EEZs, the advantages that these provide as fishery resources or sources of subsea fuel and mineral reserves may have adverse effects on local economic actors. The sale of fishing quotas or oil exploration and extraction rights could accrue significant income for the state (either local or national) while bringing disaster down upon inshore fisheries, coastal tourism, and so on. That is, although the sea itself may always be present, its value for the island territory can decrease in the face of over-exploitation or poor management of marine resources.

As discussed above, some islands' success in the marine economy is conditioned by their comprehensive land-sea interfaces and/or high coast/area ratios. These foster density-facilitated agglomeration economies linked to marine industries. However, such processes also frequently lead over time to a weakening of the role of marine industries on particular islands. This may in part be due to a "natural" industrial shift, as certain relatively low-profit marine industries lose out to more lucrative industries in competition for scarce island land, as we can see, for example, in the widespread redevelopment of inner-city marine industrial zones and harbour areas into residential and leisure zones (Giovinnazzi & Moretti, 2010; Hein, 2016). That is, marine industries that benefit from island spatiality boost the local economy, leading to densification and agglomeration that raises residents' disposable incomes, with the result that the



Houses with red roofs and quayside near a moored ship, in the main harbour location of Copenhagen

original marine industrial impetus for this economic success is no longer appealing in terms of employment and investment. This can produce a number of paradoxical situations for island cities. Thus, for instance, the island city of Copenhagen is undergoing a construction boom that simultaneously involves the conversion of former marine industrial zones into high-income commercial and residential districts (in the Sydhavn, Christianshavn, Papirøen, Holmen, and Refshaleøen areas) and the expansion and redevelopment of the peninsula of Nordhavn into a modern container port, cruise ship and ferry terminal, and base for marine industries. In this case, the explanation for why some marine industry zones are being destroyed while new ones are created in the same city involves the continued development of marine technologies.

One thing that all these current or former marine industrial zones in Copenhagen have in common is that they are located on reclaimed (artificial) ground. Since the 1500s, Copenhagen has undergone waves of land reclamation aimed at providing ideal spaces for ports, warehouses, naval shipyards, fortifications, and other marine infrastructures. This has, however, significantly narrowed the width of Copenhagen Harbour. Combined with the construction of cross-harbour bridges due to the city's expansion to the adjacent island of Amager, this means that Copenhagen's traditional harbours are no longer capable of serving modern container ships and passenger ships, thereby pushing the city's port out of the harbour and into the open, deeper water. An even more dramatic

example of this process can be seen in Hong Kong, an island city that benefited from the spatial advantages of a deep and long harbour—right up to the point at which continual land reclamation on both Hong Kong Island and Kowloon Peninsula narrowed the harbour, increased the need for cross-harbour transit, and raised the value of non-port services-related industries to such a degree as to make it expeditious to shift port activity development to the island of Tsing Yi, beyond the harbour proper. One island's loss of certain marine industries is often another island's gain. Similar push factors help explain Zhoushan's recent transition from a fishing-based economy into being a pre-eminent site for ports, having come to provide the lion's share of heavy port services for Ningbo and Shanghai, both of which were famous port cities of earlier eras.

LAND RECLAMATION is a decisive factor in the densification patterns specific to island port cities. As in Hong Kong, the early success of marine industries encourages agglomeration, which raises the value of coastal land. The scaling up of industrial activity places new technical demands on industrial zones and prioritizes new varieties of marine industries, hence the impetus to engage in land reclamation to create tailor-made land-sea interfaces.

Technological change is also a factor here, as the increasing volume and sophistication of cargo management systems, infrastructures, and logistics have encouraged new kinds of land use and spatial organization. Increasing cargo ship size has enhanced the value of deep-water ports, while increasing automation and specialization have enhanced the appeal of highly variegated port facilities, with vast container depots, dry bulk and liquid bulk terminals, and massive unloading and onshore transport systems. These further advocate for the movement of sea ports out of crowded city centres and toward the urban periphery—freeing up valuable space in the centre while boosting land values elsewhere.

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demands on industrial zones and prioritizes new varieties of marine industries, hence the impetus to engage in land reclamation to create tailor-made land-sea interfaces. Even today, however, land reclamation is a slow and arduous process, leading to piecemeal expansions of an island's terrestrial zone and fostering continual processes of densification behind the newly constructed coastlines. Such processes are not limited to major island cities. Land reclamation is also important for coastal tourism in many island territories, providing ground for new hotels, new attractions, and new retail zones. As Johnson (2018) notes, islands of various sizes are sites of “intense geographical transformation” across both vertical and horizontal dimensions.

Land reclamation along a coast may be positive for advanced marine industries such as modern tourism and port services, but could also jeopardize water access to

individuals and businesses who engage in less lucrative marine industries. The small-scale fishing operations that have been placed at risk, made difficult, or rendered impossible by coastal development on islands of many kinds around the world (Al Ansari, 2009; Barton & Román, 2016; Ou & Ma, 2017; Swaminathan, 2014) may not be major sources of state revenue but may nevertheless be important for local livelihoods—which does ultimately impact on the economic well-being of an island territory as a whole. Lack of public access to the water can also result in a declining quality of life for island residents, leading to long-term reductions in an island territory's ability to retain young people and attract skilled labour.

Land reclamation and related engineering efforts involving the hardening or expansion of coastal zones can furthermore have strongly negative effects on the environment. The conversion of island wetlands, mudflats, and mangrove forests into marine industrial zones furthermore represents a reduction in local ecosystem services, which may not be possible to offset elsewhere and which may have serious effects outside their own boundaries, given the importance of these marine environments as storm buffers and as spawning grounds for high-value species (Asaeda, 2016; Zhao et al., 2004).

CONCLUSION

We have shown here that island territories frequently have good reason to opt for a focus on the marine economy. We have also noted some economic and spatial processes that concentrate profits and benefits in the hands of particular industries, non-residents, or local elites, thereby decreasing social and economic cohesion and thus social capital. More concretely, some of these processes directly render difficult or impossible particular marine industries and livelihoods.

The trouble lies in assessing whether that which an island territory gains from particular aspects of international competitiveness within the marine economy is worthwhile relative to the costs that are incurred. In some cases, economic activities that increase inequality and cause localized harm may be warranted if they result in sufficient benefits for the island territory as a whole. Yet it is far from straightforward to determine the appropriate balance of interests between state, individual, and business actors. Local businesses and individuals may have entirely legitimate reasons for opposing particular policies related to the marine economy, without this necessarily meaning that the policies are a bad idea for the island government to undertake (Grydehøj, 2011). It may be, for example, that the needs of a particular fishing community or group of leisure users do not outweigh benefits acquired by the population as a whole.

Those pursuing island development should take care to balance short-term and

long-term objectives while leveraging the very real competitive advantages that arise from island spatialities. This requires a strong governance system that is capable of creating a framework for promoting industry to the benefit of the island society as a whole and for maintaining the island values that support the marine economy.

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PART III:

Free trade and connectedness— islands in the global economy



The harbour of Port Louis, capital of Mauritius

5

The experience of islands with free ports and free zones

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ABSTRACT

Free zones have developed along every major trade route. These routes not only rely on a network of gateways providing access to market and production facilities, but also on places to unload cargo, save time, and purchase logistics services before rerouting cargo toward the best destination. This buffer effect in today's door-to-door supply chains is particularly beneficial when coupled with island economies.

The first free port in history was located in Delos, an island

near the centre of the Cyclades archipelago. Since then, some island economies, such as Mauritius, located outside of main trade routes, have developed successful free ports. The success of these models, as well as other island-based free trade zones, is a function of trade agreements, extraterritoriality, and embeddedness within a local economy.

The study of free ports through a business-to-business approach provides a new understanding of network dynamics within the free zone, between the free zone and the island economy, and between the island economy and the trade routes.

AN ATTRACTIVE INFRASTRUCTURE

The evolution of free zones since ancient times is based on three factors: the regulatory context, the function devoted to the free zone, and the orientation of flows managed through the free zone (Lavissière & Rodrigue, 2017). With the regulatory factor, the institutional context in which the free zone is located influences the nature of the free zone. Depending on the tax system at the border of the state there are different types of free zones. Trading city-states, protectionist states, and finally states incorporated in a global network of free-trade zones have different needs for free zones and therefore create different models of free zones. With regard to function, the evolution of activities has influenced the nature of the free zones, moving from simple storage activities to processing activities and then to supply chain management activities including marketing, banking services, and other logistics-related services. Finally, the orientation of flows can be either sequential or multidirectional based on the links between the home territory and the rest of the world. In the former, flows are coming from or going to the home country of the free zone, while in the latter there is no connection with domestic territory as imported flows are re-exported after processing takes place. These three factors make it possible to classify free ports in sixteen models according to five stages of evolution (Lavissière & Rodrigue, 2017).

As Figure 5.1 suggests, prior to the early twentieth century there were fewer than 100 free port zones in the world, while a century later this number exceeded 350 (Lavissière & Rodrigue, 2017). Today this number has exploded to more than 1,750 free zones in 133 countries (Bost, 2010). Most countries now have legislation in place and almost all have such zones. In this era of globalization there has been an acceleration of exchanges of all kinds between states, and free zones have become a tool to facilitate these global exchanges. Thus, even the generic phrase ‘free port’ has been superseded by an entirely new set of descriptors, including the Free Trade Zone, Export Processing Zone, and Special Economic Zone. As for the term free port, it now refers to an industrial or commercial free zone attached to a port, whether the latter is maritime, fluvial, air, or dry; i.e., a logistic zone of rupture of load and storage where industrial processing is possible under bond.

FIGURE 5.1: Evolution of the free port (Lavissière & Rodrigue, 2017)

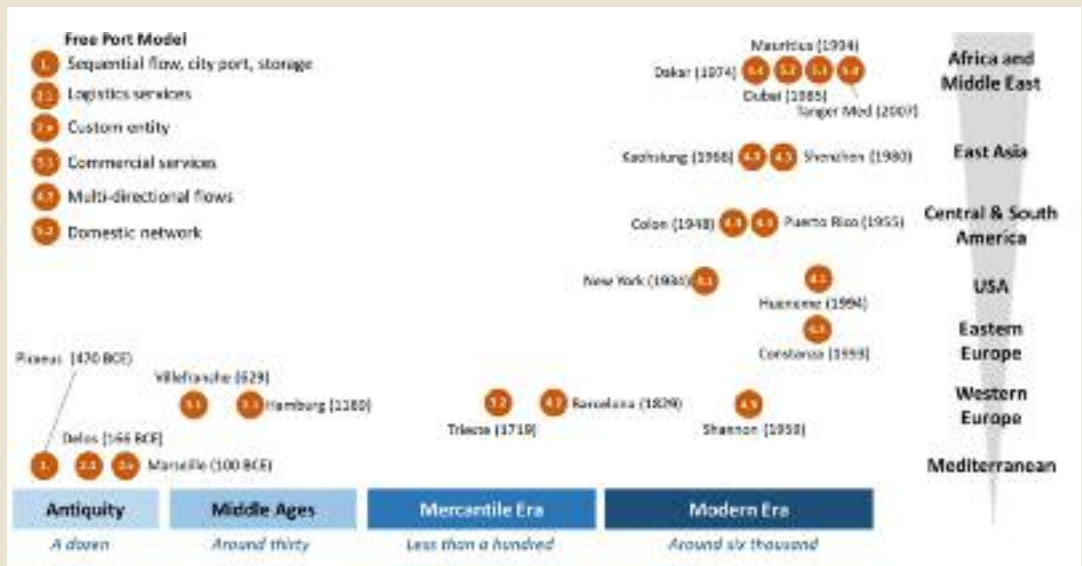
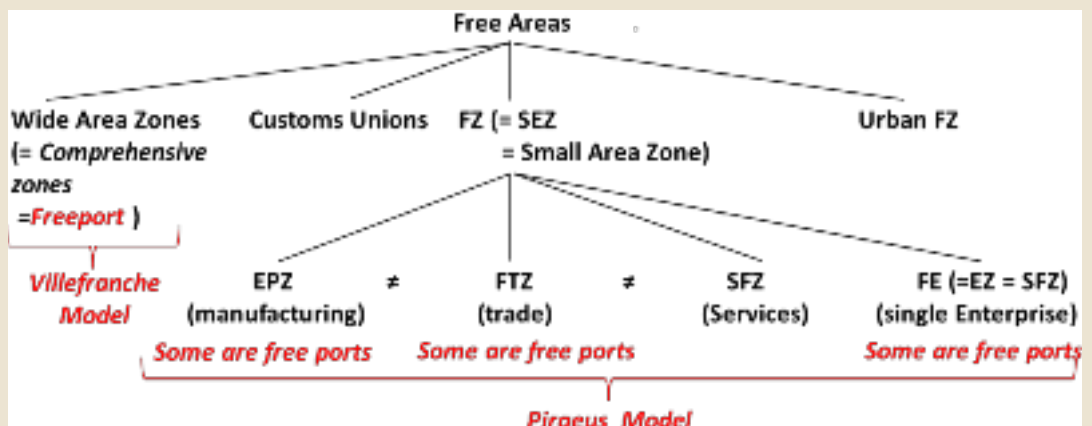


FIGURE 5.2: Typologies of free areas proposed with transversal aspect of free ports (Lavissière & Faury, 2019)



Beyond simply globalization, the increased numbers of free zones has been driven by several types of state-based motivations. Some free zones have focused on attracting flows that would have been established elsewhere without the advantages conferred by the interplay of import, processing, and re-export. Other areas have played on the buffer logistic effect of bonded storage near a target market, while still other areas are

soft economic reform laboratories that allow for the transfer of skills and good practices to the market of the domestic economy hosting the free zone (Lafargue, 2008).

Island economies demonstrate these three economic motivations through the examples of Malta, which is storing products next to the European Union on major intercontinental maritime trade routes; Mauritius, which is attracting Asian semi-finished goods in order to process them with a Mauritian certificate of origin before re-exporting them to Europe; and, more recently, Cuba, which is opening areas of its economy to capitalist ventures in restricted special economic zones.

Political orientations and differing economic aims make free zones both a multi-century and multiform infrastructure. Researchers generally agree that the principle of customs extraterritoriality lies at the heart of the system of the free zones concept (Trampus, 1999). This principle gives rise to many benefits (Tieffenbrun, 2012) and attracts direct foreign investment (Haywood, 2000). The aim of free zones is, therefore, to facilitate trade in order to attract investments and flows, and, through these, create jobs, growth, and knowledge transfer.

TRADITIONALLY, FREE ZONES ARE MEANT TO OPTIMIZE GLOBAL FLOWS

The traditional approach to the issue of the need for free zones, and the search for the success of these zones, is first of all an approach to the conditions of success and the impacts linked to the free zone. Thus, many economists have shown the conditions of development which govern the success of the establishment of a free zone in different parts of the world (Farole, 2011; Haywood, 2000; Kusago & Tzannatos, 1998), the economic impact of a free zone policy (Lorot & Schwob, 1987; Mandani, 1999; Miyigawa, 1986), and how to approach this impact (Baissac, 1996). Similarly, the regulatory conditions (Blanc, 1996; Fedi & Lavissière, 2014; Trampus, 1999), geographical aspects (Bost, 2010; Yang, 2009), and social aspects (Susman & Schneider, 2008), as well as their impacts (Bost, 2007; Lu & Yang, 2007), have been the subject of numerous studies.

International institutions and researchers have also been looking at the best practices and conditions of governance of free zones. The governance structure covers four main functions: the state, the regulation, the development, and the operation (Lafargue, 2008). The state grants the land and the specific conditions of operation of the zone. The regulation covers the management of this grant and often the regulator is a state agency. But it can also be a private body, like Port d'Ehoala in Madagascar, where the regulator is a mining company that also runs the port. The development is a function of creating the buildings (mostly warehouses), while operation is a function of using these buildings. Sometimes, a developer is also the regulator, but this creates situations in which a private function interferes with a public good function, potentially leading to prevarication. Developers, however, can be operators in the sense that they operate warehousing and logistics services for others. Operators can be industries

managing the developed logistics facility or companies that outsource logistics to the developer. Best practice recommends that an operator cannot be the regulator.

The free zone, and especially the free port, which is a logistics zone, brings advantages to global companies in the management of their international supply chains. Tieffenbrun (2012) inventories twelve main advantages for companies. These advantages include:

- *No customs formalities.* This is an advantage that addresses the fact that the free zone, or products within the free zone—depending on the doctrine—are not subject to customs tax, and that there are customs corridors from the point of entry—ports in general and the free zone—to the final destination.
- *Improved cash flow.* This is a consequence of the previous advantage since the company does not have to pay customs taxes before the product enters the customs area, or, at times, even before it is sold.
- *Owner access to merchandise.* This enables the owner to have direct access to one's merchandise even if it has not yet entered into the customs area.
- *Showroom space available.* Most free zones have showrooms because, in addition to all the other advantages of the zone, this allows for importers to show products to potential clients. As a consequence, taxes will only be paid in the case of effective entry into the domestic market, meaning when the products are sold.
- *Accounting advantages.* Since products have to appear on the books only if they enter the domestic market or if they are re-exported, they do not need to appear on the books before they are sold.
- *Reduced insurance and duty costs.* This advantage allows the importer to pay less for insurance because the premium is calculated before the duties and taxes are added.
- *Assembly of domestic with foreign goods.* This advantage works especially for operators that re-export goods, because they do not pay customs taxes on the domestic part, since it is assembled in the host country, or on the imported part, since it did not enter the customs area.
- *Ideal manufacture of goods.* Being, thus, 'bi-national', the product can either get the 'Made-in-Local' certificate of origin or keep the former origin, depending on its target market. This was, for instance, one of the development strategies of Mauritius, which had special agreements with the European Union and could import textile products that were partially fashioned in China. Chinese companies, on the other hand, could not import these products because of quotas.
- *Processing or manipulation of goods.* This advantage is predicated on the ability to process goods outside of any customs area and at times without company taxes. The zone allows for the importation of some products and

goods, which can then be processed or transformed (again, with the advantage of choosing the best customs nomenclature for future operations) and re-exported.

- *Packing, repacking, and labeling.* Workers will pick out and pack the products in the warehouse and make any last changes before these products enter the market. This is especially true for products in close-to-market zones.
- *Easy to discard goods.* International trade is subject to transport conditions that can deteriorate product quality. However, while general legal provisions make the company check the product once the duty taxes are paid, the free zone allows for quality control before the product is taxed. As a consequence, the product can be discarded and the cost of the nonconformity can be reduced.
- *Wide variety of products handled.* Although this advantage is listed, it seems to be a marginal advantage. It simply explains that there is a location where certain companies process the same kind of products as the user. Therefore, experience and know-how are created.

These advantages are linked to the status of free zones and therefore to their extraterritorial customs. The General Agreement on Tariffs and Trade (GATT) and The World Trade Organization (WTO) have, however, worked toward reducing the presence

and impact of tariffs on international trade. Yet how could an infrastructure based on the sole principle of extraterritoriality of customs be so widely distributed while the international structures that supposedly made it necessary have implemented steps to make the need for these zones to disappear (Mandják & Lavissière, 2014; Trampus, 2003)? Free zones are not about the comparatively static world of tariffs, but rather are about dynamic synergies and agglomeration economies.

FREE ZONES ARE NOT ABOUT the comparatively static world of tariffs, but rather are about dynamic synergies and agglomeration economies.

FREE ZONES ARE ALSO A TOOL FOR REDUCING FRICTION IN INTERNATIONAL TRADE

The free zone is an infrastructure that, by its very nature, reduces friction in international trade (Lavissière et al., 2014). Indeed, if we consider an international transaction between two partners where there is a physical distance between the point of production and the point of sale, then the interaction must also take into account the roads to connect these two points. Then—and this represents an increase in complexity—there is a logistics route that takes into account the ports and transport lines that

logisticians use and that are neither direct lines nor lines that follow the same geographical routes, but which follow a logic of optimized and massed merchandise in order to achieve economies of scale.

In addition, there is a financial distance wherein the shipper may realize a higher profitability by making an intermediate transformation in a low-cost country of production outside the optimal logistics route. It is often at these points that the extraterritoriality of customs offers financial advantages for a foreign direct investment that makes the implantation in one zone more profitable than another. The benefits described by Tiefenbrun (2012) are then all vectors for reducing the financial distance between the point of production and the point of sale.

When we look at the case of Mauritius with Mandják & Lavissière (2014), we notice there is no financial or logistics reason, sufficient enough alone, to manage flows from South East Asia to Europe, through an island isolated from main trade routes in the Indian Ocean. There is, however, an additional distance revealed by the case of Mauritius free port: the business distance that takes into account the cultural, organizational, linguistic, and administrative aspects that make crossing a border complex by generating frictions called border effects (Head & Mayer, 2002; Yi, 2003). These frictions have consequences on the supply chain, marketing, accounting, finances, etc. It should be noted that the free zone, since it is an interface benefiting from a specific status, makes it possible to reduce these frictions and therefore the distance of business (Mandják & Lavissière, 2014). We can state that this is no longer in the conditions only, but also in the relations between actors that the singularity and the success of the free zones reside.

THE FREE ZONE AS AN INTERNATIONAL NODE OF BUSINESS RELATIONS

Following Mandják & Lavissière (2014), this singularity leads us to question the free zone phenomenon from the perspective of Business to Business (B2B) relations using the interaction model (Håkansson & Johanson, 1992; Håkansson & Snehota 1995; Håkansson & Waluszewski, 2002) to understand the advantages that the free zone confers, in terms of the distance of business, to the actors of the international trade. Free zones are a point of connection of international business networks with local business networks. Sometimes, the free zone connects two potentials and this connection between a potential to internationalize local resources and the potential to reduce global business distance is creating value. The interactionist approach considers the business relationship to be a process that transforms the parties involved in the exchange. It is not merely the sum of equal transactions between immutable partners, all things being equal. These networks also interact with each other (Håkansson et al., 2009).

Applied to free zones, this model makes it possible to understand the value of infrastructure in the international logistics chains that characterize the globalization

of trade in the twenty-first century. First, a free zone helps to connect the local economy to international trade, and, in return, entering globalization helps activate local resources. In addition, the connection to trade routes is often considered as a prerequisite to developing internationally, but a free zone creates the trigger that will generate a virtuous cycle, strengthening attractiveness.

On the local side, the same virtuous cycle can be seen with a cluster effect. Local actors maintain and develop business relationships with local suppliers, local customers, the carriers, and the suppliers of services related to the management of physical flows such as investors or marketing companies, plus they develop new ones internationally (Mandják & Lavissière, 2014).

In addition, the establishment of a free zone within a system of rich and combinable resources increases the value of resources repatriated by the actors settling within the zone. Such relocation of resources comes from either upstream or downstream of the value chain. Thus, economic as well as social and technological assets become potential resources enhanced by the free zone.

In any given environment, the free zone will always be an organizational innovation that requires a specific adaptation in order to succeed. The objective of a successful free zone is to allow the resources of this environment to serve as a foundation for future interactions that will create value. In a business network, it is not necessarily just

the node that generates the relationships, but the relationships may also define the node. Adopting a successful free zone model from one context to a different environment does not necessarily lead to success. It is therefore essential to measure the specificities of environments within which the free zone is implemented. Island economies are, in that sense, an important specific element. For instance, islands are rarely the main market in a globalized economy; therefore, they position as intermediaries within globalized supply chains. In that sense, free zones are especially interesting because they create the opportunity to position the island in a global value chain and, as a consequence, they attract flows.

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THE STATE OF FREE ZONES AND FREE PORTS IN ISLAND ECONOMIES

The first reported free port was located on Delos, an island near the centre of the Cyclades archipelago, just west of the present-day island of Mikonos, Greece. After the third Macedonian war, Rome developed the concept of the free port by establishing a central storage area on Delos (Thoman, 1956, p. 12). In order to provide supplies to the Roman Army within the Mediterranean Sea, the area was free from taxes. Frank (1927), however, shows that the Delos free port apparently had more of an effect on improving the prosperity of the island and developing trade with Greece, Syria, and Egypt than on assisting the Roman army. Bost (2010) explains that many experts on this period refer to Delos as a place that facilitated fortune building. For instance, Bost (2010) cites the Greek geographer Strabo who wrote that all one needed to become wealthy was to simply transload in Delos. Bost (2010) adds it was also said that this free port, which benefitted from the fall of both Carthage and Corinth, might have played an important role in the economic decline of Rhodes because this latter centre of power was trading wine during this period and was in a power struggle with Rome.

During the Middle Ages and the Mercantile Era, most free ports were on continents, either on the Hanseatic range or on the Mediterranean north shore. Only after the Second World War did the growth in the number of free ports start to focus on island locations, at least initially in the Caribbean and Asia. Caribbean countries used free zones primarily as a means to attract foreign direct investment and encourage the movement of American manufacturing to their islands. These companies were labour-intensive, a factor of production that was available at a lower cost in free ports in this region. Asian islands, most of which eventually became associated with the label of New Industrialized Countries, were undergoing rapid (usually export-oriented) economic growth. Developing free ports was an important strategy to support this capture of value-added activities on their soil and, as they continued developing, offered more complex services to companies thanks to the knowledge acquired by relocation to free zones.

Meanwhile, in western countries, free port innovations were also advancing. In 1959, a free zone was created next to the Shannon Airport in Ireland. This was a critical location because the airport lay at the most western point of Europe and it was therefore well positioned to serve as a supply base for American aircraft delivering supplies to Europe. The airport is also used by NASA as an emergency landing option for this region of the world. Such a zone, as a link between the US and Europe, has the potential to rapidly develop logistic services, including packaging and conditioning in marketing, and, later on, industrial transformation (Barbier & Veron, 1991). Given its location close to an airport, the Shannon free zone is an exemplar of the modern era free zone because the free zone is no longer tied exclusively to a maritime site. Moreover, there are services near airports that go beyond logistical hub services and operate as gateways for broader markets.

TABLE 5.1: Free zones and connectedness indices in island states

Continent	Island Country	Type of free zone	No. of free zones	Population	LPI	Liner shipping connectivity index
Africa	Cabo Verde	None	0	560,899	#N/A	6.11
	Comoros	None	0	808,080	2.51	5.41
	Madagascar	Free Port	1	25,054,161	2.35	8.96
	Mauritius	Free Port	2	1,356,388	2.65	34.49
	Sao Tome + Principe	None	0	201,025	#N/A	5.24
	Seychelles	None	0	93,920	#N/A	8.01
Asia	Bahrain	Free Port	2	1,410,942	3.06	38.10
	Brunei Darussalam	Project	0	443,593	2.78	5.27
	Indonesia	Free Port	5	260,580,739	3.08	47.76
	Japan	Free Port	2	126,451,398	3.99	76.75
	Maldives	Free Port	1	392,709	2.63	7.76
	Philippines	Free zone	29	104,256,076	2.91	28.98
	Singapore	Free Port	3	5,888,926	4.05	133.92
	Sri Lanka	Free Port	1	22,409,381	2.65	72.46
	Timor-leste	None	0	1,291,358	#N/A	2.47
Caribbean	Antigua + Barbuda	Free Island	1	94,731	#N/A	3.48
	Bahamas, The	Free Port	1	329,988	2.65	31.55
	Barbados	Free Island	1	292,336	#N/A	5.40
	Cuba	Free Port	3	11,147,407	2.23	7.23
	Dominica	Free Island	1	73,897	#N/A	4.76
	Dom. Republic	Free zone	60	10,734,247	2.68	39.40
	Grenada	None	0	111,724	#N/A	5.01
	Haiti	Free zone	6	10,646,714	2.02	8.81
	Jamaica	Free Port	1	2,990,561	2.52	31.32
	St. Kitts + Nevis	Free Island	1	52,715	#N/A	3.73
	St. Lucia	Free Port	1	164,994	#N/A	4.75
	St. Vincent + Grenadines	Free Island	1	102,089	#N/A	4.43
	Trinidad + Tobago	Free Island	1	1,218,208	2.41	12.36
Europe	Cyprus	Free Port	1	1,221,549	3.10	19.48
	Iceland	None	0	339,747	3.29	5.27
	Ireland	Free Port	2	5,011,102	3.63	10.72
	United King-	Free Port	7	64,769,452	4.01	95.57
	Malta	Free Port	1	475,700	2.94	52.00

Continent	Island Country	Type of free zone	No. of free zones	Population	LPI	Liner shipping connectivity index
Oceania	Cook Islands	None	0	9,290	#N/A	2.00
	Fiji	Free Port	1	920,938	2.37	9.73
	Kiribati	None	0	108,145	#N/A	4.84
	Marshall Islands	None	0	74,539	#N/A	5.24
	Micronesia, Fed.States	None	0	104,196	#N/A	3.40
	Nauru	None	0	9,642	#N/A	1.90
	New Zealand	Project	0	4,510,327	3.68	20.16
	Niue	None	0	1,626	#N/A	#N/A
	Palau	None	0	21,431	#N/A	#N/A
	Papua New Guinea	Free Port	4	6,909,701	2.31	9.33
	Samoa	Free zone	1	200,108	#N/A	5.45
	Solomon Islands	Project	0	647,581	2.52	7.59
	Tonga	None	0	106,479	#N/A	6.11
	Tuvalu	None	0	11,052	#N/A	1.58
	Vanuatu	Free Port	1	282,814	#N/A	6.85

Notes: #N/A means the index is not available for this state.
 LPI is Logistic Performance Indicator published by the World Bank
 Liner shipping connectivity index is an indicator published by UNCTAD

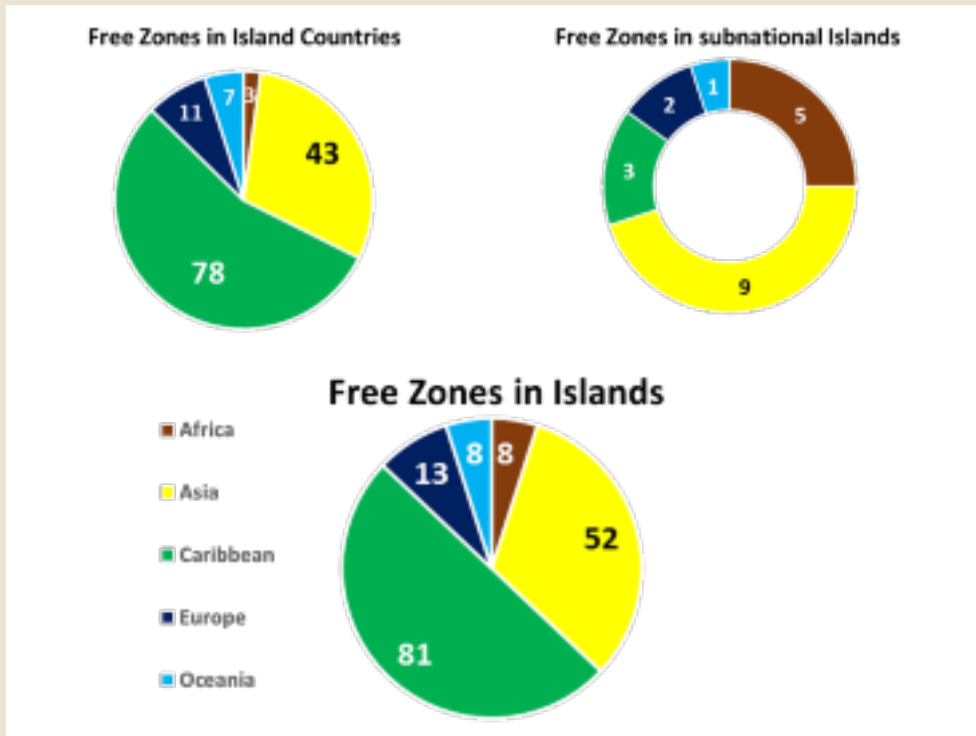
In the late twentieth century, free ports, in different forms such as Export Processing Zones, Free Trade Zones, or Special Economic Zones, developed all around the world in continental as well as in island locations. Among the 367 free ports inventoried by Lavissière and Rodrigue (2017), 47 are located on island states, and another 15 are found on subnational island jurisdictions. When all types of free zones are included, 142 zones are found on islands (see Tables 5.1 and 5.2).

TABLE 5.2: Free zones and connectedness indices in subnational island states

	Sub-national island	State	Type of free zone	No. of free zones	Population of island	LPI	Liner shipping connectivity index
Africa	Bioko	Equatorial Guinea	Free Port	1	130,000	2.21	10.65
	Madera	Portugal	Free Port	1	260,133	3.56	65.13
	Canarias	Spain	Free Port	1	2,218,344	3.78	90.11
	Zanzibar	Tanzania	Free Port	2	1,281,754	2.88	13.2
Asia	Hong Kong	China	Free Port	1	7,347,000	3.60	113.49
	Kish	Iran, Islamic Rep.	Free Island	1	27,000	2.71	42.47
	Queshm	Iran, Islamic Rep.	Free Island	1	200,000	2.71	42.47
	Taiwan	China	Free Port	6	23,508,428	3.65	77.96
Caribbean	St. Martin	France	Free Island	1	35,107	3.86	84
	St. Barthelemy	France	Free Island	1	9,427	3.86	84
	Aruba	Netherlands	Free Port	1	115,120	4.07	6.46
Europe	Crete	Greece	Free Port	1	621,340	3.19	59.41
	Isle of Man	United Kingdom	Free Port	1	64,769,452	4.01	95.57
Oceania	Hawai'i	United States	Free zone	1	1,427,538	3.92	96.66

As suggested above, there are also free zones on subnational island locations. The inventory in Table 5.2 shows 20 free zones located in the five continents. Most of them are current or former colonial outposts in the Caribbean or Africa. Since they are subnational islands from European states or metropolises and do not belong to the Custom Union, they are accorded a specific status. Crete is slightly different because it is only one of many islands of continental Greece. Bioko is a continental island serving its metropole of Equatorial Guinea and the larger West African region.

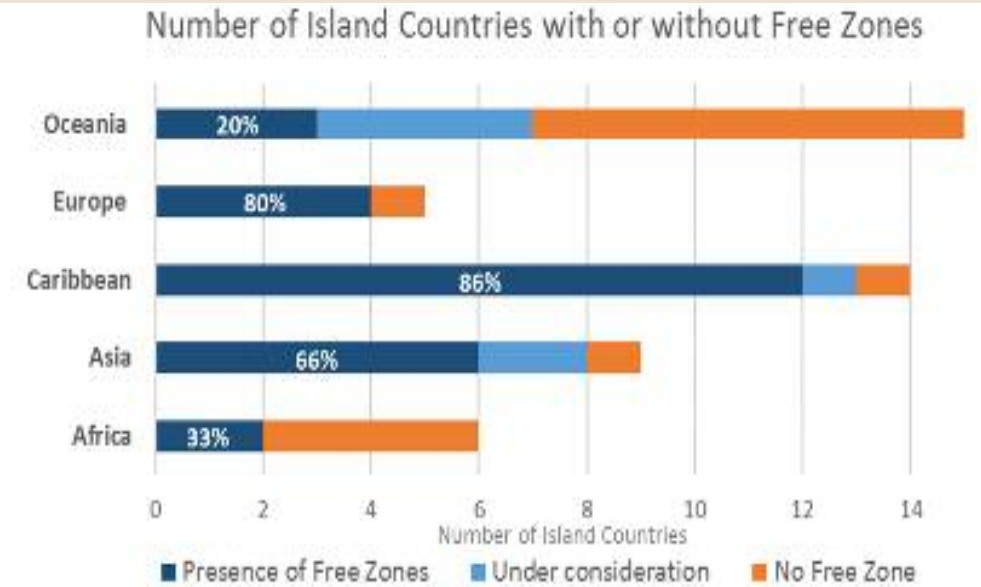
FIGURE 5.3: Distribution per continent of free zones hosted in island economies



The distribution of free zones by world region with a larger number in the Caribbean is interesting (see Figure 5.3). This is due almost exclusively to the large number (60) in the Dominican Republic. Asia is the second most important area with 29 free zones in the Philippines.

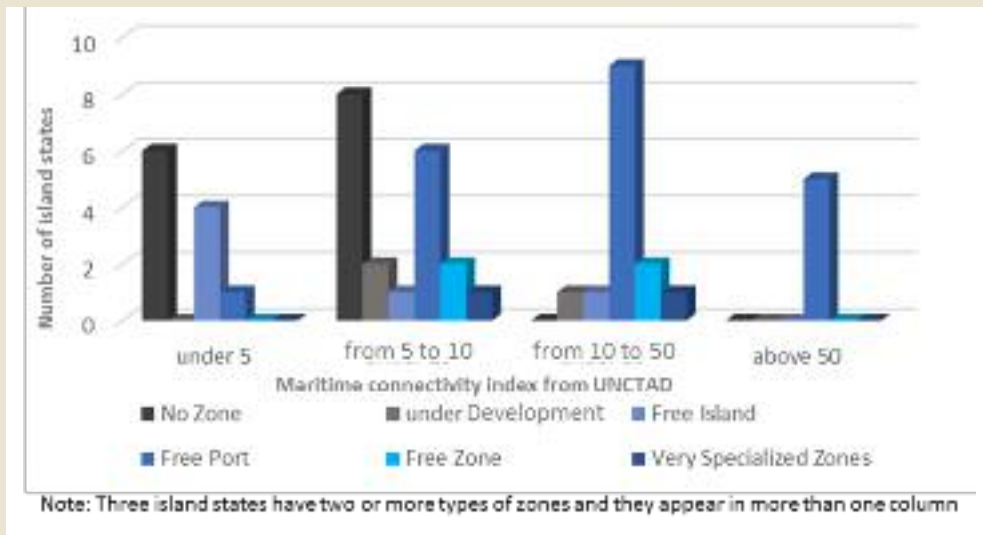
Considering free zones on subnational island jurisdictions, the leading areas are Asia and Africa. When aggregated, the two main areas of development of free zones on islands are the Caribbean and Asia. These two areas account for 82% of the free zones located on all islands. In Africa, there are, however, several free ports on subnational islands.

FIGURE 5.4: Distribution of free zones in island states by continent, including those under consideration (compiled by author)



Not all areas have the same number of island states. Therefore it is interesting to compare the share of states that have free zones and those that do not have them. In Europe, for instance, four of the five island states (Cyprus, Ireland, Malta, and the United Kingdom) have free ports, with Iceland being the only European island state without one. This follows the historic trend described above and shown in Figure 5.1. Asia, Europe, and the Caribbean are located along the main maritime routes, while Africa and most of Oceania are at the periphery of these trade routes. Despite this current situation, islands in Oceania are more likely to be planning future free ports given the growth in the regional economy and the development of shipping opportunities in this area. With few direct connections to the global trade routes, Oceania is inclined to attract flows from these routes or attract the shipping lines to its production centres (Figure 5.4).

FIGURE 5.5: Types of free zones in island countries using the UNCTAD Maritime Connectedness Index



To confirm the influence of trade routes on the development of a free port policy in island economies (Bertram, 2017), it is useful to examine the United Nations Conference on Trade and Development's (UNCTAD) Maritime Connection Index. This index shows the importance of connectedness to trade routes for development. When this factor is combined with the development of free zones in island economies (Figure 5.5) the link is clear. States with the lowest index values have either no free zones or the entire island is given a free zone status, while all states with a higher index have developed free ports. Therefore, there is an association between connectedness and the presence of free zones.

Another contributing factor to the development of free zones is the size of the island, which is also known to be an important factor for the development of island states in general (Randall, 2017, p. 212). Island states with fewer than 120,000 inhabitants have no free zones, or they have defined the entire island as a free zone. Larger islands, i.e., those with between 120,000 and 10 million inhabitants, have fewer free zones but they have also signaled their desire to create a free zone in the future, often by passing a government Bill to that end. The most important category in these mid-sized islands are free ports.

In the largest island states, i.e., those with more than 10 million inhabitants, there are free ports and free zones, but also very specialized free zones, often linked to the information technology sector or to agro-industrial complexes. It seems as though there is a critical size needed to develop a free port and another larger critical size associated with zones that are more specialized.

FOUR EXAMPLES OF FREE ZONES ON ISLANDS

Data on success or failure of free zones are not available and there is no index measuring this. Such an index is a complex function of factors including job creation, company's creation, value creation, and knowledge transfer. In the literature, the best way to approach factors of success is through case studies that bring qualitative data in a longitudinal approach. We have chosen three case studies of island countries with different levels of economic development and different levels of development of their free zone policy. In order to compare them we have added the case of countries that are not islands but are isolated and use free zone policy to connect with global trade.

Mauritius

The Republic of Mauritius is an island nation in the Indian Ocean. The country is an archipelago comprised of four islands that are far from main global trade routes. Mauritius was colonized twice and did not have specific natural resources to be exploited or even an indigenous population when Europeans first encountered the island in the sixteenth century. Although these “disadvantages” should have created a difficult business environment for Mauritius, the country is ranked twentieth on the World Bank's (2012) “Doing Business” index and it is one of the few African countries ranked globally as an upper middle income state.

At the time of independence in 1968, the Mauritian economy was almost exclusively concentrated on sugar cane cultivation, accounting for up to 99% of national exports, 25% of local employment, and 37% of the GDP (Bost, 2011). The 1970s were marked by a strong governmental commitment to diversify the economy and to create more high-



Port Louis, waterfront capital of Mauritius

paying jobs. The promotion of tourism and the creation of a special tax status for some industries, including textiles, were among the most successful government economic development strategies.

The Mauritian government implemented its free ports with the Free Port Act of 1992 and subsequent revisions in 1997 and 2001 (Mandják & Lavissière, 2014). At first the Free Port was a basic logistic facility for transshipment and minor transformation of products. Therefore, it provided basic logistic services. Then, with the separation of the roles of regulator and operator (known as developers in Mauritius), competition was introduced and different players developed different strategies, both on the kinds of services offered, but also in terms of market (Lafargue, 2008). For instance, one of the developers of the free port specialized in cold rooms and fish product-related logistics, another developer built Congress Hall, and a third offered offices and show rooms as a complete supply chain service. The goal of the government was for the free port to increase maritime traffic through the port by 15% and therefore create jobs.

Today Mauritius free port is an exemplar of success because it serves as the central warehouse for the Indian Ocean and Eastern Africa zone (Lavissière, 2013). The Supply Chain services offered are of premium quality and are renowned among European companies, especially those in the food industry, given the guarantee of maintaining the cold chain once products enter the free port. The other important factor of success of the Mauritian free port is its ability to reduce business travel distance between Asian traders and European traders (Mandják & Lavissière, 2014). The free port of Mauritius is therefore a tool to enhance development that is embedded in the local economy. It allows island-based service resources to be used effectively in connecting the local economy to the global value chain.

Dominican Republic

The Dominican Republic is the second largest country in the Caribbean. Located on the eastern two-thirds of the island of Hispaniola, it shares this island with the nation of Haiti. Traditionally, the economy of the Dominican Republic specialized in the production of sugar cane and bananas. In 1968, the government decided to diversify the economy with an emphasis on tourism and manufacturing. In order to develop industry and attract foreign direct investment, it proposed free zones within which companies received tax exemptions for fifteen years (or up to twenty years if a company was within 25 km of the Haitian border) (Bost, 2010).

At 60, the Dominican Republic has (after the US) the second largest number of free zones among world nations and by far the largest number of free zones of any island jurisdiction. More than any other place, it has probably relied on the free zone model to leverage its development (Buzenot, 2009). In order to do so, and to discourage a rural exodus of people and companies, it developed free zones in both urban and rural

areas. Roads were built to enable transportation of goods and fluid logistics between these zones and the air and seaport gateways of the country.

At the beginning of the policy of free zone development, there was only one private zone (Romana I). Although it was successful, public investment did not encourage the development of other zones. In the 1980s, the state invested in public free zones and, a decade later, private investors started to invest capital to create private free zones (Barbier & Veron, 1991). This model proved so successful that today there are 60 free zones, including free ports. This period also coincides with a change in American trade policy in the Caribbean Basin, in which some goods coming from the Caribbean to the US were exempt from tariffs. This encouraged American companies to invest in Dominican Republic free zones in order to take advantage of access to the nearby US market but at a lower cost. In 2010, 46% of companies in the free zones were American companies and only 9% were Dominican (Bost, 2010; Buzenot, 2009).

Dominican Republic free zones have created a considerable amount of local employment with estimates that up to 10% of the labour force has worked in free zones



(Bost, 2010). Unfortunately, many of the zones have specialized in textiles production and, with the end of Multi-Fiber Agreements, companies in these zones have not been able to compete with lower-cost textiles production originating in several Asian countries. In addition, the Dominican Republic did not move along the value chain to remain competitive. The other sectors developed in the free zones, such as those specializing in electric goods or tobacco, are often labour-intensive and are beginning to suffer the same competitive fate as the textiles sector. Only two industrial sectors in the Dominican Republic free zones are maintaining employment: electronic goods and pharmaceutical goods.

United Kingdom

Developing countries are not the only ones to have developed trade strategies based on free zones. OECD countries account for 42% of the world's free ports (Lavissière & Rodrigue, 2017). Starting in the 1980s, the United Kingdom developed a strategy of Free Enterprises in which companies can be accorded free zone status by locating in regions experiencing job loss. Zone status was supposed to last for ten years after which they could not be extended or renewed.

The principal advantage of these zones was fiscal: up to 100% of the amount of investment could be used to reduce the amount owed in corporate taxes. Locating in these zones also allowed for some administrative simplifications and some logistics advantages around the status of bonded warehouses. Thirty-eight zones were created; however, most of the companies involved were in labour-intensive sectors, including printing and call centres. These types of jobs were not associated with the expansion of the service sector in the British economy.



The harbour area and Spinnaker Tower in Portsmouth on the south coast of England

In 1984, following passage of the Customs and Excise Management Act of 1979, the British government encouraged the development of more traditional types of free zones (Bost, 2010). Free zones under this provision are free trade zones with warehousing and logistics activities. The objective of these sites was to import, store, and sometimes perform small modifications to goods before re-exporting them. The whole process is under customs extraterritoriality (Tiefenbrun, 2012). These free zones were developed

for a period of seven to ten years and their status was renewable. Unfortunately, because a warehouse is normally amortized over a period of twenty years, the likelihood of renewal of the status was important for investors. As of 2008, only seven free zones had been renewed, five at seaports and two at airports.

BY EXITING THE EUROPEAN Union, the UK could benefit from a wider range of manoeuvrability in terms of customs policy. One of the options studied by the British parliament (Sunak, 2016) was the creation of stronger free ports in order to attract flows that would otherwise go directly to the EU, transforming products and then sending them on to the European continent.

Ten years later, with the possible exit of the United Kingdom from the European Union, the nation's free zone strategy is interesting. By exiting the European Union, the UK could benefit from a wider range of manoeuvrability in terms of customs policy. One of the options studied by the British parliament (Sunak, 2016) was the creation of stronger free ports in order to attract flows that would otherwise go directly to the EU, transforming products and then sending them on to the European continent. In other words, what Morocco does with some labour-intensive industries at the periphery of the EU, Britain may do with high value-added goods. Furthermore, the strategy is similar to the Mauritian one since the UK would use its historical and trade ties with Commonwealth countries and its proximity to European countries to become an intermediary. The goal is to reduce business distance and friction of the border.

Metaphorical island regions

The word 'island' finds its roots in Latin insula. Insula is also the root of the word 'isolated'. Some mainland areas of the world are as isolated as island states and subnational island jurisdictions. For example, Kaliningrad is a Russian exclave isolated from the Russian Federation and bordered by the Baltic Sea, Poland, and Lithuania. Kaliningrad was one of the first free ports developed by the Russian Federation in order to help this area connect with the rest of the world utilizing more capitalist economic rules and regulations than was the case elsewhere in the Russian Federation (Lavissière & Faury, 2019).

Another interesting metaphorical island with free zones is Morocco. Although part of the mainland of North Africa, the argument could be made that Morocco is as isolated as an island. The country's border with neighbouring Algeria is closed and disputes along the southern border make Morocco quite isolated from the rest of the African continent. Almost all of Morocco's international trade comes via sea with no formal trade taking place overland (Arvis et al., 2018). Morocco is, however, located on one of the world's busiest straits and only 14 km from the biggest world market. It has developed the free port of Tanger-Med, and has put in place a complex of free zones dedicated to import-bounded storage and re-export, the automobile industry, general



Fuel and oil storage tanks at the Tangier Mediterranean Port in Morocco

industry, and supply chain services such as banking, marketing, and IT services for international trade. This free port status enhances the local know-how and connects it to global shipping routes. Since neighbouring land-based countries cannot be the main trading partners with Morocco, the free ports break this ‘insularity’ and create a different form of connectedness to the rest of the world.

CONCLUSIONS

Like most countries in the world, islands have developed free zones and free port strategies. Two-thirds of the island countries have at least one free zone and those that do not are either too small, too far from the major markets, or they are already in the process of developing a free zone. In this sense, international trade might be analogous to the circulatory system that irrigates the whole body with different sizes of veins and arteries. The closer an organ is to the main veins and arteries, the better irrigated it is. The larger the organ, the larger the veins need to be to supply blood. It is more difficult for landlocked countries to be irrigated by international trade, just as it is more difficult for island economies that are not near major trading routes. In that sense, island

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countries located on the main arteries of international trade, e.g., Asian, European, and the Caribbean, are at an advantage by developing free zone policies.

Research and case studies demonstrate the importance of a strategy to develop free zone policy. The main objective is to divert the flows of trade to the island. In order to be able to influence and attract the flow of goods, the island economy needs to provide the conditions that will lead to a competitive advantage. In terms of international trade one of the most important competitive advantages is a reduction in border friction, whether they come in the form of finances, customs, logistics, regulations, or culture. Premium supply chain services need to be world class with the increasing expectations of global companies in terms of performance, tracking, security, and corporate responsibility. Such logistics services also need to be cost-effective, but not necessarily in providing low-cost labour. The danger in a strategy that relies too much on retaining low-cost labour-intensive companies is that the island economy may be trapped in this strategy and at the mercy of losing competitive advantage to a lower-labour-cost location. For this reason, adding value in the free zone supply chains should be sought to encourage sustainable economic growth.

With few exceptions, island-based free zones have to divert flows because their host economy is too small to be a final consumer market. The activities in these zones are part of a global supply chain. It is therefore crucial to understand that free zone activities are business-to-business activities. What is at stake in such activities is the connection of actors and long-term relationships. The free zone should be the prism that transforms the potential of local resources in actual active resources connected to the global market. The free zone on islands is therefore about diverting flows from main trade routes in order to provide premium services thanks to a balance between the development of a local cluster of activities and the development of connection with global actors.

Finally, the fact that every free zone is created for a specific purpose with specific objectives and specific rules leads observers toward a specific case-study-based approach of success (Barbier & Veron, 1991). The present study confirms the lack of an index that would measure the degree of success of free zones or free zone policies. Such an index would be particularly informative, and island countries and island studies could be a good umbrella for such an index creation.

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Eden Island, Mahe, Seychelles

6

Islands as offshore financial centres

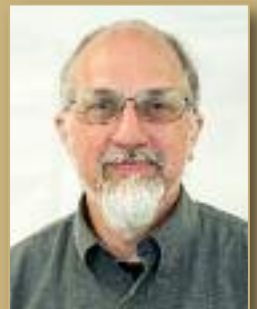
The free(r) flow of capital

ABSTRACT

A number of islands have served as the host location for financial services over the past few decades, and these offshore financial centres (OFCs) have been the object of research and analysis since the 1970s. This contribution begins by establishing the historical context experienced by the OFC in order to explore the present situation for the island economy hosting one. The specific

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point of distinction determining that a financial centre is ‘offshore’, actually, is not its location on an island, but rather the operation of a legal regime to provide financial services to non-resident individuals and companies. The politico-economic rationale behind the decision to host an OFC involves several factors, including the rents collected from the services provided to foreign capital and its owners, the employment opportunities available to island residents, and the low environmental impact of an OFC as compared to alternative economic development proposals. Thus, there is a distinct difference between the island OFC when compared to a large state financial centre (e.g., Luxembourg, Netherlands, UK, or US) where these financial centres operate primarily as a complementary feature within a larger, diversified economy. At the same time, the island OFC is subjected to challenges that arise from its size and relative location within global finance which are not necessarily experienced by other financial centre jurisdictions. Several of these challenges are highlighted in this chapter, followed by some concluding thoughts on what the immediate future may hold for the island OFC.

INTRODUCTION

This contribution results from more than fifteen years of research investigating questions over the role, function, and consequences of offshore finance as a development path for island economies. Central to these various publications, whether on illicit capital, money laundering and terrorist finance, or on the offshore financial centre (OFC) as but one space in global flows of investment capital, has been the structural features of global finance and global financial governance (see, for example, Vlcek, 2017). To help understand the evolution of this research topic, permit me a short anecdote. My first conference presentation of a paper involving the topic of offshore finance was challenged by audience members over the ‘moral wrongness’ of island economies facilitating and encouraging what they viewed as illegal conduct. From their viewpoint, being a so-called ‘tax haven’ was wrong, whether or not it provided revenue for the local government and employment for citizens. This was in 2004, when few academics studied offshore finance and before the more widespread moral outrage that emerged after the 2008 financial crisis and the subsequent revelations of corporate and personal tax avoidance/evasion presented by ‘Offshore Leaks’ and the ‘Panama Papers’.¹ The audience recommendation was that tropical islands should focus on tourism for purposes of economic development, rather than engaging with banking and finance in an increasingly interconnected world. Contemporary analysis of the developmental potential from tourism in the Caribbean at the beginning of the century highlighted the challenges and costs for local society and culture as a result of proposed expansion/enhancement (Karagiannis, 2002, pp. 152–164). Disregarding the impact of tourism’s carbon footprint (which is a more recent criticism of global mass tourism), the circum-

stances affecting the global tourism industry, and thus island tourism destinations, have changed over the past two decades just as the context and circumstances for offshore finance within the global finance domain have changed.

The establishment of an island OFC represents one strategy for economic development (Baldacchino, 1993, 1998).² In opposition to the employment opportunities available in a tourism industry, offshore finance requires staff with higher skill levels and education (e.g., lawyers, accountants, IT specialists) and offers commensurable levels of remuneration. The OFC has a limited impact on the local economy because it is not in direct competition with local businesses. And, importantly, the OFC generates revenue for the government in the form of banking license fees, company registration fees, and other fees depending on the specific services provided. The next section of the paper addresses this finance aspect in an OFC, starting with the origins of 'offshore' as a feature of the modern system of states, and then as a development strategy for a small island economy. It then introduces other possible features of an OFC, including economic citizenship, shipping registries, and online or Internet gambling. The second section offers a short case study of one island OFC, Mauritius, which established its OFC as a diversification move in its economic development strategy. Building on this background the third section explains two contemporary challenges confronting the OFC. First is the continuing international campaign to hinder the use of foreign accounts for domestic tax avoidance/evasion, and the second reflects some of the negative consequences created by the international campaign against money laundering and terrorist finance.

OFFSHORE AND THE ISLAND ECONOMY

Offshore finance is the term applied to a very specific legal regime designed to attract foreign capital by providing a variety of services to non-resident persons and corporations. By specifying the nature of offshore finance in this fashion the origins of it may be recognized as a distinct feature of modern finance in a largely interdependent internationalized economy. This specification also distinguishes offshore finance from the concept of the tax haven and the efforts of the wealthy to preserve their wealth from rapacious rulers. The latter practices are reflected in the story of the origins for Switzerland as a safe domicile of foreign wealth, going back at least as far as the mid-18th century when French aristocrats sought protection for their portable wealth from the King's tax farmers (Faith, 1982).

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Offshore finance, its origins and specialization in the late 20th century

As a modern financial phenomenon, offshore finance emerged as a specific, identifiable aspect of global finance in the 1950s. In this period of the Cold War, European reconstruction was a large part of the world economy and global finance was managed under the Bretton Woods fixed exchange rate regime of the IMF. Central to this exchange rate system was the US dollar, leading to increasing quantities of US dollars in circulation outside of US territory (Cohen, 1977, pp. 95-102). National regulatory environments constrained cross-border financial activity and other bank strategies for increasing business and profits. One bank regulation that is believed to have encouraged the creation of offshore finance was Regulation Q in the US. It limited the rate of interest paid on short-term deposits in the US until it was withdrawn in 1963 (Schenk, 1998, p. 222). This situation suggests that the dollars in circulation outside the US were deposited in foreign banks offering a higher rate of interest in pursuit of profits. In this situation banks could use the dollar deposits to further arbitrage the interest rate differential between the US and Europe and thereby increase their interest income. Catherine Schenk located this financial innovation and the creation of the 'Eurodollar' market at the UK's Midland Bank in 1955 (Schenk, 1998, pp. 224-227). In the analysis of Gary Burn, this innovation created a supportive environment, but for these 'Eurodollars' to become 'offshore' dollars a further move was required. This second move he located in 1957 when banks in London used the dollar deposits to make loans denominated in US dollars (Burn, 1999, p. 230). The growing success of British banks with the profitable recirculation of US dollars outside of the US attracted the attention of American banks, and they in turn opened branches in London to profit from not only the Eurodollar markets, but also for the ability to operate beyond the constraint of Regulation Q (Burn, 2006, pp. 28-29).

The success of US banks in London encouraged bankers to look at opening branches in the UK territories of the Caribbean, operating in the same time zone as New York City but under British regulatory guidance and still beyond the jurisdiction of Regulation Q. By the time that regulation was withdrawn, the profitable foundation of offshore banking and related financial services was clearly recognized. As Schenk observed, "The regulatory framework in which banks operated encouraged innovation as a means of evading controls" during this period of widespread capital controls and related regulations (Schenk, 1998, p. 233). Continued financial innovation marks the evolution of global finance since the emergence of the Eurodollar and with it the growth of offshore finance. Innovation is also responsible for some financial crises, as demonstrated with the 2007-2008 financial crisis, which also was initially and incorrectly blamed by some observers on OFCs (see, for example, Blundell-Wignall & Atkinson, 2009). The end of the Bretton Woods system for managing international monetary relations coincided with significant growth in the Eurodollar markets, accelerated by the introduction of

‘petro-dollar’ recycling. On this aspect, Cohen writes that “after 1973, oil producers poured literally tens of billions of dollars in the market” (Cohen, 1977, p. 140).

In an effort to understand the impact of the Eurodollar markets in global capital flows, the Bank for International Settlements (BIS) began collecting and reporting locational banking statistics in the early 1970s. This data collection was extended to include the locations involved in petro-dollar recycling and has grown further in response to subsequent events, leading to the inclusion of many OFCs (Monetary and Economic Department, 2006, p. 2). As part of this data collection exercise, the BIS created an operational definition for an offshore financial centre as the “expression used to describe countries with banking sectors dealing primarily with non-residents and/or foreign currency on a scale out of proportion to the size of the host economy” (Monetary and Economic Department, 2006, p. 60). This operationalization of the concept is suitable for the purposes of the BIS, to specify and identify the location of pools of mobile capital to be subject to the oversight of global financial management. Yet, this definition also serves to obscure the operation of other financial centres in large states (e.g., Netherlands, United States) where the financial centre with its non-resident capital is primarily a complementary feature of a larger diversified economy. Thus, studies specifying the OFC as determined by the size of the financial centre vis à vis the host economy generally do not identify these large states as an OFC because the financial services sector is subsumed within the broader economy (Zoromé, 2007). The essential point for the present discussion is that the practices of offshore finance are not limited to small island economies. At the same time, the structural features of the island that make it conducive to offshore finance are similarly conducive to a number of other economic development strategies (Baldacchino & Mellor, 2015).

Offshore finance as an island development strategy

As a development strategy, the explicit establishment of an OFC is entangled with the notion of the tax haven. Beyond the historical record of Switzerland as a financial safe haven since aristocratic times, Switzerland and other

European territories began serving as a haven from taxation in the early 20th century (Ogle, 2017, p. 1437). The intersection of the tax haven jurisdiction with the phenomenon of offshore finance in the 1950s created the concept for the OFC as a strategy for economic development (Vlcek, 2008, pp. 24-25). For the United Kingdom and its territories, the concept was debated across government departments with contrasting visions depending on scope of responsibility. The Foreign and Commonwealth Office, with its interest in promoting independence, felt the OFC offered the small island

THE INTERSECTION OF THE tax haven jurisdiction with the phenomenon of offshore finance in the 1950s created the concept for the OFC as a strategy for economic development.

territory in the Caribbean or Pacific with a revenue source in the absence of other options (e.g., valuable natural resources), whereas the Treasury and Inland Revenue recognized the potential loss of tax revenue for the UK and other states (United Kingdom. Public Record Office, 1967-1969, 1970). The various perspectives were gathered in a Working Group Report on Tax Havens in 1970, which also listed the “Established” tax havens of the time: the Bahamas, Bermuda, British Virgin Islands, Cayman Islands, Gibraltar, Hong Kong, and Montserrat; along with the “Potential” tax havens of the British Solomon Islands, Gilbert and Ellice Islands, St. Helena and Turks and Caicos Islands (United Kingdom. Public Record Office, 1973). But not all banks chose to establish their offshore subsidiaries in the Caribbean, instead choosing the Channel Islands as a more convenient location for an OFC. In the case of Jersey the offshore sector would eventually supplant the long-standing agriculture and tourism industries, providing nearly half of the island’s GDP in 1990 (Hampton, 1994).

Barge anchored at commercial dock in Grand Cayman, Cayman Islands



Which is not to say that British government encouragement to use offshore finance as economic development among its small territories was not challenged by other governments. In the case of New Hebrides (Vanuatu), the Australian government was quite concerned by the establishment of an OFC in 1971 because it became a ‘tax haven’ for Australians. The Australian Prime Minister sent a letter to the British Prime Minister in July 1974 raising the issue, and received his reply a month later. The background

material for the reply letter contained in the archives echoed the tension between those worried about the potential for tax evasion (with the British Embassy in Canberra supporting the Australian position) and those promoting economic development in the territory, most especially the British officials in New Hebrides (United Kingdom. Public Record Office, 1973-1974). The latter position succeeded in privileging economic development over potential revenue losses in the reply letter, in which the British Prime Minister commiserated with the Australian Prime Minister about the problem highlighted by their respective tax administrations. Nonetheless, the ‘problem’ for the British government regarding “New Hebrides must also be viewed in the context of the need to promote the territory’s economic development” (United Kingdom. Public Record Office, 1974, Folio 68). The independent island state of Vanuatu has declined in significance for British foreign and development policy while proximity to Australia means that Vanuatu remains a concern for tax evasion (Rawlings, 2011).

In light of globalization in the 1990s, Philip Cerny made a case for the emergence of the competition state, which is characterized by its desire to establish domestic economic activities that are internationally competitive (Cerny, 2000). The competitive national economic sector would then draw business away from other similar but less competitive national economic sectors. This situation is recognizable in the transnational tournament among OFCS, with specific OFCs recognized as the leader for a particular market segment; examples include Bermuda with regards to insurance/re-insurance companies and the Cayman Islands for investment/hedge funds. As an example of the extreme measures that a small island economy might take in order to be competitive, the government of the Seychelles in 1995 approved the ‘Economic Development Act, 1995’ with incentives for attracting investors to the Seychelles. For a \$10 million investment, the incentives included immunity from prosecution, unless the crime involved violence or illegal drugs trafficking in the Seychelles. This approach to development attracted international outrage and condemnation, leading the government to have it declared unconstitutional without ever implementing it (Sharman, 2011, p. 126). Elsewhere, Sharman has noted the fact that this piece of legislation was “written by outside lawyers, often those working for offshore firms” which is not unique to the experience of the Seychelles (Sharman, 2017, p. 39). Van Fossen provides rich details on the conduct of

AS AN EXAMPLE OF THE extreme measures that a small island economy might take in order to be competitive, the government of the Seychelles in 1995 approved the ‘Economic Development Act, 1995’ with incentives for attracting investors to the Seychelles. For a \$10 million investment, the incentives included immunity from prosecution, unless the crime involved violence or illegal drugs trafficking in the Seychelles. This approach to development attracted international outrage and condemnation, leading the government to have it declared unconstitutional without ever implementing it .

offshore promoters (lawyers, accountants, and others) encouraging the creation of an OFC among the Pacific Island territories (van Fossen, 2012), while Ogle suggests that these private actors are frequently absent from historical accounts of development among the former colonial territories (Ogle, 2017, p. 1439).



The offshore industry beyond finance

The construction of a legal regime for financial services specifically intended to attract the foreign client has encouraged the construction of similar legal regimes to attract clients for non-financial services. Similar to offshore finance these legal regimes are not limited to island economies, yet it is often the island that attracts the greatest amount of media interest. The attraction may be due to allegations of criminality and illicit conduct, or because these activities attract sufficient revenue that it becomes a significant percentage of total government revenue. Any number of activities could be governed by an offshore regime, as long as the activity requires a discrimination based on nationality or governing legal jurisdiction. Three specific activities are discussed below, but in addition to economic citizenship, shipping registries, and online gambling, other activities operating ‘offshore’ include aircraft leasing, investment vehicles supporting securitization, and export processing zones (EPZs).

Economic citizenship (second passports)

The ‘sale’ of economic citizenship, or at a minimum residency visas, has gained media attention in the UK at the time of writing. In part this interest was generated by a report from Transparency International with Global Witness on so-called ‘golden visas’, whereby this economic development tactic is transformed into a source of risk for the European Union from corrupt foreigners with their illegal assets (Transparency International & Global Witness, 2018). Beyond the headlines, this tactic represents a commercial transaction and one that is employed by states large and small in which they are essentially ‘selling sovereignty’, or at least some of the trappings of sovereignty (Surak, 2016). The passport or visa, however, is not so much ‘sold’ as it is exchanged for a direct investment in the local economy. In the case of a large state, such as the UK, an investment of £2 million in the UK secures a Tier 1 (investor) visa with the option to apply for residency status after three years with a total investment of £5

million or after two years with a £10 million investment.³ Small island economies by contrast have a more limited scope for direct investment, leading to programs such as implemented in St. Kitts. In this instance, the investment leading to a passport and economic citizenship is made in the island's Sugar Industry Diversification Fund, while other islands (including Dominica, Grenada, and St. Lucia) encourage investment in luxury condominium development projects (Surak, 2016, pp. 17-18, 24).

Shipping registries

Traditionally a ship was registered in the jurisdiction of its owners; however, the use of a flag from a different jurisdiction may be used to avoid government regulations. The origins for the offshore shipping registry, or 'flag of convenience', is believed to be associated with foreign ships registered in Liberia and Panama after the First World War (Osieke, 1979). The idea, however, for operating under a flag different from that of the ship's origin or crew's citizenship is arguably much older. John M. Hobson notes, for example, in his book *The Eastern Origins of Western Civilisation* that following the Chinese 'imperial ban' of 1434 against foreign trade by private Chinese merchant ships, they began operating under a Portuguese flag. This action served effectively to 'reflag' a Chinese ship as a Portuguese ship and provides an early example for regulatory arbitrage in the shipping industry because the Chinese ship owner could continue to trade, but as a 'Portuguese' merchant (Hobson, 2004, pp. 151-152). In the 20th century the practice re-emerged when, for example, US ship owners chose, in the 1920s, to flag their ships in Panama in order to avoid new US shipping regulations which they did not like.

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The leading shipping registries today are Panama, the Marshall Islands, Liberia, Hong Kong, Singapore, and Malta.⁴ It is not a coincidence that four of these six jurisdictions are small islands. The impact has been that ships must follow the shipping regulations of the state of registry, regarding labour practices, ship maintenance, environmental practices, etc. This in turn has led some ports to impose requirements on ships docking at the port to meet local standards for environmental practices and ship construction. A leading criticism of these shipping registry jurisdictions has been their low labour standards as compared to other jurisdictions with strong labour unions regarding work practices and wages for crews. Another concern with ships operating under a flag of convenience has been the illegitimate use of a foreign registry, chiefly to conceal true ownership. But this practice may be used for more than simple tax



Stern of a ship under the Panamanian flag

evasion by wealthy yacht owners. Another illegitimate use with wider international political consequences is changing ship names, recorded ownership, and flags in order to evade economic sanctions. This technique was found with Iranian-owned (originally) ships evading sanctions in 2010 by transferring ownership of the vessel to an offshore company and flag registration to an offshore registry (Becker, 2010).⁵

Online gambling

From one perspective, online gambling is a very recent phenomenon utilizing the worldwide access potential of the Internet by a person sitting at a computer in a jurisdiction where gambling is illegal to connect to an online casino or poker game operated from a server located in a jurisdiction where this activity is not illegal. Again, the underlying practice of manipulating jurisdictional boundaries is older than this attribution for online gambling. Ships have practiced this approach for years, taking on passengers in a jurisdiction where gambling is illegal and transporting them to a location offshore beyond the legal jurisdiction of such laws in order to gamble legally, offshore. Yet, for a period of time in the early 2000s, everywhere one looked in London there was an advertisement for online poker: on bus shelters, in Underground stations and trains, and in the daily newspapers. The phenomenon of online poker led to a companion

industry of instruction books and how-to columns in newspapers. The industry attracted a lot of investment, and the websites supporting the online poker craze for the most part were located offshore, frequently in an island OFC and in some cases with the infrastructure and staff also located on the island (Berzon, 2012; Goodman, 2011; Reilly, 2005).

One example is the case of Antigua-Barbuda, which began developing an online gambling sector in the late 1990s which employed 3,000 people in 1999—significant when the population was only 67,000 (Cooper, 2009, p. 213). Online gambling was framed by the US government, however, as a threat to society because it would encourage underage gambling, facilitate money laundering and organized crime, and promote gambling addiction (Cooper, 2011, pp. 43-47). The US response to the activity was a series of aggressive measures to suppress it, blocking payment processing to the firms, and applying anti-money-laundering laws against the banks, credit card companies, and money transfer companies (Cooper, 2011, p. 128). Direct action was also taken against the owners of these firms, arresting and charging them with illegal gambling if they entered US territory (Cooper, 2011, pp. 14-17). Antigua-Barbuda initiated a WTO Dispute Panel action against the US, accusing it of violating the General Agreement on Trade in Services (GATS) treaty. It won the case, and then won again when the US appealed the first decision. In the long term, however, the island state lost as the US government refused to change its laws against online gambling, or to pay the compensation determined by the Dispute Panel. The online gambling industry in Antigua-Barbuda withered and similar firms operating in other, offshore territories continue to avoid US-based customers.



MAURITIUS: THE OFC AS ECONOMIC DIVERSIFICATION

To illustrate the foregoing narrative, consider the case of Mauritius as one island operating an OFC, while also undertaking other initiatives for economic development.⁶ At the beginning of the 21st century Mauritius represented the only offshore financial centre marketed as such in any African state, as was documented by an International Monetary Fund working paper and the BIS in its compilation of international banking statistics (Monetary and Economic Department, 2006, p. 68; Zoromé, 2007).⁷ As the only fully operational OFC in Africa, in conjunction with its location in the Indian Ocean, Mauritius serves as an intermediate location for the movement of capital between Europe and Africa, Europe and India, India and Asia, and Asia and Africa. In turn, its diasporic communities also mean that it is well situated culturally to benefit from its geographic location in these global flows of investments and profits to India, China, Hong Kong SAR, and Sub-Saharan Africa. Beyond the simple fact that Mauritius had been home to the now extinct dodo bird, the islands of Mauritius were empty of human habitation at the time European colonialists arrived. After a failed attempt by the Dutch to establish a colony, France would succeed and controlled the territory from 1715 to 1810. The French brought in African slaves to work the sugar plantations they

established, while, after 1810, when it was a British colony, the British ended the practice of slavery but brought indentured workers from India and China to Mauritius. In 1968, when Mauritius gained independence from Britain, it had a population of “700,000 people who originated from three continents, spoke a variety of languages, and practiced four of the world’s major religions” (Lange, 2003, p. 402). At independence the national economy was a monoculture dominated by sugar, which was mostly exported to France. Mauritian sugar continued to receive preferential access to the European Union until 2017 (Cotterill, 2017).

As indicated in the previous section, an EPZ is one form of ‘offshore’ practice beyond finance, representing a territory in which a special economic and tax regime operates for resident businesses which is different from businesses in the rest of the domestic economy. In 1972 Mauritius established an EPZ for export-oriented textile production, which permitted the manufacturers to benefit from a ‘Made in Mauritius’ label and work around the national export limits imposed by the Multi-Fibre Arrangement. The EPZ became a significant source of

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Sugar cane harvesting in Mauritius

employment as an alternative to the sugar plantations (Lincoln, 2006). Simultaneously, the Mauritian government increased its efforts to promote tourism as an additional way to diversify the economy, and in 1990 further diversified its economy by establishing an offshore financial centre. The latter diversification move benefited from a Double Taxation Avoidance (DTA) Treaty in place between Mauritius and India since 1983, which did not attract significant use until after the establishment of the OFC. The availability of the Mauritian OFC intersected with a changing political economic environment in India which made it more receptive towards foreign investment. Subsequently, Mauritius grew to become a significant source of FDI to India, with the Reserve Bank of India reporting that for the 2008-2009 fiscal year “Mauritius remained the largest [source of FDI], with a share of 44.8%, followed by Singapore with a share of 14.8%” (Reserve Bank of India, 2009, p. 177). The next three major sources of FDI to India for that period, in order, were the United States, Cyprus, and the United Kingdom; and, as with Mauritius, Cyprus is an OFC serving as a waypoint in the flow of foreign investment capital to India from some unidentified point of departure (Reserve Bank of India, 2009, p. 180).

This combination of treaty and financial centre turned Mauritius into the preferred tax haven for many firms and wealthy citizens from India while it also served as the

legal residence for much of the foreign direct investment into India from elsewhere. Nonetheless, the relationship between India and Mauritius over the operation of the DTA Treaty was conflictual. On the one hand, the treaty, in conjunction with the Mauritian OFC, facilitated substantial foreign investment flows into India; while, on the other, India could not tax the profits of this investment capital under the terms of the DTA Treaty. The lost potential tax revenue attributed to the use of Mauritius as the point of entry to India was the motivation behind domestic criticism of the treaty, including a number of court cases, and it was eventually revised in 2016, with effect from April 2017 (Kotha, 2017). For the 2008-2009 fiscal year, Mauritius with Singapore represented 59.6% of FDI flows into India, while in the 2017-2018 fiscal year, following the implementation of the treaty revision, Mauritius and Singapore together continued to be the point of departure for “about 61% of total equity investments” into India (Reserve Bank of India, 2018, p. 81). And while in the latter annual report of the Reserve Bank of India the position of Cyprus on the list of inbound FDI was well down, the Cayman Islands had risen to sixth position, behind the Netherlands, US, and Japan (Reserve Bank of India, 2018, p. 245).

Beyond avoiding the collection of income and capital gains taxes on investments within India, the use of a Mauritian-registered corporate subsidiary has been part of a long-running court battle involving the multinational corporation (MNC) Vodafone and India’s tax administration. Vodafone purchased the Indian mobile phone subsidiary of Hutchison Whampoa in 2007 in a transaction which took place ‘offshore’. The Hutchison Whampoa subsidiary was owned by a Cayman Islands-registered subsidiary, and the Vodafone subsidiary making the purchase was registered in the Netherlands. As the transaction involved foreign-registered corporate entities (including in Mauritius), neither party considered the need to withhold capital gains tax on it, nor to remit any form of tax payment to the Indian government. This situation was the specific argument made in documents submitted to a court in India, that the Indian tax authorities did not have jurisdiction to claim that it was a taxable transaction in India when it involved foreign entities outside of India (Whalley & Curwen, 2014, p. 372). When the Indian Supreme Court upheld this argument on appeal in 2012, the government chose to change the law and explicitly include foreign merger and acquisition transactions that involved Indian assets, and then to apply the law retroactively to Vodafone’s acquisition. As a result of further legislative activity and a change of government in India, the tax claim on Vodafone remains unresolved. This case highlights an intersection between a large developing economy, one of the Brazil, Russia, India, China (BRIC) states and an OFC within the context of a global financial regulatory architecture substantially created by other, developed, states to serve their economic and financial objectives with little regard for either BRIC (developing) states or the OFCs. The complexities of this particular tax dispute between India and a large foreign MNC working through an offshore subsidiary deserves further detailed research.

21ST-CENTURY CHALLENGES

Going forward from the present moment, the challenge for the island OFC involves the risk perception held by the governments and regulatory agencies of non-OFC territories. As discussed further below, this risk may involve the use of the OFC in possible tax evasion or money-laundering transactions. But more traditional banking risks remain for the OFC, such as a liquidity crisis and a ‘run on the bank’, if the banks serving the offshore sector are not separate and distinct entities ring-fenced away from domestic retail banking. It was this set of circumstances which struck the banking sector of Cyprus in 2012, because local Cypriot banks were serving both the retail sector and the offshore sector on the island. Moreover, they possessed large quantities of Greek sovereign debt that were subjected to a reduction in value as part of the efforts made to resolve the Greek financial crisis while Cypriot banks also maintained branches in Greece. As a result, these factors combined to transmit the financial crisis in Greece through to the banks on Cyprus, leading to the Cypriot financial crisis (Demetriades, 2017b; for more detailed information, see Demetriades, 2017a). The important point here is that just because an OFC is involved, that does not also mean that any problem may be limited to those offshore banks.

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Cross-border tax collection

The preceding section provided the case of Vodafone as one example for some of the problems present within efforts at cross-border tax collection involving an MNC. Central to these problems are the competing interests of the MNC, its home jurisdiction, and all of the other jurisdictions hosting a subsidiary or affiliate of the MNC, or even the customers of the MNC where it provides goods and services across the border to a jurisdiction where it does not have a local affiliate. Which tax is appropriate to the transaction and which party is responsible for paying that tax are subject to interpretation of local legislation, existing bilateral tax agreements, and potentially an accountant’s determination of whether there was any taxable income or capital gain as part of the transaction. A further example involving Mauritius was documented in a report produced for the NGO ActionAid (Hearson & Brooks, 2010). It outlined the impact on local tax revenue collection from SABMiller’s corporate structure, which at the time comprised subsidiaries performing specialized tasks in locations independent of the location of brewery operations. Specifically looking at the relationship of the Accra (Ghana) Brewery with several SABMiller subsidiaries, the report highlighted the fees

paid to a subsidiary in the Netherlands retaining licensed trademark ownership, management fees paid to a Swiss-based subsidiary, and the purchase of centrally sourced raw materials and other supplies from a SABMiller subsidiary based in Mauritius. The ActionAid report concluded that collectively these payments served to transfer potential taxable profits out of Ghana to locations with no or low corporate income tax rates.

While not a new problem, these concerns with addressing potential lost income tax revenue intersected with the 2008 financial crisis and served to motivate renewed activity in international organizations to create international regulatory guidance and pursue multilateral cooperation. The location of OFCs within corporate structures to minimize tax obligations has been a central concern at the OECD since at least the late 1990s (see, for example, Organisation for Economic Co-operation and Development, 1998, 2000). Current endeavours by the OECD represent a progression over the past twenty years to reshape the international financial regulatory environment in a way that removes the privacy/ secrecy aspects facilitated by the interaction between the multiple legal regimes involved in these structures, particularly when an OFC is present. For businesses, as seen in the SABMiller example, the OECD has established a programme to address “base erosion and profit shifting” (Vlcek, 2017, pp. 141-150). The efforts of the Indian government to change its tax legislation in order to capture tax on foreign transactions involving Indian assets could be seen as falling under the broad scope of the OECD programme. For wealthy individuals pursuing tax avoidance, the OECD is promoting a common reporting standard (CRS) to support the automatic exchange of account holder information (Vlcek, 2017, pp. 138-140). Progress by the OECD to gain increasing compliance with CRS and the exchange of bank account information has led to an additional tax avoidance structure. The OECD has observed the growth of economic citizenship as described above, and identified the way in which this form of secondary citizenship may be used to circumvent the intentions of the CRS.⁸ The technique involves acquiring tax residency in an OFC, and reporting that territory as one’s registered tax authority for a bank account in a state which is CRS-compliant (Garside, 2018; ‘Sweet deserts’, 2018).

Compliance costs, derisking and financial isolation

Embedded within the concern over the use of an offshore account or company to facilitate cross-border tax evasion is the fear that it is being used to conceal money laundering or terrorist finance. The earliest international campaign against OFCs focused far more on the laundering of illegal drugs trafficking money than it did on potential tax evasion. The US put money laundering on the international financial governance agenda in the late 1980s when it encouraged the G7 to establish the Financial Action Task Force (FATF). The first purpose for the FATF was to establish the procedures and processes used to launder money, which it then followed with the production of a set of Recommendations guiding the creation of national legislation against money laun-



dering (Financial Action Task Force, 1990). These Recommendations for dealing with money laundering have evolved over the decades since their initial publication in 1990, with the first significant change made in 2001 to incorporate processes to combat terrorist finance and subsequently to counter the financing of weapons of mass destruction (Financial Action Task Force, 2012). For much of its initial decade the FATF's attention was placed on the conduct and operation of the banking sector of its member states. The outflow of capital from Russia in the 1990s revealed that the focus on a single segment of the global financial system encouraged those engaged in cross-border money laundering to seek other locations for their business.

The revelations in 1999 that Russian capital flight passed through banks in New York City on its way to offshore banks in the Pacific (in Nauru, Niue, Palau, and Tuvalu), before disappearing from view (and regulatory oversight), demonstrated the need for collective, global enforcement of the FATF's anti-money laundering (AML) campaign. The response of the FATF was to conduct an evaluation of non-member states and territories for their compliance with its AML guidance, and then to publish a list of non-cooperative countries and territories (NCCT). The initial NCCT list in 2000 contained a number of island OFCs, and the named territories were effectively 'blacklisted' and all financial transactions with them were to be treated by FATF members as potential money-laundering transactions (Vlcek, 2010). The remedy for this situation among the listed territories was to introduce legislation implementing the AML Recommendations and to establish the agencies needed to enforce the new AML laws. But for the island OFC it is a remedy that could cost the government more than any revenue generated by the operation of the OFC. A study of three OFCs in 2008 reported that the compliance costs for their governments had exceeded the measurable benefits provided by

the OFC to the territory (Sharman & Mistry, 2008). The cost of AML compliance is not just a problem for the OFC regulators, however: it is also an issue for the financial institutions. For large multinational banks, the cost of compliance may involve up to 10% of all employees simply to monitor and enforce AML procedures, plus the cost of any fines imposed by regulators for failing to adequately address money laundering activity among its customers (Ensign & Colchester, 2015).

One unfortunate side effect of the high cost of compliance experienced by the large multinational bank is the decision made by a number of them to withdraw from business sectors or locations with a perceived higher risk of money laundering. Thus, if a particular business activity (e.g., payment transfer services for migrant remittances) appears to be susceptible for money laundering (or terrorist finance), then the bank can decide to close all accounts supporting that activity. Similarly, if a territory is perceived to be more susceptible for illegal financial activity, then the firm will close its branches or end its correspondent banking relationship with local banks in that territory. This particular business practice is known in the industry as *derisking*, because it represents the efforts of the financial firm to reduce its contact with potentially risky customer relationships, which in turn should reduce its exposure to regulatory punishment in the future (Vlcek, 2018). The consequence for the businesses and territories ‘derisked’ is to leave them isolated and outside the formal, regulated financial system. For the small island country (because it is not simply the OFC territories that have been targeted), this situation is worse than FATF blacklisting, because at that time they were still connected to the global financial system, whereas the termination of correspondent banking relationships leaves local financial firms abandoned and disconnected from financial networks (Wright, 2016).

THE WAY FORWARD FOR ISLAND OFCS

The offshore practices considered here are not limited to island territories. But the larger, continental states engaged in offshore finance, economic citizenship schemes, or Internet gambling have these activities within a larger economy where their success or failure has less of an impact on the national economy as a whole. Similarly, the challenges confronting the offshore, and the free movement of capital in a global economy, are experienced in continental territories as well as islands. The size and scale of an island economy, however, means that these challenges may have a greater relative impact on the island. Consequently, the present moment calls for reflection on the evolution of offshore finance and the location of islands within the global financial system.

The experience of Cyprus and its banking crisis was mentioned above as a cautionary tale for the need to maintain good regulatory enforcement; and, in particular, to avoid the regulatory capture described by Demetriades which sought to maintain the island’s financial business model rather than seeking to assure good banking and finance practices (Demetriades, 2017b, pp. 51-67). One could argue that the Cypriot experience is not

a good representative example because this island's situation was a product of its membership in the European Union and the Euro common currency, with their regulatory framework and membership obligations. Therefore, the Cypriot OFC would not serve as a useful example or comparative case for other island OFCs, or islands considering the establishment of an OFC, because they would not be constrained by EU membership. It is a valid observation, however, the Cyprus case also demonstrates that the design of the offshore finance legal regime is important because local retail banks were allowed to serve the offshore bank business rather than keeping offshore flows segregated from the domestic economy in specialist financial firms.

To a great extent, the challenges facing an OFC today are also a reflection of regulatory enforcement of global financial governance. The OECD wants to be sure that the island OFC is implementing and rigorously enforcing the standards regarding international taxation. Similarly, large MNCs act based on perceptions of risk, perceptions that also are based on the implementation and rigorous enforcement of international standards against money laundering and terrorist finance. Notwithstanding the size of an island's bank and finance sector, it is critical that sufficient institutional capacity is committed to providing the necessary regulatory oversight.

NOTES

- 1 For purposes of clarity and legal precision, tax avoidance is the legal and lawful minimization of taxes owed by adherence to the letter of the law. Tax evasion, on the other hand, involves fraudulent conduct to evade taxation by, for example, failing to report income or otherwise seeking to conceal and disguise taxable income. Corporations may also be said to pursue tax minimization by using offshore corporate entities or investing in locations where the government operates a special tax regime to encourage such investment.
- 2 My thanks to Wang Yong and Faye Donnelly for discussions involving this subject and their suggestions about this paper.
- 3 See <https://www.gov.uk/tier-1-investor>.
- 4 See <https://www.gov.uk/government/statistics/shipping-fleet-statistics-2017>.
- 5 The animated graphic accompanying the original online publication of this article remains accessible at <http://archive.nytimes.com/www.nytimes.com/interactive/2010/06/08/world/middleeast/sanctions-graphic.html>.
- 6 This section has benefited from a number of conversations in the past about Mauritius with Donne Lee and Terry Barringer.
- 7 One alternative list of 'tax havens and offshore financial centres' containing further African jurisdictions includes Liberia, Maldives, São Tomé e Príncipe, Somalia, and South Africa (Tax Justice Network, 2007). Missing from these lists are Botswana, which created an International Financial Services Centre in 2003 (<https://www.gobotswana.com/sector/financial-and-business-services>) and Ghana, which has created the initial structures for an OFC (Vlcek, 2011).
- 8 See the OECD's webpage at <http://www.oecd.org/tax/automatic-exchange/crs-implementation-and-assistance/residence-citizenship-by-investment/>.

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Fishing boats in the harbour of Los Cristianos,
Canary Island Tenerife, Spain

7

A primer on

Building successful business environments on islands *

ABSTRACT

The creation of successful business environments is an important prerequisite for durable and sustainable competitiveness.

This chapter documents the type of constraints that may hinder business success as well as the policy approaches that may create operating environments conducive to business success in small island contexts. Surrounding influences and circumstances are well known to make considerable difference for business—both on a national and global level. The defining characteristics of small island economies themselves have also been explored and

* THIS CHAPTER IS NOT PEER-REVIEWED.

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documented in what is now a considerable body of research. Less well known is the manner in which conditions in small island contexts may make a difference to business. The contribution of this chapter lies in juxtaposing knowledge on the type of contextual conditions that may result in business success against situational considerations applicable in small island contexts. The chapter reviews the kind of market and regulatory failures that may hinder business success and then proceeds to examine a number of good-practice examples in the domains of connectivity, sector-led initiatives, innovation, place-based approaches, sustainable tourism, circular economics, and climate change. Drawing lessons from islands that have managed to actively capitalize on their geographic specificities and succeeded in attaining higher levels of competitiveness, the chapter provides a synthesis of factors that create the right environment for business to develop and flourish in small island contexts, and that boost marine island economy competitiveness. Today's marine economy is, however, dependent upon onshore infrastructure; labour; expertise; and healthy and stable ecological, social, and political environments, none of which can simply be taken for granted. The very factors that make islands ideal for hosting marine activities—such as an extensive land-sea interface and density-facilitated agglomeration economies—may be placed at risk by marine economy-oriented island development.

It is thus that economic activities on the land-sea interface—whether port services or coastal tourism—can reduce islanders' access to the sea as well as lead to environmental degradation that threatens the continued viability of the economic activities in question. Those pursuing island development should take care to balance short-term and long-term objectives while leveraging the very real competitive advantages that arise from island spatialities.

INTRODUCTION

Fostering durable competitiveness is essential for any economy operating in a globalized free trade context. Competitiveness refers to the ability of an economy to achieve productivity that allows it to withstand competitive pressures from other economies. It may be said to be durable if it is based on assets that are less imitable by competitors, thereby leading to sustained returns (Lawless & Fisher, 1990). In turn, its fruits may be said to be sustainable if they contribute to the broader goals of quality of life in the present and future (Hart, 1995). One way to foster durable and sustainable competitiveness is to create successful business environments (Porter & Van der Linde, 1995). This chapter documents the type of constraints that may hinder business success as well as the policy approaches that may create operating environments that can be conducive to business success in small island contexts.

Surrounding influences and circumstances are well known to make considerable difference to business competitiveness (Trivikram, 2016; Ward et al., 1994). Forbes (2017), for instance, compared countries on their attractiveness for business on the following fifteen factors: property rights, innovation, taxes, technology, corruption, infrastructure, market size, political risk, quality of life, workforce, freedom (personal, trade, and monetary), red tape, and investor protection. The World Bank's measure of Doing Business uses regulations regarding eleven important areas for a business (World Bank Group, 2018). These include starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency, and labour market regulation (World Bank Group, 2018). The macro-economic context is of considerable importance for a business—both on a national and global level. Amongst others, organizations depend on a country's labour force, wage levels, infrastructures, and ease of doing business in order to thrive. Likewise the regulatory environment can have huge implications on the industries in the country (Trivikram, 2016).

The defining characteristics of small island economies themselves have also been documented and explored in many publications (Briguglio, 1995; Cordina, 2004) and typically refer to the size of the domestic market and the lack of critical mass, which pose restrictions on the capacity of islands to exploit economies of scale, scope, and diversification. The small size of the market also gives rise to a high dependence on international trade which makes islands susceptible to exogenous economic conditions. The remoteness from urban centres and the low accessibility to international markets translates into higher transport costs which further erodes the external competitiveness of islands. These inherent characteristics are often a source of difficulties for businesses in islands. In spite of these territorial constraints, some small states have been performing remarkably well. In fact, Easterly and Kraay (2000) explain that while small

states experience greater GDP volatility due to a higher degree of openness, any growth disadvantages of this greater volatility are more than outweighed by the growth benefits of trade openness reaped by small states. On the other hand, Briguglio and Cordina (2004) argue that the economic success of some small states resulted in spite of and not because of their size. Success stories in small states tend to resonate with policies that strengthen economic governance and regional integration (Briguglio, 2018).

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Less well known is the manner in which conditions in small island contexts may make a difference to business. Baldacchino and Fairbairn (2006) observe that geographical isolation and remoteness might negatively affect business, while other elements such as family and social ties, and exposure to experience overseas, might foster “savings, know-how, business and client contacts that would prove crucial to the motivation to start, and maintain, a successful business” (Baldacchino & Fairbairn, 2006, p. 336). Indeed, certain conditions often imply substantial difficulties for small islands to attain sufficient levels of competitiveness—at least as measured by the factors in the mainstream literature. On the other hand, the specificities of small islands may offer opportunities for business competitiveness that are not sufficiently encompassed by mainstream competitiveness literature. The contribution of this chapter to the literature, in fact, lies in juxtaposing knowledge on the type of contextual conditions that may result in business success against situational considerations applicable in small island contexts, often arguing that the mainstream paradigm for business competitiveness requires significant restatements for it to be relevant.

The rest of this chapter is structured as follows. The second section identifies the market and regulatory constraints which may hamper economic and social development in islands and which may impinge negatively on the business environment. The third section elaborates on a number of good-practice examples in the domains of connectivity, community-led initiatives, innovation, sustainable tourism, climate change, and environmental protection *inter alia*, drawing lessons from islands which have managed to actively capitalize on their geographic specificities and succeeded in attaining higher levels of competitiveness. The concluding section concludes by synthesizing those factors that create the right environment for business to develop and flourish on small islands.

MARKET AND REGULATORY FAILURES

In any economic context, certain constraints may impinge on economic development generally and on business growth specifically in island economies. Broadly, these may be organized as those pertaining to market failure and those pertaining to regulatory failure—both of which may preclude business in small islands from achieving sufficient competitiveness (Cordina, 2008). By neoclassical economic definitions, a market that fails is one that, if left to operate freely, would fail to achieve allocative efficiency and welfare optimization (Munday, 2000; Pigou, 1920). Such market failure may arise as a result of market dominance, through, for instance, the presence of monopolies, in the presence of externalities such as environmental impacts, and in the absence of the kind of information necessary for the markets to function. As a result of their inherent characteristics, the instances of market failure are often more prevalent in small economies relative to larger ones. But while market failure may justify government action, government intervention is itself known to be beset by the possibility of failure (Krueger,

1990). Governments may stifle private initiative, and give rise to inefficiencies, public-sector deficits, and higher risks of inflationary effects. In turn, these translate into adverse impacts on savings behaviour, resource allocation, and private-sector investment. Failure is not limited to errors of commission, but also of omission, if government refrains from intervening when it should optimally do so (Cordina, 2008).

Market failures

One type of market failure particular to islands relates to the thinness and small size of the domestic market which creates limitations for competition to flourish. A minimum efficient scale of operations would entail a small number of operators who dominate the market, and this may result in monopolistic or oligopolistic market situations which tend to be characterized by a restriction of output in the pursuit of higher profits. Vella (2008) points out that the markets in small states are typically protected by natural barriers to entry, thereby creating difficulties for new businesses to enter the market. Briguglio and Buttigieg (2004) explain that market dominance tends to be more prevalent in small islands: high entry barriers and the higher degree of collusion between suppliers also tend to inhibit the development of a competition culture. But while the enforcement of competition law is critical in addressing these barriers, some argue that the specificities of small states must be considered in the implementation of competition policy. Gal (2009) argues that small economies need a competition policy that is specifically tailored to their markets. For instance, a rule that categorically prohibits mergers or joint ventures would restrict the capacity of firms in small economies to increase their productive and dynamic efficiency and thus overcome the limitations arising from smallness. Given that the market mechanism has a much weaker self-correcting tendency, the need for a structured and efficiently enforced competition policy is greater.

The small size of the market also implies that islands tend to be characterized by the so-called ‘monocultural economies’ with considerable dependence on a small number of unrelated sectors. This allows companies to achieve a number of economies of scale in each sector, while providing for some diversification to counteract risks that may affect any specific sector. However, it also limits the mobility of resources from one sector to another, thereby giving way to sluggish market prices (Cordina, 2008).

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Firms operating in a small economy also often face information disadvantages relative to multinational players that are able to allocate more resources towards the attainment of market information. These information asymmetries, combined with the uncertainties arising from islands' relatively higher exposure to shocks, are key factors that hinder business investment and growth in islands.

Yet another type of market failure results from the reality of operating in geographically constrained and densely populated islands and the resultant competing uses for land. Small islands are, by definition, characterized by limited territory and often natural resources. Furthermore, their insular nature provides them with unique and fragile ecosystems rich in biodiversity. This often exacerbates the difficulties in achieving a sustainable balance between economic development and environmental protection. As a result, the presence of externalities may be higher in small economies compared to larger ones, and market prices may fail to adequately reflect the social costs and benefits (Moncada et al., 2018).

Regulatory failures

Market failures typically provide the justification for regulation and government intervention more generally. But regulatory failure, particularly in small islands themselves, cannot be ignored. The incidence of regulatory failure may be higher in small economies because of the proximity of social and political relationships that induce a degree of clientelism as well as human capital deficiencies which impede the proper implementation of policy measures. Insights from behavioural economics suggest that such inefficiencies may be even stronger than once considered (Briguglio & Spiteri, 2018). For example, gift exchange, favours, and promises are more credible among incumbents and familiar candidates, since their promises are perceived as being more credible (Wantchekon, 2003).

Moreover, Vella (2008) highlights the importance of private-sector development in small states and explains that an overreliance on the public sector could give rise to inefficiencies and underemployment, which in turn could impinge on competitiveness through higher per unit costs. Expenditures on public administration and road networks are by nature fairly indivisible, meaning that the cost per capita of providing these goods should fall as population size increases (Alesina & Spolaore, 2005; Briguglio, 1998). This applies to the provision of public goods and the regulation of spillover effects of one business on another (Briguglio & Bonello, 2018). As a result, small countries are often characterized by relatively large governments with higher per capita public expenditure levels (Natella & O'Sullivan, 2014) and elevated levels of bureaucracy (Brown, 2010).

Cordina (2008) further argues that in small states, a good governance function does not solely contribute to economic development but also renders small states more

resilient against exogenous shocks. In turn, this serves to create higher incentives for business to expand and for new investment to take place.

In short, the type of market and regulatory failures that can limit competitiveness include market dominance, the presence of externalities such as environmental impacts, the absence of information, higher per unit costs of regulation, and other kinds of government failure. More broadly, Roberts and Ibitoye (2012) clearly show an association between population size and progress toward the achievement of the Millennium Development Goals (MDGs), with states under 100,000 in population presenting the poorest performance.

Naturally, public policy that resolves situations of market failure without introducing elements of regulatory failure is key to promoting competitiveness. From the perspective of the factors highlighted in mainstream literature, such intervention would focus on efficiency in wage and price setting, maintaining low costs of doing business, ensuring the provision of public goods necessary for business success, and so on. This consideration acquires an even greater importance in the context of small islands due to the possibilities of even stronger incidence of market failure and regulatory failure.

This, in turn, implies the need for a specific policy approach towards addressing these issues, one that is generally less cumbersome in terms of capacity requirements for implementation; significantly more sensitive to the territorial, economic, social, and environmental specificities giving rise to market and regulatory failures; and which transforms proximity of social relations into an advantage for effective networking. Moreover, as will be discussed throughout this chapter, the policy approach needs not only to consider the general characteristics of small islands, but also be sensitive to the marked heterogeneities between small islands themselves.

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CASES OF GOOD PRACTICE

Despite the potential for market and regulatory failure to be rife in small island contexts, there are a number of good-practice examples which contribute towards higher resilience and the stimulation of sustainable entrepreneurial development. This section provides examples in a number of areas which seek to enhance connectivity, promote sector-led initiatives and innovation, and/or focus on sustainable development or circular economics.

Connectivity

Insularity, which leads to accessibility challenges, is often regarded as the most significant impediment to economic and social development for islands. Connectivity challenges also translate into additional costs, which in turn erode islands' competitiveness. Adequate connectivity between territories does not solely involve good intermodal transport connections but includes access to services such as health care, education, broadband Internet access, reliable connections to energy networks, and strong links between business and research centres (Commission of the European Communities, 2009). In view of the geographic isolation of islands, digital connectivity rep-

CONNECTIVITY CHALLENGES

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presents a potential opportunity to overcome challenges related to large distances and small population (Burnett & Danson, 2017). Access to the Internet and high-speed ICT networks enable various quality services of general interest (e.g., teleworking, e-health, e-training) and thereby may not only improve connectivity but also alleviate the brain drain from islands and other peripheral areas. The access of small and medium-sized enterprises (SMEs) to knowledge, qualified human capital, professional business services, and innovation may be key for their survival and growth (Love & Roper, 2015).

Insularity challenges are exacerbated by the fact that the private sector is often not materially interested in the provision of transport services due to the small size of the market leading to unprofitable activity. Consequently, governments may intervene through the provision of a Public Service Obligation for transport whereby state aid is provided in the form of subsidies to remove the financial burden undertaken by the private sector for

the benefit of the inhabitants. This kind of provision of better transport and infrastructure may be a key factor in boosting business investment and productivity. Improved connectivity serves to facilitate trade, which in turn leads to higher job creation. In the case of multi-islands, improving connectivity through air and sea could also unlock the potential for tourist island hopping and facilitate intra-regional trade (Bardolet & Sheldon, 2008).

In view of these considerations, the concept of Road Equivalent Tariff (RET) has been introduced in some island economies. This is based on the principle that travelling one kilometre on water should not cost more than traveling the same distance on road or rail. To this end, RET involves setting ferry fares on the basis of the cost of travelling an equivalent distance by road, including a fixed element to keep fares sustainable and cover



fixed costs such as infrastructure. RET aims to reduce the economic disadvantage suffered by island communities and support their growth. For example, on the island of Arran in Scotland, the introduction of a RET is considered to have led to a significant increase in the demand for ferry services, which was in part driven by a step-change in the scale of the Arran tourism market (Transport Scotland, 2017). Apart from the positive effect on tourism, this measure is believed to have also contributed to higher social, cultural, and economic opportunities on the island. It is worth noting, however, that Arran residents consider quality of life to have deteriorated since the introduction of reduced fares, mainly as a result of congestion, negative environmental impacts, and increased incidences of antisocial behaviour (Transport Scotland, 2017). This highlights the need to encapsulate connectivity measures into the broader socioeconomic contexts to ensure that enhanced business competitiveness results in genuine welfare improvements.

Sector-led initiatives

Sector-led initiatives provide another kind of measure that may lead to successful business trajectories. Haarich et al. (2017) argue that the capacity of entrepreneurs to interact in a wide network of other actors through formal and tacit rules and habits, traditions, and trust are important determinants of development. Some islands have

built on their strong social ties and community involvement. This opportunity for deeper collaboration provides for a distinct, resourceful environment for the implementation of innovative approaches. Advancements in technology can facilitate networking and business collaboration, such as by connecting businesses in a virtual environment.

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Examples of good practice in sector-led initiatives include Malta, for instance, where sectoral clusters are being developed in the maritime sector, consisting of businesses, industry associations, government departments, and academic and research institutions, both local and foreign. By bringing stakeholders together, clusters lead to access to specialized human resources and suppliers, knowledge spillovers, pressure for improved performance in head-to-head competition, and learning from the close interaction with specialized customers and suppliers (Aziz & Norhashim, 2008). In the Canary Islands, all public institutions that offer support to SME development and entrepreneurship are organized in the Red CIDE, which is a network composed of a variety of institutions and bodies coordinated by the Institute for Technology Canarias (Haarich et al., 2017). This network of institutions aims to promote innovation in new and consolidated companies by facilitating the

access to information on financing sources, innovation support programmes, and providing support for organizations that are developing innovative concepts.

Nevertheless, this collaborative culture is not ingrained in all island communities (Baldacchino, 2013). Even in islands where such collaboration exists, the excessively rapid demographic change experienced by some islands can be a threat to sustaining initiatives geared towards achieving common social goals. To this end, the attraction and retention of necessary human and intellectual capital is an aspect that largely influences the pace of innovation in an island as well as its socioeconomic development.

International networks of collaboration are also important sources for innovative projects to stimulate business creation, entrepreneurship, and start-ups. A case in point is the Smart Islands Initiative which builds on years of collaboration between European islands and seeks to demonstrate that islands can be innovative and host pilot projects leading to knowledge on smart and efficient resource and infrastructure management (Smart Islands Initiative, 2017).

Innovation

Innovation can be another factor promoting successful SME development and growth in islands. Given islands' insular characteristics, island communities tend to exhibit a degree of self-sufficiency which may inspire creativity (Baldacchino, 2007). Furthermore, the small scale of most islands results in a path from 'thought to action' which is relatively short. Against this background, islands may serve as innovative 'test-beds' before innovative concepts are rolled out on a larger scale. In turn, this could potentially attract young, innovative and entrepreneurial people and activities to these islands. In view of the distinctive heritage and cultural assets of many islands, there are also opportunities for islands to serve as safe havens for the conservation of European heritage. Innovation and collaboration can add value to existing traditional artisanal activities. In addition, capitalizing on the cultural assets and new technologies available offers potential for entrepreneurship and SME development.

By way of example, over the last decade, the Canary Islands have been promoting innovation and the modernization of critical sectors by providing extensive support to clusters. This policy approach is also contributing to the creation of companies in new emerging fields such as biotechnology, water management, ICT, design, or renewable energies. Other islands are using place-branding initiatives to turn tourism marketing into a means of diversifying their economies and expanding their innovative capacities. For instance, the North Aegean Islands in Greece have been pushing forward a number of innovative activities in the field of agro-food processing, such as developing



Parga town and port near Syvota in Greece's Ionian Sea

perfumes and cosmetics as well as medicinal products from the Mastiha tree, which grows only on the island of Chios (Galani-Moutafi, 2004).

In order to strengthen research and innovation, it is often argued that more investment should be directed towards ensuring full broadband penetration on islands, completing the digital single market, and investing in research and development by using islands' potential to boost employment and growth (Bohlin & Teppayayon, 2009). In a similar vein, Baldacchino and Fairbairn (2006) advocate business innovation in islands based on place-branding strategies to attain a level of differentiation which makes the firms competitive.

Regulatory innovation itself is another important strategy that is being developed in a number of jurisdictions in order to create the right environment for international

business attraction and growth. A case in point is Malta which is making headway in regulatory innovation in fields such as distributed ledger technology, generic pharma, and, more recently, medical cannabis and artificial intelligence. This builds upon earlier experiences with the regulation of remote gaming services (Littler, 2008). The National Productivity and Competitiveness Council (NPCC) of Mauritius, which was set up in 1999, is considered to have been instrumental in improving the local business environment. More recently, the role of a National Productivity Board has also been recognized in the European fora whereby, in 2016, the Council of the European Union issued a recommendation on the establishment of National Productivity Boards. These boards are to analyze productivity and competitiveness developments, including that which is relative to global competitors, considering national specificities and established practices (Council of the European Union, 2016).

REGULATION THAT FAILS to consider the geographical specificities of and within islands is another aspect of failure that merits particular consideration. Unless the characteristics of the territory, the availability of individual territorial resources, and the institutional capacity to efficiently manage those resources is taken into account, intervention is unlikely to lead to efficient market outcomes.

Place-based approaches

It must also be noted that there is a marked heterogeneity between small islands (Briguglio et al., 2008), which implies the need for context-specific approaches and solutions to challenges and opportunities. Regulation that fails to consider the geographical specificities of and within islands is another aspect of failure that merits particular consideration. Unless the characteristics of the territory, the availability of individual territorial resources, and the institutional capacity to efficiently manage those resources is taken into account, intervention is unlikely to lead to efficient market outcomes. The global trend towards the devolution of decision-making powers to sub-

national governments represents an opportunity for islands to assume greater control over their development trajectories (Rodríguez-Pose & Wilkie, 2017) and suggests the need for empowerment of subnational tiers of governments with the aim of achieving better outcomes by bringing policy formulation and implementation closer to the specific territorial needs. Similarly, the need to focus on the issue of knowledge in policy intervention has been emphasized by Barca et al. (2012) as a key aspect of a place-based approach to policy intervention. These considerations chime closely with the subsidiarity principle.

There can be little doubt that improving the environment for entrepreneurship and business development requires policy to consider the context specificities of islands. In other words, every territory should recognize its strengths and invest in economic sectors or value chains that are of importance to the territory, for instance, through smart specialization. This place-based approach seeks to enhance local socioeconomic and territorial assets (Haarich et al., 2017). Baltina (2014) also emphasizes that territorial resources are to be assessed in light of changes in the external environment. In this manner, the best use of territorial resources can be made in order to achieve and maintain higher levels of competitiveness.

A practical example of this is the extent of development success attained by the islands that can be categorized as city islands. To varying extents, city islands exploit the business advantages created by their historical roles as defence and transport centres, to be later followed by the establishment of seats of government and trading posts, and consequently political and economic elites. These create centres of economic and business activity of regional importance. Land scarcity subsequently leads to urban densification resulting in the formation of island cities (Grydehøj, 2015). Viewed from this perspective, Singapore, Hong Kong, Venice, and Malta are examples of city islands. Today, these historical advantages are typically sustained by competitive regulatory frameworks and innovative approaches to target business, with the imperative to meet the sustainable development challenges of urban densification within small island contexts.

Sustainable development

Sustainable development, defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland, 1987), proposes an alternative, longer-term economic model informed by the realities of population increase, non-renewable resource depletion, and pollution generation (Meadows et al., 1972). In tourism sectors, for instance, islands are seen as territories with a natural attraction for tourists but which present a special challenge to sustainability. Due to their limited size, islands have a relatively lower carrying capacity: that is, a level of tourist visitors beyond which the natural ecosystem will be irreversibly damaged. Therefore, high tourism densities in relation to islands' popula-

tion and land area could erode the sustainability of the tourism sector's own existence (Briguglio & Bonello, 2018; Briguglio & Briguglio, 2002).

Ensuring adequate connectivity by means of airports and seaports implies the take-up of a significant share of land area, thereby giving rise to increased land-use pressure. Higher use of transport also contributes to higher air and sea pollution (Sheldon, 2005). Pursuing product and market diversification could address the seasonality aspect of tourism, which, in turn, leads to more stable employment and an efficient use of tourism infrastructure. Similarly, import substitution policies could reduce the extent of economic leakages and 'buy local' policies to maximize linkages. Environmental management policies, such as those related to conservation management and waste management, should contribute to mitigating the negative impact of tourism on the environment. The Galapagos Islands, as well as the Canary Islands, are examples of islands where limits on tourism numbers were actively pursued as a strategy (Powell & Ham, 2008; Tiago et al., 2016).

Similarly, given the limitations of a linear economic system, the concept of a circular economy has presented a potential solution to keep obtaining economic growth whilst protecting the environment, focusing mainly on resource depletion and the generation of waste. The European Commission, for example, goes to great lengths to promote resource efficiency and the circular economy (European Commission, 2014). Some argue that this creates opportunities for firms as developers of environmentally safer materials and products, as well as firms that specialize in eco-efficiency. Such firms enjoy a competitive advantage and will benefit from a better goodwill that may ultimately translate into higher revenue (International Institute for Sustainable Development, 1992). Performance in sustainability can support business success (Thorpe & Prakash-Mani, 2003), and increased environmental performance can be linked to higher profits (Rennings et al., 2003).

The recognition of such opportunities by business is by no means guaranteed nor automatic (Lieder & Rashid, 2016), especially as small business would need to face the day-to-day challenges offered by the specific constraints of operating in small islands. Time is often a key factor in this regard, as opportunities may be effectively lost by the time that business comes to recognize them. Moreover, the need to build critical mass within and amongst businesses is often key to creating opportunities at the social and sectoral levels. External and internal benefits from such opportunities must therefore be obtained through policies that enable businesses to reap them in a timely manner, through, for example, the provision of implementation capacity and financial resources.

Although small islands are among the lowest contributors to human-induced greenhouse gas emissions (GHGs), they are particularly vulnerable to global climate change, climate variability, and sea-level rise—potentially curtailing access to food, water, land, and energy resources (Nurse et al., 2014). Climate change will also cause significant changes in the quality and availability of water resources, affecting many sectors

including food production (Commission of the European Communities, 2009). Addressing climate change is known to require two types of responses: the reduction of GHGs, i.e., mitigation and adaptations action to deal with the outcomes of climate change. But while vulnerability is inherent, strategies can be put in place to mitigate the risk caused by external shocks arising from climate change. Several islands have notable potential for renewable energy development, chiefly due to their location, an abundance of sunshine that gives rise to wind, and adequate rain and plant life that can be tapped for energy (United Nations Framework Convention Climate Change, 2015)

Future developments could therefore include the increased use of wind, solar, and geothermal power as well as ocean thermal and tidal energy conversion. This would contribute to breaking islands' reliance on fossil fuels (Robertson, 2018). IRENA (2015) documents a number of interesting case studies where renewable energy projects have produced significant business dividends in small island contexts. Nevertheless, the cost of energy produced from renewable sources could be higher in islands that are highly dense due to limited space availability, land and space fragmentation, and the absence of solar rights.

CONCLUSION

In this chapter we have argued that the creation of successful business environments is an important prerequisite for durable and sustainable competitiveness. While circumstances are well known to make considerable difference for business—both on a national and global level—and while defining characteristics of small island economies themselves have also received considerable attention, the juxtaposition of the two is less well explored. Within the context of small islands, we therefore documented some constraints that may hinder business success as well as some policy approaches that may create operating environments conducive to business success.

The chapter reviews the kind of market and regulatory failures which may hinder business success in islands. It also examined a number of good practice examples in the domains of connectivity, sector-led initiatives, innovation, place-based approaches, sustainable tourism, circular economics, and climate change. These kinds of factors are not necessarily congruent with those used in mainstream competitiveness debate. This suggests that the discussion on building business competitiveness in small islands should extend beyond the standard competitiveness framework used in mainstream economics.

Drawing lessons from islands that have managed to actively capitalize on their geographic specificities and succeeded in attaining higher levels of competitiveness, the chapter provides a synthesis of factors that create the right environment for business to develop and flourish in small island contexts.

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A traditional Chinese water village in Sanya, Hainan Province

8

Hainan Island:

From a pilot free trade zone to a free trade port with Chinese characteristics*

ABSTRACT

Building Hainan into a pilot free trade zone (FTZ) and free trade port (FTP) with Chinese characteristics is an important step in showcasing China's resolve to open up to the outside world and to promote economic globalization. The initiative has attracted close attention from around the world. To evolve from a pilot FTZ to an FTP with Chinese features, Hainan, with the goal of serving major national strategies, is making concerted

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* THIS CHAPTER IS NOT PEER-REVIEWED.

efforts to build the China (Hainan) Pilot Free Trade Zone to a high standard. It is doing so by prioritizing trade in services as the dominant driving force, with institutional innovation as the core, and by obtaining dynamism and vitality through reform. In this way, Hainan will reach new heights in China's opening up and become a favoured destination for global investment.

INTRODUCTION

After full consideration of domestic and international situations, in-depth research, and comprehensive scientific planning, supporting Hainan Island to become a pilot free trade zone (FTZ)—while at the same time gradually exploring and steadily pushing forward the building of a free trade port (FTP) with Chinese characteristics—is a major decision by China's Central Government. It is also an important step in demonstrating China's resolve to open up to the world and proactively promote economic globalization (Xi, 2018a).

The development of a pilot FTZ and FTP is a major national strategy personally orchestrated, advocated, and announced by Chinese President Xi Jinping. On 5 November 2018, he reiterated in his keynote speech at the first China International Import Expo (2018b): “China will be quick to put forward policies and institutions for building a free trade port in Hainan in a step-by-step and phased manner, so as to speed up exploration of the development of free trade ports with distinct Chinese features.” To accelerate the evolution of a pilot FTZ to an FTP is part of the historic responsibility and mission of comprehensively deepening reform and opening up for the Hainan Special Economic Zone.

SERVING MAJOR NATIONAL STRATEGIES

Building the entire Hainan Island into a pilot FTZ and steadily promoting the construction of an FTP with Chinese characteristics serves major national strategies, as the goal is to be fully aware of Hainan's strategic positioning and tasks.

Over the past forty years, China has achieved great changes, including its epic journey from infancy to the late stage of industrialization, its great transition from a closed and semi-closed society to one of an all-round opening up, and its historic upgrade from an age of shortage economy to a new era of consumption. At the same time, it is faced with new problems and challenges in its endeavour to comprehensively deepen reform and opening up in the new era. Against this backdrop, the Chinese Central Government's support for Hainan Island to build a pilot FTZ and FTP is designed as an aggressive move to make Hainan “a new role model of comprehensively deepening reform and opening-up in the new era” (Xi, 2018a).

China's decision to turn Hainan into the world's largest pilot FTZ and then FTP is a major strategic measure as a proactive response to the challenges of economic globalization in a new international landscape. It demonstrates China's firm resolve to advance economic globalization.

Through the development of the pilot FTZ and FTP, Hainan will become an important gateway to the Pacific and Indian Oceans. This is a new historic mission for the island, which presents unprecedented opportunities to make Hainan a prominent maritime province.

To meet the need of building the pilot FTZ and FTP, Hainan is redoubling its efforts to build a law-based, internationalized, and facilitated business environment, and fair, unified, and efficient market conditions. It will continue to streamline administration and institute decentralization, combining power delegation with regulatory improvement and optimizing government services to comprehensively improve its governing capacity. It is also implementing policies for high-level trade and investment liberalization and facilitation, and accelerating reform and innovation of the talent system, financial and taxation system, income distribution system, state-owned enterprises, and integrated urban and rural development.

CHINA'S DECISION TO TURN Hainan into the world's largest pilot FTZ and then FTP is a major strategic measure as a proactive response to the challenges of economic globalization in a new international landscape. It demonstrates China's firm resolve to advance economic globalization.

Hainan's air quality has always been the purest in China. In 2018, the excellent and good rate of atmospheric environment quality reached 98.4%, with the average annual concentration of PM_{2.5} at/below 17 µg/m³ (Shen, 2019). "By 2035," says President Xi Jinping (2018a), "Hainan will be a world leader in the quality of ecological environment and efficiency of resource utilization." To achieve this goal, Hainan needs to maintain this status, take full advantage of it, and take the lead in the country and the world in marching toward green modes of production and a green lifestyle by pursuing institutional innovation for ecological conservation.

Said President Xi Jinping (2018a): "To build an international and tourism consumption centre with global influence in Hainan best translates high-quality development into local realities." Between 2009 and 2017, the total number of tourist visits to Hainan grew from 22.5 million to 67.45 million, with an average annual growth rate of 14.7%. In 2017, the number of overseas tourist visits to Hainan exceeded one million, and the annual tourism revenue increased from 21.172 billion yuan to 81.199 billion yuan, with an average annual growth rate of 18.3% (Gan & Guo, 2018). Tourism has become a striking identifier for the province. However, the key to building an international and tourism consumption centre with global influence in Hainan lies in expanding the space for tourism consumption development, improving the quality of tourism services,

and making important breakthroughs in the internationalization of tourism consumption so as to make the identity of Hainan as an international tourism island more novel.

Hainan will be deeply integrated into the national maritime power strategy by playing a leading role in establishing the “Pan-South-China-Sea Tourism Economic Cooperation Circle”, by initiating and building networks of free trade areas in the Pan-South-China-Sea region, and by making breakthrough contributions to the joint building of the 21st Century Maritime Silk Road, the purpose of which is to help turn the South China Sea into an ocean of peace, friendship, and cooperation. Hainan will also be deeply involved in national foreign exchange and cooperation, will make full use of the international influence of the Boao Forum for Asia, will strengthen economic and cultural exchanges with countries and regions along the routes of the Belt and Road, and attract international organizations and multinationals to the island to set up their regional headquarters in a bid to develop a Headquarters Economy.

First, Hainan will make flow of services, goods, capital, people, and information highly free with “zero tariffs, zero barriers, and zero subsidies” so as to improve its capacity of globally allocating resources and delivering services. It will also forge an opening-up platform to connect China with the rest of the world and to connect developing countries with the developed ones. Secondly, Hainan will create the world’s most convenient and efficient trade and investment environment and provide the

highest-level convenience to global investors. Thirdly, Hainan will set up a governance model of “greatest freedom plus most rigorous rule of law” to guarantee that “all are equal before the law and there is maximum freedom within the law” so as to create a free, stable, equitable, and transparent law-based business environment for global investors and entrepreneurs.

The first is to build a platform for Pan-South-China-Sea regional economic cooperation. Hainan strives to serve the national marine strategy and the implementation of the Belt and Road initiative with closer economic cooperation and a wider opening up. The second is to build a key hub for interconnectivity in the Pan-South-China-Sea area and to drive development of a transportation corridor and hub economy with leading trade and investment liberalization and facilitation. The third is to build a platform for cultural and educational exchanges in the Pan-

South-China-Sea region, promote all-round people-to-people exchange with surrounding countries and regions, and to establish cultural and educational exchange mechanisms through both official and non-official channels involving multi-participation.

BEHIND THE HUGE CHINESE market of nearly 1.4 billion consumers and facing the emerging consumer markets of 600 million people in Southeast Asia, Hainan will redouble its efforts to become a key destination for domestic medium and high-end tourism consumption as a global high ground of consumption economy.

Tourists enjoy this beautiful beach near Sanya, Hainan Province



Behind the huge Chinese market of nearly 1.4 billion consumers and facing the emerging consumer markets of 600 million people in Southeast Asia, Hainan will redouble its efforts to become a key destination for domestic medium and high-end tourism consumption as a global high ground of consumption economy. It will become a centre for all-round opening up and agglomerated development of modern services, build up a centre for high-tech R&D, and become a magnet for innovative talent in trade in services, a centre for trade in digital services, and an international transit trading and promotion centre for trade in services.

BUILDING THE CHINA (HAINAN) PILOT FREE TRADE ZONE TO A HIGH STANDARD

To become a pilot FTZ in the next two to three years is a major task mandated to Hainan by the Chinese central government. According to its basic definition and main features, building a pilot FTZ places emphasis more on institutional innovations in areas including transformation of government functions, regulation of foreign investment, opening up of the service sector, trade facilitation, and opening up of the financial sector.

The goal of building the China (Hainan) Pilot FTZ is as follows. By 2020, important progress shall be made with the level of its openness to the outside world markedly

elevated in order to make it a pilot FTZ with high standards and quality, featuring investment and trade facilitation, normalization of the legal environment, a sound financial service system, efficient and stable regulation, first-class quality of ecological environment, and marked radiation effect (State Council of the P.R.China, 2018).

The basic ideas for building the China (Hainan) Pilot FTZ include the following. First, the building of the pilot FTZ must be well aligned with China's major strategic blueprint. Second, planning and action must be aimed at a free trade port, and measures indispensable for transforming the pilot FTZ into an FTP must be proactively explored. Third, 2020 must be regarded as the time frame for making a good start toward laying a solid foundation for building up the policy and institutional systems of an FTP with Chinese characteristics. Fourth, opening up must be the forerunner, institutional innovation must be regarded as the core, and building the country's new reform and opening up to a higher level must be the priority objective in the new era.

Judging from the current situation, improving the business environment is the first priority issue in building the China (Hainan) Pilot FTZ with high standards and quality. On the one hand, Hainan's poor business environment is the biggest complaint of investors from home and abroad; on the other, a good business environment is the key to the transition from a pilot FTZ to an FTP.

At present, stimulating the market's vitality and shaping a larger pattern for the market to play a decisive role in allocating resources is the priority task for improving Hainan's business environment. Take the real estate market as an example. The key to establishing a long-term mechanism for its steady and sound development is to enable the market to play a decisive role in allocating real estate resources under the premise that the government guarantees basic housing needs. In other words, "the responsibility for basic housing needs belongs to the government while the role in meeting other housing needs must be played by the market."

To fully boost market vitality, the key lies in making substantial breakthroughs in opening up the service sector. It should be mentioned that Hainan has the basic conditions and possibility to take the lead in the whole country in opening up the modern service sector. For example, Hainan can be the first to implement free trade policies in tourism, shopping, health care and medical treatment, culture and entertainment, education, and shipping. In these areas, Hainan should find ways to make breakthroughs. This not only aligns with Hainan's reality but it will produce many effects. First, it will substantially promote organic integration of building of the pilot FTZ with the building of the FTP. Secondly, it will produce faster and more obvious pulling effects. Thirdly, it will play a demonstrative role in the development of the modern service sector in the whole country. As a result, Hainan should promulgate, as soon as possible, substantial action plans for opening up the service sector and for innovating the development of trade in service. This will boost market vitality and gain unique advantages in terms of the market environment.

To build the China (Hainan) Pilot FTZ with high standards and quality, further improvement of government efficiency has become the priority among priorities in improving its business environment. For this, effective measures need to be taken and truly ‘strong medicine’ needs to be prescribed as soon as possible. For example, comprehensively implementing an enterprise independent registration system can be a breakthrough point in deepening the reform of the commercial system. Under the condition of enterprises strictly abiding by laws and regulations, and of effective market regulation, enterprises should be given the basic rights of autonomous registration, deregistration, and operation.

For example, the widely anticipated *Regulations on Promoting the Development of Private Economy in the Hainan Special Economic Zone* should be promulgated as soon as possible to find an institutionalized and rule-of-law-based approach to innovate the development of a private economy. For another example, efforts should be made to set up a ‘digital court’ in the China (Hainan) Pilot FTZ to provide legal guarantees for the development of high-tech industries with the digital economy as the focus.

With its unique advantages in terms of location, resources, and ecological environment, Hainan has many favourable conditions for ‘better development’. From a realistic perspective, turning its superiority of rich resources into concrete competitive advantage is a top priority in building the China (Hainan) Pilot FTZ.

Improving resource utilization efficiency

Land, favourable conditions for tropical agriculture, a large sea area, and an excellent ecological environment are all unique and valuable resources. But, generally speaking, resource utilization in Hainan is far from efficient. Though Hainan Island has almost the same land area as Taiwan Island, the former has much better geological conditions than the latter, because 2/3 of Hainan’s land is plains while 2/3 of Taiwan’s land is hills and mountains. In 2017, Hainan’s GDP per km² was only 11.7% of that of Taiwan.¹ The sea area under Hainan’s jurisdiction accounts for 2/3 of the country’s total. However, its marine economic output is only 16.6% of that of Zhejiang and 7% of that of Guangdong.² Tropical agricultural resources constitute another unique advantage of Hainan, but the added value of its tropical agricultural produce is very low because the level of processing is very low. At present, the processing conversion of Hainan’s agricultural products is only 32%, far below the 90% in developed countries and the national average of 40–50% (Li, 2018a).

CURRENTLY, DUE TO institutional barriers across regions and between urban and rural areas, the potential of Hainan’s land resources is far from being unleashed.

Currently, due to institutional barriers across regions and between urban and rural areas, the potential of Hainan’s land resources is far from being unleashed. In 2017, Hainan’s GDP per km² was 13 million yuan, only 26% of that of Guangdong, 0.6% of



The marble platform in front of the cruise terminal, Sanya

that of Hong Kong, and 0.43% of that of Singapore.³ If, by 2020, the benefit of Hainan's land resource utilization reaches 50% of that of Guangdong as of 2017, there will be an estimated capital demand of 700 to 800 billion yuan; if, by 2025, the benefit of Hainan's land use reaches 5% of that of Hong Kong as of 2017, the capital demand will be more than 3 trillion yuan.⁴ And if, by 2025, the benefit of Hainan's land use reaches 5% of that of Singapore as of 2017, the capital demand will be more than 5 trillion yuan.⁵ Therefore, it is advised that Hainan should unify the whole province's utilization of land resources as soon as possible. The provincial government should strengthen coordination of land use in the whole province, strictly implement a unified land purchase and reserve system, unified land development management, unified and open land supply, and unified planning of coastline resources by tightening land examination and approval, setting a floor price for land sales, and raising the average land price.

Hainan should accelerate the development of marine tourism with cruise tourism as the priority, strive for breakthroughs in building the "Pan-South-China-Sea Tourism Economic Cooperation Circle", redouble its efforts to build an international shipping hub with a strong service function and radiating capacity, continuously improve its capacity in allocating global shipping resources, and energetically develop a strongly competitive marine science and technology sector.

Improving tourism

To push forward the building of an international and tourism consumption centre with global influence is another major task in the next few years for building the China (Hainan) Pilot FTZ.

At present, the outstanding problem with building the international and tourism consumption centre is the mismatch between the continuously growing domestic demand for service consumption and the severe shortage of internationalized products and services. For instance, Hainan has not yet established a tourism and service standards system. Some of its tourist hotels have few or no service staff with English communication skills. Thus, the focus of building the international tourism and consumption centre should be put on expanding the supply of internationalized tourism products and related services.

The first is to accelerate major adjustment of Hainan's duty-free shopping policies. For example, the Central Government should delegate the right to approve a tax-free commodities franchise to Hainan and allow all eligible enterprises to operate tax-free businesses, to make duty-free all types of daily consumer goods consumed in Hainan, to implement a negative list management of duty-free goods purchased by visitors leaving Hainan, and to lift the restrictions on duty-free goods purchased by local residents for their own use. The second is to foster new areas of tourism consumption with a focus on opening up the healthcare and medical treatment market, to rally support to make important breakthroughs in opening up the drug and medical equipment importing market by exempting VAT on imported drugs, to introduce US and EU's drug quality and safety standards, to import medical apparatus and instruments for treatment of cancers with zero tariff, and to encourage the development of all kinds of commercial medical and health insurance and explore ways to establishing a long-term nursing insurance system.

For example, Hainan could work with Hong Kong to build industrial and consumption chains for tax-free shopping in Hainan and promote the overall alignment of service management, market regulation, and law enforcement standards in Hainan with those in Hong Kong.

Attracting talent

President Xi Jinping (2018a) pointed out that “the best environment for attracting, retaining, and making good use of talents is sound system and mechanism.” Soon after Hainan became a province, more than 100,000 skilled workers flooded in from the mainland, mainly because the system hindering attraction and good use of talent was broken and Hainan became a hot spot for young people to start their businesses in spite of the backward economic and social conditions. Today, Hainan still needs a more

rigorous system and mechanism innovations in order to gain new unique advantages for attracting talent.

The Central Government's support for Hainan to build a pilot FTA and FTP has created high expectations for all kinds of talent. With this unique advantage, a practical and operable strategy is to establish platforms of various forms to provide opportunities for skilled individuals to create, innovate, and start businesses.

To attract international talent through the main platform of statutory authority, Hainan should give enough statutory autonomy to the suggested statutory authority, which can be an officially established immigration office as a platform to continuously attract high-calibre talent from all over the globe, and meanwhile encourage third-party international talent assessment organizations to operate in Hainan.

For instance, Hainan can establish an innovation studio system, give greater autonomy to scientists and researchers, remove upper limits on their income from scientific and technological innovation as well as those on their income from transfer of their scientific and technological achievements; and encourage universities, research institutes, and enterprises to stimulate scientific and technical innovation by giving researchers shared ownership, stock options, and stock appreciation rights so as to create a favourable environment for innovation and entrepreneurship.

... Hainan should focus on trade in services, which is in line not only with the global trend of free trade development, but also with China's strategic plan for forging new heights in opening up to the outside world and the positioning of Hainan's own development.

Hainan should build special communities in designated areas for foreign entrepreneurs, senior executives, experts, and scholars living in Hainan for innovation and entrepreneurial purposes; support the establishment of various agencies to provide permanent residence services for foreigners; and open the job market to Filipino domestic workers and other foreign workers so that they can provide high-quality household management services for international talent and middle and high-income families in Hainan.

PUTTING OPENING UP TO THE OUTSIDE FIRST AND FOCUSING ON SERVICE TRADE

President Xi Jinping (2018a) clearly stated that “Hainan should focus on tourism, modern services, and high-tech sectors instead of entrepot trade and manufacturing.” Development of tourism, modern services, and high-tech sectors almost all depend on trade in services. Consequently, Hainan should focus on trade in services, which is in line not only with the global trend of free trade development, but also with China's strategic plan for forging new heights in opening up to the outside world and the positioning of Hainan's own development.

Focusing on trade in services is in line with the general trend of economic globalization. The rapid growth of global service trade has become not only an important driver for global trade development, but also a focus of bilateral and multilateral trade and investment agreements.

Focusing on trade in services meets the requirements of transforming China's opening up. Along with the upgrading of the consumption structure in China, demand for services such as culture, entertainment, medical care, healthcare, education, tourism, and information products is growing ever larger. However, the development of China's service trade still lags behind and is far from meeting this need.

Focusing on trade in services in Hainan is not only in line with the general trend of economic globalization but also can serve as an important lever for China to lead economic globalization.

Focusing on innovative development of trade in services will help form distinctive features and unique advantages of the FTP. Innovative development of trade in services can become a distinctive feature of Hainan. This not only meets the national strategic needs, but also represents a realistic choice for Hainan as an island economy to achieve leap-forward development.

Hainan is well positioned to take bold steps in opening up its service sector and in innovating its trade in services to gain unique advantages. In 2017, Hainan's service sector accounted for 55.7% of its GDP (Statistical Bureau of Hainan Province & Survey Office of National Bureau of Statistics in Hainan, 2018a), which was 4.1 percentage points higher than the national average. The contribution of its service sector to economic growth was 79.5% (Li, 2018b), which was 20.7 percentage points higher than the national average. Thus, Hainan has great potential for the development of trade in services.

Hainan should make bold breakthroughs in the development of trade in services by learning from successful international free trade ports. Provided they fall in line with the trend of Hainan's development, all aggressive steps should be boldly explored and taken.

Hainan should form the framework of its own negative lists with innovative development of trade in services as the priority objective. Design of Hainan's negative lists should not only aim at cutting the number of restrictions, but should also take into account the need for innovative development of trade in services when mapping out the overall framework of negative lists and deciding on their specific items. Only in this way can Hainan find a new path to building up new heights for opening up to the outside world. To this end, the basic requirement is to substantially relax market access to the service sector and improve the operability, transparency, and predictability of negative lists, thus forming Hainan's distinctive features and outstanding advantages.

FOCUSING ON INSTITUTIONAL INNOVATION AND GENERATING IMPETUS AND VITALITY THROUGH REFORM

As President Xi Jinping (2018a) pointed out, “We must take institutional innovation as the core, give Hainan greater autonomy in its reform, support Hainan’s bold experiment and independent reform, and redouble efforts to build a law-based and internationalized business environment with a high level of facilitation as well as a fair, open, unified, and efficient market environment.” This requires Hainan to do a good job of reform, make earnest efforts to eliminate the drawbacks of the system and mechanisms, and constantly emancipate and develop social productivity.

From the perspective of regarding ‘the whole island as one single city’, Hainan should readjust its administrative divisions, innovate institutions and mechanisms for integrated urban and rural development, and break up systemic and institutional barriers across different regions and between urban and rural areas.

TABLE 8.1: GDP per unit of land area in Hainan, Beijing, Shanghai, and Guangdong in 2017

(Unit: 100 million yuan per km²)

Region	Hainan	Beijing	Shanghai	Guangdong
GDP per unit of land area	0.13	1.71	4.75	0.5
Hainan/other provinces	—	7.6%	2.7%	26%

Data source: Calculated by research group of China Institute for Research and Development (CIRD).

Speeding up readjustment of administrative divisions to unify planning in 6 areas. With the planning in different fields integrated, Hainan could rapidly enjoy unified land use, infrastructure, industrial layout, urban and rural development, environmental protection, and social policies. This will significantly improve the efficiency of resource utilization and help develop a regional central city in each of its five regional centres, namely in the east, west, north, south, and the middle. This will enhance the overall land and tourism resources allocation and utilization efficiency.

Innovating systems and mechanisms for integrated development of urban and rural areas. One of the prominent features for Hainan to build into a free trade port is that it has vast rural areas, where Hainan’s greatest development potential exists. Hainan is well positioned to be a national leader in integrated development of urban and rural areas and in rural revitalization. For example, Hainan has the conditions to be the first to abolish the dual urban and rural household registry system,

implement a provincially unified residence permit management system, establish an urban and rural unified construction land market, give farmers more property rights, and to find a new path to integrated urban-rural development and construction of a beautiful countryside.

Deepening the reform of the administrative system with the orientation of shaping ‘small government and big market’. Hainan can take the lead in establishing a unified market supervision system and explore deepening the judicial system reform as required by the building of the designed free trade port.

ACCELERATING THE EXPLORATION AND CONSTRUCTION OF A FREE TRADE PORT

The biggest difference between Hainan and the other eleven pilot free trade zones is that Hainan is aiming to become a free trade port with Chinese characteristics. In order to reach the goal that “a free trade port system is initially established and a nationally first-class business environment is created by 2025, and that the institutional system and the operating model of the free trade port become more mature, and its business environment ranks among the top in the world by 2035” (Central Committee of the CPC & the State Council, P.R.China, 2018), Hainan must, on one hand, learn from the successful experiences of the other eleven pilot FTZs, while at the same time boldly exploring and making breakthroughs so as to lay a solid foundation for building a free trade port.

First of all, Hainan must aim at creating the FTP while building the pilot FTZ. This requires that major breakthroughs in building the pilot FTZ must be made, its business environment must be markedly improved, and its opening-up level must be substantially raised in the next two to three years. Secondly, while learning from the successful experiences of the other eleven pilot FTZs, Hainan must make important breakthroughs in areas in which the other eleven pilot FTZs have found it difficult. Thirdly, there must be a strong link between building the pilot FTZ and the building of the designed FTP. Hainan must pinpoint functional zoning of the whole island, clearly specify priority industries in each functional zone in accordance with regional characteristics, and enable Haikou, Sanya, and Qionghai to take the lead in making important breakthroughs to lay an important foundation for comprehensively promoting the construction of the designed FTP.

... Hainan must, on one hand, learn from the successful experiences of the other eleven pilot FTZs, while at the same time boldly exploring and making breakthroughs so as to lay a solid foundation for building a free trade port.

Establishing policy and institutional systems

Hainan must study and draw upon all systems and institutions indispensable for an FTP, including fiscal and taxation systems, institutions for supervision, and laws and regulations at all stages of planning, building, and afterwards.

It is important that a fiscal and taxation system for the designed free trade port be established. The first step is to transform the tax system to build a simple tax system dominated by direct taxes. The second is to institute a statutory low tax rate and significantly reduce corporate income tax and personal income tax. The third is to pursue zero tariffs, whereby “the majority of imported goods are exempted from custom duties.”

It is necessary to build up a financial system for the designed FTP to ensure free flow of capital. Free flow of capital is an important guarantee for investment and trade liberalization and facilitation. Building the designed FTP in Hainan requires major breakthroughs in financial institutional arrangements for financial market opening, cross-border investment and financing, currency exchange, international settlement, foreign exchange transactions, and financial regulation.

Establishing a special customs regulatory system for the designed FTP with “two-way freedom and two-way facilitation” is the objective. In order to optimize customs supervision, a national customs special surveillance zone should be established to innovate the customs supervision system. This special surveillance zone should, on the premise of effective risk prevention and control, guarantee freedom and convenience for flow of various factors not only between Hainan and the overseas markets, but also between Hainan and the mainland.

Legislative work should be accelerated to define the legal status of the designed FTP in the form of a special law, and then supporting laws and regulations should also be promulgated as soon as possible.

No time should be lost in studying and formulating the widely anticipated *Overall Plan for the Hainan Free Trade Port* and specific supportive action plans so that they can be launched as soon as possible.

CONCLUDING REMARKS

As President Xi Jinping (2018a) said, “Investors from all over the world are welcome to invest in Hainan and be part of the development of the free trade port to share opportunities and results of China’s reform and development.” I believe that under the strong support of the Chinese central government and other relevant parties, Hainan, with its enterprising and persevering spirit, will rise to the historical task of building a high-standard and high-quality pilot FTP and steadily pushing forward construction of an FTP with Chinese characteristics. As a result, China will reach new heights in its efforts to open up and become a favoured destination for investment and development of investors from all over the world.

NOTES

- 1 Hainan, with a land area of 35,354 km², had a GDP of 4462.54 million yuan in 2017, resulting in a GDP/area ratio (100 million/ km²) of 0.126 (Statistical Bureau of Hainan Province & Survey Office of National Bureau of Statistics in Hainan, 2018b). Taiwan, with a land area of 36,192 km², had a GDP of 39,072 million yuan in 2017, resulting in a GDP/area ratio of 1.08 (National Bureau of Statistics of China, 2018).
- 2 In 2017, the gross output value of the marine economy in Hainan, Zhejiang, and Guangdong was 125 billion yuan (Yang & Deng, 2018), 754 billion yuan (Huang, 2018), and 1.82 trillion yuan (Xu, 2018), respectively.
- 3 Guangdong, a land area of 179,725.07 km², had a GDP of 89,705.23 million yuan in 2017, resulting in a GDP/area ratio (100 million/ km²) of 0.5 (Statistical Bureau of Guangdong Province & Survey Office of National Bureau of Statistics in Guangdong, 2018). GDP/area of Hong Kong and Singapore in 2017 is 20.88 and 30 respectively. GDP figures of Hong Kong and Singapore available from: <https://data.worldbank.org/?locations=HK-SG>.
- 4 Calculation by research group at the China Institute for Research and Development (CIRD).
- 5 Calculation by research group at the China Institute for Reform and Development (CIRD).

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Singapore cityscape at sunset

9

The 21st-Century Maritime Silk Road

A perspective from China on a network of free trade areas*

ABSTRACT

The 21st-Century Maritime Silk Road (MSR) is an important approach and initiative for China to strengthen communication and cooperation with other countries in the world, including island countries. After reviewing the progress and achievements of China's reform pilot zone in island areas since the start of the 1978 'reform and opening up' period, this chapter illustrates the significant role that islands have played in promoting China's economic development and in integrating it into the international community. In order to jointly build the 21st-Century Maritime Silk Road, China should encourage further cooperation with island countries and regions along the Silk Road route. Free

* THIS CHAPTER IS NOT PEER-REVIEWED.

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Trade Areas (FTAs) are one of the most important ways to establish and maintain economic links between islands along the MSR. After analyzing the progress of development of the island-based FTAs (or special economic zones) on the island countries along the route, some suggestions are presented for the further co-construction of FTAs between China and other island jurisdictions.

INTRODUCTION

In September and October 2013, during his visits to Central and Southeast Asia (Bhoothalingam, 2016), Chinese President Xi Jinping proposed the ‘Silk Road Economic Belt’ and ‘the 21st-Century Maritime Silk Road’ initiative (i.e., the Belt and Road Initiative), which has drawn much attention within the international community (National Development and Reform Commission, 2015). China prioritizes relations with countries along the 21st-Century Maritime Silk Road in developing relations with maritime countries or regions.¹ Although broadly accepted by many jurisdictions, not all maritime countries are eligible for inclusion in this initiative, which aims at boosting connectivity of policies, infrastructure, trade, finance, and people (Liu, 2015). In order to be a partner, participating parties need to understand and agree with the significance and the vision of the Belt and Road Initiative. From China’s perspective, the major characteristics of the initiative are as follows:

- It is an open and inclusive regional cooperation initiative. It is not an exclusive and closed club set up by China (Group of Xue Xi Bi JI, 2016);
- It is a platform for results-oriented cooperation instead of being a geopolitical instrument of China’s;
- It is an initiative for interconnected development based on extensive consultation and shared benefits for all. It is not China’s foreign aid plan (Sun, 2017; Zheng et al., 2018);
- It is complementary to existing institutions instead of a replacement of those institutions;
- It is intended to bridge people-to-people communication rather than provoking a clash between societies (Chen, 2018).

The initiative will be adjusted and improved during its implementation, but the principles and purposes will not change. It was not intended, as has been described in some research, to threaten the security of countries and regions (Ghiasy & Saalman, 2018). China may have started this initiative but no Chinese official document suggests that China does intend to pose threats with it. Rather, the sentiment is that cooperation and mutual benefit are only possible when there is consensus.

In promoting this initiative, China follows the principles of wide consultation, joint contribution, and shared benefits. China will implement the initiative through opening up and cooperation with other countries. The Belt and Road Initiative is based on but

not limited to the scope of the ancient Silk Road. All countries and international and regional organizations can participate so that the benefits will be shared widely (National Development and Reform Commission, 2015).

FIGURE 9.1: Cities (“o”) along the Belt and Road

© National Geographic Information Survey Administration, 2016



China's effort in seeking cooperation was not echoed by countries along the Belt and Road at the very beginning of this process. In 2016, the National Geographic Information Survey Administration published a map showing cities along the Belt and Road (Figure 9.1). Caribbean islands such as Grenada, which signed an MOU with China in September 2018 (Xinhua News Agency, 2018), were not indicated on the map.² However, one of the principles of the platform is that it is open to all island countries, regardless of whether they are along the ancient Silk Road route. By implementing the initiative, China can draw on the comparative advantages of different regions of China and adopt a more proactive strategy for opening up and strengthening interaction between and among eastern, central, and western China to build a more open economy (National Development and Reform Commission, 2015). The 21st-Century Maritime Silk Road delivers win-win cooperation and development (Zhu, 2016) needed by countries along the route while facilitating China's effort to open up further. Therefore, to participate in the Maritime Silk Road initiative, island countries need to understand China's reform and opening up process and, in particular, the role of Chinese islands in that process.

CHINESE ISLANDS AS PIONEERS IN THE REFORM AND OPENING UP PROCESS

To power national development, China launched the reform and opening up process in 1978. After ensuring people's access to food through boosting agricultural production, China started to address the issue of development. In 1979, pilot Special Economic Zones (SEZ) were established in Shenzhen, Zhuhai, and Shantou of Guangdong Province and Xiamen of Fujian Province. Hainan was designated as a Special Economic Zone in 1988 (Zhou & Liang, 2016). These SEZs serve as experimental pilots in China's institutional reform and as windows into China's opening up. Many of them are islands or linked to islands; for example, Shenzhen and Zhuhai were chosen for the pilot project because of their special bond with the islands of Hong Kong (Guo, 2017) and Macao, respectively. Xiamen and Hainan are islands themselves, with the latter being a provincial prefecture in China. If loosely defined, 'Special Economic Zone' can be an umbrella term for many projects with various names, such as the comprehensive experiment zone of Pingtan island (set up in 2009) and free trade zones emerging in recent years. We would like to briefly introduce the pilot projects and their development in Xiamen, Hainan, and Pingtan as examples of islands being pioneers in the reform and opening up process.

Xiamen became a Special Economic Zone in 1980. It started from a sandy plot of only 2.5 km² on an area of the island of Xiamen. In 1984, the SEZ expanded to include the whole of Xiamen Island as well as Gulangyu Island. In 2010, after thirty years of development, the SEZ grew to cover the entire municipality of Xiamen, which means it has turned from an island SEZ to one with both island and mainland areas. The Xiamen SEZ project brought about substantial changes to the local community. Xiamen's GDP grew from 741 million yuan in 1982 to 116 billion yuan in 2006. In 2006, Xiamen ranked ninth out of the top 200 cities with the strongest competitiveness listed by the Chinese Academy of Social Sciences. It is the only city in the top ten that is not located in the Yangtze River Delta, Pearl River Delta, or the economic circle of Beijing, Tianjin, and Hebei (Ni, 2006). In 2015, the Chinese government decided to set up a pilot free trade zone in Fujian, and Xiamen is located in the designated area.

The Hainan SEZ is China's fifth SEZ (Zheng, 2008). It is the largest and the only provincial-level SEZ and covers the whole of Hainan Island. In 1988, Hainan became a province and an SEZ at the same time. Although it is the largest SEZ, its GDP accounted for less than 1% of China's total GDP. It faced many more daunting challenges in development than the other four SEZs. After learning from the lessons of the economic bubble and financial credit crisis, its GDP grew to 122.96 billion yuan (Chen, 2008) in 2006 from just 5.728 billion yuan in 1987. The year 2018 marks the thirtieth anniversary of the Hainan SEZ. The Chinese central government shows support for Hainan's effort to build a pilot free trade zone focusing on tourism, modern

services, and advanced technologies, and its initiative to develop a free trade port (State Council, 2018).

Compared with Xiamen and Hainan, Pingtan is a newcomer to the SEZ pilot projects. For many years, it has been an impoverished county. In 2009, Pingtan set up a comprehensive experiment zone. In 2013, the Zone was granted more autonomy in its administration and was under the direct administration of the Fujian provincial government. Pingtan is rich in natural resources, but this did not necessarily translate into economic strength. In 2015, Pingtan became part of the China (Fujian) pilot free trade zone set up by the central government. It is fair to say that Pingtan is a fine example of islands being pioneers in China's development in the 21st century.

COOPERATION WITH ISLAND COUNTRIES (REGIONS) UNDER THE MARITIME SILK ROAD INITIATIVE

The 21st-Century Maritime Silk Road is open to all countries that agree with its principles, ideas, and goals. By 16 October 2018, 118 countries were recognized by the Belt and Road Portal as countries along the route, or countries that have signed agreements with China under the initiative. These include (Anastasdiades, 2005): ³

- *Nine in the Pacific Ocean:* the Philippines, Indonesia, Brunei, Singapore, Papua New Guinea, Timor-Leste, Samoa, Niue, and New Zealand;
- *Five in the Atlantic Ocean* (including the Caribbean Sea): Cape Verde, Grenada, Trinidad and Tobago, Dominica, and Antigua and Barbuda; and
- *Four in the Indian Ocean:* Sri Lanka, the Maldives, Seychelles, and Madagascar.

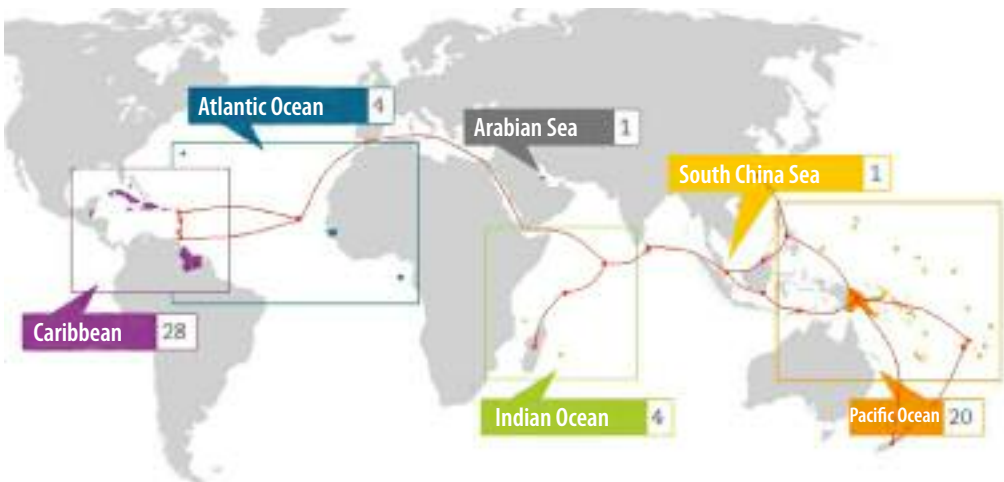


FIGURE 9.2: Geographical distribution of SIDS—Caribbean, 28; Atlantic Ocean, 4; Arabian Sea, 1; Indian Ocean, 4; South China Sea, 1; Pacific Ocean, 20—and Island Countries that have signed agreements with China under the initiative. Grimes, 2014; Feng & Deng, 2019

In terms of geographical distribution, the Pacific is home to the largest number of island countries participating in the initiative, followed by the Atlantic and the Indian Ocean (Figure 9.2). It is not enough to judge the achievement of the Maritime Silk Road initiative simply by the number of participants. To put it in perspective, we compared the numbers with those of small island developing countries (SIDS). According to the UN (UN Office of the High Representative, n.d.), SIDS has 58 members. Some countries listed above are not members of SIDS. China's cooperation with island countries under the 21st-Century Maritime Silk Road has the following characteristics:

- Our cooperation with island countries/regions is extensive. Although only 18 countries participate in the initiative, they are located in different oceans and only the Arctic Ocean does not have any countries as participants. In some regions, the initiative sees more participants than the average number of SIDS members in that region.
- Island countries and regions do not have a high degree of participation. More than half of the world's 200 countries and regions take part in the initiative while less than one-quarter of island countries and regions participate.
- The role of island countries as pivots and examples should not be underestimated. Island countries that have already participated in the project will play a vital role in determining whether the initiative can reach its goals and achieve an effect of '1+1>2'. Participating islands are at critical locations, which means they can be important hubs for 'transportation connectivity'. Furthermore, potential partners in the region will assess the initiative based on the outcomes of previous projects.

In other words, island countries' participation in the initiative does not start from scratch and we do see an extensive participation of islands in the geographical sense. However, cooperation with island countries is still the weak link here compared with cooperation between China and other countries. It is fair to say that China faces both opportunities and challenges in realizing the potential of its cooperation with island countries under the 21st-Century Maritime Silk Road initiative.

ISLAND ECONOMIES, DEVELOPMENT, AND FREE TRADE ZONES (SPECIAL ECONOMIC ZONES)

Island economy and sustainable development

More than 600 million people live on islands, accounting for one-tenth of the world's population (Baldacchino, 2007). By a different statistical measure, island economies grew more slowly than their populations (Randall, 2018). Different island countries are at different levels of development and they have different goals in terms of

economic development. Some prioritize poverty reduction while others attach greater importance to certain industries' competitiveness in the global division of labour. However, all aspirations boil down to the pursuit of development. In September 2015, the UN Summit adopted the 2030 Sustainable Development Agenda with seventeen goals (Ishii, 2017). The goals are not isolated but interconnected (UN, 2018). The implementation of the Agenda depends on governments and is steered by member countries. The Agenda will help forge synergy among action plans of different countries. For example, targets under Goal 17 call for international support for developing countries to help them mobilize domestic resources; raising extra financial resources through multiple channels for developing countries; adoption and implementation of investment promotion mechanisms for Least Developed Countries (LDCs); and strengthening global partnerships for sustainable development, complemented by multiple-stakeholder partnerships. These partnerships are intended to mobilize and share knowledge, expertise, technology, and financial resources for supporting sustainable development goals in all countries, especially in developing countries. One important indicator of sustainable development is the optimal allocation of resources at the lowest possible cost in all potential scenarios.

THESE PARTNERSHIPS ARE intended to mobilize and share knowledge, expertise, technology, and financial resources for supporting sustainable development goals in all countries, especially in developing countries.

The Maritime Silk Road and free trade zones (Special Economic Zone)

The 21st-Century Maritime Silk Road includes many island countries. Although they have different needs and face different challenges, their aspirations for sustained development are the same. The Belt and Road Initiative is a global public good (Fujian Academy Research Group, 2017). To strengthen interconnectivity and allocate resources effectively, the answer offered by the initiative is connectivity in five areas. It has proved conducive for the development of participating countries (Wong, 2017). In a practical sense, a free trade zone is a common model of cooperation and it plays an important role in enhancing connectivity.

China engages in building both free trade zones and free trade areas. A free trade area refers to a situation where two or more countries or regions open their markets to each other by signing free trade agreements based on their Most Favoured Nation (MFN) status. Participating countries remove tariff and non-tariff barriers on most goods in a phased manner, expand market access to the service sector, and embrace trade and investment liberalization. This way, they form a "big area" (Zheng, 2014) where goods, services, and production factors such as capital, technology, and people can flow freely. For example, in recent years, China has developed free trade areas with the Association of Southeast Asian Nations (ASEAN), Japan, and South Korea. A free

trade zone is “part of a country’s territory and any goods entering the country at the zone is not regarded as imported goods in terms of tariff and other taxes. And these goods are not subject to regular customs supervision either” (Council, 1973). The 1973 Kyoto Convention, or International Convention on the Simplification and Harmonization of Customs Procedures, gives one of the most authoritative definitions of a ‘free trade zone’. The concept of ‘free zone’ in the Convention is the first international norm related to free trade zone and has become a widely used term in the world. The concept is all about free trade featuring “inside the territory but outside of the customs” (Gong, 2018). Many interpretations and concepts related to the free trade zone in the world today are inspired by the Convention. The Shanghai Free Trade Zone is an example (Belt and Road Portal, 2016).

Generally speaking, free trade zones enjoy flexible and preferential policies, develop expertise in a certain industry, improve infrastructure and services, enable a more positive business environment of preferential locations (offshore), clear export orientation, and attract incentive plans. Against the backdrop of global economic integration, free trade zones see the following trends:

TRADING COSTS AMONG countries along the Belt and Road remain high due to less-developed infrastructure and trade barriers. In particular, some countries are influenced by the traditional idea of trade and they put more emphasis on trade in goods rather than trade in services.

- They experience a shift from focusing only on trade in goods to trade in both goods and services. Therefore, more attention is given to the development of the service trade;
- They have developed beyond trade functions now because capital investment is becoming just as important and more efforts are being made for investment liberalization and facilitation;
- They formerly included only onshore business, but now both onshore and offshore businesses thrive in free trade zones with more emphasis on the latter;
- Free trade arrangements not only include institutions for free trade but also free investment and finance;
- Free trade zones used to be transportation hubs for the region. But now they are important components of the global supply chain (Zhang, 2015).

Trading costs among countries along the Belt and Road remain high due to less-developed infrastructure and trade barriers. In particular, some countries are influenced by the traditional idea of trade and they put more emphasis on trade in goods rather than trade in services. Therefore, these countries have relatively low levels of trade liberalization (Belt and Road Portal, 2016). Island countries generally have a smaller economy and less well developed transportation conditions, so they face more challenges in developing trade in goods and services. Some of them have a weaker foundation to

develop trade because they find it difficult to effectively manage their balance of payments. The multilateral trading regime and regional trade arrangements have long been the two wheels of globalization (Gao et al., 2015). To achieve rapid development, island countries must utilize trade arrangements. Since the multilateral Doha Round of Negotiations that was intended to reduce trade barriers between developed and developing countries has been problematic (Huang & Xu, 2015), it may be often less costly and more effective to choose an island or part of an island to establish a free trade zone or to sign bilateral free trade agreements with other countries so as to forge a 'freer' flow and connectivity between free trade zones, something which is also the case among the great powers (Fujian Academy Research Group, 2017). Island countries can gain considerable benefits if they follow the trend of free trade zones in globalization and make use of platforms including the Belt and Road Initiative. China is also committed to building a global network of free trade areas based on cooperation with neighbouring countries and countries along the Belt and Road (Xiao & Gao, 2018; Zhang, 2016). From China's perspective, this allows for a win-win solution and reciprocal cooperation: a network of free trade areas with multiple dimensions and forms can be established.

The 21st-Century Maritime Silk Road initiative has much to do with free trade zones and the initiative can serve as a practical guide for the building of FTZs both from a macro and micro perspective (Han et al., 2017; Hu & Li, 2016), contributing to China's opening up and sustainable development of island countries. The building of free trade areas will attract more countries to pitch in and join the 'circle of friends' of the Maritime Silk Road (Zhang, 2016).

The development of China's free trade zones

In recent years, China has stepped up efforts in building free trade zones. By October 2018, China had built twelve FTZs. They were established in four groups with the first, second, and fourth groups located in coastal areas. The FTZs of the third group are located in inland areas except for those in Liaoning and Zhejiang. There are still more coastal FTZs than inland ones. FTZs in different areas are designed for different purposes and their progress and achievements differ as well (see Table 9.1).

In addition, China and Kazakhstan have worked together in institutional innovation and built the world's first cross-border free trade zone in Khorgos (Zhu, 2015). The Free Trade Zones listed in Table 9.1 have different focuses and tasks that are outlined in government documents.⁵ It is China's hope that island countries and regions would choose partner FTZs that are most suitable for them based on the characteristics and strengths of the FTZs.

TABLE 9.1: China's pilot free trade zones

Name	Established	Type	Tasks
Shanghai Pilot FTZ	22 Aug. 2013	Coastal	It focuses on international trade, financial services, shipping services, professional services, and high-end manufacturing. Its best practices and policies are to be replicated nationwide (International Business Daily, 2013).
Guangdong Pilot FTZ	12 Dec. 2014	Coastal	The Guangdong FTZ exploits its special bond with Hong Kong and Macao. It serves the Chinese mainland and embraces the entire globe. The FTZ is a fine example of close cooperation among the three cities. It is also an important hub on the 21st-Century Maritime Silk Road and a pioneer in the new round of reform and opening up (State Council of P.R.China, 2015a).
Tianjin Pilot FTZ	12 Dec. 2014	Coastal	As the largest FTZ in the second group, the Tianjin FTZ is the first FTZ in northern China. It is designed to serve the coordinated development of Beijing, Tianjin, and Hebei. It focuses on developing financial leases, high-end manufacturing, and modern service industries (State Council of P.R.China, 2015b).
Fujian Pilot FTZ	12 Dec. 2014	Coastal	The Fujian FTZ is based on cross-strait relations. It serves the whole country and has a global vision. It is designed to test new institutions. It is also a demonstration zone of cross-strait economic cooperation. It has become a new highlight in China's cooperation with other countries under the 21st-Century Maritime Silk Road initiative (State Council of P.R.China, 2015c).
Liaoning Pilot FTZ	31 Aug. 2016	Coastal	Its main task was to implement the market-oriented reform of institutions and mechanisms and structural reform required by the central government. It also served as a new engine for boosting the overall competitiveness of the traditional industrial base in northeastern China and raised the region's 'opening up' level (Liaoning Provincial Government, 2017).
Zhejiang Pilot FTZ	31 Aug. 2016	Coastal	It is designed to implement the requirement of the central government to build the Zhoushan free trade port. Its main task is to explore trade liberalization in terms of bulk commodities and approaches to enhance China's ability to allocate these commodities globally (State Council of the P.R.China, 2017a).

Achievements

Since its inception, its major contributions are four new institutions. The foreign investment management model of the 'negative list' was successfully put in place here and the list has been reduced from 180 articles in 2013 to 45 articles today. An efficient trade supervision system has taken shape. Financial innovation institutions have been improved. The added value of the financial sector accounts for 30% of the GDP of the Pudong New Area in Shanghai. Shanghai now meets the basic requirements for becoming an international financial centre. Interim and ex post supervision is practiced. Five major measures to separate operation permits and business licenses have been implemented which has led to the reform of 441 items in administrative approval in the new area (Shen & Zhou, 2018; Song, 2018; Wang & Zhang, 2018; Zhou, 2016).

Since its inception, the Guangdong FTZ has seen 210,000 companies created, among which 9,639 are foreign-funded enterprises. The amount of foreign investment in actual use reached 12.85 billion US dollars. By December 2017, the Guangdong FTZ had adopted 385 new measures for deepening reform in trade and investment facilitation and opening up the financial sector. Thirty-one of these institutions are replicated nationwide. The GDP of the Nansha area in the FTZ reached 139.2 billion RMB in 2017, registering an average annual growth of 12.6% in the past three years. The number of registered companies increased from 8,400 to 58,700 in 2017 (Special Zones Economy, 2018).⁴

Three years after its establishment, the Tianjin FTZ has generally completed its 90 reform tasks including renewing 175 institutions. The number of market entities doubled compared with before the FTZ. A total of 45,000 new market entities have been created and their registered capital exceeds 1.6 trillion yuan. The FTZ only occupies 1% of the total area of the city, but it accounts for 12% of the city's GDP, 10% of municipal government's revenues, one-fourth of the amount of foreign investment in actual use in Tianjin, and one-third of the foreign trade volume. It is also applauded for its achievements in institutional reform and industrial clustering and its contribution to the coordinated development of Beijing, Tianjin, and Hebei (Finance, 2018).

By April 2018, the Fujian FTZ had already performed 178 of 182 reform tasks on its agenda for an implementation rate of 97.8%. A total of 310 new measures have been adopted, among which 106 are unprecedented in China. Many new practices including the use of a "single business license and social credit code for an organization" and "single window" for foreign trade have been copied by other Chinese cities. In 2017, the export and import volume of the Fujian FTZ reached 192.93 billion yuan, up 31.58% compared with the same period the previous year. The growth is 19.6 percentage points higher than the average of the whole province. It led to the growth of exports from Fujian by 4.5 percentage points (Government of P.R.China, 2018).

By 20 March 2018, one year after its establishment, 24,829 companies were registered in the Liaoning FTZ with a total registered capital of 362.61 billion yuan. Most of the quality and quarantine approval procedures could be completed very conveniently on the online application platform. Maritime safety authorities adopted a new practice of "permission before inspection". Ships with products for export do not have to wait for the inspection to be completed. As part of the traditional industrial base in northeastern China, Liaoning focuses on structural reform by identifying a list of priority industries. Liaoning also set up a fund to channel more investment into key industries (CINN, 2018; Sohu, 2018).

It developed the institution for providing bonded bunker fuel to ships traveling international routes. It also improved administrative measures including allowing bunker fuel loaded on one ship to be supplied to more than one foreign ship. These measures boost the growth of the bonded bunker fuel industry. From January to October 2017, 3,303 companies were created in the FTZ. The amount of foreign investment in actual use was 26.5 billion yuan. It attracted 639 oil product companies with a total registered capital of 66.79 billion yuan (Sohu, 2018).

TABLE 9.1: China's pilot free trade zones (continued)

Name	Established	Type	Tasks
Henan Pilot FTZ	31 Aug. 2016	Inland	It is designed for the purpose of building a modern logistics system and a multidimensional transportation system that connects all parts of China. It will be built into a comprehensive transportation hub for the Belt and Road Initiative (State Council of the P.R.China, 2017b).
Hubei Pilot FTZ	31 Aug. 2016	Inland	The Hubei FTZ receives many transferred industries and develops strategic emerging industries and high-tech industries. It took the lead in the Rise of Central China plan and the building of the Yangtze River Economic Belt (State Council of the P.R.China, 2017c).
Chongqing Pilot FTZ	31 Aug. 2016	Inland	Chongqing serves as a strategic pivot and connection point. The FTZ can enhance the opening up of Chongqing, a major city in western China. This is also a part of China's western development campaign (State Council of the P.R.China, 2017d).
Sichuan Pilot FTZ	31 Aug. 2016	Inland	The FTZ helps Sichuan, a major city in western China, to further open up and play a strategic role in the opening up of inland regions. It is expected to become a highlight of economic opening up in inland China. It is also important for realizing synchronized opening up of inland, coastal, border regions, and cities along rivers (State Council of the P.R.China, 2017e).
Shaanxi Pilot FTZ	31 Aug. 2016	Inland	The purpose is to allow the Belt and Road Initiative to power the Western Development Campaign. The FTZ contributes to the plan of further opening up major cities in western China and nurturing a highlight of reform and opening up in China's inland. It also undertakes the task of exploring new models for economic and people-to-people exchanges between China's inland and countries participating in the Belt and Road Initiative (State Council of the P.R.China, 2017f).
Hainan Pilot FTZ	24 Sept. 2018	Coastal	The Hainan FTZ benefits from the fact that the entire island is designated for the pilot project. Hainan embraces a more proactive strategy of opening up. The FTZ is expected to accelerate the opening up in the economy and other areas. The FTZ contributes to Hainan's effort to become an important window for China to open its door to countries in the Pacific and the Indian Ocean (Hainan Daily, 2018).

Achievements

The goal is to build an international logistics centre for multimodal transport. The FTZ is to develop a modern and multidimensional transportation and logistics system that connects domestic and foreign resources and operates efficiently with aligned standards and reliable supporting services. By the end of 2017, the Henan FTZ was home to 23,623 companies with a total registered capital of 317.54 billion yuan (Sohu, 2018).

Its goal is to become a demonstration area to receive transferred industries in central China. The FTZ authorities put in place policies and measures of opening up, business attraction, and cultural and technology development, attracting capital, technology, and talents to the FTZ. By the end of 2017, 8,105 new companies had been set up in the FTZ (Sohu, 2018).

The FTZ is a transportation hub on the Belt and Road and the Yangtze River Belt. China plans to expand the functions, routes, and freight types of the China-EU freight train services. In 2017, 11,695 companies were registered in the Chongqing FTZ (Sohu, 2018).

The FTZ signed strategic cooperation agreements with coastal cities to enhance synchronized opening up of inland and coastal regions. The agreements outline many cooperative measures including industrial transfer, benefit-sharing in business and investment projects, and a multimodal logistics system. In 2017, 19,200 companies were registered in the Chengdu area of the FTZ (Sohu, 2018).

It conducted a pilot project on the production and operation model of a complete industrial chain in agriculture. Outside of the FTZ, more than 2,000 chain bases have been built with a total area of more than three million mu. Every day, these bases supply food and ingredients for more than 15 million people. By the end of 2017, 9,347 companies were registered in the Zone with a total registered capital of 309.98 billion yuan (Sohu, 2018).

Hainan is China's first pilot free trade zone on an entire island. It is expected to become a free trade port following a model of Chinese development.

Free trade areas between China and island countries/regions

In terms of free trade areas, China has signed many agreements with island countries and regions. By 18 October 2018, China had signed 16 free trade agreements with 24 countries and regions. Another thirteen possible free trade areas are under discussion⁶ and ten FTA proposals are undergoing feasibility studies (FTA P.R.China, n.d.). Among these FTA projects, the following involve island countries and regions:

China-Maldives. In December 2017, a Free Trade Agreement was signed between the Government of the People's Republic of China and the Government of Maldives (FTA P.R.China, 2017a). It was the Maldives' first bilateral free trade agreement. The Agreement addressed general principles, working definitions, trade in goods, rules of origin and implementation procedures, customs procedures and trade facilitation, technical trade barriers and public health and plant quarantine measures, aid for trade, trade in services, investment, economic and technological cooperation, transparency, administrative and institutional clauses, dispute resolution, and flexibilities. In addition, the agreement contained nine appendices (FTA P.R.China, 2017b), including charts for trade tariff concessions in goods and some services, and product-specific rules of origin. After the Agreement was signed, over 95% of imported items had no tariffs, which covers over 95% of bilateral trade. The number of Chinese tourists visiting the Maldives is expected to stay above 300,000 each year. According to the Agreement, travel agencies and other tourism business entities from the Maldives can set up joint ventures in the FTZ in Shanghai, Tianjin, and Beijing, and can establish branches in other cities to provide services for Chinese citizens traveling abroad. This has been the highest level of commitment that China has offered to its free trade partners to date (FTA P.R.China, 2017b).

China-Singapore. On 23 October 2008, a Free Trade Agreement was signed between the Government of the People's Republic of China and the Government of Singapore. The two sides also signed an MOU on bilateral labour service cooperation (Liu, 2010). The Agreement is comprehensive and covers many areas including trade in goods and services, the flow of labour, and customs procedures (FTA P.R.China, 2008). In November 2015, the two countries finished their seventh round of negotiations upgrading the Agreement (FTA P.R.China, 2018a).

China-ASEAN. There are two versions of the free trade agreement between China and countries in the ASEAN group. On 22 November 2015, the two sides signed the second version of the agreement, namely the Protocol to Amend the Framework Agreement on Comprehensive Economic Cooperation Between the People's Republic of China and the Association of South East Asian Nations (Wang, 2016). Terms related to Indonesia, the Philippines, Singapore, and Brunei were amended.

China-Iceland. In April 2013, a Free Trade Agreement was signed between the Government of the People's Republic of China and the Government of Iceland. The Agreement took effect on 1 July 2014. It is the first free trade agreement between China and a European country and it covers many areas such as trade in goods and services and investment (FTA P.R.China, 2014a). After the FTA was established, 96% of traded items were imported with zero tariffs accounting for almost all bilateral trade volume (FTA P.R.China, 2014b).

China-New Zealand. In April 2008, a Free Trade Agreement was signed between the Government of the People's Republic of China and the Government of New Zealand, which came into force on 1 October 2018. The Agreement involved many areas including trade in goods, trade in services, and investment (FTA P.R.China, 2013). Since November 2016, the two sides have initiated upgrading negotiations and have now finished the fifth round of those discussions (FTA P.R.China, 2018b).

Besides the agreements mentioned above, China has finished five rounds (FTA P.R.China, 2017c) of talks with Sri Lanka since September 2014 (FTA P.R.China, 2014c). In December 2017, China launched free trade agreement negotiations with Mauritius (FTA P.R.China, 2017d) and negotiations have just concluded (FTA P.R.China, 2018c). A joint feasibility study on a free trade area (FTA P.R.China, 2015) between China and Fiji was launched in 2015, and Papua New Guinea has also shown interest in signing a free trade agreement with China (FTA P.R.China, 2018d).

From these efforts we can see that China has attached great importance to developing free trade agreements with island countries and regions.

CONCLUSIONS AND STRATEGIES

According to a survey on what Chinese media and citizens cared about the most from 2013 to 2016, topics related to the Belt and Road Initiative received increasing attention. What attracted the most attention was the building of free trade areas, including free trade negotiations with countries along the Belt and Road, and alignment between domestic free trade zones and the initiative (Belt and Road Portal, 2017). Although free trade areas are primarily a government initiative, they have also attracted considerable attention from other stakeholders. From China's perspective, this provides precious opportunities for building the 21st-Century Maritime Silk Road and the interconnected free trade area network. On promoting the development of free trade areas along the Silk Road Economic Belt, we would like to offer the following suggestions.

Building a database and an information sharing platform on island economies

Island countries and regions, especially small island developing countries, face many common problems in development, including climate change and rising sea levels, frequent natural disasters, limited resources, higher costs of transportation and communications, and a lack of technology capacity. However, each of these countries is different and they each have different concerns and emphases on economic development. In

WE BELIEVE THAT RESOURCES of relevant authorities should be pooled to establish an information centre and a database for studying island economies. This database can serve as a platform for collecting, processing, and summarizing basic data and economic information regarding island countries and regions.

implementing the Belt and Road Initiative, the prerequisite of realizing the five ‘connectivities’ is to understand each other’s needs. We believe that resources of relevant authorities should be pooled to establish an information centre and a database for studying island economies. This database can serve as a platform for collecting, processing, and summarizing basic data and economic information regarding island countries and regions. This not only helps all the stakeholders to understand and analyze their economic development, but also enables information-sharing between island countries and the rest of the world, including China. This can help build a bridge for economic cooperation between islands and other parts of the world and provide support for building free trade areas.

Seizing opportunities of the Belt and Road Initiative with efforts from stakeholders, including governments

In the framework of the initiative, island countries and regions need to realize the trend that ‘the earlier you join the plan, the earlier and the more you gain’. Governments and other stakeholders need to promote the signing of MOUs on the initiative to seize the opportunity of cooperation. More participants in the initiative do not guarantee higher efficiency of cooperation (Liu, 2016). Those who respond earlier to the initiative can address urgent problems of their development more effectively.

Facilitating people-to-people exchanges and developing a Silk Road Island Business Travel Card

Convenient people-to-people exchange is necessary for cooperation. The APEC business travel card (Wang & Quan, 2015) is a good practice in this regard. The goal is to achieve policy coordination, facilities connectivity, unimpeded trade, financial integration, and people-to-people bonds with trade as the priority. China and island countries should have a commonly recognized Silk Road Island Business Travel Card.

Considering the small population size of some island countries, this initiative can start by issuing the card to all those citizens living on islands that have agreed to the five ‘connectivities’ mentioned earlier in this chapter. The term of validity can be five or ten years, longer than the APEC business travel card.

Exploring the possibility of a free trade area featuring joint construction, administration, and operation to build new institutions of an open economy

Development requires inputs, including capital; the lower the cost, the greater the gain. In resource allocation, island countries with limited resources need to pursue exchanges with other countries at the lowest possible cost. It is especially important for them to achieve a free(r) flow of goods and services and trade facilitation with major countries that normally enjoy relatively lower cost of resources, have a more complete supply chain and a more robust market demand. By building free trade areas between two or more countries or regions in which the same standards, procedures, and rules apply, ‘zero-cost’ flow is possible among these free trade areas. Moreover, it is hoped that progress can be made first in investment, trade, finance, energy, and education to build corridors to facilitate comprehensive and multidimensional openness.⁷ The ultimate goal is to build free trade ports (Belt and Road Portal, 2018) with the highest level of openness and free flow of goods, services, investment, and people.

NOTES

- 1 Maritime countries here refer to those adjacent to the ocean, including island countries and regions, which, in some parts of the world, also include regional organizations.
- 2 Literatures show different opinions on the number of participants of the Belt and Road Initiative (see Fasslabend, 2015).
- 3 It is noteworthy that these statistics are constantly being updated. Besides those countries that have been recognized by the Chinese government as participants in the Belt and Road Initiative, other island countries such as Cyprus are willing to join.
- 4 Three years after its establishment, Guangdong FTZ had developed 385 new institutional innovative achievements (East Day, 2018).
- 5 However, at the operational level, different FTZs are at different stages of development, facing different challenges. Their achievements are different as well (see Ma, 2016; Fang, 2016).
- 6 In this section, free trade agreement and free trade zone are synonymous.
- 7 Recently, Hainan Island was designated as an FTZ. Its level of openness is unprecedented and higher than other FTZs. To share resources more easily, it is suggested that island countries and regions give priority to explore cooperation with island FTZs such as those in Hainan, Pingtan, and Xiamen.

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The bell tower on the coastline at Haikou, Hainan Province

Conclusions:

Prospects for the future of Hainan Province

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INTRODUCTION

First, let us critically position ourselves in relation to the subject at hand.

Those in Hainan are best positioned to reflect on past accomplishments and to speculate on their island's future. Both of us, on the other hand, are outsiders, having had the privilege of visiting Hainan on a few occasions and for short sojourns in each of these. However, it is sometimes useful to get input from 'islanders from away'; to turn their gaze on an island with which they have started to become more familiar as a result of a growing partnership. And the islanders, of Hainan in this case, can reap the benefits of such outsiders looking in, making the familiar strange and looking at their world and its challenges with fresh pairs of eyes.

Rather than summarize the chapters in this Annual Report, we have therefore opted to conclude this book by undertaking this exercise of introspection, asking ourselves two central questions: (1) what are the key development successes and problems currently facing Hainan? and (2) what are the prospects for the future development of this island? We reflect on these powerful questions from our assessment of island studies literature generally, and from what we have learned of Hainan's own development trajectory.

KEY DEVELOPMENT SUCCESSES AND PROBLEMS

It is perhaps fitting and timely that we are exploring these issues just after the 30th-anniversary celebrations of the establishment of Hainan as a province of China, in 1988. On that occasion, Hainan became (and remains) China's smallest province, as measured by both population and land area. In addition, although there are many islands that play important development roles along the coast of China, Hainan is its only tropical island with full provincial status. Of course, these two statements are connected. In fact, we would make the argument that Hainan is a province because it is an island. But this was not always the case. In fact, Hainan was formerly administered as an integral part of Guangdong province. The separation was deliberate, a strategic move of the central government: since then, Hainan has been catapulted on its own specific development trajectory. At around the same time as its emergence as a fully fledged province, the island of Hainan was officially assigned the status of a special economic zone, the largest such zone established by Deng Xiaoping as part of an ambitious economic reform and modernization program. By designating the new province as a *special economic zone*, the central government in Beijing was clearly expressing its intent to allow and encourage Hainan maximum flexibility in devising programs to facilitate foreign investment and economic growth.

According to many traditional indicators, Hainan's development has been a model of success. It has transformed its economy from one dominated by agriculture and state-owned rubber and iron ore industries to have a much more diversified profile, led by trade, investment from the rest of China and abroad, and infrastructure development. As an indicator of this change, the share of the island's GDP derived from tertiary services increased from 26.2% in 1982 to 46.1% in 2010 and the corresponding proportion of the GDP derived from primary industries declined from 60% to 26.3% over the same period (Hong, 2011). The island province registered 5.8% annual growth in its GDP in 2018: this fell short of its 7% target, but fell within official expectations after measures were taken to rein in the overheating real estate sector (China Daily, 2019). The latter was a probable side effect of the tourism boom on the island (Tie et al., 2018).

Hainan has seen significant land use change from farmland and forestry to urban use, especially along its coast, the main beneficiary of a massive campaign to market the tropical island as an attractive domestic and international tourist destination. In

popular media, Hainan has been referred to as ‘the Hawai’i of China’ or even ‘the Hawai’i of the Orient’ (Li & Liu, 2011). Back in 2008, the province of Hainan ranked a lowly 23rd in China in terms of the number of inbound tourists (Travel China Guide, 2009). Then, in December 2009, China’s central government announced a national policy to promote Hainan as a first-rate international tourist destination (Yamori et al., 2017). Already by 2012, 21% of overnight visitors to Hainan were international (Yang et al., 2015). The island, with its splendid beaches, clean air, and salubrious climate, is doing well—perhaps too well?—in attracting millions of tourists annually. The mark of one million international visitors to Hainan was reached in 2017 (Xinhua, 2017). Direct air routes between Sanya (the only beachfront tropical city in China) or Haikou (the provincial capital) and international cities (such as London, Melbourne, and Sydney) are being added every year, and visas for stays of up to 30 days have now been waived for visitors holding passports from 59 countries (China Daily, 2018).

The economic spurt is not only thanks to tourism. The completion of a state-of-the-art, high-speed rail line encircling the island, cutting down travelling time dramatically and boosting economic growth, is a further indicator of this transformation (Li et al., 2018). The ultimate attempt to improve the island’s connectivity and reputation is evident in the expansion of the Wenchang national spacecraft launch station. Given its location closer to the equator than any other Chinese space port, this launch pad is now better suited to carry heavier payloads, including manned flights (The Economist, 2018).

But: the extent of Hainan’s development may be more modest when you compare it to other regions in China. For example, Shenzhen, a city elevated to near provincial status at around the same time as Hainan, and also part of Guangdong province, has done extremely well for itself and is now acknowledged as China’s ‘Silicon Valley’ (Lindtner et al., 2015). If Hainan is to make a strong name for itself, it is likely that the thrust must come from the marine and maritime sectors: as also acknowledged by the Central Government.

THE FUTURE IS MARINE

The maritime and outward thrust of the Central Government, in the form of reforms and ‘opening up’, continues unabated. Hainan has seized on a series of opportunities to guide its future, this time with the designation of free trade port status, especially in the context of the 21st Century Maritime Silk Road, part of the ‘Belt and Road Initiative’, launched by President Xi Jinping (Lam et al., 2018; Straits Times, 2018). Many of the chapters in this book speak to the attempt by Hainan to become a more central and strategic link within the network of Maritime Silk Road ports, islands, and regions. Hainan is also central to any plans by China in the South China Sea, including the development or conservation of its various islands and islets (Grydehøj et al., 2017).

For maritime initiatives to be successful, and perform better than when the island first gained provincial status, Hainan needs to consider its ability to attract and maintain both domestic and international capital and talent. Hence, it will be critical for Hainan to invest in suitable human resource management and development. Expertise will be required to plan, set up, and run efficient and effective marine and maritime-related activities, in both the public and private sectors. Developing competences in languages other than Mandarin will also be important. Since the island is slightly off the main Asia-Pacific shipping lines, in expanding its maritime port facilities, Hainan must also convince the major international shipping companies that it is in their best interests to include the island as a preferred port of call.

The prospects are good for a strong alliance between the central and provincial governments to learn from the experiences of the past three decades. As has been the case with other subnational island jurisdictions, Hainan has used political entrepreneurship to its advantage in negotiating opportunities for development. There is enormous room and unparalleled opportunity for both scope and manoeuvre as Hainan continues to flex its newly found competences in the region and become the expression of the maritime turn of the People's Republic of China. This 'turn' has been a long time coming; but its unfolding and implementation will be a significant feature in island development, nationally, regionally, and internationally.

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The 21st Century Maritime Silk Road

Islands Economic Cooperation Forum

ANNUAL REPORT ON GLOBAL ISLANDS

2018

This edition of the Annual Report on Global Islands retains the best of previous editions, including a summary of the Islands Economic Forum held in 2018 and the most current statistics on a select group of island states and subnational island jurisdictions. However, it also goes into much more depth on some of the key issues linking islands to the rest of the world. This includes the significance of islands as centres of offshore finance, islands as free ports and free trade zones and the importance of the 'marine economy' on and surrounding islands. It includes contributions from some of the leading international and Chinese experts in these areas. We hope that this engages readers, inspires further discussion on island development, and strengthens the role that the island of Hainan plays as one of the key sites leading this discussion.

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