STRATEGIC FLEXIBILITY AND ECONOMIC RESILIENCE IN SMALL ISLAND JURISDICTIONS

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Preliminary remarks

- The “Singapore Paradox” is a paradox only to those who start from a vulnerability paradigm for small islands

- For a bottom-up researcher Singapore is a typical example of a whole species of small economies
  - Its current status is the outcome of a combination of historic path-dependence and intelligent strategic positioning in the wider system
  - Its jurisdictional status was carefully chosen and then negotiated to maximise competitive advantage in the chosen niche (Malaysia was the wrong framework for a small-island strategy to work within)
  - Entrepot status and command of one of the world economy’s great shipping lanes was already central to British colonial strategic thinking
  - The colonial era bequeathed massive infrastructure oriented to this role

- The essential issue is how to secure rents from endowments, whether natural or created.

- Examples:

  - natural: Montserrat's volcano (no property right/excludability institution developed at this stage)

  - created: Tuvalu's internet domain

- The central institutional conditions for success are not the macro-structures which currently preoccupy the top-down growth literature of Acemoglu and North

  - They are micro skills of networking, multi-tasking, reciprocity, flexibility, and collective solidarity

  - Analysts need the mindset (but not the politics!) of De Soto's *El Otro Sendero*

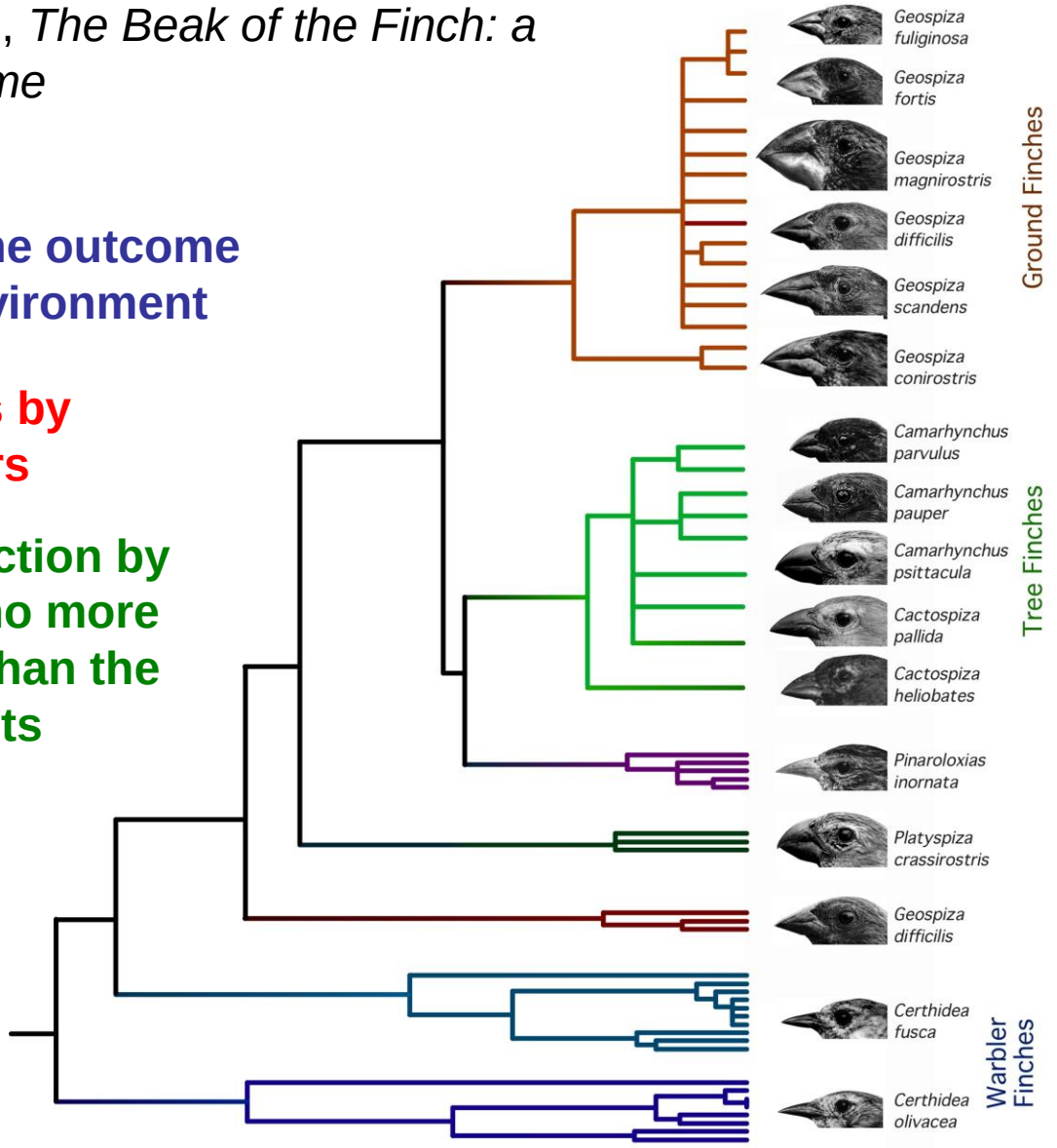
The trouble with indices

- Yes, measurement is vital
- But it's important to be sure you know what you are measuring and why
- Lino's resilience index, to my eye, measures symptoms and outcomes of resilience, not the thing itself
- Policies based on indices such as "Vulnerability" and "Resilience" without deep analysis of the underlying causes and processes will be apt to run into paradoxes and conceptual binds

Speciation and mutation: the two faces of evolutionary adaptation

Chart from J. Weiner (1994), *The Beak of the Finch: a Story of Evolution in Our Time*

- **Speciation describes the outcome of adaptation to the environment**
- **Mutation is the process by which adaptation occurs**
- **Strategic portfolio selection by island jurisdictions is no more mysterious a process than the invisible hand in markets**



“The adjustment strategy of the small European states is summed up by the story of the snake, the frog and the owl. Fearful of being devoured by the snake, the frog asks the owl how he [*sic*] might survive. The owl’s response is brief and cryptic. Learn how to fly. None of the small European states have to soar like the eagle. What they have learned to cultivate is an amazing capacity to jump. Although they appear to land on their stomachs, in fact they always land on their feet and retain the ability to jump again and again in different directions, correcting their course as they go along. In a world of great uncertainty and high-risk choices, this is an intelligent response. Frogs can escape snakes, and the small corporatist states can continue to prosper: not because they have found a solution to the problem of change but because they have found a way to live with change.”

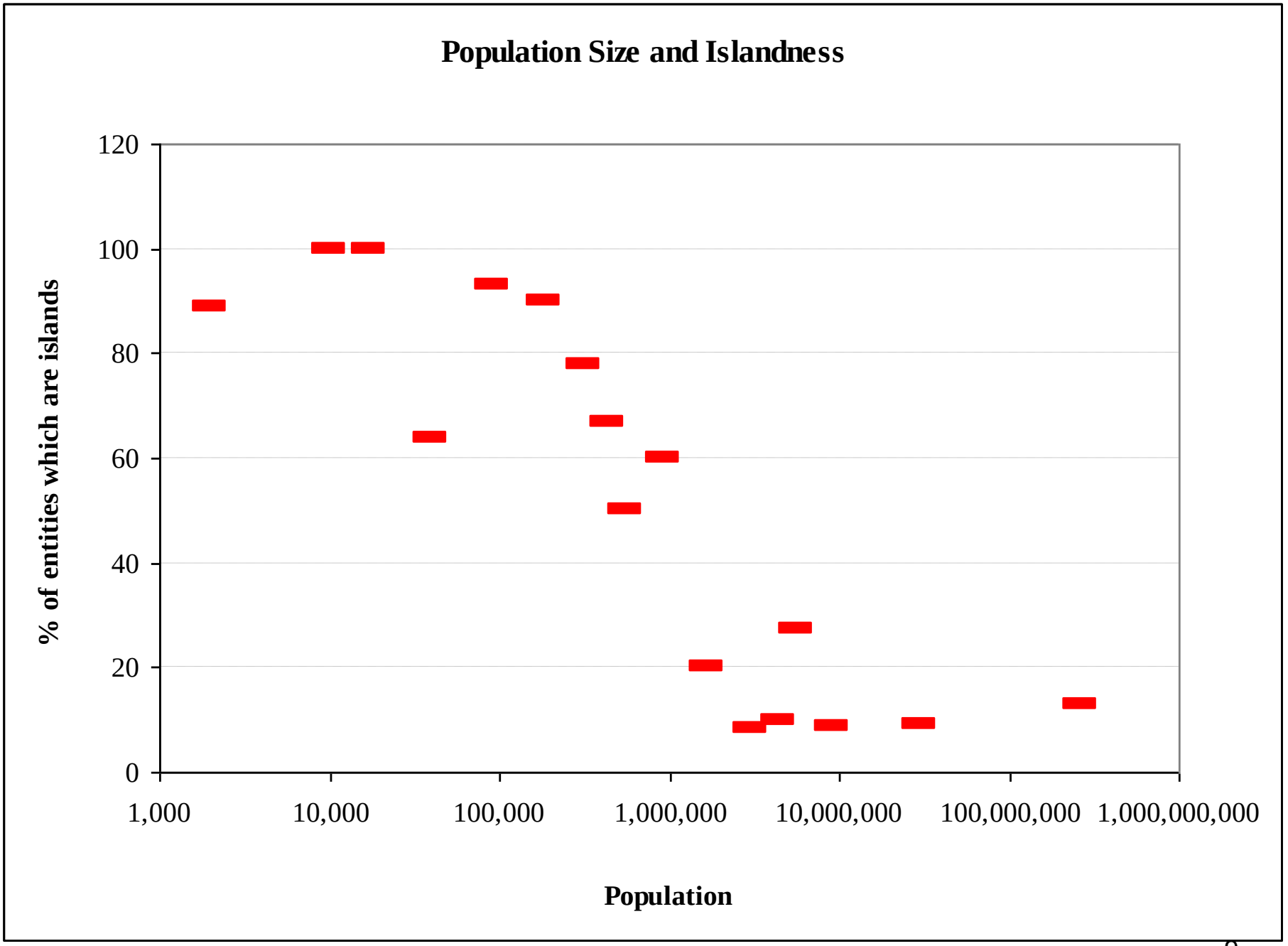
(Katzenstein, 1985: 211).

The first stylised fact the researcher confronts is the existence of small states

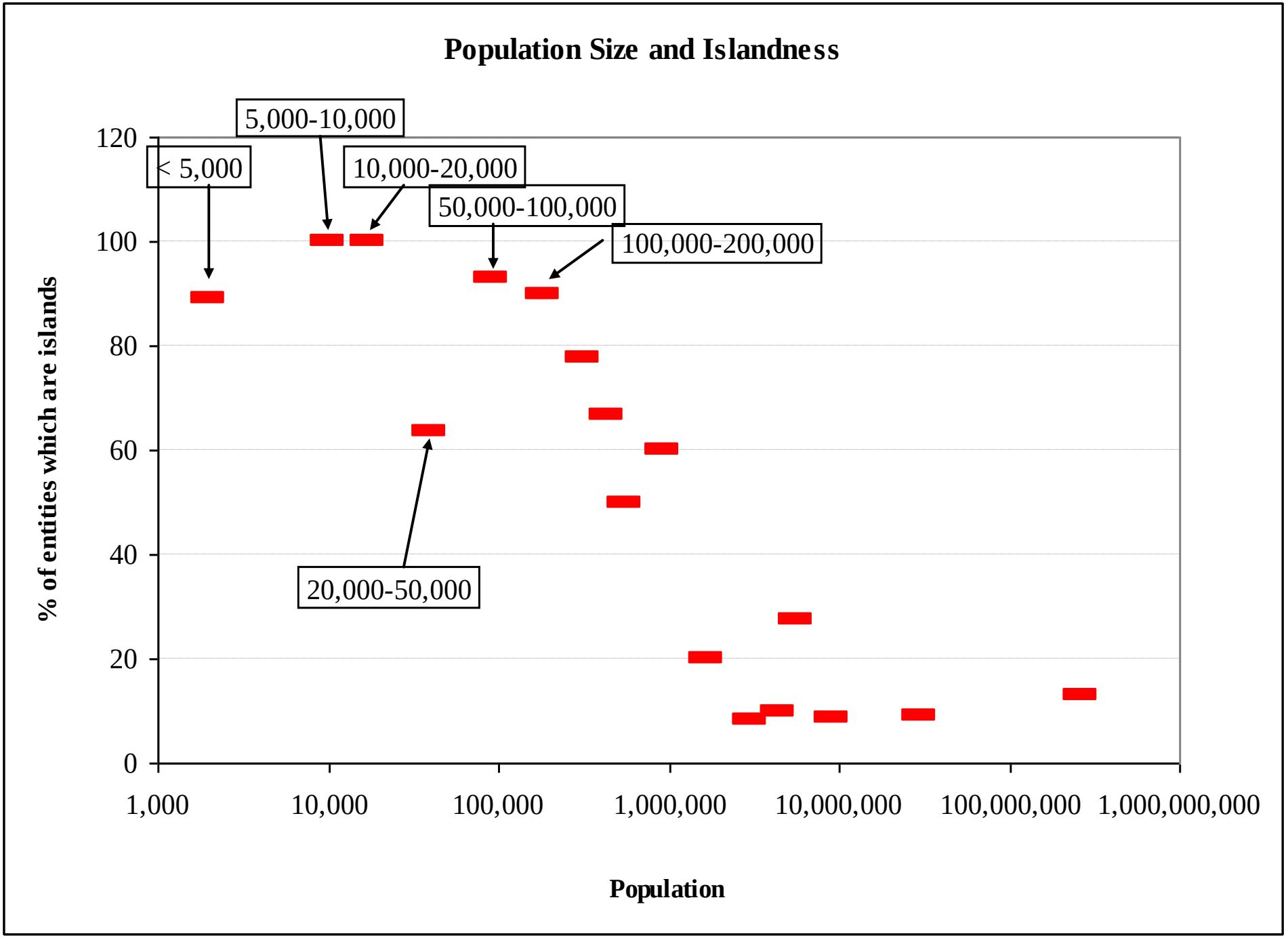
- From an economic point of view, one might expect increasing returns to scale up to some optimal size, then decreasing returns.
- Then an ideal-type frictionless world would have a number of states which would all be of optimal size
- In practice, as with the size distribution of firms, a wide range of country size is observed in the real world
- Very small states seem unsustainable in continental settings except for very special cases (Holy See, Andorra, Lichtenstein, San Marino, Monaco)
- But islands are another matter entirely…

Really small states/jurisdictions are overwhelmingly islands

- Of 41 inhabited *CIA Factbook* entities below 100,000 population, 35 are islands (85%)
- Of 71 entities below 0.5 million, 57 are islands (80%)
- Of 81 entities below 1 million, 63 are islands (78%)
- Even quite narrow separation by water evidently constitutes a strong jurisdictional dividing line
- Combination of easy identifiability/boundedness, and logistical difficulties of conquest and control over water



Source: Bertram & Poirine 2007: 326


Population Size and Islandness
5,000-10,000
< 5,000
10,000-20,000
50,000-100,000
100,000-200,000
20,000-50,000
120
100
80
60
40
20
0
% of entities which are islands
1,000
10,000
100,000
1,000,000
10,000,000
100,000,000
1,000,000,000
Population

Islandness and resilience

- If we think of “resilience” in terms of observed survival in the global economy, islands clearly have something special in their favour

- The sea as one’s border is an internationally-recognised and easily-verifiable “signal” that
  - confers legitimacy on the jurisdiction and
  - enables it to commit to limited ambitions in its competitive activities (a credible negative threat)

- The strategic leverage conferred by the geographical “accident” of separation by sea is magnified when the jurisdictional/economic entity itself is set up to
  - capture cultural and social cohesion (Tuvalu split from Kiribati at independence 1978) and/or
  - exploit historical endowments of institutions or resources (Cayman Islands broke away from Jamaica 1959 so as to remain a Crown Colony with tax-free status under its 1790 charter)

Speciation

- Small islands (from Mauritius down) are a special category of economies. The threshold appears to be around 1 million population. Islands over this size look more like the standard larger developing economies than like the small island economies.

- Below a size threshold somewhere around the one-million population mark, island economies exhibit extreme specialisation into one or two globally-linked leading sectors which, once selected, determine the character of the economy as a whole.

- Such extreme specialisation (speciation) triggers anxiety attacks amongst mainstream economists familiar with large economies and fear of “Dutch Disease”

- In fact there exists an optimal level of outsourcing for each economy, and it’s clearly very high for many small islands, if we assume that what we see in the data is the outcome of collective rationality

- The relationship between size and market power is not fractal for either firms or countries
- From 2 billion down to 1 million, countries' market power declines as size falls
- Below 1m population market power rises as size falls
- The selection process obeys not so much the orthodox theory of comparative advantage (in which an economy responds in passive fashion to exogenous relative-price signals) as a strategic game-theoretic process of hyper-specialisation by means of which the structure of the entire economy is adapted to achieve opportunistic penetration of a niche of opportunity in the global system.
- The island community then role-plays a particular economic "personality" with its own distinctive set of institutions, policy imperatives, and mutual understandings amongst the participating population.

Example of leverage: geopolitical rents

- Of 191 seats in the UN General Assembly, 28 are held by island states below 1 million population
- These have one UN delegate per 600,000 population
- The other 163 countries have one delegate per 37.5 million population
- In terms of diplomatic weight, one islander is equivalent to 63 inhabitants of the rest of the world
- Suppose one Assembly vote is worth $100 million; that's $167 per person for a small island vs $2.66 for the bigger countries. Public choice theory would predict higher per-capita aid because the per-dollar impact at the margin is greater

- Although the *per capita* GDP of small island states is much higher on average than that of other less developed countries, they receive on average some 9 times as much aid *per capita:* US$87 as against US$10 for other LDCs.

- Sub-national and non-sovereign island jurisdictions receive 36 times more bilateral aid than comparable independent island states: US$3,099 per capita

Table 6: Aid to Small Islands in the 1990s

	Aid Per Capita (US$)	% of GDP
Independent islands with a population of more than 1 million:	19	2.3%
Independent islands with a population of less than 1 million:	87	1.7%
Independent Pacific islands	102	10.1%
Island territories or associated states	3,099	32.3%
Pacific Island territories or associated states	3,147	26.3%
French overseas territories and departments	3,542	39.2%
All Pacific Islands	504	20.5%
All developing countries	10	

Source: Poirine (1999: 843, Table 1)

Problems with the Briguglio-Streeten 'Vulnerability' Paradigm

- Started from *a-priori* top-down pessimism about the presumed non-viability of small states; prescriptive and deductive
- Treats 'vulnerability' as exogenous and 'resilience' as endogenous – but the distinction is unclear and not well grounded empirically
- 'Resilience' has had to be invented to cope with the Singapore Paradox that small islands do fine in practice, in defiance of the theory
- The Vulnerability Index is positively, not negatively, related to per capita income (Armstrong and Read 2002)
- The new Resilience Index measures outcomes from resilience, not the essence of resilience itself

The Strategic-Flexibility Alternative

- **Starts from a real-life, inductive, 'bottom up' examination of behaviour patterns among small states and their citizens, whereas the conventional theories tend to be prescriptive and deductive, seeking to explain reality 'top down'.**
- **Tends to be more optimistic and hopeful about the innate qualities of small economies and of the individuals and firms that they comprise**
- **Treats the economic structure of small islands as a matter of pro-active behavioural adaptation within the parameters of smallness, isolation and history, rather than of passive competitive response to exogenously-set world market prices**
- **Emphasises that what objectively appear to be "small states" have considerable internal and external capacity: "governing wits" compensate for any disadvantages associated with small size.**
- **Openness to global markets is a source of strength, not "dependence"**
- **Transfers from abroad (aid, remittances) reflect strategic success, not failure**
- **Vulnerability to natural disasters should not be extrapolated to economics**

Some economics of strategic choice:

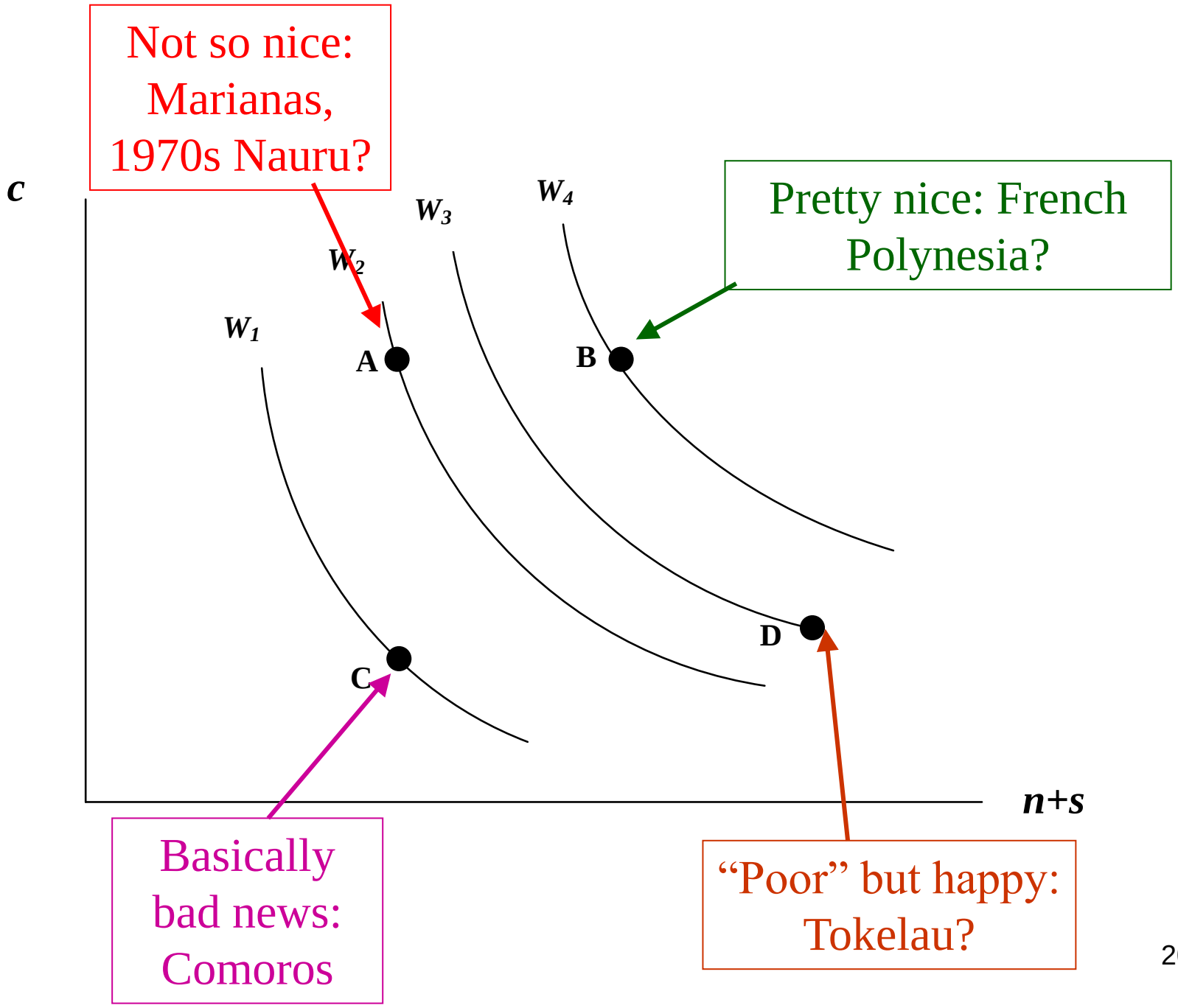
$$W = W(\overset{+}{c}, \overset{+}{n}, \overset{+}{s})$$

W is collective welfare

c is per capita consumption

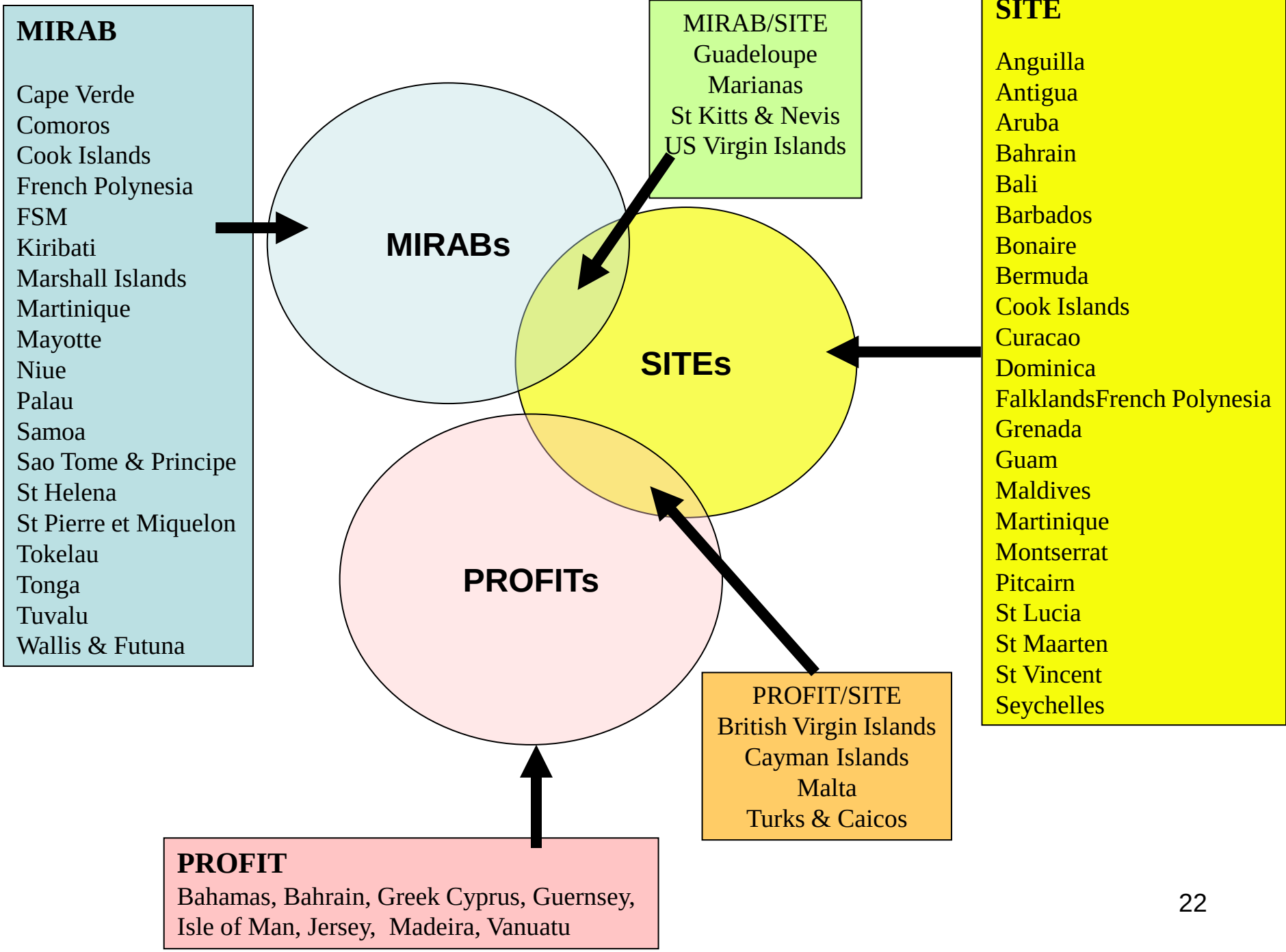
n is leisure time per capita (individual enjoyment of life)

s is social capital

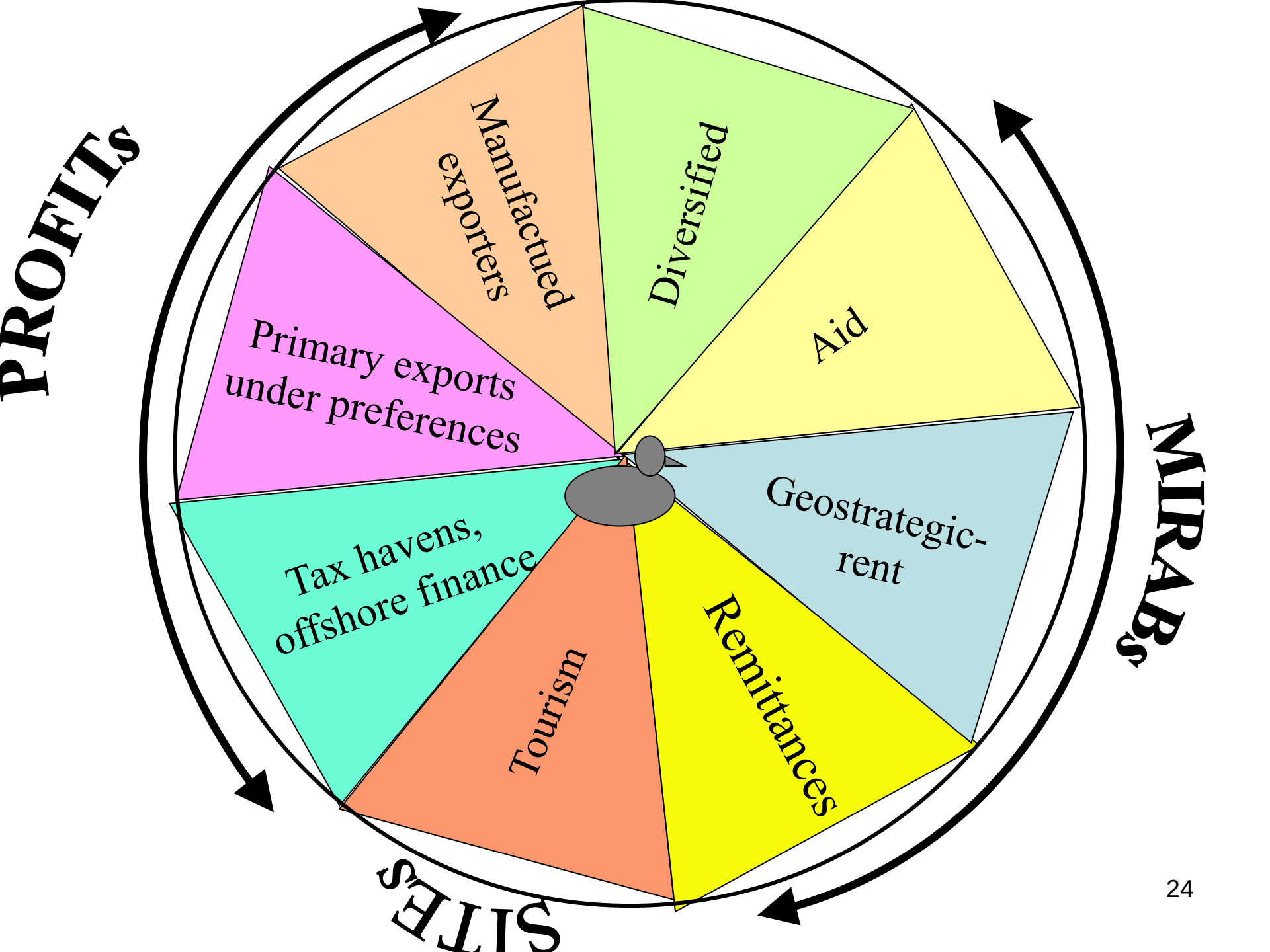

Not so nice: Marianas, 1970s Nauru?
Pretty nice: French Polynesia?
c
W1
W2
W3
W4
A
B
C
D
n+s
Basically bad news: Comoros
"Poor" but happy: Tokelau?

A preliminary taxonomy (Bertram 2006)

- MIRAB: Migration-Remittances-Aid-Bureaucracy
- SITES: Small Island Tourism Economies (McElroy 2006)
- PROFIT: People-Resource management-Overseas engagement-Finance-Transportation (Baldacchino 2006


MIRAB
Cape Verde
Comoros
Cook Islands
French Polynesia
FSM
Kiribati
Marshall Islands
Martinique
Mayotte
Niue
Palau
Samoa
Sao Tome & Principe
St Helena
St Pierre et Miquelon
Tokelau
Tonga
Tuvalu
Wallis & Futuna
MIRAB/SITE
Guadeloupe
Marianas
St Kitts & Nevis
US Virgin Islands
SITE
Anguilla
Antigua
Aruba
Bahrain
Bali
Barbados
Bonaire
Bermuda
Cook Islands
Curacao
Dominica
FalklandsFrench Polynesia
Grenada
Guam
Maldives
Martinique
Montserrat
Pitcairn
St Lucia
St Maarten
St Vincent
Seychelles
MIRABs
SITEs
PROFITs
PROFIT/SITE
British Virgin Islands
Cayman Islands
Malta
Turks & Caicos
PROFIT
Bahamas, Bahrain, Greek Cyprus, Guernsey,
Isle of Man, Jersey, Madeira, Vanuatu

- That was too simple
  - Poirine complained that geostrategic rent was not distinguished from migrant remittances (MIRAB is to broad)
  - Baldacchino thought I had “diluted” the PROFIT category
  - So here’s a more varied speciation story


PROFITs
Manufactued exporters
Diversified
Aid
Primary exports under preferences
Geostrategic-rent
Tax havens, offshore finance
Tourism
Remittances
SITEs
MIRABs

- What’s special about small-island speciation is that islands make evolutionary switches around the periphery of the diagram

- Niches are partly exogenous and partly endogenous (created by strategic behaviour)

- Selection is partly by chance, but largely by collective response to incentives

From MIRAB to Finance Centre: the Cayman Islands

- 1965:
  - 8,000 people
  - No sealed roads
  - No telephones
  - One bank branch
  - Principal economic activity: global seafaring
  - Principal cash income: remittances
  - Jurisdiction: Crown colony with permanent tax-exemption under 1790 charter

- By 2000:
  - 40,000 people
  - 49,456 international business companies
  - 450 offshore banks
  - 51 banks with offshore affiliations
  - 502 offshore (captive) insurance companies
  - 25,000 trust companies
  - 190 gaming corporations
  - 2,298 mutual funds
  - US$750 billion of funds under management: world's fifth-largest financial centre

- The transition from migrant-remittance economy to offshore financial powerhouse took only about a decade once the process started

- The old niche closed with a downturn in shipping employment about 1965

- The new one opened when tax treaties with the USA lapsed (by accident?....) in the late 1960s

From SITE to Manufactured Exporter: the Northern Marianas

- Pre-1945: Japanese agricultural export colony
- 1940's-1960s: US military base
- 1970s-1990s: tourist destination
- Since mid-1990s: manufactured goods exporter

The niche currently occupied is pure jurisdictional

- As a Commonwealth of the USA the Northern Marianas are inside the US market for tariff purposes but outside the USA for migration purposes

- So guest workers from Asia without US visas produce goods for duty-free access to the US

Imports rule

- The ability to fund imports of goods and services is the key means to the end of sustaining consumption
- Getting the imports at least cost (in terms of leisure and social capital) is the strategic game
- Therefore by their balance of payments data shall you know them

Table 3: Merchandise-Export Island Economies

	Imports of goods and services per capita, US$m	% of total imports of goods and services					Population 000	Per capita income US$
		Merch-andise exports	Tourism	Remitt-ances	Aid	Residual		
Population over 1 million								
Papua New Guinea	298	**113.0**	4.7	-0.6	13.4	-30.5	5,772	2,600
Trinidad and Tobago	2,925	**107.9**	5.9	1.6	0.1	-15.4	1,301	8,730
Madagascar	40	**97.6**	12.9	0.5	49.5	-60.5	18,113	290
Puerto Rico	12,515	**96.1**	5.2	1.3	12.2	-14.7	3,895	10,950
Singapore	35,944	**92.3**	3.0	0.0	0.0	4.6	4,240	24,760
New Zealand	4,614	**76.3**	14.8	2.3	0.0	6.6	4,061	19,990
Sri Lanka	379	**67.1**	4.2	15.0	5.2	8.6	19,419	1,010
Mauritius	2,287	**60.0**	21.4	-0.2	0.6	18.2	1,234	4,640
Dominican Republic	1,122	**54.4**	28.5	20.1	1.2	-4.1	8,768	2,100

Table 3: Merchandise-Export Island Economies

	Population below 1 million							
Northern Marianas	8,551	127.3	99.5	0.0	7.1	-133.9	77	12,500
Falkland Islands	28,769	121.3	0.0	0.0	-0.2	-21.1	3	25,000
Bahrain	7,243	111.4	12.3	-19.7	0.0	-4.0	716	14,370
US Virgin Islands	48,600	96.3	25.5	0.0	0.0	-21.7	113	14,500
Nauru	1,932	83.8	0.0	0.0	28.8	-12.6	13	5,000
Faroe Islands	12,650	83.4	4.0	6.0	0.0	6.6	48	22,000
Malta	9,043	77.3	17.3	0.0	0.4	5.0	401	12,050
Greenland	9,500	75.6	0.0	0.0	83.8	-59.3	57	20,000
Aruba	29,492	67.7	27.8	-1.2	0.6	5.1	99	21,800
Solomon Islands	271	64.8	5.7	-3.1	39.5	-6.9	466	560
Iceland	12,198	60.5	7.0	1.7	0.0	30.9	292	37,920
American Samoa	10,629	58.3	2.6	0.0	2.5	36.6	57	5,800
Borderline:								
Barbados	5,539	49.0	47.3	5.9	0.3	-2.5	269	17,000

Source: Appendix 1

(Greenland gets more aid than export revenue)

Divide the 11 clearly export-led small islands between manufactures and primary products

	Population 000	GNI per capita	GDP per capita according to CIA World Fact-book	GNI per capita from World Development Indic-ators 2006	Imports of goods and services per capita, US$m	% of total imports of goods and services					
		US$ Atlas Method	US$ PPP	US$ PPP 2004		Merch-andise exports	Tourism	Remitt-ances	Aid	Remitt-ances + Aid	Resid-ual
Manufactures:											
Northern Marianas	77.0	3,256-10,065	12,500		8,561	**127**	99	0	7	7	-134
Bahrain	715.8	14,370	23,000	19,670	7,243	**111**	12	-20	0	-20	-4
US Virgin Islands	113.1	>10,066	14,500		48,600	**96**	25	0	0	0	-22
Malta	401.3	12,050	19,900	18,590	9,043	**77**	17	0	0	0	5
Aruba	99.0	>10,066	21,800		29,492	**68**	28	-1	1	-1	5
Primary products (incl procesed)											
Falkland Islands (Islas M	3.0		25,000		28,801	**121**	0	0	0	0	-21
Nauru	13.3		5,000		1,934	**84**	0	0	29	29	-12
Faroe Islands	48.0	>10,066	22,000		12,650	**83**	4	6	0	6	7
Solomon Islands	465.8	560	1,700	1,800	271	**65**	6	-3	40	36	-7
Iceland	292.1	37,920	35,600	32,370	12,198	**60**	7	2	0	2	31
American Samoa	57.0	3,256-10,065	5,800		10,641	**58**	3	0	2	2	37

Small Island Export Economies

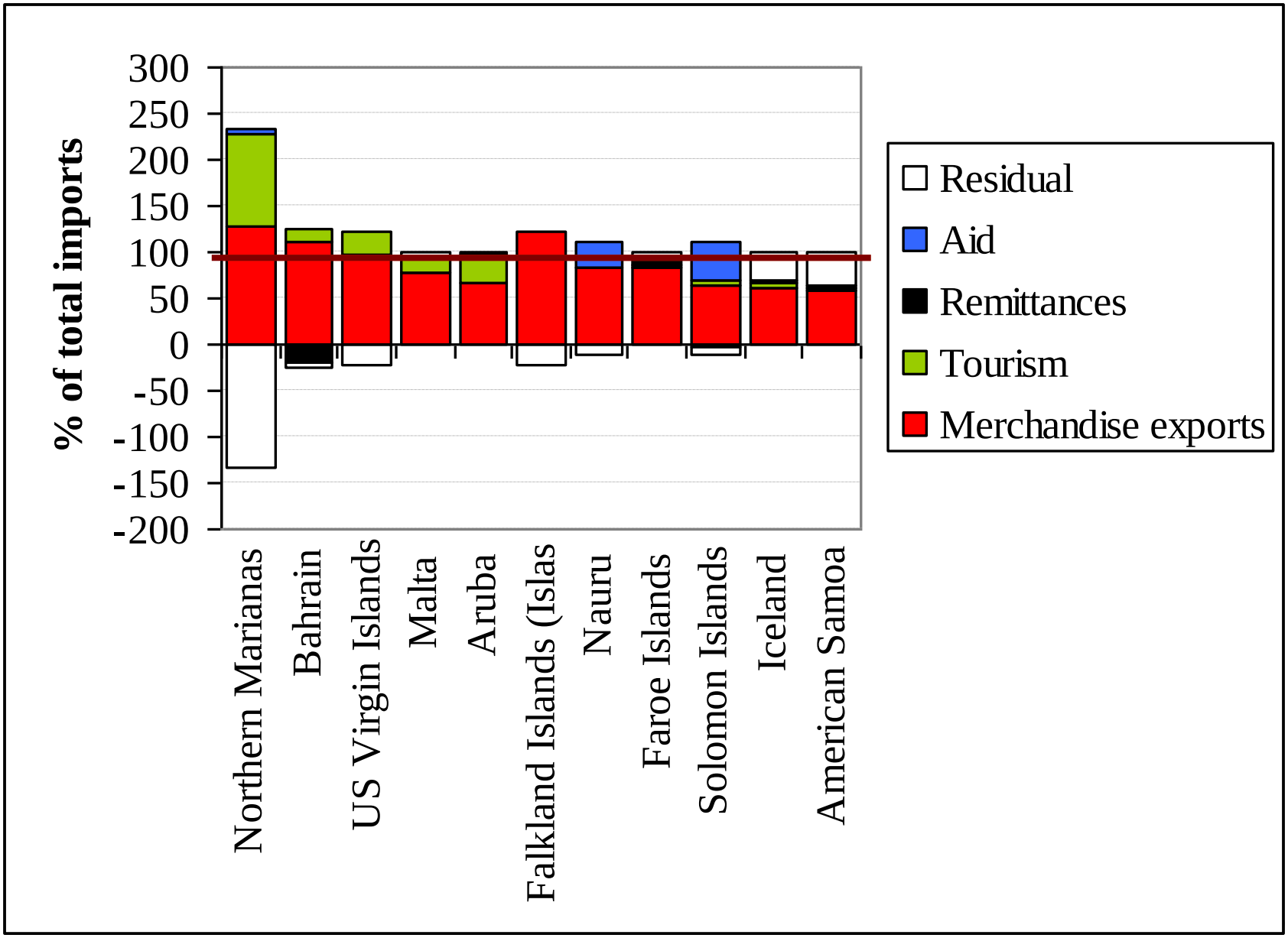


Table 4: Economies with Tourism Earnings over 50% of Imports

	Imports of goods and services per capita, US$m	% of total imports of goods and services						
		Merch-andise exports	Tourism	Remitt-ances	Aid	Residual	Popul-ation 000	Per capita income US$
Population over 1 million								
Hawaii	11,878	10.5	67.0	0.0	0.0	22	1,263	40,000
Canary Islands	8,380	20.5	56.6	0.0	0.0	23.0	1,694	16,566
Population less than 1 million								
Turks and Caicos Islands	4,214	7.7	332.1	0.0	6.5	-246.3	21	11,500
Guam	4,493	7.7	254.6	0.0	0.0	-162.3	167	15,000
Northern Marianas	8,551	127.3	99.5	0.0	7.1	-133.9	77	12,500
Cook Islands	2,765	11.2	75.4	2.2	8.4	2.9	21	5,000
Cayman Islands	17,773	0.4	74.6	0.0	-0.3	25.2	44	32,300
Niue	735	0.0	62.6	0.0	347.6	-310.3	2	3,600
Bahamas, The	8,792	15.3	60.6	-2.8	0.2	26.7	319	15,100
Saint Lucia	2,693	11.3	57.2	0.4	4.6	26.6	164	4,180
British Virgin Islands	24,531	4.7	56.1	0.0	0.6	38.7	23	38,500
Antigua and Barbuda	6,337	8.4	55.5	2.4	1.8	31.9	80	9,480
Palau	5,956	12.5	54.9	0.0	26.6	6.0	20	6,870
Anguilla	8,368	3.4	51.6	5.3	4.4	35.3	13	7,500
Maldives	2,087	17.7	50.7	-7.0	3.7	34.8	321	2,410
Borderline:								
Barbados	5,539	49.0	47.3	5.9	0.3	-2.5	269	17,000

(Marianas is more a manufactured exporter these days)

(Niue is more an aid absorber than a SITE)

Small-island SITEs

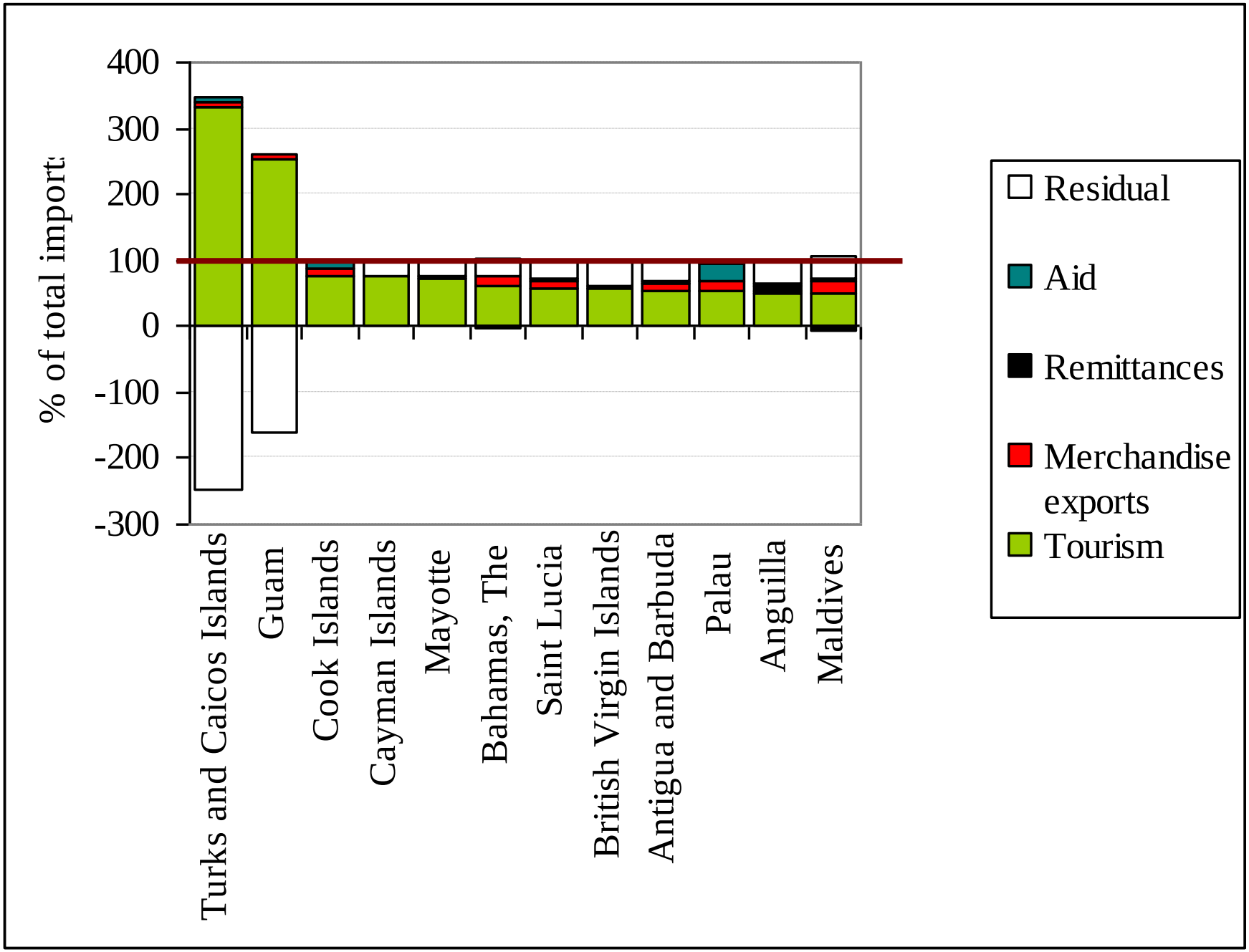


Table 5: MIRAB and Geo-strategic Rent Economies

	Imports of goods and services per capita, US$m	% of total imports of goods and services						Population 000	Per capita income US$
		Merch-andise exports	Tourism	Remitt-ances	Aid	Remitt-ances + Aid	Residual		
Remittance-Aid Economies									
Population over 1 million									
Haiti	155	24.4	8.8	**47.8**	**15.3**	63.1	3.7	8,407	400
Population less than 1 million									
Tonga	847	15.2	12.8	**48.2**	**23.9**	72.0	-0.1	102	1,860
Samoa	832	9.9	30.2	**35.7**	**21.9**	57.6	2.3	184	1,840
Comoros	119	24.5	13.2	**33.9**	**33.8**	67.8	-5.5	588	560
Tuvalu	1,205	0.1	3.4	**31.3**	**47.4**	78.7	17.8	12	1,400
Cape Verde	807	9.8	13.7	**21.1**	**27.3**	48.4	28.1	495	1,720

Fully evolved MIRABs

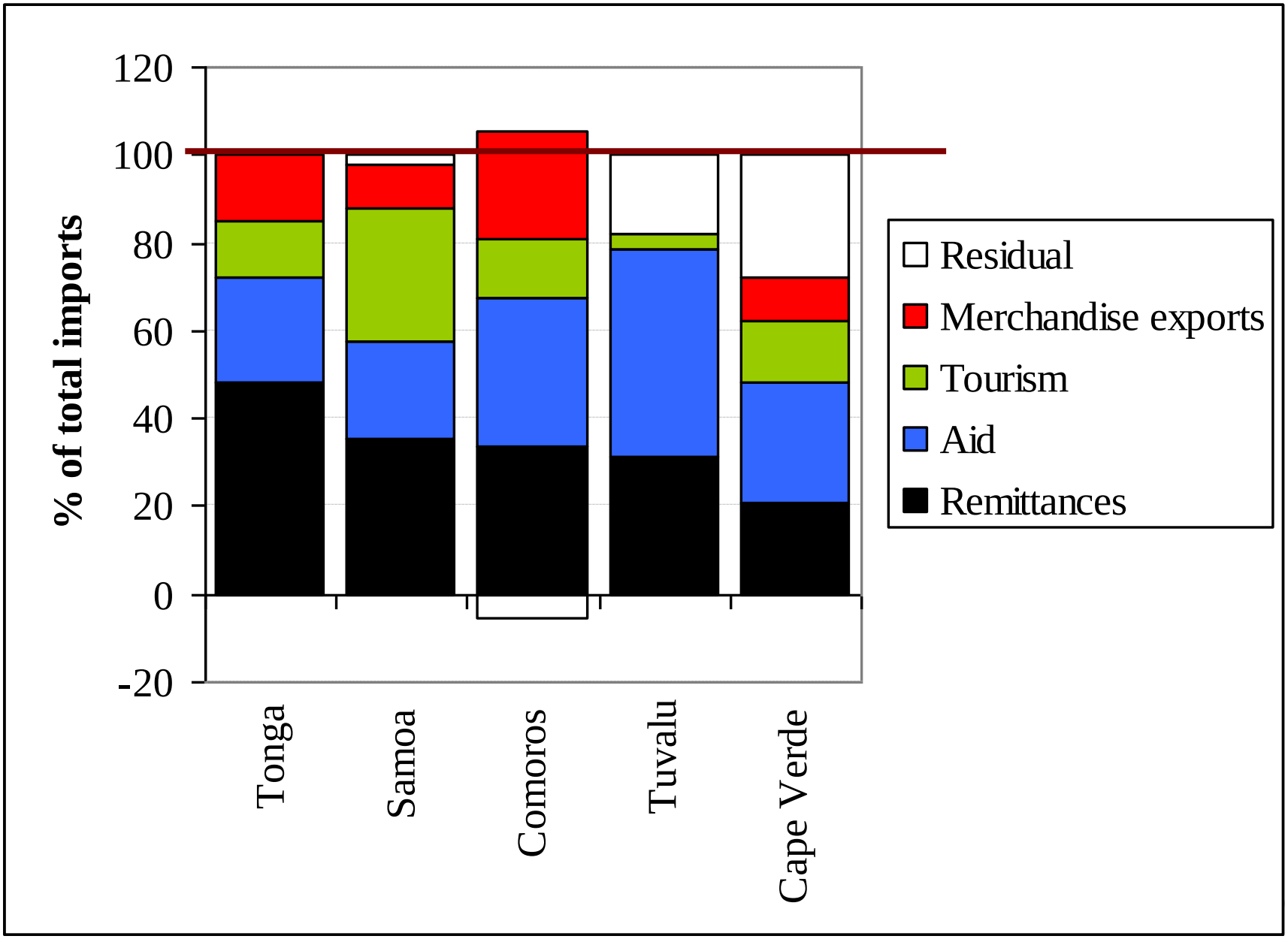


Table 5: MIRAB and Geo-strategic Rent Economies

	Aid Economies Population over 1 million								
Madagascar	40	97.6	12.9	0.5	49.5	50.0	-60.5	18,113	290
	Population less than 1 million								
Tokelau	496	0.0	0.0	0.0	674.4	674.4	-574.4	1	1,000
Niue	735	0.0	62.6	0.0	347.6	347.6	-310.3	2	3,600
Mayotte	1,696	1.8	0.0	0.0	111.1	111.1	-12.9	172	2,600
Montserrat	4,376	2.8	20.6	-5.6	89.8	84.2	-7.6	9	3,400
Marshall Islands	1,221	10.4	5.3	0.8	86.5	87.3	-3.1	61	2,320
Sao Tome and Principe	254	11.0	25.9	2.9	84.7	87.6	-24.6	153	390
Wallis and Futuna	3,846	0.1	0.0	0.0	84.7	84.7	15.2	16	3,800
Greenland	9,500	75.6	0.0	0.0	83.8	83.8	-59.3	57	20,000
Micronesia, Federated States of	1,390	13.4	10.4	1.5	74.9	76.4	-0.2	110	2,300
Dominica	2,356	28.4	28.9	2.1	68.7	70.8	-28.1	71	3,670
Saint Pierre and Miquelon	13,138	7.5	0.0	0.0	66.8	66.8	25.6	7	7,000
Reunion	5,627	6.2	8.1	0.0	64.4	64.4	21.3	788	6,200
French Polynesia	6,402	11.1	25.9	-0.7	56.3	55.6	7.3	253	16,070
Martinique	4,776	13.3	16.5	0.0	55.5	55.5	14.8	436	14,400
Guadeloupe	4,791	8.4	13.8	0.0	54.7	54.7	23.2	453	7,900

Small Aid-led island economies

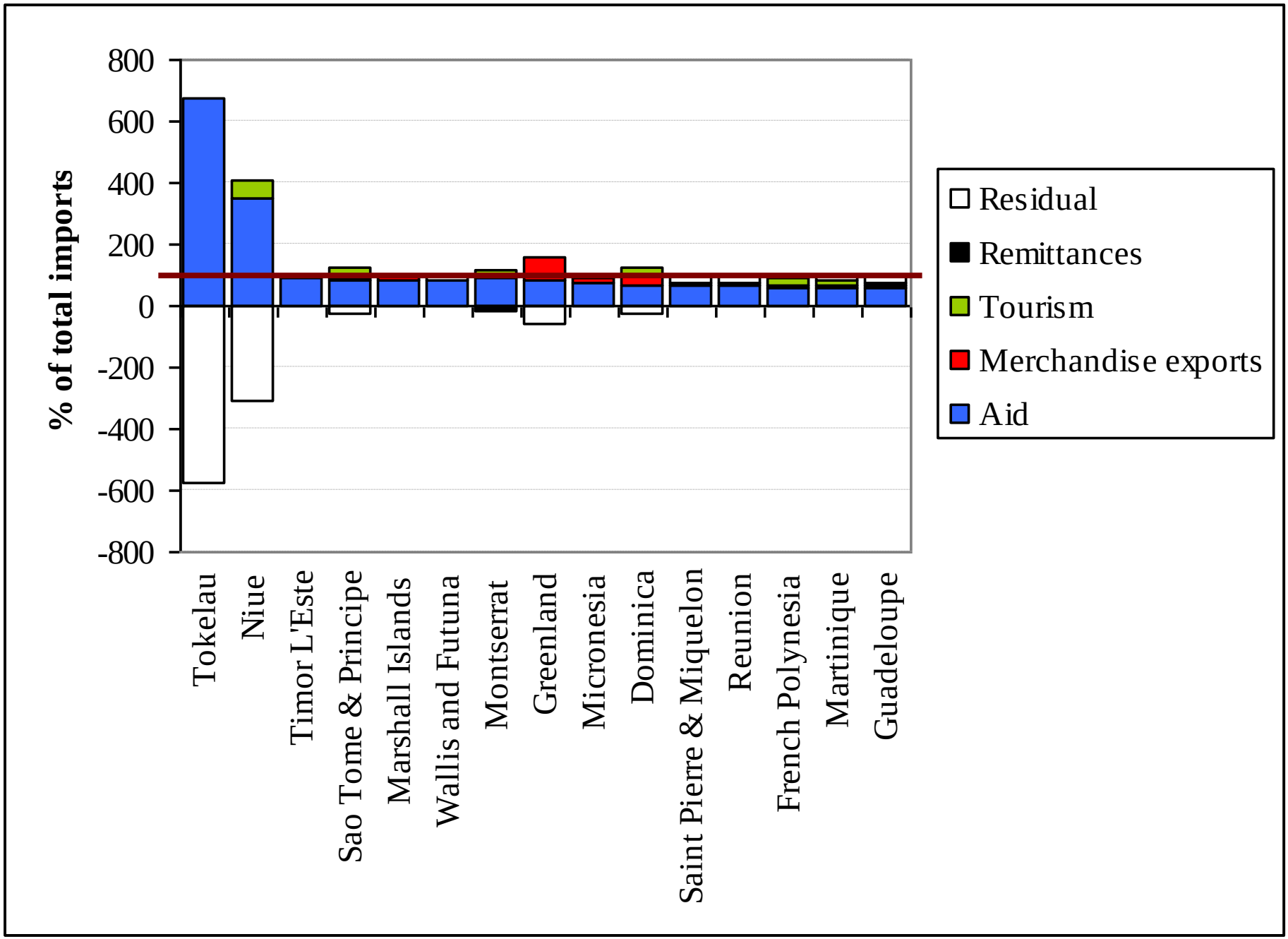
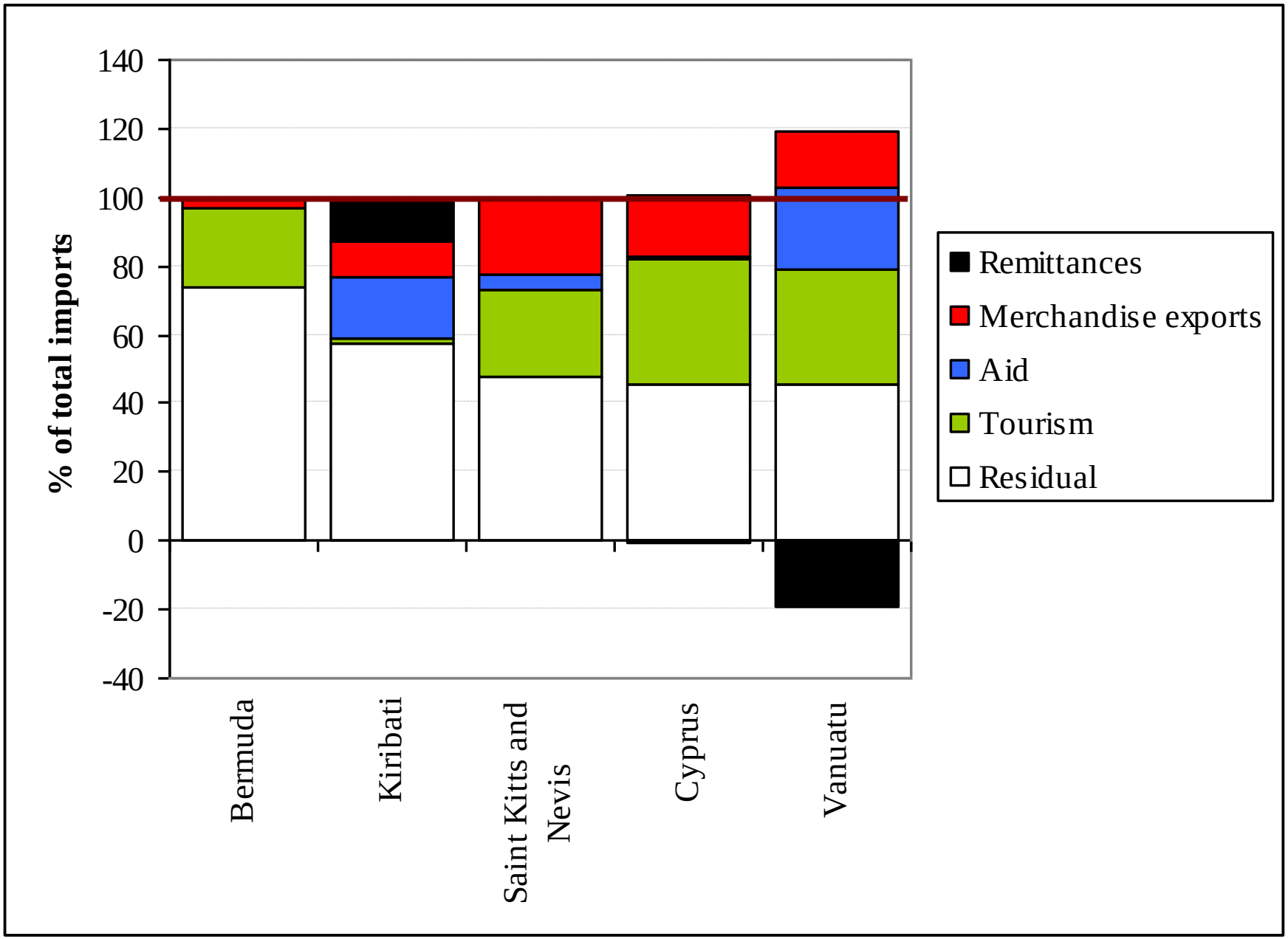
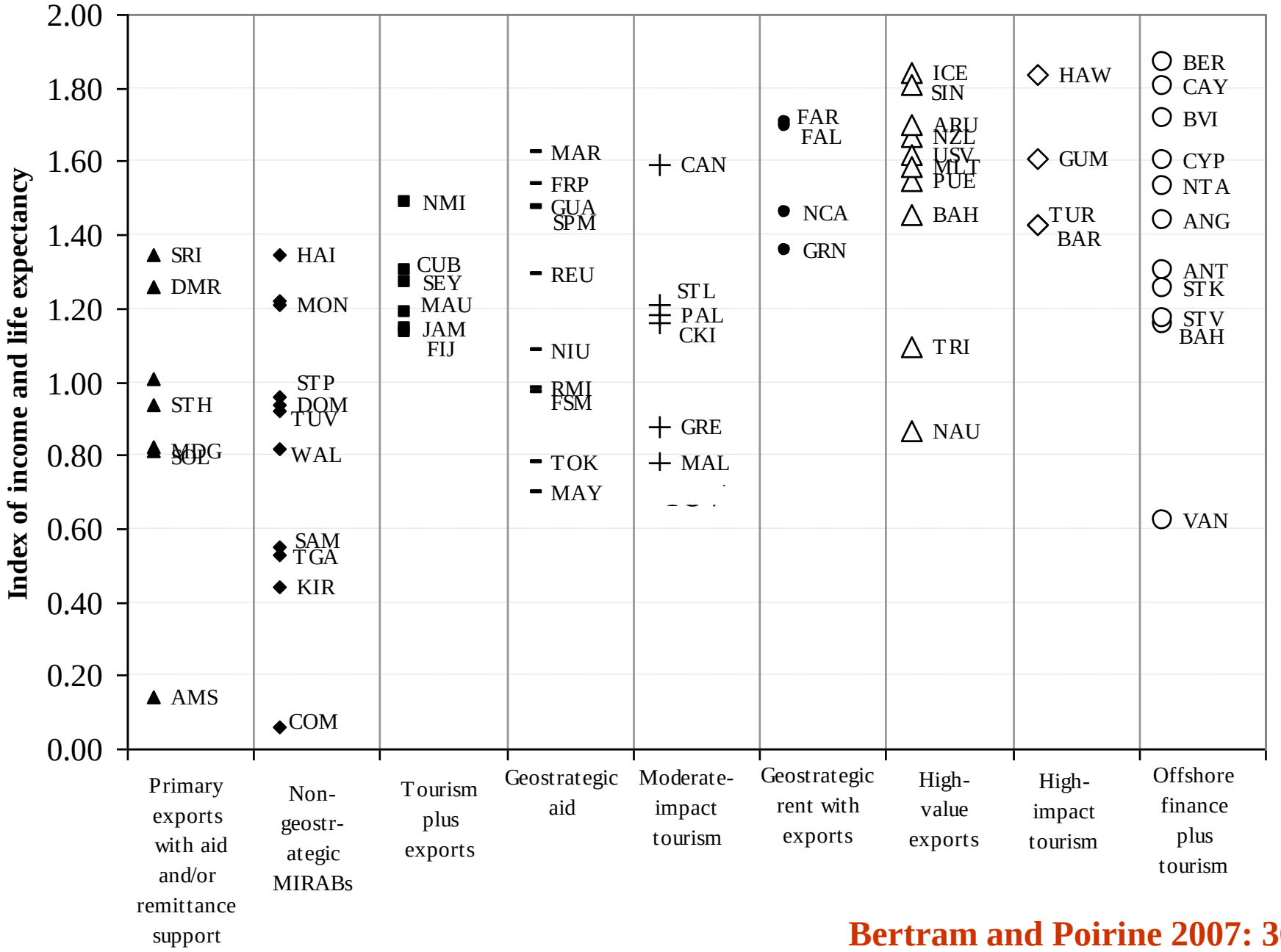


Table 7: Residual-led and Diversified Economies

	Imports of goods and services per capita, US$m	% of total imports of goods and services					Population 000	Per capita income US$
		Merchandise exports	Tourism	Remitt-ances	Aid	Residual		
Offshore Finance plus Tourism								
Bermuda	25,081	2.8	23.1	0.0	0.0	74.1	64	69,900
Cyprus	6,519	17.5	36.7	-0.6	0.8	45.6	826	16,510
Vanuatu	699	16.5	33.3	-19.4	24.1	45.5	207	1,390
Saint Vincent and the Grenadines	1,850	21.1	36.0	0.9	3.8	38.3	118	3,400
Saint Kitts and Nevis	5,150	22.3	25.4	0.4	4.5	47.4	47	6980
Netherlands Antilles	13,301	25.3	32.3	-1.8	4.1	40.1	181	16,000
Grenada	2,651	23.4	31.7	7.2	3.3	34.3	106	3,750
Exports plus tourism								
Barbados	5,539	49	47	6	0	-3	269	17,000
Fiji	1,319	47	21	1	3	27	841	6,000
Cuba	460	33	33	15	2	17	11,383	3,500
Seychelles	6,639	39	27	-2	2	34	84	8,190
Jamaica	1,718	32	28	19	0	21	2,645	3,300
Exports plus aid								
New Caledonia	8,461	40.9	10.6	-0.1	41.5	7.1	230	15,000
Saint Helena	5,798	41.4	0.0	2.3	29.0	27.4	8	2,500
Trust-Fund Financed								
Kiribati	999	10.3	1.4	13.2	17.5	57.6	98	970


% of total imports
140
120
100
80
60
40
20
0
-20
-40
Bermuda
Kiribati
Saint Kitts and Nevis
Cyprus
Vanuatu
Remittances
Merchandise exports
Aid
Tourism
Residual

Nine strategic orientations: welfare outcomes



Bertram and Poirine 2007: 361

Table 8: Average Income Indicators for the Nine Groups in Figure 12

	Income per capita US$	Income/life expectancy index
High-value exports	17,859	1.6181
Primary exports plus geo-strategic rent/aid	16,925	1.4787
High-impact tourism	33,629	1.7470
Moderate impact tourism	12,968	1.4136
Offshore finance plus tourism	15,604	1.3812
Aid economies: geo-strategic rent	8,631	1.3504
Tourism plus Exports	3,750	1.2607
Primary exports with aid and/or remittances	1,120	0.6628
MIRABs	552	0.1728

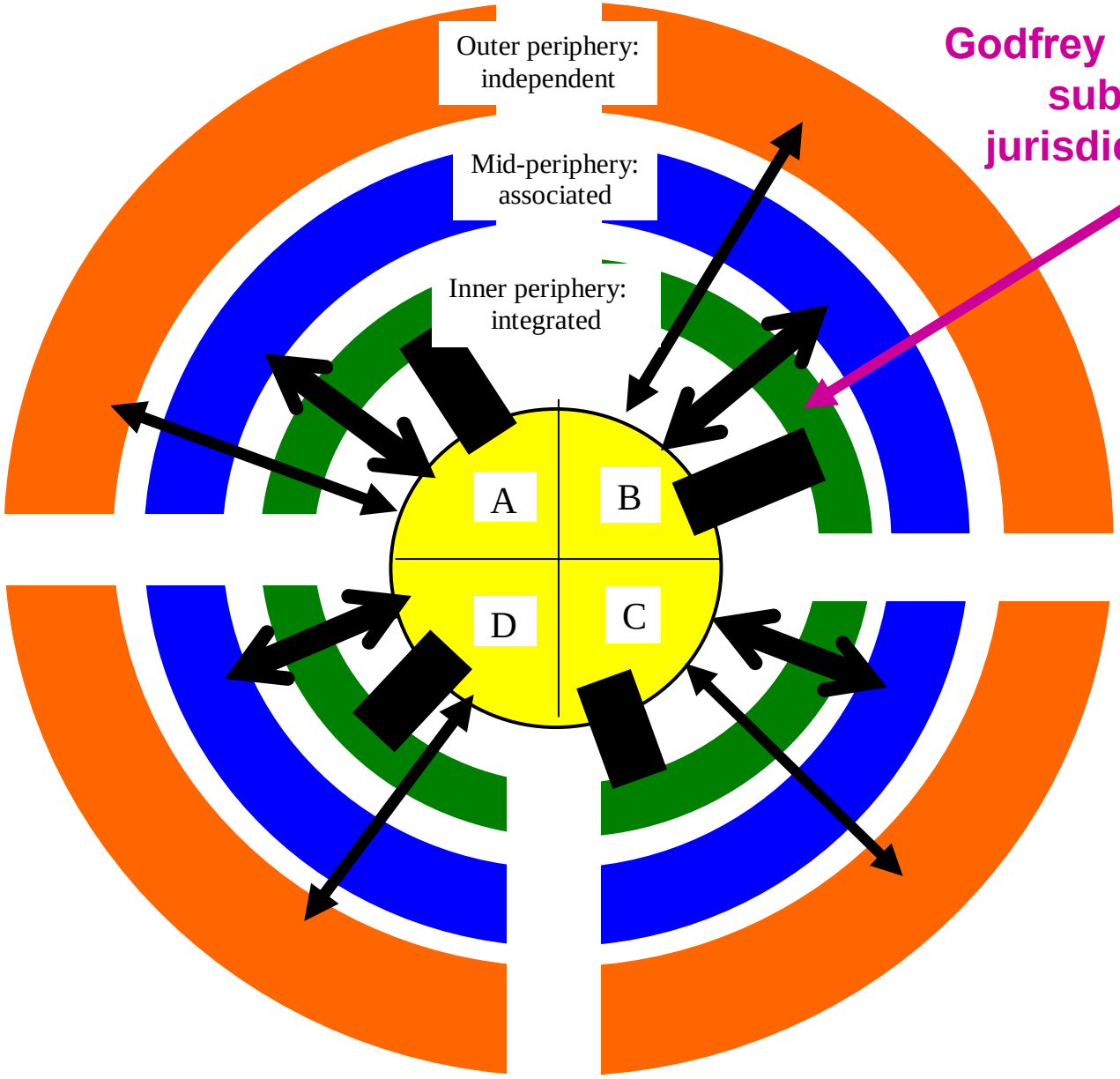
Sustainability and resilience are….

- Not about self-sufficiency, nor diversification for its own sake
- Not about environmental protection (though this seldom does harm)
- They are about social capital + flexibility (adaptability)
- The two key resources are not quantitative but qualitative: people and social institutions.

Appendix: Some extra slides on Bertram (2004)

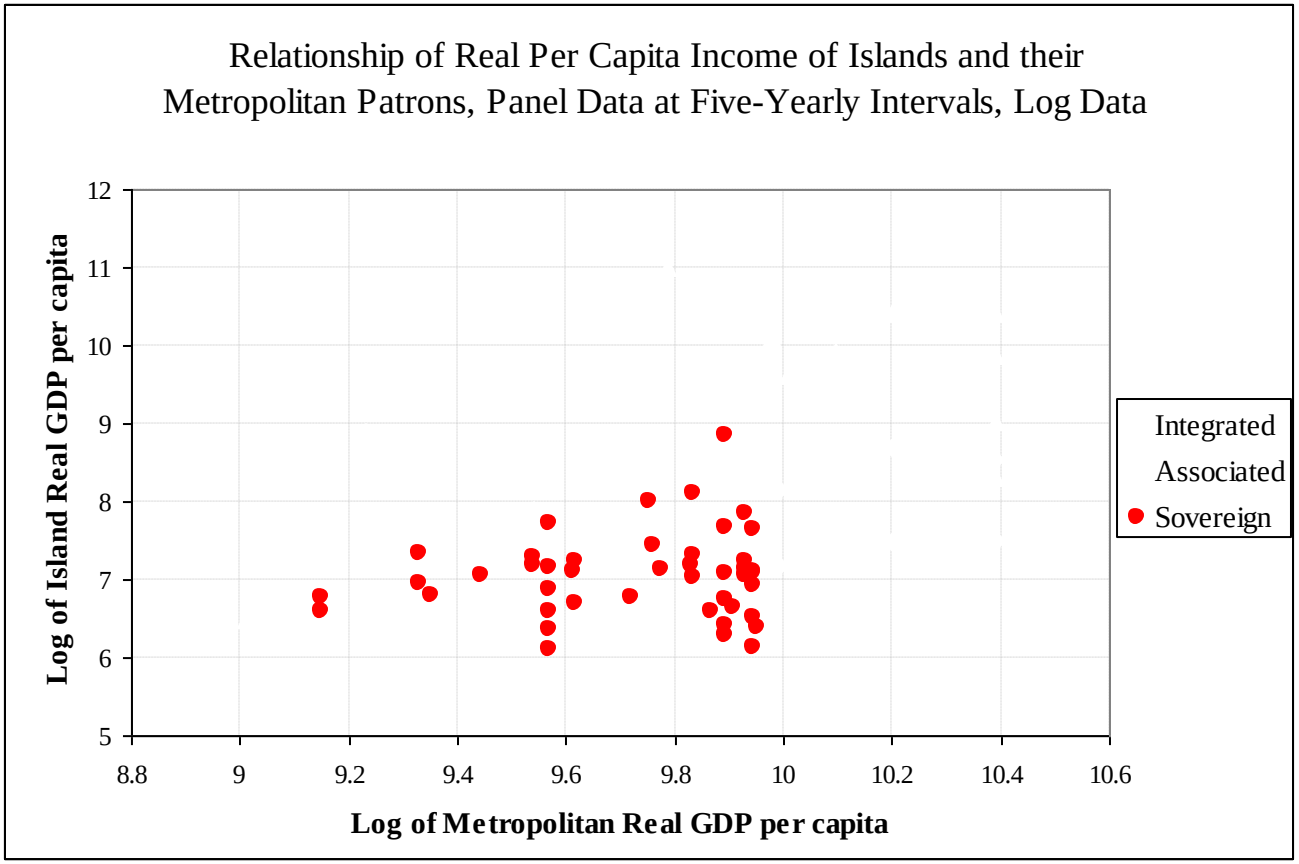
Jurisdiction: nation-states, associated, and integrated (sub-national)

Consider a centre-periphery model (after the style of Sunkel 1973):

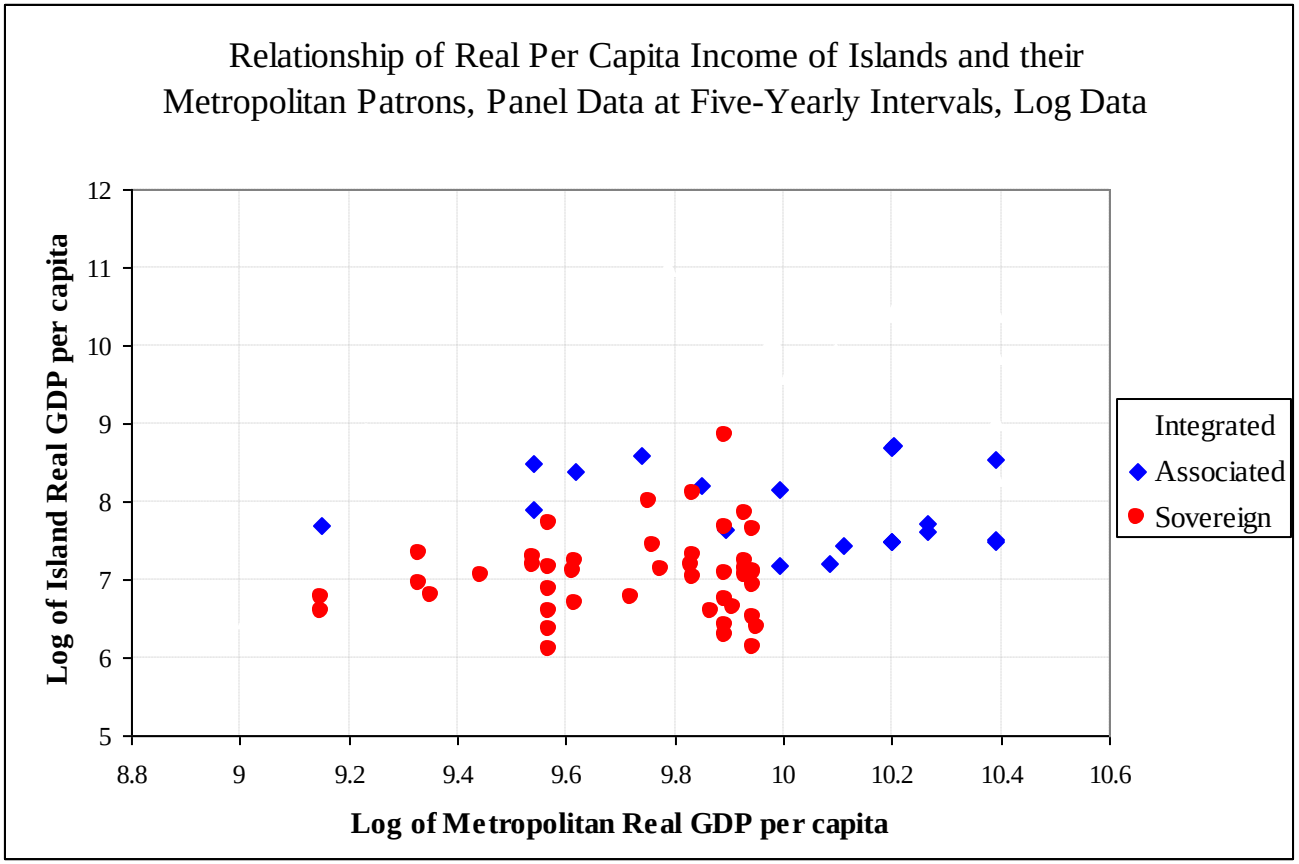


Godfrey Baldacchino's sub-national jurisdictions are in here

Bertram 2004: 22 Pacific Island Economies, Panel Data 1970-2000



22 Pacific Island Economies, Panel Data 1970-2000



22 Pacific Island Economies, Panel Data 1970-2000

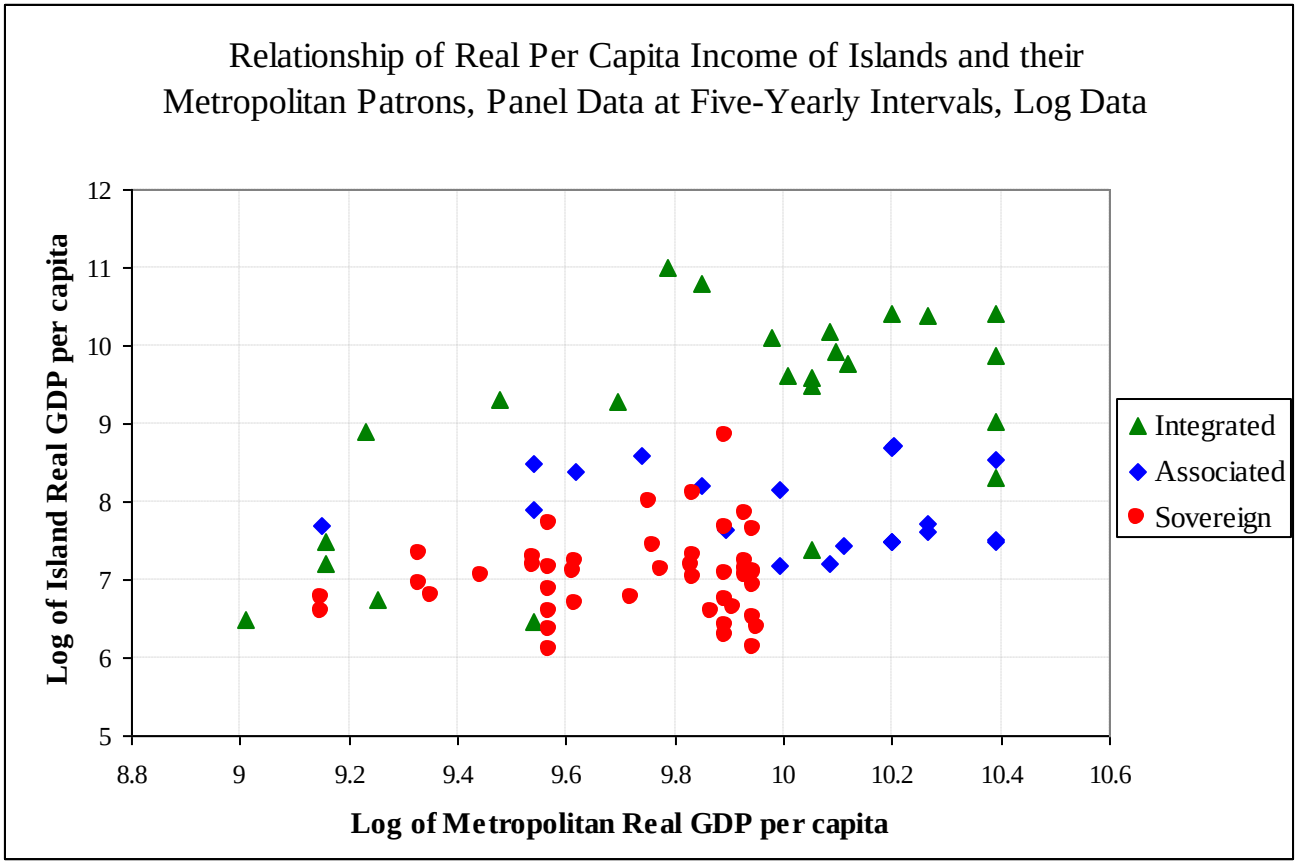


Table 3. Panel Regression Results for Pacific Island Economies 1970-1999

Equation	Constant α	INT β	ASSOC γ	METY δ	Time dummies	R^2	Adjusted R^2
(1)	-3.855 (-0.947)	1.815 *(6.226)*	0.503 *(1.866)*	1.127 *(2.576)*	‡	0.550	0.497
(2)	-3.173 *(-0.732)*	1.831 *(5.782)*	0.475 *(1.702)*	1.055 *(2.260)*	‡	0.549	0.491
(3)	0.630 *(0.172)*	1.482 *(4.196)*	0.577 *(2.335)*	0.632 *(1.590)*	‡	0.412	0.330

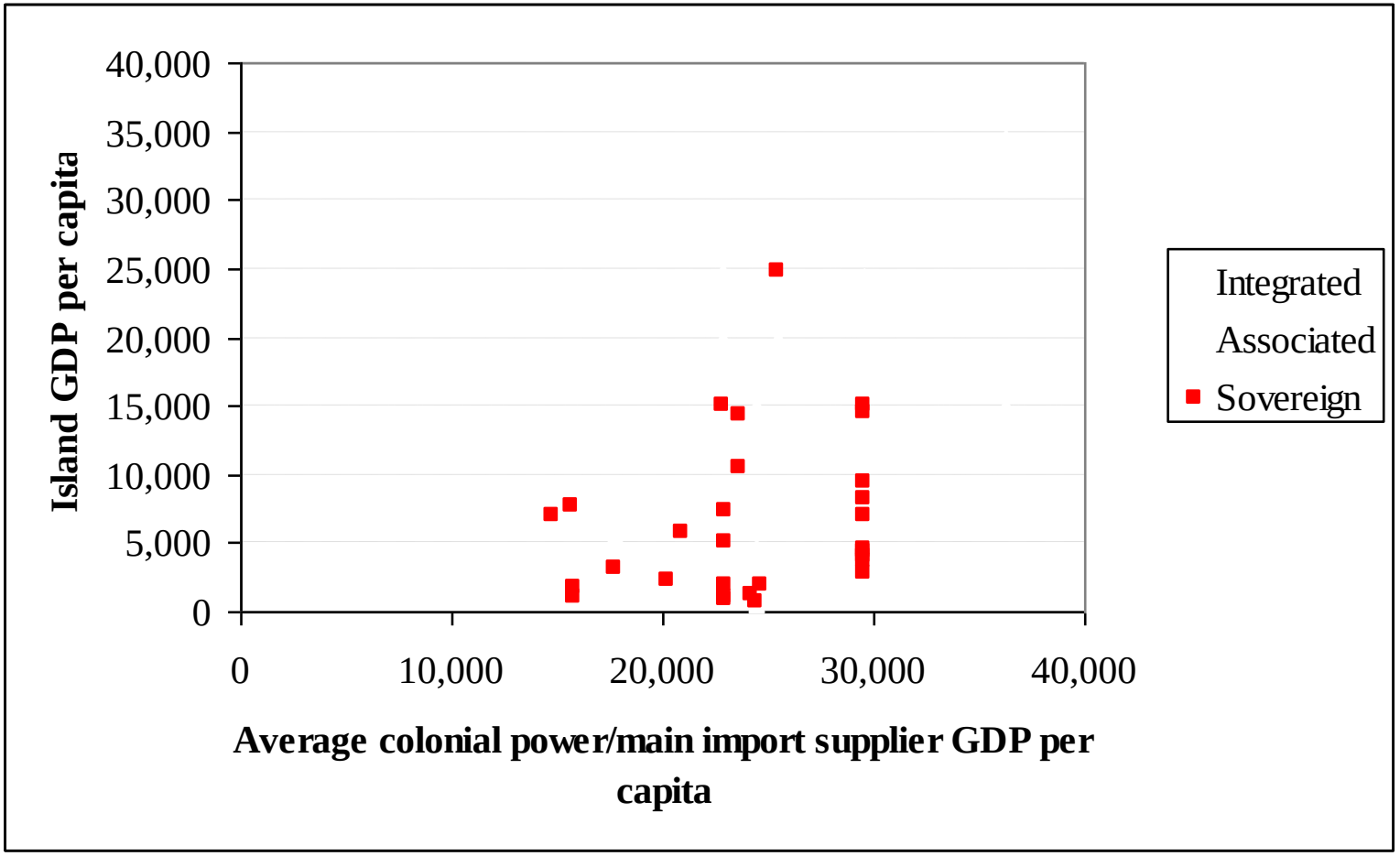
‡ None significant

Equation (1) is for 22 Pacific Island economies including PNG and Hawaii

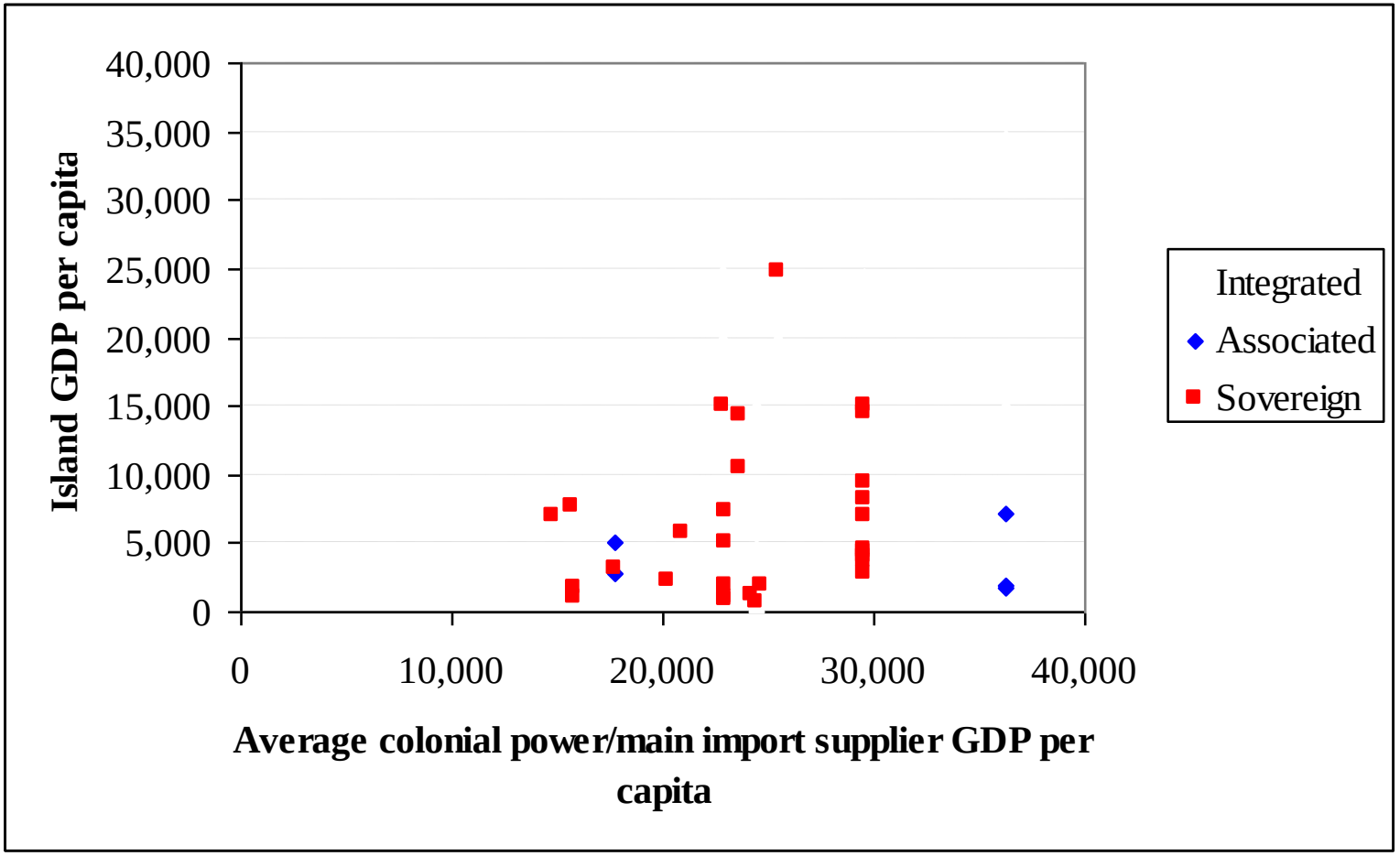
Equation (2) is for 21 Pacific island economies excluding PNG

Equation (3) is for 20 Pacific island economies excluding PNG and Hawaii

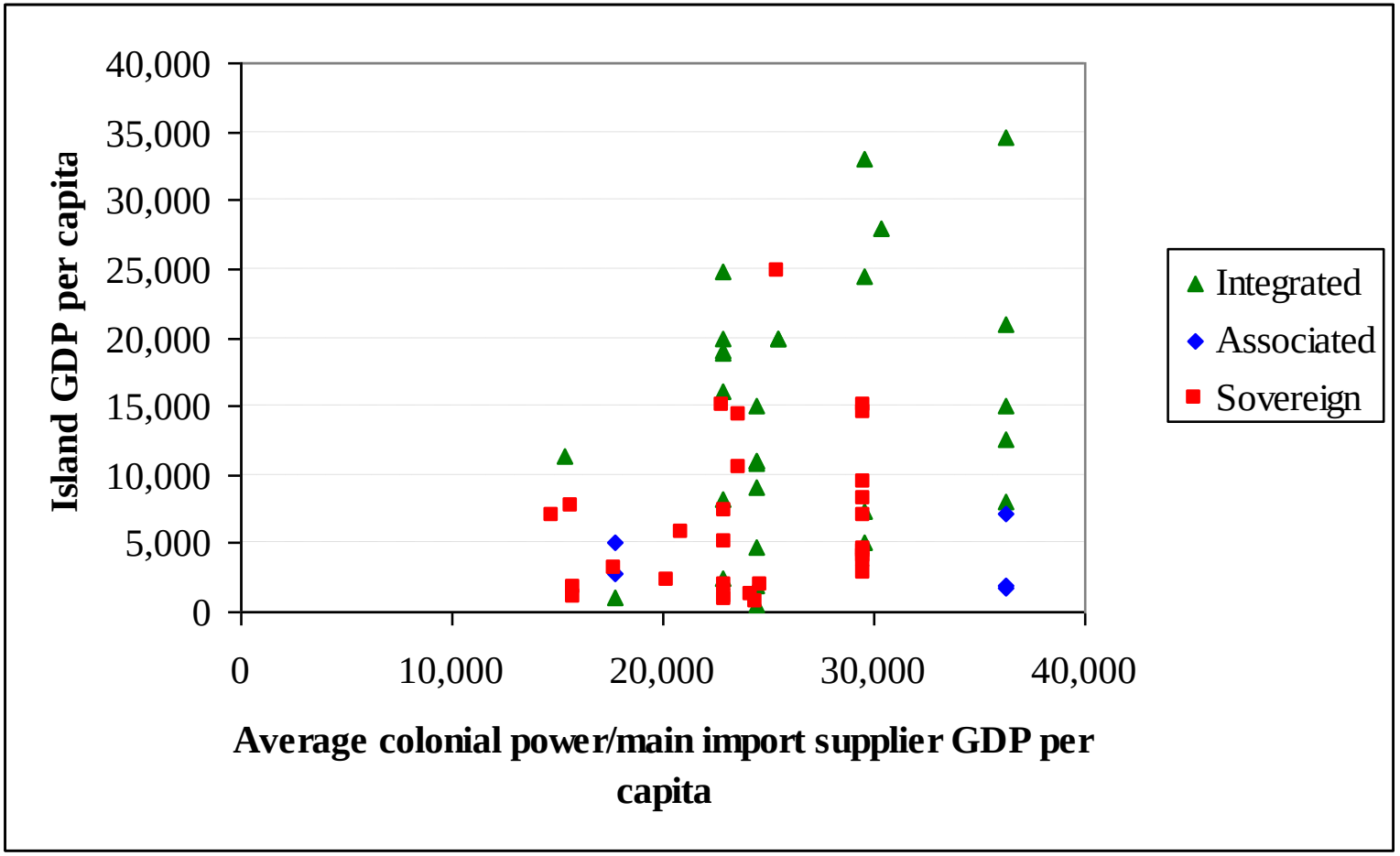
Worldwide sample of 63 island states, cross-section data at c2002, “metropolitan partner” = combined weight in colonial history and import supply



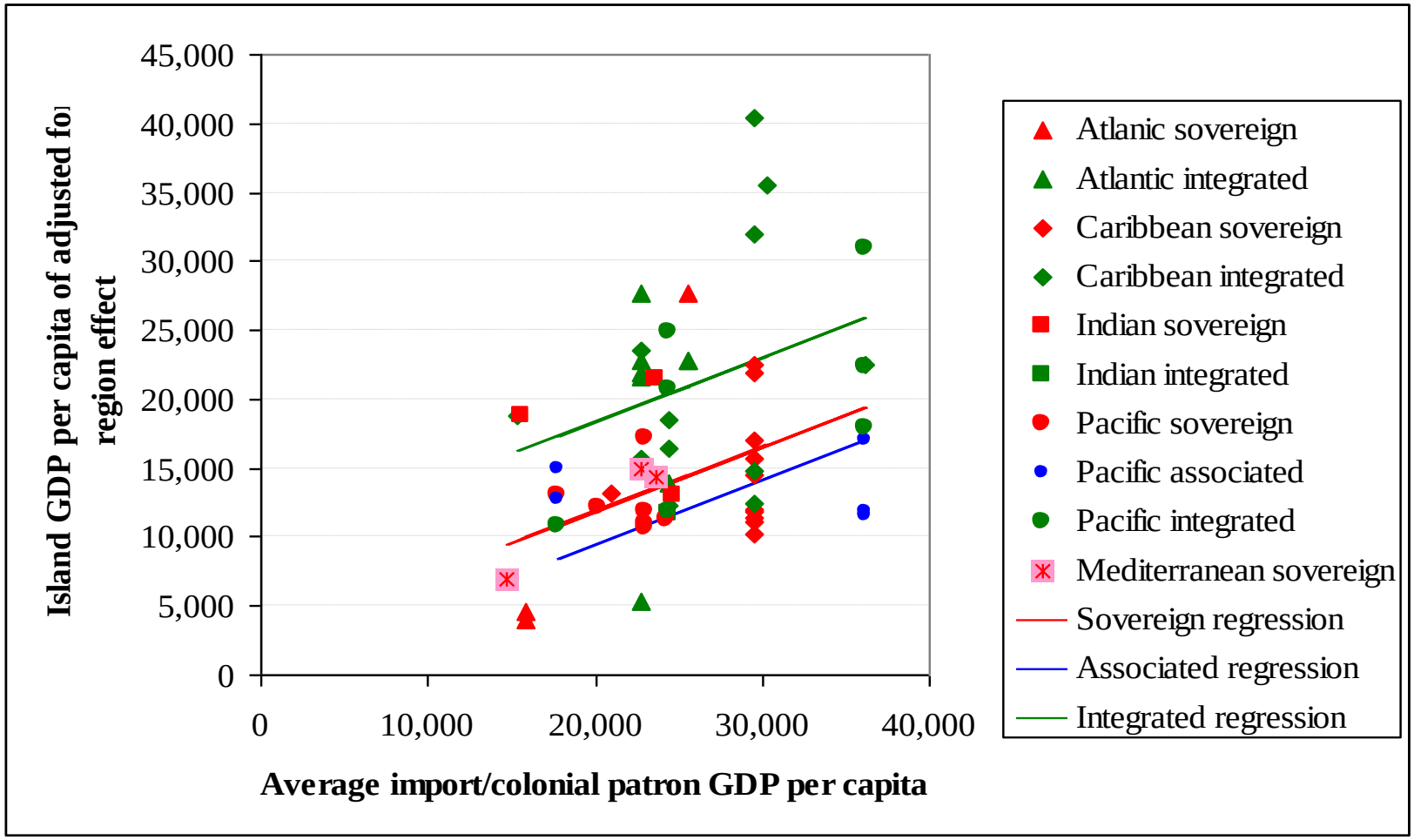
Worldwide sample of 63 island states, cross-section data at c2002, "metropolitan partner" = combined weight in colonial history and import supply



Worldwide sample of 63 island states, cross-section data at c2002, "metropolitan partner" = combined weight in colonial history and import supply



With regional dummies and regression line for each jurisdictional type



Regression with simple-averaged colonial and import-source patrons:

Regressor	Coefficient	*SE*	*T-stats*
Constant	2,725	*3,714*	*0.73*
METY	0.460**	*0.172*	*2.68*
INT	6,488**	*1,993*	*3.26*
ASSOC	-2,378	*3,047*	*-0.78*
PACIFIC	-9,879**	*1,774*	*-5.57*
ATLANTIC	-2,869	*3,147*	*-0.91*
CARIBBEAN	-7,466**	*2,144*	*-3.48*
INDIAN	-11,027**	*3,100*	*-3.56*
R^2 *0.422*		*Adjusted R^2* *0.348*	

- **Both political integration and metropolitan GDP are significant at 1% level**

- **A $1 increase in metropolitan GDP per capita raises the per capita income of its client island economies by between $0.31 and $0.46**

- **Being politically integrated raises an island economy's GDP per capita by between $5,650 and $7,500 compared with sovereign status**

- **The adjusted R^2 is around one-third which is a reasonable fit considering the very simple model specification**

- **Regional location makes quite a big difference to income levels (but here we should probably be looking at latitude as well as longitude – Caribbean, Pacific and Indian Ocean island economies are mostly tropical)**