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## *Strategic archipelagos and tourist destinations: Canary Islands, Hawaii and Okinawa*

### **Abstract**

Strategic archipelagos are usually ultra-peripheral, with high transport and maintenance costs. However, they can also become tourist destinations because of their exoticism, their climate and their complementarity with defence. With the development of West Africa, the Canary Islands could cease to be an outermost territory and recover its historic strategic role, which would force tourist and military clusters to coexist. Analysis of similar cases, such as Hawaii (United States) and Okinawa (Japan), can help to achieve optimum integration for the benefit of the local economy and consolidate a defence culture in the archipelago.

### **Keywords**

Strategic archipelago, public goods, defence culture, Canary Islands.

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## Introduction

The strategic importance of island bases is becoming apparent in recent years with various programmes to militarise the islands of the South China Sea. Some authors, such as O'Hanlon<sup>1</sup>, even predict that their occupation could trigger world conflicts between major powers. This greater attention to islands also coincides with a renewed development of scientific research into the phenomenon of insularity, far from the traditional negative connotation of isolation, to become a field of study of its own, based on so-called 'islandness'<sup>2</sup>. Traditional models that conceived islands as backward, labour-exporting economies (e.g. Sicily according to Schneider and Schneider<sup>3</sup>) are being reinterpreted in the light of progress made by specialised models in tourism and finance (Cayman Islands, for example), which have managed to create a post-industrial space that capitalises on its connectivity with the global world<sup>4</sup>.

However, most literature does not incorporate the military factor into its models. The pioneer Churchill Semple<sup>5</sup> for example, distinguished between nodal islands and marginal islands, based mainly on their role in commercial traffic, without considering their strategic value. More recently, <sup>6</sup> when creating an island typology, Warrington and Milne speak of fortress islands such as Malta, Singapore, St. Lucia or Hong Kong, but focus mainly on the migratory flows of their population, not on the economic-military model that motivates these demographic changes. They also include the island 'monoculture' typology to identify those that specialise in a single product, traditionally agricultural, and recently in the service sector. Oberst and McElroy<sup>7</sup> conceive three models according to the island's economic structure:

1 O'HANLON, M. (2019). *The Senkaku Paradox. Risking Great Power War Over Limited Stakes*. Washington, D.C., Brookings Institution Press

2 This stream of island studies (*Nissology*) began in Okinawa after the first meeting of the International Small Island Studies Association (ISISA) in 1994.

3 SCHNEIDER, P. and SCHNEIDER, J. (1976). *Culture and Political Economy in Western Sicily*. New York, Academic Press

4 Experts distinguish between *insularity* and *islandness*; the first refers to the geographical phenomenon and its economic influence; the second, more to the phenomenon of differentiated identity typical of island societies.

KING, R. (2009). Geography, Islands and Migration in an Era of Global Mobility. *Island Studies Journal*, Vol. 4, No.1.

5 SEMPLE, E.C. (1911). *Influences of the Geographic Environment*. London: Constable.

6 WARRINGTON, E. and MILNE, D. (2007) "Island Governance" in G. Baldacchino (ed.) *A World of Islands: An Island Studies Reader, Charlottetown, Canada and Luqa, Malta* University of Prince Edward Island, Institute of Island Studies and Academic Agenda.

7 OBERST, A. and MCELROY, R. (2007). "Contrasting Socio-Economic and Demographic Profiles of Two, Small Island, Economic Species: MIRAB versus PROFIT/SITE". *Island Studies Journal*, Vol. 2, No. 2.

- a) MIRAB (based on remittances from migrants and public aid),
- b) PROFIT (endogenous development focused on the control of own resources),
- c) SITE (a variant of the previous one based on tourism).

But neither do they incorporate the military factor, even though some cases are analysed as independent states. Rodríguez Martín<sup>8</sup> talks about the tourist and government clusters in the Canary Islands Region, but does not detail the military component in the latter, perhaps due to a lack of information.

In a context of growing international insecurity and scarcity of public resources such as the current<sup>9</sup>, the economic self-sufficiency of strategic archipelagos will be key to ensuring collective defence since in a conflict, economic force can be as decisive as military force. To this end, strategic archipelagos must have a financial structure that ensures their long-term viability.

This problem is not easy to solve as national defence is an economically public good, so it is optimally financed through taxes, and strategic archipelagos tend to be in deficit because defence activity does not generate income but costs. For this reason, it is important to have a productive, agricultural, financial or tourism sector, for example, that can afford its defensive function.

With the development of West Africa<sup>10</sup>, the Canary Islands could cease to be an outermost territory and recover its historic strategic role, which would force its main clusters – tourism and military – to coexist. Hawaii (United States) or Okinawa (Japan) are archipelagos that have combined their defensive function with their tourist attraction and their experiences could serve as a reference for the Canary Islands. These archipelagos have a similar climate, with mild temperatures practically all year round, and have had a similar economic evolution, moving from an eminently agricultural model to one of services centred on tourism. Both are strategic enclaves that have played a very important role in Asia Pacific.

This comparative analysis of archipelagos will also help to avoid the danger of exceptionality pointed out by King<sup>11</sup>, which is typical of experts who consider their island to be special and unique, without considering common issues that may be treated in a similar way. This study can also contribute to the objective of establishing

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8 RODRÍGUEZ MARTÍN, J.A. (2015). “Para entender la economía canaria” (To understand the Canarian economy), in PADRÓN MARRERO, D. and RODRÍGUEZ MARTÍN, J.A. (coords.), *Economía de Canarias. Dinámica, estructura y retos. (Economy of the Canary Islands. Dynamics, structure and challenges)*. Valencia: Tirant lo Blanch.

9 As the Secretary of State for Defence recalled in his parliamentary appearance to defend the ministry's budgets, “at the end of 2018, the defence budget reached a figure similar in current terms to that of 2008, and was 10% lower in constant terms”. With the Covid-19 health crisis, the budgetary situation is expected to worsen.

10 BORIS DIOP, B. (2020). “Après la pandémie, le réveil de l’Afrique?” *Le Monde diplomatique*. July.

11 see note 4.

a defence culture, helping to better understand the social value that the armed forces contribute and the particular problems generated by their funding.

### Distinctive features of national defence financing

Before analysing the strategic archipelagos model, it is worth recalling the economic nature of military protection. National defence is a state monopoly for various reasons, but economically it is a monopoly because of the characteristics of public goods. The military protects all residents of a country and no one can be excluded individually, whether they are independents, pacifists, conscientious objectors, resident aliens or tax evaders. This characteristic of non-excludability makes military activity unprofitable from a business point of view, since no price or fee can be charged for individualised defence services<sup>12</sup>. Therefore, there is no individual incentive to voluntarily pay for the protection provided by the armed forces, hence most modern states finance defence through taxes<sup>13</sup>.

This traditional formula, however, has an impact on the private sector as a higher tax burden reduces savings and investment capacity, can generate inflation and detracts from resources that could be used for other social needs<sup>14</sup>. This is one of the main reasons why most economists are against a policy of military Keynesianism, in which public defence spending is the main economic engine of a country<sup>15</sup>.

Notwithstanding this, there are several models for financing public goods through private income, although these are not free from social distortions either. The most common case is that of the press, which provides an information service (a public good) but is financed by advertising; the difficulty the world's largest newspapers have attracting subscribers is explained by the public nature of the

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<sup>12</sup> The underlying idea is that there is no logic in paying for something that can be obtained for free. Historically there have been cases such as mercenaries or warlords, and more recently companies such as *Academi* and *Wagner* to whom military technological services are subcontracted, but these are inefficient armies as they do not protect the whole population. The article by RUBIO DAMIÁN (2020) "Automatización de la guerra: el factor humano" (Automation of war: the human factor), *Ejército* No. 948 April, contains several examples of this type of problem and analyses the risks involved in the privatisation of wars.

<sup>13</sup> BANK, S.; STARK, K., and THORNDIKE, J. (2008). *War and Taxes*. Washington, DC: The Urban Institute

<sup>14</sup> DUNNE, J.P., SMITH, R. and WILLENBOCKEL, D. (2005). "Models of military expenditure and growth: A critical review". *Defence and Peace Economics*, 16

<sup>15</sup> A recent study even links high military expenditure to a high degree of corruption. D'AGOSTINO, G., DUNNE, J., LORUSSO, M., and PIERONI, L. (2020). "Military Spending, Corruption, Persistence and Long Run Growth". *Defence and Peace Economics*. 1-11. 10.1080/10242694.2020.1751503.

product they sell: information is expensive to produce but cheap to reproduce, so there is little incentive to pay for a subscription unless the speed and the scoops have a high economic value for subscribers (as is the case with the financial press, for example).

An extreme case of private provision of a public good is Alphabet, Google's parent company. Like traditional newspapers and magazines, its information and search services are free for the user as its main source of funding is advertising. According to the company itself, in 2019, 83.9% of its revenues came from advertising, making the technology giant one of the largest advertising agencies on the planet. It gives away information, a public good for which it could hardly charge, in exchange for capturing users who make up a huge global advertising platform from which it obtains private income.

#### GOOGLE'S ADVERTISING REVENUE

	2017	2018	2019
<b>GOOGLE SEARCH AND OTHERS</b>	69,811	85,296	98,115
<b>YOUTUBE ADS</b>	8,150	11,155	15,149
<b>GOOGLE NETWORK MEMBER PROPERTIES</b>	17,616	20,010	21,547
<b>GOOGLE ADS</b>	95,577	116,461	134,811
<b>GOOGLE'S SHARE OF TOTAL ADVERTISING REVENUE</b>	86.50%	85.40%	83.90%

Source: Alphabet. Annual report 2019. Millions of dollars.

In the case of national defence, given the material impossibility of exclusion, inherent in pure public goods, an alternative similar to that of the press sector is the deployment of a complementary productive sector that generates sufficient income to cover defence expenditure in the territory; in the case of islands it is usually the tourism or financial sector that generates most of their GDP. The key lies in knowing how to complement both sectors to maximise their social benefit.

### Economic and social structure of strategic island enclaves

Island economies tend to depend on one main industry as their small size makes specialisation more efficient; in the cases of Hawaii, Okinawa and the Canary Islands, there has been a shift from agriculture practically centred on single-crop farming to a tourism economy. Hawaii was traditionally an archipelago that produced sugar and pineapple; Okinawa, mango and sugar cane; and the Canary Islands, bananas and tomatoes; all three are now established tourist destinations.

The commitment to tourism derives from the island's character, from the need to have routes, especially by air, that facilitate external connectivity; remoteness from consumer markets, which is a logistical disadvantage for its traditional agricultural products, becomes a tourist attraction, as potential visitors consider it exotic. Tourism

therefore simultaneously reduces distances and serves as a platform for the export of local products because it lowers transport costs.

This extreme economic specialisation may, however, seriously condition the deployment of military capabilities. Therefore, the greatest challenge that strategic archipelagos have to overcome reconciling a high degree of economic self-sufficiency and their defensive capacity. These spatial constraints also reinforce specialisation in tourism, as it is a complementary industry to the military since both depend critically on logistics infrastructure (airports and ports, for example) and the security attribute<sup>16</sup>. The challenge is knowing how to combine them successfully.

#### MAIN SOCIO-ECONOMIC VARIABLES (2019)

	HAWAII	OKINAWA	CANARY ISLANDS
POPULATION (MILLIONS)	1,4	1,4	2,1
GDP (€ BILLION)	85,5	40,7	46,7
TOTAL TOURISTS (MILLIONS)	10,4	9,4	13,1
UNEMPLOYMENT RATE	2,7%	2,7%	20,5%

Source: Hawaii Ministry of Finance; Okigin Okinawa Bank<sup>17</sup>; INE (2020). Provisional data.

Comparing the archipelagos of Hawaii, Okinawa and the Canary Islands shows that economic and social returns are very different. Hawaii is by far the largest generator of GDP (85.5 billion euros), followed by the Canary Islands (46.7) and Okinawa (40.7). As for the unemployment rate, the Spanish case is the only one with two digits (20.5%), while in the United States and Japan the rate is identical (2.7%); furthermore, it is important to remember that the unemployment rate in the Canary Islands is the fifth highest in Spain (13.78% nationally), in Hawaii it is the lowest in the United States (3.7% nationally) and in Okinawa it is the highest in Japan (2.4% nationally)<sup>18</sup>.

These results are surprising when one considers that the Canary Islands are the most populated region (2.1 million inhabitants) and the one which attracts the greatest number of tourists each year (13.1 million); Hawaii, with almost three million fewer tourists and 700,000 fewer inhabitants, generates a GDP which is 83% higher than that of the Canary Islands. Okinawa, with a population and unemployment rate iden-

<sup>16</sup> The security of the tourist destination is, along with the price and quality of the service, one of the aspects most valued by visitors. In the case of the Japanese tourist, for example, CASTELLTORT (2020).

<sup>17</sup> The latest official figure for Okinawa's GDP is 2016, equivalent to 35.6 billion euros. An estimate from local bank Okigin is used in order to compare the three archipelagos in the same year.

<sup>18</sup> The Covid-19 health crisis has substantially altered these figures so it is better to compare with previous data, so that there are no disruptive factors that alter the analysis.

tical to Hawaii, generates a GDP equivalent to 47% of the US archipelago, although it has one million fewer tourists a year.

#### MAIN TAX REVENUES (FISCAL YEAR 2018)<sup>19</sup>

CANARY ISLANDS			HAWAII			OKINAWA		
Tax revenues	Amount (million euros)	Share (%)	Tax revenues	Amount (million euros)	Share (%)	Tax revenues	Amount (million euros)	Share (%)
State revenues SF	5,229	69%	Consumer tax	3,020	43%	Prefectural tax	1,093	18%
State revenues (other)	104	1%	Income tax state section	2,161	31%	Local compensatory subsidy	1,751	29%
Assigned state revenues	608	8%	Accommodation fee	493	7%	Disbursement National Treasury	1,616	26%
European Funds	214	3%	Honolulu I. Consumption Surcharge	250	4%	Local consumer tax	414	7%
FCI	55	1%	Hydrocarbons tax	179	3%	Prefectural bonds	383	6%
CAC revenues	1,409	18%	Other revenues	912	13%	Others	868	14%
<b>TOTAL</b>	<b>7,619</b>	<b>100%</b>	<b>TOTAL</b>	<b>7,015</b>	<b>100%</b>	<b>TOTAL</b>	<b>6,125</b>	<b>100%</b>
<b>GDP (€ billion)</b>	<b>47</b>		<b>GDP (€ billion)</b>	<b>86</b>		<b>GDP (€ billion)</b>	<b>41</b>	
<b>Population</b>	<b>2</b>		<b>Population</b>	<b>1</b>		<b>Population</b>	<b>1</b>	
<b>Fiscal resources per capita</b>	<b>3,628</b>		<b>Fiscal resources per capita</b>	<b>5,011</b>		<b>Fiscal resources per capita</b>	<b>4,375</b>	

Sources: Canary Islands Accounts Board. Canary Island General Account Audit, financial year 2018. Government of Hawaii. General Account Audit, fiscal year 2018. Government of Okinawa. General Account Audit, fiscal year 2018.

An analysis of the main tax revenues also yields a similarly surprising result; the governments of Hawaii (5.010 billion euros) and Okinawa (4.374), obtain more resources per capita than the Canary Islands (3.628), which surely influences their competitive capacity. At the same time, Okinawa and the Canary Islands are mainly financed by contributions from the national system: “Local compensatory subsidy” (28.6%) and “Treasury disbursements” (26.4%), in the former, and “State revenues SF<sup>20</sup>” (69%),

<sup>19</sup> The fiscal year is different in each case; in Spain it coincides with the calendar year, but in the United States it ends on 30 September 2018 and in Japan on 31 March 2019.

<sup>20</sup> Includes taxes assigned, subject and not subject to assessment, personal income tax, corporation tax and social security contributions, transfer tax and stamp duty, gambling, excise duties and SF funds and IGTE clearing

in the latter. Hawaii, on the other hand, seems to be more self-sufficient in terms of its budget, as its main income is the equivalent of VAT (43%). These figures therefore seem to invite a specific analysis of each island model.

## Hawaii

The American archipelago is not only a reference tourist destination but also a strategic military enclave in the Pacific area, as it has proved throughout the 20th century. Although until the Great Depression of 1929 it had been an important centre of sugar and pineapple production, recovery from the crisis came from the army, which increased its presence following the Japanese occupation of Manchuria and the subsequent invasion of China (1937). This trend continued during World War II; according to Schmitt,<sup>21</sup> military strength increased from 28,000 in 1940 to 378,000 in 1944. After a crisis following the end of the global conflagration, the Korean War began a period of economic growth again driven by military deployment, which continued when Hawaii became a federal state in 1959 and ceased to be a “Territory”<sup>22</sup>. From that date, annual growth until 1973 was 4%, and tourism became the largest industry in the archipelago, thanks in part to the introduction of commercial jet flights from the mainland, a trend that has been consolidated to the present day<sup>23</sup>. Between 2009 and 2018, for example, Hawaii’s real GDP increased by 16.9% and tourism-intensive industries by 35.5%, making it the sector that contributed most to economic recovery, even more so than in the previous period (2001-2007), when tourism growth was 23.1%.

Hawaii’s tourism success cannot, however, make one forget the importance of the military contribution to its current economy. According to the Government of Hawaii<sup>24</sup>, every billion in military spending in 2018 generated 1.7 billion in the local economy, with real estate, manufacturing and health care sectors benefiting the most. According to the US Department of Defense, in financial year 2018, \$7.2 billion were injected into Hawaii, \$4.9 billion in salaries and \$2.3 billion through tenders to local companies, bringing its model quite close to military Keynesianism, where the economic driving factor is defence expenditure.

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21 SCHMITT, R. C. (1977). *Historical Statistics of Hawaii*. Honolulu: The University Press of Hawaii.

22 At that time, the four main sources of funding for the archipelago were the military, sugar, pineapple and tourism, and Hawaii contributed more tax resources to the federal treasury than several states of the Union. The following are currently legally considered as territories: Puerto Rico, the US Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands and Guam.

23 The Vietnam War also forced a strong military detachment to be maintained on the islands.

24 Hawaii State Department of Business, Economic Development & Tourism. <http://dbedt.hawaii.gov>. Accessed 12-6-2020

**IMPACT OF ONE BILLION DOLLARS OF MILITARY SPENDING ON THE HAWAIIAN ECONOMY (2018)**

PRODUCTION SECTOR	PRODUCTION (MILLONES DÓLARES)	WAGE INCOME (MILLIONS OF DOLLARS)	JOBS (NUMBER)
<b>TOTAL</b>	1,702.7	936.6	<b>10,630</b>
<b>FEDERAL GOVERNMENT</b>	820,0	670,1	5.794
<b>REAL ESTATE</b>	158,9	14,2	348
<b>OTHER MANUFACTURES</b>	119,1	7,9	113
<b>HEALTH SERVICES</b>	92,9	47,1	717
<b>MINING AND CONSTRUCTION</b>	62,2	25,2	267
<b>RETAIL TRADE</b>	57,1	19,8	509
<b>PROFESSIONAL SERVICES</b>	50,9	26,9	351
<b>COMMERCIAL SERVICES</b>	47,5	28,0	646
<b>WHOLESALE TRADE</b>	43,7	10,6	127
<b>FINANCE AND INSURANCE</b>	43,4	11,7	211
<b>OTHER SERVICES</b>	34,1	16,5	364
<b>PUBLIC SERVICES</b>	32,7	4,4	29
<b>FOOD &amp; BEVERAGE</b>	28,7	10,6	345
<b>INFORMATION</b>	24,3	6,7	79
<b>TRANSPORT</b>	22,8	7,2	120
<b>LOCAL AND NATIONAL GOVERNMENT</b>	17,6	12,2	152
<b>PROCESSED FOOD</b>	11,8	2,2	52
<b>ACCOMMODATION</b>	11,7	3,7	54
<b>EDUCATIONAL SERVICES</b>	10,9	6,9	152
<b>AGRICULTURE</b>	6,9	2,3	98
<b>CULTURE AND ENTERTAINMENT</b>	5,4	2,3	102

Source: Government of Hawaii (2020)

This important economic role of the armed forces is explained by the strategic nature of the archipelago, a key aspect of its history and one of the reasons why it was granted State of the Union status. Thus, a 1947 Congressional Report expressly states that *'the strategic location in the mid-Pacific of Hawaii's modern community of a half million loyal American citizens, with its modern facilities for transportation, communication, and defense, is of immeasurable value to the Nation.'*<sup>25</sup> This strategic character

25 H. Rept. 194, 80th Cong., 1st sess.

In another report by the Parliamentary Committee on the granting of statehood to Hawaii, the main arguments were

1. *Confirm and establish US hegemony in the Pacific*
2. *Establishing the first US island state*
3. *Move the domestic borders of the United States 2,200 miles west*
4. *Establish the fact that the areas of the Western and Central Pacific Ocean constitute a defence zone for the United States.*
5. *Circulate a strategic military base even more closely to the Union.*

was not limited simply to the military but also to the political, as Krug, Secretary of the Interior at the time, pointed out: '*General MacArthur has expressed his opinion in favour of Hawaii's statehood on the premise that such a policy would definitely support his efforts to democratize Japan and other areas of the East and help overcome the incursion of undemocratic forms of government*'<sup>26</sup>. Hawaii's elevation to the status of State of the Union was therefore strategic, both militarily and politically, seeking greater involvement in the Pacific from an economically consolidated archipelago that was already the United States' fifth trading partner and a major contributor. Hawaii is currently home to the headquarters of the largest US combat command (USPACOM), the Pacific commands for all the Armed Forces and the Coast Guard, and one of the largest military shipyards, the Pearl Harbor Naval Shipyard, which employs some 4,600 people, making it the leading industrial company in the archipelago.

This strategic commitment to Hawaii has not been free of objections, particularly from US economists and accountants, as there is a clash of technical criteria, sometimes irreconcilable, between military logistics and taxpayers' savings. The former justifies the existence of a deliberate redundancy and a 'risk premium' consisting of bringing forward the costs of a possible adverse scenario, so that the decision is taken not on the basis of immediate but on the basis of hypothetical costs. On the contrary, the taxpayer's view seeks to minimise annual military expenditure by eliminating those considered unnecessary. A specific example of this type of problem is illustrated by the debate in the 1990s on homeporting battleship USS Missouri in Pearl Harbor to the detriment of Long Beach, California, despite the enormous difference in costs. The annual recurrent costs of moving the battleship and adapting the island's infrastructure were estimated at that time at \$63.6 million plus \$47.5 million in annual costs, while keeping it in Long Beach placed less of a burden on the US taxpayer: 17 million non-recurring plus 46.3 million per year. The reason for the difference was the expenditure of 59 million for the construction of family homes in Pearl Harbor (between 570 and 700 units), expenditure that was not necessary in Long Beach because decommissioning of the USS New Jersey was foreseen. Despite the significant immediate savings of parking the ship in California, the Navy was working on a different scenario, that of the need for a rapid response in the early stages of a potential conflict in the Asia Pacific<sup>27</sup>. Due to political pressure and reports against the Government

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6. *Send to Congress men of calibre from Hawaii with an intimate knowledge of the areas of the Pacific Ocean at their fingertips.*

7. *Link the wealth of Hawaii, the fifth largest customer in the United States, more firmly to the Nation. 8. Send 16 young Americans from Hawaii to West Point and Annapolis annually, instead of 4.*

9. *Relieve the federal government of the financial burden of the Territory regime*

10. *Fulfil at least one moral obligation owed to the people of the Territory of Hawaii.*

26 Testimony before the House Public Lands Committee, March 1947 In *Statehood for Hawaii: Hearing Before the Subcommittee on Territories and Insular Affairs* United States Senate. 1953.

27 The Covid-19 crisis has once again highlighted the importance of this deliberate redundancy, which is typical of military logistics. "The fact that military logistics operate in uncertain environments, where it is difficult to predict needs and where, in addition, the enemy factor must be taken into

Accountability Office (GAO), the battleship finally ended, a decade later, in Hawaii, although in the naval museum<sup>28</sup>.

As the previous examples illustrate, Hawaii's economic and social success is inseparable from a political and military commitment that has successfully combined two economic sectors with a high multiplier effect: tourism and defence. Hawaii has the third highest household income in the United States (\$78,084) and the lowest unemployment rate in the country (2.7%) but is also the most expensive state to live in<sup>29</sup>. Hawaii would therefore be more like a military enclave reconverted into a tourist destination to make it economically sustainable.

This importance of the defensive factor has been further highlighted by the recent Covid-19 crisis. Thanks mainly to the military shipyards, and to the University of Hawaii, which operates the Maui High Performance Computing Center, it has been possible to maintain a certain level of consumption and compensatory economic activity on the islands, despite the drastic fall in tourism.

## Okinawa

Okinawa is a Japanese island prefecture in the Pacific Ocean, bordering the South China Sea and the Philippines. Because of its strategic location it was occupied by the United States following World War II until 1972, when it was returned to Japan, although Washington still maintains 90 military facilities for exclusive use. If hostilities were to break out in the region, the US advanced deployment in Okinawa would significantly shorten troop transfer times to the Korean peninsula or the Taiwan Strait. For example, it takes 2 hours to fly to the Korean peninsula from Okinawa, compared to 5 hours from Guam, 11 from Hawaii and 16 from continental United States. Furthermore, the 1,200 km long archipelago is located adjacent to the main Japanese maritime routes, through which almost 99% of the total volume of the world's third

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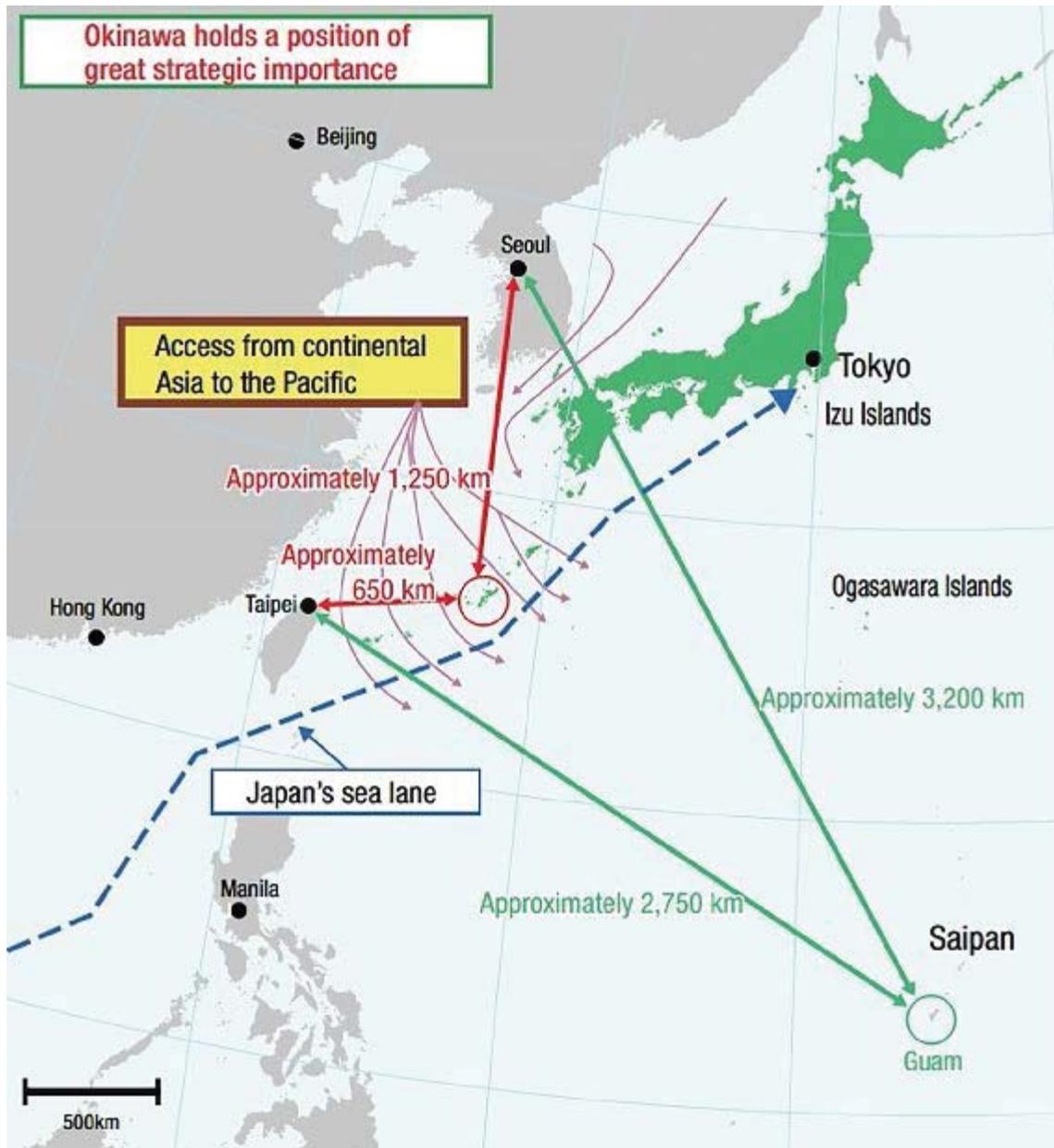
account, means that they must be strengthened by creating deliberate redundancies to ensure that any break in the chain will not prevent them from continuing to fulfil their mission". RUÍZ ARÉVALO (2020) in "Efectos del Coronavirus en el orden mundial" (Effects of Coronavirus in the world order), *Ejército* 949, May.

28 Stiglitz, a Nobel Prize winner in economics and advisor to President Clinton, was one of the greatest opponents of this military logic of advancing expenses. 'Almost all the serious conflagrations that the United States has faced in the past fifty years have lasted months, if not years. If this is the likely pattern in the future, then the need for a full capacity for rapid deployment on a second front may not be a high imperative'. STIGLITZ, J. (2000) *Economics of the Public Sector*.

About the case of U.S.S. Missouri, see at [www.gao.gov](http://www.gao.gov). *Costs of Homeporting the U.S.S. Missouri in Pearl Harbor versus Long Beach* United States General Accounting Office. September 1990.

29 According to the Missouri Economic Research and Information Center (MERIC), in 2019, the cost of living index was 191.8 in Hawaii, the highest in the Union, and in Mississippi it was 84.7, the lowest.

largest economic power's maritime trade passes<sup>30</sup>. For this reason, the presence of bases in Okinawa is considered to benefit all residents of Japan, not only the Okinawans, and provides an additional guarantee of stability in the region formed by Japan, Korea, Taiwan and the Philippines, a further illustration of the economically public nature of defence.



Source: Japanese Ministry of Defence. National Defence White Paper 2019.

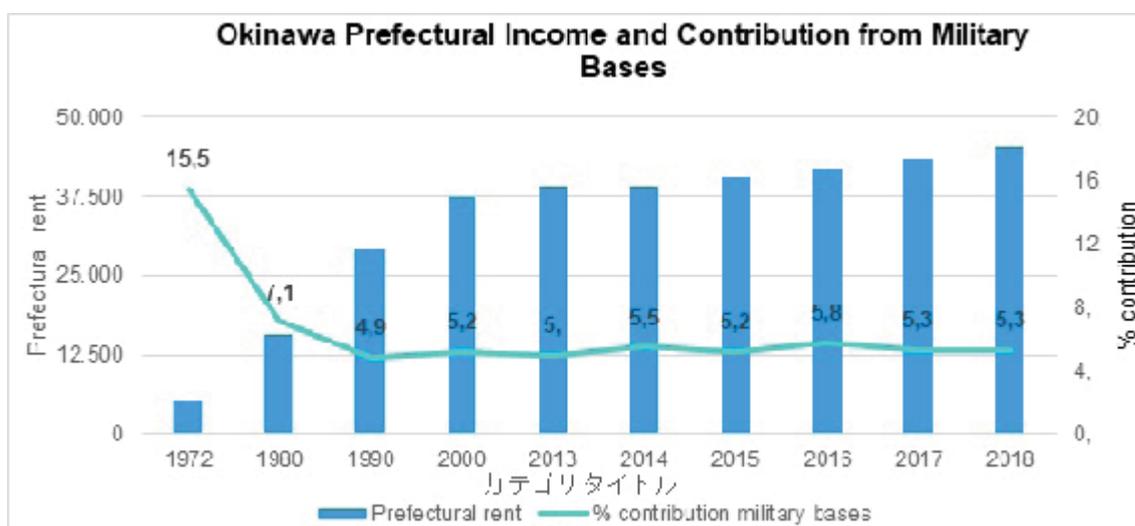
However, this collective benefit generates social costs that fall disproportionately on the island economy and its citizens, since 1% of Japanese territory is home to 70%

<sup>30</sup> The importance of maritime trade in a globalised world and its protection is commented in MORENO BARAHONA (2020) "Reflexiones sobre artillería lanzacohetes para las Fuerzas Armadas" (Reflections on rocket launcher artillery for the Armed Forces). *Ejército* No. 947, March.

of US military facilities in the country. In addition, Kadena Air Base, the key military hub, could have immediate civilian use as it is one of Japan's largest airports, with two 4,000-metre runways, which could generate \$10 billion in annual revenue for the region<sup>31</sup>. For this reason Hiromori<sup>32</sup> advocates sharing so that in times of peace the infrastructure can be exploited for the benefit of the local economy, allowing commercial flights that would help consolidate tourism and a regional communications hub.

This under-utilisation of facilities is serious for a prefecture that is lagging behind the rest of the country economically. According to the latest official figures available, for financial year 2017, Okinawa's prefectural per capita income (18,083 euros) has been the lowest in Japan for the past 27 years and is 68% of the national average (26,583 euros). According to the Bank of Japan<sup>33</sup>, these low figures are due to specialisation in services (84%, the second largest in the country), a labour-intensive sector but with lower productivity than industry, and to a high level of precariousness in employment (46% of employment is not indefinite), the highest in Japan (national average, 38%).

For the time being, unlike the case of Hawaii, military expenditure has not had a traction effect on Okinawa's economy, because its total contribution has declined in recent years as prefectural income has improved; from 15.5% in 1972, when it was returned to Japan, it rose to 5.3% in 2018. This disparate development with respect to Hawaii may be due above all to uncertainty surrounding base continuity, which has minimised military investment by both governments. The continuity of Prime Min-



Source: Government of Okinawa (2020)

<sup>31</sup> The civil airport of Naha, the prefectural capital, has only one runway but with 150,000 flights a year it is already the fourth domestic airport in number of operations behind Haneda, Kansai and Shinchitose. For comparison purposes, the runways at the Gando base, Gran Canaria, are 3,100 metres long.

<sup>32</sup> Cited in JUNKERMAN (2016), "Base Dependency and Okinawa's Prospects: Behind the Myths". *The Asian-Pacific Journal*, 15 November.

<sup>33</sup> BANK OF JAPAN (2018). Okinawa-ken no shotoku suijun wa naze hikui no ka. (Why is Okinawa's income level low?). <https://www3.boj.or.jp/naha/pdf/uchina181005.pdf>

ister Abe, Japan's longest-serving president, has allowed for bilateral relations to be strengthened and dialogue on defence matters improved, as well as a strong injection of financial resources for the local economy (2.1 billion euros per year).

Nor has it helped the bilateral relationship to strengthen the climate in the US Congress, particularly because of budgetary issues. As Admiral Harry Harris, commander of the Pacific Forces, stated at his congressional hearing in February 2018, "*Fiscal uncertainty breeds a significant risk to USPACOM's strategic priorities. (...) One of the principal problems we face in the region is overcoming the perception that the U.S. is a declining power; a fully resourced defense budget, leading into long-term budget stability, will send a strong signal to our allies and partners – and all potential adversaries – that the U.S. is fully committed to preserving a free and open order in the Indo-Pacific.*"<sup>34</sup>

Okinawa's current situation is therefore the result of the confluence of three axes: the axis of those responsible for defence, formed by the Japanese government and the US Department of Defense; the axis of the local movement against the presence of military bases, led by the prefectural government; and the axis of the defence of the US taxpayer, formed by Congress and the Government Accountability Office (GAO), which are demanding greater transparency in military decisions.

Alignment between Tokyo and the Defense Department is explained by the fact that they are directly responsible for protecting the territory; not for nothing were the costs of the bases in Japan in 2019 (5.3 billion dollars) the second highest of all those the United States has in the world, only behind Germany (8.3 billion) and ahead of Korea (4.4). This axis is key and has been decisive in the recent history of the archipelago<sup>35</sup>.

As for local opposition to the bases, it does not seem so much a question of anti-Americanism as a demand for autonomy. The island nature of the economy has always created a dependence on the metropolis, whether it be Washington during American rule or Tokyo. Traditional exports of agricultural products such as sugar or pineapple have almost never offset the value of consumer goods imports, which have accounted for almost 80% of the total. The result has been what Hiroshi<sup>36</sup> called a

34 U.S. CONGRESS, HOUSE COMMITTEE ON ARMED SERVICES (2018). *The Military Posture and Security Challenges in the Indo-Asia-Pacific Region*, hearings, 115th Cong., 2nd sess. 14 February. H.A.S.C. No. 115-70 (Washington, DC: GPO, 2018). <https://docs.house.gov/meetings/AS/AS00/20180214/106847/HHRG-115-AS00-Wstate-HarrisJrH-20180214.pdf>

35 The controversy generated by the transfer of one of the bases, Futenma, led to the resignation of Prime Minister Hatoyama in June 2010, sending a clear message about the importance of maintaining coherence of action between Washington and Tokyo.

36 HIROSHI, M. (2009). "Okinawa keizai no tokusei wa dōshite tsukurareta ka" (How the particularities of Okinawa's economy were created) in *Okinawa "jiritsu" e no michi o motomete: kichi keizai jichi no shiten kara*, ed. MASAOKI G., MIYAZATO S., ARASAKI M., and ŌSHIRO H. Tokyo, pp. 112-125.

‘sieve economy’ (*zaru keizai*<sup>37</sup>) in which profits from business activity on the island do not revert to its residents, but are repatriated to the headquarters of large corporations, national or international, in what would be an almost neo-colonial model<sup>38</sup>. The alternative proposal by local experts such as Kakazu<sup>39</sup> has been to create a Free Trade Area between Taiwan, Okinawa and Shanghai, which could also ease tensions surrounding the territorial dispute of the Senkaku Islands, as Okinawa is closer to Taiwan (630 km) and Shanghai (820 km) than to Tokyo (1,600 km).

Finally, the third axis influencing the situation in Okinawa, the US taxpayer’s ombudsman, formed by Congress and the GAO, is under very strong social pressure to reduce Administration costs, with the military being one of the main items. As early as 1989, the GAO objected to the Department of Defense including land ceded free of charge for military bases in Japan as a Japanese contribution because it violated the criteria for NATO cases where only explicit monetary contributions are counted<sup>40</sup>. Congress, on the other hand, refused in 2012, 2013 and 2014 to approve budgets for the transfer of troops from Okinawa to Guam because they were not acceptable. In an attempt to improve the situation, then Premier Shinzo Abe spoke at the US Parliament in 2015, the first time a Japanese leader had visited it. This was very well received by the congressmen, and perhaps made it possible to secure US political support for several of his claims, such as that of the Senkaku Islands<sup>41</sup>.

Therefore, Okinawa’s future development will depend critically on how reconciling the regrouping of US military bases with the local economy is resolved. Land is the scarcest productive factor in island economies, so it is crucial to maximise its use; land returned has increased its social contribution (measured in jobs created) by 72, and its economic contribution by 28.

37 The literal translation is ‘bamboo basket economy’.

38 This is undoubtedly one of the major differences with Hawaii, where there is better integration between the local economy and military activity, probably because they are bases on US soil and not in a host country. Of the \$2.4 billion in annual procurement spending, it is estimated that at least 58% is made to companies based in Hawaii. In the case of the Defense Commissary Agency it is 92%, in the case of the Navy it is 62%, in the army 57% and in the Air Force has the lowest percentage at 30%. In the case of Okinawa’s commissaries, for example, they are tendered with those from all the bases in Japan, Korea and Guam, so usually only US companies apply.

39 KAKAZU, H. (2015). “A Growth Triangle (GT) Approach to Asian Regional Economic Integration: A Case Study of Taiwan-Okinawa-Kyushu Growth Triangle”. *IAM e-Magazine*, No. 5.

40 In what would be yet another example of the entente between the Department of Defense and the Japanese government

41 The US Congress has taken a stance in favour of Japan in this territorial dispute with China over the Senkaku Islands, and its budgetary proposals cannot therefore be considered anti-Japanese but merely defensive of its taxpayer. For example, with the Asia-Pacific Maritime Security Initiative Act of 2016 (S. 2865 in the Senate and H.R. 5890 in Congress).

According to John Bolton, former national security adviser to President Trump, “we have no better ally than Japan”. BOLTON, J. (2020), *The Room Where It Happened*. New York: Simon & Schuster.

## ECONOMIC IMPACT OF RETURNED MILITARY BASE LANDS

Land from former US bases returned						
	Direct economic effect (billion yen per year)			Jobs created		
Old bases	Before	After	Multiplier effect	Before	After	Multiplier effect
Naha Shintoshin	52	1,634	32x	168	15,560	93x
Oroku Kinjo	34	489	14x	159	4,636	29x
Kuuae and Kitamae	3	336	108x	0	3,368	-
<b>Total</b>	<b>89</b>	<b>2,459</b>	<b>28x</b>	<b>327</b>	<b>23,564</b>	<b>72x</b>

Land to be returned						
	Direct economic effect (billions of yen per year)			Jobs created		
Bases	Before	After	Multiplier effect	Before	After	Multiplier effect
Camp Kuuae	40	334	8x	351	3,409	10x
Camp Zukeran	109	1,061	10x	954	7,386	8x
Futenma	120	3,866	32x	1074	34,093	32x
Makiminato	202	2,564	13x	1793	24,928	14x
Naha (military port)	30	1,076	36x	228	10,687	47x
<b>Total</b>	<b>501</b>	<b>8,900</b>	<b>18x</b>	<b>4400</b>	<b>80,503</b>	<b>18x</b>

Source: Government of Okinawa (2020).

Okinawa is also the only Japanese prefecture with endogenous population growth<sup>42</sup> (Tokyo is growing exogenously, by attracting population from other regions) and recently underwater fibre cables have been installed, forming a communications hub that attracts companies from the sector, which is already the second largest after tourism, with almost 30,000 direct jobs. Okinawa's experience therefore illustrates the complexity of good coordination between the defence policies of two states and the progress policies of local governments, as well as the protection of taxpayers' interests. Also the difficulties of demilitarising strategic enclaves.

## Canary Islands

The Canary Islands are the southernmost appendage of the EU and lie some 100 km from the west coast of Africa, giving them great strategic value on sea routes with West Africa and South America. The Canary Islands Region has one of the best port systems in the Atlantic thanks mainly to its two free trade areas, the Canary Islands Special Zone (ZEC) and the Economic and Fiscal Regime (REF), which have fa-

42 A local saying states that the Okinawans will be the last Japanese, referring to the ageing population in the rest of the country. A different situation to that of the Canary Islands and Hawaii. According to the Canary Island Economic and Social Council (2019), "vegetative growth of the population in the Canary Islands, which has historically been positive, has become negative already in 2018, and would continue to be so throughout the period 2019-2032". National Strategy Report on the Demographic Challenge. p. 22. According to Census Hawaii, the archipelago has been losing population since 2016 when it reached 1,424,393 (1,415,872 in 2019).

voured economic progress<sup>43</sup>. Together with tourism, the port is the archipelago's main axis of globalisation.

In addition to forming part of the EU, for security purposes the Canary Islands are integrated into the Euro-Atlantic region under the terms of the Washington Treaty, Article 6 of which defines the territories to be protected by NATO, including the islands of Member States situated to the north of the Tropic of Cancer<sup>44</sup>.

This legal framework makes the archipelago Europe's outpost in Africa and, although there is still little development of air and maritime connectivity with coastal countries, in the near future it is expected to become a regional logistical node in line with the Community integration policy for the Macaronesia region<sup>45</sup>.

The Canary Islands therefore appear to be destined to become a support base for companies with interests in West Africa thanks to their EU territoriality and military security. According to Ballesteros Martín<sup>46</sup>, the value of security is a key factor if we also take into account proximity to one of the areas of greatest global concern, the Sahel, where Jihadist groups control important territories without sovereign states being able to prevent it, and with which the Canary Islands maintain strong commercial links through ECOWAS, the Economic Community of West African States<sup>47</sup>. According to the same author, the archipelago could be the logistic base for mining investments in Mauritania or Mali, a sector with a turnover of 50 billion dollars, or for Moroccan iron exports. This cluster, the most strategically important, represented

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43 The importance of these systems is corroborated by the complex process of integrating the Canary Islands Region into the current European Union, since it did not integrate fully into the former European Economic Community (EEC) along with the rest of Spain for fear of losing the Economic and Fiscal Regime (Protocol two to the Act of Accession of Spain and Portugal). It was not until 1991, after the concept of 'outermost regions' (ORs) had been developed, that the REF was modulated and it was found that excluding the archipelago from the Community's common trade, agriculture and fisheries policies was detrimental to its export sector, both agricultural and industrial. For this reason the Programme of Options Specific to the Remote and Insular Nature of the Canary Islands (POSEICAN) was developed.

Other ORs within the EU are the Azores, Madeira, Guadeloupe, Martinique, Guyana and Réunion.

44 This definition has caused some interpretative problems because the Treaty was signed in 1949 and Hawaii became a state of the Union in 1959, so there is a current of opinion that NATO might not protect the archipelago if it were attacked.

45 Macaronesia ('Fortunate Islands') is the name given to the five North Atlantic archipelagos close to Africa: Azores, Canary Islands, Cape Verde, Madeira and Savage Islands.

46 BALLESTEROS MARTÍN, M.A. (2013). "El valor geoestratégico de las Islas Canarias" (The geostrategic value of the Canary Islands). 6 February. IEES.

47 Ciria Amores considers that "The Sahel, situated between the Sahara desert and the African savannah, is the region with the greatest terrorist boom on the planet, due to the internal crises of the countries that make it up, political corruption, food shortages and illegal trafficking in arms, drugs and people, among other causes" CIRIA AMORES, F.J. (2020). "Sahel: un enclave determinante para la lucha contra el terrorismo" (Sahel: a key enclave in the fight against terrorism), in *Ejército* No. 948, April

35% of GDP, 40.4% of regional employment<sup>48</sup> and had an estimated multiplier effect of 2.32 on the rest of the economy<sup>49</sup> before the Covid-19 health crisis, so it is crucial to maintain tourism corridors to ensure economic vitality during the pandemic.

Unfortunately, the development of this intercontinental platform faces a number of problems, perhaps the main one being that the strategic consideration of the Canary Islands does not seem to be accompanied by a long-term plan of action. For years now, China has been committed to the African continent and has deployed a coherent diplomatic policy that seeks to occupy the space left by the EU, and specifically by France, in what Beuret and Michel called *Chinafrique*<sup>50</sup>. China's apparent better management of the pandemic than Europe could even aggravate this situation.

Spain does not seem to be exempt from this Community trend, which has seen the Canary Islands as an outermost region rather than a strategic enclave. Even in the local community itself, a fatalistic discourse seems to dominate, which, according to Padrón Marrero and Godenau<sup>51</sup>, has ended up consolidating an island narrative loaded with negative connotations, with a predominance of claims of a compensatory nature rather than commercial freedom and business dynamism.

Recently, however, a change of perspective has been observed; with an adequate presence of the armed forces in the territory<sup>52</sup>, the Canary Islands Region can take on an increasingly important role in the security of Atlantic commercial traffic by bringing stability to the West African coast with the deployment of patrol boats in the Gulf of Guinea, a region where piracy and drug trafficking gangs disrupt the supply of raw materials and energy products. There is also the question of access to the Tropic and The Paps seamounts, with their concentrations of metals that the EU has deemed strategic.

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48 IMPACTUR Canarias 2019 Study.

49 RODRÍGUEZ MARTÍN, J.A. (2014). "Economía de la Educación y Educación para la Economía de Canarias" (Economy of Education and Education for the Economy of the Canary Islands). Canary Islands School Council.

50 BEURET, M. and MICHEL, S. (2011). *La Chinafrique*. Paris: Pluriel. This book highlighted the economic boom that Beijing had allowed several African dictatorships to enjoy, which for the first time had been able to reject Western aid.

51 PADRÓN MARRERO, D. and GODENAU, D. (2017). 'La excepcionalidad institucional en la economía de Canarias. ¿Ayudan a las ayudas?' (The institutional exceptionality of the Canary Islands' economy. Do they aid aid?). *Anuario de Estudios Atlánticos*, No. 63.

Both authors further state: "The present of the Canarian economy is marked by the strong influence of national economic power on the business fabric, while in certain activities a discourse has been articulated in which aid and exemptions, as well as, in some cases, certain doses of protection, are presented as the central axis of business viability. This new narrative of insularity (islandness) and ultra-periphery reflects a Canarian society that has become accustomed to asking for aid rather than commercial freedoms."

52 For a specific analysis of military presence on the islands, see GALLEGO COSME, M.J. (2017). "La geopolítica de las bases militares (IX)". (The geopolitics of military bases (IX).) IEES.

Finally, one aspect indirectly highlighted by comparison with the Pacific archipelagos is the mismatch between the economic model and the demographic structure of the Canary Islands, since this is the region with the largest population differential and unemployment rate, as mentioned above. This is undoubtedly one of the factors that explains the problem of low per capita GDP in recent years and scarce budgetary resources per inhabitant. Therefore, in addition to reconciling the tourism and defence clusters, the future challenge will be to adopt a model that generates greater social integration and ensures the financial viability of the enclave<sup>53</sup>.

## Development axes of strategic archipelagos

The comparative analysis between the archipelagos of Hawaii, Okinawa and the Canary Islands reflects three issues that the strategic enclaves, as distinct island types, have to resolve: a) integration of the strategic nature into their own identity; b) type of economic Keynesianism; c) economic-demographic balance.

### A) *Own identity and strategic nature*

The aforementioned comparative analysis appears to confirm that neither Hawaii nor Okinawa have sought economic development beyond their strategic nature, but have assumed it as a sign of their own identity and established it as the basis for their progress. Tourism has been the logical response in both cases, as it is an economic sector deployed around a logistics network based on complementary infrastructures in a limited island territory, and which they also aim to supplement with a technological hub.

It is precisely the explicit recognition of its strategic nature that has enabled Hawaii to progress economically, improve its political status and establish itself as the State of the Union with the lowest unemployment rate over the past century.

Okinawa is a similar case although, owing to the sovereign problem of bases, it embraces a pacifist model that reinterprets its strategic location as a gateway to Asia, typical of *post-bellum* Japan, which is constitutionally forbidden to have an army. With an indigenous culture, *chamuru*, a fusion of Chinese, Japanese and US culture, and thanks to its privileged location, “Okinawa seems destined to become Japan’s new frontier in this century, dominated by the Asia-Pacific region”<sup>54</sup>.

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<sup>53</sup> Although there does not appear to be any specific analysis of the contribution of the Canary Islands’ defence cluster, according to a study on the 2010 financial year, Ministry of Defence activity generated 1.2% of Spain’s GDP and 1.7% of total employment in that year. GARCÍA, J.R.; MURILLO, J.; SURINACH, J. and VAYÁ, E. (2016). “Economic impact of the Ministry of Defence’s budget: Methodological design and results for the Spanish economy”. *Defence and Peace Economics*, March.

<sup>54</sup> KAKAZU, H. (2017). Okinawa: Japan’s Front-Runner in the Asia Pacific -Thriving Locally in a Globalized World.

## *B) Type of economic Keynesianism*

Strategic archipelagos are structurally loss-making since defensive activity generates only costs, so they need compensatory income. The development of complementary private sectors, especially tourism, contributes decisively to the economic viability of the enclave but at the cost of tension between the defensive and civil clusters, which requires good coordination. To this end, the Keynesian model is predominantly adopted in strategic archipelagos, based on strong public leadership of the market economy. Such leadership can be civilian or military, depending on the type of investment being encouraged.

Okinawa, which has opted for a model of civil Keynesianism, which seeks to stimulate entrepreneurial activity through public spending, has improved in terms of per capita income and infrastructure but has not been transformed into a self-sufficient economic entity<sup>55</sup>, partly because of the delay in resolving the US base dispute. However, with a GDP lower than that of the Canary Islands, its unemployment rate is just as low as that of Hawaii (2.7%) due to the inclusive nature of Japanese social policies, which prioritise full employment over economic efficiency<sup>56</sup>.

By contrast, Hawaii's socially inclusive growth, a paradigm of military Keynesianism, is the result of a determined commitment by the US Department of Defense and successive regional governments, which have managed to recognise and convey to society the economic importance of the military bases in their territory and their benefits, in an example of good defence culture. For example, the EU's specific agricultural programme for outermost regions can transfer up to some 268 million per year to the Canary Islands, a significant figure, but 43% less than the amount of pensions paid to retired military personnel in Hawaii in 2018, some 527 million (463 million euros). In addition, Department of Defense public employee salaries paid during financial year 2019 amounted to 4.9 billion dollars (4.3 billion euros), a figure 48% higher than the annual budget of the Regional Ministry of Health of the Canary Islands, which in 2018 was 2.9 billion euros<sup>57</sup>. Therefore, defence-related expenditure in Hawaii

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<sup>55</sup> KAKAZU, H. (2018). "Island Sustainability and Inclusive Development: the Case of Okinawa (Ryukyu) Islands". *Journal of Marine and Island Cultures*.

<sup>56</sup> This statement should not be interpreted as synonymous with wasteful public spending in Okinawa since, as will be seen, investment is very efficient thanks to high density.

<sup>57</sup> The Department of Defense is perhaps the largest employer in the United States, with over 2.1 million military service members and 770,000 civilian employees.

The US financial year ends on 30 September for the federal government and most states, including Hawaii.

According to the Canary Island Economic and Social Council, regional administration personnel costs in 2018 amounted to 2,964.81 million euros. CES Annual Report 2019.

injects financial resources into the local economy that far exceed Community aid received by the Canary Islands and autonomous region resources<sup>58</sup>. These high contributions of the Department of Defense to local industry and consumption, coupled with the high multiplier effect of military spending, could explain the large differential between Hawaii's GDP and those of Okinawa and the Canary Islands<sup>59</sup>.

This result makes it difficult to make purely statistical comparisons between the three models, since military Keynesianism complements the tourism multiplier, generating greater wealth, an aspect often forgotten by academics.

### C) *Economic-demographic balance*

Economies seek to balance wealth creation with their population size and, very especially, to address population densities in order to make public spending efficient. It is difficult to determine an optimal point econometrically but the difference in population of the Canary Islands compared to Hawaii and Okinawa is surprising, especially when unemployment rates are too. In view of the contribution of the Keynesian model to the economic development of strategic archipelagos, a high unemployment rate detracts from public resources that could be invested in improving island infrastructures and perpetuates specialisation in labour-intensive productive sectors.

Additionally, thanks to their demographic concentration on the main island, Okinawa and Hawaii exceed minimum profitability thresholds and therefore Keynesian policies are effective. In Okinawa, for example, 85% of the population resides on the main island (in Hawaii, 69%), which explains why it ranks 21<sup>st</sup> in public infrastructure costs out of a total of 47 prefectures in Japan.

This situation differs slightly from that of the Canary Islands, where, according to Rodríguez Martín<sup>60</sup>, there are very small nuclei in the non-capital islands that prevent reaching the profitability threshold for public investment. Although the Canary Islands are the third most densely populated autonomous region, behind Madrid and the Basque Country, and above Catalonia and the Balearic Islands, there are extreme contrasts, from 542 inhabitants/km<sup>2</sup> in Gran Canaria or 438 in Tenerife to 39 in El

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<sup>58</sup> This contradicts the apparent budgetary independence of the US archipelago according to the mere analysis of its public accounts, which seemed to confirm that a liberal economy in a strategic enclave could be self-sufficient.

<sup>59</sup> Another explanatory factor could be the huge price differential, which influences GDP calculation. According to the private portal numbeo.com, net monthly wages in Honolulu are 162.45% higher than in Santa Cruz de Tenerife, and the price per square metre of a centrally located flat is 234.43% higher in Honolulu.

<sup>60</sup> RODRÍGUEZ MARTÍN, J.A. (2014) *Op.cit.*

Hierro<sup>61</sup>. It is also the Spanish region with the lowest proportion of social security affiliates (50.2%)<sup>62</sup>.

For its part, ageing population will have a strong impact on the Canary Islands' defence policy, as numerous studies confirm that ageing societies are more pacifist than young societies<sup>63</sup>. The region's specific problem is its proximity to the Sahel, a politically unstable region which will experience a population explosion which could aggravate its economic hardship and encourage warlike conflicts and heavy migration. Niger (6.95) and Mali (5.92) are among the countries with the highest fertility rate on the planet; in the Canary Islands, the fertility rate in 2018 was 1.03 children per woman. This demographic imbalance between the two regions could create an asymmetry between the population's military priorities, which could leave our strategic archipelago unprotected in the event of conflagrations. For this reason, it is important that public investment seeks complementarity between its commercial and defensive functions, a key cluster being technology.

Therefore, a development model seems to emerge from the above analysis that seeks to combine the defensive cluster, typical of a strategic archipelago, with the tourism and technology clusters. All three depend critically on logistics, but while the tourism sector is labour-intensive, the technology sector is capital-intensive, which reduces the demographic pressure on a limited territory and allows the island's digital divide with the metropolis to be narrowed. This would lead to a hybrid Keynesianism, combining civilian and military aspects, which should be geared more to the development of human resources specialised in technology and the implementation of information networks that reinvigorate the island's private sector, which is too fragile due to the weight of the public sector<sup>64</sup>. The Canary Island model of development, in accordance with its Statute of Autonomy, which provides for the promotion of a platform of peace and solidarity, could take advantage of its institutional framework to gain low transaction costs, to persevere in productive specialisation<sup>65</sup> and to adopt policies aimed at full employment. A nearby example could be the Cantabrian defence industry cluster

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61 National average, 92 inhabitants/km<sup>2</sup>. Source: Municipal Register, INE.

62 Although the Canary Islands are, along with Madrid, the Balearic Islands and Murcia, the only four Spanish region that cover the pension payments with their own contributions. Data taken from the *Informe sobre la Estrategia Nacional frente al Reto Demográfico* (National Strategy Report on the Demographic Challenge). Report 1/2019. Canary Islands Economic and Social Council.

63 For example, BROOKS, D.J., BROOKS, S.G., GREENHILL, B.D., and HAAS, M.L. (2018). 'The Demographic Transition Theory of War: Why Young Societies Are Conflict Prone and Old Societies Are the Most Peaceful.' *International Security* 43(3).

64 KAKAZU, H. (2018). "Island Sustainability and Inclusive Development: the Case of Okinawa (Ryukyu) Islands". *Journal of Marine and Island Cultures*. According to the author, the high dependence on fiscal expenditure in Okinawa prevents sustainable indigenous development, a thesis similar to that of Godenau and Padrón Marrero (2017), already mentioned, in the case of the Canary Islands.

65 Recommendations by GODENAU, D., and PADRÓN MARRERO, D. (2017). "La Competitividad Territorial de las Economías insulares en un contexto globalizado. El Caso de Canarias" (The Territorial

(CID). The creation of a new hybrid cluster similar to the Cantabrian one, which would strengthen the archipelago's logistics platform and its technological equipment on the basis of business and university collaboration, as Hawaii and Okinawa have done, could not only provide the Canary Islands' economy with a new driving force to complement tourism, but would also help create a culture of defence, which is very necessary in a strategic archipelago whose statute provides for it to become a platform for peace and solidarity.

## Conclusion

The Canary Islands Region could go from being outermost to strategic if West Africa's growth is consolidated, and it would therefore be essential to have models for integrating civil and defensive clusters in order to optimise their economic and social returns. This article has analysed cases of archipelagos that have faced this problem. Of the three cases described, Hawaii had the highest GDP and lowest unemployment rate in the pre-Covid period, thanks to the significant presence of the armed forces, in what would be a model close to military Keynesianism. Hawaii's development therefore does not appear to be the result of the free market alone, but of a strategic political and military commitment.

Okinawa, on the contrary, generates the lowest GDP of the triad partly because it is in a transitional stage towards civil Keynesianism, with a growing importance of tourism and an increasingly smaller weight of the defensive cluster. However, it has a low unemployment rate thanks to the prioritisation of full employment policies. Therefore, the renunciation of military Keynesianism, which is characteristic of *post-Bellum* Japan, translates into lower economic growth that is offset by an equitable distribution of regional wealth.

Tourism specialisation has certainly created an economy that is vulnerable to crises like that of the post-Covid-19 period, but the strategic consideration of archipelagos requires compensatory public investment; Hawaii, with its military shipyards and university technology cluster; and Okinawa, with a greater injection of resources into its own telecommunications cluster as bases are managed by the US.

The Canary Islands could adopt a Keynesian model, similar to that of Hawaii or Okinawa, but its strategic location will require authorities to make greater counter-cyclical investment, which should be aimed at consolidating a self-sustaining growth model that improves per capita GDP in the long term. In this context, it would be desirable to set up two projects: the creation of a secure connections hub in the Canary Islands which would serve as a platform for the consolidation of a technological cluster, similar to that of Okinawa and Hawaii, supported by existing initiatives for smart

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Competitiveness of Island Economies in a Globalised Context. The case of the Canary Islands). First International Meeting "Intermediate Urban Islands Influence". Santa Cruz de Tenerife.

tourist destinations, EU smart growth and teleworking communities for expatriates; and, within the defence culture programmes, to carry out studies to make visible the economic and social contribution of the Ministry of Defence's activity in the Canary Islands so that all citizens can appreciate its social benefits. This would reinforce the message of the strategic importance of the archipelago and the need for greater involvement of all levels, especially economic and budgetary, which would help to improve the GDP per capita of a region that is key to national defence<sup>66</sup>. Strengthening the Canary Island economy would lead to better protection of our borders.

As a future line of research it would be interesting to analyse how the three archipelagos have dealt with the current tourism crisis caused by the pandemic, as it fully affects their main economic engine, tourism, as well as the effectiveness of the respective recovery plans that the three countries end up adopting to economically protect their strategic enclaves.

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<sup>66</sup> A recent example could be the *El Ejército de Tierra en la Operación Balmis* (The Army in Operation Balmis) exhibition at the Canarian Parliament.

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