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Economic Development in Okinawa under U.S. and Japanese Administrations: A Historical Approach

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Títol en català: Desenvolupament econòmic a Okinawa sota les administracions dels Estats Units i el Japó: Una aproximació històrica.

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Paraules clau: Economia, Okinawa, Japó, Estats Units, Era Showa, Història, Desenvolupament.

Resum del TFG: Aquest estudi es focalitza en els canvis econòmics i polítics a Okinawa des d'una perspectiva històrica i analítica, principalment durant l'era Showa, des de l'inici de la postguerra, tot i que també cobrint la part restant, fins a l'actualitat. Es revisen les transicions administratives de Japó a les forces nord-americanes i el retorn posterior al domini japonès, concloent amb un enfocament en l'actualitat per examinar com aquests processos han influït l'Okinawa moderna. L'estudi se centra en la influència del capitalisme i les polítiques públiques en una regió anteriorment rural amb l'economia basada en el sector primari. També es discuteixen els efectes actuals d'aquestes polítiques sobre el desenvolupament econòmic i les identitats culturals d'Okinawa, il·lustrant com el seu passat ha modelat el seu present. A més, s'analitzen opinions d'experts sobre possibles solucions als problemes econòmics i identitaris actuals de la regió, així com alternatives a accions passades que no van ser exitoses, per tal d'identificar millors resultats potencials en l'actualitat.

Datos del Trabajo de Final de Grado

Título en español: Desarrollo económico en Okinawa bajo las administraciones de Estados Unidos y Japón: Una aproximación histórica

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Palabras clave: Economía, Okinawa, Japón, Estados Unidos, Época de Showa, Historia, Desarrollo.

Resumen del TFG: Este estudio se focaliza en los cambios económicos y políticos a Okinawa desde una perspectiva histórica y analítica, principalmente durante la era Showa, desde el inicio de la posguerra, aunque también cubriendo el periodo restante, hasta la actualidad. Se revisan las transiciones administrativas de Japón a las fuerzas norteamericanas y el retorno posterior al dominio japonés, concluyendo con un enfoque en la actualidad para examinar como estos procesos han influido lo Okinawa moderna. El estudio se centra en la influencia del capitalismo y las políticas públicas en una región anteriormente rural con la economía basada en el sector primario. También se discuten los efectos actuales de estas políticas sobre el desarrollo económico y las identidades culturales de Okinawa, ilustrando como su pasado ha modelado su presente. Además, se analizan opiniones de expertos sobro posibles soluciones a los problemas económicos e identitarios actuales de la región, así como alternativas a acciones pasadas que no fueron exitosas, para identificar mejores resultados potenciales en la actualidad.

Final Degree Essay data

Title in English: Economic development in Okinawa under the administrations of the United States and Japan: A historical approach

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FDE summary: This study focuses on the economic and political changes in Okinawa from a historical and analytical perspective, mainly during the Showa era, although covering further, from the beginning of the post-war period until nowadays. Japan's administrative transitions to U.S. forces and the subsequent return to Japanese rule are reviewed, concluding with a current focus on examining how these processes have influenced modern Okinawa. The study focuses on the influence of capitalism and public policies in a formerly rural region with the economy based on the primary sector. The current effects of these policies on Okinawa's economic development and cultural identities are also discussed, illustrating how its past has shaped its present. In addition, expert opinions on possible solutions to current economic and identity problems in the region are analyzed, as well as alternatives to past actions that were not successful, in order to identify better potential results today.

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1. Introduction

The economic history of Okinawa from 1945 to nowadays presents a singular case within East Asia. It being characterized by its simultaneous influences of Japanese and the U.S. , makes it a very interesting case to develop and analyze. In this final degree essay, I seek to explore the impacts of these powers on Okinawa's economy during and after the U.S. administration period, extending through its reversion to Japanese control in 1972, until nowadays, also offering an analysis of its situation prospects by researching papers on this matter. In my opinion, this transition period in this particular region, can reveal significant aspects of how an external power rule on a specific region can affect its economic development. Moreover, it can display how it can shape its economic dependencies, industry specialization, and integration with national economic policy.

The Okinawa Prefecture of Japan comprises a territory of more than 160 islands. Over 50 of them are inhabited and lie between Japan's main islands and Southeast Asia. It is the farthest prefecture of Japan; besides being at the strategic crossroad of the nations of East Asia, with interconnected interests from different powers that have affected it since its beginning. The most notable of these, certainly, are the U.S. and Japan.

Okinawa has been trapped over history, between, as Yamazaki in 2005 named it, "northern advanced powers" and underdevelopment, which underlines its ambivalent status and the contested relationship of local identity, foreign domination, and socio-political integration. Okinawa developed from the prosperous Ryukyu Kingdom that lasted from years 1429 to 1879 to a Chinese and Japanese tributary state, subsequently incorporated into Japan during the Meiji Era, which officially comprehends the years 1868-1912. Incorporation slowed modernization, intensified economic disparities, and promoted cultural assimilation. Okinawans were discriminated against, leading to self-denial of their own culture. These processes reached their peak in the 1945 Battle of Okinawa, when over 200,000 people died, and U.S. occupation, which lasted until 1972, made even more changes to its composition (Yamazaki, 2005).

With a home to more than 30 US military bases, Okinawa has the 70,60% of Japan's US bases, extended on 15% of the Islands' territory fueling anti-base protests on the mainland since the beginning of the post war (Okinawa Prefectural Government, 2016).

Throughout many years, Okinawans had to navigate a complex landscape of shifting political and military realities. Their cultural identity, which was never fully integrated into the Japanese society, even before the war, was fractured by the islands' status as a U.S. territory.

This period of uncertainty made the growing sense of alienation and resentment bigger, both toward the U.S. military presence and the Japanese government, which had failed to offer clear support or recognition of Okinawa's unique position. Many things influenced the stage for the islands' tumultuous post-war recovery and the ongoing struggle for recognition and autonomy. Mainly, they were the unresolved tensions between Okinawa's complex identity, its role as a military base for the U.S., and its relationship with Japan (Johnston, 2013).

Traditional interpretations of postwar U.S.-Japan relations generally fall into three categories. The first emphasizes the occupation's success, highlighting General MacArthur's leadership in transforming Japan into a peaceful and economically recovered ally. This view, defended by MacArthur's supporters and North American public opinion, paints the U.S. as a benevolent force (Sarantakes, 1996)

The second perspective, emerging in the 1970s and 1980s, critiques this narrative, arguing that occupation policies prioritized U.S. Cold War objectives rather than altruistic goals. Scholars noted Japan's alignment with U.S. efforts often stemmed from shared interests, while the shift to economic recovery in 1947–48, known as the "reverse course," demonstrated pragmatism over democratization. A third interpretation positions Japan as a client state, restricted in foreign policy and serving U.S. strategic interests during the Cold War. This view underscores North American military reliance on Japanese bases, often at odds with Japanese public sentiment. These analyses often omit Okinawa, which, despite its critical role, remains underrepresented in scholarship. Unlike mainland Japan, Okinawa served as a strategic U.S. military colony, supporting operations across the Pacific (Sarantakes, 1996).

As mainland Japan initiated ambitious economic and growth policy initiatives in the post-war period, Okinawa was being administered by the North Americans under direct military-administration status between 1945 and 1972. This political status impacted on the economic landscape in a way that economic activity started revolving around the servicing of North American military needs, breeding a dependency characterizing a service economy, not an even industrial or trade development. The reversion to Japan in 1972 did not whittle down this structure although it started applying measures to change it (Untalan, 2024).

Nevertheless, Okinawa continued to cling to both military and service factions, creating a dual dependency incompatible with any real opportunities for broader economic diversification. The dual dependency has ramifications older than 40 years today and continues to cast its effects on Okinawa's economy (Untalan, 2024).

Moreover, in the social sphere, while some locals consent to the bases due to political

and economic benefits, anti-military movements show that activity persists even when local actors are excluded from negotiations. The U.S. military base network, described as an empire rather than mere defensive outposts, reflects its origins as relics of World War II and the Cold War. This system, shaped by both direct and indirect colonialism, extends North American influence over everything from security to local lifestyles (Untalan, 2024).

The islands have a subtropical climate with coral reefs and tons of biodiversity, one of the reasons why it's been known as an important spot in Japan for tourism, especially in the last two decades. The government has been really pushing this sector to break free from relying on North North American military bases. The islands continue to balance the modernization of their economy with attempts to retain their natural surroundings and cultural heritage (Briguglio, 1994).

Okinawa comes under three major groups of islands: Okinawa Islands, Miyako Islands, and Yaeyama Islands. In a huge north-south trap of nearly 1000 kilometers east-to-west, these islands are stretched along that arc. So, with all these circumstances, the total area of Okinawa amounts to 2,264 km2. Mainly the four largest: Okinawa-Jima, 1,193 km2, Iriomote-Jima, 284 km2, Ishigaki-Jima, 221 km2, and Miyako-jima, 159 km2, which occupy the largest pieces of the region. Okinawa-Jima constitutes the largest with the greatest number of visitors. Here the prefectural authorities have chosen to pin their top priorities on the greatest economic and administrative activity (Briguglio, 1994).

Regarding the reason for choosing this topic, it comes down to it being a mix of many of my interests. For instance, and to begin with, the parallels I have observed between Okinawa with Japan and the US, and other regions I feel closely entitled with as for instance my native region, Catalonia. From my point of view, it could be argued that its relationship with Spain and France resembles, in the way of imperial powers historically taking control of smaller regions, the relationship between Okinawa and Japan or the US.

In both cases, the influence of external powers has deeply impacted the local identity, economy, and societal structures. I have always been intrigued by how these larger forces shape smaller regions, particularly in terms of political control, resource management, and cultural identity. The imposition of foreign languages and the restructuring of local institutions often lead to confusion about national identity and belonging. For example, in Okinawa, the transition between Japanese and U.S. rule, and back to Japan, altered the region's economic landscape and its sense of self, culturally speaking.

Similarly, in Catalonia, the shifting political control between Spain and France in different parts of history influenced the region's identity, with the Catalan language historically

taking, in some moments, a secondary position. Although it must be obviously pointed out that there are many differences between these examples (Ferrer, 1987).

Particularly, in Catalonia, the Catalan language can be seen as a secondary language socially, even though it is a co-official language along with the Spanish language, due to the existence of many more Spanish speakers than Catalan speakers, even though the latter being native to the region for more time than the former. Similarly, in the southern part of France, historically being Catalan until taken over by force by the French people, nowadays is being pushed by politicians and the law to have a null presence in their institutions (Ferrer, 1987).

While the historical contexts of these regions differ, the core theme remains the same: the impact of governance changes on a region's people and economy. This is especially what mostly drew me to explore Okinawa's economic development under both Japanese and U.S. influence, as it allows me to analyze the effects of such power dynamics and better understand the long-term consequences of shifting political and economic control on regional identities, such as the one I was born into.

On the other hand, another interest I would like to call attention to is how my field of study is primarily centered in Japan, as it is the path I chose in my East Asian Studies degree, when I embarked on it. Consequently, it had to be a topic related to this country. Moreover, I visited Okinawa for a whole week when I went to Japan for an exchange of one semester at Kobe University, and I must mention it was the region of the country I stayed in, that caught more my interest. Especially the enormous military bases, still existing there, and the fact that they remain in hand with many North Americans and North American-coded items, although in theory, the administration of this region has been returned to Japanese hands.

Finally, I find interesting that economically, the peripheral regions of Japan are not necessarily that largely studied. Therefore, I felt entitled to write about this topic, specifically about the Okinawa region, to learn about it and make it a visible topic as well. Highlight the economic and social reality of that region in Japan from the perspective of a student from an unrelated country.

1.1. Objectives of the Study

This essay seeks to explore Okinawa's economy from a geopolitical and historical approach: in which ways it has changed over time, under the influence of both Japanese and U.S. administrations. Additionally, it wants to explore how historical events still impact the region's economy today, and how they will impact it in the future. Putting the focus on Okinawa's economic development, since the post war years, all through the later Showa era, and then until the present one, its goal is to understand the unique socio-economic conditions that have shaped

the region.

The objectives of this research work include:

- Understanding Okinawa's economic situation of complete focus in agricultural sector, in the years of the middle of the war, focusing on its role as a Japanese governed region until 1945, the U.S. administration that followed with the post war period, and its reintegration into Japan. This includes examining the initial effects of military presence on the region's economy.
- Analyzing Okinawa's economy under U.S. administration from 1945 to 1972, particularly the growth of service industries that developed to meet the U.S. military demands. Those that led Okinawa to have a heavy reliance on military spending during this period.
- Looking at the economic shift after Okinawa returned to Japanese sovereignty in 1972, considering the policy changes and how they helped integrate the region into Japan's broader economy, while also keeping some aspects of its service-based and tourism focused economy.
- Connecting Okinawa's historical economic structures to its future, offering insights into the long-term impacts of its economic history, and identifying potential strategies for diversifying and stabilizing its economy.

1.2. Theoretical Framework and Methodology

The essay adopts an inclusive analysis includes historical and geopolitical aspects in analyzing the economic context, when showing the formation of Okinawa's economy as under dual influence from Japan and the United States. It is grounded in a substantial quantity of papers related to history and regional development economics, which talk about dependent economic perspectives from 1945 until today.

Key historical perspectives are utilized mainly from the work of G.D. Hook and Richard Siddle in 2014, which focuses on the ways in which colonialism shaped Okinawa's overall structures. Siddle's analysis of the identity of Okinawa under colonial rule provides some insights regarding how equality or cultural suppression impacted it.

Masako Shibata's research in 2021, particularly on education and cultural policies during the U.S. occupation, emphasizes how such strategies reinforced Okinawa's peripheral status within both Japanese and North American systems of governance. This work also highlights the long-term consequences of these policies on Okinawa's socio-economic development.

From the economic point of view, I chose to extract information from Hidefumi Nishiyama and Annamaria Shimabuku's works in 2024 and 2010. Research by Nishiyama was very useful with Okinawa's geopolitical negation. His work explains how economic dependency was allowed to persist in Okinawa because of the policies promoting military interests instead of the local development of the islands. On the other hand, Shimabuku's work makes a distinction about the understanding that the U.S. military presence, along with a dispute over its sovereignty, entrenched the Okinawa economy's dependence, on external economic structures, creating a self-sustaining cycle that persisted for decades.

In general, the methodology applied in this essay is based on a critical review of various materials from historical, geopolitical, and economic spheres. Academic literature from scholars like C. Aldous, H.N. Kim, and M. Takizawa in the consequent years of 2003, 1973, 1971 represents a critical foundation for a comprehensive understanding of the political talks and social movement activities related to Okinawa's reversion. More recently, Koji Nakashima and Tamami Furukawa's work in 2020 illuminates the foundations of the movements of resistance, that organized regional identity with claims of autonomy in the 1970s and 1980s.

Primary sources, including historical records, government documents, and trade data, are used along with analyses from contemporary case studies. This essay includes insights from geopolitical analyses, such as S. Kojima's work in 2008 on Okinawa's memory politics, which contextualizes Okinawa's economic and social trajectory within the relations between the U.S. and Japan. The integration of these perspectives aims to reflect the complexities in the economic history of Okinawa and contribute to the wider discourse on the colonial legacy and regional development in East Asia.

1.3. Structure of the Essay

Each chapter of this essay analyzes Okinawa’s economic development during the Showa Era (1926–1989) and its effects on today’s islands, focusing on the post-war period from 1945 to 1989 and also reflecting on the latter effects of the changes made during this time, which was a critical turning point for Japan and Okinawa, and was marked by significant transformations following World War II. Especially the latter, which became the most affected region of the country, due to U.S. colonization.

Chapter 1: Historical Context. This chapter explores Okinawa’s overall historical narrative, across three key phases: the Japanese rule, the U.S. administration, and the reversion to Japanese sovereignty. It mainly highlights the way in which Okinawa’s unique geopolitical position and historical events established a deep economic dependency on the of U.S. military bases and how this matter affected the region.

Chapter 2: Economic Activity in Okinawa Under the U.S. Administration (1945–1972). Putting the focus on the period of the U.S. governance, this chapter examines how the U.S. military shaped the Okinawa's economy. It regards the growth of service-oriented industries driven by the demands of the military bases and the resulting economic structures that emerged during this time.

Chapter 3: Economic Activity After the Reversion to Japan (1972–1989). This chapter strives to analyze the economic adjustments following Okinawa's return to Japanese administration. It highlights how the region's economy continued to rely on services related to military bases while undergoing reintegration into Japan's national economy, addressing both challenges and shifts in economic priorities, for example the increase of tourism in the economic landscape. Finally, it states the prospects of the region, regarding its projects of growth and possible complications.

Chapter 4: Conclusions. The final chapter synthesizes the findings, reflecting on Okinawa's unique economic trajectory during the Showa Era and afterwards. It also briefly considers potential strategies for economic diversification and sustainable growth considering historical and structural dependencies. Finally, it quickly mentions the newly met challenges of this new year, 2025, and how they seem to be trying to solve them.

With the objective of concluding the work, and perhaps acquire more knowledge about the topic discussed here, a bibliography is at the disposal of the reader with all the references of the papers, books, websites and other sources from which the research was conducted. Additionally, citations at the end of some pages can be also found, in a way to include a wider range of consumers, due to the appearance of possibly more complicated economic topics encompassed in the paper.

Subsequently, let us begin with the historical context of the discussed period.

2. Historical Context

As global tensions rose and Japan expanded its imperial ambitions, Okinawa's unique identity faced increasing pressure. The following section explores how, before 1945, Okinawa transitioned from the Ryukyu Kingdom to a fully absorbed Japanese prefecture, setting the stage for the devastation and foreign occupation that would follow.

2.1. Okinawa under Japanese Administration in pre-war years (until 1945)

The Ryukyu Kingdom was the incipient identity of the region, before being a Japanese territory. Okinawa, the largest of the Ryukyu Islands, blended Japanese influences with its distinct culture. It was the heart of the independent Ryukyu Kingdom, which played a central role in East Asian trade, maintaining ties with China, Korea, Southeast Asia, and Japan while paying tribute to China (Uemura, 2003).

In the early 1600s, the Satsuma Domain, from southern Japan, invaded Ryukyu, reducing it to a simple vassal state. Though the kingdom retained its name and some autonomy, it lost independence and faced growing Japanese military and political control (Uemura, 2003).

Then, with the Meiji Restoration there was an annexation process that took place. Post-1868, Japan's Meiji government sought to centralize power, opposing Ryukyu's tributary ties to China and separate governance. It declared Ryukyu a "subordinate state" in 1872, completely dismantling its diplomatic independence using European-style legal frameworks (Riddle & Hook, 2003), confiscating Ryukyu's treaties with the U.S., France, and the Netherlands. Resistance efforts (for example, secret envoys to China and Western powers).failed to cease Japan's military-driven annexation (Higa, 1963). Later, in March 1879, Japan deployed 160 military police and 400 soldiers to Naha, forcing King Shō Tai to abdicate. The Ryukyu Kingdom was abolished, replaced by Okinawa Prefecture, erasing Okinawan sovereignty (Uemura, 2003).

All this process created a cultural suppression and assimilation, with Japan imposing harsher policies on Okinawa than in mainland Japan, severing Ryukyuan diplomatic rights and branding them "uncivilized" to justify assimilation. Okinawan languages were banned in schools, with punishments for usage (Shimabuku, 2010). Shintoism also replaced Ryukyuan religious practices, suppressing cultural identity and eroding self-perception (Shimabuku, 2010).

The North American involvement didn't take place until in 1853, with Commodore Matthew C. Perry's visit. This initiated U.S. interest in Okinawa as a strategic base for opening

Japan to trade. Interest deepened in the 20th century (Johnston, 2013) when in 1944, General Simon B. Buckner envisioned Okinawa as a military foothold for invading Japan and countering communism in Asia (Sarantakes, 2000), an idea that made the year 1945 the time when the Battle of Okinawa would provoke the death of one-third of Okinawans; many coerced into suicide by Japanese forces or killed by U.S. troops on suspicion of espionage (Sarantakes, 2000). Infrastructure, homes, and cultural heritage were also left in ruins, leaving survivors traumatized and displaced (Nishiyama, 2019).

The Post-WWII U.S. Occupation and Legacy was basically the fact that in 1945 Okinawa fell under U.S. occupation, facing foreign military control and continued suppression of identity (Higa, 1963). Historical trauma from annexation in WWII fueled enduring resistance, protests, and negotiations for Okinawa's return to Japan in the posterior years (Riddle & Hook, 2003). Okinawa wasn't the only Japanese territory that would remain under US control until the late 60s. Ogasawara archipelago, a not that well known island group 1000km away from Tokio, was also left after the war under North North American control until in June 1968 was returned to Japanese administration. This land had been taken in similar circumstances to Okinawan, during the unifying Japanese Meiji period, specifically in 1876 (Sakamoto, 2022)

In summary, pre-war Okinawa under Japanese administration (until 1945) was influenced by its Ryukyu Kingdom origins, the Satsuma invasion in 1609 (Uemura, 2003), and the Meiji annexation between the years 1872 and 1879 (Riddle & Hook, 2003). In 1879, Japan forcibly abolished the Ryukyu Kingdom, creating Okinawa Prefecture and implementing harsh cultural suppression policies, such as banning Ryukyuan languages in schools and promoting Shintoism (Uemura, 2003). Early U.S. contact began with Commodore Perry's visit in 1853, which eventually led to Okinawa's strategic military importance for operations during and after World War II (Johnston, 2013). The Battle of Okinawa (1945) resulted in one-third of the population dying, widespread destruction, trauma, and displacement (Sarantakes, 2000). Following the devastation of World War II and the complex political and social dynamics of the U.S. occupation, Okinawa entered a critical phase of its modern history. The next section delves into the period under U.S. administration from 1945 to 1972, focusing on the lasting consequences of militarization, land dispossession, and the deepening tensions between local autonomy and North American strategic interests. We will explore the immediate post-war struggles, the strategic importance of Okinawa during the Cold War, and the long road to its eventual reversion to Japan.

2.2. Okinawa under U.S. Administration (1945-1972)

If we look first at the post-war struggles and occupation all through the 1945 and 1950s, we can see the immediate aftermath of the Battle of Okinawa, with it being widespread destruction and food shortages assorted with reports of sexual violence by U.S. soldiers, and consequent victims with lacking legal redress (Shimabuku, 2010). Japanese media began covering this type of incidents which involved North American soldiers, once censorship was lifted, as Japanese jurisdiction technically allowed prosecution of U.S. personnel after 1953 but rarely enforced it (Takazato, 2000). Furthermore, another factor of the aftermath of the catastrophic event, was the U.S. military control and the creation of internment camps.

Survivors were forced into overcrowded internment camps (Johnston, 2013) as overcapacity led to refugees being abandoned in locations like Koza naval hospital (Fisch, 1987), and daily rations were provided by the military for 295,000 Okinawans, but shortages persisted (Augustine, 2008) and malaria outbreaks with consequent civilian deaths were taking place due to these unplanned relocations (Yamashiro, 2011; Fisch, 1987).

There was also an impact on public health and the environment because of the U.S. administration lack of apparent knowledge of applying policies for Okinawan's specific situation and characteristics. They established public health departments for pest control, pandemic prevention, and sanitation, but regardless, water shortages were being exacerbated by war and typhoon damage, and public health was being used as political control, reinforcing Okinawan inferiority complex (Yamashiro, 2011). Furthermore, malaria victims appeared in Yaeyama, due to delayed preventive measures and (Fisch, 1987) military's presence led to more water pollution and land-use conflicts (Sarantakes, 2000). Moreover, the use of DDT[1] for pest control raised environmental concerns (Yamashiro, 2011). The military governance contrasted also with the Okinawan's needs through the 1945 and 1950s and evacuations and resettlements were seen as 250,000 Okinawans were forced to emigrate multiple times between April-August 1945, (Fisch, 1987) and these relocations further concentrated civilians into 10% of Okinawa's land, much of it unsuitable for them. The ORE[2], headed by Charles G. Day, supervised these relocations.

[1] "DDT (dichlorodiphenyltrichloroethane), classified as a pesticide by the U.S. Department of Health and Human Services, was historically used to control insects in agricultural crops and combat vector-borne diseases such as malaria and typhus." To know more, check the following document: Agency for Toxic Substances and Disease Registry (2002, September). Toxicological profile for DDT (Dichlorodiphenyltrichloroethane). U.S. Department of Health and Human Services. https://www.atsdr.cdc.gov/es/phs/es_phs35.pdf

[2] In 1945, the Tenth Army created the *Office of Resettlement Engineering* (ORE), led by civilian Charles G. Day. In late May, ORE managed a significant relocation, dispersing all inhabitants of Ie Shima to other islands, which generated considerable resentment toward the North American occupiers (Fisch, 1987).

As for Okinawa's political situation, it remained debated upon. For instance, MacArthur's Peace Treaty proposal in 1947, suggested to end the occupation and dismantle Japan's military hierarchy, as he believed Japan's democratization was nearly complete and a treaty would help its economic recovery and trade development. George F. Kennan, a Soviet expert in the State Department, opposed a quick treaty, emphasizing Cold War security concerns over Japan's independence through most of this period. Nevertheless, the US aimed to neutralize Japan as a military threat and integrate it into the free world (Sakamoto, 2022).

The U.S. had many strategic interests and created political agreements to sustain them. The Yoshida Doctrine in 1948, for instance, allowed indefinite U.S. military presence in Japan in exchange for security guarantees (Bean, 2015). There were internal U.S. debates on Okinawa's future, which were discussing weather to apply an annexation or a trusteeship in the archipelago (Weiss, 1946).

In Okinawa the US military presence between 1948 and 1949 was being discussed. Kennan wrote a report on March 25, 1948, calling for studying the impact of a permanent US military presence in Okinawa, before deciding. Nonetheless, before the cold war, MacArthur's stance, was that they had to develop Okinawa as a security hub, instead of keeping US forces throughout all Japan (Sakamoto, 2022). Walton Butterworth's 1949 letter emphasized the need for clear U.S. policies on Okinawa, (Butterworth, 1949) and in 1949, MacArthur referred to Japan, with a defining of the country's usage goal by the US, as the "Switzerland of the Pacific" while also emphasizing the importance of US airbases presence there. MacArthur's stance on the soviet threat changed the objective of Okinawa, as he presumed it would remain a menace, even after the signing of the peace treaty, and therefore, he justified the advocacy for a permanent US military presence across all of Japan, not just Okinawa, to defend it. He justified this stance by reinterpreting the Potsdam Declaration, arguing that modern conflict required distributed defense. John Foster Dulles, special representative of the President, with the rank of ambassador, was instructed by Truman to secure US base rights in Japan, prioritizing this task, over assuming responsibility for Japan's defense. Dulles believed the US should wait to formally assume Japan's defense until Japan showed initiative in self-defense (Sakamoto, 2022).

Regarding the Peace Treaty, Japanese negotiators argued against it, saying the constitution limited military cooperation with the US due to Article 9, while affirming that Japan could contribute to US security through mostly production and labor. Furthermore, they said hosting US military bases was already a significant contribution. Some believed defending

Okinawa constituted collective self-defense, despite Japan's constitutional limits (Sakamoto, 2022).

The democratization efforts of the U.S. occupation are also worth noticing, as there was an introduction of free elections and political parties under U.S. control (Records of US Occupation Headquarters, 1995), while restrictions on displaying the Japanese flag were also implemented and regardless of this fact, Japanese remained the dominant language in schools and daily life (Aldous, 2003). Democratic reforms were mostly limited to prevent anti-U.S. sentiment (Records of US Occupation Headquarters, 1995).

The Cold War period was one full of militarization, especially between the 1950s and 1960s, and the main cause was Okinawa's location as it made it a crucial outlet for containing communism (Sarantakes, 2000). Along with the rise of U.S. bases, a lot of resistance was consequently met, and the USCAR[3] was established in 1950 to maintain control over it (Aldous, 2003). Furthermore, the Treaty of Peace in 1951 granted U.S. control over Okinawa, while Japan retained some residual sovereignty, (Onishi, 2012) leaving Okinawans feeling stateless, and lacking full U.S. or Japanese citizenship (Fisch, 1987)

Concerning the Okinawan indigenous people and its land, post-WWII, specifically in 1951, the US Civil Administration ordered the eviction of the Sobe community [4] for base construction, leading to loss of livelihoods and displacement. Farmers were later permitted to lease unused military land for agriculture. Ongoing US military occupation (Futemma Air Station, Torii Station) normalized colonial capitalism, disrupting Indigenous land use and ecosystems (Chibana, 2020).

In 1955, securing land rights for U.S. military bases in Okinawa became a critical issue, prompting the U.S. House of Representatives to dispatch a special subcommittee to investigate solutions. Led by Representative Charles Price, the subcommittee visited Okinawa in October 1955 and produced the "Price Report." Its key recommendations were firstly permanent land acquisition. Securing permanent title to existing U.S. base properties through a one-time lump-sum payment, ending temporary leases. Furthermore, a controlled expansion was needed, to allow the acquisition of additional land if deemed necessary but strictly limit such takings to an "absolute minimum." Okinawan reaction was that intense opposition and anxiety, who viewed

[3] Commonly referred to as Beimin Seifu, its official name is Ryukyu Rettou Beikokumin Seifu: *United States Civil Administration of the Ryukyu Islands* (Aldous, 2003)

[4] *Sobe, a district in Yomitan-son*, faced changes after WWII when it was reallocated for military base construction despite protests. The community negotiated terms allowing farming in unused military areas, which remains crucial for their survival. Most farmers are elderly or part-time, with some being second-generation inheritors of land. They tend crops at Torii Station with special permits (Chibana, 2020)

permanent U.S. control and potential land expansion as threats to their sovereignty and property rights (Sakamoto, 2022).

The land seizures and economic displacement were being presented as a big issue, as 290 square kilometers were taken for U.S. military use (Briguglio, 1994) and Okinawa was boring a 75% of U.S. base burden in Japan (Yamazaki, 2005). Furthermore, the U.S. encouraged Okinawan immigration to Bolivia to alleviate land disputes (Shinichi & Chinen, 2007).

The reversion movement and final return to Japan between the 1960s and 1972 was met with protests and growing resistance, as in 1956 "Shimagurumi toso" (island-wide struggle) was drawing 450,000 participants (Shinichi & Chinen, 2007) and U.S. faced increasing pressure to address land rights and reversion demands. Mainland Japan also protested U.S. military presence, as seen with the Sunagawa Struggle, the next year, in 1957 (Bean, 2015).

In a 1957 foreign affairs document, it is regarded how US bases were supposed to be used only for Japan's defense, covering attacks on Japan, including Okinawa and Ogasawara. It adopted a "joint-defense" approach, Japan defended itself and US forces but lacked a bilateral "mutual-defense" pact (Sakamoto, 2022).

Okinawa's strategic role was so important that the US wanted indefinite control over it, although finally Japan pushed for reversion and acquired it, although not without resulting conflicts (Sarantakes, 1996). Sulzberger's 1958 analysis, highlighted contradictions in the 1951 treaty, as Japan had "residual sovereignty" over Okinawa, but the US apparently controlled it indefinitely (Sakamoto, 2022). Okinawan political protests with local opposition grew over land use, influencing reversion talks from then on (Armentrout, 1992).

The proposed solutions were mainly to negotiate new security arrangements, as US kept bases but relinquished political control over Okinawa and Bonin Islands (Sakamoto, 2022). The US policy adjustments, in turn, seemed to be increased rental payments, instead of outright land purchases (Armentrout, 1992).

Dulles' strategy is also interesting, as he proposed returning most of Okinawa while consolidating bases into fewer sites with perpetual property rights but faced logistical and nuclear deployment challenges. In the 1958 treaty revision talks, Okinawa's partial return was seen as too risky, while nuclear weapons presence on US part inside Okinawa complicated negotiations. The focus shifted to revising the security treaty and MacArthur submitted a draft in February. The key 1958 diplomatic exchanges, were the June 1958 state department telegram that linked Okinawa's return to security treaty revisions and April 1958 MacArthur's message

called US-Japan alignment "one-sided," pushing for revisions to remove treaty "stigmas" (Sakamoto, 2022).

The outcome was that 1960 treaty revision advanced, while Okinawa's full reversion was delayed until 1972, but US bases remained, shaping Okinawan politics and identity (Armentrout, 1992). Kishi Government's Expectation was that it wanted Okinawa and Ogasawara included in the revised treaty to reaffirm sovereignty, leading to opposition and LDP division (Sakamoto, 2022).

US-Japan treaty area debate context was complex. MacArthur pushed for a narrower treaty area, while US opposed including Okinawa or Ogasawara to maintain control. The final 1959 decision was that the treaty applied only to territories under Japanese administration, while Japan reaffirmed concern for Okinawa and US pledged to consult and defend them if attacked (Sakamoto, 2022).

The 1960 treaty revision addressed dissatisfaction with the 1951 treaty, emphasizing its presentation with the objective of the population to be keen on it. One of the main characteristics was that Japan would host the US bases, as the US ensured Japan's security and while Japan's constitutional limits prevented a reciprocal defense pact. Therefore, there was an asymmetrical alliance, as the US defended Japan and Japan defended only its own territory. Unlike NATO or the Philippine-US pact, Japan's treaty was more about hosting US bases than ensuring Japanese defensive rights (Sakamoto, 2022).

US agreed to consult Japan on military deployments but excluded Okinawa or Ogasawara from it; Japan sought equality while the US prioritized military flexibility. Furthermore, as for US exceptions, they would have free use of Okinawa bases, and there would be no consultation for nuclear-armed naval port calls, and therefore, Japan allowed US force deployment under the UN flag in a Korean Peninsula emergency. Their main flaws were US reluctance to commit and Japan's inability to respond effectively (Sakamoto, 2022).

Protests in Okinawa during the 1970s and 1980s include many, and one of the most important ones, would be The Koza Riot occurring from December 19 to 20 in 1970, before Okinawa's reversion to Japan, which set a precedent for future resistance movements, caused by frustration over repeated accidents and crimes committed by U.S. military personnel (Hook & Siddle, 2003). It primarily involved opposition to the Nixon-Sato agreement, and it was initiated by burning an North American-owned car and two U.S. military police vehicles in Koza. Protesters split into two groups, one attacked the gates of Kadena Air Force Base, throwing rocks and bottles, clashing with police, and burning a school before being repelled by U.S. forces and the other burned more North American cars and attempted to breach a military

housing complex, facing tear gas from Okinawan and North American police. The next day, it was front-page news in the U.S., and it reflected opposition not to reversion itself, but to the terms of the agreement (Sarantakes, 1996). It highlighted Okinawans' resentment and set the stage for future protests (Hook & Siddle, 2003).

Furthermore, the Kin Bay and Kisenbaru struggles reflected Okinawa's complex socio-political landscape following its reversion to Japan in 1972. These movements questioned national policies on economic development and military defense, underscoring tensions between local livelihoods and state power. The actions of the Japanese government often contradicted its stated objectives, as evidenced by the prioritization of national oil reserves and U.S. military interests over the well-being of Okinawan communities. Local community identity was pivotal, with the Kin Bay Struggle emphasizing the perspectives of "local people" and broadening the definition of community. Repression influenced movement strategies, leading to the Kisenbaru Struggle's transformation into guerrilla action due to increased arrests and restrictions. These struggles provide valuable insights into contemporary environmental activism by illustrating grassroots networks that resist military and economic development while advocating for popular security (Uehara, 2025).

The Association for Saving Kin Bay (ASK) in 1973, also known as the Kin Bay Anti-Central Terminal Station Movement, was led by local environmental and community groups. It organized hunger strikes, demonstrations, and legal actions and protested the environmental damage caused by the construction of a CTS for oil storage tanks and refineries in Kin Bay. It failed to prevent the construction but raised awareness of economic and environmental damage from U.S. military-linked projects (Koji & Tamami, 2020).

Japan and the U.S. signed the Okinawa Reversion Agreement in 1971, after having reached its terms and impacts (Nishiyama, 2019) and although Okinawa officially returned to Japan in 1972, U.S. military control remained strong, as over 70% of U.S. military bases in Japan remained in Okinawa (Nishiyama, 2019) and U.S. Army's OCE [5] , transferred responsibilities, downsized operations, and shifted control to the Japan Engineer District. The Real Estate Division transferred 148,000 land tracts with 38,000 owners to Japanese authorities (Armentrout, 1992).

[5] *The U.S. Army's Office of the Chief of Engineers* (OCE).has played a significant role in military construction and land management, particularly in the context of Okinawa. The OCE was responsible for overseeing North American military construction projects and managing land issues during the U.S. occupation of Okinawa, which lasted from 1945 until the reversion of the islands to Japan in 1972 (Armentrout, 1992)

The reactions to this reversion were multiple, and many Okinawans saw the U.S. military as a "necessary evil" against Communist expansion but hoped for stability under Japanese rule (Weiss, 1946). Strong opposition came from Japanese and Okinawan activists concerned about continued U.S. military control and weapons storage and in addition, further came from the U.S. The VFW[6] believed that, since the U.S. won the war, Okinawa should remain under U.S. control. North American businessmen who feared economic instability and loss of tax-exempt privileges after reversion and the North American Chamber of Commerce which pushed to ensure protections for North American business interests in Okinawa post-reversion (Sarantakes, 1996).

Opposition in the U.S. Congress and Senate came from the concerns of how transferring Okinawa required Senate approval under the 1951 Treaty of Peace with Japan. Congressional pressure was important, as the Nixon administration initially resisted Senate involvement but ultimately submitted the agreement as a treaty due to political pressure. Secretary of State William Rogers played a key role in shifting the administration's stance and despite these disputes, the treaty passed, marking a significant political battle in U.S.-Japan relations (Sarantakes, 1996).

The post-reversion developments were focused on military presence and the secret nuclear agreement. In 1972, Okinawa officially returned to Japan although the U.S. retained military control over much of Okinawa's land and a secret nuclear agreement ensured that Okinawa's role as a military hub remained unchanged (Kovner, 2016).

The U.S. made some base adjustments after the Vietnam War. U.S. military base expansion slowed after withdrawal from Southeast Asia, which mainly included (U.S. Department of State, 2001) the return of portions of base land to private owners or the Japanese government, especially in urban areas like Naha (Armentrout, 1992). For instance, part of Naha Air Base was converted into a civilian airport, while bases in remote areas were expanded (Armentrout, 1992)

Its environmental impact and legacy were that Okinawa's environmental struggles were linked to global military-political issues (Yamashiro, 2011). Furthermore, pollution from Kadena Air Base during the Vietnam War contaminated local rivers, which uncleanness remained for some time, and highlighted broader issues of military-induced environmental damage and ethical concerns in Okinawa (Yamashiro, 2011).

[6] *U.S Veterans of Foreign War*. For more information, their official website: www.vfw.org

There were four economic compensation programs implemented through the 1970s which aimed at addressing land-related grievances and constituted of restoration claims with landowners being compensated for property returned before reversion, damage payments which instituted the compensation for land rendered unusable due to U.S. construction, fisheries claims with financial compensation for losses due to U.S. construction projects and trust fund payments which established a $159,000 fund for landowners who couldn't be located, though only 25% was distributed before being transferred to the U.S. Treasury. Its economic impact was helping inject funds into Okinawa's economy but at the same time, facing delays and incomplete payments (Armentrout, 1992).

Okinawa's reversion to Japan in 1972 was bittersweet and left a complex legacy, as it was positioned no longer under U.S. rule, but still heavily influenced by its prior presence. Furthermore, many Okinawans felt that Japan compromised too much in negotiations while years of hardship, displacement, and U.S. military dominance left resentment toward both the U.S. and Japan (Kovner, 2016).

Concluding this section, we can affirm that during U.S. administration (1945–1972), Okinawa experienced systemic neglect and militarization, with North American strategic interests taking precedence over local welfare (Yamashiro, 2011). The post-war period saw devastation that led to food shortages (Shimabuku, 2010), disease (Fisch, 1987), and incidents of sexual violence by U.S. soldiers, while civilians were confined to inadequate internment camps (Shimabuku, 2010). Direct U.S. governance overlooked Okinawan needs, exacerbating public health crises such as malaria (Fisch, 1987) and DDT pollution (Yamashiro, 2011), and facilitated land seizures totaling 290 km² for military bases (Briguglio, 1994). This situation incited protests like the 1956 "island-wide struggle" (Shinichi & Chinen, 2007) and the 1970 Koza Riot (Hook & Siddle, 2003).

Despite subsequent Cold War-era treaty revisions and Okinawa's reversion to Japan in 1972, the U.S. retained 70% of its bases on the island, continuing environmental damage and secret nuclear agreements (Nishiyama, 2019). And although economic compensation programs provided some economic benefits, they entrenched dependence on U.S. bases and did not address the fundamental issues of displacement, sovereignty, and ongoing militarization (Armentrout, 1992).

Building on these harsh realities faced by Okinawans during U.S. administration (displacement, militarization, and political marginalization), the next section examines the period following reversion to Japan in 1972. It explores how Okinawa's complex post-reversion identity evolved amid persistent military presence, economic compensation efforts, and

grassroots resistance. This chapter will evaluate whether the transition restored sovereignty or merely altered the form of external control.

2.3. Return to Japanese Sovereignty (1972-1989)

The reversion of Okinawa to Japan, in 1972, had many consequences with a context as much intricate, as Okinawa returned to Japanese administrative control after nearly 30 years under U.S. military rule. Although the reversion did not resolve many of the island's social and economic issues and the protests prior to reversion were the ones that influenced the decision to return Okinawa. There were some post-reversion challenges such as struggle to integrate within Japan while facing economic dependence on the U.S. military presence or social inequalities and cultural identity concerns persisted (Nishiyama, 2019).

The land control and discontent over U.S. military presence was the main character of the period, as land confiscation and restrictions were the norm. Large portions of Okinawan land were allocated for military use during U.S. occupation and even after reversion, the U.S. retained control of much of this land. Residents felt unable to shape their future due to land loss (Aldous, 2003).

Other social and environmental issues included problems with noise pollution, accidents, and crimes by U.S. servicemen which caused frustration, and this led to mass protests demanding land reclamation and reduced U.S. military presence (Aldous, 2003). For instance, the Ryukyu Arc Movements, taking place between the 1970s and the 1980s, were a grassroots type of movement, featuring activist groups in Okinawa, Amami, and Yaeyama which were focused on environmental issues and self-determination. The ASACS[7] linked environmental concerns to anti-military activism (Mendel, 1975).

Some cultural and political struggles were included in this era, although events like the 1975 International Ocean Exposition that boosted tourism, and direct flights from Tokyo to Okinawa further stimulated growth (Konagaya, 2020). The expo, a part of boosting tourism, it also wanted to showcase Okinawan culture, but it was also regarded by activists as a distraction from economic struggles and military domination (Mendel, 1975). In addition, efforts to preserve Ryukyuan traditions clashed with Japan's economic integration policies (Nishiyama, 2022b).

[7] *Army Substance Abuse Counseling Service* was established in 1972 in Okinawa, following increased focus on drug and alcohol abuse during the Vietnam War era. It provides confidential counseling, prevention programs, and support for substance abuse, behavioral health, and family issues to U.S. military personnel, dependents, and Department of Defense (DoD).civilians stationed in Okinawa, Japan (Mendel, 1975)

An interesting topic from this period is also the appearance of land rights, military resistance and the SOFA[8]. In the 1980s, an increased activism against U.S. bases and for land reclamation took place. SOFA was allowing the U.S. military to access Okinawan land despite local opposition, and furthermore, protests were often met with resistance from the Japanese government, which prioritized U.S. security ties. The reduction in military presence, therefore, had to take place to change the situation, and thanks to the opposition of locals, the U.S. bases in Okinawa decreased from 87% to 33%, although it's true that military land area was reduced by only 35% (Nishiyama, 2022a).

Another problem linked to criminal and environmental issues related to U.S. Bases, was taking space at the same time, as between 1972 and 1995, U.S. servicemen committed over 4,700 crimes, including 12 murders, and aircraft noise disrupted daily life, consequently provoking in 1982, 906 noise complaints were filed against Kadena Air Base. Environmental damages also were regarded, and they included water contamination, hazardous waste spills, and jet fuel runoff (Bean, 2015). There was a continued political frustration as Okinawans demanded land return, fewer military bases, and cultural recognition (Nishiyama, 2019) and the Japanese government often ignored these requests, reinforcing a sense of neglect (Bean, 2015).

The protests against U.S. military presence continued, therefore, as in 1987, 24,000 Okinawans formed a human chain around Kadena Air Base demanding its closure (Feifer, 2000). Resentment grew as military bases remained despite hopes for reduction post-reversion.

Some feminist peace movements in the 1980s were also observed, and women's activism against militarization appeared, as they highlighted the social and environmental harms caused by U.S. bases, and with protests focused on sexual violence cases involving U.S. servicemen, they called for demilitarization and greater autonomy for Okinawa. The movement gained international attention (Ginoza, 2015). Southern Okinawa (for example, Tamagusuku) further saw suburban development and migration from mainland Japan, creating tensions over land use and Indigenous agency (Chibana, 2020).

Apart from the bases, other problems started to take place along with all the changes occurring at the time. For instance, Okinawa's marginalization mainly due to its geographical landscape and separation from mainland Japan, and the U.S.-Japan relations. There was also an increasing Cold War influence on U.S.-Japan relations that translated into Japan and the U.S.

[8] *The Status of Forces Agreement* (SOFA).governing U.S. military personnel in Okinawa is part of the broader U.S.-Japan Status of Forces Agreement established under the Treaty of Mutual Cooperation and Security between the United States and Japan (1960). Okinawa, which hosts approximately 70% of U.S. military facilities in Japan, operates under this framework but has unique historical and political dynamics (Nishiyama, 2022)

maintained ties based on a shared opposition to communism. The return of Okinawa, reminded North American policymakers of Japan's postwar transformation, and despite integration, Okinawa and Japan remained distinct in their relations with the U.S. due to its recent separated paths (Sarantakes, 2000).

To conclude, following Okinawa's 1972 reversion to Japan through the end of the Showa era in 1989, the Japanese government invested heavily to better the region's condition, though the enduring U.S. military presence, marked by land occupation, pollution, accidents, and crime, fueled ongoing disputes (Mendel, 1975). While grassroots activism and anti-base protests achieved modest reductions in military land use and environmental restrictions, most bases remained, perpetuating tensions (Nishiyama, 2019). Cultural clashes emerged as efforts to preserve Ryukyuan identity conflicted with assimilation policies (Nishiyama, 2022b), while initiatives like the 1975 Expo promoted tourism yet drew criticism for overshadowing core issues (Mendel, 1975). Women's and peace movements gained momentum, addressing sexual violence, environmental harm, and calls for demilitarization (Ginoza, 2015), at the same time as Okinawa faced persistent marginalization due to geographic isolation, policy neglect, and Cold War geopolitics that prioritized Japan-U.S. security alliances over local demands for autonomy and equity (Bean, 2015). The post-1989 period marks a crucial phase in Okinawa's ongoing political and social transformation. This era is shaped by revelations of secret Japan-U.S. agreements, persistent base-related controversies, and deepening local resistance. The following section explores these developments, emphasizing how they continue to impact Okinawa's identity, environment, and strategic role.

2.4. Recent Historically Relevant Events (1989 onwards)

Sakamoto's updated discussion incorporates discoveries from Japan's Foreign Ministry investigation into four secret Japan-US agreements. Two agreements stemmed from the security treaty revision, two from Okinawa's return to Japan. For instance, Edwin O. Reischauer, US Ambassador between 1961 and 1966, acknowledged an oral agreement on nuclear weapons in 1981. Previously, LDP[9] governments consistently denied the agreements' existence while official acknowledgment came in 2009 when the Hatoyama-led coalition took power (Sakamoto, 2022).

[9] *Liberal Democratic Party:* Founded in 1955, through the merger of Japan's two main conservative parties, its ideology is center-right, blending conservatism, nationalism, and free-market economics with pragmatic state intervention. It ruled almost continuously, until the with brief opposition periods (1993–1994, 2009–2012). Since 2005, there have been significant shifts in urban-rural support bases for leading parties, and Japan has transitioned from a locally based, individual candidacies system to a two-party system where both party popularity and personal characteristics play a role in electoral outcomes (Reed, S. & Scheiner, E. & Thies, M., 2012).

Foreign ministry investigation between 2009 and 2010, was initiated by an inquiry by Foreign Minister Okada Katsuya. A third-party panel of six university professors, including the author, reviewed the agreements, and a report was published on March 9, 2010, only in Japanese. Its Findings were US global strategy and Japan, US nuclear-armed naval vessels in Japanese ports, military emergencies on the Korean Peninsula and prior consultation, and regarding the Ryukyus: Okinawa's return and nuclear weapons in emergencies and Okinawa's return and funding for post-occupation restoration. They also found ambiguity in the agreements. Initially attributed to negotiation difficulties but later seen as deliberate. They addressed political, diplomatic, and military contradictions and crafted to ensure long-term security treaty functionality, still in effect after more than 60 years later (Sakamoto, 2022).

Conversely, the Okinawan base controversy continues present during this period as well until nowadays. The political views on the bases are different and can be classified into the conservatives which see the bases as part of the bilateral security treaty and the reformists who consider the bases an illicit occupation. The local opposition and its consequent protests can be mainly translated into complaints which express discontent against land confiscation, environmental damage, and insecurity. High-profile incidents, such as the 1995 rape of an Okinawan girl by U.S. servicemen, also fueled resentment and this resentment has led to protests which were directed to promises of base closures. For instance, we have the Futenma air base issue, which has a closure agreement that has experienced a lot of delays (Bean, 2015). The U.S. expressed willingness to relocate Marines, but Tokyo resisted moving them to the mainland, and therefore despite these incidents, U.S. presence remained strategically vital (Bean, 2015). The 1996 US-Japan Joint Declaration, which expanded Okinawa's role in Asia-Pacific security, reinforced its strategic importance but it intensified local opposition to base concentration, as it planned to close the Futenma base and move it to Henoko, but the construction there was further halted due to local opposition and environmental concerns (Konagaya, 2020). This continued opposition can be seen as well in 2009, when plans to relocate to Henoko Bay also met resistance, particularly from environmental activists. The base nowadays still in Futenma, remains operational, with no expected closure before 2029 (Bean, 2015). The Henoko base challenges are mainly problems with the new facility, as it consists of a weak foundation, uncertain costs, and doubts about defense capability and raised concerns about project feasibility. Okinawan resistance is also present, as Okinawa continues to bear a disproportionate share of U.S. military facilities, and public frustration over the issue remains

strong (Miyagi, 2025). Furthermore, in 2016, PFAS[10] (toxic chemical) contamination from Futemma Air Base was discovered, when it polluted groundwater in Oyama, damaging agriculture and prompting health concerns (Chibana, 2020). This issue facilitated broader implications for the U.S.-Japan alliance as the challenge between security and local discontent grows strongly. Many Okinawans feel unfairly burdened, and protesters use incidents involving U.S. forces to highlight grievances (Bean, 2015).

Surprisingly, despite its lack of PFAS-related industries, Okinawa suffers significant contamination. Not so surprising is the fact that this issue is primarily linked by experts and research, to U.S. bases, such as Kadena Air Base and MCAS Futenma. The main water source, Chatan Water Treatment Plant, has shown high PFAS levels due to proximity to these installations, with contamination also found in rivers, springs, soil, and fish. Blood tests of residents revealed PFAS levels far above national averages, indicating long-term exposure since at least the 1980s. The U.S. military, under the Japan-U.S. Status of Forces Agreement, retains control over environmental regulation on its bases and resists local inspections and accountability. Although Japan has implemented basic PFAS drinking water guidelines, they are non-enforceable and limited in scope. Okinawan officials have repeatedly demanded SOFA revisions and stricter environmental controls, but both U.S. and Japanese governments have largely resisted substantial change. Investigations using the U.S. FOIA [11] have exposed numerous unreported military-related contaminations, reinforcing concerns about transparency and environmental neglect (Mitchell, 2020).

Protests post-1995 and 2009 Futemma base controversy spurred cultural projects (for example, Edo nobori reenactments) to reaffirm Okinawan identity and leverage heritage for political advocacy (Konagaya, 2020). There are also Indigenous economic initiatives, as for instance the 2015 Okinawa Wheat Production Co-op, which was formed to revive local wheat farming and reduce dependency on imports or the grassroots efforts (for example, Village of Youthful Exuberance, Phoenix Group) which emerged to counter militarized economies, promoting agroecology and community-based revitalization. Some demographic shifts as the aging populations (for example, Kayō community with 66 residents, mostly elderly) and youth outmigration weakened traditional agrarian economies, furthering reliance on external systems.

[10] *PFAS* stands for per- and polyfluoroalkyl substances, which are a group of synthetic chemicals used in various products due to their resistance to water, grease, and heat. They are known as "forever chemicals" because they remain in the environment and do not degrade quickly (Mitchell, 2020)

[11] *The US Freedom of Information Act*, established in 1967, grants the public the right to request access to records from any federal agency. Federal agencies must disclose information requested under the FOIA unless it falls under one of nine exemptions, which protect interests such as personal privacy, national security, and law enforcement. Learn more in their official website: https://www.foia.gov/

Farmers and activists reclaimed Indigenous practices (for example, rice field restoration in Kayō, organic taro farming in Oyama) to resist militarization and capitalist exploitation (Chibana, 2020).

Some lingering WWII ordnance hazards are also present, as unexploded WWII bombs remain a danger. For instance, in 2009, a construction worker was seriously injured by one, and such incidents highlight ongoing risks to Okinawa's safety and development (Yamashiro, 2011).

Japan's defense strategy is different and has increased under the Kishida government, primarily through national debt. Resistance to large deployments due to concerns over tax hikes and voter backlash has also taken place. Declining birthrates also affect the self-defense forces recruitment, necessitating careful defense budgeting (Miyagi, 2025). Moreover, there is a conflict between strategic importance and local resistance. The military justification generates a debate as some argue the bases are politically rather than militarily necessary. Supporters, on the other hand, emphasize regional deterrence, particularly regarding Taiwan. Critics point to crime, environmental damage, and strained local relations (Bean, 2015).

There exist relocation efforts and future plans with Okinawa's burden reduction. In December 2024, Japan announced the relocation of some U.S. Marine Corps units to Guam. The government continues efforts to move Futenma Air Station to Henoko despite opposition. Financial and logistical challenges also exist, as Japan will pay $2.8 billion of the $8.6 billion relocation cost and security concerns from China and North Korea drive modernization efforts. Legal disputes are nearly settled, but the construction struggles stay on soft ground. Nevertheless, the government remains committed to completing the project (The Yomiuri Shimbun, 2024).

To sum up this part, since 1989, Okinawa has worked to diversify its economy towards sustainable tourism, technology and science, while tensions over U.S. military bases persist. These tensions were heightened by revelations of secret U.S.-Japan nuclear agreements (Sakamoto, 2022) and incidents like the 1995 rape case (Bean, 2015), leading to demands for base closures and the contested relocation of Futenma to Henoko, which faces environmental and logistical challenges (The Yomiuri Shimbun, 2024).

Ongoing issues include PFAS contamination from bases like Kadena and Futenma, with the U.S.-Japan Status of Forces Agreements (SOFA) limiting environmental accountability (Mitchell, 2020). Grassroots resistance also remains active through cultural initiatives and traditional farming seen as acts of defiance (Chibana, 2020). Demographic challenges, such as an aging population and youth outmigration, and straining rural economies. However, these are

countered by Indigenous-led community rebuilding efforts (Chibana, 2020). Alternatively, Japan's increasing military budget is facing public opposition on expense and recruitment (Miyagi, 2025), amid controversies surrounding the Okinawan strategic role, U.S. Marines relocations to Guam, and the Henoko planned construction (The Yomiuri Shimbun, 2024).

After knowing the context, we can now take a look at the economic landscape changes that took place in it.

3. Economic Activity in Okinawa from 1945-1972 (Under USA administration)

The subsequent section describes how the economy of Okinawa was rebuilt through military rule, reshaping the agricultural society into a better fit economy to facilitate the North American military presence. The devastation of the Okinawan economy in 1945 laid the groundwork for a flawed recovery under North American military rule. The support pillar of the economy, agriculture, was hampered by land seizure, desecration of the environment, and dependency on North American foreign assistance.

3.1. Okinawa's Economic situation in 1945.

Okinawa's geography, with its mountainous northern regions and flat southern plains, influenced its economy significantly. Its subtropical climate supported an agriculturally dominated economy, with ease to produce crops like sugarcane, tropical fruits, and vegetables. The islands' topography, classified as "mountainous" in the north and "flat" in the south, helped with water retention and crop suitability, although the landscape, on the other hand, also instigated water leaks, due to granite bases and limited surface water from limestone geology, which rushed the need for new and innovative irrigation methods (Setouchi & Nakandakari, 2020).

Before 1879, Okinawa was part of the Ryukyu Kingdom and not fully integrated into Japan's economic statistics. Post-annexation, it remained underrepresented in pre-war economic analyses. This was well reflected in the fact that Okinawa and Hokkaido were excluded from key datasets, such as the analysis of national rice production and the 1874 prefectural product tables, which covered 45 prefectures but omitted Okinawa. (Yazawa, 2018) Nevertheless, during Japan's prewar imperial period, peripheral and colonized regions like Okinawa (as well as Taiwan and Korea) were generally incorporated primarily for their strategic and agricultural value, not for industrial development. Therefore, its production was directly tied to Japan's needs, and Okinawa's integration was unequal, lacking in infrastructure and industrial investment before the war. (Hook & Siddle, 2003).

Whilst the most important economic sector was the primary, with agriculture being the main specialty, it focused mainly on the cultivation of sugarcane. This was economically vital, especially after the 1888 removal of planting restrictions. Obviously, this ended up leading to firstly, rapid increase in cultivation area and number of farmers, dependence on advance payments for sugar. Actually, sugar advances acted as an informal loan system. Interest could reach 50%, and farmers mortgaged future sugar sales to obtain seeds, fertilizer, or daily

necessities. Some even sold their children into servitude to repay their debt from this, indicating extreme economic vulnerability. The expansion of sugar cultivation ended up creating demand for capital, which formal banks failed to meet, making informal lenders and high-interest loans dominant. In 1902, sugar-related financial crises led to defaults and capital shortages, even among lenders (Kaneoka, 2021).

Regarding the tertiary sector, with commerce and services, merchants and resident merchants from Kagoshima played major roles in different fields. To begin with, they organized high-value mutual funds (they called them moai and were up to 1,000 yen), and they acted as high-interest lenders (for example, 17–18% borrowing from banks, re-lending at 50%). Furthermore, pawnshops were widespread and essential for low-income households, and typically gave loans under 1 yen, with interest rates of between 2–3% monthly. In fact, in 1894, there were 117 pawnshops in Naha alone and around 200–300 total in between Naha and Shuri. Their loans supported everyday consumption and small business needs. Finally, growth of public pawnshops in the 1920s indicated municipal responses to financial distress (Kaneoka, 2021).

As for the secondary sector, there was relatively limited direct data. In the documents I found, there's no direct mention of industrial or manufacturing roles in GDP or employment. Nevertheless, it can be mentioned that sugar processing was key in the value chain, and banks like Okinawa Industrial Bank were established post-1907, hinting at emerging interest in industry. However, it is still evident that economic roles at that time were dominated by agriculture and commerce, with manufacturing remaining marginal during this era (Kaneoka, 2021)

If we take a look at finance as an economic enabler or constraint, the banking system was clearly underdeveloped and unreliable, with their first local bank, in 1880 failing (Kaneoka, 2021). First, to understand why, we need to know about a crisis that took place during the Taisho era (1912-1926). After World War I (1914–1918), global demand for commodities surged, including sugar, and as Okinawa's economy, was heavily dependent on black sugar production, they capitalized on this demand. Consequently, black sugar prices skyrocketed from ¥6–7 per 60 kg in the early Taisho era to a peak of ¥36 per 60 kg in January 1920. Sugar merchants and banks engaged in risky lending practices, offering loans (sugar pre-financing) to farmers and traders based on anticipated sugar revenues. Banks like Naha Commercial Bank expanded loans aggressively, with its loan balance surging from ¥18,570 (1907) to ¥2.66 million (1921). Sugar production grew rapidly, with output increasing by 50% from 1905–1912 and by 1919, Okinawa's total production value reached ¥84.32 million, driven largely by

inflated sugar prices. In January 1920, black sugar prices hit ¥36 per 60kg in Naha's markets, therefore 4x higher than 1916 prices. Okinawa's total production value peaked at ¥84.32 million (1919), with sugar accounting for 33% of GDP. After this, everything collapsed in the late 1920. Concretely, by October 1920, sugar prices crashed to ¥10–12 per 60kg (a 72% drop from peak levels). The causes of the sudden crash were the oversupply and reduced post-war global demand and of course, the speculative overextension by sugar merchants and banks (Yanagisawa, 2009).

Consequently, by 1924, all 3 major Okinawan banks collapsed (Okinawa Bank, Industrial Bank, Naha Commercial Bank) due to poor credit practices and the post-WWI crash, leading to a financial crisis. Furthermore, post-bubble (1920s), Okinawa's economy stagnated with a GDP decline of 33%, which was far abrupt than Japan's national decline (6%), until 1939, when pre-war production levels were regained (Kanagisawa, 2009). The result of this unfortunate events, made people's finance (moai, pawnshops, sugar advances) become central economic mechanisms. Furthermore, informal financial systems enabled the survival in absence of formal credit and expansion of commerce and sugar agriculture. In spite of this, it also led to exploitation, instability, and financial overexposure. (Kaneoka, 2021)

In pre-war times, Okinawa was facing some economic struggles due to already being economically weak, as a result of its distance from Japan's industrial centers and lack of resources and infrastructure (Shinichi & Chinen, 2007). The role of agriculture in the economy was crucial, as up to 75% of Ryukyuan households engaged in agriculture, but the islands still relied on food imports and (Fisch, 1987) agriculture contributed to around 50% of the prefecture's output (Briguglio, 1994). In fact, the Ryukyu Islands had never been self-sufficient in food production (Fisch, 1987) and many Okinawans migrated to Hawaii and South America due to poor living conditions (Shinichi & Chinen, 2007). Nevertheless, it is really interesting to notice how in the Meiji period more specifically in the 1900s-1910s, Okinawa's growth rate (23%) exceeded Japan's national average (18%) (Yanagisawa, 2009).

Main crops before and during the war were: sugarcane, sweet potatoes, rice, and soybeans (Briguglio, 1994), and in terms of agriculture and land use, the soil was only moderately fertile, except in central and southern Okinawa, while rice was cultivated in reclaimed coastal wetlands, and sweet potatoes, sugar cane, and leafy vegetables were grown in uplands. Sweet potatoes, introduced from China, became a staple food and sugar cane was the main cash crop (Fisch, 1987).

This specific main crop, sugar cane, underwent through different changes as well. In the Ryukyu Kingdom era, between 1429 and 1879, there was the introduction of sugarcane and

black sugar production via trade with China. Afterwards, during the Satsuma Domain control between 1609 and 1879, imposition of sugarcane quotas and heavy taxes, limited crop diversity. Finally, with Meiji-era policies after 1879, there was a promotion of sugarcane monoculture to reduce sugar imports and align with Japan's industrialization (Setouchi & Nakandakari, 2020).

Subsequently, the impact of U.S. occupation on economy and society was mainly economic structure disruption, by its sudden involvement and the impact of the war, which disrupted Okinawa's economic structure, and made the recovery to be slow. U.S. military forces quickly reduced their presence after the battle, leaving the economy stagnant (Fisch, 1987) although the military bases that remained, started providing some economic revitalization. Despite this, agriculture remained dominant in the early years of occupation (Weiss, 1946).

The dominant forces in this industry during this period were land seizure and their focus on sugarcane to stabilize the economy (Setouchi & Nakandakari, 2020). Afterwards, the Military Government took extensive measures to restore Okinawa's economic structure, balancing immediate needs with long-term recovery (Augustine, 2008) and despite efforts to rebuild agriculture, industry, or trade, the rigid military policies and economic challenges were the leading features of the time (Weiss, 1946). Furthermore, Okinawa's post-war transformation highlighted the complexities of military occupation and economic recovery (Augustine, 2008).

Throughout the military government era, many Okinawans experienced financial gains due to the foreign presence, albeit at the cost of reduced social status. The American military significantly impacted the land, the landowners, and the island's social order. The late 1940s military build-up drastically changed Okinawan life, ending an ancient culture based on small-scale agriculture, fishing, and cottage industries. Most Okinawans eventually adopted a new way of life (Fisch, 1987).

The main challenges of military presence were principally the military facilities conflicting with civilian needs (Weiss, 1946). Actually, military-controlled land use hampered agricultural recovery (Fisch, 1987). By 1956, 55.4% of the population was employed in agriculture, forestry, and fishing, nevertheless, military base construction displaced farmers, affecting labor and income (Taira, 1958). Post-war Okinawa relied on US military-distributed flour for staple foods like Okinawa soba[12], reflecting dependency on external supplies.

[12] *Okinawa soba* is a distinctive regional noodle dish, specifically a type of noodle soup that originated in Okinawa Prefecture, Japan. Although the term "soba" in Japanese typically refers to buckwheat noodles, Okinawa soba is made from wheat flour. Within Okinawa, it is commonly referred to as either "soba" or "suba." (Chibana, 2020)

Traditional rice and wheat farming declined, replaced by cash crops like sugarcane (accelerated since the 1910s), driven by capitalist agricultural policies (Chibana, 2020).

Military campaigns caused extensive destruction of crops and livestock, but efforts were made to control agriculture and relocate people to non-military areas (Yamashiro, 2011). The U.S. estimated 12 refugee camps for 120,000 civilians and military personnel for organizing the population after the war, in the first years of the post war period (Fisch, 1987). Some resettlement efforts were also made, after displaced people, by 1946, were resettled in southern Okinawa (Weiss, 1946). Repatriation of 79,000 Okinawans from the Japanese mainland was delayed, due to logistical challenges (Weiss, 1946).

As for food and rationing, the U.S. planners issued 70,000 civilian rations per division, including rice, flour, dried fish, soybeans, and sugar. Special rations for laborers (2,000–2,500 calories), nursing mothers (2,200 calories), and small children (782–921 calories) were also planned. Rations lacked vitamin C and riboflavin, but Okinawans counted in hidden supplies in coral caves, which they got through contraband (Fisch, 1987). This contraband was being conducted through a Black Market and smuggling. U.S. military goods, including food, clothing, and tools, were traded illegally, and smuggling networks extended to Taiwan, Hong Kong, and Japan with scrap metal from the war being a major black-market commodity (Augustine, 2008).

The efforts to address poverty and economic challenges by the US were existent and pushed for. Brigadier General Royall was one of the U.S. military that tried to change the post-war issues with economic aid and policy changes. The National Security Council also approved a compromise, leading to long-term economic changes which included militarization (Sarantakes, 2000).

The reconstruction and administration involved primarily the education system recovery, and for this purpose, the military government restored schools and recruited new teachers. By January 15 of 1946, 65,000 children attended 90 schools with 1,500 teachers. Furthermore, a native Department of Education was created to oversee the school system (Weiss, 1946).

In terms of economic policies and monetary systems, there was a new monetary economy establishment, as in May 1946, the Military Government restored currency-based transactions. The legal tender included Type B Military Yen and Bank of Japan notes as a central banking system was introduced, along with a tax program (Augustine, 2008). Rebuilding infrastructure was one of the main policies that the new government created and applied. The Military Government promoted agricultural education and experimental farms

(Weiss, 1946) as efforts were made to restore and improve pre-war industries, including agriculture and fisheries (Augustine, 2008). A functioning monetary system was also a priority to support economic independence (Weiss, 1946). As for environmental and social impact, we could mention how military development harmed public health and civilian welfare (Yamashiro, 2011). Poverty also increased due to land loss and lack of food (Feifer, 2000) and rigid border controls isolated Okinawa from its old trade networks (Augustine, 2008). The labor and workforce change in development was also notable, as labor policies under the military government were implemented. For instance, early labor was requisitioned with extra food as an incentive and a wage ceiling was introduced to control inflation. Vocational training programs further provided Okinawans with new skills (Weiss, 1946). The economic and military conflict was present, regardless, as the U.S. military had limited funds to support Okinawa while it was considered part of Japan. In the end, the U.S. separated Okinawa from Japan administratively and could fund recovery efforts by themselves (Sarantakes, 2000). The administrative and economic management by the US also created central departments for finance, agriculture, fisheries, industry, and commerce, while the economy and the enterprises were reorganized based on pre-war patterns and (Weiss, 1946) a cash economy was introduced, at the same time as an inflation and the black markets persisted (Augustine, 2008).

But agricultural and economic vulnerabilities could be, nevertheless, observed. For example, the rural economy of Okinawa was largely based on sugar farming, which was lucrative but highly weather dependent. Murdock, a North American anthropologist, noted that the sugar economy was crucial, but at the same time, highly susceptible to typhoons. In 1951, for instance, a typhoon caused a 50% drop in sugar production. North American agricultural reforms, in 1949, were boosted, towards stabilizing the economy through land reform and other production practices. Nevertheless, by 1960, 20% of land in Okinawa was being occupied for North American military bases, and consequently, the sugar production, was also redirected to US military bases, rather than being fully utilized by the local population (Briguglio, 1994). Okinawa increasingly became dependent on external economic and military intervention, due to the environmental problems as the typhoons mentioned above (Yamashiro, 2011). Subsequently, transition from agriculture to industrialization was shaken by a cash-based economy policy, with the posterior creation of currency systems in 1950 (Lai, 2017).

Concluding this segment, before 1945, Okinawa's economy was poor and agrarian, while 75% of households relied on sugarcane (Japan's imposed cash crop) (Setouchi & Nakandakari, 2020), sweet potatoes, rice, and soybeans (Briguglio, 1994), despite challenges like poor soil, water shortages, and typhoons (Yamashiro, 2011). The 1945 Battle of Okinawa

devastated crops, animals, and infrastructure, with 13% of land being taken by U.S. occupation, including 20% of arable land (Taira, 1958), driving farmers away and disrupting agriculture, forcing reliance on U.S.-controlled rations and imports (Yamashiro, 2011). Post-war recovery under U.S. administration was slow and uneven: the educational, money, and tax systems were rebuilt, but stagnation, black markets, and a drift toward a cash economy also appeared (Weiss, 1946). By 1960, sugarcane remained at the forefront but vulnerable to weather, and 20% of land was taken over by North American bases, which lead to poverty, health issues, and dependence on U.S. aid and military-related economic activity, creating long-term vulnerabilities which shaped Okinawa's socio-economic trajectory (Briguglio, 1994). The presence of the U.S. military had a profound effect on Okinawa's economic profile, shaping both its development trajectory and also its vulnerabilities. The following section considers how activities associated with bases triggered high GDP growth, while inducing structural dependence. It also explores the long-term effects of military-centered development on domestic industries, trade flows, and economic stability.

3.2. The Impact of U.S. Military Presence on Economic Development

To begin with, in this period, Okinawa’s economy became structurally dependent on US military spending. Post-WWII aid and base income fueled 13% average GDP growth (1955–1970), peaking at 18.6% during the time of the Vietnam War (specifically around years 1966 and 1968). U.S.-supplied timber and local timber were used for standardized housing, but shortages persisted, leading residents to repurpose barns and sheds, while at the same time, sawmills and timber companies were established to meet urgent demand for fuelwood and construction materials, accelerating deforestation and forest degradation. However, this also ended transforming Okinawa into a "base economy" vulnerable to geopolitical shifts (post-Vietnam demand collapse) (Shinohara, 1972).

US financial control was present and one of its manifestations was currency changes. The US controlled Okinawa’s financial sector and by 1957, the Bank of the Ryukyu managed 63% of deposits and 56% of loans (Taira, 1958). In 1958, US dollars became Okinawa's official currency, replacing the B-yen, which lasted from 1948 until that year, reinforcing economic dependence on the US (Sarantakes, 2000). This was the first time the US imposed a currency change in an occupied territory and while the currency change facilitated North American business investment in Okinawa (Inoue, 2007), by 1958, the US military directly employed 23,000 Okinawans, about 7% of the workforce (Higa, 1963).

If we regard the currency and price stability of the U.S. period, where dollar was the standard monetary system in Okinawa, we can see that they had a fixed exchange rate, as Okinawa used the B yen, pegged at B¥120/$1, and later replaced it by dollars. Real exchange rate[13] variance with the U.S. dropped to 15.9 from 57.5 under the earlier B-yen system, meaning prices became more stable relative to the U.S. Nevertheless, the real exchange rate variance with Japan remained high (at 58.8), showing less price alignment with Japan despite close trade ties. Incidentally, as for trade and business cycle linkages in this time, 70% of imports and 90% of exports were with Japan, but monetary policy was tied to the U.S. Conversely, business cycle linkage[14] with the U.S. was weak, as output growth correlation coefficient[15] was 0.21, therefore, statistically insignificant. Equally, dependency on U.S. defense spending (military bases) influenced growth but wasn't a major driver in regressions[16]. As for types of economic shocks, nominal shocks (currency or policy changes) played a larger role, while before 1972, real shocks explained only about 58% of output fluctuations[17]. In terms of economic priorities and investments, the US focused on military strategy, as Okinawa was regarded as the "Pacific bastion", and it limited infrastructure investments; economy relied on U.S. aid and defense spending (Takagi, Shintani & Okamoto, 2004).

Therefore, under the U.S., Okinawa had price stability with the U.S. but mismatched trade ties with Japan[18]. The consequences of this were price volatility, as real exchange rate variance with Japan was 58.8, meaning prices between Okinawa and Japan fluctuated unpredictably, and weak business cycle link, with Okinawa's economic growth only weakly tied to Japan's (0.15 correlation pre-1972) (Takagi, Shintani & Okamoto, 2004).

Growth drivers in this period ended up being the U.S. military spending, aid, and base-related jobs. As for short-term stability, dollarization shielded Okinawa from hyperinflation risks, while the economy was vulnerable to U.S. geopolitical decisions (base closures). The

[13] The *Real Exchange Rate* measures the relative price of goods and services between two countries, adjusted for differences in price levels (inflation).and nominal exchange rates. Price-adjusted currency value (Rodrick, 2008).
[14] *Business Cycle Linkage*. The degree to which the economic cycles (expansions and recessions) of two economies move in sync. It reflects how closely their GDP growth, employment, and industrial production rise and fall together. Synchronized economic ups/downs (Dées, S. & Zorell N., 2012).
[15] *Output Growth Correlation Coefficient*. A statistical measure (ranging from -1 to 1) that quantifies how closely the GDP growth rates of two economies move together. Statistical measure of growth alignment (Rodrick, 2008).
[16] *Regressions*. A statistical method used to estimate relationships between variables. It models how a dependent variable (Okinawa's GDP growth) changes as one or more independent variables (Japan's GDP growth, U.S. defense spending) change. Modeling relationships between variables (Dées, S. & Zorell N., 2012).
[17] *Fluctuations*. The ups and downs in a country's economic output (GDP) over time, driven by factors like demand shocks, supply shocks, or policy changes. Economic booms and busts (Dées, S. & Zorell N., 2012).
[18] Okinawa's money currency at that time (dollar) did not align with its main trade partner Japan (yen), as they were both using different currencies. Trade volume alone between two territories doesn't guarantee synchronized growth. Currency alignment, monetary policy coordination, and shared economic structures are critical (Rodrick, 2008).

main US legacy in the region was a lasting military footprint (Takagi, Shintani & Okamoto, 2004).

The US as the administrator of the island from 1945, implemented economic policies and posed certain military influence. Between 1945 and 1972, Okinawa's economy grew faster than any country in the region except Japan, and education also improved significantly during the US occupation (Sarantakes, 2000). USCAR and the GRI[19] implemented economic and political modernization policies to transform Okinawa from an agrarian society into a developed and industrialized region (Briguglio, 1994). For instance, USCAR established the Bank of the Ryukyus in 1948 to stabilize the economy (Inoue, 2007), and later in 1954, the Ryukyu Electric Public Corporation was created, and so was the Ryukyu Water Public Corporation in 1958 (Inoue, 2007). The U.S. implemented the Counterpart Fund as well, using proceeds from sales of goods imported under the GARIOA[20] program. However, these funds prioritized North American administrative goals over local development (Yamaguchi, 2014). GARIOA provided $154.5 million between 1947 and 1954, but most of it was allocated to military-related projects like roads and warehouses rather than agricultural and manufacturing sectors (Taira, 1958). Furthermore, military spending fueled a consumption-driven economy rather than a production-oriented one, making Okinawa reliant on US expenditures, (Higa, 1963) while local industries were overlooked in favor of agriculture and manufacturing for the military, leading to greater dependence on imported commodities (Yamaguchi, 2014). By the late 1950s, military-related activities accounted for nearly 50% of Okinawa's GDP (Sellek, 2003). A small circle of commercial and financial elites profited from the US presence, while most Okinawans remained economically marginalized (Taira, 1958), and by 1950s, the US had established over 39 military installations, using 17% of the arable land and displacing about 50,000 landowners (Hook & McCormack, 2001). The land seizure transformed into the main political issue in the islands, and public protests proliferated. Almost half of the land seized by US forces was agricultural, displacing houses and villages, and disrupting subsistence farming (Armentrout, 1992). Land compensation was often inadequate, leading to ongoing protests and

[19] *Government of the Ryukyu Islands*. Operated from 1952 to 1972 and created by the U.S., its role was being a local civilian government to administer Okinawa and the Ryukyu Islands, and its function differed from acting as a "proxy" government under USCAR's oversight, managing day-to-day governance, including public services, education, and economic development programs and also promoting industrialization (for example, building roads, ports, and factories) to reduce Okinawa's reliance on agriculture (Briguglio, 1994).

[20] *Government and Relief in Occupied Areas*. Its purpose was to provide economic relief, prevent starvation, and stabilize occupied territories after WWII. It aimed to address immediate humanitarian needs (food, medicine, fuel).and rebuild critical infrastructure and was active from 1946 to 1954 depending on the area. Its funding came from the U.S. who, in theory, supplied goods (food, raw materials) to occupied areas, and proceeds from their sale were deposited into a Counterpart Fund managed by local governments under U.S. oversight (Yamaguchi, 2014).

economic displacement (Higa, 1963). Nevertheless, the US aided food, clothing, medicine, and 20,000 prefabricated houses, which initially mitigated resistance although in the long run, didn't fix the issue. Interestingly enough, the US officials considered abandoning Okinawan bases in 1949 due to high costs, but reversed this decision after typhoons destroyed infrastructure (Armentrout, 1992). Furthermore, protests against land appropriation escalated in the 1950s, and in 1952, the OFA[21] protested against US land policies (Yamashiro, 2011). Later, in 1953, imports accounted for 61% of aggregate income, while exports were only 15% of imports, deepening economic dependency and (Taira, 1958) in 1958, land policy change applied indefinite five-year leases for US bases (Armentrout, 1992).

Some environmental and social impacts could be found in that period. For instance, reclamation projects for agricultural and urban development led to deforestation, coral destruction, and pollution (Yamashiro, 2011) while reports in 1955 highlighted environmental damage in Tomari and Naha due to rapid development (Yamashiro, 2011). Furthermore, military base construction displaced entire villages, leading to protests and confrontations and (Taira, 1958). Furthermore in 1959, a US fighter plane crashed into an elementary school, escalating tensions between Okinawans and the military (Close The Base, 2011).

Some US efforts were put to address the evident economic disparities. For instance, general MacArthur pushed for increased economic aid, raising funds from $1.3 million in 1959 to $3.35 million in 1960. Furthermore, a US task force in 1960 recommended aligning Okinawan programs with those of Japan and loosening North American control (Sarantakes, 1996), and despite US efforts, Okinawa remained economically dependent on the military, making its economy vulnerable to US policy shifts (Nakamura, 1996).

From 1945 to 1972, U.S. military control transformed Okinawa's economy, creating structural dependency. GDP growth averaged 13% (1955–1970), peaking at 18.6% during the Vietnam War due to military spending (Shinohara, 1972), which made up nearly 50% of GDP by the late 1950s (Sellek, 2003), and employed 7% of the workforce (Higa, 1963). Currency policies like the B-yen pegged to the dollar and later dollarization in 1958 stabilized links with the U.S. but led to volatile trade imbalances with Japan, with 70% of imports and 90% of exports concentrated there (Takagi, Shintani & Okamoto, 2004). Land seizures affected 13%

[21] *Okinawan Farmers' Association.* Founded in 1950 during the U.S. occupation of Okinawa (1945–1972), to oppose land seizures for military bases that displaced farmers, and its role was organized grassroots resistance (protests, petitions, legal challenges).against land confiscation, demanding fair compensation, ancestral land return, and Okinawan self-determination. Notable for the 1952 protests against U.S. policies. Its dissolution was by the late 1950s as efforts merged into broader movements like the All-Okinawa Council (formed in 1956), which prioritized island-wide demands for Okinawa's reversion to Japan (Yamashiro, 2011).

of Okinawa, including 20% of arable land, displacing around 50,000 landowners and triggering protests (Taira, 1958). U.S. infrastructure projects and aid programs, like GARIOA ($154.5M), prioritized military needs over local development, causing environmental damage and shifting Okinawa from self-sufficiency to import reliance. By 1953, imports equaled 61% of income Limited local industrialization left Okinawa economically fragile, with militarization and systemic marginalization adding to long-term vulnerabilities (Taira, 1958). Under U.S. administration, the economy focused on military-related sectors, with civilian industries lagging. The next section examines the decline in agriculture, the rise of construction and services, and the strategic Cold War focus that shaped Okinawa's economic specialization.

3.3. Specialization Sector During This Period

The post-war economic dependency on U.S. military was imperative. A new economy emerged in Okinawa under U.S. control, heavily reliant on military priorities and grants-in-aid, with underdeveloped civilian industries. Pre-war Okinawa's economy was very dependent on sugarcane and pineapple exports and by the 1950s, agricultural production plummeted due to U.S. land seizures and global market competition (Fisch, 1987). Nevertheless, more than a half (55.4%) of the labor force was engaged in the primary industries (agriculture, forestry and fisheries) in December 1955.

Okinawa's sugar economy underwent different changes during the US period. In 1964 centrifugal sugar output hit the peak of 274,000 tons; black sugar dropped to 10,000 tons (25% of 1958 levels). Furthermore, between years 1959 and 1962 saw rapid expansion (for instance, Hokubu Seitō) with 70% local capital and 30% mainland Japanese investment. In terms of policy impacts, in 1959, the promotion law enabled subsidized closure of small black sugar factories, redirecting 95% of sugarcane to centrifugal factories, which achieved about 90% efficiency compared to 50 to 60% in traditional setups. Nevertheless, in 1963 and 1964, trade liberalization provokes global price crashed destabilizing Okinawa's sugar-dependent economy (Siddle, 1998).

Regarding the aggregate income[22] of the region, an increase there was observed in the 1950s, although it is important to indicate that the leading cause in this surge in income was a continuously high rate of construction of large military bases and the already existing ones' production and consumption, while at the same time having employed many Ryukyuan workers. In 1956, it is interesting to notice how, eleven years after the war, the most prolific

[22] *Agregated Income*. Represents the total amount of income generated by all individuals, businesses, and the government within an economy. It's a fundamental economic metric that provides a snapshot of the overall financial health of a nation. (Taira, 1958)

sectors of the Ryukyuan economy (mainly primary industries, then manufacturing and mining), produced income that in the period 1934-36 (pre-war "normal" years), accounted only 85% of the annual average (Taira, 1958).

However, the expansion of employment in the military bases involved that many Ryukyuan economy earned dollars, was directed to upsurge the assets for external payments, which in turn granted a concentrated motivation for intensified importations. Furthermore, all kinds of tertiary activities expanded quickly since 1950, along with imports of consumer goods, all while the agriculture and manufacturing economic sectors lingered in the process of regaining their pre-war levels. In fact, the tertiary industries, wholesale and retail trades, banking, insurance, real estate, transportation, public utilities, and services, between the Decembers of the years 1950 and 1955, gripped about 75.4% of the increase in the labor force. If we want to add the expansion of public service in the mix, the unproductive or semi-productive sectors of the economy, then we have an absorption of 82.3% of the increase in the labor force. The sudden surge in the tertiary sectors conflicted with the increasing stagnation of the primary and secondary sectors (agriculture, fishery, forestry, mining and manufacturing), which were able to absorb only 12.4% of the increase in the labor force. (Taira, 1958).

Additionally, the secondary sector faced challenges due to a shortage of raw materials, which continued to constrain productivity. Nonetheless, the civilian population demonstrated a clear willingness to increase the production and distribution of consumer products. The military government's commitment to executing a prudent fiscal strategy involving currency regulation and loan provisions fostered an economic environment conducive to realizing this enthusiasm (Fisch, 1987).

U.S. military spending also dominated Okinawa's economy, discouraging long-term investments in civilian sectors. Military-linked social issues were also a part of daily life. For instance, in the 1950s, the majority of bars catering to U.S. troops allegedly served as fronts for organized prostitution, justified by military leaders as addressing troops' "mental conditions". Furthermore, U.S. commanders blamed Okinawans' "low moral standards" for prostitution, misrepresenting its historical prevalence in both Okinawan and North American societies (Sarantakes, 2000).

In the early 1950s, significant capital began to flow into Okinawa, initiated by a $74 million construction budget from Congress in 1950, supplemented by $25 million in GARIOA funds and an additional $37.8 million by 1952. This influx of funds attracted laborers from the Amami Islands, mainland Japan, the Philippines, and the U.S., intensifying a burgeoning market for prostitution around military bases. By 1950, the workforce had shifted significantly

from agriculture and forestry in the prewar period (1940s) accounting for 74,22%, and in the post war accounting for 58,12%, to military labor, which accounted for 15.05% of total labor. The separation from land for male labor through base construction and female labor through sexual services led to an estimated 7,000 prostitutes and 1,500-1,600 sex slaves in Okinawa by 1950 (Shimabuku, 2010).

Post-1951 trade resumption with Japan entrenched Okinawa's reliance on imported goods. By 1960, timber demand reached around 190,000 m^3, doubling 1953 levels. Local industries were sidelined, unable to compete with mainland efficiency or pricing. Post-war US administration prioritized short-term recovery, leading to forest degradation. Regarding the data, by 1970, 86% of timber was being imported, while local timber production fell from 80,157 m^3 in 1953 to 45,488 m^3 then. After the Ryukyu Government's establishment in 1952, Okinawa's economy gradually aligned with Japan's, increasing reliance on imported timber from outside Japan as well, like Lauan logs from Southeast Asia. By 1970, foreign timber imports reached around 280,000 m^3. This forced Okinawa to focus on imports, increasing trade deficits and reflecting a shift from self-sufficiency to dependency. Finally, post-reversion, Okinawa faced challenges competing with cheaper mainland Japanese products. Local plywood industries (Kuniba Veneer) sought protective measures like a 5-year import ban on mainland plywood to survive (Shinohara, 1972). Generally, national forests were under U.S. military control, limiting their use for economic activities, with also limited reforestation efforts, and focusing mainly on recovering war-damaged land rather than developing a structured forestry industry. The presence of U.S. bases restricted forest access, reducing the available land for forestry (Matsushita, 1993).

The cold war strategic priorities start to be an important factor in the US and Japanese relationships, and therefore, a determinant influence for the outcome of the Okinawan situation. U.S. military strategy prioritized Okinawa as a Cold War base, stifling civilian economic diversification. Tensions grew between U.S. policies and Okinawan aspirations for autonomy and reconnection with Japan (Fisch, 1987). Furthermore, through the Vietnam War, there existed as well economic vulnerabilities resulting from the historical condition. By 1969, an estimated around 10,000 Okinawan women worked in prostitution, surpassing agriculture as a revenue source. Economic hardship and lack of alternatives fueled this underground economy (Kovner, 2016). Furthermore, sociologist Yehudi Cohen in the 1950s, linked prostitution to migration and weakened kinship ties, not just poverty.

In the social welfare and infrastructure topic, we can indicate that U.S. recreational facilities (Ishikawa beaches) and cultural programs improved living standards, fostering

Okinawan tolerance of the military presence (Sarantakes, 2000). Nevertheless, no anti-prostitution laws existed pre-1972 reversion, reflecting economic dependence on military-linked industries (Fukumura, 2007).

The rehabilitation of local industries was also taking place, as post-WWII efforts focused on reviving industries producing essential goods (farm tools, construction materials, pottery, textiles) despite limited resources (Weis, 1946). Also, tertiary sectors (wholesale, retail, banking, services) absorbed 82.3% of labor force growth between 1950 and 1955, perpetuating reliance on military spending over industrialization (Taira, 1958).

Some big economic shifts were taking place in the 1950s. The Ryukyuan Fisheries Company, created in 1951, transitioned Okinawa from inshore to deep-sea commercial fishing, aided by Japanese advisors. Despite growth, technological advancements reduced labor needs (Fisch, 1987). Furthermore, by 1956, Okinawa's per capita income rose to $157 (22.5% real gain since 1953), but primary and secondary sectors stagnated at 85% of pre-war productivity. Military spending also drove this imbalanced growth (Taira, 1958).

The emerging sectors were tourism and construction, and while they developed, sadly, inequality also rose. Tourism began in the early 1960s, leveraging Okinawa's natural beauty and culture, though it contributed to less than 5% of GDP (Hook & McCormack, 2001). Construction accounted for 10% of GDP by 1963 (compared to Japan's 7%), but mainland Japanese firms dominated, siphoning profits away from Okinawa (Higa, 1963). In 1968, Ginowan City adopted urban planning ordinances, converting farmland (Oyama taro patches[23]) into residential and commercial areas.

Traditional fishing in Okinawa was a long-standing industry, especially in remote islands like Zamami Village, where the US military first landed in the battle of Okinawa. Although due to US influence and after WWII, the population declined there due to urban migration and military base expansion (Ran, Lou, Tabeta, Wang, Lim, Ikoma, 2024).

Summing up this part, under U.S. occupation (1945–1972), Okinawa's economy became heavily reliant on military spending, with underdeveloped civilian industries and a collapse in agricultural exports (Nakamura, 1996). Modernized sugar production exposed the sector to global price fluctuations (Briguglio, 1994), while military-linked industries like construction

[23] *The Ōyama Taanmu Fan Club*, started by Nakama Ken and his wife Shiori, promotes taro and preserves taro patches in Ginowan City. Despite pressures from urbanization and real estate, they advocate for sustainable farming near a US air station. The area once rich with taro patches has been reduced due to city development, but preservation efforts secured some farmland. Miyagi Minoru, an organic taro farmer, aims to restore the land's health naturally. The club emphasizes the ecological importance of taro and supports respectful infrastructure development. Ginowan City designated 6 February as Taanmu Day to boost taro production and consumption (Chibana, 2020).

and prostitution thrived (Kovner, 2016). The tertiary sector expanded mostly to support U.S. troops (Taira, 1958), and fishing transitioned to deep-sea operations (Ran, Lou, Tabeta, Wang, Lim, Ikoma, 2024). Despite modest income growth, primary and secondary sectors lagged, and tourism, though emerging, contributed minimally to GDP (Hook & McCormack, 2001). Urbanization fragmented land and increased social dependency, while welfare improvements offset some challenges (Chibana, 2020).

Next up we will regard at all the changes suffered by the economic landscape of Okinawa, after the reversion was finally officialized.

4. Economic Activity in Okinawa after returning to Japan's Administration

After reverting to Japanese administration in 1972, Okinawa's economy saw significant shifts, with stronger integration with mainland Japan. Japanese financial aid and infrastructure projects spurred growth, but challenges persisted, including continued dependence on U.S. military bases and limited local control over development. The subsequent subdivision examines how these influences shaped Okinawa's post-reversion economic landscape.

4.1. Influences since the return

A post-reversion economic transition further developed the complexities of the region's situation, as post-1972, repurposed military lands supported tourism and commerce, aiding economic diversification (Armentrout, 1992) while further reducing military dependence. Although it was seen as challenging, it was also regarded as a critical chang, needed for the good of Okinawa's economic self-determination (Fukumura, 2007).

With the reversion, there was a lot of development and financial support received by the area, mainly from the main island of Japan, that intended to help Okinawa to better their economic situation. Actually, Japan introduced heavy financial grants to modernize infrastructure, diversify the economy, and reduce reliance on U.S. military bases (Hikotani, Horiuchi, & Tago, 2023).

We can find persistent economic issues in Okinawa during this time, as for instance, low income and inequality, with per capita income remaining 70% of Japan's average, despite ¥13 trillion in development funds to reverse it since 1972 (Jiji Press, 2022b). Furthermore, we have the U.S. military legacy, with 75% of Okinawa's land remaining occupied by U.S. bases, stifling local development (Lai, 2017). Moreover, cultural commodification posed a risk of tourism eroding Okinawan traditions for commercial appeal (Mashiko, 2002).

Before the reversion, Japan's yen was pegged to the dollar, but after 1971, it floated freely. In Okinawa, the currency was changed from dollars to standard yen, and real exchange rate variance with Japan dropped to 5.9 (regarding general prices), indicating near-perfect price synchronization. Prices fluctuated wildly relative to the U.S (493.3 variance post-1972).due to Japan's floating yen[24]. This massive variance was created along with two volatile factors affecting real exchange rates, which were yen-dollar exchange rate swings and differences in inflation between Okinawa and the U.S (Takagi, Shintani & Okamoto, 2004).

[24] A "*floating*" currency means its value is determined by supply and demand in the foreign exchange market, not fixed by governments. Exchange rates fluctuate freely (Rodrick, 2008).

As for trade and cycle business linkages, it was stronger, with an output growth which became 0.72 times more responsive to Japan's growth, showing synchronized economic activity. Trade barriers eased further, and Japan provided massive financial aid to boost Okinawa's economy post-1972 (Takagi, Shintani & Okamoto, 2004), although it created a continued economic dependence on external financial support. As economic diversification efforts failed, and Okinawa remained reliant on U.S. military and Japanese government funds, infrastructure improved rapidly, but Okinawa's economy lagged behind mainland Japan (Briguglio, 1994).

Regarding types of economic shocks, real shocks (productivity, demand shifts) dominated, explaining about 95% of output variance, while monetary union reduced disruptions from currency mismatches, letting real factors drive the economy. Japan prioritized economic convergence of Okinawa with mainland Japan, and after 1972, it placed heavy investments in public works, tourism, and subsidies raised living standards. Under Japan, monetary union brought tighter integration, synchronized growth, and dominance of real economic forces, aided by Japan's targeted investments (Takagi, Shintani & Okamoto, 2004).

The U.S. base presence and Okinawan sentiment against them was still vivid. Tokyo maintained the U.S. military bases in Okinawa despite local opposition, as at the same time, no Okinawans believed life improved after reversion. It is no wonder why, in consequence to this, anti-base movements persisted while the Japanese central government prioritized economic growth, and Okinawa remained impoverished (Bean, 2015). There existed attempts to reduce military reliance, with Okinawan policymakers proposing economic plans emphasizing sustainability and reducing pollution, but Tokyo rejected proposals. For instance, in 1974, a development plan focused on a "life without military bases and pollution" was dismissed by the central government (Yamaguchi, 2014).

It should not surprise us that in 1982, only 10% of Okinawans supported the status quo of U.S. forces (Bean, 2015), as the base-related economic sector seemed to grow despite the reversion. By 1972, military-related revenues accounted for 21.49% of Okinawa's gross income and nearly 20,000 Okinawans were employed on U.S. bases. Furthermore, base-related income grew from 5.2 billion yen (1972) to 164.4 billion yen (1987), reinforcing economic dependence (Nishiyama, 2022b). Despite these issues, there was a gradual economic improvement, that was taking place behind all these problems and took the spotlight. While issues like crime, noise, and land occupation persisted, economic conditions slightly improved, Japanese financial aid developed infrastructure and encouraged economic growth in some way (Sarantakes, 2000).

There were also legislative measures for economic development, such as the 1971 Special Measures for the Development of Okinawa, that aimed to improve infrastructure and reduce military dependence (Briguglio, 1994), and despite investments in roads, schools, hospitals, and tourism, economic dependency on the U.S. military persisted (Nishiyama, 2022b). Furthermore, Japan created the development plans, but these had their own limitations. The three ten-year development plans, launched from 1972 to integrate Okinawa into Japan's economy. The first plan, from 1972 to 1982, aimed to close the income gap and expand manufacturing, leading to investments in infrastructure (Briguglio, 1994). But regardless of this, the Japanese government heavily invested in infrastructure, benefiting Japanese corporations more than Okinawans (Yamaguchi, 2014). Nevertheless, some financial aid was received by Okinawa from mainland Japan, although with its economic imbalances. Japan additionally provided financial assistance to rehabilitate Okinawa's economy and lessen reliance on U.S. bases. Projects included road construction, tourism development, and industrial parks (for example, Exposition '75). However, economic benefits were uneven, with U.S. bases occupying prime urban land. Furthermore, a special measure law, in 1974 was implemented, which subsidized infrastructure (roads, ports, utilities).and tourism, to counter U.S. base dominance but entrenched dependency on central funds. By 2009, ¥8.788 trillion in central funds failed to diversify the economy, maintaining reliance on subsidies (Yamaguchi, 2014).

Okinawa's most important contingencies, related to the development plans, at the beginning of the new century, were the restoration of Shuri Jō (1992).and UNESCO World Heritage listing (2000) which elevated Okinawa's global cultural profile. These events, coupled with the inscription of Kumiodori as Intangible Cultural Heritage in 2010 and many more, boosted cultural tourism. These designations aligned with Japan's neoliberal cultural policies to market Okinawa as a subtropical resort similar to Hawai'i Shuri Jō Park, developed as part of the tourism/resort scheme linked to the 2000 economic plan. Further cultural events that highlighted Okinawa's global identity were, for instance, the 2000 G8 Summi and an NHK historical drama aired in 1993, which was the first national TV series on Ryukyuan history, boosting domestic and international interest. Furthermore, Japan's 2001 Fundamental Law for Culture and the Arts affected Okinawa positively, as it prioritized cultural heritage promotion, enabling projects like the National Theater Okinawa, a government-funded institution established in 2004, to preserve and promote Okinawan performing arts, including Kumiodori and Ryukyuan dance. UNESCO nominations, integrated Okinawa into Japan's neoliberal economic strategies to align Okinawa's heritage with global cultural policies, and this way, attracted tourism and international funding (Konagaya, 2020).

In summary, after Okinawa's reversion to Japan in 1972, the region's economy synchronized with Japan's through the introduction of the yen (Takagi, Shintani & Okamoto, 2004), and substantial Japanese investments in infrastructure, tourism, and public services (Briguglio, 1994). Despite these efforts, Okinawa remained economically dependent on Japanese government aid and U.S. military bases, which continued to occupy significant land and provoke local protests due to crime, noise, and environmental issues. The transition saw improvements in infrastructure yet left persistent development gaps and unresolved WWII-era hazards (Yamashiro, 2011). The following section will explore Okinawa's key economic sectors post-reversion, including tourism or marine industries.

4.2. Specialization sectors

In analyzing the underdeveloped sectors results under Japanese administration, spillover effects are high in Okinawa's secondary industries due to reliance on imports from other regions (iron and steel: 83.1%, ceramics: 79.6%) (Shibusawa, Shimabukuro & Uchida, 2019). The manufacturing sector remains weak, contributing only 4.3% to Okinawa's nominal gross product compared to the national average of 20%, largely due to logistical challenges from geographic isolation. Efforts to attract high-value manufacturers have been largely unsuccessful since 1972, hindering economic diversification (Jiji Press English News Service, 2022b).

Using the hypothetical extraction method Okinawa's economic dependencies are mainly influenced by Naha. With its imaginary elimination, Okinawa's overall production reduces by 76.6%, impacting sectors like information and communications (-74%) and finance (-70%). Urasoe and Uruma, cause 17.0% and 13.6% production decreases, respectively, when hypothetically extracted. In remote islands of the archipelago (for example in Miyakojima or Ishigaki) it shows lower spillover effects (between 4.7 and 9.2%). Therefore, we can determine that isolated municipalities exhibit low spillover effects as they rely mainly on localized economic activities. While secondary industries (iron and steel) on the other hand, show high spillover effects (83.1%), which reflect dependency on external supply chains (Shibusawa, Shimabukuro & Uchida, 2019).

The gross production percentage (GPP) shows that 86.5% corresponds to the tertiary sector, which constitutes 82% of Okinawa's economy compared to 72.5% for the country as a whole (Shibusawa, Shimabukuro & Uchida, 2019). The primary sector accounts for 4% and the secondary sector 13.7% (Okinawa Prefectural Government, 2022), indicating Okinawa's economy is dominated by the tertiary industry, with about 88.25% of establishments, ranking 1st in Japan (Shibusawa, Shimabukuro & Uchida, 2019).

In order to explain these results, now we will look at how this specialization took place. In terms of the first sector, we know how the US military bases and its land seizures were the responsible for the disruption that took place with the agricultural sector. This caused, for instance, that by 2008, only 15 out of 49 hectares of taro fields were preserved. Land readjustment projects and generational shifts increased landowners from around 300 to over 600, fragmenting agricultural land and prioritizing development over farming (Chibana, 2020).

In terms of the logging industry, also inside the first sector, despite growth, Okinawa's timber industry remained underdeveloped, as 59 sawmills operated at 50% capacity in 1970, with obsolete equipment and urban sawmills caused noise pollution, deterring modernization. In addition, over-logging and poor land management under US administration left lasting ecological damage, complicating sustainable development (Shinohara, 1972). The logging industry's fragility started to be more noticed, as it was a mainly US linked industry. Firms like Okinawa Plywood (reliant to US capital) collapsed post-1972 due to reduced military demand and financial tightening, exposing the risks of foreign-dependent industries. After Okinawa's 1972 reversion to Japan, local plywood factories (Kuniba Veneer) faced price undercutting by mainland products, highlighting structural weaknesses (outdated machinery, small-scale operations). Although the inefficient infrastructure that was the main cause of this collapse, was palpable before reversion (Shinohara, 1972).

After the reversion, national uniform policies were implemented. Nevertheless, these Japan's "one-size-fits-all" forestry policies, ignored Okinawa's subtropical conditions (unsuitable for Sugi/Hinoki monocultures). Furthermore, Japan gave subsidies and began implementing public projects, such as a chip factory in 1976, which was built with ¥140 million subsidies, producing 18,000 tons per year by 1982. Or on the other hand, the laminated wood factory, funded by ¥300 million grants in 1992, faced log shortages and technical hurdles. Finally, Okinawa suffered from low timber self-sufficiency, as it dropped to 10% in the 1990s, relying on imports (60%) and mainland Japan (30%) (Matsushita, 1993)

After 1972, Japanese Government-led reforestation policy shifted focus to broadleaf trees. Also, the introduction of two-storied forests (mixing tree layers) was promoted but faced low enthusiasm from private owners. Subsidies and cooperatives helped develop local timber and wood-product industries, such as the Kunigami-Village Forest Cooperative, which operated a chip factory and a laminated wood factory in 1992. Finally, preferential policies for Okinawa timber production created some demand, but forestry remained unprofitable (Matsushita, 1993).

The forestry industry in Okinawa, in the mid-90s changed with Japanese policies. In general, forest resources were still recovering from heavy cutting and war damage during the

US period. Main tree species shifted from Ryukyu pine (Pinus luchuensis) to broadleaf trees after Okinawa was returned to Japan in 1972, while public forests played a key role due to limited private forest development. Moreover, private forestry was still underdeveloped, and municipal governments were not supportive of forestry activities (Matsushita, 1993).

In 2022, Okinawa hosted a global academic hub related to forestry. This strengthened its role in international forestry research by hosting the IUFRO joint conference, attracting 76 participants from 19 countries and fostering cross-border collaboration. In addition, in the conference, the attention focused on how UNESCO-listed Yambaru forests underscored Okinawa's commitment to balancing conservation with local livelihoods, offering a model for global biodiversity governance. In addition, it was expressed there that non-traditional forestry sectors thrived in the archipelago, leveraging cultural heritage (sacred Sēfā Utaki) and eco-tourism to diversify economic opportunities. In terms of traditional Ryukyu performances and post-conference excursions, these showcased Okinawa's ability to merge forestry discussions with cultural preservation, enhancing its global appeal. Okinawa's 2022 forestry economy seemed to prioritize ecological resilience, cultural heritage, and international collaboration over conventional timber industries, positioning itself as a leader in sustainable and culturally integrated forest management (Owake, 2023).

Furthermore, with the second sector, the infrastructure development and the trade that resulted from the policies of the Japanese government was important, and as the construction sector expanded with funding from Japan, leading to road, harbor, airport, and housing development, in the 1990s, Okinawa's secondary sector was dominated by construction, with most trade occurring with mainland Japan. A portion of trade (23% of imports and 33% of exports) involved non-Japanese partners (Briguglio, 1994).

The most important sector of this period was tourism, as it was the one that the Japanese government put more efforts in to develop. In consequence, the marine economy in Okinawa underwent in this period a shift from fishing to tourism. The competition between tourism and marine tourism initiated because of the development of the latter and conflicts over marine resource use (fishing compared to diving). Furthermore, a starfish infestation took place in the archipelago between 1990s and 2000s which caused severe coral damage, impacting fish stocks and marine ecosystems. As a result, the fishing industry was regulated by local rules which were established to balance fishing and marine tourism interests (Ran, Lou, Tabeta, Wang, Lim, Ikoma, 2024).

For example, with the intention of solving the environmental impact in the Zamami Island that was hit because of the record high of tourist visits, in 2015, the Churashima Tax in

2018 was implemented, which introduced a ¥100 per visitor tax to fund environmental conservation. Besides, coral reef protection was mitigated by initiatives which included dive site closures in 1998, and starfish extermination. Facility upgrades, also implemented, translated into infrastructure improvements for waste management, roads, and tourist facilities. Finally, other earmarked taxes, used in multiple Okinawa villages supported environmental efforts (Ran, Lou, Tabeta, Wang, Lim, Ikoma, 2024).

Marine tourism industry in Okinawa had an early growth between the 1970s and 1980s, right when the Japanese administration took charge of the territory, as Japan promoted marine tourism as a growth industry. For instance, the first diving shop in Okinawa opened in Zamami Village in 1972, and later, the village was designated as Okinawa Coast National Park in 1978 (Ran, Lou, Tabeta, Wang, Lim, Ikoma, 2024). The 1975 Marine Expo catalyzed tourism growth, with investments in transportation networks and coastal management (Nguyen, 2012). By 1978, tourism revenue surpassed military base income, tripling since 1972 (Elridge, 2004).

In the 1990s, a tourism boom made the number of dive sites grow, reaching 35 by 1998. In fact, tourism surged from 400,000 visitors in 1975, to 3.56 million in 1996, generating ¥374.3 billion with 95.9% of it being domestic tourists (Bochorodycz, 2010). The initiation of Kerama Islands National Park in 2014, helped revive tourism in the islands after the Lehman Shock (2008 financial crisis), causing the record high tourists in 2015, when over 100,000 visitors went to see Zamami Island putting pressure on marine resources and facilities (Ran, Lou, Tabeta, Wang, Lim, Ikoma, 2024).

Tertiary industry accounts nowadays for 84.4% of Okinawa's economy, with tourism as a pillar since the 1970s (Miyagi, 2023). Tourism in Okinawa has become an important sector of the economy. For instance, in 2023, it recorded 4.15 million foreign tourist stays, accounting for 3.6% of total foreign tourist stays in Japan. Furthermore, it ranked among the top three prefectures in regional stays, emphasizing its significance as a major tourist destination and contributor to Japan's tourism sector (Ichiro, 2024).

Furthermore, 10 million tourist arrivals were recorded in 2019 (71.2% domestic, 28.8% international), while COVID-19 caused a significant drop in tourism the next year, but recovery was successfully anticipated by 2022. Incidentally, during the pandemic, the Japanese government provided financial support to tourism businesses (for example, "reduce business hours" subsidies).and promoted domestic tourism via campaigns like "Go to Travel" to revive the economy. According to a 2023 study made on 18 to up to 29 years old residents in Okinawa, those who trusted tourism policies and institutions were more likely to support tourism development, indicating policy effectiveness in shaping perceptions. The main 2020’s

Okinawan citizens worry, regarding tourism, were economic, socio-cultural and environmental impacts, with the latter being less relevant than the former ones (Miyagi, 2023).

The contradictions that exist between Okinawa's tourism growth and its environmental sustainability goals are mainly tourist arrivals, which have increased 16-fold since 1972, contributing in 2014 to 20% of GDP and two years later, surpassing 8 million visitors, while growing a 5% annually. This matter can further exacerbate sustainability problems, such as, for instance, the water shortages on Miyako Island (Kakazu, 2018). Nevertheless, the GPP growth rate is only 2.5% (JETRO, 2024). Compared to the last century, tourism surged from 560,000 visitors in 1972 to 9.47 million in 2019, when revenue generated ¥7,047 billion (Okinawa Prefecture, 2019). However, 40% of tourist spending leaked out of Okinawa, straining resources (Kakazu, 2018). On the other hand, we can also find the seasonality in this sector as its main risks, but it is also vulnerable to pandemics, recessions, and natural disasters (Yamaguchi, 2014). This fact was tragically noticed, with a 70.35% decline in tourists during COVID-19 in 2020. As for post-pandemic recovery, there was a post-COVID rebound in 2022, when tourism revenue rose 21.3%, to ¥850.7 billion and 8.53 million visitors, though per-tourist spending declined by 3.9%. Foreign tourists drove more growth than before, with 19.4% higher spending per person, although domestic tourism stagnated (Okinawa Prefecture, 2024).

As for economic plans, beginning in 1972 and implementing the las one in 2022, they were initially focused on closing socioeconomic gaps with mainland Japan and later shifting to private-sector self-sufficiency (Cabinet Office, 2025). Japan promoted Okinawa as a cultural and tourist hub through initiatives like the 2000 Okinawa Economic Plan for the 21st Century, emphasizing tourism/resort industries and Asia-Pacific regional interactions. Some challenges of Japanese economic development plans for Okinawa, exist as well. As development plans relied heavily on subsidies and excluded local initiatives, strategies focused on short-term stability rather than fostering self-sustaining economic growth (Yamaguchi, 2014).

In the post-cold war period, obviously, the U.S. base policies and economic interests changed, as the world’s situation also did. Critics argued U.S. bases in Okinawa served North American economic interests rather than security, while Japan paid $6 billion in 2002 to maintain U.S. troops. Strategic concerns, such as China’s rise and North Korea’s nuclear threats, kept U.S. bases in Okinawa essential. Furthermore, by 1995, U.S. bases employed only 1% of Okinawa’s workforce, around 8,000 people, at the same time they occupied 20% of the main island (Bean, 2015).

We can also regard a shift from military dependency to tourism happening then, as military’s economic contribution fell from 16% in 1972, to 8% in 1982 after reversion, while

tourism became central to growth (Nguyen, 2012). Furthermore, until the las decade, there has taken place a massive decrease of bases in the area, even after the fact that in the beginning of the returning to Japanese administration period, the Japanese government provided $850 million in economic incentives to encourage base acceptance. The tension between economic reliance on the bases and widespread opposition to their presence remained a critical challenge even until nowadays (Yamaguchi, 2014).

The economic impact of military bases over time has been seen as complex. Bases employed 8,813 Okinawans and supported base-related enterprises (stores, restaurants). Their economic significance declined from 15% to 5% of the local economy until the 2020s. High unemployment (7.7% in the 1998 gubernatorial election) often led voters to prioritize economic stability over opposition to the bases (Yamaguchi, 2014).

Summing up this section, the core industry of this period was tourism, as part of the tertiary sector. Rapid growth since the 1970s and marine tourism promoted by Japan indicate this trend since the beginning of the administration change (Ran, 2024). In the 1975 Marine Expo, infrastructure and visitor numbers increased (Nguyen, 2012), while in 1978, tourism income surpassed base revenue (Elridge, 2004). More recently, this trend continued with the number of visitors rising from 400,000 in 1975 to 10 million in 2019. That year, Okinawa acquired ¥7,047 billion in revenue (Bochorodycz, 2010; Okinawa Pref., 2019). However, COVID-19 impacted the sector, though recovery exceeded expectations in 2022, with ¥850.7 billion in revenue (Okinawa Pref., 2024). Environmental strain and economic leakages (40%) from this sector are notable concerns in the region (Kakazu, 2018).

Regarding construction and infrastructure, major public investment post-1972 in roads, ports, and housing demonstrated the Japanese government's support for Okinawa, with construction dominating the secondary sector in the 1990s (Briguglio, 1994). Another sector, agriculture and forestry, declined due to fragmented agricultural land and reduced taro fields (Chibana, 2020), while the timber industry was underdeveloped and unsustainable (Shinohara, 1972).

The role of military bases decreased as economic reliance on them declined from 16% (1972).to 5% (2020s) (Nguyen, 2012; Yamaguchi, 2014), with bases currently employing around 1% of the region's workforce (Bean, 2015). Economic policy shifted from gap-closing to private-sector focus (Cabinet Office, 2025) at the same time that it faced criticism for subsidy dependence and lack of local input (Yamaguchi, 2014).

At the end of the period, the sectoral structure was primarily focused on the tertiary sector, accounting for 84.4–86.5% of the economy, while the primary and secondary sectors

accounted for 4% and 13.7% respectively (Miyagi, 2023; Okinawa Pref., 2022). Manufacturing was weak, accounting for 4.3% of GPP, likely due to the region's isolation (Jiji Press, 2022b). Naha is the economic core of the region with a significant impact (76.6%) if removed from economic activity, while remote islands show low spillover effects (Shibusawa, 2019).

Looking ahead, Okinawa's economic prospects are shaped by both opportunities and challenges. While reliance on tourism and subsidies remains, emerging sectors like technology and green initiatives offer potential for diversification. The following section explores key factors influencing Okinawa's future economy, including demographics, geopolitics, and new industries.

4.3. Prospects for the Okinawan economy

There has been a shifting economic focus in the islands, especially after the 2010s, as the Okinawan government aimed lately to reduce dependence on the military economy and even tourism, and promote sustainable diversified industries such as renewable energy, science or technology. According to some experts, returning base lands is a key strategy to achieve economic diversification and self-sufficiency (Hikotani, Horiuchi & Tago, 2023).

The sectors most critical to Okinawa's economy nowadays, by production inducement, are firstly well-being related sectors such as medical services, health, and social security, the highest one. Then, public administration, commerce, transportation, and real estate. Regional multiplier effects dominate with 82.7%, indicating strong intra-regional economic activity (Shibusawa, Shimabukuro & Uchida, 2019).

An outline of Okinawa's economic landscape can be written, if we search for the right resources available on governmental institutions' sites dating from the 2020s. For example, in terms of labor participation and economic disparities, Okinawa had lower labor force participation in 2020, with men accounting for 56.9% and women 45.6%, compared to the national averages of 63.2% for men and 49.3% for women (Ministry of Internal Affairs and Communications, 2024a). Additionally, an aging population and gender gaps are significant issues, illustrated by low female labor participation (45.6% compared to the national 49.3%) due to childcare inflexibility and cultural norms (Ministry of Internal Affairs and Communications, 2024a). However, recent trends show that Okinawa leads Japan in entrepreneurship (8.8% new business rate).and female corporate presidents (11.4%), maintaining this lead for nine consecutive years until 2021 (Jiji Press, 2022b). Furthermore, disaster and pandemic risks remain, with weak Business Continuity Plans (BCPs) for SMEs and fragmented stakeholder coordination (Suzuki & Kani, 2022).

Economic disparity is evident as Okinawa's per capita income hovers around 80% of Japan's national average. In 2019, it was ¥2.396 million compared to the national ¥3.345 million, and in 2020, ¥3.74 million compared to ¥4.87 million per year (Statistics Bureau of Japan, 2019). Financial assets per household are also the lowest nationally (¥6.036 million compared to Kanagawa's ¥16.077 million), increasing vulnerability to economic shocks (Statistics Bureau of Japan, 2019). There is also both observation and encouragement of increasing foreign labor, especially from Nepal, China, and the Philippines, to support the growing economy (Jiji Press English News Service, 2022b). Nevertheless, Okinawa faces higher overall unemployment (5.5% compared to 3.8% nationally) (Ministry of Internal Affairs and Communications, 2024a) and a generational wealth divide, with younger households facing debt burdens while elderly households hold stagnant assets (Statistics Bureau of Japan, 2019). Youth unemployment in Okinawa in 2022 was 7.2%, double Japan's national average of 3.4%, and over 29.9% of households with children lived in poverty in 2016, twice the national rate. Despite income levels and high-skill jobs being lower, youth retention is improving despite ongoing brain drain (Okinawa Department of Commerce, 2024).

Regarding land prices post-war, significant growth has been observed. After the return of most lands, prices doubled from 74.55 thousand JPY per m² in 2015 to 124.86 thousand JPY per m² in 2024, indicating significant economic growth or increased demand. From 2020 (81.98 thousand JPY per m²) to 2024 (124.86 thousand JPY per m²), prices surged by 52.3%, far outpacing the 9.8% growth seen between 2015 and 2020. Notable annual increases were particularly sharp post-2022, with the most significant single-year increase occurring from 2023 to 2024 (+24.1%, from 100.65 to 124.86 thousand JPY per m²) (Tochidai, 2025).

A March 2024 report by Okinawa Prefecture's Department of Commerce details the region's ability to attract foreign investment despite having the highest unemployment rate (2.9%) among Japan's prefectures. Okinawa has high business formation rates, rising land prices, and a strong industrial base, with notable increases in residential land price appreciation (4.9% in 2023) and new workplace openings (8.18% in 2022) (Okinawa Department of Commerce, 2024). Tourism is significant, recording 5.7 million visitors in 2022 (an increase of 88.9% from 2021). Environmental sustainability concerns are present, but clean energy goals aim for a carbon-free society by FY2050 (Okinawa Department of Commerce, 2024).

Okinawa hosts Japan's first aviation maintenance cluster and various industrial clusters, attracting foreign capital and diversifying into IT, tourism, aviation maintenance, logistics, and biotech. Initiatives such as ResorTech Okinawa and Industlink promote IT and DX implementation (Okinawa Department of Commerce, 2024). Nonetheless, urban infrastructure

limitations and service sector dependence pose challenges. Typhoons and climate change may also increase costs. Recognized as a Regional Bio-Community in December 2022, Okinawa uses rich marine biodiversity for biotechnology research and development (Okinawa Department of Commerce, 2024).

Something worth noticing about the prefecture, is that according to its department of commerce, over 70% of native Okinawans return home after studying or working elsewhere, while at the same time, there are high local employment rates for new graduates. These seem to indicate industry-specific education strength as simultaneously, international schools attract foreign professionals despite cultural barriers. Another thing is Special Economic Zones, which its positive attributes, is their offer of significant tax incentives. Nevertheless, overreliance on these could deter long-term investors. Furthermore, the Okinawa Investment Support Center is a service for streamlined business setup, that clearly wants to attract talent and investors to the region. State-sponsored funding further supports SME growth and global market integration. Nonetheless, it is worth remarking how reliance on central government schemes may be risky if national priorities change (Okinawa Department of Commerce, 2024).

Okinawa's strategic location in East Asia makes it advantageous for trade, being within a four-hour flight of about two billion people across Japan, China, and ASEAN countries. This offers logistical benefits but also potential risks in regional conflicts. While geographic distance may increase logistic costs for inland businesses, Okinawa is ideal for Business Continuity Planning (BCP) and disaster recovery centers due to its low risk of simultaneous disasters (Okinawa Department of Commerce, 2024). Therefore, one can admit that logistics is therefore a key economic pillar, as Okinawa’s central geographic position between Tokyo and other Asian countries makes it an essential logistics hub, despite its isolated nature.

Even though the region possesses all the previous significant prone characteristics, Okinawa’s geographical composition as an archipelago presents several challenges. The primary issues include geographic isolation, fragile ecosystems, and reliance on imports due to limited local production. Tourism mitigates these challenges by extending market access and connecting with the mainland economy. Effective policy can balance economic growth with environmental and cultural sustainability, despite these limitations (Nguyen, 2012). Additionally, natural disasters such as typhoons and earthquakes directly damage industries and indirectly affect tourism through negative perceptions. Okinawa also has a lower income per capita compared to other prefectures in Japan (2102 thousand yen, the lowest among 47 prefectures), with high dependency on external regions for manufacturing inputs (Shibusawa, Shimabukuro & Uchida, 2019).

Okinawa faces structural challenges such as dependency on government subsidies, remittances, and imports, leading to a ¥787.3 billion trade deficit in 2022 (Okinawa Prefectural Government, 2022b). Despite receiving the highest per capita subsidies in Japan (¥255,000 per inhabitant in 2019), Okinawa remains not self-sufficient due to over ¥13 trillion in subsidies (Jiji Press English News Service, 2022b). Subsidy dependence harms long-term sustainability and makes Okinawa-based companies more competitive despite a limited domestic market size.

Funding decreased to ¥268.4 billion in 2022 when governors opposed base relocations, reflecting the government's priorities on Okinawa's development. The Finance Ministry proposed reducing Okinawa's budget to 240.3 billion yen, lower than the 300 billion yen requested by Okinawa and 299.8 billion yen sought by the Cabinet Office (Jiji Press English News Service, 2021). This reduction suggests a deprioritization of Okinawa's development while linking spending to U.S. base relocation progress.

Budget cuts could slow down infrastructure projects and economic initiatives, impacting local employment and business opportunities with a discretionary grant reduced from 98.1 billion yen to 48.1 billion yen (Jiji Press English News Service, 2021). Okinawa Governor Denny Tamaki's opposition to the U.S. base relocation may have influenced these cuts, potentially increasing tensions between Okinawa and Tokyo and straining trust and cooperation. Linking Okinawa spending to base relocation progress could pressure Okinawa to comply, increase local resentment, and delay necessary projects if progress stalls.

During a 2024 debate for the leadership of Japan's ruling Liberal Democratic Party, nine candidates proposed various solutions to address Okinawa's low per capita income. Sanae Takaichi suggested leveraging government-backed research from the Okinawa Institute of Science and Technology to boost local businesses. Takayuki Kobayashi aimed to increase subsidies for remote island revitalization, connecting economic health to national defense. Shinjiro Koizumi focused on developing new industries on U.S. military sites after their return to Japan. Katsunobu Kato wanted to double Okinawa's development budget to enhance national income. Taro Kono envisioned supporting companies that hire single mothers to reduce child poverty, while Toshimitsu Motegi planned to promote agriculture, forestry, and fisheries sectors (Jiji Press English News Service, 2024).

Regarding U.S. military presence, candidates tied economic plans to military adjustments without directly debating base relocation. Shigeru Ishiba advocated revising the Japan-U.S. Status of Forces Agreement (1960) and joint base management with Japan's Self-Defense Forces. Yoko Kamikawa pledged stricter negotiations with the U.S. to prevent

military-related crimes. Yoshimasa Hayashi prioritized returning Futemma base land for redevelopment, though he did not provide a timeline (Jiji Press English News Service, 2024).

A certain exclusion from security decision-making regarding the island has been seen, as, for instance, some critics of the Japan-U.S. Security Treaty within Japanese institutions have been dismissed, and the Futenma base relocation was decided by central government authorities without Okinawan participation (Yamaguchi, 2014).

Regarding the U.S. military base economy, it has declined from 15.5% of Okinawa's GDP in 1972 to 5% in recent years yet still generates ¥200 billion annually and employs 9,000 locals. Fiscal transfers from the Japanese government fund 50% of Okinawa's external payments, leading to economic dependency (Kakazu, 2018).

The occupation of US military bases is a significant issue, with 70.3% of all US military bases in Japan being in Okinawa, occupying 14.6% of land on the main island. Bases contribute less than 5% to Okinawa's GDP, however, and restrict the use of land for economic diversification. Governor Denny Tamaki has estimated that the return of base land can generate ¥900 billion ($6.9 billion) in revenue, or three times the current base-related revenue, referring to the potential for economic development (Shibusawa, Shimabukuro & Uchida, 2019).

Environmental and safety concerns include pollution (soil and water contamination), noise, and accidents (aircraft crashes) from military bases. Additionally, 29 marine areas and 20 airspaces are restricted from civilian use due to military activities (Okinawa Prefecture, 2024).

Geopolitical risks are significant, as Okinawa could be a target in conflicts due to its high concentration of military infrastructure amid escalating tensions between China and Taiwan. Japan has increased militarization, including deploying 570 troops and missile batteries on Ishigaki Island by 2022.

Identity and autonomy movements are notable, with 57% of Okinawans identifying as Uchinanchu (a distinct ethnic identity), while 26% see themselves as both Okinawan and Japanese. Political groups like the Association for Comprehensive Studies of the Ryukyu Independence advocate for decolonization based on historical annexation and marginalization. Resistance to military bases has persisted, with 61% of Okinawans viewing the base concentration as unequal (2022 survey). Additionally, 54% want the Futenma base closed, and 71% seek revision of the US-Japan Status of Forces Agreement.

Historical grievances remain, with many Okinawans considering the 1972 reversion incomplete, citing secret agreements allowing US nuclear arms and ongoing colonial relationships (Bazhenova & Goriacheva, 2023). Nevertheless, Okinawa is striving to become

an important prefecture in Japan. Despite its history of identity crises, conflicts, and administrative changes, it actively pursues recovery and development under the Japanese government's guidance.

The key policy implications that have been sought to reverse or mitigate the previously stated issues of the region, include mainly economic diversification, infrastructure modernization, and cultural preservation. Diversification has been shown to reduce the overreliance on tourism that Okinawa is facing, by fostering tech, agriculture, and niche manufacturing (Cabinet Office, 2025). Additionally, infrastructure modernization has also been regarded to address high capital depreciation (26% of GPP in 2022) and import dependency (¥787.3 billion trade deficit) (Okinawa Prefectural Government, 2022b). Ultimately, cultural preservation appears to balance tourism growth with safeguarding Okinawan heritage (Mashiko, 2002). It should be dully noted as well, that policymakers could be prioritizing disaster resilience for critical municipalities (especially Naha) and sectors (especially tourism), while concurrently strengthening wide-area cooperation, in order to mitigate risks from supply chain dependencies in secondary industries (Shibusawa, Shimabukuro & Uchida, 2019).

Tourism generates ¥564 billion ($4.5 billion) annually, accounting for 11% of Okinawa’s GPP and less than 100,000 regular jobs. Despite an optimistic target of ¥109,000 per capita tourist spending in 2014, actual spending was ¥70,000 (36% lower). Aggressive marketing targets long-stay visitors, with 9.84 million tourists in 2018 (JETRO, 2024). This advertising campaign seems to be one of the many well thought of strategies to improve this sector. Seemingly, the latter has been identified as an alternative growth avenue and a key component of future economic policies. According to the experts, Okinawa could expand its tourism sector by offering ecotourism or cultural tourism, which in turn aligns perfectly with the growing demand for novelty and authenticity among international tourists (Yamaguchi, 2014). For instance, Okinawa's Champuru culture, which influences sustainable development, with over 400 centenarians per 1.3 million population, shows the attractiveness of the region, owing it mainly to a healthy diet and strong social cohesion. Not to forget, the Yuimaru spirit, that helps foster community resilience and aids sustainable initiatives. Likewise, green technology efforts that the prefecture is pushing to implement, including waste glass recycling, ethanol production from sugarcane, and underground water dams (Kakazu, 2018). Important as well, the improving accessibility for foreign tourists. This one, involves enhancing transportation infrastructure, such as increasing bus frequency to major tourist sites or introducing hop-on-hop-off bus services. Finally, strengthening cultural connections with

neighboring countries seems to be a good way as well to attract more visitors (Yamaguchi, 2014).

Irrigation projects addressing Okinawa's agricultural needs implemented are mainly underground dams (Miyako's Sunagawa or Fukuzato), storing groundwater in limestone areas, preventing saltwater intrusion and ensuring stable supply. Furthermore, surface dams (Ishigaki's Mibaru Dam), capture river water in mountainous regions and pump systems and farm ponds, to elevate water to higher altitudes for distribution via pipelines. Also, drip irrigation and sprinklers, optimizing water use in drought-prone areas. Projects like the "Miyako-Irabu District" improve water access for diversified crops (mangoes, tobacco) (Hamai, 2019).

Soil types and crop selection can be specified into Kunigami Maji (55% coverage), with acidic, low-fertility soil that supports pineapples and limited vegetables. Secondly, Uchima Maji (27%) with alkaline, low water retention which is suitable for vegetables but vulnerable to drought, or Jagar (8%), with fertile clay soil, ideal for vegetables and high-value crops. Soil constraints drive regional specialization (for example, sugarcane in alkaline areas, fruits in acidic soils) (Hamai, 2019).

The implications of sugarcane reliance are many: to begin with, economic vulnerability, fluctuating sugar prices and market dependency risk income instability. Also, low productivity, as monoculture limits land and labor efficiency compared to diversified farming. Furthermore, environmental strain, soil degradation and limited crop rotation reduce long-term sustainability. Finally, diversification efforts, a shift toward high-value crops (mangoes, flowers, livestock) and tourism-linked agriculture to enhance resilience (Hamai, 2019).

With their focus on diversifying their economy, especially focused on their future in technology, and its many ways to improve local environmental and economy related problems, I found a 2015 paper on "Okinawa-style robot-embedded systems" that seemed a really interesting effort for their part. With it, they aimed to promote new business creation and innovation, especially in fields like tourism, health industries, and environmental protection but with a sustainability point of view to it. They supported the development of new technologies and the training of technicians and researchers, to foster independent economic growth in Okinawa (Anezaki, Tansuriyavong & Yamada, 2015).

It was interesting because it posed the importance of collaboration in developing unique technologies for Okinawa's tourism industry, essential for exchanging technological information, nurturing research and development personnel, and creating a framework for further technological advancement. The research committee worked with local government and

external entities to accelerate the development of Okinawa-specific technologies (Anezaki, Tansuriyavong & Yamada, 2015).

The proposed robots enhance safety and efficiency in tourism-related environments, as they were aimed at being used for monitoring and guiding guests in hotels and along shorelines, enhancing safety. Also, for monitoring hotel facilities and providing surveillance from the air, helping to ensure safety in environments with fluctuating conditions (Anezaki, Tansuriyavong & Yamada, 2015).

Although it must be mentioned the potential limitations existing in the research on underwater robots for marine conservation they found. One limitation was the physical burden and risk of divers involved in monitoring coral reefs. Additionally, underwater robots faced challenges such as ensuring effective communication and tracking of marine life, like crown-of-thorns starfish (Anezaki, Tansuriyavong & Yamada, 2015).

Regarding the logistics sector, some improvement efforts worth noticing would be the new air and sea hubs, such as Naha Airport and Port. They clearly play a significant role for exporters and manufacturers by reducing shipping time and costs, and their growth, driven by infrastructural improvements, is expanding considerably. Naha Port is being developed into an international maritime logistics hub with seven regular international container lines, gantry cranes, reefer power supply, and a logistics complex (Phase 1 opened in 2019). Okinawa Prefecture also launched an aircraft maintenance hangar at Naha Airport to foster the aviation-related industry cluster (Okinawa Department of Commerce, 2024). Naha Airport operates around the clock to meet various business needs, and the prefectural government aims to enhance Okinawa's logistics role by firstly developing Naha Port, also enhancing the ICT and LC and finally expanding international container shipping routes (JETRO, 2024). These projects aim to attract more cargo through financial incentives, benefiting e-commerce by redesigning networks to meet the increasing global demand for online goods and digital business models. Despite these investments, Okinawa's ports fall behind mainland ports in volume and global connectivity (Okinawa Department of Commerce, 2024). Strategic infrastructure projects positively influence Okinawa's logistics potential, but disparities and indifference from mainland Japan persist (Konagaya, 2020).

Japan as a whole, has introduced tourist taxes to raise tourism revenues and manage it more effectively as well. The International Tourist Tax, imposed in May of 2019, was to fund improvements to Japan's tourism infrastructure, with airlines and cruise operators charging 1,000 yen per departure to each passenger, excluding the exempts, and remitting it to the Government of Japan. Revenue is still being used in the creation of a comfortable tourism

environment, the expansion of accessibility to information on attractions, and the buildup of tourism resources based on natural and cultural resources (National Tax Agency, 2019).

Another update on tourism taxation that will be implemented from November 1, 2026, is that Japan's tax-free shopping system for foreign tourists switched to a post-paid refund system. Instead of being exempted from the 10% consumption tax at the point of purchase, tourists will pay the tax and be refunded when they go through procedures before their departure. In addition, from April 1, 2025, items shipped abroad to tourists' home countries will no longer qualify for tax exemption (JNTO, 2025).

Okinawa, as well, has also embraced tourism tax policies to enhance its economy. In 1998, the Special System for Okinawa was enacted to develop tourism, local industry, and the living conditions of the people. Key features included the Okinawa tariff measure program, which granted tariff incentives to build tourism and local industry; the Okinawa regional duty-free shop system, whereby domestic tourists could buy duty-free goods up to 200,000 yen at Naha airport and designated shops; and the international distribution base and industry cluster zone, which combined customs and tax incentives to stimulate industry and trade, with national tax privileges, customs duty exemptions, and local tax exemptions. The recipients are tourism, trade, and manufacturing businesses in the local area, domestic tourists, and investors and enterprises in special areas. The anticipated outcomes of these amazing programs are increased tourism and consumption, new business and investment generation, a stronger local economy, and an improved quality of life (Okinawa Regional Customs, 2025).

The tension between development and military presence has been also an important factor to consider inside Ryukyu’s situation. Many Okinawans seek sustainable and independent economic development, free from military influence. While bases provide financial aid and employment, they are also seen as symbols of external control and ecological degradation. Furthermore, political shifts intensify this tension, as seen in the 1996 prefecture-wide referendum on base presence (Yamaguchi, 2014).

Although it is true that there is a notable political apathy to security issues for most of the political sphere, as for example, the Japanese Ministry of Defense operates in a non-transparent, insider-only manner, fostering public indifference to security issues, and Japanese policymakers address security concerns in secret, knowing most citizens do not view U.S. demands as reasonable. Furthermore, resolving U.S. military and security concerns requires broader public recognition of these issues as shared concerns with Okinawans (Yamaguchi, 2014).

Concluding this fragment, I would like to begin with what I think is the most imperative piece of information for current Okinawa: the policy directions and economic restructuring. Okinawa's development policy seems to center almost entirely on economic diversification, infrastructure modernization, cultural preservation to resolve the high capital depreciation (26% of GPP in 2022), and a ¥787.3 billion trade deficit problems (Cabinet Office, 2025; Okinawa Prefectural Government, 2022b).

Cultural policies seem to aim to balance economic growth with local identity, notably through heritage preservation (Mashiko, 2002), while disaster resilience and interregional cooperation are prioritized to reduce vulnerabilities in tourism and secondary industries (Shibusawa, Shimabukuro & Uchida, 2019).

Indeed, if we want to outline the tourism sector, we should start with the fact that it contributes ¥564 billion annually (11% of GPP). Nevertheless, it underperforms on per capita spending goals reaching ¥70,000 in 2014, although the initial target had been thought to be ¥109,000 (JETRO, 2024). Therefore, growth strategies include targeting long-stay visitors, promoting ecotourism and cultural tourism, and leveraging Okinawan cultural assets like Champuru culture, Yuimaru spirit, and longevity (Yamaguchi, 2014). Accessibility improvements, such as enhanced bus systems and regional partnerships, are underway and national and regional tourism tax policies (for example the 1,000 yen international tourist tax from 2019 or the 2025–2026 future reforms) fund tourism infrastructure while improving the visitor experience (National Tax Agency, 2019; JNTO, 2025). Moreover, Okinawa-specific tax programs from 1998, foster tourism, trade, and industry through tariff incentives and duty-free zones (Okinawa Regional Customs, 2025).

If we change our focus to agricultural sustainability and water management, we observe water infrastructure development, including underground and surface dams, pump systems, and micro-irrigation, enabling stable water supply for diverse crops like mangoes and tobacco (Hamai, 2019). Furthermore, soil specialization is clear to influence crop choice, as it happened with Kunigami Maji (pineapples), Uchima Maji (vegetables) or Jagar (high-value crops) (Hamai, 2019). Ultimately, overreliance on sugarcane creates economic and environmental risks, driving diversification toward mixed farming and agri-tourism (Hamai, 2019).

Another development strategy would be technological innovation and smart tourism improvements. For instance, robot-embedded systems have been impulsed in the region, to promote innovation in tourism, healthcare, and sustainability, aiming to enhance safety, service, and monitoring capacities (Anezaki, Tansuriyavong & Yamada, 2015). It is worth noticing that collaboration between local government and research bodies supports tailored technological

development. However, underwater robots for marine monitoring face technical constraints like diver risk and communication issues (Anezaki, Tansuriyavong & Yamada, 2015).

In the logistics and connectivity enhancement topic, some infrastructure projects at Naha Airport and Port are attempting to support Okinawa's logistics ambitions, including container routes, ICT centers, and e-commerce integration (Okinawa Department of Commerce, 2024; JETRO, 2024). Nevertheless, despite progress, global connectivity gaps remain compared to mainland ports, and central government support is seen as insufficient (Konagaya, 2020).

Finally, as for geopolitical tensions and civil society, the U.S. military presence generates mixed impacts, causing two aspects to face each other: economic support and ecological and political tensions. For instance, the 1996 base referendum and calls for autonomy reflect local resistance to military influence. In fact, broader public apathy and opaque national security policymaking impede meaningful dialogue and consensus-building (Yamaguchi, 2014).

In the final next chapter, we will regard at a summary of all the previous chapters, pointing out the main events and issues of each period, its economic characteristics, while also commenting on the most important prospects and ways to improve the situation of Okinawa.

5. Conclusions

My objective with this essay was to use graphs to illustrate the different changes with the different economic sectors and the GDP growth since the beginning of the 20th century, before the war, until nowadays, and see how it all changed. Nevertheless, I had to change my plans. Even though I found a lot of more information that I thought I would, about Okinawa's economy, especially about the period of post reversion, before it, there was not a lot of data that could be used, and especially no exact numbers, just approximations of what it could have been or data of just one year in particular. That is why the explanation that you will following up, will be as well, just an estimate of how these parameters could have been then, without graphs and according to the numbers and suppositions included in the papers I did my research with.

Given all the data in the previous sections and the main causes for each economic change, it is evident that Okinawa's economy has transitioned significantly over the past more than 150 years. Moreover, the impact of U.S. military rule deeply shaped the region's economic dependency and stalled industrial growth. Although there was notable GDP growth during this period, the benefits were predominantly reaped by the military rather than the local industry or population. The reversion to Japan redirected focus towards public employment and tourism, yet structural dependence on subsidies and tourism persisted. Nowadays, Okinawa grapples with challenges such as over-tourism, environmental degradation, and economic fragility. Calls for economic diversification, greater autonomy, and a reduced military footprint remain central to policy discourse.

When we consider all the policies and resulting data from these periods, several conclusions can be drawn about the post-war period up to the present day. Military-centric policies during the early U.S. administration led to structural reliance on bases (Sarantakes, 2000). Despite post-reversion efforts to diversify the economy through Japanese subsidies, the issue of over-reliance wasn't fully resolved (Briguglio, 1994). Tourism, though promoted, presented sustainability issues, and its growth did not fully address income disparities or environmental degradation (Yamaguchi, 2014). Geopolitical tensions have persisted due to Okinawa's strategic role in U.S.-Japan alliances, clashing with local demands for autonomy and demilitarization (Bazhenova & Goriacheva, 2023).

Okinawa's economic development post-WWII saw a shift from North American to Japanese dominance, with a return to the latter in 1972. This era left an enduring external power dependency, as a North American-controlled military economy remained post-reversion. The transition from an agricultural society to service industries supporting North American bases

underscored external geopolitical influence on the region's economy. Policies centered around the military cultivated fixed dependencies on bases, and Japanese subsidies post-reversion did not diversify the economy entirely. Although tourism expanded, sustainability problems persisted, and income inequality and environmental degradation were not adequately addressed. Geopolitical tensions continue to persist, given Okinawa's strategic importance in US-Japan alignments, competing with local aspirations for self-governance and demilitarization.

Starting in 1945, U.S. administration policies included significant actions like land seizures for military bases (confiscating 20% of arable land) (Briguglio, 1994), currency control with the introduction of the B-yen pegged to USD (Takagi, Shintani & Okamoto, 2004), and an economic dependency on military spending, which constituted 50% of GDP in the 1950s and 1960s (Taira, 1958). These policies often disregarded native industries, leading to social and environmental impacts such as deforestation, DDT usage, and water pollution from bases (Yamashiro, 2011). Social issues like prostitution and black markets also arose due to economic marginalization (Augustine, 2008).

From 1972 onwards, post-reversion Japanese policy focused on special development measures, especially tourism (Yamaguchi, 2014). The first three ten-year plans aimed to close income disparities with mainland Japan but resulted in continued reliance on subsidies (Briguglio, 1994). Base retention left 70% of American bases in Japan concentrated in Okinawa (Nishiyama, 2019), contributing only 5% to GDP during the 1980s (Bean, 2015), and led to land use and pollution protests (Feifer, 2000). The expansion of tourism saw visitor numbers rise from 400,000 in 1975 to 3.56 million in 1996, generating ¥374.3 billion annually (Bochorodycz, 2010). However, disparity persisted, with per capita income at 70% of the national average (Jiji Press, 2022b), and reliance on low-wage service work (Okinawa Department of Commerce, 2024). Ecological issues continued due to military operations, including oil spills and acoustic disturbances from bases (Koji & Tamami, 2020).

From the post-Showa era to the present, Japanese policies like the ten-year plans since 1972 and the Okinawa Promotion Budget (OPB) providing ¥301 billion in FY2020 (Hikotani, Horiuchi, & Tago, 2023) favored infrastructure improvements and minimized military dependence. The tourism industry saw an acceleration with 9.47 million visitors in 2019 (Okinawa Prefecture, 2019). However, base transfer operations, such as the relocation of Futemma Air Station to Henoko since 1996, faced opposition due to environmental concerns (Konagaya, 2020). Problems related to bases persist, such as pollution, accidents, and protests, including the PFAS contamination case (Mitchell, 2020).

Thus, economic and social challenges remain, including overreliance on the tertiary sector (tourism, public works, bases) which accounts for 82% of Okinawa's economy, compared to 72.5% for Japan as a whole (Shibusawa, Shimabukuro & Uchida, 2019). Vulnerability to crises like COVID-19, causing a 70% drop in sector revenue in 2020 (Okinawa Prefecture, 2024), low industrial diversification with manufacturing contributing only 4.3% of GDP versus 20% nationally (Jiji Press English News Service, 2022b), and a trade deficit of $787.3 billion in 2022 (Okinawa Prefectural Government, 2022b) persist.

In 2025, Japan faces economic, political, and security challenges like U.S. tariffs on Japanese products imposed by the Trump administration (Kageyama, 2025). These challenges have led Japan to ally with historically unfriendly territories such as South Korea and China in this 'commercial war' (Maslow & OShea, 2025), particularly affecting exports of automobiles and electronics. Toyota, for instance, exports many vehicles to the U.S., and these tariffs threaten to erode their competitiveness. The Japanese government has expressed concerns, with Finance Minister Katsunobu Kato suggesting Japan's substantial holdings of U.S. Treasury securities could serve as leverage in trade negotiations (Kageyama, 2025). Additionally, the Bank of Japan has revised its economic growth forecast downward due to uncertainties from these trade policies (McCabe, 2025). Disputes over U.S. military bases, demands for increased defense spending to 3% of GDP, and the potential of independent nuclear status are also ongoing concerns (Maslow & OShea, 2025).

Okinawa's unique demographic trend affects its economic future and sustainability. The population peaked at 1.458 million in 2015 and is shifting towards an aging society with in-migration from mainland Japan. The unemployment rate has fluctuated between 5%-9%, nearly twice the national average, with young people under 30 making up 36.2% of the unemployed. Labor force growth (2.3% annually) outpaces job creation (2% annually), leading to employment mismatches, especially in tourism. If trends continue, Okinawa might become a labor supplier for Japan, compensating for the overall population decline (Kakazu, 2018).

Okinawa's current issues stem from reintegration and economic diversification challenges, coupled with the persistence of the military presence, which limits economic diversification and generates social and cultural discontent. Policies supporting sustainable and fair economic growth through local initiatives could make Okinawa an East Asian trade center. Future development programs in sustainable development, cultural preservation, renewable energy, agroecology, and technology for marine environment conservation are increasingly being established. Okinawa seeks long-term development by minimizing its role as a business gate, diversifying its economy, and consolidating local industry, addressing the economic and

social problems of low industrial diversification and trade deficits (Okinawa Department of Commerce, 2024).

After regarding all the data and the main causes for each economical change, we can confidently state that Okinawa transitioned from a primary-based to a tertiary-dominated economy across 150+ years. Furthermore, U.S. military rule deeply shaped economic dependency and stalled industrial growth, and although there was a significant GDP growth in that period, it was only to the benefit of the military and not the region's industry or the population. Also, the reversion to Japan shifted focus to public employment and tourism, although structural dependence persisted, to the subsidies and to the tourism sector, and nowadays, Okinawa faces challenges of over-tourism, environmental degradation, and economic fragility. Finally, calls for economic diversification, greater autonomy, and reduced military footprint are central to policy discourse.

Once we consider all the policies and resulting data from these, we can conclude several details about the post-war period up until today. For instance, military-centric policies during the early period of U.S. administration led to structural reliance on bases (Sarantakes, 2000). Nevertheless, this issue in the post-reversion era was not fixed completely with the Japanese subsidies, as they did not fully diversify the economy (Briguglio, 1994). Although there were efforts to focus the economy on tourism, this sector presented sustainability issues, and growth in tourism has not helped to resolve income disparities or environmental degradation fully (Yamaguchi, 2014). Additionally, geopolitical tensions have been persistent due to Okinawa's strategic role in US-Japan alliances, which clashes with local demands for autonomy and demilitarization (Bazhenova & Goriacheva, 2023).

Okinawa's post-WWII economic development experienced a shift from North American to Japanese dominance and then returned to Japanese dominance in 1972. The era left behind an external power dependency since an North American-controlled military economy remained after reversion. The transformation from agricultural society to service industries for North American bases exhibited external geopolitical influence on the economies of the region. Policies which revolved around the military caused structurally fixed dependencies on bases, and post-reversion Japanese subsidies did not equally diversify the economy. It facilitated tourism along with sustainability problems, but nevertheless, did nothing about income inequality or impeding the destruction of the environment. Geopolitical tensions continue to persist with the strategic location of Okinawa in US-Japan alignments, competing with native determination for self-governance and demilitarization.

Starting from 1945, when U.S. administration policies began, notable actions included land seizures (confiscating 20% of arable land for bases) (Briguglio, 1994), currency control (introduction of the B-yen pegged to USD) (Takagi, Shintani & Okamoto, 2004), and economic dependency (50% of GDP derived from military spending in the 1950s and 1960s) (Taira, 1958), which dealt disrespectfully with native industries and led to social and environmental impacts. These impacts emanated mainly from disrespect for the domestic industries from policies prioritizing military bases over agriculture or industry (Sarantakes, 1996), and social and environmental expenses such as deforestation, DDT usage, and water pollution from bases (Yamashiro, 2011). There was also prostitution (Sarantakes, 2000) and black markets due to economic marginalization (Augustine, 2008).

Post-reversion Japanese policy, from 1972 onward, focused on special development measures, particularly focused on tourism (Yamaguchi, 2014). Moreover, the first three ten-year plans attempted to close income disparities with mainland Japan but only led to continued reliance on subsidies (Briguglio, 1994). Base retention left 70% of American bases in Japan concentrated in Okinawa (Nishiyama, 2019), contributing only 5% to GDP during the 1980s (Bean, 2015).and at the same time, to land use and pollution protests (Feifer, 2000). Economic effects were the expansion of tourism, with visitors increasing from 400,000 in 1975 to 3.56 million in 1996, generating ¥374.3 billion annually (Bochorodycz, 2010). Nevertheless, continued disparity remained, with per capita income at 70% of the average for Japan (Jiji Press, 2022b) and reliance on low-wage service work (Okinawa Department of Commerce, 2024). Ecological problems continued through the presence of military operations, like oil spilling and acoustic disturbance from the bases (Koji & Tamami, 2020).

From the post-Showa era to date, continuous Japanese policies like the ten year plans since 1972 until the last one in 2022 or the Okinawa Promotion Budget (OPB) that provided subsidies of ¥301 billion in FY2020 (Hikotani, Horiuchi, & Tago, 2023), favored infrastructure improvement and minimized military dependence. Tourism-based activities also accelerated the industry with a record 9.47 million visitors in 2019 (Okinawa Prefecture, 2019). However, base transfer operations such as the relocation of Futemma Air Station to Henoko since 1996 are opposed because of environmental issues (Konagaya, 2020), while other problems related to bases still persist, as US bases in Okinawa cause pollution, accidents, and such protests as the PFAS contamination case (Mitchell, 2020).

Thus, economic and social challenges are still present, including the consequent overreliance on the tertiary sector (tourism, public works, bases), accounting for the 82% of the economy in Okinawa, compared to 72.5% for the country as a whole (Shibusawa, Shimabukuro

& Uchida, 2019), and vulnerability to crises like COVID-19, causing a 70% drop in the sector revenue in 2020 (Okinawa Prefecture, 2024). There is also persistent low industrial diversification, as manufacturing only contributes 4.3% of GDP as opposed to 20% nationally (Jiji Press English News Service, 2022b), and reliance on imports, as the trade deficit was $787.3 billion in 2022 (Okinawa Prefectural Government, 2022b).

This year 2025, Japan as a whole, has faced, and is facing, economic, political, and security challenges like U.S. tariffs on Japanese products, by Trump administration (Kageyama, 2025). These have caused Japan to reunite and ally with historically unfriendly territories, such as South Korea and China in this “commercial war” (Maslow & OShea, 2025), while also affecting Japan particularly in the exports of automobiles and electronics. In fact, Toyota exports a significant number of vehicles to the U.S., and these tariffs threaten to erode their competitiveness. The Japanese government has also expressed concerns over these tariffs, with Finance Minister Katsunobu Kato suggesting that Japan's substantial holdings of U.S. Treasury securities could serve as leverage in trade negotiations (Kageyama, 2025). Additionally, the Bank of Japan has revised its economic growth forecast downward, citing uncertainties stemming from these trade policies (McCabe, 2025). Conversely, dispute over U.S. military bases, demands for increasing defense spending to 3% GDP, and the potential of independent nuclear status (Maslow & OShea, 2025).

Okinawa's unique demographic trend plays a role in its economic future and sustainability. Okinawa’s population was projected to peak at 1.458 million in 2015, with a shift towards an aging society and in-migration from mainland Japan, while at the same time, the unemployment rate has fluctuated between 5%-9%, nearly twice Japan’s national average, with young people (under 30) making up 36.2% of the unemployed. Labor force growth (2.3% annually) outpaces job creation (2% annually), leading to persistent employment mismatches, especially in tourism and if trends continue, Okinawa could become a labor supplier for Japan, providing workers to compensate for Japan’s overall population decline (Kakazu, 2018).

In Okinawa, nowadays main issues derive from reintegration and economic diversification, faced with the persistence of military presence, which limits economic diversification and generates social and cultural discontent. Okinawa's special history should be addressed through policies supporting sustainable and fair economic growth with the local initiatives, which make it probable for Okinawa to be an East Asian trade center. Looking toward the future, new programs in sustainable development, cultural preservation, renewable energy, agroecology, and technology to aid in the conservation of the marine environment are being increasingly established. Okinawa conceives long-term development by debiasing its role

as a business gate, economic diversification, and the consolidation of local industry in the face of economic and social problems of low industry diversification and trade deficits (Okinawa Department of Commerce, 2024).

Policymakers need to encourage economic diversification by building technology and manufacturing industries, making sure that the workforce development matches the changing market demands (Ministry of Internal Affairs and Communications, 2024b). At the same time, infrastructure updating and lowering the over-reliance on tourism (done by investing in high-value-added industries such as specialty manufacturing and promoting traditional crafts) could lead to long-term stability (Okinawa Prefecture, Planning Department, Statistics Division, 2020). Equally important are attempts to reinforce social safety nets and address underlying wage stagnation so that households are more resilient to economic shocks and overall resilience (Statistics Bureau of Japan, 2019).

I also would like to include a study regarding the best strategies for island economies to take, that I found and would be perfect, I think, to conclude the whole work, and add what I think would be the best strategy after regarding the main characteristics of Okinawa's economy today. The document discusses two models for small island territories: MIRAB and PROFIT. MIRAB stands for Migration, Remittances, Aid, and Bureaucracy. It's about relying on external resources like aid and remittances from migrants. PROFIT, on the other hand, focuses on Proactive strategies like managing resources, finance, transportation, migration policies, and para-diplomacy. The PROFIT model is more about using jurisdictional powers and proactive policies to drive economic growth. Looking at the MIRAB model, Okinawa might not fit perfectly because it's part of Japan, so aid might not be a primary factor of its problems, as we have already seen how much dependent it has become on it. But remittances could be a factor if there's significant migration. However, the document mentions that PROFIT strategies are more proactive. Since Okinawa wants to diversify and reduce reliance on tourism, the PROFIT model might be more relevant. (Baldacchino, 2006)

Therefore, some PROFIT economic strategies for Okinawa would be upgrading infrastructure, boosting maritime or air transport and ICT (telemedicine, digital services) to reduce isolation and attract industries, as it is already being done with Naha airport and hubs. And to help even more the trading and logistics sector, leveraging proximity to Asia for trade partnerships would be very interesting, as well as lobbying for tariff exemptions amid U.S.-Japan trade tensions. Therefore, partnering with East Asian nations on climate resilience, tech projects, and diaspora-driven investment could be a good way to foster this (Deida, 2016).

Furthermore, on the diversifying the economy issue, developing high-value manufacturing (electronics, agroecology), renewable energy (for instance, solar or marine), and globalizing traditional crafts could definitely change this. Shifting to eco-tourism or cultural heritage tourism with visitor caps and marine conservation initiatives would also help in this. Regarding the workforce development, aligning vocational training with renewable energy, ICT, and niche sectors would address youth unemployment. With the military problem, converting underutilized bases into industrial parks or renewable energy sites would promote peace-oriented industries and help with diversification. As for policy tailoring, offering SME incentives, federal subsidies for transport or R&D, and strengthening social safety nets for aging populations would improve the situation as well (Deida, 2016).

It should be noted that most of these recommendations are already being realized, as it has been previously stated, therefore, we could be very soon watch a previously free region, that afterwards was transformed into a colonized economic region (which mostly produced for its colonizer), thrive along with the country that one day colonized it, and that after the reversion has made sure to improve its economic landscape. Surely enough, Okinawa seems well prepared to face any upcoming issue that might come in its way, and it will be interesting to know how these implementations shape its already promising future.

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