

沖縄経済の将来とアジア  
—脱米軍基地依存の展望—

**Okinawa's Economic Future and Asia:  
Looking Beyond the U.S. Military Presence**

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**Keywords**

**Asian dynamism, Asia's Bridgehead, soft power, ratio of base dependency in Okinawa, economic effect by bases, redevelopment of former military bases, Okinawa's economic development potential**

**Introduction**

Okinawa Prefecture's economy is very strong. Economic growth in China and other Asian nations has expanded in a multi-tiered fashion often referred to as a "flying goose pattern," lifting the number of foreign tourists and companies as well as the amount of foreign investment heading to Okinawa.

Although the U.S. military bases on Okinawa defined the postwar society and economy, dependency on these bases which used to 56.8% in 1957 prior to reversion, currently stands at 5% (Figure 23) and their presence has significantly declined. Although the bases bring employment and consumption, they are not a business enterprise or other such economic entity, so they do not grow based on market principles and are fixed to the extent that their budgets do not increase such that their ratio within the economy has declined. Consequently, the more the Okinawan economy develops, the lower the ratio of dependency on these bases is. The redevelopment of returned U.S. military base sites have been very active with large commercial

facilities, luxury hotels and other such enterprises locating in such areas. The main reason for this is the dynamism of Asia, which has led to an increase in foreign tourists and propelled companies that are looking toward the Asian market.

Comparing the economic impact before and after reversion, we see that the latter far surpasses the former in both micro- and macro-economic aspects. This has brought about a paradigm shift in the views concerning the bases. Previously, security, crime, accidents and other social aspects were mainly discussed, while economic issues are emphasized at present.

This paper surveys Okinawa's economy by looking beyond dependency on the bases to incorporate Asian dynamism, develop and be valuable in revitalizing Japan's economy.

## **1. Okinawa Prefecture's Asia Economic Strategic Initiative**

### **Why is the Asia Economic Strategic Initiative Necessary? (Purpose)**

The Japanese economy, which is currently confronting a decreasing population, will inevitably have to reduce its dependence on the domestic market and expand in search of other markets overseas, including Asia where remarkable growth has been seen. It will no longer be able to economically survive unless the economic and social framework incorporates the whole world, including Asia. In addition, Okinawa will eventually have to address the urgent issues of the upcoming population decline. Therefore, it is critical to incorporate Asia's dynamism and bring about Okinawa's self-sustainability and development, such as overseas expansion and establishment of relationship and networks, especially with Asia.

Okinawa maintains a geographical superiority as a "bridgehead to Asia" with its central location, and, moreover, has a comparative advantage in terms of "soft power" that attracts people with its history, natural features and culture.

The economies of Asian nations, including China, have grown rapidly and expanded. Okinawa Prefecture must respond appropriately and on a suitable scale so as to create and develop businesses and industries with operations extending across Asia.

The purpose underlying the formulation of this initiative is to set out a specific strategy that will complement, strengthen and promote measures related to Okinawa's 21st Century Vision and incorporate Asia's dynamism while increasing Okinawa's comparative advantage and growth potential, thereby accelerating Okinawa's development.

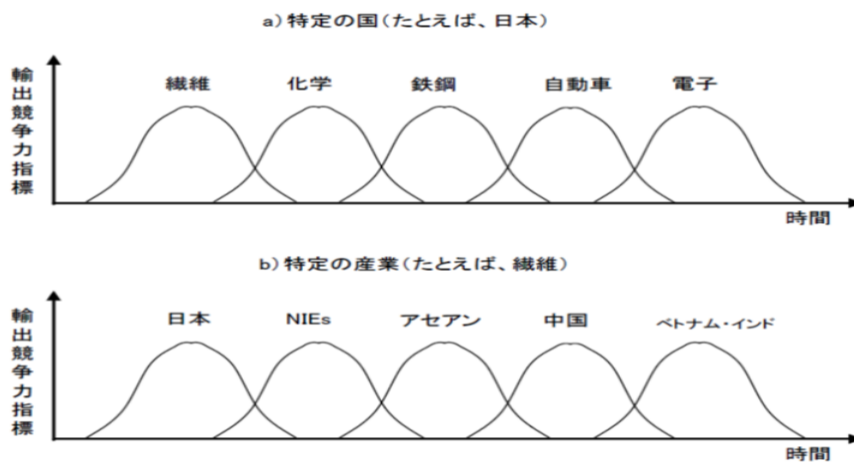
### **Asia's Dynamism**

In Asia, a pattern of growth has been seen repeatedly. The foundation of Asia's dynamism has been that the entire region, rather than a single country has seen a wave of development that spreads from one country to other countries where wages are lower. A phenomenon has been observed where the production of a certain product begins in country A, then is moved to country B and thereafter to country C. In the search for lower wages, economic growth has leaped from advanced nations to semi-developed nations and then to less-developed

nations. This pattern of development is multi-tiered and has disseminated from Japan to NIEs, ASEAN, China and then Myanmar. Because it has appeared to be like a wild goose repeatedly extending its wings to fly, it has come to be called the “flying goose pattern.”

The increase in such development and the accompanying expansion are referred to as “Asia’s dynamism.” Of course, individual countries in Asia face issues, but, when the region is viewed as a whole, it is expected to grow and expand in the future as well. Expansion of the middle class and emergence of a wealthy class has also been seen. It is vital that Okinawa develop in cooperation with Asian economies.

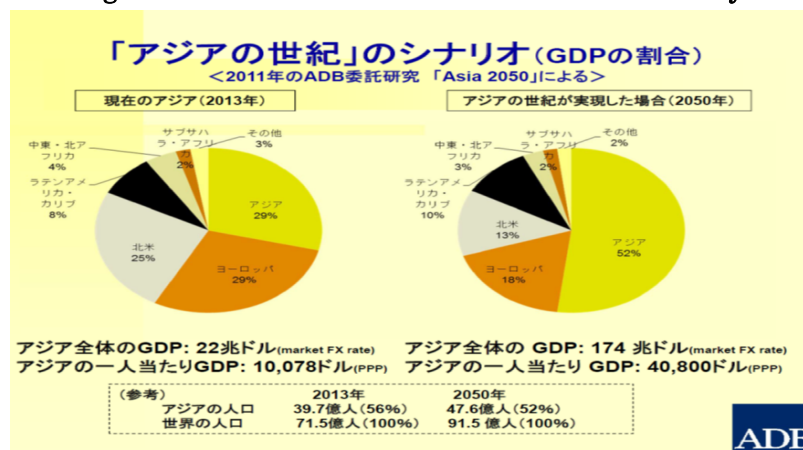
**Figure 1. Flying Goose Pattern**



Source: Chi Hung KWAN, “Has the Rise of China and Advance of the IT Revolution Ruined the Flying Goose Pattern? A Look at the Competitiveness of Chinese Products in the U.S. Market,” Research Institute of Economy, Trade and Industry

The Asian Development Bank projects that the GDP of Asia as a whole, which was \$22 trillion in 2013, will rise to \$174 trillion in 2050, which means that per capita GDP also will increase from \$10,078 to \$40,800. Asia’s share of world GDP is also projected to rise from 29% to 52% over the same period. Asia will account for the majority of global growth such that the Asian century will arrive in a literal sense.

**Figure 2. Scenarios for the Asian Economy**



Source: Executive Summary of “ASIA2050 Realizing the Asian Century,” Asian Development Bank 2011

## **Okinawa's Development Potential**

Today, much attention is focused on Okinawa's potential to develop. **“Aviation, energy as well as manufacturing industries and as-yet-unknown advanced technology businesses have begun to make headway. People and money are flowing in from around the world to realize this potential. Okinawa is no longer the frontier of Japan. The center of Asia is approaching Okinawa.”** (Nikkei Business, Special Feature: Okinawa's Economic Bloc: Impact of New Industries Attracting Asia, Double Issue August 6 and 13, 2012)

The Japanese economy, which is now facing a population decline, will inevitably have to reduce its dependence on the domestic market and expand in search of other markets overseas, including Asia where remarkable growth has been seen, and it will no longer be able to hold its own unless the economic and social framework extends across Asia. In addition, Okinawa will eventually have to address the urgent issues of the coming population decline, overseas expansion overseas into Asia as well and the construction of relationships and networks.

Okinawa possesses, to a sufficient degree, elements providing it with a comparative advantage through its “soft power” and proximity as a “bridgehead to Asia,” and has a high potential for expansion. If those elements are actualized, then not only will the Okinawan economy be self-sustaining, but it will also be helpful to revitalizing Japan's economy as has been clearly expressed in the Japanese government's Basic Okinawa Promotion Plan. As was also reported by the Nikkei Business magazine, Okinawa's potential continues to be acknowledged by the market.

Both the Okinawa 21<sup>st</sup> Century Vision and the Okinawa 21<sup>st</sup> Century Vision Basic Plan, whose purpose is to realize that vision of the future, point to the “construction of a robust and flexible self-supporting economy serving as a bridge between Japan and the world”: “Taking into account how the global economy continues to evolve and the driving force of global economic growth is shifting toward Asia, it is extremely important that policies be strategically developed with a broad view of both Asia and the world for intra-regional industries and industries exporting outside the region that support the prefectural economy so as to develop an attractive investment environment and entice investment into the prefecture, and to utilize and develop human resources, traditional culture, nature, biological resources and Okinawa's various other resources which underpin the development of a diverse range of industries.”

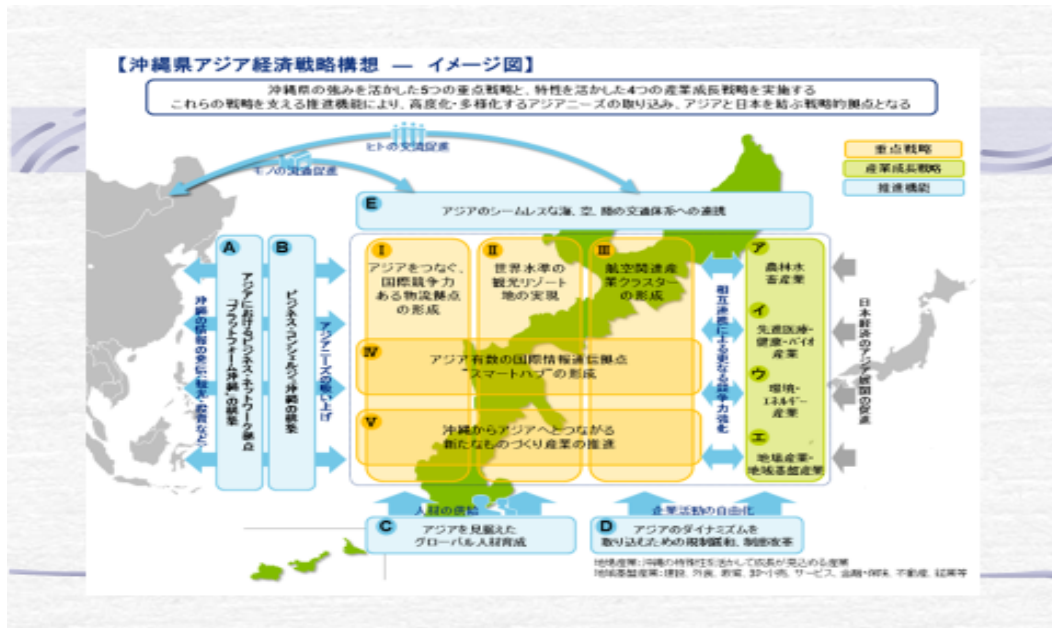
These circumstances must be taken into consideration in formulating the Asia Economic Strategic Initiative as well as specific policies and strategies indicated that lead to independence and development such that Okinawa Prefecture incorporates the dynamism of Asia.

## **Overview of Key Strategies**

Okinawa Prefecture has rolled out five key strategies which serve as cornerstones providing the driving force for Okinawa's economy into the future. These are implemented along

with four industrial growth strategies which promote new growth by incorporating the Asian market and five promotion function which promote growth with the aim of realizing a range of policies. These measures will enable the creation of new mainstay industries that incorporate Asian and other markets, as well as further develop existing industries, work to construct a robust industrial structure, improve the incomes of prefectural residents, and develop Okinawa into an international business metropolis that is able to contribute to the development of Japan and Asia.

Figure 3. Asia Economic Strategic Initiative



## **Five Key Strategies**

### **【 Key Strategy I 】**

Formation of an internationally competitive distribution hub connecting Asia

~ Establish Okinawa's position as a unique Asian regional hub in pursuit of speed and quality ~

### **【 Key Strategy II 】**

Realization of a world-class tourist resort destination

~ Advance tourism-related industries to a new growth stage ~

### **【 Key Strategy III 】**

Formation of an aviation-related industry cluster

~ Develop industries whose focus is aircraft maintenance incorporating the increasing demand for aviation in Asia ~

### **【 Key Strategy IV 】**

Formation of Asia's leading international telecommunications "smart hub"

~ Strategically utilize the telecommunications industry to contribute to the creation of new value in other industries ~

### **【 Key Strategy V 】**

Promotion of new manufacturing industry connecting Okinawa to Asia

## **Four Industrial Growth Strategies**

### **【Industrial Growth Strategy A 】**

Agriculture, forestry, fisheries and livestock industries

### **【Industrial Growth Strategy B 】**

Advanced medical, healthcare and biotechnology industries

### **【Industrial Growth Strategy C 】**

Environmental and energy industries

### **【Industrial Growth Strategy D 】**

Local industries and regional infrastructure industries

## Five Promotion Functions

**【Promotion Function A】** Establish “Platform Okinawa,” a business networking hub in Asia

~ Proactively support companies and other enterprises to expand overseas through the establishment of hubs in Asia ~

**【Promotion Function B】** Establish Okinawa as a business concierge

~ Maintain a liaison function for information linking Asia and Okinawa ~

**【Promotion Function C】** Develop human resources having a global outlook and are focused on Asia

~ Raise the level of intermediate and middle tier personnel and develop experts who will drive industrial promotion in Okinawa Prefecture ~

**【Promotion Function D】** Implement deregulation and systematic reforms to capture Asia’s dynamism

~ Strengthen industrial competitiveness and aim to be a business hub in Asia ~

**【Promotion Function E】** Link seamlessly with sea, air and land transportation systems in Asia

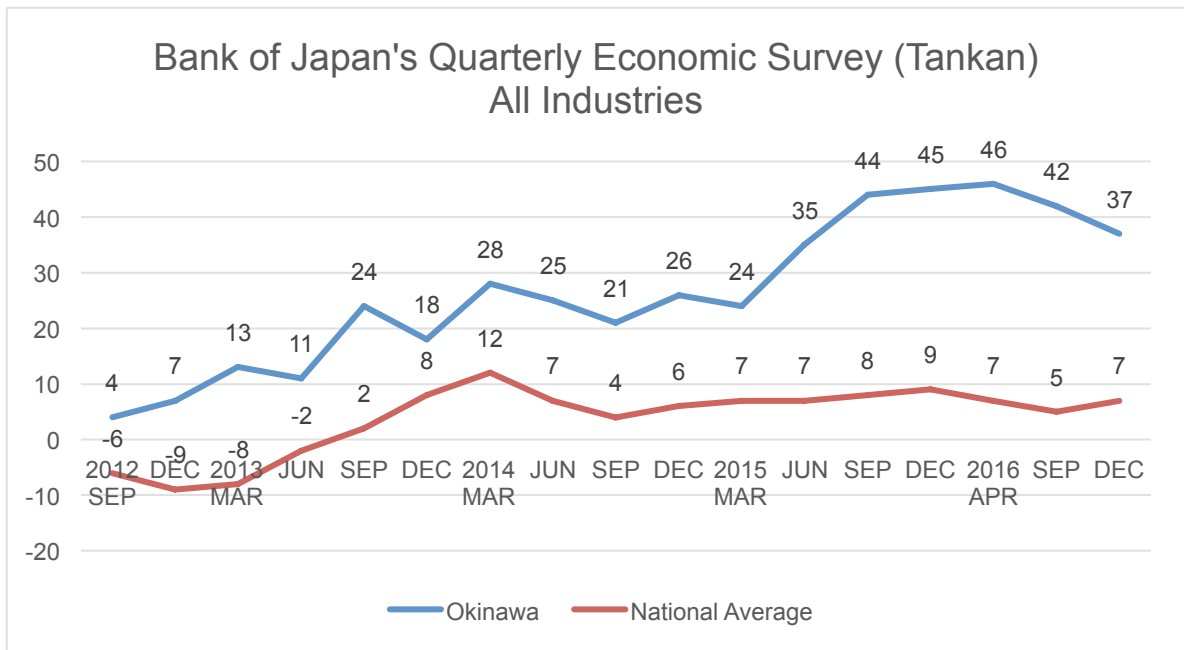
~ Establish eight speedy and highly convenient transportation systems that accelerate the exchange of people and goods as well as stimulates the development of various industries ~

## 2. Current State of Okinawa’s Economy

### • Business Conditions

The recent Okinawan economy is in very good shape. According to the Bank of Japan’s quarterly economic survey on business conditions, Okinawa Prefecture has largely surpassed the country as a whole during the past few years. According to the most recent data (December 14, 2016), Okinawa Prefecture achieved a score of 37 while the country as a whole was at 7, and this gap has tended to grow wider.

**Figure 4. Bank of Japan's Quarterly Economic Survey (Tankan)**



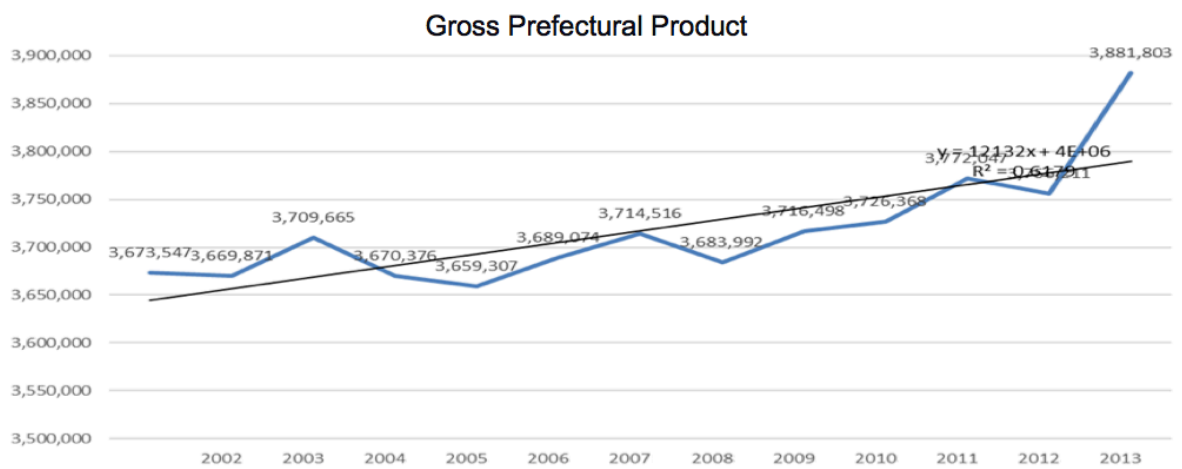
Source: Prepared based on the Short-Term Economic Survey of Enterprises available from the Naha Branch, Bank of Japan at <http://www3.boj.or.jp/naha/0012.html>(Figures for September 2016 were used for the “Most Recent.”)

• **Gross Prefectural Production**

Gross prefectural production also has been on the increase, and per capita prefectural income has also shown favorable signs. On the other hand, the national economy has been unable to break out of a deflationary spiral, plunged into a population decline in 2008, and has seen its gross national product trend downward.

**Figure 4. Gross Prefectural Production**

Unit: One Million Yen

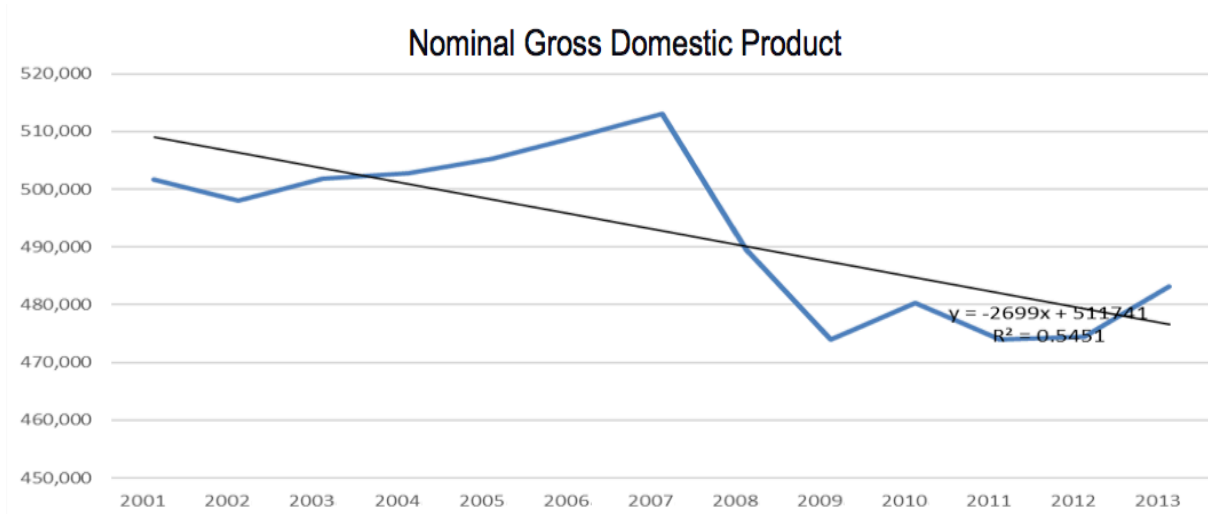


Source: Prepared based on the list of Japanese prefectures by GDP available on the Okinawa Prefecture website

[http://www.pref.okinawa.jp/toukeika/accounts/accounts\\_index.html](http://www.pref.okinawa.jp/toukeika/accounts/accounts_index.html)

**Figure 5. Nominal Gross Domestic Product**

Unit: One Million Yen



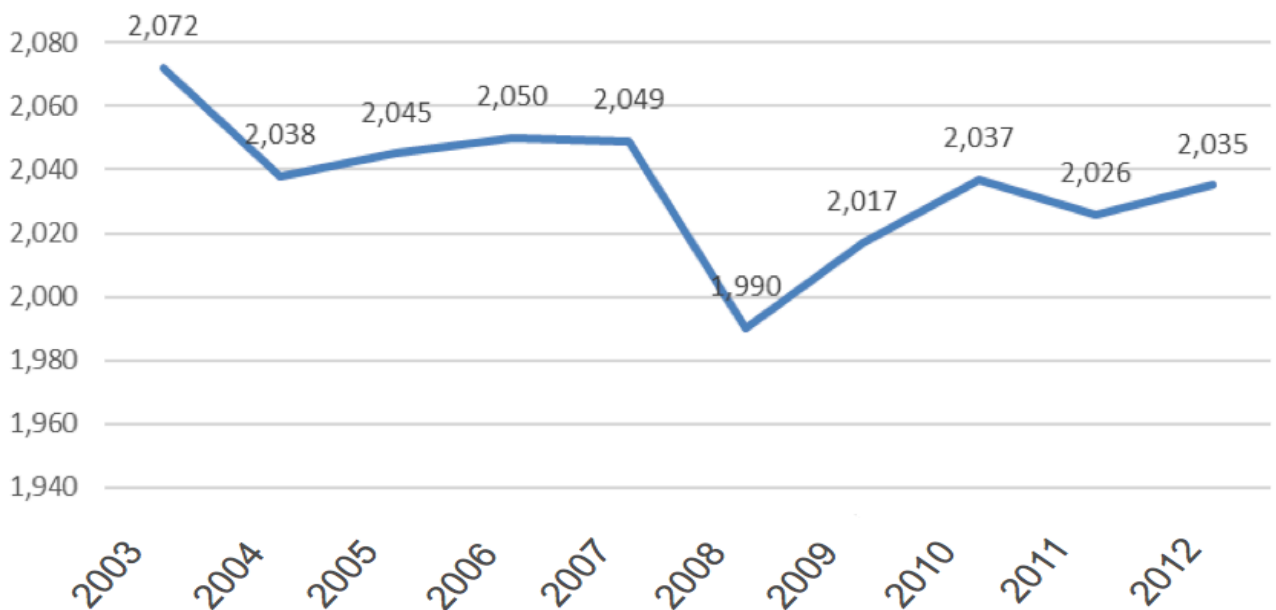
Source: Prepared based on National Account data available from the Bureau of Statistics of the Ministry of Internal Affairs and Communications <http://www.stat.go.jp/data/nihon/03.htm>

• **Per Capita Prefectural Income**

Per capital prefectural income had been the lowest of all prefectures in Japan for many years after Okinawa’s reversion. However, since 2009, it has been taken on a V-shaped recovery and risen.

**Figure 6. Per Capita Prefectural Income**

Per Capita Okinawa Prefectural Income

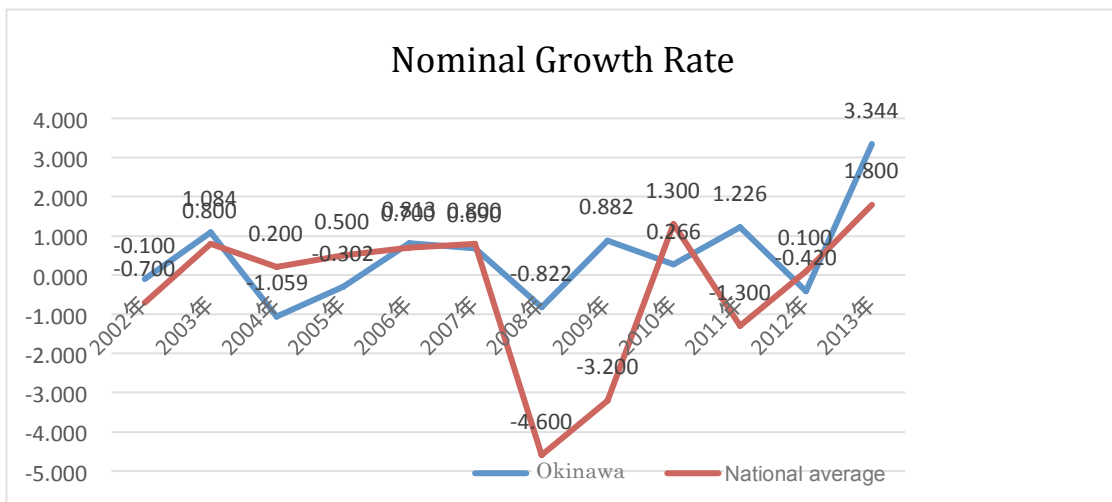


Source: Prepared based on income available for Okinawa Prefecture Municipalities

• **Nominal Growth Rate**

Looking at the growth rate, the entire country experienced a dramatic drop precipitated by the Lehman Brothers bankruptcy in 2008. However, there was relatively little impact on Okinawa, which saw only a slight downturn. Subsequently, Okinawa Prefecture recovered along with the Japanese economy, but Okinawa Prefecture outshined the rest of the country with a remarkable 3.344% nominal growth rate compared to 1.8% for the country as a whole.

**Figure 7. Nominal Growth Rate**



Source: Prepared based on income for Okinawa Prefecture Municipalities available on the Okinawa Prefecture website and National Account data available from the Bureau of Statistics of the Ministry of Internal Affairs and Communications

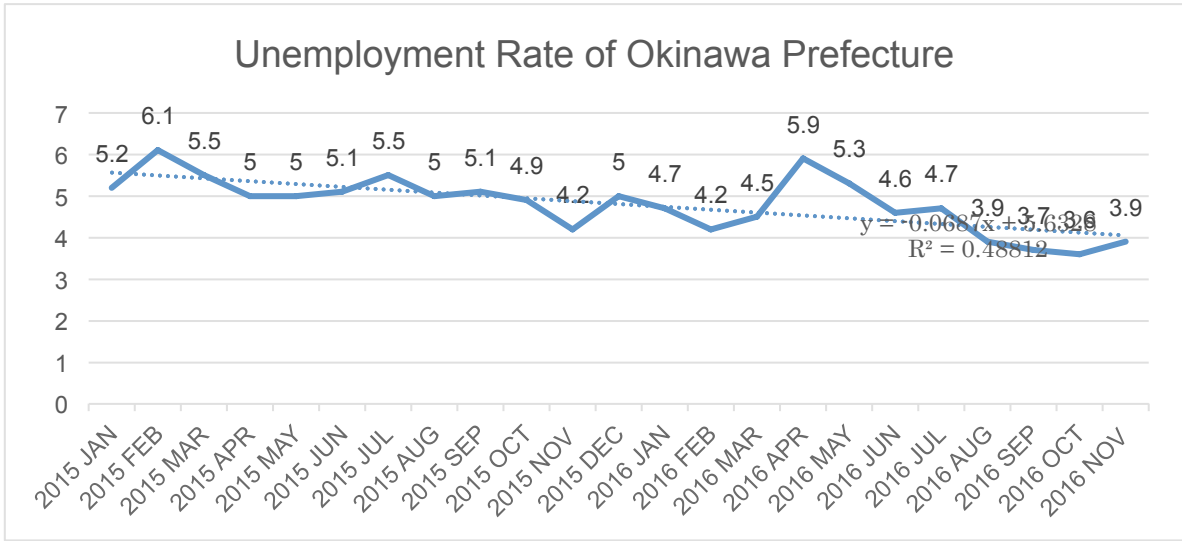
<http://www.stat.go.jp/data/nihon/03.htm> and income for Okinawa Prefecture Municipalities

[http://www.pref.okinawa.jp/toukeika/ctv/ctv\\_index.html](http://www.pref.okinawa.jp/toukeika/ctv/ctv_index.html)

• **Unemployment Rate**

Okinawa's unemployment rate, which had been in a severe state for many years, was 3% in September 2016, and has shown signs of improving further. The ratio of job offers to applicants surpassed the 1 mark in June 2016 and has trended favorably.

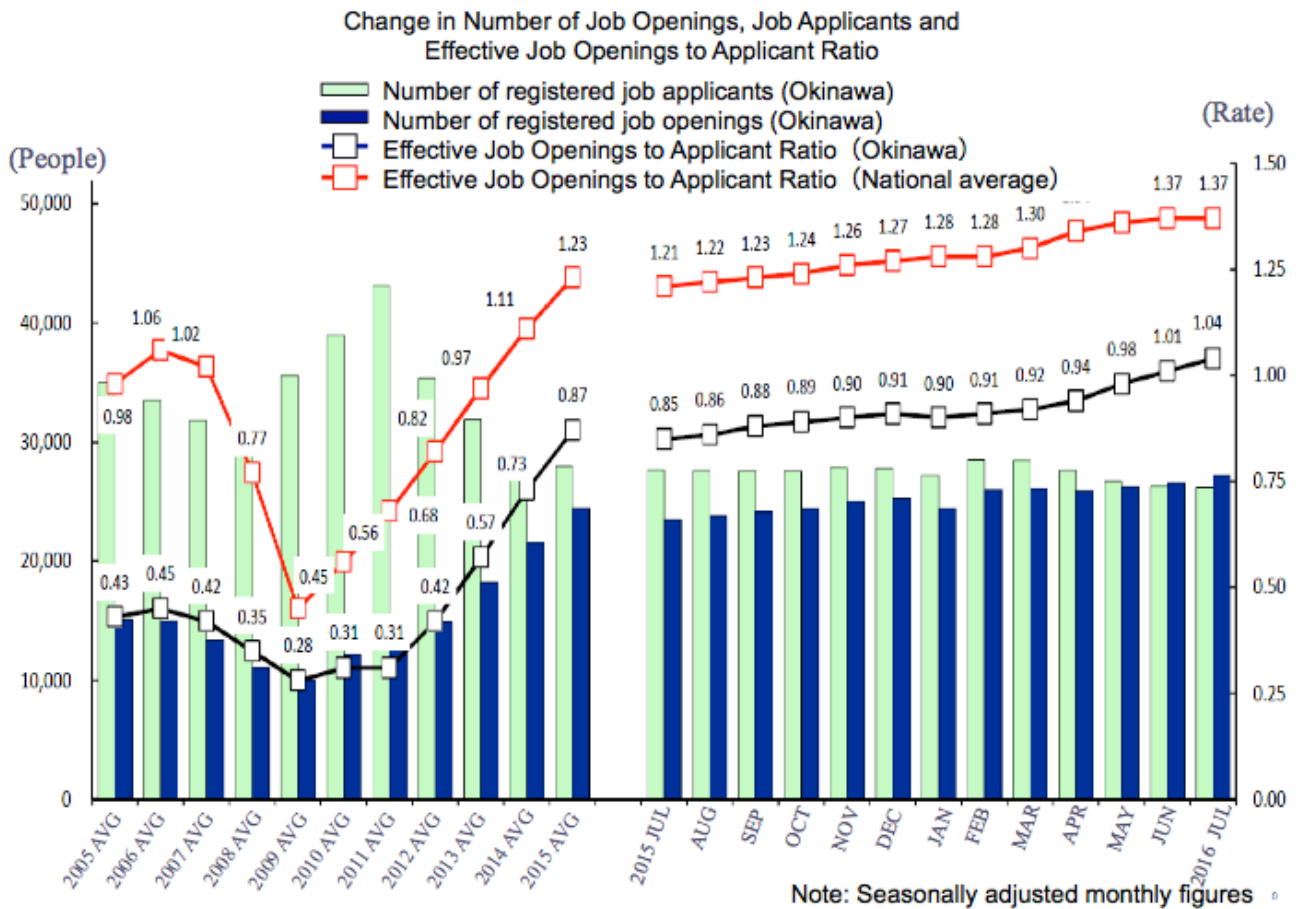
**Figure 8. Unemployment Rate**



Source: "Labor Force Survey" available on the Okinawa Prefecture website

[http://www.pref.okinawa.jp/toukeika/lfs/lfs\\_index.html](http://www.pref.okinawa.jp/toukeika/lfs/lfs_index.html)

**Figure 9. Effective Job Openings to Applicant Ratio**



Note: Seasonally adjusted monthly figures

Based on the Okinawa Labour Bureau's "Labour Market Movements" for July 2016

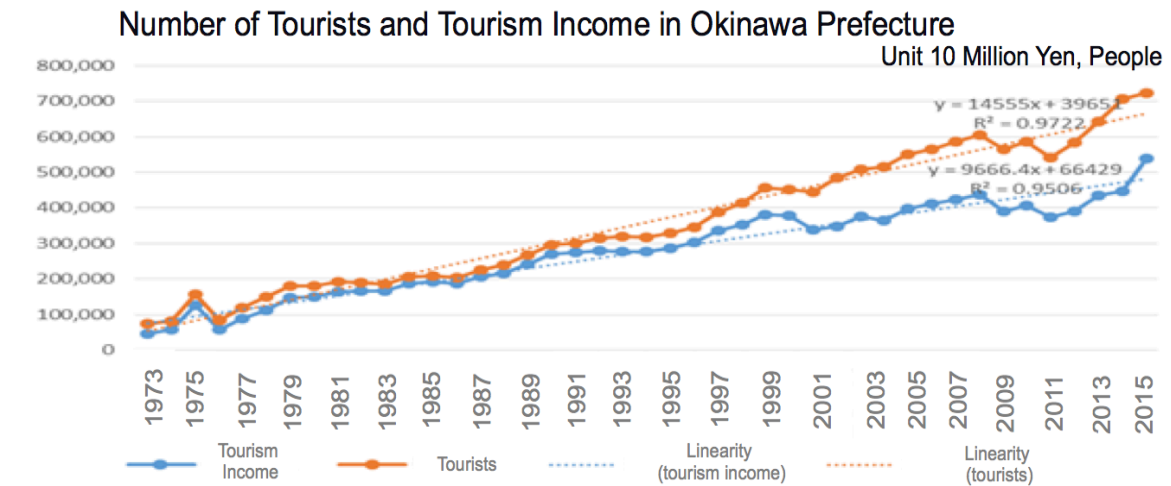
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### 3. Industrial Development

#### (1) Tourism Industry

The annual number of tourists visiting Okinawa in the years immediately after the prefecture reverted to Japan in 1972 was around 400,000 to 500,000. This number steadily rose thereafter, and, notwithstanding some intermittent declines, has currently topped over 7 million and is still rising.

**Figure 10. Number of Tourists Visiting Okinawa Prefecture**



Source: Okinawa Prefecture website

<http://www.pref.okinawa.lg.jp/site/bunka-sports/kankoseisaku/14736.html>

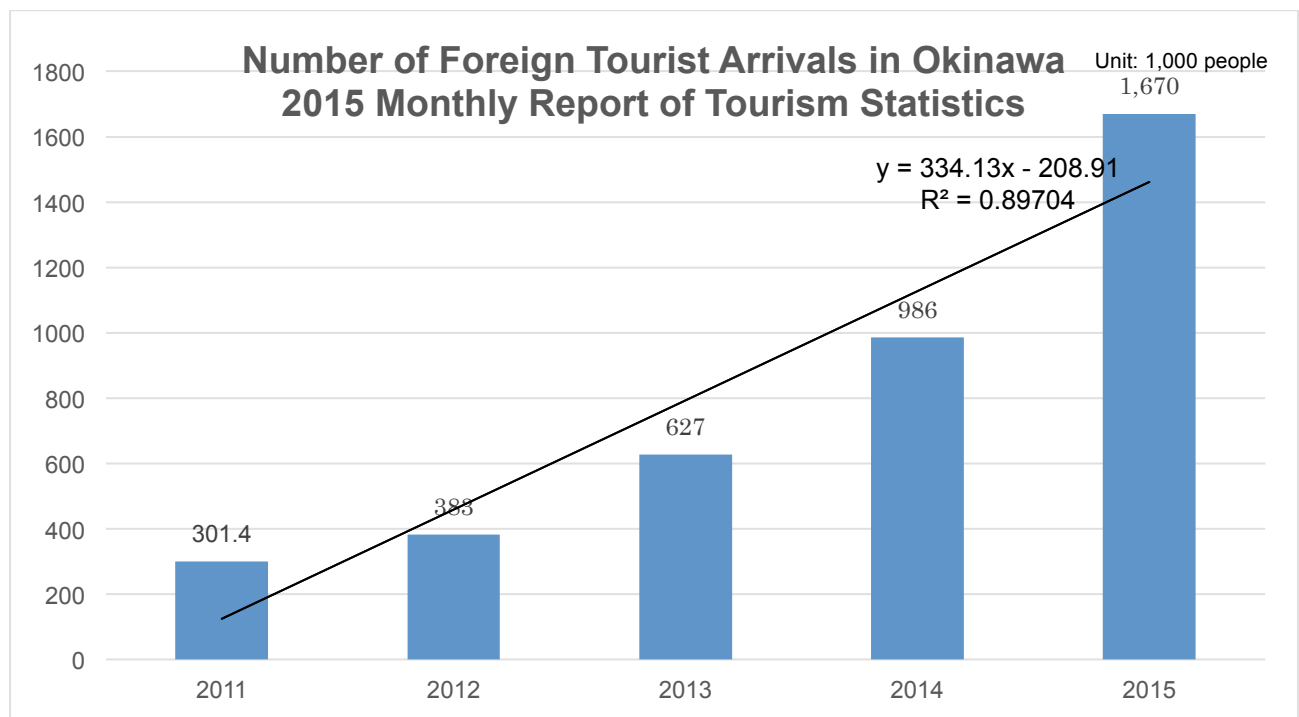
The number of foreign tourists visiting Okinawa has rapidly increased. from 301,400 in 2011 to 1,670,300 last year, an increase of 550%. Nationwide the number of foreign tourists visiting Japan rose 320% to 19,737,409 (according to the Japan National Tourism Organization), yet Okinawa has significantly outdistanced the country as a whole in terms of its growth rate. When domestic tourists are added to this figure, the number of visitors to Okinawa is 7,936,300. Tourism, a leading sector of the Okinawa economy, looks promising. Along with development of the Asian economy, the affluent class has expanded, and tourists have even been seen arriving in Okinawa on private jets. Ensuring that there is sufficient parking area for these private jets has also been included in Okinawa Prefecture's Asia Economic Strategic Initiative. MICE startups and a second runway at Naha airport are soon to be realized as Okinawa's tourism industry enters another dimension.

Figure 11. Foreign Tourists on a Private Jet



Source: Prepared based on <http://www.afpbb.com/articles/-/3023415>, <http://www.afpbb.com/articles/-/3023415>

Figure 12. Number of Foreign Tourists



Source: Prepared from the July 2016 Summary of Statistics on Inbound Tourists (Released in August 2016)

<http://www.pref.okinawa.jp/site/bunka-sports/kankoseisaku/kikaku/statistics/tourists/h28-7tourists.html>

### Backdrop behind the Increase in Foreign Tourists

Of course, development of the economies of Asian nations, principally China, has provided the foundation for this increase in foreign tourists. According to the Asian Development Bank, GDP for the whole of Asia will rise from \$22 trillion in 2013 to an estimated \$174 trillion by 2050. Asia is forecast to increase its share of world GDP from 29% to 59%, which is more than half global GDP. The shadow of the Chinese economy, which has overtaken Japan in terms of GDP and become the number two economy worldwide, has been a concern. China has insisted that it has entered a “new norm” shifting from quantity to quality, but, there are additional

worries such as the disparity between urban and regional areas, the declining birthrate and aging population due to China’s one child policy. In addition, there have been concerns about market transparency and similar issues, which have been reflected in the collapse in stock prices in Shanghai and other events. It is patently evident that the economy is slowing down. Nevertheless, China has strong fundamentals, and its economy will not be overturned in any profound way.

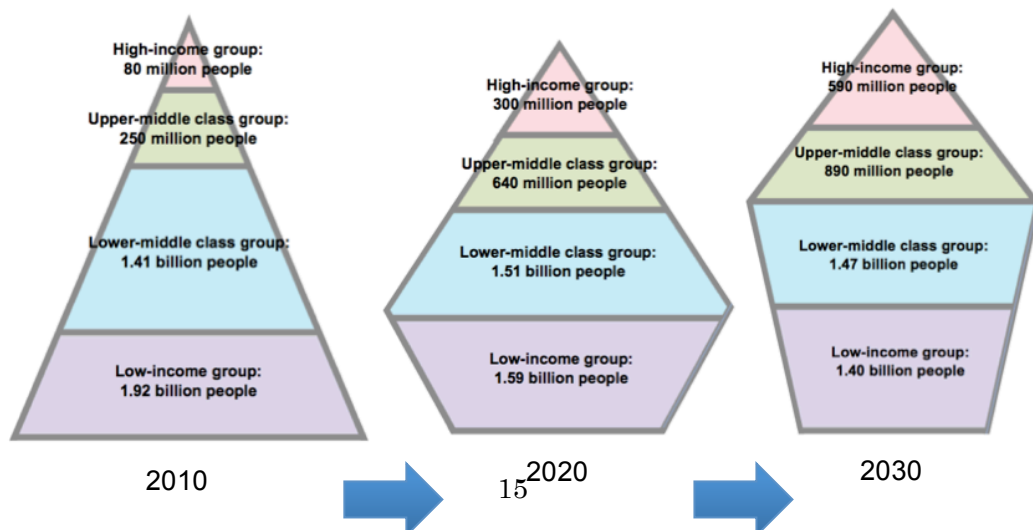
In Asia, repeated bursts of growth have been seen over and over again. The development wave has repeatedly risen affecting not just in one country, but spreading to other low-wage countries in a “flying goose pattern” that has become the foundation for Asian dynamism. In their pattern of development, Asian countries are connected in a multi-tiered fashion reaching all the way to Myanmar, the last frontier. Even if there is a slowdown in China, Asia as a whole will likely expand.

In these Asian nations, a wealthy class and middle class are emerging. According to the “Asia-Pacific Wealth Report 2016,” the wealthy class, which comprises households with \$1 million or more in investment assets, has reached 47 million households in the Asia-Pacific region, holding a total of \$15.8 trillion in assets. As for the rate of increase of this wealthy class in 2014, India was at the top with 26.3%, followed by China at 17.5%, then Indonesia at 15.4% and Taiwan at 11.8%. The wealthy class in Asia has been progressively expanding.

Following on from the wealthy class, demand for tourism among the middle class has also increased. A middle-class having annual income between approximately ¥380,000 to roughly ¥3.8 million has increased due to the growth of emerging nations principally in Asia, and, in 2030, 4.9 billion people, which is equivalent to approximately 60% of the world’s population, are forecast to be included in the definition of middle-class (Nikkei Business, January 20, 2014 edition). The demand for travel in emerging nations where the middle-class is growing is predicted to enlist 1 billion people in 2030 and surpass the 800 million people in advanced nations (Japan Association of Travel Agents, “Change and Outlook for Overseas Markets”). The increase in demand in Asia for tourism has not eased.

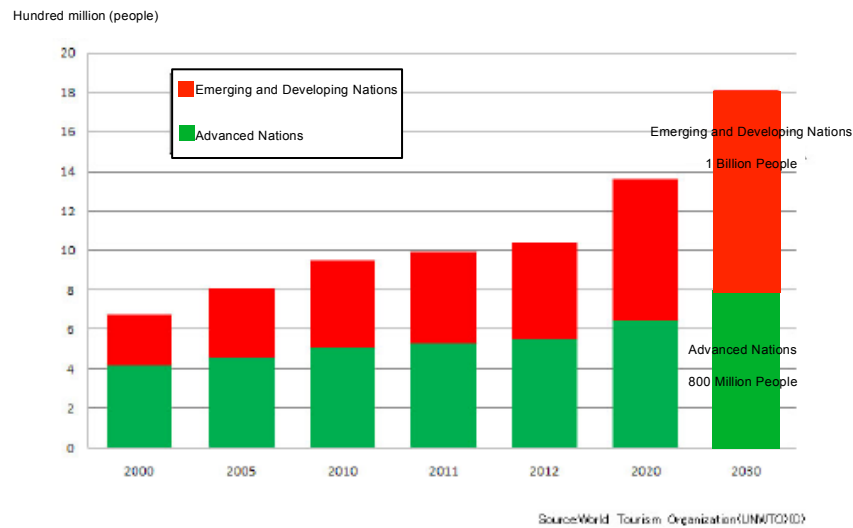
**Figure 13. New Middle Class**

**(Table 7) Emergence and Increase of New Middle Class in Emerging Nations**



Source: Ministry of Economy, Trade and Industry, “New Middle Class Strategy: Japan Growing Along with Emerging Nations Mainly in Asia” by the Study Group on a New Middle Class Strategy, July 2012

**Figure 14. Projected Number of Travelers**



Source: Japan Association of Travel Agents, “Change and Outlook for Overseas Markets”

### Factors Pushing the Increase in the Number of Tourists

Foreign investment has led to the establishment of world-class hotels in Okinawa Prefecture. Foreign investors naturally investigate many business opportunities around the world and invest where the rate of return is the highest and investment may be recouped in the shortest period of time. The fact that foreign investment has moved into Okinawa may be cited as evidence that the market has recognized Okinawa’s potential. The standard high class resort hotel is located along the beach. However, the Hyatt Regency, a high-class international hotel, is located in the Makishi district in close proximity to Kokusai Street and the Makishi Public Market. This is because Okinawa has an inherent soft power in its unique culture and climate that attracts people. More than anything else, Okinawa’s culture is rooted in treating people kindly and cherishing relationships and nature, and is at the opposite end of the market principle found in large cities where cutthroat competition is rampant. There are many areas in Asia where the sea is beautiful. However, there is nowhere else but Okinawa where such areas are safe and people can be seen promenading late at night. In the shopping sprees which foreign tourists go on, they buy many cosmetics, pharmaceutical products, sweets and other items, and such purchases are premised on products safety and reliability. Because there is a soft power at Okinawa’s foundation which is represented in health and longevity, safety and reliability, as well as comfort and the environment, such aspects seem to hold a fascination for tourists.

Of course, one major factor has also been Okinawa’s geopolitical superiority as a bridgehead to Asia. This has led to an increase in direct flights to and from cities throughout

Asia and a rapid increase in cruise ships coming into port in Okinawa. It is this sort of foundation that has been promoted and seems to be leading the increase in foreign tourists to Okinawa. Measures that reduce or eliminate consumption taxes have also had a favorable impact.

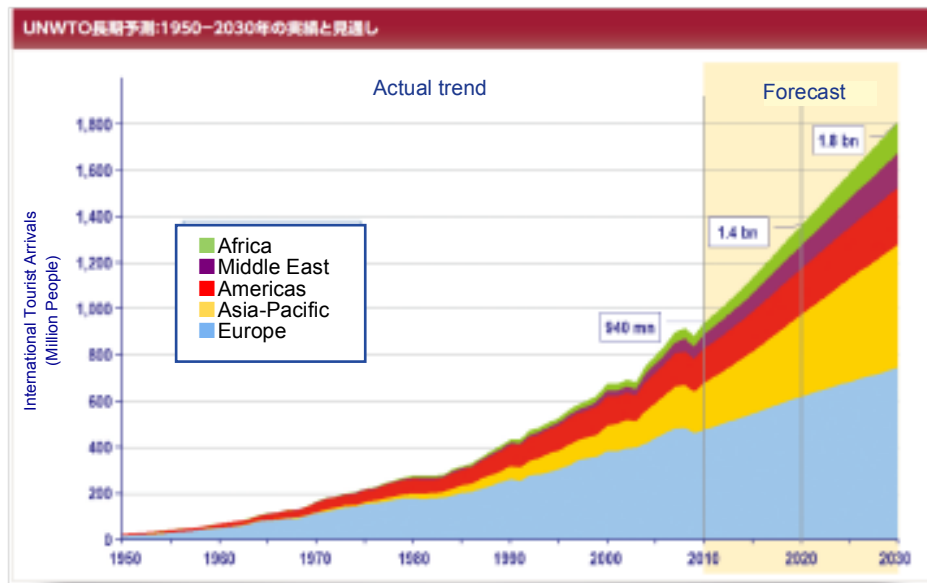
### **Tourism Outlook Worldwide**

The goal for the number of tourists set in the Okinawa 21<sup>st</sup>-Century Vision Basic Plan is 10 million, of which the target set for the number of foreign tourists is 2 million. Okinawa is close to reaching this goal if the number of tourists continues according to the current trend, and a new goal will need to be set. The central government has also set a new goal of 40 million tourists and ¥8 trillion in tourist consumption by 2020 as well as 60 million foreign tourists and ¥15 trillion in tourist consumption by 2034. The number of foreign tourists has increased under the “Tourism Vision to Support the Future of Japan.”

I would now like to examine how long this increase in the number of foreign tourists will continue based on projections of global demand made by the United Nations World Tourism Organization. The number of (inbound) global tourists worldwide was 940 million in 2010, and is projected to reach 1,360,000,000 in 2020 and 1,809,000,000 in 2030, approximately 2 times compared to 2010. Viewed by region, Europe, which is a principal tourist destination, is projected to rise from 475.3 million to 620 million during the same period and then up to 744 million. Although this appears to be an increase, Europe’s share of the global pie will decline from 50.6% to 41.1%. Meanwhile, in the Asia-Pacific region, these numbers are expected to rise from 240 million to 355 million and then 535 million, and the share that Asia accounts for globally is forecast to rise from 21.7% to 29.6%. When viewed by tourism income, Europe was \$508.9 billion in 2014 and Asia-Pacific \$376.8 billion, but when viewed according to per capita consumption, the latter is the equivalent of U.S. \$1430, which is much larger than the former at U.S. \$870. Oceania had the highest per capita consumption from tourism income anywhere in the world at U.S. \$3390.

Okinawa is under pressure to implement policies and incorporate opportunities into the intraregional economy that anticipate increasing demand for tourism globally.

**Figure 15. Forecast of the Number of Tourists Worldwide**



Source: Japanese version of UNWTO Tourism Highlight 2015 Edition

## (2) Telecommunications Industry

The amount produced by telecommunications-related industries in Okinawa Prefecture reached ¥409.911 billion (as of January 1, 2016), making it the next largest leading industry after the tourism industry (in 2015, tourism income was ¥602.214 billion). The number of companies locating in Okinawa Prefecture from outside the prefecture, which was 52 in 2002, jumped to 387 in 2015 and this industry is expected to develop further.

One of the five key strategies of the Asia Economic Strategic Initiative is the “formation of Asia’s leading international telecommunications ‘smart hub’.”

In addition, submarine optical fiber cables have been laid to Okinawa, cloud data centers established and other tangible and intangible telecommunications infrastructure expanded, and consideration has also begun on construction of an international connection hub for the Internet, the Global Internet Exchange (GIX), which will connect providers and network administrators with other countries. So, there are great expectations for the creation and expansion of businesses that make use of such infrastructure.

Until 2002, the number of newly located companies in Okinawa was 52 and 4899 people were employed by these companies. However, by 2015, this figure had increased more than sevenfold to 387 companies employing approximately five times the number of people or 26,627, a tremendous expansion and development of the industry.

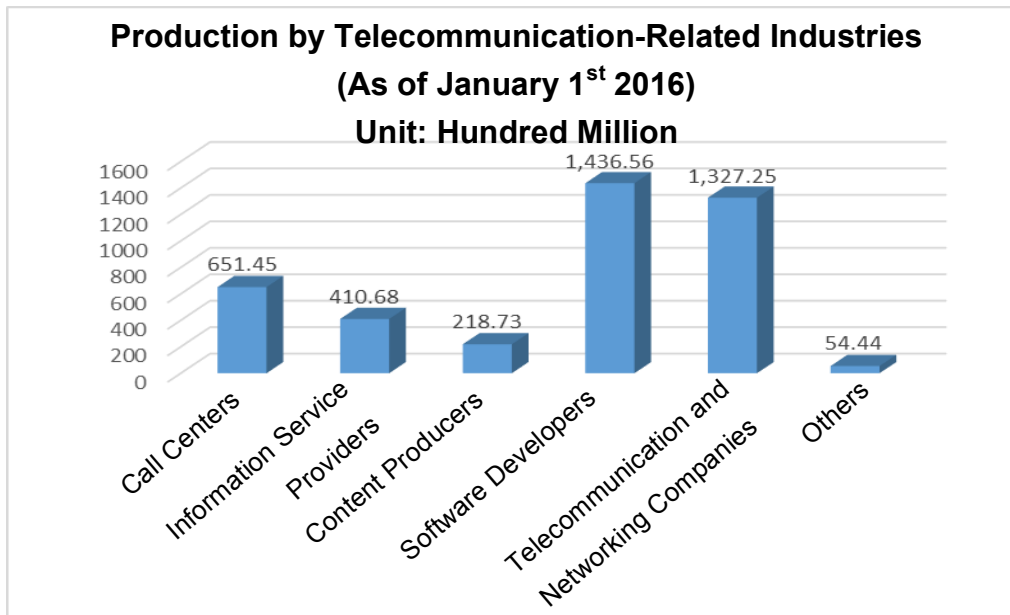
In terms of the types of industry, we see a steady growth in the number of software developers, which increased from 16 to 129 companies, call centers expanded from 21 to 75, firms and content producers also rose from one company to 63.

According to a recent data (as of January 1, 2016) released by the Information Industry Promotion Division, Department Of Commerce, Industry and Labor, Okinawa Prefectural

Government, the total production value was ¥409.911 billion with companies founded within the Prefecture accounting for ¥230.620 billion yen (or 56.3%) and companies moving into Okinawa from other prefectures producing ¥179.291 billion (or 43.7%).

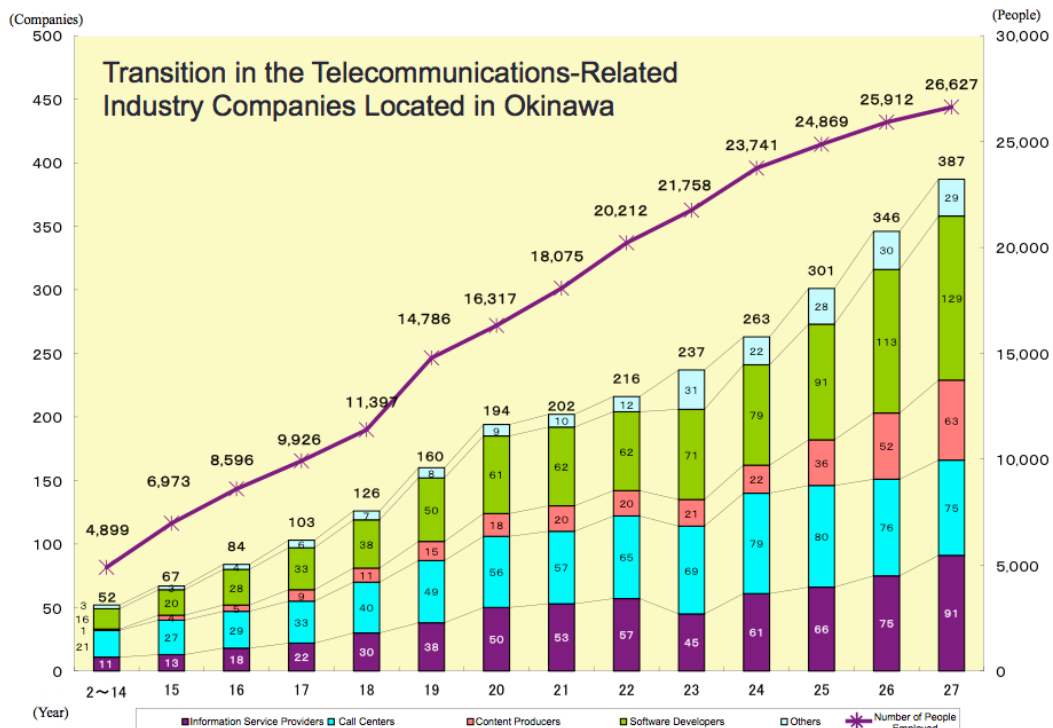
Breaking this down by type of business, software developers turned out the highest revenue, followed by telecommunication and networking companies, call centers, information service providers and content producers in this order.

**Figure 16. Production by Related Industries**



Source: Information Industry Promotion Division, Department Of Commerce, Industry and Labor, Okinawa Prefectural Government

**Figure 17. Change in the Number of Information Technology Industry Companies Located in Okinawa**



### **(3) Logistics-Related Industries**

The construction of sales channels is an essential element for promotion of an international logistics hub. Commercial distribution, also known as and “trade distribution,” refers to the flow through which ownership of products is transferred through sales and other transactions. This indicates the flow of ownership rights, money, information or other products over the process of product distribution from producer to consumer. <sup>1</sup>

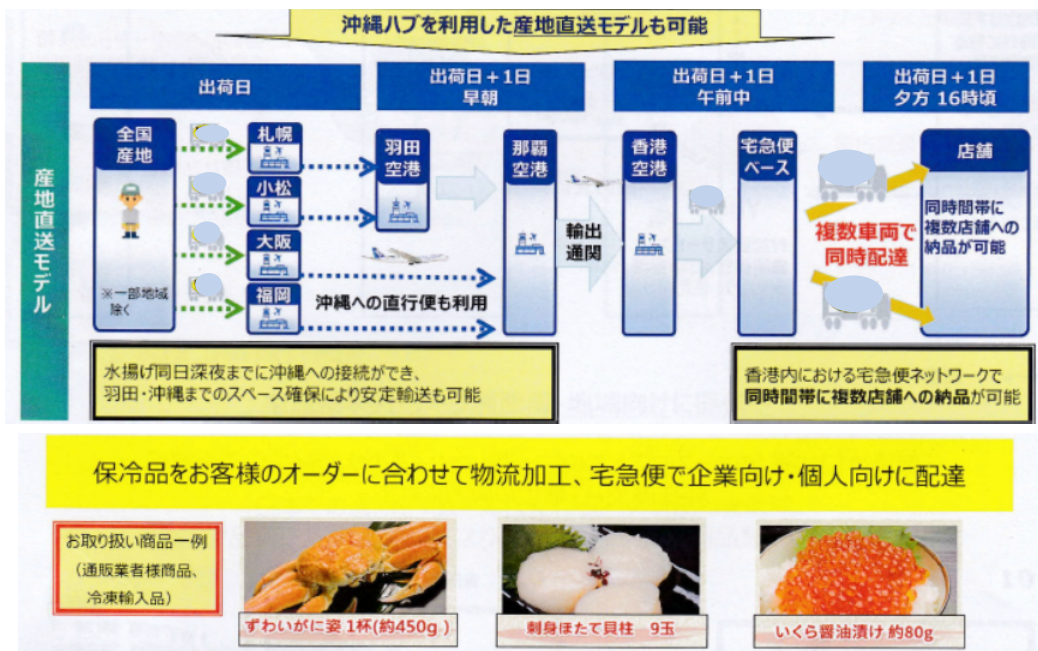
Here, I would like to present a case study of an operation that have the potential to expand distribution channels, including logistics. Last month when I visited the Food Expo in Hong Kong, I talked with the Hong Kong subsidiary of a major Japanese distribution company to exchange ideas. This company has demonstrated its motivation to develop, among other services, a refrigerator distribution system with superior lead time and the capability to transport products from Sapporo, Komatsu, Osaka, Fukuoka and other cities to Naha airport and then on to cities throughout Asia by early the next morning. The company said that Hong Kong’s role as a gateway to China is important, and that the company wanted to bring “Made in Japan” labeled materials and products from around the country through the air cargo hub in Okinawa and then deliver them to China and other Asian countries. The “central kitchen” which was part of this concept was becoming a reality.<sup>2</sup>

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<sup>1</sup> I Finance <http://www.ifinance.ne.jp/glossary/business/bus050.html>

<sup>2</sup> Central Kitchen originally refers to chain store restaurants, coffee shops, or the like, that do not have cooking equipment inside their each of their shops, but prepare the foods centralized in one location. Here, it is referring to the type of logistics with focused food preparation features such as Naha Airport’s Okinawa Global Logistics Center, which allow products and ingredients to be frozen and preserved, and go through distribution processing.

Figure 18. Case Study of Distribution Through a Hub in Okinawa



Source: Major logistics company

#### (4) Potential for Economic Triangle of Fujian, Taiwan and Okinawa

SEMICON Taiwan 2016 is a semiconductor exhibition with nearly 700 exhibitors from around the world occupying 1600 booths, and some 43,000 attendees. It is mainly an IT-related exhibition showing devices employing the latest control units and other gadgets.

Two companies, which have located their operations in Okinawa Prefecture, were there engaging with the public and marketing their products. One company can be expected to grow in the future as it had received an order related to the latest smart phone from Apple, Inc. in the United States and was partnering with Taiwan Semiconductor Manufacturing Co., Ltd. (TSMC), a company that accounts for 80% of the global share of high-performance products which serve as the brains and other components of smart phones. The other company used advanced technology to manufacture a flow meter for pharmaceuticals and would like to expand further in Asia.

At the booth set up by the Okinawa Prefecture's Department of Commerce, Industry and Labor Industrial Site Promotion Division, prefectural representatives gave explanations about an economic cooperation model connecting Taiwan and Okinawa. There is a comparative advantage in such cooperation because, when products are shipped through Okinawa, they can be labeled as "made in Japan" and preferential measures are available in special economic zones within the prefecture as well as the advantage of exporting to FTA and EPA partner countries. By combining these advantages, the possibility emerges of establishing an economic triangle linking Fujian, Taiwan and Okinawa. Businesses creation can be expected and companies established by combining advantages offered by Fujian, Taiwan and Okinawa, and thus the

possibility emerges of forming an economic block linking Fujian, Taiwan and Okinawa in a triangle.

**Figure 19. Scenes from SEMICON Taiwan 2016 (photos taken by the author)**



### **Use of the “Made in Japan” Label**

If raw materials are brought in from Fujian or Taiwan and processed in Okinawa, the “Made in Japan” label is attached and these goods may be exported to other foreign countries.

### **Memorandum of Understanding**

In April 2015, the Naha Port Authority concluded a memorandum of understanding (MOU) on partnership ports with Taiwan International Ports Corporation, Ltd. (Chairman: Zhi-qing Zhang), which has general administrative authority over Taiwan’s major ports. While opening and extending prefectural shipping companies to Taiwan, the MOU strengthens the logistics infrastructure and provides a boost to private business. It also provides for a policy that extends cooperation to the promotion of cruise ships. In September of this year, the Okinawa Industry Promotion Public Corporation and Taiwan’s Metal Industries R&D Center also concluded an MOU on expanding trade in semiconductors and medical devices. Additionally, in December, Okinawa Prefecture and Fujian Province signed an MOU on expediting customs clearance and other procedures.

These memorandums will propel economic cooperation.

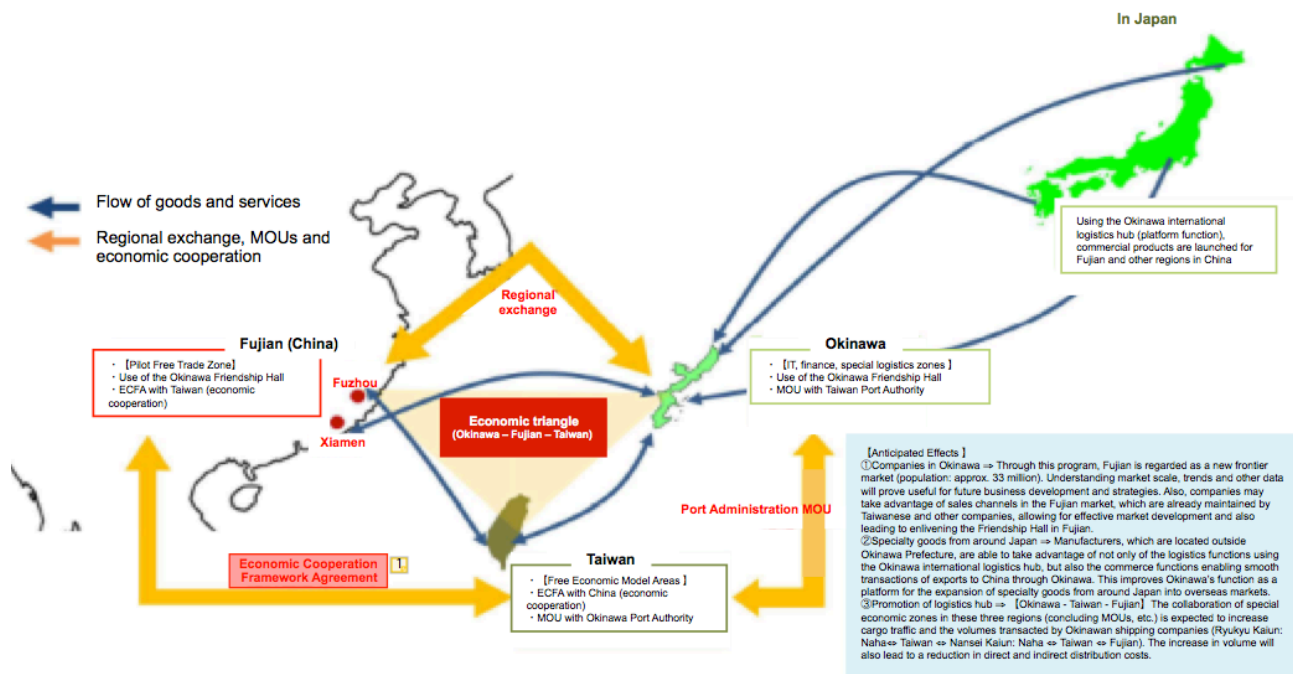
### **Logistics**

A railway has been opened that begins in Xiamen and runs all the way to Europe (explanation provided in a following chapter). This railway line travels through Central Asia and on to Europe. It can be anticipated that, if raw materials or products are brought to Xiamen from Okinawa or mainland Japan, such trade can be expanded to markets in central Asia and

Europe where development is anticipated in the future. By combining transportation over sea, air and land routes, lead-times can be shortened and expenditures reduced.

By scrutinizing business factors including the previously mentioned special economic zones, use of made-in-Japan labels, Memorandums of Understanding, Free Trade Agreements, Economic Partnership Agreements, the Economic Cooperation Framework Agreement, the Xiamen-Europe railway line as well as market research amassed through collection of big data from smart phones used by the foreign tourists visiting Okinawa (1.67 million in 2015) and research conducted on developing new markets and effective logistics, then the possibility emerges for establishing economic blocs to solidify distribution and sales channels.

**Figure 20. Illustration of the Economic Triangle of Fujian, Taiwan and Okinawa**



Source: Department of Commerce, Industry and Labor's Asia Economic Strategy Division, Okinawa Prefectural Government

#### 4. Asia's "Bridgehead" and Soft Power (Foundation for Development)

##### Asia's "Bridgehead"

The time when policies could be launched that only take into account domestic circumstances is over, and approaches continue to be developed in a framework encompassing Asia. Within the scope of national policy, there are many measures that have been placed within the framework of Asia, and some of these are functions that Okinawa should perform. The Day-Trip Distance Economic Bloc (Figure 21), which is the distance that can be traveled in one day from Okinawa anywhere in Asia, is expanding, and Okinawa is playing an increasing larger role as a bridgehead to Asia.

## Pacific Crossroads of Asia

The aim is to form a distinct region serving as a “Pacific Crossroads” in the 21st century frontier that contributes to self-sustaining development of the region and Japan and by extension development of the economy, society and culture of the Asia-Pacific region. (The 5th Comprehensive National Development Plan "Grand Design for the 21st Century")

## Asian Gateway Initiative

The 21<sup>st</sup> century is the age of Asia. It is no longer possible to consider Japan’s economy and society apart from the reality of globalization and particularly the upheaval occurring in Asia. Japan must not be left behind in this Asian movement. Drawing on Asia’s dynamism, Japan will be at the core of Asia and the world. Some of the objectives of this initiative are to incorporate Asia's growing and vibrant economy into Japan and thereby promote new creativity and growth, as well as play a responsible role in the development of Asia and its regional order. (The Council for the Asian Gateway Initiative, “Asian Gateway Initiative,” May 16, 2007)

## Growth Strategy

As part of the Asian economic strategy, Japan is to serve as a bridge nation. It was declared that Japan would create a continuous Asian market and Japan’s safe and reliable systems and technology would be extended throughout Asia. While making today’s remarkable growth in Asia even steadier and ensuring that Asia’s growth pays off in growth for Japan, Japan needs to share with Asian countries the extensive experience, which it has accumulated throughout the process of economic development, and serve as a bridge for growth in Asia. It will need to concentrate its intrinsic strengths in environmental, infrastructure and other fields to develop business throughout the Asian region in a comprehensive and strategic manner.

## Special Strategic Growth Zones

Okinawa Prefecture was designated a special strategic growth zone. The special strategic growth zones have been a bold breakthrough in regulatory and systematic reform changing the landscape of Japan’s economy and society. Their purpose is to prioritize the promotion of structural reform of Japan’s economy and society, thereby strengthening international industrial competitiveness, forming hubs for international economic activity and ultimately contributing to the development of the national economy and improvement of people’s lives.

Okinawa is to be developed into a world-class tourist resort destination and its tourism businesses promoted by making use of diving, karate and other regional strengths. An international innovation hub is to be formed around the Okinawa Institute of Science and Technology Graduate University, thereby creating new business models and dramatically increasing the number of foreign tourists as well as other visitors.

Figure 21. Day-Trip Distance Economic Bloc



Source: “A Study on Japan’s Potential in Smooth Interchange and Close Partnership with East Asia” by Junichirou MURAKAMI, Koujirou TODANI, Yasufumi ISOGAWA and Takayuki OJIMA Japan Society of Civil Engineers: Collection of Civil Engineering Plans, Research and Lectures. Vol. 37, 2008. <http://www.pref.okinawa.lg.jp/site/shoko/seisaku/kikaku/keizaitokku.html>

## Soft Power

Okinawa’s attractiveness, in other words its soft power to attract people, has great potential in a time of population decline. This term was originally used by Harvard University Professor Joseph Nye in reference to political science to refer to the “power to attract people through policies, culture, history or other non-coercive means.” It is not hard power in terms of military force, but the idea of resolving disputes and promoting peace through soft means such as cultural understanding and diplomacy. Asian nations, including Japan, have attractive soft power, which is understood to be the power of manufacturing by Toyota, Honda, Sony and other global brands, the power of innovation of the Meiji Restoration, and the power that was mustered to recover from the Second World War. It is this soft power that has been advocated to revitalize the Japanese economy. Currently, this term is often used in a broader sense in the context of developmental theory and other fields.

“Move it, Japan!” was a project chaired by University of Tokyo Professor Hiroshi Komiyama (also a former president of the University of Tokyo) which the Japanese government consulted to fundamentally reform the “lost Japan” of the 1990s. The measure for revitalizing Japan is in fact very clear. For advanced nations to further develop, it is important that they respond to higher order needs, and logic dictates that new businesses will be created if the results of research conducted at universities addresses specific needs for achieving the world’s

best “health and longevity, safety and reliability, comfort and environment, and educational levels” in the world, thereby opening up new frontiers for development. The author had the opportunity to hear this presentation in person at a meeting assembling members of industry, government and academia, and he felt that this was exactly the path that Okinawa should take. The reason was that the capability to respond to these needs is inherent in Okinawa’s nature, history and culture.

Up until that point, development theory, as it applied to Okinawa, had been discussed from the standpoints of imitating industrialization, producing products according to an international division of labor, and other such ideas. The reason why none of these were successful was that Okinawa held no definitive comparative advantage. Economic theory discusses the concept of recycling. Originally, it pointed toward an industry where waste or other refuse would be recycled and returned to production. However, when interpreted as refreshing people and returning them to the work of production, industries such as tourism and travel may also be recycling industries. Okinawa has a strong comparative advantage in the economic theory of recycling. Previously, nature and culture were regarded as unrelated to the study of economics, but these elements satisfy higher order needs, and they are essential elements for further developing advanced nations. Okinawa has an inherent soft power that is able to realize a life of supreme bliss and a post-industrial structure in an advanced nation.

Traditional diet and living are elements inherent in health and longevity, and these have been coalesced into a brand that equates Okinawa’s traditional foods and medicinal herbs with health. Children refusing to attend school in large cities have transferred to schools on outlying islands where they recover their will to live and energy within a supportive community. The communal society of the islands is safe and secure. There has been an increase in tourists and people moving to Okinawa in search of Okinawa’s comfort and environment. There are no cars on Green Island or Venice, both of which are world-class tourist destinations. If Okinawa’s outlying islands were also established as no-vehicle tourist destinations, then they would be at the frontier of environmental friendliness. The Okinawa Institute of Science and Technology is literally a world-class level educational institution. In this way, Okinawa has the power to meet higher order needs. Okinawa has the potential to be a society with a pioneering industrial structure, in other words a society where people are able to enjoy an outstanding life and a social industrial structure where advanced society can further develop. More than anything else, the market has acknowledged such potential as evidenced by the Okinawa brand established by consumers and the foreign investment that has extended its reach into hotels in Okinawa.

## **5. U.S. Military Bases on Okinawa and its Economy**

The postwar reconstruction and development of Okinawa’s economy has taken place in base-dependent economic pattern with the U.S. military bases serving as the axis. Even today, the bases are still a major determinant in Okinawan society, politics and economics.

When viewed from the perspective of “quantity,” the U.S. military bases have played a certain role in reconstructing and developing Okinawa’s economy in a material sense. On the other hand, in terms of “quality,” invested capital and labor have not generated expansion or growth through market mechanisms, and the dollar-based economic system transformed Okinawa’s economy into one dependent on import and migration such that regional industries have not become more sophisticated, thereby “distorting” Okinawa’s economy. The U.S. military bases are not an economic entity such as a business enterprise that actively directs its operations toward perpetual development, so they do not self-propagate and any economy dependent on a base is inherently limited.

### **Formation of the Base-Dependent Economy**

After World War II, the decision was made for the U.S. military to occupy Okinawa over the long-term and to construct bases. Policies were set forth one after another to specifically implement these decisions. On October 4, 1950, in place of the previous military government, the United States Civil Administration of the Ryukyu Islands was set up with General Douglas MacArthur, Commander of the Far East Command, serving concurrently as governor.

On December 5, 1950, the Far East Command (FEC) Headquarters issued the “Directive for United States Civil Administration of the Ryukyu Islands” to the Ryukyu Commander, communicating the basic policy for governing of Okinawa. Until June 1957 when the U.S. President’s Executive Order was issued, this directive was very important as it formed the basic law for governing Okinawa and declared that prewar living standards be restored, sound fiscal policies established, self-government set up and culture and education promoted.

Meanwhile, in August 1949, the Soviet Union successfully tested an atomic bomb, and Mao Zedong established a communist state in China in October of the same year. Furthermore, in June 1950, the Korean War erupted, making an already tense situation even more so. A series of governing policies based on the FEC Directive and the increasingly strained international situation led to the rapid construction of bases in Okinawa.

As early as April 1950, international bidding was held for base construction. Companies from not only the United States, but also Japan, China and Okinawa engaged in fierce competition to secure such contracts. Over a mere two years, an unprecedented sum of \$270 million was invested, creating a military construction boom almost overnight. Since that time, U.S. military bases have been a major factor influencing Okinawa’s society and economy.

### **Impact of the Base-Dependent Economy**

After World War II, the irregular organization of the U.S. military bases was incorporated into Okinawa. Irregular in the sense that they were not based on principles employed by industrial organizations which adopt market mechanisms, provide citizen’s welfare (public benefit), and enhance efficiency. Okinawa has been systematically impacted and considerably influenced by the international political situation. In fact, the bases significantly

prescribe Okinawan society and its economy even today. Postwar recovery and development have taken place in base-dependent economic pattern, revolving around the bases. More specifically, what sort of impact have the bases had on Okinawa's economy?

First, when viewed in terms of quantity, they have made a certain contribution over the process of recovery. During a time when there was a lack of even bare necessities, such as food, clothing and housing, immediately after the end of the war, employment in the form of military work and income in the form of revenue from military land rents were generated. Moreover, taverns, pawn shops, motor pools (repair shops), cleaners, restaurants and many other tertiary industries sprouted up like mushrooms after a rainstorm. In front of base gates, cities appeared overnight and many businesses catering to U.S. soldiers lined the streets and enjoying a constant stream of customers, which eventually turned into cities around these gates.

Assistance from the United States also underpinned this boom. The Government Appropriation for Relief in Occupied Areas (GARIOA) and Economic Rehabilitation in Occupied Area Fund (EROA Fund), which were set up immediately after the end of the war, are examples of such aid. In particular, for the continued maintenance of the bases, there was an enormous increase in aid after implementation of the "carrot and stick" approach (a new policy implemented by President Kennedy), which necessitated economic stability of the local population along with special procurement accompanying the Vietnam War, effectuated growth in Okinawa equivalent to the remarkable growth of the Japanese economy in the 1960s.

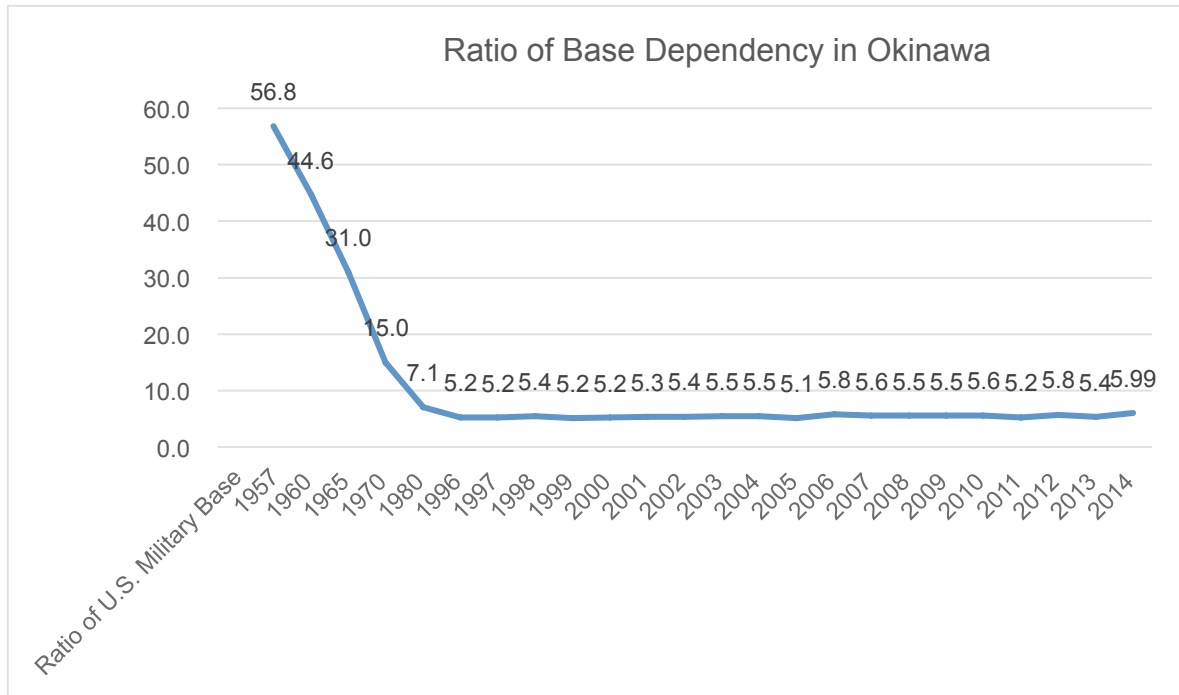
However, at the same time, in terms of quality, these policies left the following sorts of problems. First, bases are not an economic entity such as a business enterprise that seeks sustainable growth and accumulates capital and other resources. Therefore, the Okinawan economy, which was dependent on the bases, was limited to the extent it could develop on its own.

Looking at the change in the ratio of base dependency in Okinawa (percentage that base-related receipts account for of gross prefectural income), this rate surpassed 50% in the 1950s when reconstruction had to inevitably begin after everything had been burnt to the ground during the war. However, subsequently, the ratio of base dependency in Okinawa declined to the teens in the 1970s. After the reversion in 1972 when Okinawa was incorporated into Japan's economy, this rate fell to single digits. Recently, it has fluctuated around 5%, which is the lowest level ever. Economically, this decline is due to the fact that Okinawa's private sector economy has grown and developed, self-propagating in a macro sense, compared to the fixed scale of the bases.

When looking at the change in military-related receipts, which is the sum total of the provision of goods and services to the U.S. military and its accompanying entities, income from base employment, and land rents for military land use (excluding that for the Japanese Self-Defense Forces), from 2001 to 2013, these receipts have remained just around ¥210 billion. In 2014, the provision of goods and services to the U.S. military rose, lifting this figure to approximately ¥242.6 billion. This figure is broken down in order of magnitude into rents for

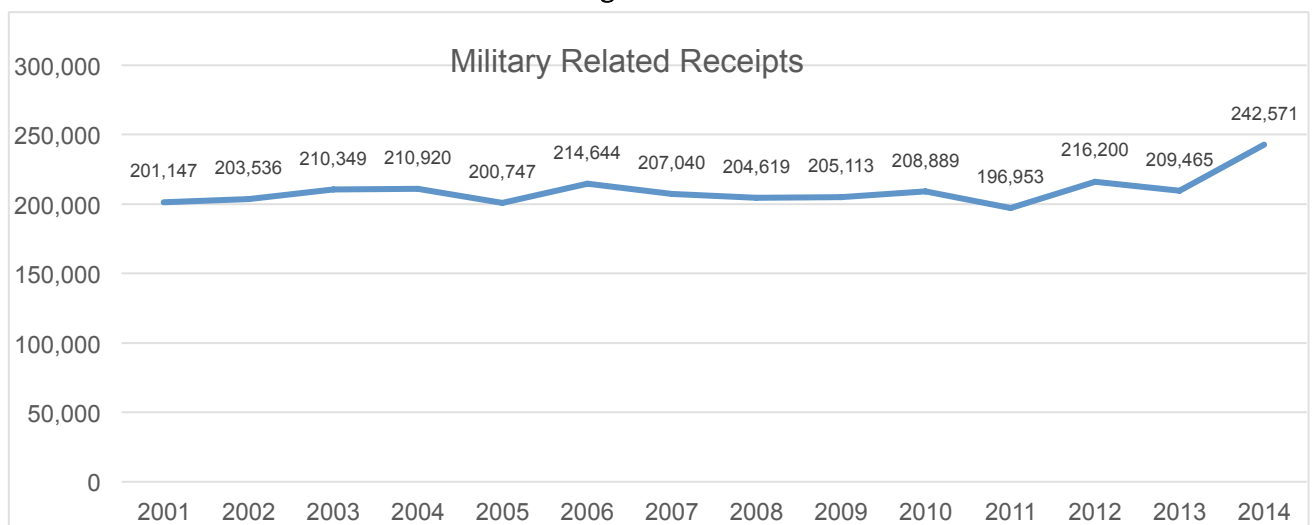
military land use (excluding the Japanese Self-Defense Forces), followed by provision of goods and services to the U.S. military then income from base employment. In 2014, the provision of goods and services to the U.S. military reached its highest level. (Figure 40)

**Figure 22**



Source: Prepared by the author based on the Government of the Ryukyu Islands “Annual Finance Report (First and Second Editions),” Bank of the Ryukyus Research Division “Monetary Economy,” Department of Planning Statistics Division, Okinawa Prefectural Government, “Statistics on U.S. Military Bases in Okinawa (Compilation) March 2007,” and the 2014 List of Japanese Prefectures by GDP.

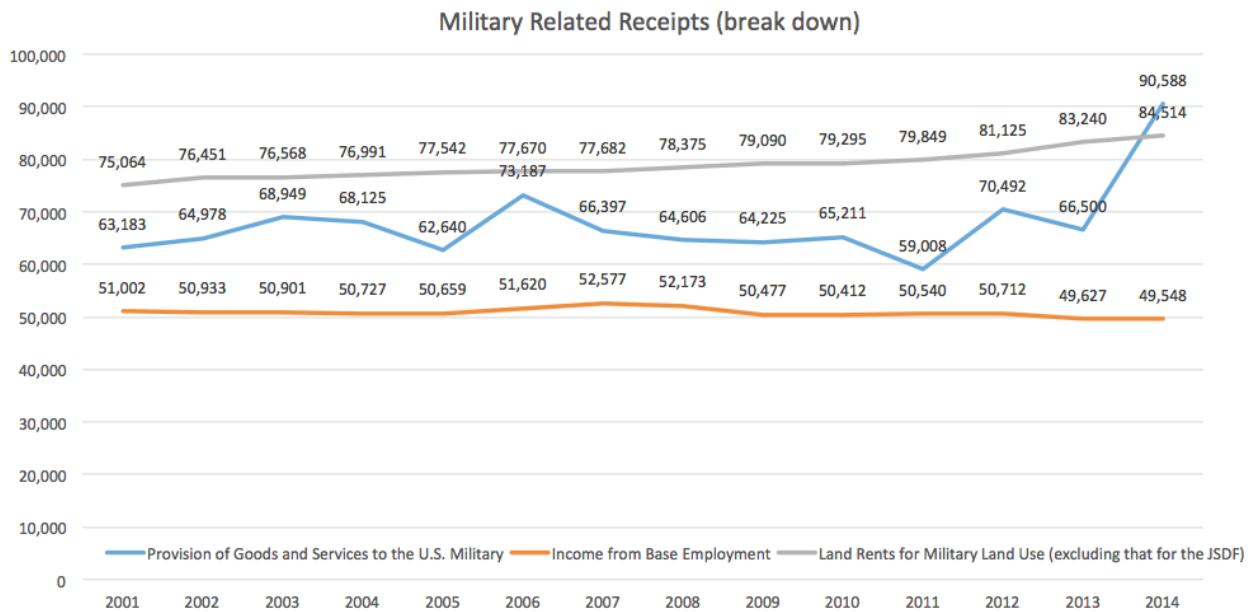
**Figure 23**



Source: Prepared based on receipts from outside Okinawa Prefecture from the 2014 List of

Japanese Prefectures by GDP available on the Okinawa Prefecture website  
[http://www.pref.okinawa.jp/toukeika/accounts/accounts\\_index.html](http://www.pref.okinawa.jp/toukeika/accounts/accounts_index.html)

**Figure 24**



Source: Prepared based on receipts from outside Okinawa Prefecture from the 2014 List of Japanese Prefectures by GDP available on the Okinawa Prefecture website  
[http://www.pref.okinawa.jp/toukeika/accounts/accounts\\_index.html](http://www.pref.okinawa.jp/toukeika/accounts/accounts_index.html)

### **Definition of U.S. Military Base-Related Demand**

U.S. military bases are not an economic entity like a business, household or other such enterprise. Although they originate employment and demand, it goes without saying that they do lead economic activity, but are an organization with a military function. The purpose of this report is to objectively and quantitatively understand what sort of impact the U.S. military bases have had on Okinawa’s economy from an economic standpoint. More specifically, it is to measure the extent that demand associated with the U.S. military bases has induced production, employment, added value and other such economic effects.

Here, base demand is defined as the various demands derived from the U.S. military’s execution of military functions, military acts and other such activities while stationed in Okinawa in accordance with the Japan-U.S. Security Treaty.

More specifically, demand that satisfies the following requirements is called base demand.

- ① Japanese government expenditures for the purpose of supporting the operation, management or maintenance of U.S. military bases and related facilities in Okinawa Prefecture.
- ② United States government expenditures for the purpose of supporting the operation, management or maintenance of U.S. military bases and related facilities in Okinawa Prefecture.
- ③ Daily consumption expenditures of U.S. military soldiers, military related personnel,

families and other such persons in Okinawa Prefecture.

④ Japanese government expenditures associated with the promotion, development as well as the return and redevelopment of former sites of U.S. military bases and related facilities located in Okinawa Prefecture.

These are shown in detail in Table 3.

- I. Ministry of Defense: Okinawa-related budget
- II. Special Action Committee on Okinawa (SACO)-related expenditures
- III. U.S. Military realignment-related expenditures
- IV. Base subsidies
- V. Base adjustment payments
- VI. Provision of goods and services to U.S. military, etc.
- VII. Northern area promotion
- VIII. Construction under the direct control of the U.S. military

### **Notes on Statistical Data**

These items are classified into demand for Consumption C and demand for Investment I, which serve as the components of demand. Wages are represented by Income Y, so multiplied by the propensity to consume converts this to Consumption C ( $Y \rightarrow C$ ).

I. For (2) Fuel, lighting and water expenses as well as training relocation costs which are “assumed by special agreement” under the Ministry of Defense’s Okinawa-related budget, nationwide figures are listed, but those for Okinawa are hidden (\*), so these were determined by multiplying the base area ratio. Also, the figures for (1) labor-management related expenses and (2) independent administrative agencies under the heading of “other” are similarly hidden, so the former was multiplied by the base area ratio, and the latter found by determining wages ( $Y \rightarrow C$ ) and Consumption C from documents available from the Labor Management Organization for USFJ Employees, Incorporated Administrative Agency (LMO).

II. Not all Special Action Committee on Okinawa (SACO)-related expenditures are distributed within Okinawa Prefecture (according to Military Base Affairs Division, OPG), but, here, we assume that all expenditures are executed within the prefecture.

III. The same holds for U.S. Military realignment-related expenditures, but it is assumed that all expenditures are implemented within the prefecture.

IV & V. For base subsidies and base adjustment payments, the ratio of civil engineering works in the municipalities is assessed and multiplied with the resulting figures treated as Investment I.

VIII. For construction under the direct control of the U.S. military, the amount of construction and goods procured related to U.S. military bases in Okinawa is used, for which the U.S. government has contracted during the fiscal year 2012 (October 2011 ~ September 2012) as determined by the Okinawa Construction Newspaper using the U.S. federal government’s

procurement database (Ryukyu Shimpo<sup>3</sup>).

Regional consumption as a direct effect of U.S. military base-related demand is calculated by multiplying by one as Investment I is 100%, and Consumption C is found by multiplying by the average regional ratios.

### **U.S. Military Base-Related Demand**

For U.S. military base demand, first the amount budgeted (FY2015) was determined. The portions where the figures related to Okinawa are hidden were estimated based on ratios that Okinawa bases and employees account for nationwide. That was divided by Investment I and Consumption C, and Income Y was multiplied by the propensity to consume to convert to Consumption C so as to determine demand. Furthermore, the economic effect within Okinawa Prefecture was determined, so the regional yield rate (rate of self-sufficiency) was multiplied by this to find the direct effect.

These amounts are given in Table 2. The total for Investment I and Consumption C is ¥290,025 million. The direct effect found by multiplying the regional yield rate (rate of self-sufficiency) by that figure is ¥171,743 million.

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<sup>3</sup> [ryukyushimpo.jp/news/preentry-207546.html](http://ryukyushimpo.jp/news/preentry-207546.html)

Figure 2 Okinawa's U.S. Military Demands (break down)

Okinawa's US Military Base Demand	Yen (Millions)			
<b>I. Ministry of Defense Okinawa-Related Budget</b>	2015		<b>Y,C,I</b>	<b>C or I</b>
<b>1. Base Vicinity Measures Expenses</b>	15,780			<b>Direct Effects</b>
(1) Vicinity Environment Maintenance	10,784			
Ⓜ Disturbance Prevention Projects	1,908	I	1,908	1,908
Ⓜ Noise Prevention Projects	2,874	I	2,874	2,874
Ⓜ Civilian Stability Assistance Projects	1,889	I	1,889	1,889
Ⓜ Road Repair Projects	359	I	359	359
Ⓜ Vicinity Maintenance Integration Projects	510	I	510	510
Ⓜ Vicinity Maintenance Adjustment Subsidies	2,926	I	2,926	2,926
Ⓜ Relocation Measure Projects	262	I	262	262
Ⓜ Green Land Maintenance Projects	32	I	32	32
Ⓜ Facility Vicinity Compensation	24	I	24	24
(2) Residential Soundproofing	4,996	I	4,996	4,996
<b>2. Compensation Expenses</b>	100,351			
(1) Facility Rent	98,602	Y→C	58,851	32,668
(2) Fishing Industry Compensation	957	Y→C	571	317
(3) Other Compensations	793	Y→C	473	263
<b>3. Maintenance of Provided Facilities</b>	5,078	I	5,078	5,078
<b>4. Relocation of Provided Facilities</b>	76	I	76	76
<b>5. Base Employee Measures</b>	46,374			
(1) Employee Attrition Provisions	21	C	21	12
(2) Welfare Provisions	6,861	C	6,861	3,808
(3) Employee Provisions	38,493	Y→C	22,979	12,753
<b>6. Burden from the Special Agreement</b>	37,366			
(1) Salary Expenses	37,366	Y→C	22,306	12,380
(2) Utility Fees	*	C	18,411	10,218
(3) Training Relocation Expenses	*	C	217	121
<b>7. Others</b>	*			
(1) Labor Management	*	C	20	11
(2) Independent Administrative Institutions	*	Y→C	39	21
		C	132	73
<b>II. Special Action Committee on Okinawa (SACO) Expenses</b>	1,140			
Land Return Projects	500	C	500	278
Training Improvement Projects	4	C	4	2
Noise Reduction Projects	300	C	300	167
SACO Project Facilitation Projects	300	C	300	167
<b>III. US Military Realignment-related Expenses</b>	31,200			
Programs for Realignment in Okinawa	271,000	C	271,000	150,411
Programs to Facilitate Realignment Measures	41,000	C	41,000	2,276
<b>IV. Base Subsidies</b>	2,562	I	256	256
<b>V. Base Adjustment Money</b>	4,396	I	457	457
<b>VI. Provision of Goods and Services to the US Military</b>	65,983	C	65,983	36,621
<b>VII. Northern Area Development</b>	2,560	I	2,560	2,560
	1,750	C	1,750	971
<b>III. US Military Direct-Control Purchasing</b>	34,879	C	34,879	18,358
<b>Total</b>			290,025	171,743

Source: Ministry of Defense, Bureau of Local Cooperation-related Budget (Okinawa-related expenditures) available on the Okinawa Prefecture website, Office of Okinawa, Cabinet Office: Regarding Implementation of the Northern Area Promotion Project 2015, Okinawa Prefecture Military Base Affairs Division: documents

This U.S. military base demand is divided into constant demand and transient demand. II. Special Action Committee on Okinawa (SACO)-related expenditures, III. U.S. Military realignment-related expenditures, and VII. Northern area promotion are budgets allocated for

base realignment and are thus transitory as they will lapse once realignment is complete. The others are disbursed constantly as long as the bases are present.

**Figure 3 Constant and Transient Demand**

<b>Total</b>	<b>290,025</b>
<b>Constant</b>	<b>253,411</b>
<b>Transient</b>	<b>36,614</b>

### Economic Effect by U.S. Military Bases

Based on the aforementioned U.S. military base demand, the economic propagation effect was found using industry-related analysis.

Measurement equation <sup>4</sup>

Direct effect

$$(I - M) \cdot F(i, c) \quad (1)$$

Propagation effect

$$X_1 = [I - (I - M)A]^{-1} \cdot (I - M)F(i, c) \quad (2)$$

$$X_2 = [I - (I - M)A]^{-1} \cdot (I - M)ckw \cdot X_1 \quad (3)$$

Total economic propagation effect

$$X = X_1 + X_2 \quad (4)$$

i: Investment

c: Consumption

F(i, c) : Demand

A : Input coefficient table

I : Identity matrix

M : Immigration and import matrix

X<sub>1</sub> : Value from primary production (direct effect + indirect primary effect)

X<sub>2</sub> : Value from secondary production (via household consumption)

X : Economic propagation effect

c : Component ratio of private consumption expenditures

k : Propensity to consume

Local Industry Related Analysis

<sup>4</sup> Eiji DOI, Ichiro ASARI, and Chikanori, NAKANO, *An Introduction to Regional Input-Output Analysis of Inter-industry Relationships*, NIPPON HYORON SHA

w : Employee income ratio

(I – M) :: Rate of self-sufficiency

### Measurement Results

The effect from all production related to U.S. military base demand is ¥285,628 million, and the value-added induced effect, which can be compared to gross prefectural production (the amount from production in the industry-related analysis includes intermediate goods), is ¥154,040 million, and the employment induced effect is 32,467 people. These figures imply that the economic effects would decrease by only these amounts if the U.S. military bases vanished. In other words, an economic hole would open only to this extent.

The type of business that would sustain the most damage would be commercial merchandising, followed by real estate, transportation, person-to-person services, and then food, cigarettes and beverages in this order.

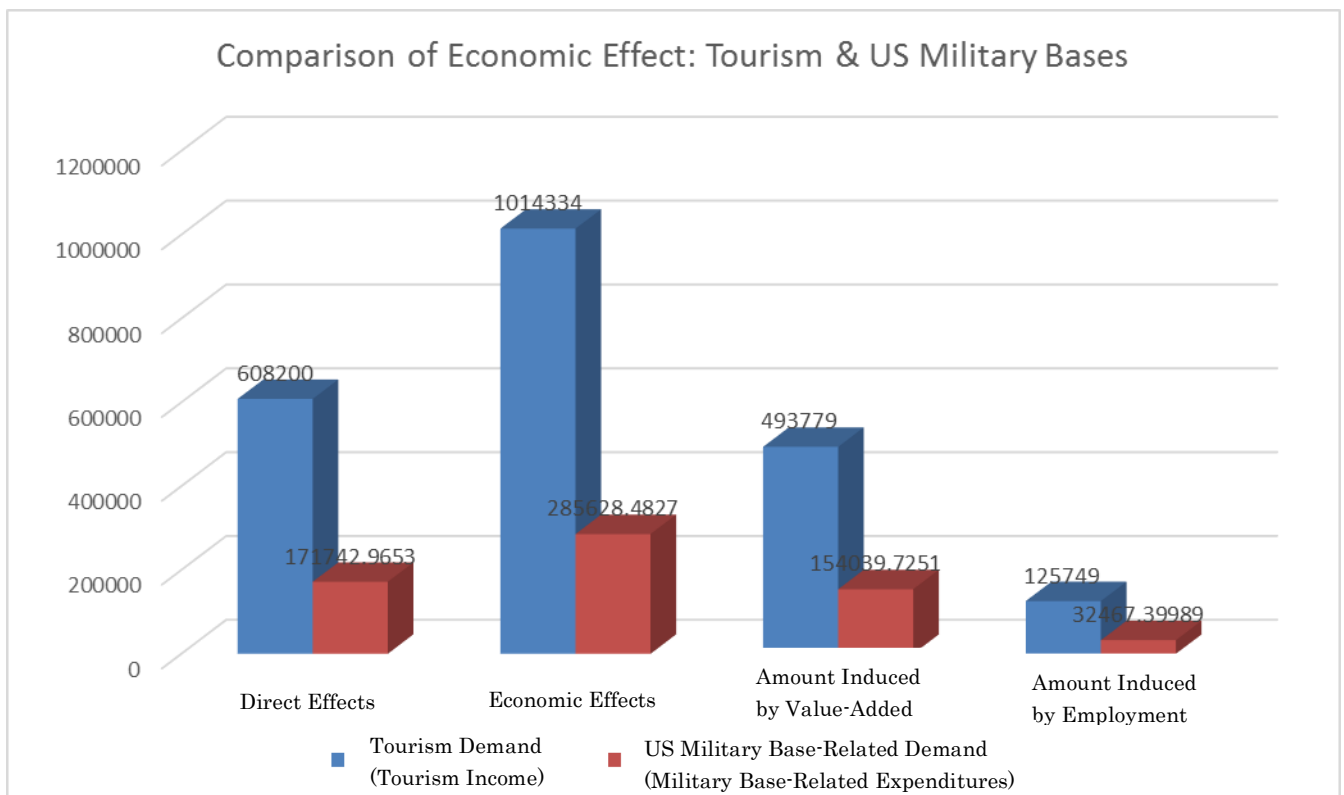
Figure 2

Unit: Yen (Millions)		Economic Effects	Value-Added Induced Effects	Employment Induced Effects
0100	Agriculture	3,195	1,158	1,553
0200	Forestry	68	36	10
0300	Fisheries	130	65	25
0400	Mining	231	117	18
0500	Food/Tobacco/Drinks	11,557	4,111	928
0600	Textile Products	330	172	179
0700	Lumber Products/ Wood Products/Furniture	128	65	19
0800	Pulp/Paper/Paper Products	484	183	27
0900	Chemicals	685	292	72
1000	Petroleum Products/Coal Products	6,494	178	12
1100	Ceramics/Stone and Clay Products	2,966	1,032	206
1200	Iron and Steel	2,040	290	15
1300	Nonferrous Metals	96	22	11
1400	Metal Products	952	337	162
1500	General Machinery	12	7	4
1600	Electrical Machinery	1,138	480	88
1700	Transport Machinery	1,720	618	28
1800	Precision Instruments	96	37	8
1900	Other Manufactured Industrial Goods	1,393	696	275
2000	Construction and Repair	2,907	1,332	339
2100	Civil Engineering Construction	34,436	14,467	4,013
2200	Provision of Electricity/Gas/Heat	8,311	3,099	96
2300	Water Supply/Waste Disposal	3,287	1,782	211
2400	Commerce	49,129	28,535	8,560
2500	Finance/Insurance	7,493	5,583	598
2600	Real Estate	23,258	19,328	894
2700	Transportation	20,015	10,624	1,295
2800	Telecommunications	21,674	12,465	936
2900	Public Service	1,764	1,124	126
3000	Education/Research	11,559	9,575	1,013
3100	Medicine/Health/Social Security/Nursing	6,391	4,089	815
3200	Other Public Services	2,282	1,084	428
3300	Services for Places of Business	17,475	11,577	2,777
3400	Services for Individuals	37,733	18,676	6,456
3500	Others	4,200	805	271
<b>Total</b>		<b>285,628</b>	<b>154,040</b>	<b>32,467</b>

### Comparison with Tourism Income

Let's compare the economic propagation effects from U.S. military base demand and Okinawa's leading sector the tourism industry. As far as direct demand, tourism income totals ¥602,214 million, and U.S. military base related expenditures are ¥117,743 million. As far as the economic effects, the production induced effect from tourism is ¥1,064,148 million, the value-added induced effect ¥553,976 million, and the employment induced effect 141,868 people. As for the U.S. military base related demand, the production induced effect is ¥285,628 million, the value-added induced effect ¥154,040 million, and the employment induced effect 32,467 people. The former significantly surpasses the latter. In other words, the tourism industry accounts for a greater presence than U.S. military base demand in Okinawa's economy.

**Figure 25**



Unit: Yen (Million), People	Direct Effects	Economic Effects	Value-Added Induced Effects	Amount Induced by Employment
Tourism Demand (Tourism Income)	608,200	1,014,334	493,779	125,749
US Military Base-Related Demand (Military Base-Related Expenditures)	171,743	285,628	154,040	32,467

Source: Measurements by the author and data available from the Tourism Policy Division , Department of Culture, Tourism and Sports, Okinawa Prefectural Government

### Comparison of Before and After Return of Facilities

Let's look at the economic effects before and after the return of Camp Kuwae, Camp

Zukeran, Futenma Air Station, Makiminato Service Area and Naha Port on the basis of the “Survey of Economic Propagation Effects, etc. Accompanying Use of Land Where Military Troops Were Stationed” which was compiled by Okinawa Prefecture in January 2015.<sup>5</sup>

It should be noted that in the comparison of before and after return of facilities, there should be a separation into the economic propagation affect from land reclamation, public facilities and other transient investment demand and the effect of constant economic activity after completion. When viewing documentation pertaining to the latter (Figure4), the production-induced effect is extremely high at 38 times for the Naha military port facility. This may be interpreted as high regard for the development potential of the Naha port facility, which is positioned in Okinawa Prefecture’s Asia Economic Strategic Initiative in terms of the “formation of an internationally competitive distribution hub connecting Asia,” from the perspective of a market economy comprising a city in close proximity to an airport and harbor.

The figure is 26 times for Marine Corps Air Station Futenma, which is testimony to the high expectations for private-sector activity and use after return. The site where Marine Corps Air Station Futenma is located is important for balanced development in Ginowan City, known as the donut city with its center occupied by a U.S. military base and forced to develop along the outer contours of this base. This figure of 26 times demonstrates market recognition for a city whose location is the “navel” of Okinawa Prefecture.

The figure is 12 times for the Makiminato Service Area, and 15 times overall. The economic development potential after return significantly exceeds any potential prior to return.

The economic propagation affect after return of these five facilities is ¥838,300 million, which significantly exceeds the ¥285,628 million loss if all U.S. military bases in Okinawa Prefecture vanished as mentioned earlier.

Even in a microeconomic dimension from the perspective of landowners, a phenomenon, in which income from rent on military-use land is exceeded by income for land-use after return, is currently taking place in Naha City’s Shintoshin district, Chatan Town’s Mihama district, Kitanakagusuku Village’s Rycom district and other areas.

Seen from the landowners’ perspective, profits are greater from the use of such assets after return than income obtained from rent for military use. And, when viewed from the perspective of Okinawa’s economy as a whole, land-use after return leads to the business expansion and Okinawa’s development. This fact has brought about a paradigm shift in the base debate away from the previous arguments related to security as well as crime, accidents in the community, to new discussions adopting an economic approach.

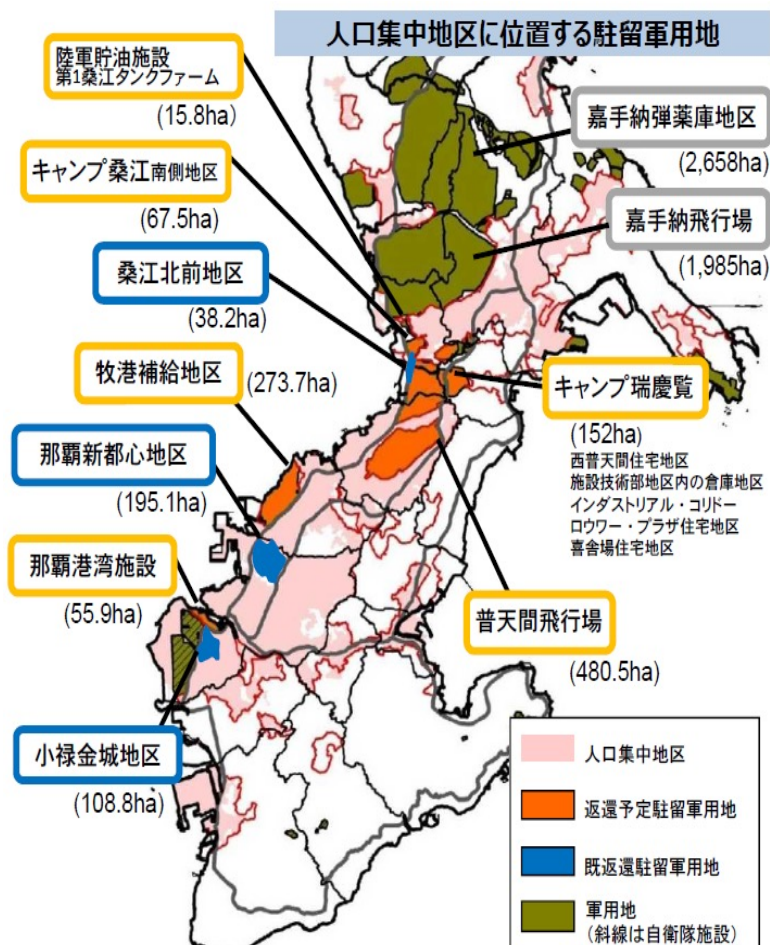
One issue that has not been taken into consideration is that, when the size of the Okinawa economy (economic pie) does not rapidly increase, the economies of existing commercial areas and other such districts other than the returned portion stagnant even if returned areas are prosperous. I would like to leave examination of this issue for a future

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<sup>5</sup>As stated in this investigative report, it should be noted that comparison of these cases must be done with consideration to the changes in social and economic conditions.

discussion.

Figure 26



Source: Okinawa Prefecture “Survey of Economic Propagation Effect, etc. Accompanying Use of Land Where Military Troops Were Stationed,” January 2015.

<http://www.pref.okinawa.jp/site/kikaku/chosei/atochi/houkokusho/2015chuuryuugunyoutiatochikeizaikouka.html>

Figure 4

Economic Effects by Activity		Before Base Return	After Base Return	Times
Camp Kuwae	Economic Effects (hundred million Yen/year)	44	334	7.59
	Income Induced Effects (hundred million Yen/year)	11	84	7.64
	Employment Effects (person/year)	351	3409	9.71
	Tax Effects (hundred million Yen/year)	5	41	8.20
Camp Zukeran	Economic Effects (hundred million Yen/year)	119	693	5.82
	Income Induced Effects (hundred million Yen/year)	30	208	6.93
	Employment Effects (person/year)	954	7386	7.74
	Tax Effects (hundred million Yen/year)	13	88	6.77
MCAS Futenma	Economic Effects (hundred million Yen/year)	130	3604	27.72
	Income Induced Effects (hundred million Yen/year)	35	928	26.51
	Employment Effects (person/year)	1074	34093	31.74
	Tax Effects (hundred million Yen/year)	14	430	30.71
Makiminato Service Area	Economic Effects (hundred million Yen/year)	224	2675	11.94
	Income Induced Effects (hundred million Yen/year)	57	670	11.75
	Employment Effects (person/year)	1798	24928	13.86
	Tax Effects (hundred million Yen/year)	24	316	13.17
Naha Port Facility	Economic Effects (hundred million Yen/year)	28	1076	38.43
	Income Induced Effects (hundred million Yen/year)	7	275	39.29
	Employment Effects (person/year)	228	10687	46.87
	Tax Effects (hundred million Yen/year)	3	130	43.33
Total	Economic Effects (hundred million Yen/year)	545	8383	15.38
	Income Induced Effects (hundred million Yen/year)	141	2165	15.35
	Employment Effects (person/year)	4400	80503	18.30
	Tax Effects (hundred million Yen/year)	57	1004	17.61

Source: Okinawa Prefecture “Survey of Economic Propagation Effect, etc. Accompanying Use of Land Where Military Troops Were Stationed,” January 2015.

<http://www.pref.okinawa.jp/site/kikaku/chosei/atochi/houkokusho/2015chuuryuugunuyoutiatochikeiz aikouka.html>

## 6. Redevelopment of Former U.S. Military Bases

Return of the bases is something that the people of Okinawa wish for. Nevertheless, many issues remain to be addressed in the process after return until the former sites are redeveloped and urban development pursued. There is concern that if return moves forward at a snail’s pace, then development of Okinawa’s economy will be impeded.

On land that was previously used by the U.S. military, land adjustment projects, land

improvement projects and other public works have mainly been carried out<sup>6</sup>, but there has also been development carried out by the private sector in achieving the redevelopment of these sites. As a result, land has been secured for residential housing and businesses in urban districts, needed public facilities developed, and areas used as either for agricultural land or industrial sites.

### **Successful Cases of Urban Development of Returned Bases**

Common phenomena have been observed in areas where urban functions have been created on former base sites and commerce has been reinvigorated. The Hamby and Mihama districts in Chatan, Naha city's Shintoshin and Kanagusuku districts, Okinawa city's Awase district and Uruma City-Gushikawa's Midori district are some of the areas where the volume of economic activity, which includes land rents, residential rents, commerce and industry exceeds income from land rents for military use prior to the opening of such area, and public facilities and other such venues have been developed transforming the living environment into a good one through urban development that has been regarded as successful.

The following are factors for success.

#### **(1) Blank Canvas for Returned Land**

In principle, there are to be no structures left on returned base land so that urban development plans may be designed to create a land-use concept without being tied down to certain ideas. Agreements may be formed with regard to scenery and townscape to communicate the image of a new town. It is not the old-fashioned town, but the image of an innovative city which is necessary for successfully constructing urban and commercial functions.

#### **(2) Traffic Requirements**

Looking at the example of Chatan, Highway 58 lies right in front of the Hamby and Mihama districts, which are also close to major roads to other communities, and the large volume of traffic has been a factor in their success. Traffic volume is, in a manner of speaking,

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<sup>6</sup>The current development mainly follows the methods below.

(i) Land readjustment projects (Land Readjustment Act): Urban areas shall be formed soundly while improving and developing public facilities and by promoting utilization of residents.

(ii) New housing and urban development projects (New Housing and Urban Development Act): Considerations must be made to develop sound urban areas and provide a large-scale area of land with favorable dwelling environment.

(iii) New urban infrastructure projects (New Urban Infrastructure Act):

Considerations must be made to improve infrastructure in order to create sound urban areas in large cities, contributions must be made to alleviate population concentration and the demand and supply of housing land, with the purpose of contributing to the orderly development of large cities.

demand running right in front of all of these businesses, and customers may be attracted thanks to expansive parking areas. Location of these districts, which are in close proximity to main roads, has been a factor in their success.

### (3) Parking Areas

The trend towards an automobile society has been a major factor in the shift from actual distance to time distance, and parking areas are a major factor drawing customers. Parking areas operated by Chatan Town, but also those maintained by shops have significantly increased the power to attract customers with door-to-door convenience. By contrast, parking areas in the former urban district of Naha City and other such areas are inconvenient, leading to a decline across the board in their ability to attract customers, and, as a consequence, these areas have lost their vitality.

### (4) Public Facilities

On returned land, parks, recreation yards, baseball fields and even beaches, marinas and other public facilities have been erected so that people are attracted not only to shopping but also places for relaxation and refreshment. Such facilities have also drawn tourists from inside and outside the prefecture and serve as leisure and tourist spots.

### (5) Locations of Commercial Functions (Leading Role)

Commercial functions have been located in such areas from the beginning and have played a leading role in the expansion of urban functions. Not only with respect to returned base land, but in any area, there is a leading role played by companies that are central to the process of commercial functions sprouting up and developing. A synergy has emerged not only through the complementary relationship among different types of businesses, but also through competition among companies engaged in the same business, which forms the core of this process.

### (6) Municipalities Attracting Companies

Activities by municipalities to attract companies are also an essential factor.

## **Inflow of Foreign Investment**

Today, the potential for Okinawa's development has attracted great attention. Airlines, energy companies as well as manufacturing and as-yet-unknown high-tech businesses have stepped into action. People and money from around the world are flowing into Okinawa to exploit this potential. Okinawa is no longer the frontier of Japan. The center of Asia is moving toward Okinawa. Moreover, we are now in an age where Okinawa's growth potential is at the top, where returned base land is transformed into prime real estate thanks to the inflow of foreign investment, where Okinawa has the potential to control distribution in Asia, where the Prefecture will be a manufacturing heaven thanks to the Okinawa Mold Technology Institute, Okinawa Institute of Science and Technology and other such institutions, and where wealthy foreign tourists are able to fly on a helicopter to the Nago City Hilton for ¥80,000 one way.

Foreign Investment is flowing into former base sites with the Four Seasons Hotel locating at the former Onna Communications Post, Malaysia's Dijaya Land Development Sdn Bhd considering the former U.S. Marine Corps Ginbaru Training Area, and GIC Private Limited, which is the Singapore government's sovereign investment corporation, showing interest in the

Makiminato Service Area. This is evidence that the market has recognized the potential for redevelopment of former base sites.

Furthermore, as was pointed out by Takaaki Yoshimoto since before Okinawa had a tradition and explosive power equivalent to completely destroying the mainland Japan-centered history of the state, the age of subordination when Okinawa was previously a negative asset will be replaced with strength. Okinawa's diversity to the extent that even family registers are ambiguous will function as the center of Asia and become a powerful weapon. It has been argued that Okinawa is the frontier of a "borderless state" and its potential for development is enormous. (Source: Nikkei Business, "Okinawa's Economic Bloc: Impact of New Industries Attracting Asia," Double Issue August 6 and 13, 2012)

Figure 27 Article from Nikkei Business

# 外資、基地に上陸す

ヒルトン、リッツ、フォーシーズンズ——。外資系ホテルの開業ラッシュが吹き荒れる。米軍基地の跡地も、次々と外資系の手落到ちて、日本勢はシリジリと後退するばかり。日本が誇る海洋リゾートは、「外国人たちの楽園」と化してしまうのか。

沖縄は今年になって、外資系リゾートの上陸が続いている。

5月、那覇市内のど真ん中に、米ヒルトン・ワールドワイドが進出した。「ダブルツリー・バイ・ヒルトン那覇」

ヒルトンは既に日本に10ホテルを持つが、この個性的なブランドホテルは「日本初」となる。高級ホテルに必須のスポーツジムは見当たらない。レストランも1カ所だけだが、客室には

高級感が漂う。設備を宿泊に特化することで、宿泊料金を1人1万円程度に抑えている。この戦略で、観光からビジネスまで、幅広い客層を取り込む。

**アジア観光の中心へ**

ヒルトンが進出した理由は、「アジアの中心」に布石を打つ戦略にほかならない。「今後、沖縄にはアジアから人が集まってくる。特に那覇は観光の窓口であり、外国人客が急拡大していくと見ている」(ダブルツリー・バイ・ヒルトン那覇のジェスパー・バツハ・ラーセン総支配人)。

そのヒルトンが進出したわずか5日後、5月末には「ザ・リッツ・カールトン沖縄」が名護市にオープンした。この建物は、2007年に地元企業の金秀リゾートが建設した高級ホテル。だが、リーマンショックによって稼働率が低迷し、リッツ・カールトンに

運営を委ねることになった。

世界に約80ホテルを持ち、高水準のサービスで知られるリッツ・カールトンは、国際的な知名度を利用して国内の観光客はもちろん、海外からやってくる富裕層の獲得を狙っている。那覇空港からはクルマで1時間以上かかる立地だが、近くまでヘリコプターで飛ばせば20分。片道8万円だが、「富裕層にとっては大した出費ではない」(ザ・リッツ・カールトン沖縄の吉江潤総支配人)と強気の見通しを立てる。

外資系ホテルが次々とオープンする背景には、アジアを中心とした観光客がシンガポールやマカオ、グアムといったアジア主要観光地と並んで「沖縄」に注目していることがある。海洋リゾートでありながら、島全体が日本の現代史における重要な「史跡」でもある。その魅力が人の流れを生み、33ページのグラフのように、那覇空港に発着する国際便は急増している。

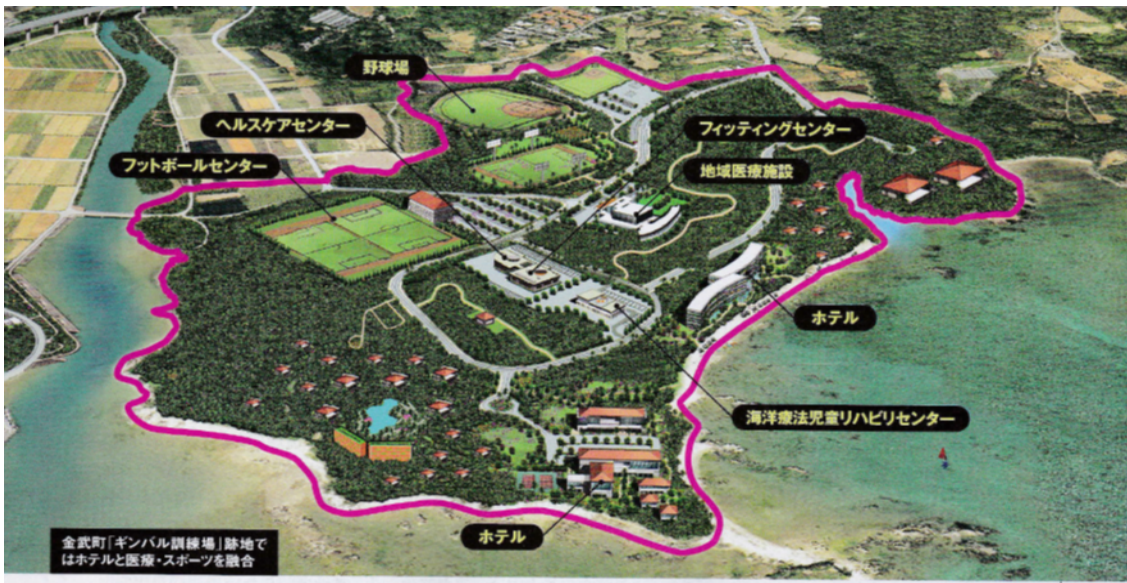
船の便も勢いが止まらない。7月、アジア最大級のクルーズ船「ボイジャー・オブ・ザ・シーズ」が那覇港に初めて寄港した。数千人の中国人観光客が降り立ち、買い物や観光に繰り出した。これに目をつけた免税店「DFSギャラリア沖縄」は、7月から那覇港に免税店受取所を用意して、「海からの客」も取



那覇に開業した「ダブルツリー・バイ・ヒルトン」。日本上陸は初となる

Source: Nikkei Business, "Okinawa's Economic Bloc: Impact of New Industries Attracting Asia," Double Issue August 6 and 13, 2012

Figure 28 Plan for Redevelopment of Former Camp Kinser Site



Source: Nikkei Business, “Okinawa’s Economic Bloc: Impact of New Industries Attracting Asia,” Double Issue August 6 and 13, 2012

### Chatan Town

Chatan Town is located in the center of the Okinawa main island approximately 16 km from the prefectural capital of Naha city and has a population of 27,900 (as of November 2011). It encompasses an area of 13.78 km<sup>2</sup> (March 2011), of which approximately 53% is occupied by the U.S. military, and the redevelopment of former base sites is a major issue being addressed in the town’s future development.

From the eastern part of the town to the central area is hilly land, and the western part is flat, extending north and south along National Highway 58. Development and improvement of a section of the west coastline has also moved forward through the reclamation of publicly-owned waters and the use of former military base sites. The commercial development of Mihama’s American Village has been highly regarded as a successful case of redevelopment of former military land within Okinawa Prefecture. Furthermore, the Chatan Fisherina Plan has also advanced, which aims to create a world-class waterfront area based on a “people friendly” theme. The influx of large hotels and shopping center specialty stores has been remarkable, and Chatan has become an attractive town that draws in many people, including tourists.

### Necessity for Personnel Development Hub

Although Chatan has developed economically, attracting attention as a successful case in reusing former military base sites, a knowledge hub is necessary to further develop and elevate culture and well-being so that Okinawa will be able to sustain development.

Okinawa’s 21<sup>st</sup> Century Vision states: “The greatest foundation for the group of islands

with few resources that is Okinawa to develop is people. The development of people is required who will be able to flexibly adapt to the changing times, be full of foresight and support development. The policy that should be emphasized the most in Okinawa is education, and the development of people. As internationalization moves forward, it is people who will adapt to changes of the times and spin the wheel of development with their wisdom and intelligence. People are nature's treasure and the potential for development. The children of our people are the rough stones of hopes and dreams to be polished so that they have the skills to adapt to the changing times, maintain a wealth of foresight and be able to support development.

A network of knowledge will be formed and a universal education system developed, not just scholarship that prevails globally. This will enable Okinawa to develop people equipped with the comprehensive skills of wisdom and adaptability, in other words "human power."

Through exchanges with Asia and the world, Okinawa will form a world-class hub of knowledge, and work to develop people who are equipped with a global standard of knowledge, and turnout people who are competent on a global standard."

### **Okinawa's Potential and Formation of a Knowledge Hub**

"Okinawa has significant potential as a gateway to the Asia-Pacific region and is one frontier extending across Japan. Fully drawing on the potential that Okinawa has may also serve as a driving force for revitalizing Japan. As countries in Asia show remarkable economic development and human and economic exchanges are anticipated to increase dramatically in the Asia-Pacific region, Okinawa is expected to make use of its geographical superiority in the heart of East Asia and play an ever more important role as a hub for exchange of people, goods, information, culture and other things and by extension a hub that contributes to the development of Japan and the Asia-Pacific region." (Basic Policy for the Promotion of Okinawa) "Through cultural and other exchanges with countries overseas that are themed to consider global issues, education for international understanding will be promoted, and training and study abroad systems to the United States, Europe, Asia and other regions will be enriched for junior high school students all the way up to working adults." (Okinawa 21st Century Vision Basic Plan)

"Sites, which were used by U.S. forces stationed in Japan and have been returned, are available spaces that have newly been created for communities, so the prompt and effective use of these sites needs to be advanced so that it leads to promotion of communities and also Okinawa as a whole." (Okinawa 21st Century Vision)

For Chatan whose development is restricted by the shackles which the bases place on it, the establishment of a "foreign university (tentative name" as a knowledge hub on former base land not only improves the level of education, but also contributes to the development of human resources that will build the global society of the 21st century, thereby becoming a "bridgehead" to Asia and the world, and significantly contributing to the self-sustaining development of Okinawa.

## District Plans

1. Kuwae District Plan
2. Mihama District Plan
3. Fisherina District Plan
4. Kuwae-Ihei District Plan

**Figure 29 Sunset Beach, Mihama**



**Figure 30 Chatan's Former Base Site**

(2) キャンプ桑江南側地区 シナリオB

1) 土地利用ゾーニングの考え方 (シナリオB)

「まちの中核を成し、様々な連携が期待される国際的『知の拠点』  
外国大学及び大学関連機能を充実させ、図書館・メディアセンター・滞在型研究施設・産学連携施設等を配置することで、北谷町全体で人材育成や産業振興を図る。

**タウンコアゾーン**  
生活利便施設や飲食店、学生が利用する店舗等から成る商業施設が集積、まちのにぎわいの中心となるゾーン。

【グートプラザ】  
北谷町らしい賑わいの中心として、にぎわいとシンボル性を併せ持つ都市的なプラザ

【キャンパスプラザ】  
グートプラザから大学コアへと誘う。「海への軸」を引き込んだプロムナード

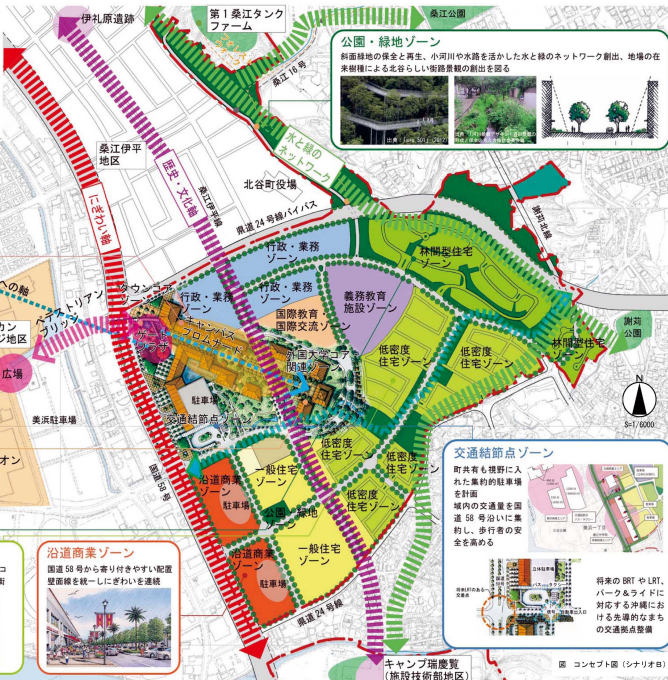
**外国大学コア・関連ゾーン**  
1000人のデイトタイム通学を想定した外国大学から成る大学コアと、産学連携施設や住民も利用可能な図書館・メディアセンターから成る大学関連ゾーン。

水と緑豊かなガーデンキャンパス

**林間型住宅ゾーン**  
緑のある地形と海への眺望を活かした高気質な住宅街の形成

**低密度住宅ゾーン**  
水・緑環境と共生し豊かなコミュニティの醸成を図る住宅街

**沿道商業ゾーン**  
国道58号から寄り付きやすい配置で商業圏を統一しにぎわいを連続



Source: Taisei Corporation, Chatan Town

**Figure 31 Chatan's Former Base Site Plan**



**Source: Taisei Corporation, Chatan Town**

#### **Kitanakagusuku Village: Site of Former Awase Golf Course**

The Awase Golf Course section is an area encompassing approximately 48ha of land used by the U.S. military, which was agreed to be returned by a joint Japan-U.S. commission held in March 1996 on the condition that the golf course's functions be "moved to within the Kadena munitions storage facility area (former East Onna munitions storage facility zone).

Kitanakagusuku Village formulated a plan for a district with facilities forming a hub for living and working that would include encouraging healthcare, welfare and other such facilities to meet the needs of the aging society and forming the core for a healthcare and welfare community (examples of facilities to be attracted include hospitals and welfare facilities), and a district with a commercial complex and exchange facilities that would include encouraging tourist, cultural, commercial and other such facilities which would form the core of a hub for area-wide exchanges in terms of business, tourism and disaster prevention.

The result has been the entrance of a large commercial facility and the area is alive with dynamism and business.

**Figure 32 Awase District Before Its Return**



Source: Kitanakagusuku Village- Site of Former Awase Golf Course Plan, 2010

**Figure 33 Awase District After Its Return**



**Figure 34 Awase District After Its Return**



出所:<http://www.aeonmall.com/upload/1393563111.pdf>

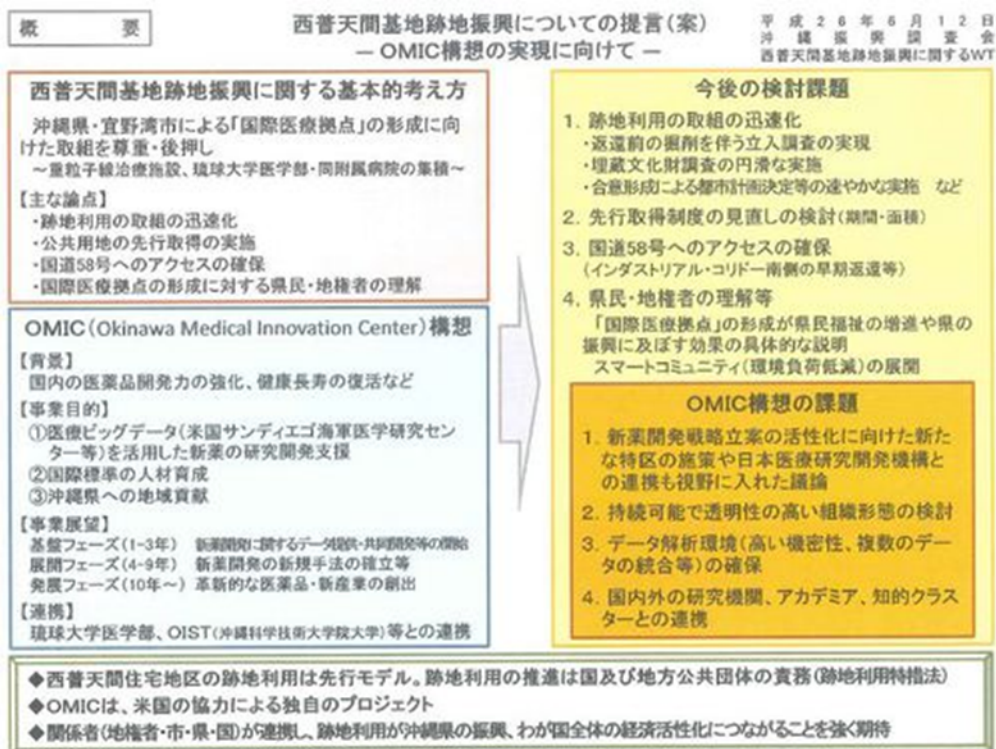
Source: <http://www.aeonmall.com/upload/1393563111.pdf>

### **West Futenma District**

The possibility has emerged for a former U.S. military site that has been returned to be transformed into a major healthcare hub. In March of the coming year, the West Futenma Housing District in Camp Zukeran (Ginowan City) will be returned. The University of the Ryukyus Hospital (in Nishihara Town), which was built close to 30 years ago and has been scheduled to be rebuilt due to severe deterioration, is moving forward with plans to relocate the facility along with the Faculty of Medicine to this site.

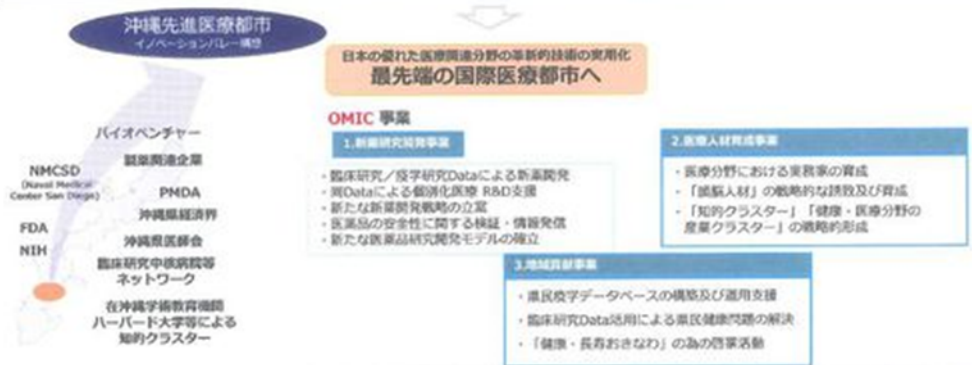
The proposal for the redevelopment of the site presented by Ginowan City calls for 19 to 20 ha of the total 58 ha which will be returned to be an “international healthcare hub zone.” If the University of the Ryukyus Hospital and Faculty of Medicine relocate to this site, this move will contribute to the economic development of Okinawa as a whole.

Figure 5



**OMIC (Okinawa Medical Innovation Center) 沖縄医療イノベーション事業概要**

<p><b>OMICとは</b></p> <ol style="list-style-type: none"> <li>臨床研究及び疫学研究Dataの解析をコアとする医薬研究支援機関</li> <li>日米両国の強みとアセットを活用する、日米協力の象徴</li> <li>沖縄でのみ実現可能な医療イノベーション事業</li> </ol>	<p><b>事業目的</b></p> <ol style="list-style-type: none"> <li>既存及び新規臨床研究Dataを活用した新薬の承認開発研究支援</li> <li>医療分野における国際標準の人材育成</li> <li>沖縄の医療産業振興(雇用創出)、健康増進への寄与</li> </ol>
<p><b>事業の背景及び可能性</b></p> <ul style="list-style-type: none"> <li>信頼性の高い臨床研究疫学Data → NMCS D/医学会/国内研究機関の連携</li> <li>米国政府の全面協力 → 日米協力プロジェクト</li> <li>データを活用できる日米チーム → 日本側: 琉球大学医学部、琉球大学病院 等 米国側: Harvard/NMCS D/FDA等の専門家</li> </ul> <p style="text-align: right;">} ※米国は沖縄以外にはNMCS Dのデータは出さない</p>	



Source: LDP Research Commission Working Team / Proposal for Creating a Hub for Developing New Medicines in the Residential Area of West Futenma / Advance Model for Redeveloping Former Base Sites

**Urasoe City: Plan for Redevelopment of Former Camp Kinser Site**

The city's basic concept sets out five visions for the future and 10 basic goals with a theme for urban development of "Always shining people, sea and culture: Kinser space charting

the future of Urasoe.” On the other hand, from the perspective of promoting the development of Okinawa Prefecture as a whole, the “Wide-Area Concept for Redeveloping Former U.S. Military Sites in Central and Southern Urban Areas,” which was formulated by Okinawa Prefecture, calls for a development concept for this district that creates an “international entertainment city making use of people, sea and culture.”

Accordingly, this district will be required to play a role that leads the promotion and development of Okinawa by making use of the favorable location facing the western coast and close proximity to the airport. People in from both inside and outside Japan will be called on to engage in exchange involving the community’s resources of the ocean and culture.

The concept of the basic plan has its focus on “creating a community of development through exchange” so as to embody a “town that develops” and a “town that engages in exchange” which are the visions of the future laid out by the basic concept.

The economic propagation effect has also been estimated. Sales, which are based on ordinary economic activity, are forecasted to be ¥89,530 million, and the economic propagation effect is estimated at ¥135,166 million.

The site is located along Highway 58 and has shown significant potential as a location for commercial sites.

**Figure 35 District Structure Policy Diagram**

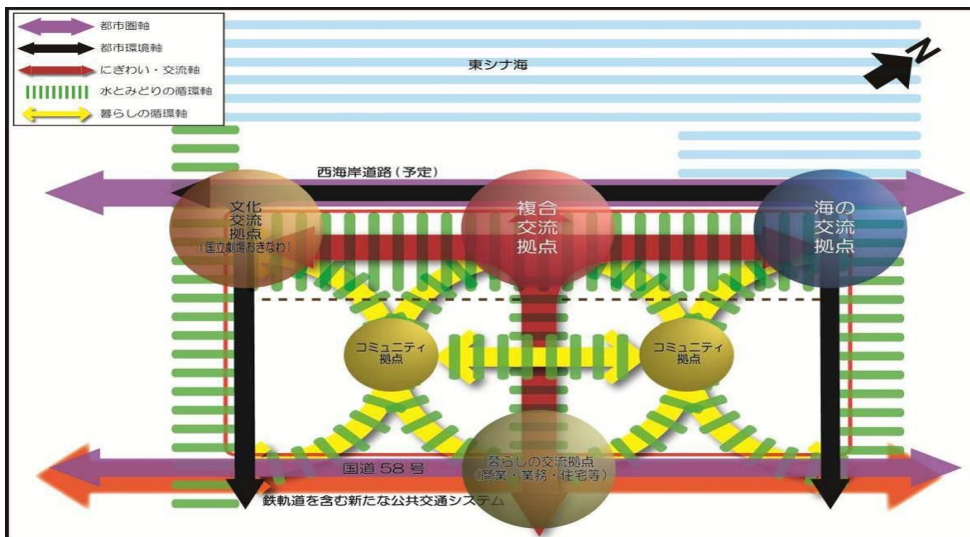


Figure 6

図表 地区ごとの売上額及び建設費の想定

地区分類	施設イメージ	敷地面積	想定売上額	想定建設費
リゾート コンベンション 産業地区	エア・ターミナル	2ha	13.5 億円/年	22.3 億円
	滞在型リゾートホテル	20ha	71.0 億円/年	100.1 億円
	ショッピングモール	6ha	135.7 億円/年	34.8 億円
	コンベンション施設	5ha	26.1 億円/年	39.0 億円
	小計	33ha	246.3 億円/年	196.2 億円
文化産業地区	芸術劇場	2ha	14.6 億円/年	24.0 億円
	沖縄芸能研修・交流施設	3ha	5.2 億円/年	66.0 億円
	伝統工房・職人の街	10ha	160.6 億円/年	21.7 億円
	若手芸能・職人継承者居住施設	5ha	0.5 億円/年	67.7 億円
	小計	20ha	180.9 億円/年	179.4 億円
健康・医療 産業地区	専門病院	5ha	73.8 億円/年	120.6 億円
	医療ツーリストケア施設	3ha	6.4 億円/年	79.9 億円
	海洋研究施設・産業研究施設	9ha	210.0 億円/年	10.6 億円
	海洋文化交流施設	3ha	10.4 億円/年	66.0 億円
	小計	20ha	300.6 億円/年	277.1 億円
産業地区計		73ha	727.8 億円/年	652.7 億円
住宅地区	中層住宅	34.5ha	5.5 億円/年	560.9 億円
	低層住宅	34.5ha	2.0 億円/年	366.1 億円
住宅地区合計		69ha	7.5 億円/年	927.0 億円
商業業務地区	テナントビル	18ha	160.0 億円	475.0 億円
商業業務地区合計		18ha	160.0 億円	475.0 億円
総合計		160ha	895.3 億円	2,054.7 億円

Source: Urasoe City- “Business report on the formulation of the basic plan for the redevelopment of Makiminato Service Area”, 2013

Figure 7

図表 跡地利用における経済波及効果（総括表）

効果の内訳	単位	生産波及効果額		
		直接効果額	直接効果額 + 1次効果額	直接効果額 + 1・2次効果額
売上による 経済波及効果	百万円/年	88,340	113,818	135,166
建設費による 経済波及効果	百万円	204,472	279,343	336,059

Source: Urasoe City- “Business report on the formulation of the basic plan for the redevelopment of Makiminato Service Area”, 2013

## **Naha Military Port**

Naha City has set out the following basic concepts and basic policies for development.<sup>7</sup> However, there are no prospects in sight for return of Naha military port, and redevelopment of this site has not moved forward, either. There are also plans that are no longer suited to the current situation and need to be updated.

Currently, Okinawa Prefecture promotes itself as a metropolis adjacent to an airport serving as an international logistics hub, and promotes itself as a metropolis close to a port. It has considered the potential for expansion to cope with Asia's increasing dynamism, and has conducted surveys that also include coordinating with the Japan Self-Defense Forces and joint use of the Naha military port.

### **Basic Concept**

#### (1) Creation of a new hub supporting international exchange and trade

Utilizing the regional characteristics inherent in the close proximity to an airport and harbor, urban development will proceed that supports international exchange and trade throughout the prefecture.

#### (2) Formation of a gate to Naha city that makes use of the distinctive features of this historical harbor

Development will be carried out that is characteristic of this gateway to Naha city, which makes use of Omo Castle, Yarazamui Castle and other historical properties.

#### (3) Formation of a comfortable residential space in an urban resort

Development methods that allow for ample planting of flowers and trees as well as creation of water amenities will be employed to realize a comfortable residential space in an urban resort setting.

#### (4) Formation of a waterfront and marine recreation areas

Development will be realized so that city residents may easily utilize the urban waterfront and participate in a diverse range of aquatic and marine recreation activities.

### **2) Basic Policies**

#### (1) Creation of a Water Amenity Space

A variety of water amenity spaces will be created, including a park for promenades along the water's edge, water channels, man-made beaches, and so on. Additionally, water channels will mainly be on a scale suitable for the landscape.

#### (2) Possibilities for Future Collaboration with the Free Trade Zone

For this area which is close to the Free-Trade Zone, consideration will be given to maintaining facilities that may be established independently at the current stage while leaving open the possibility for collaboration with the Free-Trade Zone in the future from the

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<sup>7</sup> "Investigative report on the plan for redeveloping the former site of Naha Military Port (basic concept) March 1996", Naha City Department of Urban Planning, and Federation of Landowners Association of Land Used for Military Purposes

perspective of urban development that supports international exchange and trade.

(3) Arrangement of some fishing port functions

The use of the land around Omo Castle will generally be toward developing a marina facility, and some fishing port functions will be configured.

(4) Consideration of new transportation system

Based on the regional characteristics of the area to be developed, it has been confirmed that the propensity to attract customers is an important element for development, and consideration will continue to be given to a new transportation system that includes the monorail.

**Figure 36 Illustration for redeveloping the former site of Naha Military Port**



Source: “Investigative report on the plan for **redeveloping** the former site of Naha Military Port (basic concept) March 1996”, Naha City Department of Urban Planning, and Federation of Landowners Association of Land Used for Military Purposes

Naha port facilities present the following potential when viewed in relation to the city function vision.

- ① Exchange & Contribution: Potential for formation of a waterfront urban resort that makes use of the close proximity to the airport, port and its superior location in the city center
- ② Symbiosis: Potential for formation of a aquatic and maritime recreation hub that makes use of the waterfront and historical resources
- ③ Industry: Potential for locating industrial functions in close proximity to the airport and port
- ④ Urban Structure: Potential for formation of an industrial area for logistics, processing, and

trade in close proximity to the airport and port

○When looking at the relationship with important development themes, the following potential is present.

① Environment & Scenery: Potential for formation of a waterfront network bringing together water, greenery and history that makes use of historical resources (Mii Castle Site and Omo Castle Site)

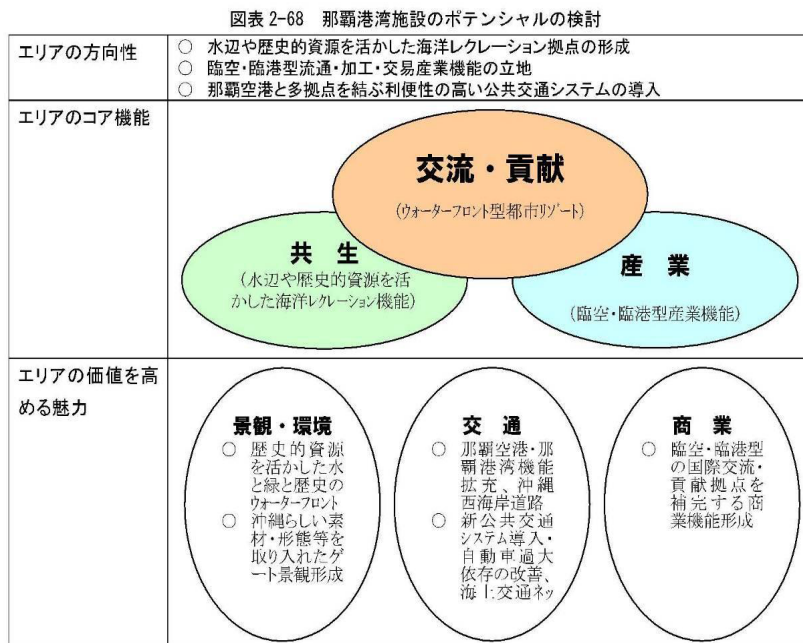
② Transportation: Potential for alleviating the overdependence on automobiles and introducing a new public transportation system that connects multiple hubs with Naha Airport along with the development of roads along the western coast of Okinawa

Potential for formation of a hub for maritime traffic networks

③ Commercial Functions: Potential for creation of commercial functions complementing aquatic and maritime recreation as well as industries in close proximity to the airport and port

○Viewed from the perspective of such potential, it would be desirable for the hub port facilities to make use of the close proximity to the airport and port, historical waterfront, city center and other such features to form a new hub for promotion by comprehensively and systematically advancing the “formation of an aquatic and marine recreation hub that utilizes the waterfront and historical resources, locates industrial functions in close proximity to the airport and port, and introduces a highly-convenient public transportation system connecting multiple hubs with Naha Airport.”<sup>8</sup>

Figure 37



<sup>8</sup>Naha City- Investigative Report on Former Naha Military Port Site Redevelopment

Implementation Possibilities Survey Project, March 2012

From <Consideration of Potential> ~Urban Function Vision and the Relations of the Three Themes

Source: “Investigative report on the plan for redeveloping the former site of Naha Military Port (basic concept) March 1996”, Naha City Department of Urban Planning, and Federation of Landowners Association of Land Used for Military Purposes

### **Outlook for Okinawa’s Economy**

Long ago, our predecessors developed a triangle of trade that extended across Southeast Asia and China and included the Korean Peninsula as well as Japan, ultimately establishing the “Ryukyu Era.” Later, Ryukyu (Okinawa), an island society, would be tossed around by history, traveling a difficult path not only politically but economically too. After the return of Okinawa to Japan in 1972, the Okinawa Promotion and Development Plan set forth the goals of “reconciling disparity” and “creating the basic conditions for self-sustaining development” and sought to promote Okinawa’s economy, yet economic independence has not been achieved.

However, the dynamism generated by the economies of Asian nations, including China and extending to ASEAN and Myanmar, has been dazzling. Meanwhile, the Japanese economy experienced the “lost 20 years” and has yet to extricate itself from a deflationary spiral. Further, the country’s population started to decline in 2008 and is losing its former vitality. Okinawa, which is located in the center of Asia, is positioned as a “bridgehead to Asia” and enjoys a golden opportunity. The Okinawa Prefecture’s Asia Economic Strategic Initiative is a policy that captures this opportunity and incorporates it into the Okinawa’s economy.

The global environment, including Asia, is changing dramatically. Unless these changes are addressed with appropriate speed and scale, this initiative will be turn out to be a policy that amounts to little. These opportunities must be captured up and strategic policies reinforced and supplemented with promotion plans. The growth and development of the Asian economy today has conferred on Okinawa’s economy a golden opportunity and we must not let this chance slip through our fingers. We must resolutely incorporate this dynamism into Okinawa’s economy, which will lead to the prefecture become self-sustaining.

When viewed from the perspective of “quantity,” the U.S. military bases have played a certain role in reconstructing and developing Okinawa’s economy in a material sense. On the other hand, in terms of “quality,” invested capital and labor have not generated expansion or growth through market mechanisms, and the dollar-based economic system transformed Okinawa’s economy into one dependent on imports and migration such that regional industries have not become more sophisticated, thereby distorting Okinawa’s economy.

U.S. military bases are not an economic entity such as a business enterprise that actively directs its operations toward perpetual development. They do not self-propagate and any economy dependent on a base is inherently limited.

The economic effect that demand associated with the U.S. military bases created in 2015 was ¥484,820 million, the added value induced effect was ¥2,683,999 million, and the employment induced effect was 54,696 people. These figures imply that the economy would be adversely affected by only these amounts if the U.S. military bases vanished. In other words, an

economic hole would open only to this extent.

The production induced effect after return of five facilities, Camp Kuwae, Camp Zukeran, Futenma Air Station, Makiminato Service Area and Naha Port has been ¥838,300 million, which significantly exceeds the ¥484,820 million economic effect mentioned above that would be lost if all of the U.S. military bases in Okinawa Prefecture were suddenly withdrawn.

From both micro- and macro-economic perspectives, there are greater opportunities for business and profits after return of land used by the U.S. military than there are now with the U.S. military having exclusive use. The fact that removal of U.S. military bases from Okinawa would lead to its development has brought about a paradigm shift in the base debate away from the previous arguments related to security as well as crime, accidents in the community, to new discussions adopting an economic approach.

For Okinawa whose potential has increased on account of Asia's dynamism, the U.S. military bases continue to impede development. Viewed from an economic perspective, the bases suspend any potential for development. Return of the land occupied by U.S. military bases and transforming Okinawa's economy into a private market is the crucial issue of our time.

## Reference

### Redevelopment of former U.S. military bases

#### U.S. military bases

Even today some 70 years after World War II, the small island of Okinawa, which accounts for a mere 0.6% of Japan's land area, is home to U.S. military bases occupying a large area equivalent to approximately 74% of all the U.S. military exclusive-use facilities in Japan.

The U.S. military bases occupy approximately 10% of Okinawa Prefecture's land. Most of all, they take up roughly 18% of the Okinawa main island where population and industry are concentrated.

Number of facilities: 33

Facility land area: 23,098ha

Number of U.S. military exclusive-use facilities: 32

U.S. military exclusive-use facility land area: 22,730ha

Total member of military soldiers, military related personnel and families: 47,300 people

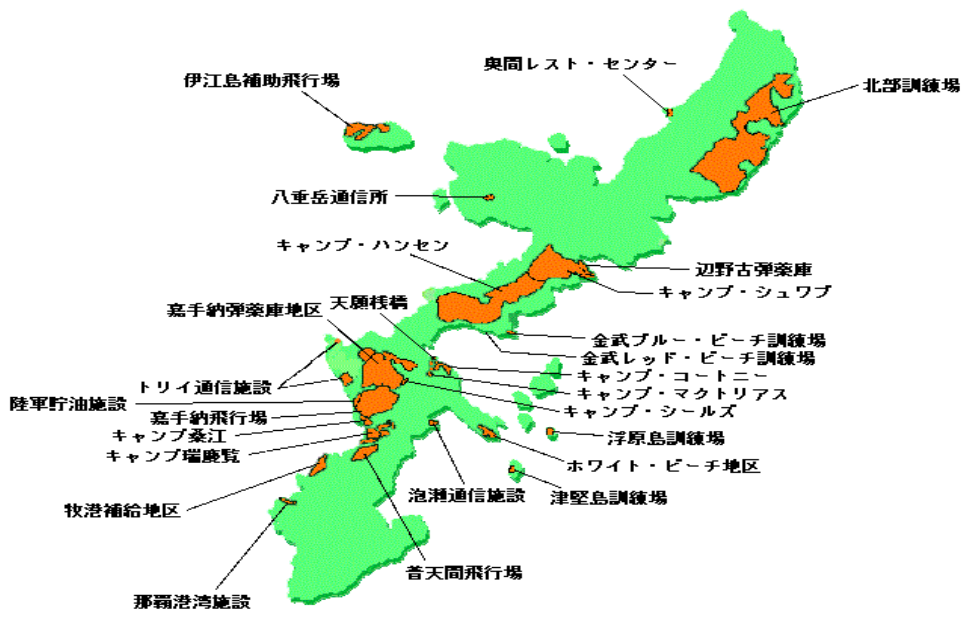
Military soldiers: 25,843 people

Military related personnel: 1,994 people

Families: 19,463 people

(Number of facilities and land area: current as of March, 2014, number of military soldiers, etc.: current as of June, 2011)

Figure Reference-1



Source: Outline of the Facilities and Zones Provided by the U.S. Military

<http://www.pref.okinawa.jp/site/chijiko/kichitai/579.html>

## 2. 本県の米軍基地の状況

### (1) 米軍基地面積等の推移

区 分	施設数	施設面積 (ha)		指 数	軍人・軍属 ・家族数 (人)	駐 留 軍 従 業 員 数 (人)	年 間 賃 借 料 (百万円)
			(27,892.5)				
昭和47年6月	87	28,660.8	(27,892.5)	100.0	42,229	19,980	12,315
昭和48	83	28,387.0		99.0	40,274	18,118	17,715
49	72	27,670.9		96.5	60,484	14,543	25,538
50	61	27,047.7		94.4	57,596	12,735	25,961
51	57	26,652.6		93.0	52,678	10,265	25,912
52	54	26,302.2		91.8	48,287	8,447	25,245
53	51	25,925.9		90.5	46,166	8,175	27,617
54	51	25,861.7		90.2	47,913	7,444	29,368
55	49	25,587.2		89.3	48,948	7,177	31,116
56	48	25,400.7		88.6	47,690	7,196	33,773
57	48	25,191.1		87.9	50,736	7,279	34,507
58	48	25,376		88.5	50,310	7,400	35,468
59	47	25,360		88.5	56,269	7,488	36,772
60	47	25,373	(24,861)	88.5	56,723	7,457	38,314
61	47	25,361	(24,849)	88.5	55,058	7,467	39,932
62	46	25,307	(24,795)	88.3	57,658	7,495	39,402
63	45	25,027	(24,238)	87.3	58,097	7,469	40,671
平成元	45	25,026	(24,239)	87.3	52,247	7,689	42,650
2	45	25,024.3	(24,237.2)	87.3	49,251	7,746	44,726
3	45	25,013.2	(24,226)	87.3	49,813	7,717	47,031
4	45	25,011.5	(24,224)	87.3	51,751	7,898	51,690
5	43	24,529.5	(23,742.4)	85.6	50,678	7,813	55,140
6	42	24,526.2	(23,739.1)	85.6	52,594	7,907	57,707
7	42	24,447.3	(23,660.2)	85.3	52,288	7,806	60,317
8	40	24,306.2	(23,519.1)	84.8	53,539	8,258	63,043
9	39	24,285.5	(23,498.4)	84.7	50,893	8,349	66,210
10	39	24,283.0	(23,495.9)	84.7	50,338	8,443	68,245
11	38	23,769.2	(23,451.9)	82.9	48,626	8,400	70,484
12	38	23,753.5	(23,446.2)	82.9	49,502	8,450	72,811
13	38	23,752.7	(23,445.2)	82.9	49,279	8,491	75,064
14	38	23,728.8	(23,360.0)	82.8	49,346	8,703	76,451
15	37	23,687.4	(23,318.6)	82.6	50,826	8,678	76,568
16	37	23,681.2	(23,312.4)	82.6	45,354	8,813	76,991
17	37	23,671.3	(23,302.5)	82.6	42,570	8,813	77,542
18	37	23,667.5	(23,298.7)	82.6	43,550	8,928	77,670
19	34	23,301.5	(22,932.7)	81.3	48,490	8,987	77,682
20	34	23,293.3	(22,924.5)	81.3	40,416	8,928	78,375
21	34	23,293.3	(22,924.5)	81.3	44,895	9,014	79,090
22	34	23,293.9	(22,925.1)	81.3	・ ・ ・	9,135	79,295
23	34	23,247.1	(22,878.3)	81.1	47,300	9,147	79,849
24	33	23,176.3	(22,807.5)	80.9	・ ・ ・	9,038	81,125
25	33	23,176.1	(22,807.2)	80.9	・ ・ ・	8,942	83,240
26	33	23,098.4	(22,729.5)	80.6	・ ・ ・	8,868	84,514
27	32	22,992.1	(22,623.3)	80.2	・ ・ ・	8,844	・ ・ ・

注 1. ( ) 内の数字は、施設面積のうち米軍専用施設の面積である。

2. 施設数・施設面積・年間賃借料は、沖縄防衛局の資料（各年とも昭和47年を除き3月末現在、賃借料は各年度実績）による。

3. 軍人・軍属・家族数は、在沖米軍からの聴取による（平成22年及び平成24年から平成27年までは、非公表、平成23年は、6月末現在）。

4. 駐留軍従業員数は、平成13年までは沖縄県商工労働部資料、平成14年、15年は独立行政法人駐留軍等労働者労務管理機構の資料、

平成16年以降は沖縄防衛局の資料（各年とも3月末現在）による。

5. 面積は精査の結果、変動することがある。

Source: U.S. Military Bases and Japan Self-Defense Force Bases (compilation of statistical data),  
March 2016, available at  
<http://www.pref.okinawa.jp/site/chijiko/kichitai/22366.html>