

Improving the Duty-Free Exemption System in Jeju

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Abstract: This study examines the status of the duty-free exemption system in Jeju Special Self-Governing Province and explores directions for future development. The operation of duty-free shops in Okinawa (Japan) and Hainan (China) is reviewed and improvements are proposed for Jeju's designated duty-free shop system, including the removal of purchase frequency limits and expansion of eligible duty-free items. Based on the example of Heligoland (Germany), this study proposes an approach to designate affiliated islands as duty-free zones. Economic analysis indicates that establishing affiliated islands as duty-free zones could generate positive economic spillover effects not only in Jeju but across South Korea.

Keywords: Jeju Special Self-Governing Province, Duty-Free Exemption System, Pre-Duty-Free System, Post-Duty-Free System, Economic Spillover Effects

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Introduction

Duty-free refers to measures that exempt certain goods from taxation. Based on the timing of tax benefits, duty-free systems can be categorized into pre-(duty-free) and post-departure (tax-free) systems. The pre-departure system operates by selling goods purchased by domestic or foreign travelers at prices exempted in advance from customs duties, value-added tax (VAT), and individual consumption tax, with goods delivered to travelers upon departure. Here, “duty” refers to the tax imposed on goods brought into the country; therefore, “duty free” indicates cases in which customs duties and consumption taxes (VAT, individual consumption tax, liquor tax, tobacco tax) are suspended or exempted. Examples of the pre-departure system include licensed bonded areas under the Customs Act, designated duty-free shops under the Jeju Special Act and the Restriction of Special Taxation Act, and bonded shops licensed under the Enforcement Decree of the Tourism Promotion Act and the Enforcement Decree of the VAT Act.

The post-departure system allows foreign tourists, excluding corporations and members of the United Nations and United States armed services, to purchase goods at designated tax-free shops. When purchasing goods above a certain threshold, travelers can claim refund for VAT and individual consumption tax at refund counters in airports upon departure. Duty-free shops for foreign tourists that follow the Restriction of the Special Taxation Act, VAT Act, Individual Consumption Tax Act, and Regulations on VAT and Individual Consumption Tax for Foreign Tourists are relevant to this post-departure system.

Established in July 2006, Jeju Special Self-Governing Province defined its core objective under Article 1 of the Jeju Special Act, “the creation of an environmentally friendly international free city harmonizing economy and environment.” To achieve this goal, the Act, with 481 provisions, grants Jeju special measures, regulated under Articles 238–256 to promote tourism. As a key sector of Jeju’s economy, tourism contributes to local income by attracting foreign visitors and functions as a high value-added industry by promoting Korea’s culture and landscape through global exchanges. Prior studies have highlighted the role of tourism in promoting cultural exchange and high value-added growth in the regional and island economies (Song et al., 2012; Sinclair

& Stabler, 1997).

Seeking to improve its duty-free exemption system, an amendment to Article 177 of the Jeju Special Act in May 2011 established the legal basis for implementing a VAT refund scheme. However, the system has limitations regarding eligible goods, purchase amounts, and number of transactions. Although a recent amendment to Article 121–13 of the Restriction of the Special Taxation Act raised the maximum value of duty-free items from USD 600 to 800, further expansion is necessary to compete with Okinawa (Japan) and Hainan (China).

International experience underscores the potential limitations of duty-free regimes. The introduction of duty-free shops in Okinawa's airports and city centers stimulated local tourism expenditure and employment (Chen & Chang, 2008; Garín-Muñoz & Amaral, 2000; Yamamoto, 2019). Hainan's reforms, including higher annual purchase limits, removal of single-item caps, and broader product categories, boosted tourism consumption and fiscal revenue (Kim & Lee, 2011; Li & Chen, 2020; Li & Song, 2009; Seetanah, 2011). In the Caribbean and European contexts, studies show that while tax incentives and duty-free regimes attract tourists and foreign capital, they also raise concerns about fiscal dependency, tax competition, and inequality (Borg & Xuereb, 2016; Clarke, 2018; James, 2017; O'Connor, 2021). Singapore and Hong Kong show that carefully designed duty-free tax policies can strengthen competitiveness as financial and logistics hubs (Tan, 2015; Wong, 2022). These studies highlight the importance of policy design in maximizing benefits while mitigating risks.

Jeju's duty-free policies have rarely been analyzed systematically and quantitatively. Existing research has remained at the level of descriptive comparisons or macro-level discussions, leaving gaps in the evaluation of the structural effect on consumption, employment, and value-added creation. The methodological foundations for such an analysis are well established in the literature on input–output modeling (Miller & Blair, 2009), and tourism economics has applied these techniques to measure the impact of taxation and policy interventions (Blake et al., 2003; Dwyer et al., 2004). Applications comparable to Jeju's duty-free regime are lacking, underscoring the need for evidence-based analysis that integrates international comparative insights with rigorous empirical modeling. This study assesses Jeju's duty-free exemption system and explores

directions for its progressive operation. It provides a detailed review of the current system, identifies constraints and challenges, and derives implications based on international comparisons. Finally, it proposes policy recommendations for Jeju's duty-free regime, and evaluates the potential economic effects of its expansion.

Overview of the Duty-Free Exemption System in Jeju Special Self-Governing Province

Main Features

The legal basis for Jeju's duty-free exemption system is provided under Article 121–13 of the Restriction of the Special Taxation Act (Special Provisions on Indirect Taxes for Jeju Travelers' Duty-Free Shops) and Article 255 of the Jeju Special Act (Exemption or Refund of Customs Duties for Jeju Travelers).

Restriction of Special Taxation Act, Article 121–13 (Special Provisions on Indirect Taxes for Jeju Travelers' Duty-Free Shops)

1. If a traveler to Jeju, as defined by Presidential Decree, purchases goods at a duty-free shop designated under Article 255 of the Jeju Special Act and carries them out of Jeju to another region of the Republic of Korea, the value-added tax (VAT), individual consumption tax, liquor tax, customs duties, and tobacco consumption tax applicable to those goods shall be exempted.

Jeju Special Act, Article 255 (Exemption or Refund of Customs Duties for Jeju Travelers)

1. When a traveler to Jeju purchases goods at a designated duty-free shop and carries them out to another region of the Republic of Korea, customs duties, VAT, individual consumption tax, liquor tax, education tax, special rural development tax, tobacco consumption tax, and local education tax may be exempted or refunded in accordance with the provisions of the Restriction of Special Taxation Act and the Restriction of Special Local Taxation Act.
2. Tourism-related goods and services purchased and consumed within Jeju by travelers may be refunded for the VAT paid, in accordance with the provisions of the Restriction of Special Taxation Act.

According to Article 255 of the Jeju Special Act, travelers to Jeju may receive tax exemptions or refunds under the following conditions.

First, goods are purchased at designated duty-free shops in Jeju and subsequently exported to other regions of the Republic of Korea. Domestic and foreign travelers are eligible, and customs duties, VAT, individual consumption, liquor, education, special rural development, tobacco consumption, and local education taxes may be exempted or refunded under the Restriction of the Special Taxation Act and the Restriction of the Special Local Taxation Act. Second, when tourism-related goods and services are purchased and consumed within Jeju, VAT refunds are stipulated under the Special Taxation Act. Domestic and foreign travelers are eligible to receive refunds for the VAT paid.

For applying these exemptions or refunds (i) goods must be purchased at designated duty-free shops, and (ii) relevant provisions must exist in the Restriction of the Special Taxation Act or the Restriction of the Special Local Taxation Act. Goods purchased outside designated duty-free shops are ineligible and the legal basis must be the Restriction of Special Taxation Act. Notably, Article 3(24) of the Restriction of Special Taxation Act authorizes exemptions and refunds under the Jeju Special Act, but the proviso limits these benefits to local taxes, excluding national taxes. While Article 255 of the Jeju Special Act provides for

Table 1. Efforts to Improve the Duty-Free Special Taxation System in Jeju

Category	Phase 1	Phase 2	Phase 4	Phase 5
Task/ Objective	Province-wide duty-free zone	Province-wide duty-free zone	VAT refund for Jeju travelers	Support for tourist-only duty-free zones
Key Content	Treat Jeju as outside customs territory; exemption of customs duties, VAT, and other indirect taxes	Same as Phase 1 Note: Considering post-tax refund due to difficulties in managing smuggling	To realize the VAT refund system established in Phase 4, the refund system for designated duty-free shops in certain areas were incorporated into the Restriction of Special Taxation Act	Same as Phase 4
Implementation Status	Not implemented	Not implemented	Implemented (however, not reflected in the Restriction of Special Taxation Act, thus rendered ineffective)	Not implemented

exemptions and refunds, these measures have been nominal as of 2022.

The transfer of authority from the central administrative agencies to Jeju occurred in seven stages. The third (March 25, 2009), sixth (December 12, 2019), and seventh (February 18, 2020) stages did not involve changes in the duty-free exemption system. Initially, pre-departure duty-free measures were pursued; however, opposition due to dual taxation issues led to a transition to post-departure VAT refunds codified during the fourth stage as summarized in Table 1. On December 29, 2009, the Jeju Support Committee under the Office for Government Policy Coordination deliberated and approved the “VAT Refund Program for Jeju Travelers,” and on May 23, 2011, Article 177 of the Jeju Special Act was amended to explicitly provide a legal basis for VAT refunds. Despite these advancements, the original vision of designating the entire island as a comprehensive, duty-free area remains unfulfilled.

Rationale for Expanding Duty-Free Exemptions in Jeju Special Self-Governing Province

Expansion of the duty-free tax incentive system in the Jeju Special Self-Governing Province can be examined from four perspectives: (1) supporting the founding purpose of the province, (2) establishing a model of decentralized governance that reflects Korea’s realities, (3) promoting the positive functions of Jeju tourism, and (4) curbing indiscriminate demand for overseas travel.

First, the Jeju Special Self-Governing Province was launched on July 1, 2006, coinciding with the beginning of the fourth term of popularly elected local governments. This inauguration was intended as a testing ground for building a local governance framework suitable for Korea, based on experience accumulated since the first term of elected local governments in 1995, primarily for advancing Korean society. The Province set forth a vision of becoming an environmentally friendly hub for Northeast Asia by fostering core industries such as tourism, education, and healthcare, and high-tech sectors such as information technology.

Tourism, a core industry in Jeju, goes beyond simply attracting foreign visitors and generating regional income. It also functions as a future-oriented, environmentally friendly, and high-value-added industry that promotes international exchange and introduces Korea’s outstanding

culture and scenic natural environments. To nurture such tourism, it is crucial to enhance visitor convenience and provide effective mechanisms that reflect tourist preferences in shopping conditions. Strengthening the duty-free tax incentive system is a technique to enhance tourists' shopping satisfaction in Jeju. Thus, reviewing and seeking developmental directions for Jeju's duty-free tax system is necessary for realizing the founding purpose of the province.

Second, Korea sought to support Jeju's vision by granting a high degree of autonomy and using the province to establish the foundation for a decentralized, advanced nation, while simultaneously opening new horizons in local governance. However, it is premature to conclude that Jeju Special Self-Governing Province has fully achieved its initial objectives. The Province's development, in line with its founding vision, is significant for Jeju and for exploring an independent and self-reliant model of Korean-style local autonomy. It is clear that the transformation of Jeju from a conventional provincial government (Do) into a Jeju Special Self-Governing Province in July 2006 was driven by national decisions rather than Jeju's own demands. This makes Jeju a starting point or "first button" in creating a prototype of Korean-style local governance. Its success serves as a guide for other local governments, as they consider governance frameworks suited to their own circumstances. However, sufficient fiscal resources must be secured to support Jeju's development and its planned initiatives. Thus, expanding the duty-free tax incentive system may be an important financial strategy.

Third, prior to the outbreak of the COVID-19 pandemic, Jeju attracted 14–16 million visitors annually. Even during the pandemic, unlike other local governments, Jeju experienced a significant number of domestic visitors as can be seen in Table 2. Given the long-term trends in tourist inflows, domestic and international visitor numbers were expected to increase after the pandemic.

Considering Jeju Special Self-Governing Province's natural beauty and its therapeutic benefits, further improvements are necessary to enhance domestic and international visitor experience, specially measures that enable visitor convenience when purchasing goods. Therefore, expanding the duty-free tax incentive system that provides purchasing incentives for visitors, should be actively pursued for promoting Jeju's tourism industry.

Table 2. *Tourist Arrivals to Jeju*

(Unit: Persons, %)

Category	2015	2016	2017	2018	2019	2020	2021
Total	13,664,395	15,852,980	14,753,236	14,313,961	15,286,136	10,236,445	12,008,437
Growth Rate	11.3	16.0	-6.9	-3.0	6.8	-33.0	17.31
Domestic Visitors	11,040,135	12,249,959	13,522,632	13,089,129	13,560,004	10,023,678	11,960,159
Foreign Visitors	2,624,260	3,603,021	1,230,604	1,224,832	1,726,132	212,767	48,728

Source: Jeju Special Self-Governing Province (2015–2021), Annual Statistics on Visitors to Jeju.

Fourth, prior to the COVID-19 pandemic, Korea was among the countries with the fastest-growing number of outbound travelers and rapidly increasing overseas tourism expenditure. Consequently, the number of Korean citizens traveling abroad exceeded the number of inbound foreign tourists, and the tourism industry's balance of payments recorded larger outbound expenditures by Korean tourists than inbound receipts from foreigners. This imbalance in tourism receipts and expenditures weakened the domestic tourism infrastructure and impacted the local economies. Improving local tourism conditions across Korea, including Jeju, could absorb the domestic demand for overseas travel and reduce unnecessary foreign currency outflows. Simultaneously, stimulating the consumption of goods and services within Jeju would revitalize the local economy. From this perspective, expanding Jeju's duty-free tax incentive system could increase the flow of domestic and international visitors and invigorate the regional economy. Furthermore, if duty-free eligibility were expanded beyond goods sold in designated duty-free shops to include products manufactured in Jeju, these economic revitalization effects would be even greater.

Constraints on Expanding the Duty-Free Tax Incentive System in Jeju Special Self-Governing Province

Role of the Jeju Support Committee and Stakeholders' Divergent Interests

The Jeju Support Committee, operating under the Office of the Prime

Minister, is regarded as the highest authority supporting the Jeju Special Self-Governing Province. Practically, its authority and role are limited. As the Committee includes the Prime Minister and ministers from major government departments, decisions made within this body can be considered to have been agreed upon by both of them. Yet, there have been many cases in which responsible ministries have been reluctant to actively implement such decisions.

When the Jeju Support Committee finalizes a decision through deliberation, the participating ministers' agreement implies their consent and willingness to cooperate in the implementation. Consequently, if a responsible ministry is reluctant to execute a previously endorsed decision, it creates a contradictory stance—of proposing an initiative while opposing its execution.

Although certain elements of the duty-free tax incentive expansion for Jeju have already been incorporated into the legislation, the system continues to face opposition from certain responsible ministries, hindering pilot implementation and evaluation. Particularly, the Ministry of Economy and Finance has consistently opposed the expansion of Jeju's duty-free incentives, citing concerns about undermining the tax system, generating excessive administrative costs, compromising fairness with

Table 3. Differences on the Expansion of Duty-Free Privileges in Jeju

Ministry's View	Jeju Special Self-Governing Province's View
Distortion of the Tax System	<ul style="list-style-type: none"> • Despite the existing tax system, when the Jeju Special Self-Governing Act was legislated, the government and National Assembly had already decided to implement the special provisions for Jeju Special Self-Governing Province.
Excessive Administrative Costs	<ul style="list-style-type: none"> • Can be overcome with the recent advancements in mobile technology. <ul style="list-style-type: none"> - Move away from paper-based documents and airport refund procedures. - Implement QR code authentication and information processing systems connecting tourists, businesses, and tax authorities.
Undermining Fairness with Other Regions	<ul style="list-style-type: none"> • Expansion to regions outside Jeju is also feasible. <ul style="list-style-type: none"> - Based on Jeju's implementation results, the tax policy could be expanded nationwide to enhance competitiveness among region-specific businesses.
No International Precedent	<ul style="list-style-type: none"> • Even if there is no direct overseas precedent, it can be implemented if there are practical benefits.

other regions, and the lack of international precedents. In response, the Jeju Special Self-Governing Province has proposed counterarguments to challenge the ministry's objections as illustrated in Table 3.

Lack of Awareness on the Need to Expand the Duty-Free Tax Incentive System

The Ministry of Economy and Finance proposed to support Jeju Special Self-Governing Province with 30 billion KRW, equivalent to the amount of VAT refunds, as compensation for the costs incurred from the three stages of authority decentralization. However, this proposal is unrelated to Jeju's pursuit of expanding its duty-free tax incentive system (VAT refunds). Fundamentally, financial support for the costs arising from the transfer of central administrative functions to Jeju and the VAT refund system are separate measures with no direct relationship. Therefore, the restriction on VAT refund expansion reflects either a lack of understanding or unwillingness to recognize the purpose and use of the two systems.

The expansion of Jeju's duty-free tax incentives should not be viewed as a preferential benefit granted to a single region, and the tangible and intangible benefits derived from Jeju should not be overlooked. For example, the pursuit of becoming an international free city and a model for Korean-style local autonomy implies that Jeju's development will produce outcomes that extend beyond the island itself. If the number of foreign tourists visiting Jeju increases, international exchange between Korea and the world will expand and deepen, contributing to the global diffusion of Korean culture and its advantages. Moreover, as the southernmost part of the national territory, Jeju is strategically important for national defense. Strengthening Jeju's development directly enhances Korea's southern border, making it a matter of national interest. Additionally, Jeju's geographical position as a gateway to the Pacific and its attractiveness to international visitors highlight the need for a careful evaluation, specifically if these advantages are fully appreciated and appropriately reflected in policy.

Constraints Related to Duty-Free Eligible Goods and Purchase Limits

Currently, duty-free shops within Jeju International Airport are operational for domestic and international travelers. However, limitations

on eligible items and purchase amounts diminish Jeju's appeal as a shopping destination—a core element of modern tourism. Considering the current distribution of designated duty-free shops and the range of eligible goods in Jeju, the present level of duty-free incentives is insufficient to attract a larger number of domestic and international visitors and reinforce Jeju's identity as a free international city.

The central government has expressed concern that expanding Jeju's duty-free regime could divert goods to other domestic regions via ports, thereby disrupting the market. Therefore, although Article 3(24) of the Restriction of Special Taxation Act authorizes tax exemptions and refunds under the Jeju Special Act, a proviso limits such measures to local taxes, excluding national taxes, effectively rendering the provision obsolete. Furthermore, as Jeju's duty-free tax incentives focus primarily on VAT, their expansion could reduce VAT revenues, which in turn would reduce local consumption tax revenues and central government grants to local governments.

Nevertheless, given Jeju's significance to the Korean economy, the expected impact of such changes on the fiscal foundations of other local governments is unlikely to be excessive. Alongside the expansion of duty-free privileges, Jeju is also expected to implement a wide range of measures to accommodate visitors and enhance their benefits. This, in turn, will foster Jeju's own development and contribute toward improving Korea's overall tourism standards and revitalizing related industries.

Duty-Free Tax Incentive Systems in Major Countries

This study examines the duty-free tax incentive systems in Okinawa (Japan) and Hainan (China). Both regions operate duty-free regimes at designated shops in a manner similar to the Jeju Special Self-Governing Province, making them appropriate case studies for drawing policy implications for improving Jeju's system. While Jeju, Okinawa, and Hainan share the geographical characteristics of island regions, their operational methods and eligible items differ significantly. Considering that Okinawa and Hainan have recently expanded their duty-free regimes in terms of eligible items, total purchase limits, and usage methods, an examination of these cases offers useful insights for expanding Jeju's

duty-free tax incentive system.

Okinawa's Designated Duty-Free Shops

Okinawa's designated duty-free shop system allows travelers to purchase goods for personal use at designated locations authorized by the Prime Minister and transport them directly outside Okinawa without paying customs duties, as stipulated in the Temporary Customs Measures Act. This system is grounded in Articles 26 and 14 of the Okinawa Promotion Special Measures Act and Temporary Customs Measures Act. Since its introduction in April 2000, the system has been amended several times, as summarized in Table 4.

The Okinawa Development Special Measures Act, Chapter 3, Section 4, stipulates the system of designated duty-free shops as part of specific measures for industrial promotion, specifically mentioning duty-

Table 4. Timeline of Okinawa's Designated Duty-Free Shop System Implementation

Date	Key Events
Apr. 2000	Establishment of Okinawa-type designated duty-free shop system through amendment of the Okinawa Promotion and Development Special Measures Act
Dec. 2005	Opening of Okinawa-type designated duty-free shops (airport stores)
Mar. 2005	Partial amendment of the system: shift from customs refund method to duty exemption method
Mar. 2006	Partial amendment that allows expansion beyond airports within tourism promotion areas (Article 26, Okinawa Promotion Special Measures Act)
May 2004	Reopening of Okinawa-type designated duty-free shops (airport stores)
Dec. 2005	Pre-opening of Okinawa-type designated duty-free shops outside the airport (DFS Galleria Okinawa)
Mar. 2005	Grand opening of stores outside the airport
Dec. 2006	Implementation of duty-free sales at Okinawa-type designated duty-free shops and specific sales facilities (DFS Galleria Okinawa, Omoromachi, Naha) for departing international passengers at Naha Airport
Jul. 2010	Introduction of facilities at Naha Port piers for passengers departing by sea
Dec. 2010	Availability for passengers departing from Naha Airport LCC terminal to destinations outside Okinawa Prefecture

free benefits for tourism promotion (Article 26).

Article 26 (Exemption of Customs Duties on Carried Imports for Departure).

When a passenger departing from Okinawa carries goods for personal use that were purchased at designated facilities—such as passenger terminal facilities designated by the Prime Minister or specific sales facilities located within officially designated tourism promotion areas—customs duties on such goods shall be exempted in accordance with the Temporary Customs Measures Act(Act No. 36 of 1928).

Similarly, Article 14 of the Temporary Customs Measures Act provides further provisions for customs duty exemption for passengers' hand-carried goods when departing from Okinawa.

Article 14 (Exemption of Customs Duties on Passengers' Hand-Carried Goods Departing Okinawa Prefecture).

(1) Passengers departing from Okinawa Prefecture to mainland Japan who purchase goods for personal use within a prescribed limit from retail businesses approved by the customs authorities, either at passenger terminal facilities or at specific sales facilities designated under Article 26 of the Okinawa Development Special Measures Act, may be exempted from customs duties on such goods until March 31, 2022, provided the goods are delivered at the passenger terminal facilities and carried out of Okinawa at the time of departure.

The key features of the Okinawa Designated Duty-Free Shop System are summarized in Table 5. Particularly, visitors departing Okinawa to mainland Japan may purchase duty-free goods at (i) passenger terminal facilities within airports designated by the Prime Minister or (ii) specific sales facilities located in designated tourism promotion areas (also designated by the Prime Minister).¹ Such facilities must meet the following requirements: (a) inclusion of retail and restaurant facilities; (b) a combined floor area of at least 2,000 square meters, and (c) exclusive duty-free retail shops with a combined floor area of at least 1,000 square meters. Designated duty-free items include imported goods (bonded goods) with a purchase limit of 200,000 JPY. The Okinawa District Customs Director must approve appointment of retailers and goods that are sold at duty-free prices. Currently, duty-free shops are located inside

Table 5. Key Features of the Okinawa Designated Duty-Free Shop System

Category	Description
Buyer	Visitors departing from Okinawa Prefecture to the main islands outside Okinawa Prefecture
Purchase Location	Facilities within airport passenger terminals; designated retail facilities located within the Tourism Promotion Area
Eligible Items	Imported goods (bonded items)
Applicable Tax	Customs duties
Purchase Limit	Up to 200,000 JPY per purchase
Sales Method	Duty-free price sale (customs duty exempted, domestic consumption tax applied)
Duty-Free Operator	Retailers approved by the Okinawa Regional Customs Director (authorized retailers)

Naha Airport (domestic and LCC terminals), at the Naha Port cruise terminal, and Omoromachi in Naha City (designated sales facility). The only licensed operator is DFS Okinawa Co., Ltd.

For visitors shopping at Okinawa's designated duty-free shops, the per-capita local consumption expenditure is approximately 8,000 yen higher than the overall average. As indicated in Table 6, the amount of annual customs duties exempted was an average 330 million yen between 2012 and 2015, and a similar trend was expected to continue. In 2015, customs duties exempted totaled 290 million yen; however, the number of visitors to designated duty-free shops reached 952,432, with total purchases amounting to 11.7 billion yen. These figures suggest that the increased spending by visitors effectively offsets the loss in tax revenue.

The expected economic impact of the Okinawa Special Duty-Free Shop System is as illustrated in Table 7. First, tourism revenue from domestic visitors is projected to increase from 464.2 billion yen in 2015 to 518.6 billion yen in 2020. Second, purchases made at Okinawa's special duty-free shops are expected to rise from 11.7 billion yen in 2015 to 15.0 billion yen in 2020. From this perspective, the Okinawa Special Duty-Free Shop System can be evaluated as contributing to its original policy objective of enhancing tourism revenue.

Table 6. Duty Exemption Amount for Okinawa Designated Duty-Free Shops (Unit: million yen)

Year	2012	2013	2014	2015	Average
Duty Exemption Amount	320	370	340	290	330

Table 7. Economic Effects of Okinawa Specific Duty-Free Shops

(Unit: million yen, except number of visitors)

Category	2012	2015	2021
Domestic tourists (A)	5,542,200	6,266,000	7,000,000
Total consumption per capita (B)	69,008	74,083	-*
Domestic tourists per capita gift/purchase (C)	15,943	14,478	-**
Tourism revenue (A × B)	382,456	464,204	518,581*
Purchase amount (A × C)	88,359	90,719	101,346
Duty-free exemption amount	324,666,665	294,278,266	-
Visitors to duty-free shops (D)	886,752	952,432	1,218,000
Gift/purchase per visitor (E = C × 0.85)	13,552	12,306	12,306**
Purchase amount in duty-free (D × E)	12,017	11,721	14,989

Note: *Total consumption per capita for 2021 cannot be estimated at this point, so the 2015 value (74,083 yen) is used for estimation.

**Per capita gift/purchase by domestic tourists in 2021 cannot be estimated at this point, so the 2015 value (14,478 yen) is used for estimation.

Hainan Island Duty-Free Shops in China

The Hainan Island duty-free shop system in China refers to a scheme that provides duty-free benefits to domestic and international visitors departing from Hainan to mainland China. Hainan Island, approximately half the size of the Korean Peninsula, is a popular domestic resort for Chinese citizens and is designated as a special economic zone. The Chinese government has actively promoted the “Island Duty-Free (离岛免税)” policy to redirect Chinese tourist consumption toward the domestic market.

The Hainan duty-free shop system was implemented on April 20,

2011. Initially, it included many restrictions on the types of products eligible for duty-free purchases and frequency of purchases. Over time, the system was amended to expand the scope of duty-free benefits. For example, in 2015, the Chinese government announced a “Duty-Free Shop Expansion Plan,” using Hainan Island as a test bed for domestic consumption stimulation policies, in response to Chinese overseas travel expenditures reaching USD 194 billion (approximately KRW 217 trillion) (TR&DF, 2018.12.06.).

Hainan features a competitive domestic duty-free market, with the Meilan Airport duty-free shop in the north and Sanya City duty-free shop in the south. Particularly, Sanya Duty-Free carries major luxury brands, except Louis Vuitton, Hermès, and Chanel. According to the Chinese Ministry of Finance, Sanya Duty-Free Shop, which opened in April 2011, achieved total sales of 30.99 billion RMB (approximately KRW 5.2 trillion) by 2017 (TR&DF, 2018.02.01.).

Hainan island’s duty-free policies were revised in 2020, as shown in Table 8. The per-person annual duty-free purchase limit was raised to 100,000 yuan (~19.32 million KRW), and the price ceiling on individual items was removed. The range of duty-free products expanded from 38 to 45 categories, including electronics and liquids (limited to 1.5 L). Purchase limits were removed for perfumes, and those for cosmetics were increased from 12 to 30 units. From April 2020 onward, travelers shopping at offline duty-free stores could continue online duty-free purchases within 180 days, ensuring at least six months of access after a single visit. In February 2021, China’s Ministry of Finance, Customs, and State Taxation Administration introduced a delivery system permitting travelers to receive purchased duty-free goods by mail and island residents to collect them upon return.

Starting April 2020, travelers who had purchased duty-free products at offline Hainan stores could continue to purchase duty-free items online for up to 180 days after leaving the island, ensuring that even a single visit enabled at least six months of online duty-free shopping. In February 2021, the Chinese Ministry of Finance, General Administration of Customs, and State Taxation Administration improved the method of duty-free item delivery; travelers departing from the island could receive purchased items by mail, whereas island residents could retrieve items upon returning.

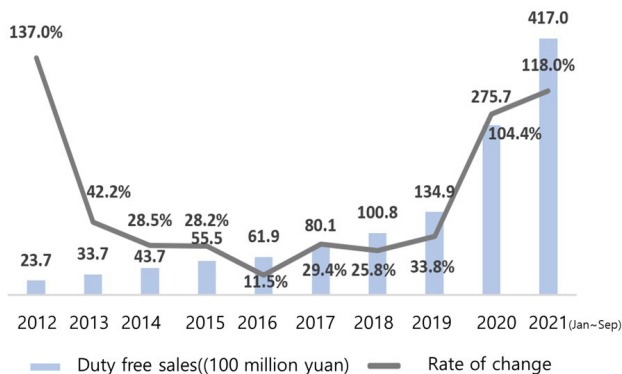
Table 8. Hainan Island Duty-Free Shops: Major Policy Changes (2020)

Category	Previous Policy	Revised Policy
Total Purchase Limit	30,000 CNY per person per year (\approx 5.79 million KRW) for individuals aged 16 years and above	100,000 CNY per person per year (\approx 19.32 million KRW) for those aged 16 years and above
Single Item Price Limit	Single items cannot not exceed 8,000 CNY (\approx 1.54 million KRW); excess subject to special customs rate	No single item price limit
Product Types	38 types of items	45 types of items, including alcohol and 3C electronics (computers, communication, consumer electronics)
Quantity Limit	Perfume: 8 units; Cosmetics: 12 units	Perfume: no limit; cosmetics: up to 30 units; new products: mobile phones up to 4 units, and alcohol up to 1.5L
Operating Entities	Only China Duty Free Group (CDFG) and Hainan Duty Free authorized to operate	Any business organization meeting regulations can participate in Hainan island duty-free operations

Source: Ministry of Finance of China, Guosen Securities Economic Research Institute, KOTRA (2021); compiled by the author.

In the case of Hainan Island's off-island duty-free shops, the initial annual duty-free limit of 5,000 RMB was raised to 8,000 RMB in 2012 and doubled to 16,000 RMB (approximately KRW 2.6 million) in 2016. The limit was increased to 30,000 RMB (approximately KRW 5.79 million) in 2018, and within one year, the annual duty-free limit was further raised to 100,000 RMB (approximately KRW 19.32 million). In 2020, off-island duty-free shops' total annual sales reached 32.74 billion RMB (approximately KRW 6.14 trillion), representing a 127% increase from the previous year. As can be seen in Figure 1, duty-free sales accounted for 27.5 billion RMB (approximately KRW 5.16 trillion), a 104% increase from the previous year, and consumers reached 5.2 million, up 30% from the previous year.

On November 10, 2021, Hainan Province announced its 14th Five-Year Plan for the Construction of an International Tourism Consumption Center in Hainan Province (KOTRA, 2021), and the core objective



Sources: Hainan Provincial Bureau of Statistics (2021) and KOTRA (2021)

Figure 1. Retail Status of Hainan Island Duty-Free Shops

was to establish global influence as an international travel consumption hub by 2025. This plan aims to rapidly establish duty-free stores for daily necessities for Hainan residents across the island and implement zero tariffs. The plan envisions a duty-free shopping system that accommodates three sectors simultaneously: (i) offshore island duty-free (离岛免税), (ii) duty-free daily necessities for island residents, and (iii) cross-border e-commerce.

In the case of duty-free daily necessities for island residents, this scheme allows imported goods purchased by island residents to be managed through a positive list and purchased duty free. Customs duties, import VAT, and excise taxes will be exempt for items subject to zero tariffs. Although a specific item list has not yet been announced, it is expected to differ from offshore island duty-free items. For example, while offshore island duty-free items focus primarily on luxury goods, duty-free items for island residents are expected to focus on daily necessities.

After the Haikou Comprehensive Bonded Zone was converted into a cross-border e-commerce comprehensive pilot zone in 2015, cross-border e-commerce was implemented on Hainan Island. Table 9 compares the duty-free systems of Hainan Island and cross-border e-commerce. However, its development has been relatively slow, with retail sales reaching approximately 61.63 million RMB (approximately KRW 11.587

Table 9. Comparison of Hainan Island and Cross-Border E-Commerce Duty-Free Systems

Category	Hainan Island Duty-Free	Cross-Border E-Commerce Duty-Free
Eligible Users	16 years and older	16 years and older
Total Purchase Limit	100,000 CNY (\approx 18.75 million KRW)	26,000 CNY (\approx 4.87 million KRW)
Single Item Price Limit	None	5,000 CNY (\approx 0.93 million KRW)
Quantity Restriction	Some items have quantity limits	None
Product Types	45 items (cosmetics, electronics, alcohol)	More than 1,000 items are available for e-commerce
Customs Duty	Yes	Yes
VAT / Consumption Tax	Yes	70% of statutory tax rate applied
Purchase Method	Hainan duty-free stores or online duty-free stores	Platforms such as Tmall Global, JD Global
Receiving Method	Direct or by mail	By mail
Market Positioning	Upper-middle to premium brands	Daily consumer goods focus

Source: Invest Hainan (投资海南), Guangzhou Trade Office (2021)

billion) in 2019. Following the announcement of the “Comprehensive Plan for the Construction of a Free Trade Port” in June 2020, cross-border e-commerce showed rapid growth. According to statistics from the Hainan Provincial Department of Commerce, cross-border e-commerce imports in 2020 totaled 526 million RMB (approximately KRW 98.65 billion), representing a 753% increase from the previous year.

Implications

While South Korea, Japan, and China have implemented duty-free preferential systems for designated duty-free stores, operational methods and eligible items vary slightly. Thus, it is necessary to examine if the operational features of the Japan-Okinawa specific duty-free stores and the China-Hainan offshore island duty-free stores are applicable to South

Table 10. Comparison of Designated Duty-Free Store Privileges in Major Countries

Category	Jeju (Designated Duty-Free Store)	Okinawa (Specific Duty-Free Store)	Hainan (Island Duty-Free Store)
Location	Airport, Port, City	Airport, City	Airport, City
Shared Use by Foreign Travelers	No	Yes	Yes
Eligible Products	15 items	No restriction	45 items
Product Types	Imported / Domestic	Imported	Imported
Total Purchase Limit	600 USD	200,000 JPY	100,000 CNY
Single Item Purchase Limit	None	None	None
Purchase Frequency Limit	6 times	None	None
Duty Coverage	Customs, VAT, Individual Consumption Tax, Liquor Tax, Education Tax, Special Rural Tax, Tobacco Consumption Tax and Local Education Tax	Customs	Customs, Import VAT, Consumption Tax
Facility Size	2,700 m ² (JTO)	8,000 m ²	220,000 m ²

Source: Lee et al. (2017); KOTRA Guangzhou Trade Office (2021)

Korea's Jeju Special Self-Governing Province. The similarities and differences between the designated duty-free stores in the three countries are summarized as follows.

First, designated duty-free stores in South Korea, Japan, and China share the common characteristic of being located on islands. They use designated duty-free store systems to promote national and regional economic revitalization, reflecting similar policy objectives.

However, as presented in Table 10, the designated duty-free stores in Jeju operate under more constrained conditions compared with those in Okinawa and Hainan. For instance, Jeju offers 15 categories of eligible items; China's Hainan offshore island duty-free stores recently expanded to 45 categories; and there are no restrictions on eligible items in Japan's Okinawa specific duty-free stores. Total purchase limits are expected to have the most significant impact on regional economic revitalization;

Jeju is limited to USD 600 (approximately KRW 780,000), Japan's Okinawa permits JPY 200,000 (approximately KRW 1,960,000), and China's Hainan permits CNY 100,000 (approximately KRW 19,320,000). In Hainan, the annual per-person duty-free limit has increased to CNY 100,000, and the price ceiling per single item has been removed, allowing consumers to purchase duty-free high-value products. Furthermore, the annual purchase frequency is limited to six times in Jeju, whereas Okinawa and Hainan have no restrictions on purchase frequency.

Japan's Okinawa specific duty-free stores and China's Hainan offshore island duty-free stores are favorable in terms of eligible items, total purchase limits, purchase frequency restrictions, and store area compared to the designated duty-free stores in Jeju Special Self-Governing Province. Therefore, it is necessary to conduct an in-depth analysis of the operational cases of these countries' duty-free preferential systems and consider their application to Jeju's designated duty-free stores. Efforts should be made to ensure that Jeju's designated duty-free stores serve to attract foreign tourists and promote domestic consumption, and encourage domestic residents to use duty-free stores, similar to Japan and China. This requires reviewing policy directions that support small business-centered local economic revitalization and considering improvements, such as adjusting the scope of VAT exemptions in designated duty-free stores and increasing purchase limits.

Strategies for Expanding Jeju Special Self-Governing Province Duty-Free Preferential System

Improvement of Designated Duty-Free Store Preferential System

The activation of Jeju's designated duty-free stores is expected to revitalize the local economy, as it will likely promote domestic consumption as residents can use duty-free allowances, similar to Japan and China. Reform of the designated duty-free store operational method should prioritize support for small businesses. The basic direction should aim at lowering the scope of VAT exemption while increasing the purchase limit and allowing domestic products to be sold in designated and downtown duty-free stores without duty-free treatment.

As this activation involves increasing the number of designated

and downtown duty-free stores in Jeju, preliminary preparations are required. Current stores must be persuaded to cooperate and relevant legal amendments, such as the Special Taxation Limitation Act, must be implemented. Specifically, the current annual purchase frequency limit of six should be removed, and the range of duty-free eligible items should be expanded. Although Jeju's designated duty-free stores apply a duty-free treatment regardless of the product's origin (domestic or overseas), the original item restrictions continue to persist in practice.

Japan's Okinawa specific duty-free stores have no restrictions if the items are imported, whereas China applies duty-free treatment to imported items with some item restrictions; however, the range of eligible items is gradually expanding. For activating Jeju's designated duty-free stores, it is necessary to expand the range of products sold by referencing the cases of Okinawa and Hainan. In the short term, items with strong demand, such as golf equipment, could be included with gradual expansion to eventually align with the duty-free item range at departure terminal stores. To prevent conflicts with local stores, Jeju may consider handling only imported products, similar to Okinawa and Hainan.

The duty-free purchase limit should also be raised from the current USD 800 to JPY 2,000 (Okinawa level). The scope of duty exemptions for VAT, tobacco tax, and other items should be gradually reviewed. Additionally, given Jeju's status as a Special Self-Governing Province, it may be necessary to grant the provincial government the authority to designate duty-free stores, currently limited to national tax offices through legal amendments.

Designation of Offshore Islands as Duty-Free Areas

Beyond improving the preferential system for designated duty-free stores, this study proposes establishing duty-free areas on specific offshore islands, aligned with the purpose of the Jeju Special Act. For reference, Heligoland Island is a small island in Germany (4.2 km²), located approximately 60 km from the mainland in the North Sea. It is designated as a duty-free area under the German VAT, Tobacco Tax, and Beer Tax Acts. A bonded area refers to a region recognized under the bonded system, where customs duties are deferred, including designated areas, bonded warehouses and factories. Goods imported into these areas

are treated as foreign goods and exempt from import taxes.

Designating offshore islands as bonded, duty-free areas will encourage residents to purchase their daily necessities at duty-free prices. However, overly large islands may pose the risk of uncontrolled development and other challenges in managing duty-free items. Therefore, small-scale duty-free stores, operating within a pre-duty-free sales system, are recommended. Visitors and residents of bonded islands (domestic and international tourists) may purchase duty-free items, but taxes on excess purchases should be paid upon entry to the mainland, with overseas tourists enjoying duty-free benefits while departing via airports.

First, only travelers in Jeju (excluding commercial purchasers) may benefit from duty-free purchases. A low duty-free limit can be defined for all age groups, aligned with the objectives of tax fairness and tourism promotion. Eligible items may match the range offered at departure terminal stores.

Second, the duty-free limit in offshore islands could be set at approximately USD 400, which is lower than Jeju's current USD 800 limit. Germany's Heligoland Island sets a limit of EUR 430 for those aged above 15 years, preventing resale in the mainland. Even with Jeju's potential future increase to USD 2,000, a limit of approximately USD 500 may be appropriate for offshore islands, primarily to prevent resale.

Third, the purchase-frequency restriction could be removed, similar to Heligoland, which has no limits. Existing legal regulations can restrict duty-free purchases for personal use and gifts to prevent commercial resale.

Fourth, if items are purchased at tax-excluded prices, a refund procedure is not necessary. For instance, in Heligoland, items exceeding the duty-free limit must be declared prior to departure, and taxes must be paid for excess purchases. Random inspections at exit points ensure compliance. Jeju's designated stores and offshore duty-free stores should operate in coordination to prevent overlapping purchases, with shared IT systems to track duty-free limits.

Fifth, legislative measures should ensure that duty-free items are purchased solely for personal use, thereby preventing resale.

Analysis of the Economic Impact of Offshore Island Duty-Free Areas

This study analyzes the potential costs and benefits of designating specific offshore islands in Jeju as duty-free areas. In South Korea, it is difficult to obtain detailed statistics for partial island regions. Therefore, the impact is first estimated assuming the entire Jeju Special Self-Governing Province as a duty-free preferential area, and adjusted proportionally using population or area ratios at the town or district level to estimate the economic impact for specific offshore islands.

Representative offshore islands around Jeju include Udo, Chuja, Biyangdo, and Gapado. Considering the tourism development potential and effective administrative control (e.g., preventing resale), Chuja Island was selected as a duty-free target. Chuja has approximately 0.25% of Jeju's population (1,667/676,759) and 0.40% of its area (7.33/1,850 km²). Therefore, the economic impact of designating an offshore duty-free area is estimated as 0.25–0.40% of the projected effects of designating the entire Jeju area.

Estimation of Economic Costs

Potential economic costs include (i) social welfare losses owing to distorted consumer decisions caused by price differences (Harberger triangle), (ii) administrative costs for controlling import/export to other regions, (iii) unrecovered VAT for businesses shifting to duty-free operations, and (iv) revenue loss to government owing to reduced VAT. Based on VAT payments in Jeju from 2016 to 2020 and using the revenue reduction formula of Seo et al. (2008), VAT losses were estimated at approximately KRW 803.1 billion in 2016, KRW 1,098.8 billion in 2017, KRW 993.1 billion in 2018, KRW 918.6 billion in 2019, and KRW 893.3 billion in 2020, with a VAT refund of approximately KRW 343.8 billion in 2020, as reported by Table 11.

The estimated reduction in tax revenue following the duty-free designation of offshore islands is projected as reported in Table 12: a minimum of approximately KRW 2 billion to a maximum of KRW 3.2 billion for 2016; KRW 2.7–4.4 billion for 2017; KRW 2.5–4.0 billion for 2018; KRW 2.3–3.7 billion for 2019; and KRW 2.2–3.6 billion for 2020.

Table 11. Estimated VAT in Jeju
(Unit: Million KRW)

Year	Category	Corporate				General				Simplified		
		Tax Type	Tax Base	Tax Payable	Tax Refundable	Tax Base	Tax Payable	Tax Refundable	Tax Base	Tax Payable	Tax Refundable	
2016	Standard		14,508,065	553,594	302,302	7,597,375	244,523	114,616	567,994	4,950	-	
	Zero-rated		3,510,271	-	138,571	138,571	-	-	258-	-	-	
2017	Standard		18,217,043	815,842	352,167	8,270,665	277,948	131,230	582,103	5,103	-	
	Zero-rated		3,758,909	-	130,780	130,780	-	-	400	-	-	
2018	Standard		17,356,129	713,753	355,913	8,309,648	274,104	136,100	554,868	5,240	-	
	Zero-rated		4,590,877	-	145,440	145,440	-	-	137	-	-	
2019	Standard		16,202,613	617,345	365,952	8,484,502	295,784	110,014	575,876	5,471	-	
	Zero-rated		4,736,372	-	157,719	157,719	-	-	449	-	-	
2020	Standard		15,609,280	618,596	250,998	7,994,407	269,313	92,849	547,112	5,419	-	
	Zero-rated		2,478,151	-	118,567	118,567	-	-	238	-	-	

Table 12. Estimated VAT in Jeju (including Estimated Figures for Outer Islands)
(Unit: Million KRW)

Category		Jeju Special Self-Governing Province			Outer Islands Estimate	
Year	Tax Type	Tax Base	Tax Payable	Tax Refundable	0.25% Applied	0.40% Applied
2016	Standard	22,673,434	803,067	416,918	2,008	3,212
	Zero-rated	3,649,100				
2017	Standard	27,069,811	1,098,893	483,397	2,747	4,396
	Zero-rated	3,890,089				
2018	Standard	26,220,645	993,097	492,013	2,483	3,972
	Zero-rated	4,736,454				
2019	Standard	25,262,991	918,600	475,966	2,297	3,674
	Zero-rated	4,894,540				
2020	Standard	24,150,799	893,328	343,847	2,233	3,573
	Zero-rated	2,596,956				

Notes: Amounts include corporations, general, and simplified taxpayers.

Source: *National Tax Statistical Yearbook* (2021).

Estimation of Economic Impact

The expected outcomes of implementing a duty-free area throughout Jeju Special Self-Governing Province include increased consumption due to reduction in prices, revitalization of the tourism industry, and secondary effects from consumer spending, such as production, value-added, and employment inducements. Input-output (IO) analysis was applied based on the estimation formula of Seo et al. (2008) using updated data.

The price reduction from the duty-free treatment can be calculated as follows: if a good that is priced at KRW 110 has a VAT exemption of KRW 10, the reduction in price is 9% (10/110). Adjustments are made to account for intermediate goods supplied from outside Jeju and are not subject to VAT refunds; goods already benefiting from duty-free treatment are excluded. Furthermore, based on the market power, the benefit of price reduction is shared between suppliers and consumers. The resulting estimated price reduction rate for Jeju is calculated as

Price Reduction Rate

$$\begin{aligned}
&= \text{VAT exemption effect} \\
&\times (1 - \text{Share of local intermediate inputs} \times \text{Share of non} \\
&\quad \text{-local intermediate inputs}) \\
&\times (1 - \text{Proportion of existing duty-free goods}) \\
&\times (1 - \text{Market power ratio of supplier and consumer}) \\
&= 9\% \times (1 - 47.4\% \times 62.6\%) \times (1 - 17.5\%) \times (1 - 33\%) \\
&= 9\% \times 29.7\% \times 82.5\% \times 67\% \\
&= 1.478\%
\end{aligned}$$

According to the 2015 Regional Input-Output Table published by the Bank of Korea in July 2020, Jeju's value-added ratio was 52.6%, and the proportion of locally produced intermediate inputs was 37.4%. The intermediate input ratio is 47.4% and 62.6% of inputs are supplied from outside Jeju. In 2020, Jeju's business revenue totaled KRW 29,281,576 million, with duty-free business revenue estimated at KRW 5,130,777 million (National Tax Statistics, 2021). Thus, the proportion of existing duty-free goods is 17.5%. The market power ratio of suppliers and consumers is assumed conservatively at 33% (Seo et al., 2008). Combining these factors, the potential price reduction from VAT exemption is estimated at 1.478%, which is a modest figure.

The impact on consumption was measured using the marginal propensity to consume, which ranged from 60% to 69% of the increased household income, and a midpoint of 65% was applied. Accordingly, a 1.5% price reduction from the expanded duty-free benefits is expected to increase consumption expenditure by approximately 1% (= 1.5% × 65%). By varying the elasticity of household income to consumption expenditure from 55% to 80% in 5% increments, the estimated increase in final consumption expenditure ranges from KRW 136,031 million to KRW 197,863 million (current-year prices), total capital formation increases by KRW 60,496 million to KRW 87,994 million, and net exports of goods and services increase by KRW 46,894 million to KRW 32,240 million.

Applying the 0.25% proportion for offshore islands, the estimated changes are presented in Table 13: final consumption expenditure increases by KRW 340 million to KRW 495 million; total capital formation increases by KRW 151 million to KRW 220 million; and net

Table 13. Estimation of Consumption Expenditure Growth in Jeju and Affiliated Islands
(unit: million KRW, %)

Category	Current Price	Sub-Category	Elasticity	Price Decline Rate	Increase in Jeju Total Household Expenditure	Increase in Household Expenditure in Subsidiary Islands		
					The current year	0.25% applied	0.40% applied	
Total Regional Expenditure on GRDP	20,309,000							
Final Consumption Expenditure	16,734,000	Household Expenditure	Average (Max)	0.80	0.01478	197,863	494.7	791.5
			Average	0.75		185,496	463.7	742.0
			Minimum	0.70		173,130	432.8	692.5
		Based on Consumption	Maximum	0.65		160,764	401.9	643.1
			Average	0.60		148,397	371.0	593.6
			Minimum	0.55		136,031	340.1	544.1
Gross Capital Formation	7,442,000	Household Expenditure	Average (Max)	0.80	0.01478	87,994	220.0	352.0
			Average	0.75		82,495	206.2	330.0
			Minimum	0.70		76,995	192.5	308.0
		Based on Consumption	Maximum	0.65		71,495	178.7	286.0
			Average	0.60		65,996	165.0	264.0
			Minimum	0.55		60,496	151.2	242.0
Net Exports of Goods and Services (Net Outflow)	-3,966,000	Household Expenditure	Average (Max)	0.80	0.01478	-46,894	-117.2	-187.6
			Average	0.75		-43,963	-109.9	-175.9
			Minimum	0.70		-41,032	-102.6	-164.1
		Based on Consumption	Maximum	0.65		-38,101	-95.3	-152.4
			Average	0.60		-35,170	-87.9	-140.7
			Minimum	0.55		-32,240	-80.6	-129.0

Note: A negative change in net exports of goods and services indicates a rise in imports.

Table 14. Estimated Industry-wise Consumption Growth in Jeju

(unit: million KRW, %)

Category		Elasticity					
		80%	75%	70%	65%	60%	55%
Total	Standard	197,863	185,496	173,130	160,764	148,397	136,031
	Zero-rated						
Agriculture, Forestry and Fisheries	Standard	251	235	220	204	188	173
	Zero-rated	20	19	18	16	15	14
Mining	Standard	131	123	115	106	98	90
	Zero-rated	0	0	0	0	0	0
Manufacturing	Standard	13,087	12,269	11,451	10,633	9,815	8,997
	Zero-rated	2,056	1,928	1,799	1,671	1,542	1,414
Electricity, Gas, and Water Supply	Standard	1,036	971	906	841	777	712
	Zero-rated	0	0	0	0	0	0
Wholesale Trade	Standard	28,393	26,619	24,844	23,070	21,295	19,520
	Zero-rated	2,989	2,802	2,615	2,429	2,242	2,055
Retail Trade	Standard	26,124	24,491	22,858	21,225	19,593	17,960
	Zero-rated	5,156	4,834	4,512	4,190	3,867	3,545
Real Estate Sales	Standard	1,563	1,466	1,368	1,270	1,172	1,075
	Zero-rated	0	0	0	0	0	0
Construction	Standard	27,925	26,179	24,434	22,689	20,943	19,198
	Zero-rated	126	118	110	103	95	87
Food and Beverage Services	Standard	19,141	17,945	16,748	15,552	14,356	13,159
	Zero-rated	1	1	1	1	1	1
Accommodation	Standard	7,826	7,337	6,847	6,358	5,869	5,380
	Zero-rated	7	7	6	6	5	5
Transportation, Warehousing, and Communications	Standard	20,253	18,987	17,721	16,456	15,190	13,924
	Zero-rated	510	478	446	415	383	351
Real Estate Leasing	Standard	6,337	5,941	5,545	5,149	4,752	4,356
	Zero-rated	9	9	8	8	7	6
Agency, Brokerage, and Contracting	Standard	3,535	3,314	3,093	2,872	2,652	2,431
	Zero-rated	168	157	147	136	126	115
Other Services	Standard	23,051	21,610	20,169	18,729	17,288	15,847
	Zero-rated	8,167	7,656	7,146	6,636	6,125	5,615

exports of goods and services increase by KRW 81 million to KRW 117 million. Applying the 0.4% proportion, the corresponding changes are also presented in Table 13: final consumption expenditure increases by KRW 544 million to KRW 792 million, total capital formation increases by KRW 242 million to KRW 352 million, and net exports of goods and services increase by KRW 129 million to KRW 188 million.

Next, we aim to assess the impact of increased consumer spending on each industry within Jeju Special Self-Governing Province, as shown in Table 14. Using the 2020 VAT taxable amounts as a reference, the share of total consumer expenditure for each industry is calculated. The increase in final consumer expenditure is then allocated to each industry according to these shares, allowing for an estimation of industry-specific growth. Although variations exist depending on the assumed elasticity, wholesale trade, construction, and service sectors exhibit larger increases than other industries.

Examining total capital formation by industry within Jeju Special Self-Governing Province resulting from duty-free measures, variations are observed depending on the assumed elasticity as illustrated in Table 15. Overall, however, wholesale trade, retail trade, and service sectors show larger increases than other industries.

Examining the net exports of goods and services by industry in Jeju Special Self-Governing Province, variations exist depending on the assumed elasticity as reported in Table 16; however, the wholesale, construction, retail, and service sectors experienced increases.

Jeju Special Self-Governing Province is a major tourist destination in South Korea, and the expansion of duty-free privileges across the entire island is expected to have a positive effect on the tourism industry. However, based on the industry ratios estimated from the taxable base, sectors that can be classified under tourism, such as food service, accommodation, transportation, storage, and communications, account for only 23.87% of all industries, indicating a limited increase in the final consumption expenditure.

Specifically, for the tourism industry under the duty-free designation of the subsidiary islands, total final consumption expenditure is estimated to range from approximately KRW 96 million (0.25% application) to KRW 154 million (0.4% application), total capital formation from approximately KRW 43 million (0.25%) to KRW 68 million (0.4%), and

Table 15. Estimated Industry-wise Gross Capital Formation Increase in Jeju
(unit: million KRW, %)

Category		Elasticity					
		80%	75%	70%	65%	60%	55%
Total	Standard	87,994	82,495	76,995	71,495	65,996	60,496
	Zero-rated						
Agriculture, Forestry, and Fisheries	Standard	112	105	98	91	84	77
	Zero-rated	9	8	8	7	7	6
Mining	Standard	58	55	51	47	44	40
	Zero-rated	0	0	0	0	0	0
Manufacturing	Standard	5,820	5,456	5,093	4,729	4,365	4,001
	Zero-rated	914	857	800	743	686	629
Electricity, Gas, Water Supply	Standard	461	432	403	374	345	317
	Zero-rated	0	0	0	0	0	0
Wholesale Trade	Standard	12,627	11,838	11,049	10,260	9,470	8,681
	Zero-rated	1,329	1,246	1,163	1,080	997	914
Retail Trade	Standard	11,618	10,892	10,166	9,439	8,713	7,987
	Zero-rated	2,293	2,150	2,007	1,863	1,720	1,577
Real Estate Sales	Standard	695	652	608	565	521	478
	Zero-rated	0	0	0	0	0	0
Construction	Standard	12,419	11,643	10,866	10,090	9,314	8,538
	Zero-rated	56	53	49	46	42	39
Food and Beverage Services	Standard	8,512	7,980	7,448	6,916	6,384	5,852
	Zero-rated	1	1	1	1	0	0
Accommodation	Standard	3,480	3,263	3,045	2,828	2,610	2,393
	Zero-rated	3	3	3	3	2	2
Transportation, Warehousing, and Communications	Standard	9,007	8,444	7,881	7,318	6,755	6,192
	Zero-rated	227	213	199	184	170	156
Real Estate Leasing	Standard	2,818	2,642	2,466	2,290	2,114	1,937
	Zero-rated	4	4	4	3	3	3
Agency, Brokerage, and Contracting	Standard	1,572	1,474	1,376	1,277	1,179	1,081
	Zero-rated	75	70	65	61	56	51
Other Services	Standard	10,251	9,611	8,970	8,329	7,688	7,048
	Zero-rated	3,632	3,405	3,178	2,951	2,724	2,497

Table 16. Estimated Industry-wise Increase in Net Exports of Services in Jeju
(unit: million KRW, %)

Category		Elasticity					
		80%	75%	70%	65%	60%	55%
Total	Standard	-46,894	-43,963	-41,032	-38,101	-35,170	-32,240
	Zero-rated						
Agriculture, Forestry, and Fisheries	Standard	-59	-56	-52	-48	-45	-41
	Zero-rated	-5	-4	-4	-4	-4	-3
Mining	Standard	-31	-29	-27	-25	-23	-21
	Zero-rated	0	0	0	0	0	0
Manufacturing	Standard	-3,102	-2,908	-2,714	-2,520	-2,326	-2,132
	Zero-rated	-487	-457	-426	-396	-365	-335
Electricity, Gas, and Water Supply	Standard	-245	-230	-215	-199	-184	-169
	Zero-rated	0	0	0	0	0	0
Wholesale Trade	Standard	-6,729	-6,309	-5,888	-5,468	-5,047	-4,626
	Zero-rated	-708	-664	-620	-576	-531	-487
Retail Trade	Standard	-6,191	-5,804	-5,417	-5,030	-4,644	-4,257
	Zero-rated	-1,222	-1,146	-1,069	-993	-917	-840
Real Estate Sales	Standard	-371	-347	-324	-301	-278	-255
	Zero-rated	0	0	0	0	0	0
Construction	Standard	-6,618	-6,205	-5,791	-5,377	-4,964	-4,550
	Zero-rated	-30	-28	-26	-24	-22	-21
Food and Beverage Services	Standard	-4,536	-4,253	-3,969	-3,686	-3,402	-3,119
	Zero-rated	0	0	0	0	0	0
Accommodation	Standard	-1,855	-1,739	-1,623	-1,507	-1,391	-1,275
	Zero-rated	-2	-2	-1	-1	-1	-1
Transportation, Warehousing, and Communications	Standard	-4,800	-4,500	-4,200	-3,900	-3,600	-3,300
	Zero-rated	-121	-113	-106	-98	-91	-83
Real Estate Leasing	Standard	-1,502	-1,408	-1,314	-1,220	-1,126	-1,032
	Zero-rated	-2	-2	-2	-2	-2	-2
Agency, Brokerage, and Contracting	Standard	-838	-786	-733	-681	-628	-576
	Zero-rated	-40	-37	-35	-32	-30	-27
Other Services	Standard	-5,463	-5,122	-4,780	-4,439	-4,097	-3,756
	Zero-rated	-1,936	-1,815	-1,694	-1,573	-1,452	-1,331

Note: A negative value in the increase of goods and services net exports indicates a rise in imports.

Table 17. Estimated Increase in Final Consumption Expenditure in the Tourism Industry (unit: million KRW, %)

Category			Elasticity					
			80%	75%	70%	65%	60%	55%
Total Consumption Expenditure	Food and Beverage Services	Standard	19,141	17,945	16,748	15,552	14,356	13,159
		Zero-rated	1	1	1	1	1	1
	Accommodation	Standard	7,826	7,337	6,847	6,358	5,869	5,380
		Zero-rated	7	7	6	6	5	5
Transportation, Warehousing, and Communications	Standard	20,253	18,987	17,721	16,456	15,190	13,924	
	Zero-rated	510	478	446	415	383	351	
Subtotal	Standard	47,220	44,268	41,317	38,366	35,415	32,463	
	Zero-rated	519	486	454	422	389	357	
Total Capital Formation	Food and Beverage Services	Standard	8,512	7,980	7,448	6,916	6,384	5,852
		Zero-rated	1	1	1	1	0	0
	Accommodation	Standard	3,480	3,263	3,045	2,828	2,610	2,393
		Zero-rated	3	3	3	3	2	2
Transportation, Warehousing, and Communications	Standard	9,007	8,444	7,881	7,318	6,755	6,192	
	Zero-rated	227	213	199	184	170	156	
Subtotal	Standard	21,000	19,687	18,375	17,062	15,750	14,437	
	Zero-rated	231	216	202	188	173	159	
Net Exports of Goods and Services	Food and Beverage Services	Standard	-4,536	-4,253	-3,969	-3,686	-3,402	-3,119
		Zero-rated	0	0	0	0	0	0
	Accommodation	Standard	-1,855	-1,739	-1,623	-1,507	-1,391	-1,275
		Zero-rated	-2	-2	-1	-1	-1	-1
Transportation, Warehousing, and Communications	Standard	-4,800	-4,500	-4,200	-3,900	-3,600	-3,300	
	Zero-rated	-121	-113	-106	-98	-91	-83	
Subtotal	Standard	-11,191	-10,492	-9,792	-9,093	-8,393	-7,694	
	Zero-rated	-123	-115	-108	-100	-92	-85	
Total	Standard		57,028	53,464	49,900	46,335	42,771	39,207
	Zero-rated		627	588	548	509	470	431
			57,655	54,051	50,448	46,844	43,241	39,638

net exports of goods and services from approximately KRW 23 million (0.25%) to KRW 36 million (0.4%), as shown in Table 17.

The increase in consumption expenditure resulting from the expansion of duty-free privileges stimulates production, value added, and employment. The magnitudes of production, value-added, and employment generated directly and indirectly by a one-unit increase in demand are referred to as the production, value-added, and employment inducement coefficients, respectively. Using the regional tables from the 2015 Input-Output Tables of the Bank of Korea Economic Statistics System, the inducement coefficients by industry are measured under two scenarios: one limited to Jeju Special Self-Governing Province and the other expanded to the entire country as indicated in Table 18. This distinction illustrates that the impact of duty-free expansion is not confined to Jeju but may also generate nationwide effects. However, this study focuses primarily on measuring the effects within Jeju Special Self-Governing Province.

The production inducement effect across the entire Jeju Special Self-Governing Province is estimated at KRW 290,446 million under a consumption elasticity of 65%. When elasticity varies from 55% to 80%, the production inducement effect ranges from a minimum of KRW 245,762 million to a maximum of KRW 357,472 million. Applying the population and area ratios of the subsidiary islands, the production inducement effect is estimated to range from KRW 726 million (0.25% application) to KRW 1,162 million (0.4% application) at 65% elasticity.

Similarly, the value-added inducement effect for the entire Jeju Special Self-Governing Province is KRW 151,463 million at 65% elasticity and varies between KRW 128,161 million and KRW 186,416 million as elasticity ranges from 55% to 80%, respectively. When adjusted for the population and area ratios of the subsidiary islands, the value-added inducement effect ranges from approximately KRW 379 million (0.25% application) to KRW 606 million (0.4% application) at 65% elasticity.

Next, employment inducement effect in Jeju Special Self-Governing Province is estimated at 3,371 persons at 65% elasticity. When elasticity varies between 55% and 80%, the employment inducement effect ranges from a minimum of 2,583 to a maximum of 4,149 people, respectively. Applying the population and area ratios of the subsidiary islands, the

Table 18. Induced Multipliers by Industry (Jeju vs. Nationwide)
(Employment Multiplier Unit: persons per million KRW).

Industry	Jeju Multipliers			Nationwide Multipliers		
	Output	Value Added	Employment	Output	Value Added	Employment
Agriculture, Forestry, and Fisheries	1.3929	0.6420	0.0252	1.8082	0.8334	0.0327
Mining	1.0642	0.5752	0.0038	1.1079	0.5988	0.0040
Manufacturing	1.0879	0.3353	0.0057	1.1065	0.3405	0.0058
Electricity, Gas, and Water Supply	1.0529	0.5181	0.0040	1.1216	0.5488	0.0042
Construction	1.0973	0.4872	0.0074	1.1168	0.4959	0.0076
Wholesale and Retail	1.9682	1.0854	0.0319	2.1842	1.2045	0.0354
Tourism	1.4404	0.6931	0.0130	1.6063	0.7679	0.0149
Services	1.2764	0.7344	0.0140	1.3325	0.7694	0.0146
Real Estate Rental	1.3225	1.0215	0.0024	1.3622	1.0522	0.0025

employment inducement effect is estimated to range from approximately 8 persons (0.25% application) to 13 persons (0.4% application) at 65% elasticity.

Conclusion

This study examined the key features and constraints of the duty-free privilege system in Jeju Special Self-Governing Province, explored potential improvements through international case studies, and estimated the related economic effects.

The expansion of duty-free privileges in Jeju could be a key tool for enhancing fiscal capacity within a Korean-style local autonomy model. It also provides the advantage of fostering an environmentally friendly, high value-added tourism industry, thereby absorbing domestic demand that may otherwise be directed to overseas travel. This can prevent the

outflow of tourism revenue and stimulate the consumption of goods and services within Jeju, thus contributing to local economic revitalization.

Despite these advantages, several constraints exist in expanding the duty-free system. First, differences in perception between the Jeju provincial government and central administrative agencies may arise, with the expansion potentially viewed as preferential treatment for a specific region or as undermining the tax system. Additionally, regulations related to duty-free items, purchase limits, and tax refunds are effectively outdated, thereby limiting flexible policy implementation.

A comparison of Jeju with similar insular regions that operate designated duty-free stores indicates relative underutilization of Jeju's designated duty-free stores. This finding suggests that expanding duty-free privileges could incentivize domestic consumers and stimulate consumption. Accordingly, this study proposes removing purchase frequency limits, expanding duty-free items for designated stores, and designating certain subsidiary islands as duty-free areas, similar to the unique model of Germany's Heligoland island.

The expected economic impact of designating certain subsidiary islands as duty-free areas can be summarized as follows. The economic costs of such a measure include: i) a reduction in central government tax revenue (VAT), ii) economic distortions and administrative costs arising from regulating the movement of goods across regions, and iii) conflicts due to taxation differences between regions. A decrease in VAT, as a domestic tax, could directly lead to conflicts over local consumption tax allocation with other local governments.

Conversely, the economic effects include: i) increased total consumption due to lower prices, ii) higher capital investment, and iii) growth in production and employment resulting from higher consumption expenditures. Although there are certain assumptions and data limitations, the duty-free designation of subsidiary islands is expected to generate positive ripple effects within Jeju and potentially across the country. Therefore, it is necessary to develop legal and administrative measures to offset any negative consequences of expanding duty-free privileges.

Note

* This research article is based on Hong et al. (2022).

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济州免税豁免制度改进研究

摘要: 本研究考察了济州特别自治道免税制度的现状，并探讨其未来的发展方向。通过对日本冲绳和中国海南免税店运作情况的回顾，提出了济州指定免税店制度的改进措施，包括取消购买次数限制和扩大免税商品范围。借鉴德国黑尔戈兰岛的案例，本研究进一步提出将附属岛屿指定为免税区的思路。经济分析结果表明，将附属岛屿指定为免税区不仅能够在济州产生积极的经济溢出效应，还可能惠及整个韩国。

关键词: 济州特别自治道; 免税制度; 免税制度引入前; 免税制度引入后; 经济溢出效应

제주 면세 면제 제도 개선에 관한 연구

초록: 이 연구는 제주특별자치도의 면세 특례제도 실태를 살펴보고, 향후 발전적 운영 방향을 모색하는 것을 목적으로 하고 있다. 이 연구에서는 일본 오키나와와 중국 하이난의 면세점 운영 사례를 검토하였으며, 이를 통해 구입 횟수 제한 폐지 및 면세 대상품목 확대와 같이 지정 면세점 면세 특례제도를 개선하거나 독일 헬고란트섬처럼 부속 도서를 면세 지역화하는 개선방안을 제시하였다. 그리고 경제적 파급효과 분석 결과 부속 도서를 면세 지역화하면 제주특별자치도뿐만 아니라 전국적으로 긍정적인 파급효과가 나타날 가능성을 확인하였다.

주제어: 제주특별자치도, 면세 특례제도, 사전면세제도, 사후세제도, 경제적 파급효과

済州免税免除制度の改善に関する研究

要旨: 本研究は、済州特別自治道の免税制度の現状を調査し、今後の発展方向を探るものである。具体的には、日本の沖縄および中国の海南における免税店の運営状況を振り返り、済州指定免税店制度の改善策を提案する。改善策には、購入回数制限の撤廃や免税対象商品の拡大が含まれる。さらに、ドイツのヘリゴランド島の事例を参考に、関連島嶼を免税区域として指定するアイデアを提案する。経済分析の結果、関連島嶼を免税区域に指定することで、済州において積極的な経済的波及効果を生み出し、韓国全体にも利益をもたらす可能性があることが示唆された。

キーワード: 済州特別自治道、免税制度、免税制度導入前、免税制度導入後、経済的波及効果

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