

Analysis and Forecast of the Duty-Free Consumption Market in China and South Korea Before and After the Epidemic

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Abstract: China's outbound travel spending ranks first worldwide, with more than 50% of travel spending occurring in Asia. China's consumption outflow exceeded RMB700 billion, with its luxury consumption outflow exceeding RMB450 billion before the epidemic. The Chinese account for half of duty-free sales to South Korea, and the proportion is increasing year by year. Dutable shopping malls become the most beneficial channel with passive consumption repatriation after the epidemic. The duty-free market benefits as China's government constantly introduces policies to guide consumption repatriation. China's luxury consumption repatriation is expected to exceed RMB300 billion, according to the neutral calculation. The duty-free luxury consumption market in both China and South Korea has greatly changed since the epidemic. South Korea ranked the top worldwide in terms of duty-free luxury consumption before the epidemic. However, the situation of South Korea's previous purchases from Daigou-Chinese purchasing agents is difficult to continue after the epidemic. It is expected that there is strong certainty and persistence that perfume and cosmetics product consumption in the future would repatriate through China's domestic duty-free channels, especially in the situation that China Duty Free Group have stronger profitability in the future's competition. Consumption repatriation needs to be realized by reducing the price difference. That price gap between domestic and foreign boutique goods will be reduced after they enter domestic duty-free channels in the future, but it will still take time for the top luxury brands to enter domestic duty-free channels.

Keywords: Epidemic; China and South Korea; Duty-Free Consumption; Analysis and Forecast

Introduction

China leads the world in outbound travel spending, with over 50% of travel spending occurring in Asia^[1]. Chinese citizens ranked first worldwide in spending on overseas travel in 2018, expending \$277.3 billion/+5.2%, with more than 50% spent in Asia, according to the United Nations World Tourism Organization (UNWTO). The top 10 consumption countries with payment by UnionPay cards in 2019 were Japan, South Korea, Thailand, France, Singapore, Italy, Australia, Switzerland, the United States and the United Kingdom, according to UnionPay International.

1. Tracing back to the directions of consumption outflow and repatriation

1.1 The consumption outflow reached RMB700 billion (hereafter referred to as yuan), and 70% of Chinese luxury goods saw overseas consumption before the epidemic

The scale of consumption outflow can be analyzed from the following two aspects: 1) China's overseas tourism consumption outflow exceeded 700 billion yuan. Of all the consumption, 40% of Chinese overseas spending is on shopping, 39% on transportation, restaurants and accommodations, and 21% on scenic spots and entertainment, according to the China Tourism Academy. It can be calculated in proportion that Chinese outbound tourists spent 709.9 billion yuan on overseas shopping in 2018 based on the data of approximately 1.8 trillion yuan, the total overseas travel expenditure of 2018. 2) The outflow of Chinese luxury consumption exceeded 450 billion yuan. The global luxury market increased from €167 billion in 2010 to €281 billion in 2019, with a compound annual growth rate (CAGR) of 6%, according to Bain Report data. Chinese luxury consumption ranked first worldwide, reaching approximately 663.9 billion yuan, and the proportion of CAGR

increased year by year, reaching 33% in 2019, among which 68% of that consumption, approximately 451.5 billion yuan, took place outside China [2].

Nearly half of the consumption outflow occurred in Asia, with Japan, South Korea, Hong Kong and Macao being highly favored by Chinese mainland tourists according to multiple statistics of Chinese tourists' consumption data. The Chinese accounted for half of duty-free sales in South Korea, and that proportion increased year by year, from 53.7% in 2015 to 80%+ in 2019, according to South Korea Customs Service. Proportionally, Chinese consumption of duty-free sales in South Korea increased from 29.36 billion yuan in 2015 to 111.37 billion yuan in 2019, with a CAGR of 30.56% (see Fig. 1). Daigou (hereafter referred to as Chinese purchasing agents) became the main force of duty-free consumption in South Korea after the epidemic. Chinese consumers contributed 93% to duty-free sales in South Korea in 2020.

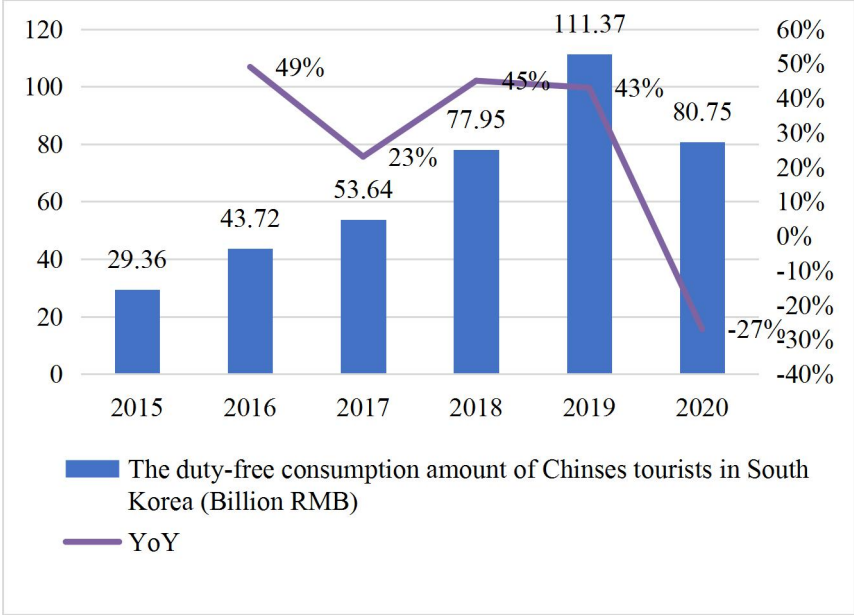


Fig. 1. Duty-free shopping consumption of Chinese tourists in South Korea from 2015 to 2020.

Data source: Official website of South Korea Duty Free Association, Northeast Securities

Note: The exchange rate is 0.54 yuan per 100 won. The proportion of Chinese consumption in 2019 is not officially disclosed but is assumed to be 80%.

1.2 Passive repatriation of China's consumption after the epidemic, with duty shopping malls as the most beneficial channel

The luxury market in China is growing rapidly worldwide. The global sales of luxury fell to €217 billion/-23% affected by the epidemic in 2020, and it is expected that the global sales of luxury would roar back in 2021, reaching €283 billion/+29%, an increase of 4% compared with 2019 at fixed exchange rates, according to the survey from Bain [1]. It is estimated that the total purchase of Chinese consumers would decrease by 30-35% due to the impact of the epidemic. However, more consumption returned to China due to the restriction of China's outbound consumption, which has changed the luxury consumption channels of Chinese buying. The proportion of domestic consumption of luxury increased from 32% to 70-75%, which greatly increased the domestic consumption of luxury, and it reached approximately 425.5 billion yuan/+35% in 2021, accounting for 21% on the global luxury market map, an increase of 10% compared with 2019.

Sales of China's domestic duty shopping malls have generally increased and become the main channel for passive repatriation of consumption. Beijing SKP won the global store king. China's shopping malls, large, medium and high-end, have taken part in the return of consumption, and high-end shopping malls are benefiting more, accounting for more than 80% of the domestic luxury consumption due to the restrictions of overseas consumption. The total sales of the top 50 shopping malls in China reached 297 billion yuan/+12.9%, with the top 30 increasing by 16% and the top 10 growing by 23% in 2020. The total sales of the top 50 amounted to 372.48 billion yuan/+29.8%, with the top 30 growing by 27% and the

top 10 increasing by 31% in 2021. Beijing SKP sales ranked first, reaching nearly 24 billion yuan, while Shanghai Hang Lung Plaza saw the largest increase, with a two-year compound growth rate of 60.7%, according to the data of linkshop.com (see Table 1).

Table 1. Sales performance list of national shopping malls/shopping centers in 2020-2021.

Theria l number	Shopping mall/shopping center	2021 Sales volume (100 million Yuan)	2021 Year-on-year increase or decrease (%)	2020 Sales volume (100 million Yuan)	2020 Year-on-year increase or decrease (%)
1	Beijing SKP	near 240	35.59%	177	15.69%
2	Beijing International Trade Mall	200 +	21.21%	165 +	41.03%
3	Deji Plaza, Nanjing	200 +	33.33%	150 +	22.55%
4	Shanghai International Finance Center	near 185	68.18%	near 110	25.00%
5	Shanghai Hang Lung Plaza	155 +	55.00%	near 100	66.67%
6	Shenzhen Mixc	near 130	30.00%	100 +	11.11%
7	Taikoo Hui, Guangzhou	100 +	25.00%	near 80	35.59%
8	Hangzhou Tower	100 +	25.00%	80	-11.11%
9	Wuhan Wushang Moore City	100 +	2%	100	6.00%
10	Chengdu IFS	near 100	20.48%	83	22.06%
	The total amount of all the top 10	1510	31.4%	1149	23.2%
	The total amount of all the top 50	3724.8	29.8%	2970	12.9%

Data source: linkshoup.com, Ifeng.com

The duty-free channels benefited from the new policies of Hainan offshore duty-free shopping, and its sales saw double growth. When outbound travel has been restricted due to the epidemic, but with the domestic effective prevention and control and its relaxation of offshore duty-free policies, Hainan has attracted mid-to-high end tourism spending. The scale of Hainan offshore duty-free shopping has achieved a sharp increase since the release of Hainan's offshore duty-free policies from April 2011, which has increased from 970 million yuan to 49.5 billion yuan, with CAGR reaching 48.2%; the total number of offshore duty-free shoppers has increased from 487,000 to 6.72 million visits with CAGR of 30%; the number of shopping items has increased from 1.533 million to 70.45 million at a CAGR of 36.6%; and the customer unit price has greatly increased from 1,993 yuan to 7,368 yuan with 14% CAGR during 2011-2021, according to the statistics of Haikou Customs. The rise of the China Duty Free Group (hereafter referred to as CDF) benefits more from the new policy effect and forms its own competitive advantage after the expansion of its procurement scale. Its proportion in the passive repatriation of consumption is far lower than that of dutiable channels.

1.3 Policies actively guide consumption repatriation, duty-free channels possess potential for consumption repatriation

1.3.1 The government continuously introduces policies to encourage consumption to return, with the duty-free market benefiting

China has been committed to building a new development pattern of “domestic and international cycles promote each other with domestic big cycles as the main body”, releasing the potential of domestic demand [3], and continuously introducing a series of policies to actively guide consumption repatriation, which has benefited the duty-free market in recent years. It can be found that the policies mainly cover the following three aspects: supporting duty free, lowering tax rate and supporting cross-border e-commerce when reviewing relevant policies (see Table 2)

Table 2. Relevant policies to guide consumption repatriation.

Policy placement	Time	The relevant departments	The main content
Supporting the duty-free	The 2015-04	The Executive Meeting of The State Council	Policies related to import and export of consumer goods should be improved to enrich their shopping choices of domestic consumers. Port entry duty-free shops will be increased and restored and duty-free categories will be expanded.
	The 2016-02	State Council	An additional 19 entry duty-free shops will be set up at 13 ports of airport and 6 land and sea ports, and the duty-free shopping quota, including entry airports, will be raised to 8,000 yuan.
	The 2019-07	The Ministry of Finance	The restrictions on duty-free operation regions and categories will be lifted for enterprises with the original qualification of duty-free businesses and the achievements of continuous operation of ports or import and export duty-free shops in cities for the past five years.
	The 2020-03	The National Development and Reform Commission and other 23 departments	Cities with conditions are encouraged to provide land and financing support for the construction and operation of city duty-free shops, and to set up departure pick-up points for duty-free shops at airport ports.
	The 2020-07	The Ministry of Finance, General Administration of Customs	It is proposed to relax the offshore duty-free shopping quota to 100,000 yuan per person per year, expand the categories of duty-free goods, and cancel the duty-free shopping quota limit of 8,000 yuan per item in the Overall Plan for the Construction of Hainan Free Trade Port.
	The 2022-01	National Development and Reform Commission	We will develop new forms of foreign trade, improve policies on city duty-free shops, and project to build a number of duty-free shops with Chinese characteristics.
Cutting tax rates	The 2015-06	State Council	Import tariffs on some daily consumer goods such as clothing, shoes and skincare products will be lowered by more than 50% on average.
	The 2016-10	The Ministry of Finance, State Administration of Taxation	The consumption tax on cosmetics imports will be lowered from 30% to 15%.
	2017-12	State Council	The import tariffs on some consumer goods will be adjusted, with the average tariff rate decreasing from 17.3% to 7.7%, among which the tariff on perfume and cosmetics will reduce from 10% to 5%, and the tariff on bags and suitcases will lower from 20% to 10%.
	The 2018-07	State Council	The average import tariff rates of daily consumer goods such as clothing, shoes and hats will fall from 15.9% to 7.1%, and the average import tariff rate of cosmetics such as skin care and hairdressing as well as some medical and health products will lower from 8.4% to 2.9%.
	The 2019-04	The Ministry of Finance, State Administration of Taxation, General Administration of Customs	The VAT rate for imported goods will be adjusted from 16% to 13%, and the VAT rate will be lowered to 9% from the original 10%.
Cross-border electricity	The 2016-04	China's customs	New tariff policies will be implemented to impose the strictest taxes on cross-border consumption restrictions and cross-border e-commerce. The single transaction volume of cross-border e-commerce retail imports will be limited to 2,000 yuan and the annual transaction volume will be 20,000 yuan.
	The 2019-01	The Ministry of Finance	The limit for single transaction for retail imported goods of cross-border e-commerce will be raised from 2,000 yuan to 5,000 yuan, and the annual transaction volume will be raised from 20,000 yuan to 26,000 yuan.

The
2019-01

State Council

Purchase agents' organizations or individuals must have business licenses in both the purchasing countries and China, and pay taxes in both countries. Sellers or platforms that violate the regulations will be fined up to 500 thousand yuan and 2 million yuan, respectively, according to the E-commerce Law.

Data sources: State Council, Ministry of Finance, National Development and Reform Commission, China Customs, State Administration of Taxation

1.3.2 The Neutral Calculation estimates that China's luxury consumption repatriation is expected to exceed 300 billion yuan

China's domestic luxury consumption was only 221.3 billion yuan (accounting for 32%) in 2019, while Chinese luxury consumption is expected to reach 1.2 trillion yuan by 2025 with a CAGR of 10% between 2019 and 2025, and more than 55% of luxury consumption will be represented in China, totaling more than 600 billion yuan, according to the data of the Bain report [1]. Based on these data, the sensitivity of Chinese domestic luxury consumption in 2025 can be estimated as follows. The core assumptions include the following: 1) The CAGR of Chinese luxury consumption from 2019 to 2025 is 7-13%, and 2) Chinese domestic luxury consumption accounts for 40-70%. The scale of Chinese domestic luxury consumption will reach 556.8 to 745.1 billion yuan in 2025, according to the neutral calculation (see Table 3).

Assuming that the proportion of luxury consumption that can be achieved by duty-free channels increases to 20/30/40% in 2025, then sales of Chinese luxury consumption through domestic duty-free channels would reach approximately 129.4 billion yuan/194.1 billion yuan/258.8 billion yuan in 2025 according to the neutral calculation.

Table 3. Space Calculation of Chinese domestic luxury consumption.

Units: One hundred million yuan	Proportion of Chinese domestic luxury goods consumption							
		40%	45%	50%	55%	60%	65%	70%
CAGR of Chinese luxury consumption from 2019 to 2025	7%	3985.6	4483.8	4982.0	5480.2	5978.4	6476.6	6974.8
	8%	4214.4	4741.2	5268.0	5794.8	6321.6	6848.4	7375.2
	9%	4454.0	5010.8	5567.5	6124.3	6681.0	7237.8	7794.5
	10%	4704.9	5293.0	5881.1	6469.2	7057.3	7645.4	8233.6
	11%	4967.4	5588.4	6209.3	6830.2	7451.1	8072.1	8693.0
	12%	5242.1	5897.3	6552.6	7207.8	7863.1	8518.3	9173.6
	13%	5529.2	6220.4	6911.5	7602.7	8293.8	8985.0	9676.1

Source: Bain, McKinsey, Northeast Securities

Note: The exchange rate is 716 yuan per 100 Euro

Table 4. Space Calculation of Chinese domestic luxury consumption through duty-free channels.

Units: One hundred million yuan	The Proportion of Chinese domestic luxury consumption									
		50%	55%	60%	50%	55%	60%	50%	55%	60%
		It is assumed that duty-free channels account for 20% in 2025			It is assumed that duty-free channels account for 30% in 2025			It is assumed that duty-free channels account for 40% in 2025		
CAGR of Chinese luxury consumption from 2019 to 2025	9%	1113.5	1224.9	1336.2	1670.3	1837.3	2004.3	2227.0	2449.7	2672.4
	10%	1176.2	1293.8	1411.5	1764.3	1940.8	2117.2	2352.4	2587.7	2822.9
	11%	1241.9	1366.0	1490.2	1862.8	2049.1	2235.3	2483.7	2732.1	2980.5

Source: Bain, McKinsey, Northeast Securities

Note: The exchange rate is 716 yuan per 100 Euro

2. Comparative analysis of the duty-free market in South Korea before and after the epidemic

It is difficult for South Korea to continue to rely on high rebate points to attract purchase agents after the end of the epidemic. On the one hand, channels have fully occupied consumers' minds, such as offshore duty-free, daily direct of Sunrise Duty Free/CDF membership purchase and livestreaming, and they form strong customer stickiness through labels such as low price and convenience, resulting in loose customer demand for purchase agents. On the other hand, China's domestic duty-free price advantage is highlighted after the scale expansion, the price ceiling and profit margin of purchase agents are greatly reduced, and the original profit mechanism is broken. In the future, it will be difficult for South Korean duty free to rely on shopping from Chinese purchase agents, and it is expected that there will be strong certainty and continuity of perfume and cosmetics consumption repatriation through domestic duty-free channels in the future.

2.1 South Korea ranked first in the world in terms of the duty-free market before the epidemic

2.1.1 South Korea was the largest duty-free market in the world

The total sales of South Korea's duty-free market (converted in yuan) increased from 19.4 billion yuan in 2009 to 136.4 billion yuan/CAGR+21.5% in 2019. The average annual consumers increased from 21.3 million to 48.4 million/CAGR+8.6%, and the consumer unit price increased from 913 yuan to 2816 yuan/CAGR+11.9%. In 2020, its sales decreased to 84.5 billion yuan/-38% due to the impact of the COVID-19 epidemic, the average annual customers were 10.67 million yuan/-78%, and the consumer unit price increased greatly to 7,917 yuan/+181%.

2.1.2 Foreign tourists are the main consumers in the South Korean duty-free market

In terms of consumer groups, the proportion of local and foreign consumers in South Korea remained at approximately 6:4 before the epidemic, but sales performance was mainly contributed by foreign consumers, and the proportion increased year by year. The proportion of Chinese consumers remained high among all foreign consumers, increasing from 52% in 2009 to 84% in 2019. The average unit price of foreign consumers is much higher than that of Korean consumers in terms of consumer unit price, and the gap is increasing year by year. The unit price of foreigners was 5,702 yuan in 2019, approximately 7.3 times that of South Koreans. The number of foreign consumers decreased sharply in 2020 due to the COVID-19 epidemic^[4]. However, the unit price of foreign consumers increased significantly to 24,000 yuan/+324%, and the overall unit price of foreign consumers increased to 7,918 yuan/+181% due to self-rescue measures taken by duty-free groups, such as overseas direct mail business, which attracted multinational purchase agents to make a single bulk purchase.

2.2 Chinese purchase agents still represent the main achievements of South Korean duty free after the epidemic

2.2.1 The scale of South Korea duty-free shops in cities has further increased

The duty-free market in South Korea has been under pressure in the short term due to the impact of the epidemic, and it has gradually recovered since the second half of 2020, with the proportion of duty-free shops in cities in sales channels further increasing^[5]. The duty-free market of South Korea has been hit hard because of the COVID-19 epidemic as well as its prevention and control policies. Duty-free sales and consumer visits in South Korea have declined sharply since February 2020. Subsequently, the duty-free industry in South Korea has gradually recovered since December 2020 thanks to the well-controlled epidemic and the implementation of the self-rescue duty-free policies, with average monthly sales from January to November 2021 recovering to 73.7% of that in 2019 and the sales of November 2021 rising to 77.9% of the same month in 2019. In addition, the epidemic has led to changes in the proportion of duty-free sales channels. Sales of duty-free shops in cities accounted for 84.77% in October 2019 in South Korea before the epidemic, while duty-free sales at airports accounted for 13.06%. Sales of duty-free in cities expanded to 93.75% in mid-2020 after the epidemic, and it steadily increased to more than 94% in November 2021. Meanwhile, duty-free sales at airports were squeezed, accounting for only 1.26%.

2.2.2 The consumer unit price of Chinese purchase agents increased significantly to represent the performance of South Korea's duty free

The consumer unit price has increased significantly since the epidemic's outbreak, supporting the sales performance of South Korea's duty free, although the number of foreign consumers has decreased. The number of foreign consumers was 56,000 in November 2021, accounting for only 8%, but consumption accounted for 95%. Foreign consumers tend to make a single bulk purchase affected by the epidemic, and the consumer unit price keeps rising, reaching 30,300 US dollars in September 2021 and falling slightly to 23,900 US dollars in November. The main consumer force of the duty-free market in South Korea is still purchasing agents from China after the epidemic. Chinese consumption accounted for 73.4% of the total duty-free sales in South Korea in 2018, announced by the Korea Customs Service. This proportion has increased to 93% in 2020 according to the latest report. It is a prorated estimation that over 160 billion yuan of duty-free goods flowed from South Korea into China from 2020 to November 2021.

3. Duty-free consumption market analysis of China and South Korea after the epidemic

3.1 Purchase agents' customers become less sticky and their market share is occupied due to intensified competition

The demand for purchase agents has eased, and the golden era of South Korea duty free has come to an end. Purchase agents are facing competition from new models such as livestream e-commerce and cross-border e-commerce after the epidemic. Chinese consumers turn to duty-free channels such as Hainan offshore duty-free and Sunrise duty-free shops due to the restrictions on entry and exit ^[6]. These channels gradually form strong customer stickiness by creating cheap and convenient labels, which leads to loosen consumer stickiness of purchase agents accordingly. The booming rise of livestreaming e-commerce and cross-border e-commerce will further grab market share. Livestreaming e-commerce includes top anchors of livestreaming (such as Li Jiaqi) and short video livestreaming e-commerce (such as Tik Tok and Kuaishou Live) under platforms such as Taobao and Jingdong. Cross-border e-commerce includes international cross-border e-commerce (such as 24S and Far fetch) and domestic cross-border e-commerce providers (such as International Tmall Global and NetEase Kaola) ^[7]. In addition, the official stores of both South Korea duty free and Hainan duty free have launched measures to stimulate consumption, such as direct mail or supplementary purchase, and both have gradually developed online shopping malls during the epidemic. The emergence of a variety of new models has squeezed the demand space of purchase agents. Consumers have more choices (see Fig. 2), and the trend of purchase agents' loosened demand is irreversible in the post pandemic era.

Fig. 2. Competition changes of purchase agents before and after the epidemic.

Data sources: Lotte Duty Free official website, Shilla Duty Free (hereafter referred to as Shilla) official website, Northeast Securities, online materials

The demand of some purchase agents still exists, focusing on local brands of South Korea and individual categories. The price advantage is still obvious of its local duty free in terms of perfume and cosmetics in South Korea, and a large number of South Korean makeup brands that are popular among Chinese consumers still need to be met through purchasing agents from South Korea. In addition, there is still a gap between Chinese domestic duty-free categories and brands compared with that of South Korea, which still cannot fully meet all the needs of consumers.

3.2 The profit mechanism of purchase agents is broken, and the profit space is limited

The profit mechanism of purchase agents has been broken as China's domestic duty-free price advantage is highlighted with the scale increasing. China's domestic duty-free industry has gained a price advantage with the development of domestic duty-free industry and the increase in procurement volume. Assume one piece of duty-free goods is priced at 100 yuan in shops. The profit mechanism of purchasing agents buying from South Korean duty free has changed compared with that before the epidemic. In response to the shock of the COVID-19 epidemic on consumer flow, price competition has been

intensifying between duty-free businesses both at home and abroad. Many duty-free businesses in South Korea endeavor to win the procurement of China's purchasing agents by increasing discounts. The purchase cost for purchasing agents is reduced to 60 yuan after superposition of discount rebates, and the total cost is 70 yuan after adding approximately 10 yuan for transshipment, storage and labor costs. Consumers can buy duty-free products on Hainan Island through convenient channels after the epidemic, and the discount price will be 80 yuan calculated on the general 20% discount rate for each item without considering member point deduction. The selling price of purchasing agents should be less than 80 yuan to obtain market demand, so the profit margin for purchasing agents is reduced from 22 yuan to 10~12 yuan. Then, they have to seek business transformation because of the profit margin reduction.

CDF can gain favor with a smaller discount cost after the profit mechanism of purchase agents has changed. CDF does not need to provide discounts and rebates as much as South Korea duty free. CDF then gains a competitive advantage on price when the condition is satisfied that $\text{the official price of CDF} \times \text{discount} - \text{member points deduction} = \text{the 60\% cost of purchase agents buying from South Korea Duty Free} + \text{warehousing and logistics cost}$. If the actual discount of South Korea Duty Free is 60% (including rebates), CDF only need to give purchasing agents 75% to 80% discount, which can attract consumers to directly buy on Hainan Island with the superposition deduction of member points. At the same time, consumers can buy duty-free products through Hainan Island duty-free channels or online shopping malls, which can guarantee genuine goods and convenience compared with purchase agents' ordering cycle of one to two weeks. Their willingness to purchase independently will be enhanced, thus reducing the market share of purchasing agents.

3.3 CDF holds a stronger profitability in competition

3.3.1. The purchasing volume of CDF is growing rapidly with low discounts of purchasing goods

The purchase price for CDF mainly depends on three factors: 1) The quantity of goods taken: large quantities purchased can obtain preferential prices. The purchase scale is the core determinant of the cost, and the brand negotiation cycle is usually one year. The increase in the purchase scale will enable duty-free businesses to gain advantages in the next round of negotiations. 2) Cooperation qualification: If the dealer discounts at will, it will cause credit problems. Once the brand finds that the terminal discount is too low, the product will be removed from shops. 3) Sell-out rate: it will lead to many tail goods flowing to unknown channels if the sell-out rate of dealers is very low, resulting in business risks for the brand. With the rise of China's domestic duty-free, the purchase volume of CDF is gradually expanding, the discount stability is higher, and the stock is often sold-out during holidays and shopping festivals. CDF's bargaining power is continuously improving (see Table 5).

Table 5. Price Comparison between Lotte Duty Free and CDF (January 2022).

Product	Price	Lotte Duty Free (Rebate is not)	China will exempt			Lotte Duty Free VS CD
			CDF Hainan Duty Free (online booking)	CDF Member Purchase Hainan (offshore supplementary purchase)	Sunrise Duty Free preferred (daily direct mail)	
Essence water of Lamer	Price tag	\$162 (Approximately ¥1035.18)	¥860	¥860	¥854	- 17%
	Maximum discount price	\$113.88 (Approximately ¥727.69)	¥602	¥688	¥2904 the combination price with Lamer essence cream, equivalent to the unit price of ¥674	
	Discounts	74%	70%	80% if three pieces	79% of combination	
Double Small Brown Bottles of Estee Lauder (the 7th generation)	Price tag	\$362 (Approximately ¥2313.18)	¥1889	¥1889	¥1790	- 27%
	Maximum discount price	\$264.8 (Approximately ¥727.69)	¥1227.85	¥1474	¥1242	
	Discounts	70%	65%	Approximately 78%	70% if two pieces	
SK-II	Price tag	\$244 (Approximately ¥1559.16)	¥1690	¥1690	¥1408	- 29%
	Maximum discount price	The \$231.8 (Approximately ¥1481.20)	¥1267.5	¥1352	¥1056	
	Discounts	95%	75% if three pieces	80% if three pieces	Approximately 75% if two pieces	

Data sources: Lotte Duty Free APP, CDF Hainan Duty-free APP, CDF Mini program, Northeast Securities

Note: The exchange rate is 100 YUAN =6.39 US dollars. The highest discount price of Lotte Duty Free is the membership price after deducting basic points, without considering the rebate.

3.3.2 CDF can still maintain considerable profitability

CDF can still maintain considerable profitability even if it maintains a discount of 20%. The advantages of the CDF mainly come from the bargaining power based on the scale effect and the convenient access channels for domestic consumers. The high profit margin enables the CDF to have more profit margins to adjust prices and launch promotional discounts. The operating profit margin of the three major South Korean duty-free operators (Lotte, Shilla and Shinsegae Duty Free) was only approximately 5% from 2017 to 2019 by comparing South Korean duty free and CDF, and it fell to negative in 2020 due to the impact of the epidemic, while the operating profit of CDF was significantly higher than that of South Korea (15%) before 2019, which was further improved after the implementation of the new offshore duty-free policies. It reached a high value of 24% in January 2021 (see Fig. 3). Its higher profitability gives CDF more room for price adjustment and discount policies. In addition, the operating margin of the CDF is expected to further improve by relying on preferential tax rate policies and self-owned property. The six subsidiaries of CDF can enjoy a 15% preferential discount of corporate income tax to encourage the offshore duty-free industry since January 1, 2020, thus greatly improving its profitability. At the same time, the CDF-owned International Duty-free Mall in Sanya Haitang Bay and Haikou International Duty-free Mall are both located on

their own properties, which greatly reduces the burden of rental costs. It is expected that its profit margins will rise steadily with the growth of performance after expansion and upgrading.

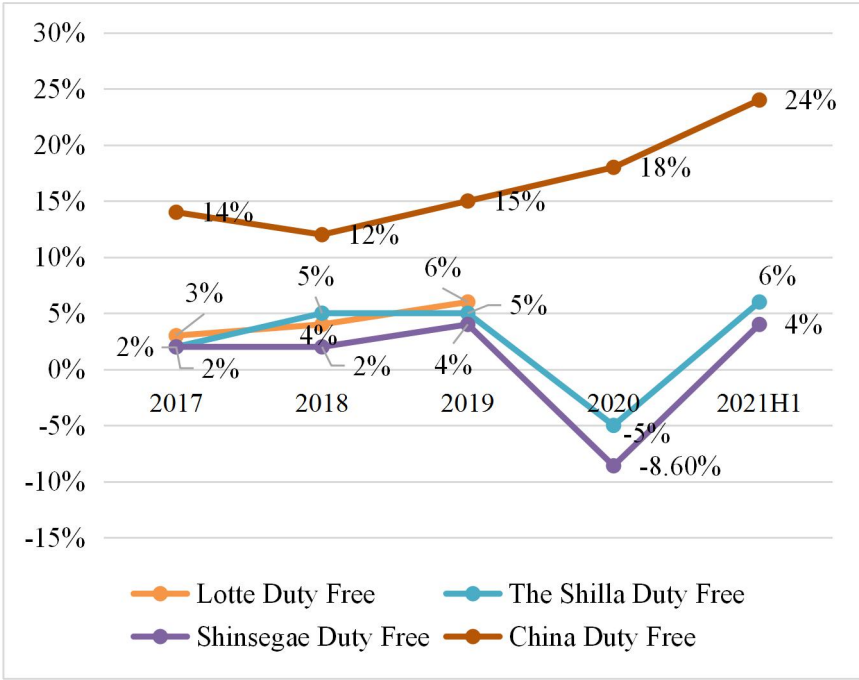


Fig. 3. Comparison of the operating profit margin between duty-free operators in South Korea and the CDF (100 million yuan%).

Data source: annual report of each company, Lotte Duty Free APP, CDF member purchase mini program

Note: Lotte Duty Free did not disclose data for 2020 and 2021H1 (January); The operating profit margin of CDF is concerned about the comprehensive level of the company, and the rest is the operating profit margin of the travel retail/duty-free business

4. Future forecast and prospect of duty-free consumption market in China and South Korea in the post epidemic era

The core reason for boutique goods consumption outflow is price difference, and consumption repatriation needs to be achieved by reducing price difference. The largest consumers of luxury goods are not VIPs but price-sensitive young urban white-collar women. The price difference between domestic and foreign luxury goods comes from the tax rate (tariff, value-added tax and consumption tax) and the autonomic adjustment and control by the brands. The price gap between domestic and foreign boutique goods will narrow when brands enter China’s domestic duty-free channels, but some top luxury brands are still not willing to enter China’s domestic channels. It still takes time to enrich the brands/categories/SKUs in duty-free channels, which cannot meet consumers’ all demand at present.

4.1 The price difference between domestic and foreign boutique goods will be reduced after boutique goods enter domestic duty-free channels

The core of whether boutique goods consumption can flow back to China in the future lies in whether the price difference between domestic and foreign boutique goods can be reduced. It is an effective way for Boutique goods to reduce prices entering domestic duty-free channels. The price of the Hainan duty-free platform is slightly higher than that of foreign official websites, so it has a price advantage when considering the member point deduction to cash. If popular bags and wristwatches are chosen for price comparison, consumers who register CDF members can enjoy the policy of spending per 30 yuan to have 1 point collected and each point deducting to 1 yuan. The Hainan duty-free APP has a certain competitive advantage compared with that of the foreign official website by the policy of the lowest price (see chart 6) because of the

highest double members points converted to cash. The channels of purchase agents still enjoy price advantage, but there are some disadvantages, such as doubts about authenticity, lack of shopping experience and long delivery cycle.

Some of the big brands entering Hainan duty-free shops are not inferior to their domestic shoppes in terms of categories and SKUs. Online public information shows that Gucci's popular bags can almost be bought offline in Sanya, and the bid price is about an 85% discount of that in shoppes (the price will be reduced to about an 82% discount considering the member points deduction). Many styles have price advantages compared with shoppes, overseas shoppes and purchasing agents.

Table 6. Hainan duty-free platform member levels and its rules of promotion and demotion.

Levels and Rules	
The promotion rules	Ordinary member: free registration, enjoy 1 time points
	Silver card member: ordinary cards can be promoted to silver cards after spending more than 5,000 yuan and enjoy 1.2 times of points
	Gold card member: silver cards can be promoted to gold cards after spending 10,000 yuan and enjoy 1.5 times points
	Platinum VIP: Gold cards can be promoted to platinum VIP after spending 50,000 yuan and enjoy 2 times of points
	Diamond VIP: Platinum VIP can be promoted to diamond VIP after spending 100,000 yuan, and enjoy 2 times points
The demotion rules	Each consumption amount of a member is valid for 3 natural years, and the member level is reverified on December 31 of each year according to the consumption amount within the validity period (member promotion and demotion are verified according to the consumption amount, excluding taxes, security deposit, coupons, points deduction to cash, etc., and the rules of member points are also the same).

Data source: Hainan Duty-free APP

4.2 It will take time for top luxury brands to enter China's domestic duty-free channels

4.2.1 Top and some other luxury brands are still not willing to enter China's domestic duty-free channels at present

Gucci, Fendi and other brands have entered China's domestic duty-free channels at present, and it is expected that light luxury and designer brands will enter the duty-free channels before top luxury brands, while top luxury and popular designer brands (such as Hermes, Chanel, LV, Dior, Celine, etc.) are still less likely to enter China's domestic duty-free channels in the short term. Take LV as an example. LV prefers direct sales, and it strictly controls over distribution channels from the current marketing channels of LV. It only sells products in LV offline stores, and LV only uses DTC (direct to consumer) mode on online sales, on brand official website, group e-commerce website 24S, its WeChat official account and the mini program. The main considerations for top luxury brands for not entering into China's domestic duty-free channels are as follows: 1) Attached importance to the uniformity of pricing in the single market and natural rejection of the duty-free channels or the second price system in the same market. 2) There is little need to enter into duty-free channels when sales are hot in tax sales channels with higher margins. Luxury consumption does not obey the demand theorem, and there is even the Veblen effect that "demand increases with price". Brands sometimes raise prices to maintain scarcity. Hunger marketing makes luxury brands occupy customers' minds. Even if the top luxury brands enter Hainan Island in the future, it is expected that they will enter by direct sales with tax.

4.2.2 It may not have the ideal low price, and the brand masters the pricing power of the channels even if top luxury brands enter China's domestic duty-free channels.

The essence of the duty-free channels is distribution and wholesale. The brand has the right to set the prices for the cost and selling when supplying goods. It usually sets the price bottom line for duty-free suppliers to prevent random discounts from damaging the market price system^[8]. Therefore, even if top luxury brands enter duty-free channels, they will still have the absolute right to say the duty-free sales price, and there may not be the ideal low price. For example, the average price

gap of LV bags between the official website and the mainland area is only approximately 10% in Hong Kong, a duty-free port, so the price advantage is not obvious.

4.3 The current duty-free channels are still unable to meet consumers' demands for boutique shopping

4.3.1 There is still a need to be expanded for the categories/brands/SKUs of China's domestic duty-free channels, which they cannot fully meet the needs of consumers at present

China's domestic duty-free shops have the greatest advantage in perfume and cosmetics sales at present from the perspective of categories. They have begun to make efforts in the boutique/electronics category since the introduction of the new offshore duty-free policies from July 2020 [9]. There is still room for expansion in niche categories such as daily use/small household appliances in the future. There is still a gap in the brand richness of China's domestic duty-free shops compared with Japan and South Korea, and there is still room for enriching top luxury brands and niche brands in the future. In terms of luggage and clothing when compared by category, the number of brands entering the Lotte Myeong-dong store and Shilla Seoul store is 56 and 38, respectively, while the number of duty-free shops in Sanya and Sunrise duty-free shops is 68 and 7, respectively. Sanya duty-free shops dominate the number of brands, but the top luxury brands, such as Chanel, Hermes and Dior, have not yet entered. While most top luxury brands have already been in South Korea's two largest duty-free shops, in terms of perfume and cosmetics, the number of duty-free entries in China is significantly lower than that in South Korea, especially a large gap in the number of South Korean cosmetics brands. Rolex, a high-end brand, has entered Shilla's Seoul store, but it has not entered China's domestic duty-free market (see Table 7) in terms of wristwatches and accessories.

Table 7. Comparison of store brands numbers under Lotte, Shilla and CDF.

Category	The Lotte Myeong-dong Store	Shilla Seoul Store	Sanya Duty Free Store	Sunrise Duty Free Store
Luggage, shoes and clothes	56 Gucci, Dior, Hermes, Chanel and other top luxury brands have entered	38 Gucci, Dior, Hermes, Chanel and other top luxury brands have entered	68 Chanel, Dior, LV, Hermes and other top luxury brands have not entered	7 Chanel, Dior, LV, Hermes and other top luxury brands have not entered
Perfume and Cosmetics	178 Makeup brands are more comprehensive	280 Makeup brands are the most comprehensive	100 The number of Korean cosmetics brands is far behind that of South Korea	40 The number of brands is small
Wristwatch and accessories	70 High-end brands such as Cartier have entered	61 High-end brands such as Rolex and Cartier have entered	41 Cartier has entered, not other high-end brands	17 No high-end brands such as Rolex have entered

Data sources: network materials, official websites of all companies, WeChat official account of Sanya International Duty-Free Mall

4.3.2 The duty-free brands in Hainan continue to be abundant and are expected to meet more diverse consumer needs in the future

Sanya Haitang Bay has introduced LOEWE, Canada Goose, Bulgari, Van Cleef & Arpels and other brands since 2020. More brands are expected to be introduced with the opening of the Haikou International Duty-Free Mall and Phase I Site 2 of the Sanya International Duty-Free Mall located in Haitang Bay in 2022. At present, LV and Celine have not settled in Hainan, while Hermes, Dior and other brands only sale non-boutique products. Brands and SKUs for Hainan duty free still need to be enriched.

5. Conclusion

In other words, the duty-free industry will maintain high prosperity and growth in the process of China's domestic consumption repatriation, penetration rate of Chinese luxury goods and increase of customer unit price. CDF, as the leader of China's duty-free industry, has first-mover advantages in channels, scale and operations management, and it will continue to keep leading in the future. Hainan's contribution to the performance of the CDF will continue to increase considering the impact of channel expansion in Hainan and the benefits for tourism retail from the construction of a free trade port.

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