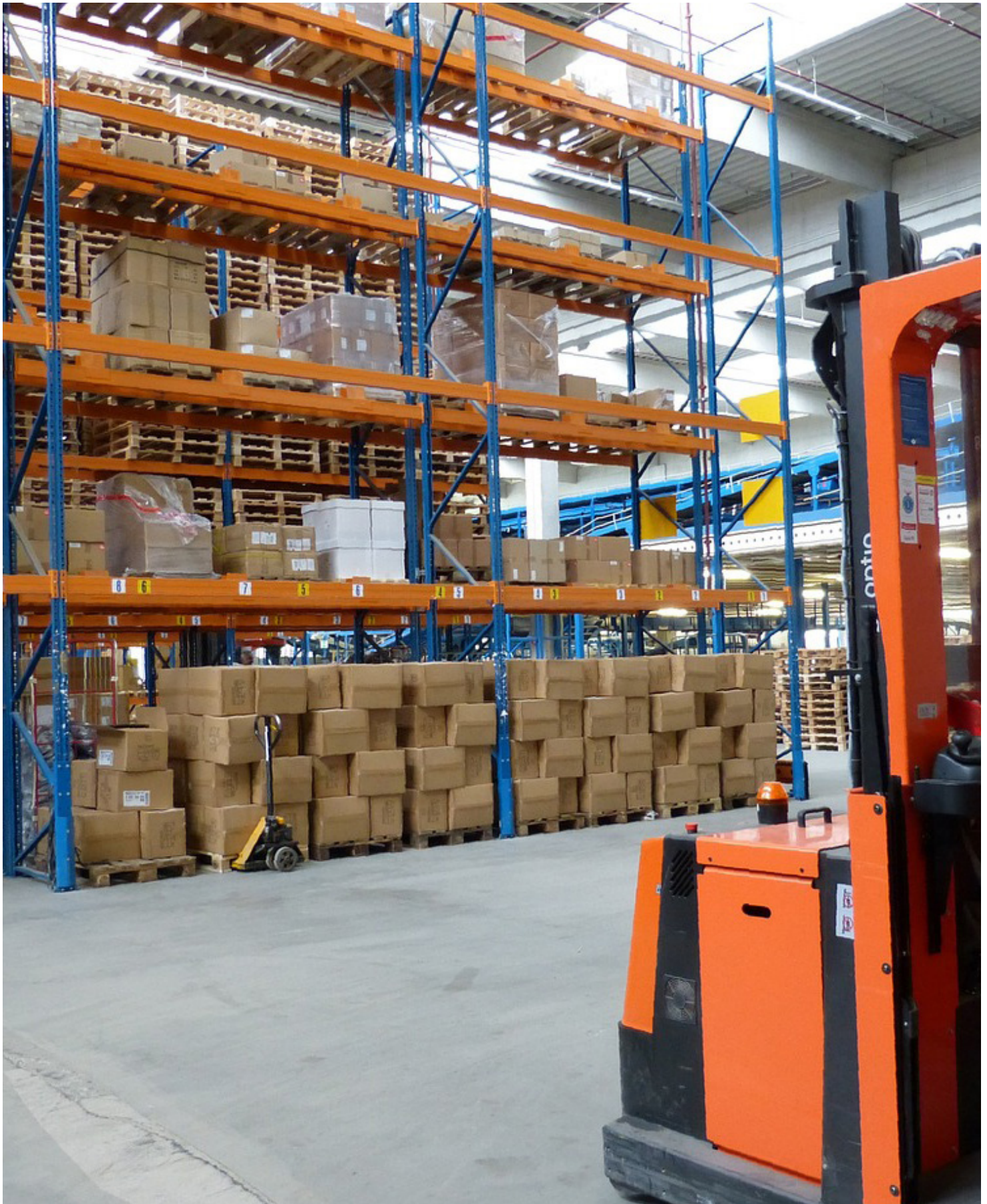


Korea - June 2020

Korea Logistics

savills



The COVID-19 spread has contributed to the exploding demand for E-commerce, driving interest in logistics.

TRADE TRANSPORT

Total container transport¹ increased at an annual rate of 4% from 2014 to 2018, until sliding by -1% YoY in 2019. By port, there was no change for Busan, while Incheon and Pyeongtaek saw trade volumes expand by 3% and 1% YoY, respectively, as opposed to Port of Ulsan² falling 10% YoY, resulting in an overall decline in transport volume nationwide. Recently, container trade volumes have continued on their downtrend as the spread of COVID-19 is limiting trade across international borders. Total transport volume for the period of January to March 2020 posted -7% YoY.

RETAIL SALES BY BUSINESS TYPE

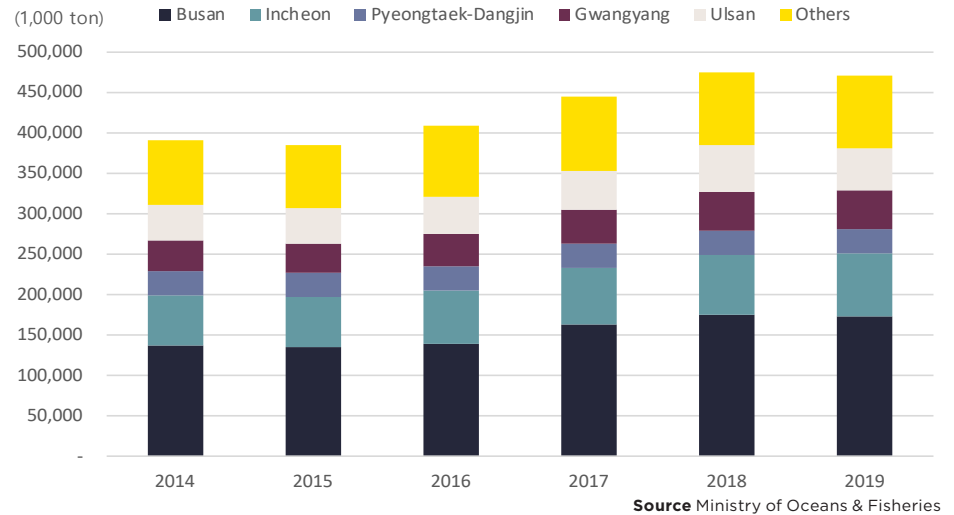
Online retail sales grew a remarkable 19% YoY in 2019, versus total retail sales growing 2% YoY. With online retail sales, which represented only 11% of total retail sales in 2015, rising to 29% of the total in 2019, the paradigm shift from offline to online shopping is rapidly materializing. The prominence of online shopping grew further in 2020 on the effects of the COVID-19 outbreak, for Coupang to gross sales of KRW1.63 trillion in February, a jump of 13% in one month from KRW1.44 trillion in January. Other online retailers such as eBay, 11th Street, and SSG are estimated to have seen similar growth.

ONLINE RETAIL SALES

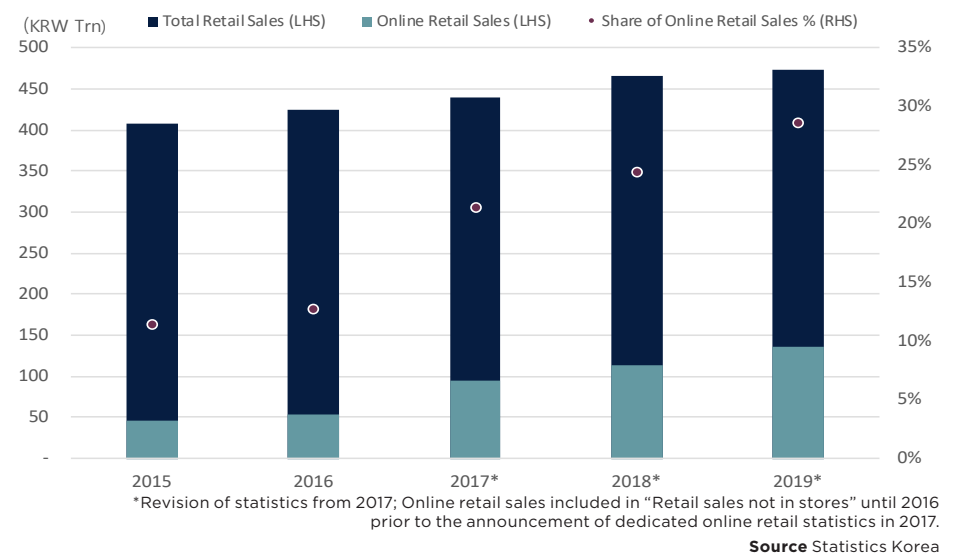
For the past 5 years, the rise in online retail sales has driven parcel volumes to grow at an annual rate of 11%. Notably, parcel delivery unit costs - which have been steadily slipping since 2012 - rebounded by 2%. The gain was largely due to inclusion of the additional cost of oversized and non-standard parcels in the unit cost.

Demand for direct purchase fulfillment services which shorten delivery times and facilitate effective ways to deal with diversified online orders is also on the rise. In particular, demand for logistics centers by direct purchase fulfillment companies is increasing due to dawn delivery³, which has doubled its market size in 2019 compared to the previous year. The number of rocket delivery centers operated by Coupang, doubled from 85 in 2018 to 168 centers in 2019. Market Kurly, operator of 3 logistics centers in 2018, expanded to 6 centers, with

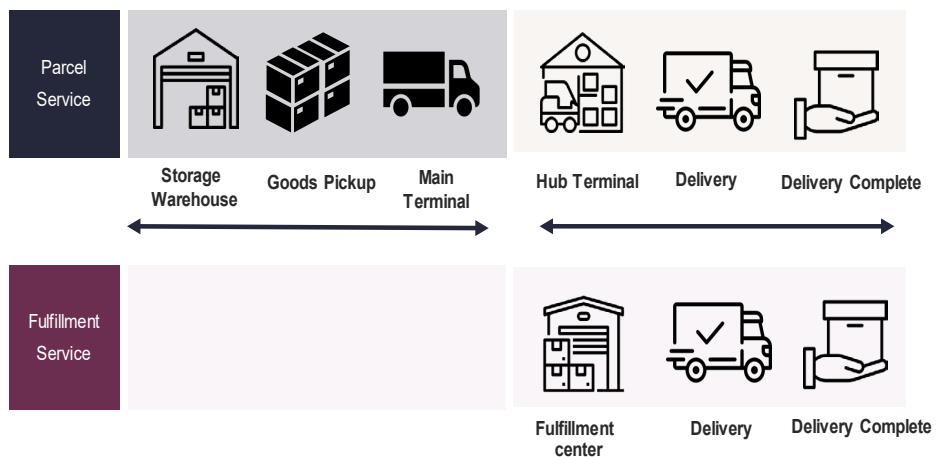
GRAPH 1: Total Container Transport by Port, 2014 - 2019



GRAPH 2: Online Retail Sales as a Proportion of Total Retail Sales, 2015 - 2019



GRAPH 3: Overview of Fulfillment Services

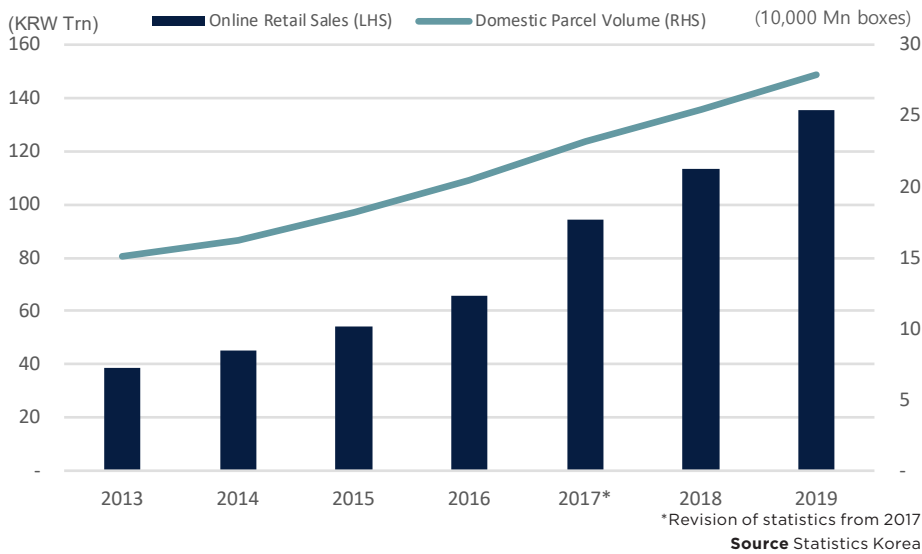
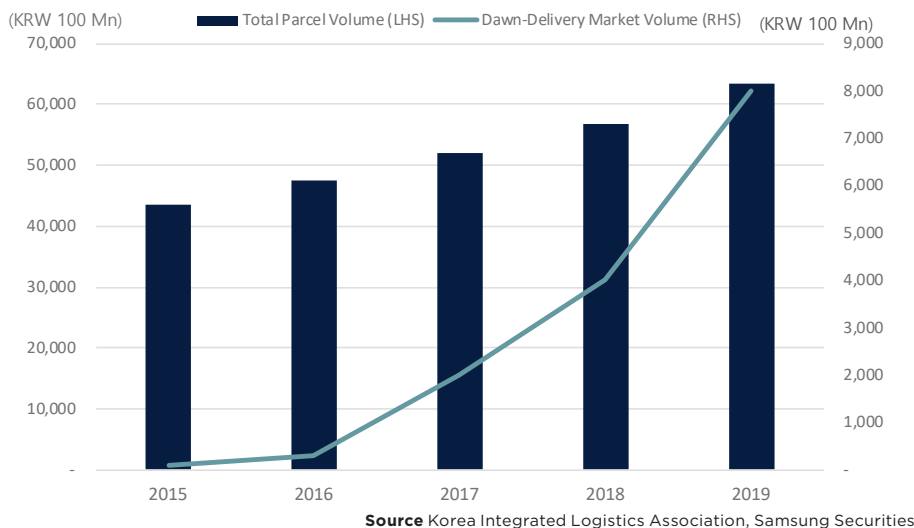
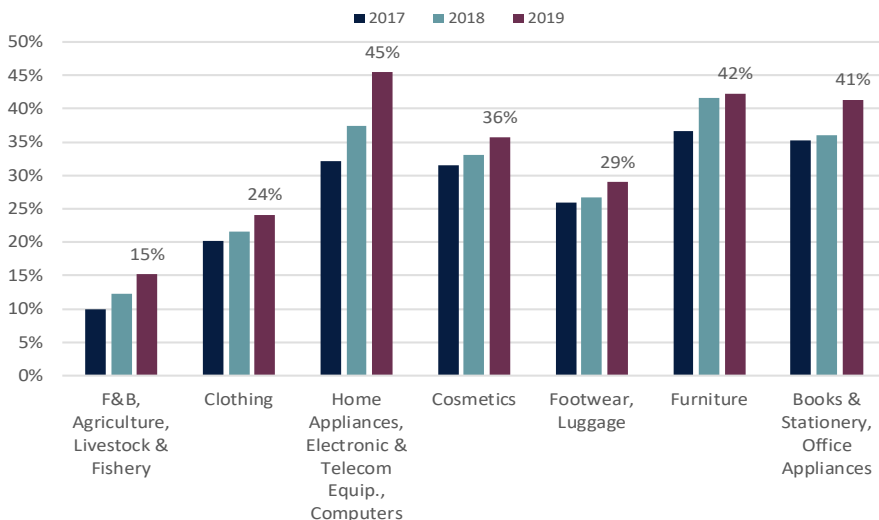


¹ Total Container Transport excludes volumes of petroleum, coal, steel, iron ore and other materials which do not affect demand for the logistics centers under analysis.

² Industrial chemical products which represent over 50% of total transport at the Port of Ulsan declined 24% YoY.

³ Dawn Delivery refers to all services that consists of next-day delivery on previous-night order placement.

Source: Statistics Korea

GRAPH 4: Online Retail Sales vs Domestic Parcel Delivery Volumes, 2013 – 2019**GRAPH 5: Domestic Dawn Delivery Market vs Parcel Delivery Volumes, 2015 – 2019****GRAPH 6: Proportion of Online Retail Sales by Product Group, 2017 – 2019**

plans to upgrade its fulfillment services by launching the Gimpo Logistics Center, which is 2.5 times the area of the existing centers, by the end of 2020. E-commerce companies which are experiencing larger sales volumes because of COVID-19, are reportedly seeking additional logistics centers.

Consignment-type fulfillment centers are also in demand. On larger B2C cargo volumes, fulfillment centers that can be managed efficiently for shortened delivery times are preferred more than the existing storage-purpose warehouses. E-Bay Korea, provider of “Smile Delivery” services, first introduced fulfillment services in the form of consignments with the 3,600-pyeong in Yongin in 2019 and of 40,000-pyeong center in Dongtan of Hwaseong in early 2020. Larger fulfillment centers and the improved efficiency of delivery processing has resulted in more exclusive products for Smile Delivery and delayed deadlines for order placement.

CJ Korea Express, the operator of Asia's largest mega hub terminal (approx. 89,000 pyeong) in Gongnam of Gwangju, has established required infrastructure for a fulfillment center of 35,000 pyeong in the terminal in 2018 and 20,000 pyeong is used by CJ O Shopping. LG Household & Healthcare is reported to have recently signed up for fulfillment services with CJ Korea Express.

ONLINE RETAIL SALES BY PRODUCT TYPE

Online retail sales of F&B, formerly small despite accounting for the largest proportion of total retail sales, climbed 26% YoY in 2019. Online retail sales of clothing, coming in second after F&B, also increased by 10% YoY. F&B which must be fresh and clothing that needs to be tried on showed higher offline volumes in the past, but reliance on online sales has grown sharply due to dawn delivery, improved online marketing, and easy return policies.

TOTAL STOCK

In the first quarter of 2020, the total GFA of national logistics centers summed to about 12 million pyeong, half of which is concentrated in the Seoul Metropolitan Area (“SMA”, comprising of Seoul, Gyeonggi, and Incheon). Among all centers in the SMA, those exceeding 5,000 pyeong - the preferred type by institutional investors - was surveyed at 4.6 million pyeong (322 centers).

NEW SUPPLY

The total GFA of eight logistics centers completed in the SMA during the first quarter of 2020 comes to about 200,000

pyeong, representing 4% of centers over 5,000 pyeong in the SMA. New supply, which has risen by 17% annually over the past three years, is projected to slow to 10% until 2022. The proportion of large centers is increasing, due to reasons such as the tightening of new approval regulations, a rise in land prices, and a preference of institutional investors for modern centers, as opposed to before 2015 when many small and medium-sized centers were developed. The current trend is forecast to continue.

Prior to 2015, most development was concentrated in Yongin and Icheon, southeast regions of Gyeonggi, but due to the recent strengthening of regulations, new major developments have shifted to other regions. Upon completion of high-quality integrated centers and fulfillment centers with tenants' preferred characteristics, such as all-storey docking, wide access roads, horizontal plates, high ceiling heights, and provision of amenities, the less inefficient older centers are likely to have difficulty competing.

Recently, demand for fresh food has grown, resulting in greater interest in cold storage centers. However, due to a recent fire that took place at a cold storage construction site in Icheon (planned for completion in 2020), concerns about fires have re-emerged. Fire-control laws will likely be strictly amended, and obtaining permission for new cold storage centers will become more of a challenge. Concerning the occurrence of fires by the type of construction materials, preference for soundly built logistics centers will be reinforced.

RENT

Asking rents are higher for centers closer to Seoul and the nearest IC, and the gap between dry and cold storage rents widens in line with distance from Seoul. The farther the center is from Seoul, the lower the land price and the less supply of cold storage centers, so the rent gap between dry and cold storage widens.

Rents in the Seoul for the first quarter of 2020 were KRW 45,000 – 55,000/pyeong for dry and over KRW 70,000/pyeong for cold, 1.6x more expensive than dry. Cold storage rents in Gimpo Gochon, which is adjacent to Seoul, were KRW 65,000 – 67,000/pyeong, 1.5x – 1.8x that of dry storage. In Incheon, cold storage rents averaged KRW 55,000 – 65,000/pyeong, 1.8x – 1.9x higher than dry storage, while rent in Gwangju were found at KRW 55,000 – 60,000/pyeong, 2x – 2.4x that of dry storage. In Yongin, for which dry storage rents are 50% of Seoul dry storage rent, cold storage rents were approximately KRW 50,000 – 65,000/pyeong, 2.2x higher than dry storage.

VACANCY

Among new logistics centers in the SMA, high-quality properties that were efficiently built in regions with limited supply reported to be fully pre-leased or leased within three months of completion. The Jinwi Logistics Center (45,000 pyeong) in Pyeongtaek developed by Pacific AMC is known to be leased to Shinsegae Food for 15 years, and the MQ Logistics Center (14,000 pyeong) developed by MQ Logistics in Namyangju was also fully occupied within three months due to a lack of new supply in the region and successful pre-leasing efforts.

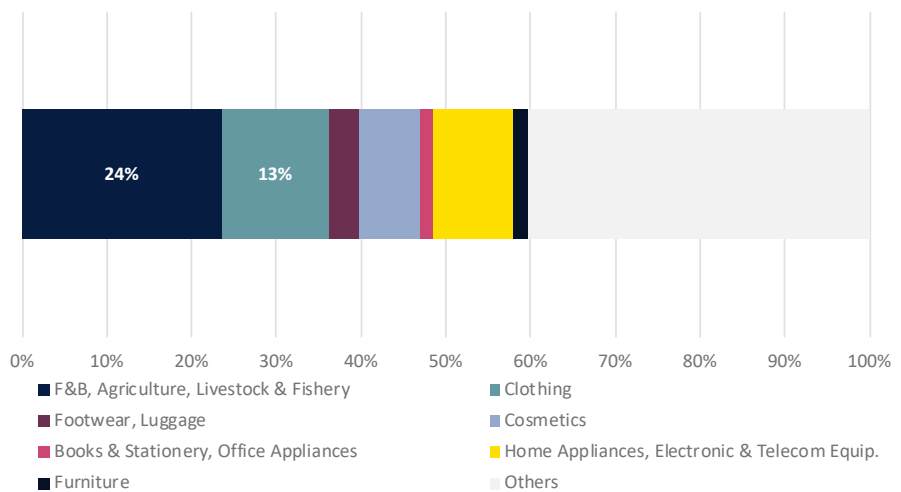
However, even in the case of new developments, vacancy occurred for floors with poor access and centers with narrow roads compared to storage area. Despite

being in highly-preferred locations by tenants, prolonged vacancy in low efficiency centers was noted. Stabilization periods of new centers averaged around one year, while newly-completed high-quality centers in regions with supply shortages were stabilized within only six months.

TENANT DISTRICTS

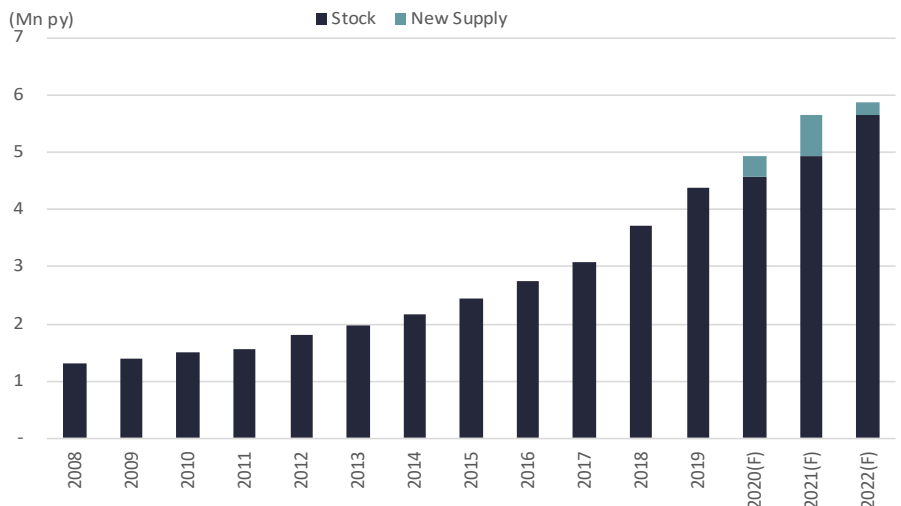
Tenants handling products requiring quick delivery preferred to be closer to Seoul despite higher rents, while tenants with bulky and storage-oriented products were concentrated in regions with lower rents. Most fresh food shippers of same-day or dawn delivery occupied fulfillment centers near Seoul, while the providers of small-sized expensive items were in centers

GRAPH 7: Online Retail Sales of Total Retail Sales by Product Group, 2019



Source Statistics Korea

GRAPH 8: Total Stock & New Supply in SMA of Centers >5,000 py, 2008 – 2022(F)*



Source Savills Korea

* New Supply includes centers approved for construction as of 2020/02

near Gimpo. Those in clothing/fashion and domestic cosmetics paid relatively lower rents and were mainly located in Yongin/Icheon/Anseong, closer to production districts. In particular, most retailers of clothing/fashion were located in large integrated centers to streamline logistics processes.

OUTLOOK

The after-effects of COVID-19 will include temporarily diminished export volumes. Additionally, with offline retailers seeing little change in sales, growth of the overall B2B logistics market is likely to be limited.

On the contrary, thanks to steadily growing online retail sales, the B2C logistics market is forecast to increase at rates similar to current levels. In particular, sales of F&B and clothing – categories for which online revenues were comparatively low as a proportion of total retail sales – will increase at a significant pace. In response, there will be more demand for efficient B2C fulfillment and integrated logistics centers.

Although there are only a few logistics centers approved for use, the future pipeline

consists of hyperscale centers exceeding 30,000 pyeong, further forcing up vacancy rates of outdated or physically-defective centers that have lost competitiveness. With ample future supply, rents are expected to rise at a low rate similar to present levels, and many small-scale centers in key locations are known to be in the process of expanding and redeveloping with nearby parcels.

TRANSACTIONS & INVESTMENT MARKET

The total transaction volume⁴ for 2019 stood at KRW2.7 trillion, double the previous-year by value. Eight large logistics centers of over KRW100 billion traded on elevated total transaction volumes. The figure for the first quarter of 2020 was estimated at KRW750 billion, eight times the figure for the same period last year.

The Public Officials Benefit Association and the Police Mutual Aid Association purchased the BLK Logistics Center in Pyeongtaek for KRW197.6 billion. The property, completed

in April 2019, is mixed with 60%-dry and 40%-cold storage and 75% of the total area is currently leased to Coupang, Wonjin Logistics, and KJ Networks.

K-REITs Investment Management was the buyer of Anseong Iljuk Logistics Center in Anseong for KRW224.2 billion. The property, completed in November 2017 and expanded in 2019, is a cold-storage complex master-leased to the seller Jisan Group for seven years.

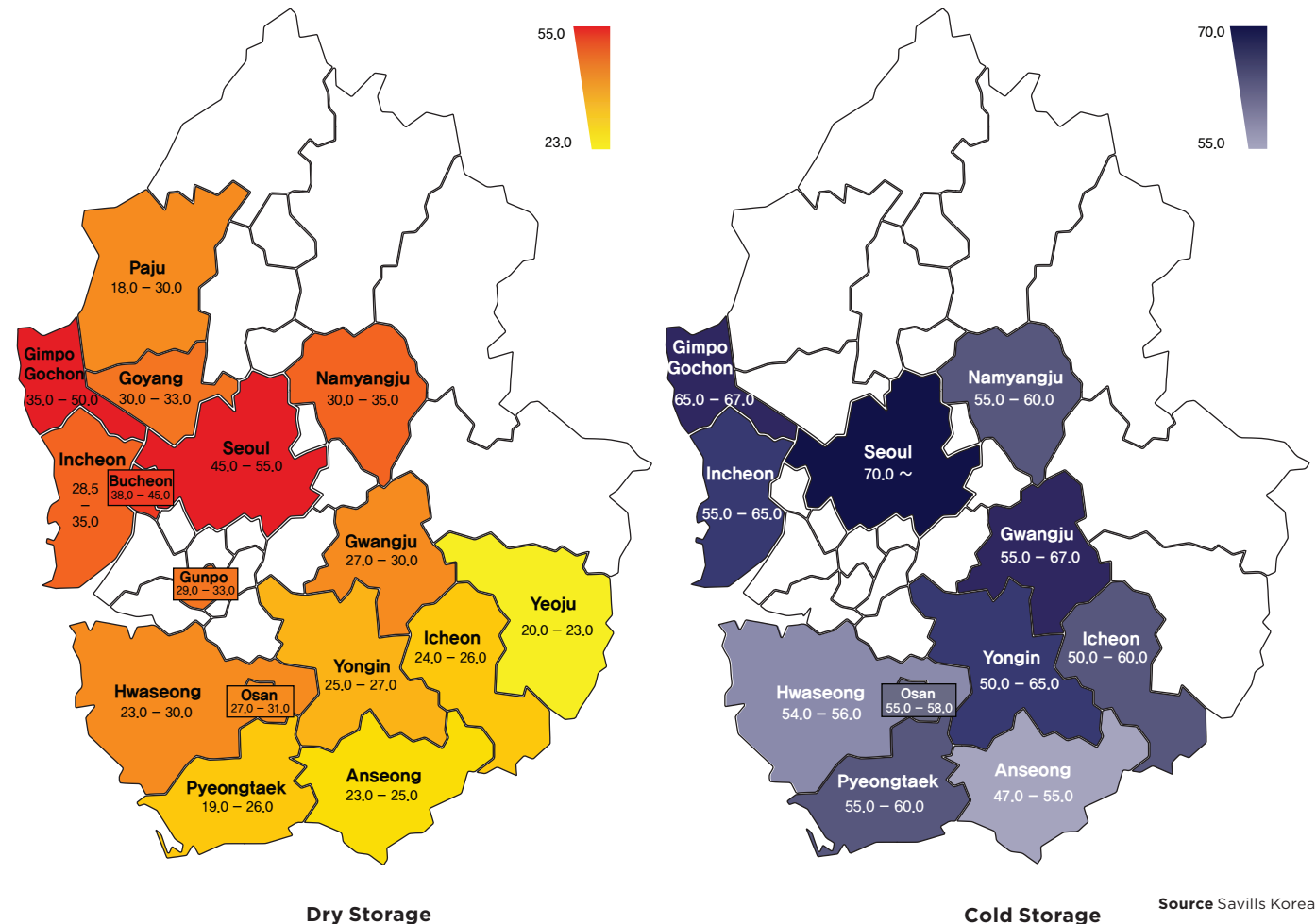
DWS AMC became the owner of Seongkwang Logistics Center located in the Gimpo Gochon Logistics Complex for price of KRW63.9 billion. The property, completed in November 2016, is a complex center currently in use by Coupang and SF Express. In addition, a US-based fund invested in the newly-constructed Musinsa Logistics Center in Yeosu for KRW53.0 billion through YNP AMC.

While the COVID-19 situation has delayed the closing of retail and hotel transactions, sales of logistics centers have progressed well thanks to the exploding demand for E-commerce. Numerous transactions are expected to settle in 2020, including the

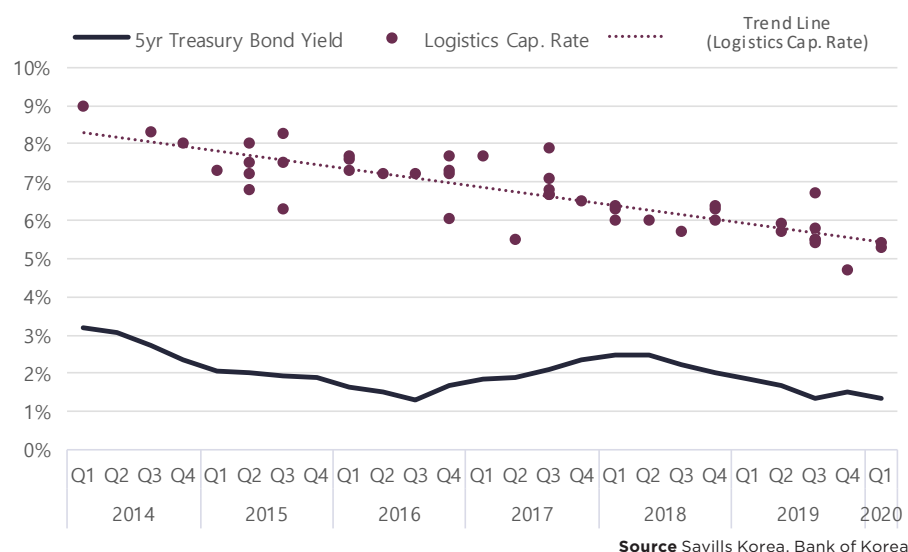
⁴ Transaction volume includes Hard Assets sales only, and excludes volumes of Development or Forward Sales.

MAP 1: Rent of Dry and Cold Storage by District, Q1/2020

(Units KRW 1,000/py)



GRAPH 9: Logistics Cap. Rate Trend, Q1/2014 – Q1/2020



establishment of REITs for KRW800 billion to KRW1 trillion by Kendall Square Logistics Properties, among others.

Transactions of dry-storage logistics centers in the SMA have previously exhibited cap. rates in the mid-to-high 5% range, until recently reaching low-to-mid 5%, with further cap. rate compression anticipated on intense competition from investors for high-quality assets. The uptrend in online retail sales, ample new supply of high-quality hyperscale centers, and lower interest rates, have fueled investment demand in the logistics sector, and cap. rates of high-quality assets with stable cash flows have continued to decline. The current downtrend is forecast to occur for the near future amid high expectations of further interest rate cuts.

TABLE 1: Top Transactions, Q4/2019 – Q1/2020

PROPERTY	LOCATION	TRANSACTIONED GFA (SQM)	PRICE (KRW 100 Mn)	SELLER	BUYER
Lotte Global Osan Logistics Center	Osan	200,549	3,182	Heungkuk AMC	Kendall Square AMC
Anseong Iljuk Logistics Center	Anseong	98,943	2,242	Icheon-Illuk Logistics (Subsidiary of Jisan)	K-REITs Investment
BLK Pyeongtaek Logistics Center	Pyeongtaek	123,058	1,977	Mastern Investment	Pebblestone AMC
Yongin Baekam Logistics Center	Yongin	98,985	1,555	LB AMC	Mastern Investment
Homeplus Anseong Fresh Foods Logistics Center	Anseong	32,824	1,375	KTB AMC	KB Real Estate Trust
Daesang Yongin Logistics Center	Yongin	49,583	1,176	Daesang Co.	Hana Alternative AMC
Seongkwang Logistics	Gimpo	29,999	639	KB Real Estate Trust	DWS AMC
Yeoju Musinsa Logistics Center	Yeoju	36,983	530	SmartL Co.	YNP AMC

Source: Savills Korea



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