

Cold: the new warm?

Cold storage to transform the industrial and logistics sector



The next frontier for industrial investors?

The growth of e-commerce has transformed the industrial and logistics space from a relatively niche, income-driven proposition to a core institutional space. Cold storage logistics has been a relatively under-appreciated segment of the industrial market due to the higher build costs, greater specialization of units and a thinner occupier pool. However, the *COVID-19 effect* has pushed investors to take another look at this space as growth in online grocery shopping has accelerated to new highs. Moreover, the relative *stickiness* of cold chain occupiers is an attractive proposition at a time when surety of income is paramount.

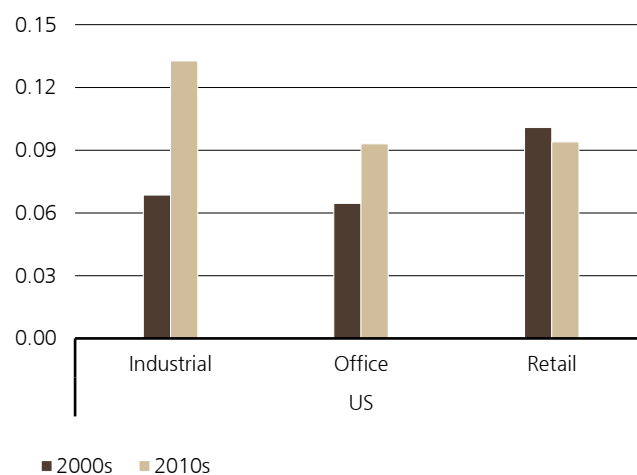
Is the cold storage market the next frontier for industrial investments?

Over the last 20 years, the dry industrial warehouse sector has evolved from a niche investment focus, initially ignored by large institutional investors, to one of the fastest growing and strongest performing real estate sectors. The growth in e-commerce (e.g. Amazon), and the more recent investor interest in last-mile logistics has further accelerated institutional investment in dry warehouses. The result has been a significant compression in yields over the past decade, which has boosted average annual total returns from around 7% in the 2000s, to 13% in the 2010s (see Figure 1).

This transformation established the industrial sector as one of the most institutionally preferred sectors. The INREV Investor Intentions Survey for 2021¹ indicated that on a global basis, 84% of fund managers are interested in more opportunities within the industrial and logistics sector. This suggests there may be further price increases to come in 2021 despite yields in most markets already being at record lows.

¹ INREV Investors Intentions Survey, January 2021

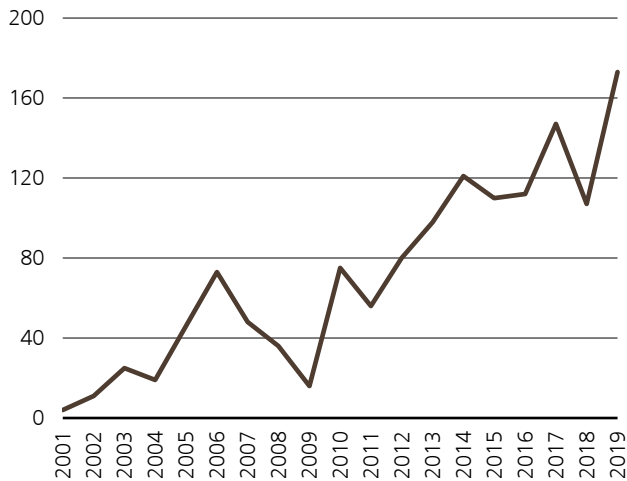
Figure 1: Total returns (% p.a., average)



Source: MSCI; NCREIF, 2020; RCA, 2020. Past performance is not a guarantee for future results.

While the 'Amazon effect' has created an avalanche of capital into dry warehouses, institutional capital is just starting to evaluate higher-return opportunities in the more complicated, capital-intensive and under-invested cold-storage sector. There has been, in recent years, an increasing amount of deals involving cold storage as various investors have realized the potential of the sector. Private equity investors have taken the lead on this strategy, but more recently institutional investors have started taking an interest in this space as well. The sector remains niche compared to the dry goods sector, but the direction of travel is clear from the increasing deal count (see Figure 2).

Figure 2: Cold Storage deal count (# of deals)



Source: RCA, 2020

The demand for new cold-storage space is evolving due to:

- The key macro-drivers of population growth and trade;
- Fundamental changes occurring in the global food sector and shifts in consumer behavior and habits;

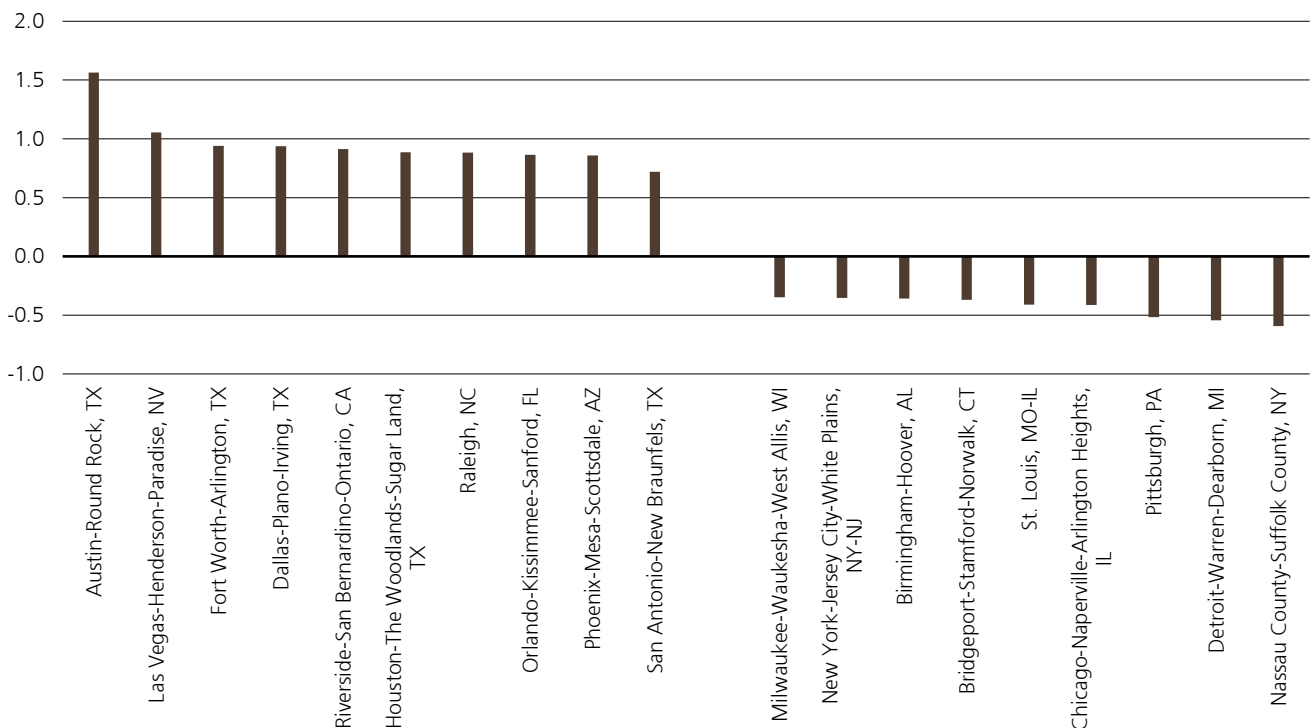
- Evolving direct-to-consumer food delivery methods (i.e. the food e-commerce sector);
- increasing demands to reduce waste, enhance food sustainability and improve energy efficiency;
- An undersupplied market that may require another 100,000,000 square-feet of new cold storage supply (necessitating approximately USD 20 billion of capital); and
- population growth and trade, which continue to drive demand for cold chain logistics in the US.

Key Drivers

The US is expected to continue to see population growth over the next 10 years (see Figure 3), particularly in the southern states including Texas, where 5 of the top 10 fastest growing locations are to be found. On top of this, while exports of food and beverages have been weak over the past five years, imports continue on an upward trajectory with the US becoming more dependent on food imports from developing countries. Each year the US imports USD 16.5 billion of fruit and vegetables from Latin America and USD 19.5 billion of seafood from Asia¹. This will require more cold storage facilities in key port and infill locations.

¹ World Trade Organization, 2020

Figure 3: Population growth 2019-29 (top/bottom 10, % p.a, average)

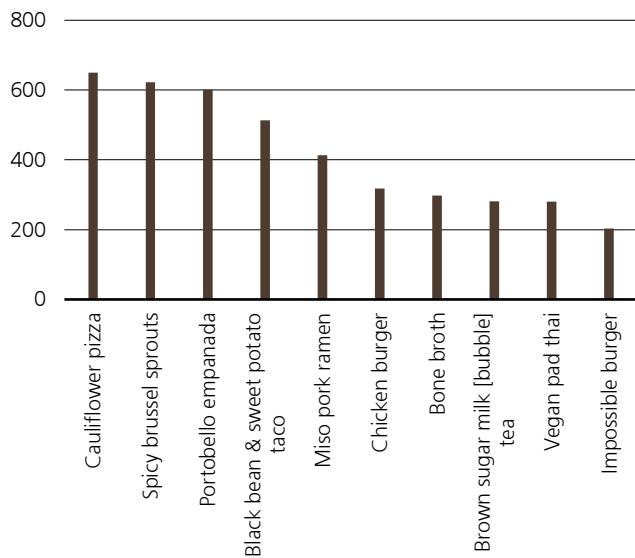


Source: Oxford Economics, 2020

Changing consumer behavior

The demand drivers for cold storage are also increasing due to the growth of organic, plant-based and perishable foods, which generally have short shelf lives (see Figure 4). Modern consumers are far more demanding in terms of the diversity of their dietary preferences. Demand for organic food has risen four-fold since 2005, while alternatives to meat are more in demand, such as cauliflower-based pizza which has seen more than a 600% increase in order volumes in 2019.

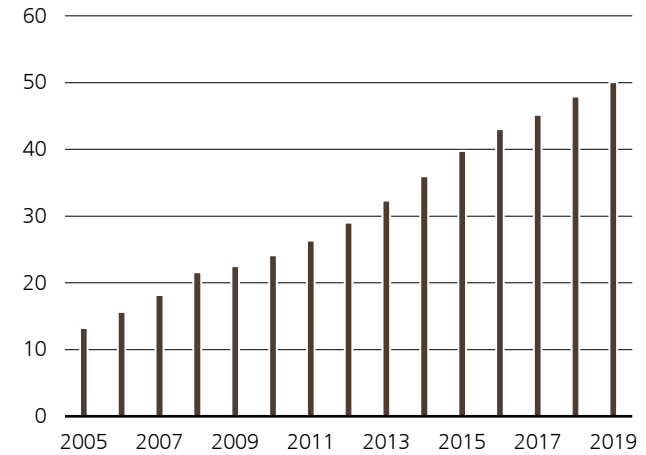
Figure 4: Growth in order volume 2019 (%)



Source: Morning Consult, May 2020

With the growth of vegetarianism, veganism and more generally a greater awareness of health and wellness themes, consumers are demanding more fresh food and a greater range of ingredients whether it be eating out and in the context of home-cooking. This expected changing consumer behavior will consequently require more cold storage space as greater variety of ingredients requires more storage environments.

Figure 5: Organic food sales in the US from 2005-2019 (USD billion)

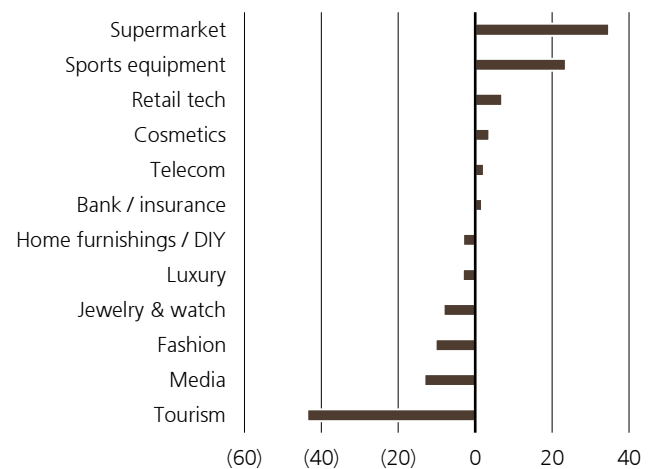


Source: Statista, July 2020

E-commerce

The fast-moving transformation of food e-commerce is significantly impacting demand for cold storage. Online grocery delivery was beginning to be adopted prior to the outbreak of COVID-19. As a result of restrictions and general fear of infection, online grocery deliveries have accelerated (see Figure 6). Prior to the pandemic, online grocery sales increased 22% in 2019 and are expected to increase another 40% in 2020¹. While some of this growth is reactionary, much of it will be a permanent change of behavior.

Figure 6: Growth in online sales – January 2020 to October 2020 (%)



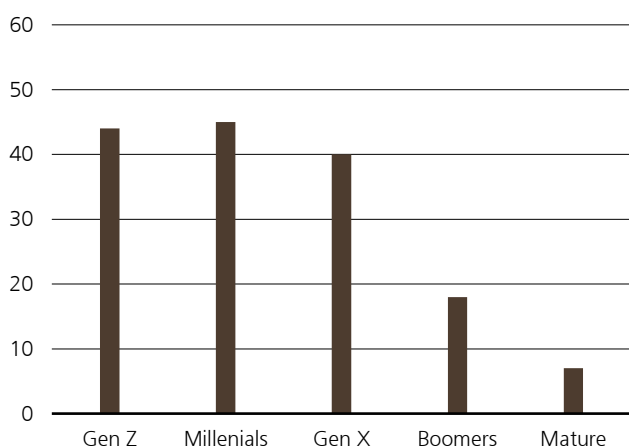
Source: ContentSquare, October 2020

¹ NAIOP / Coresight Research, 2020

A further driver of this expansion, is the growing buying power of millennial consumers. As Figure 7 shows, the first digitally-native generation is the most comfortable with buying groceries online, along with Gen Z. The oldest millennials are now approaching their 40th birthday, and as consumers typically reach peak spending at the age of 46, it is reasonable to expect a demographic driven surge in online food spending.

In addition to traditional grocery retail, areas such as meal-kit grocery services have seen exponential growth during the pandemic, as restaurant-restricted consumers looked to spend more on creating better meals at home. Hello Fresh, Gousto and Mindful Chef have all expanded their warehouse footprint in 2020, with the expectation that consumers will continue these habits after lockdown.

Figure 7: US share of consumers buying groceries online (%)



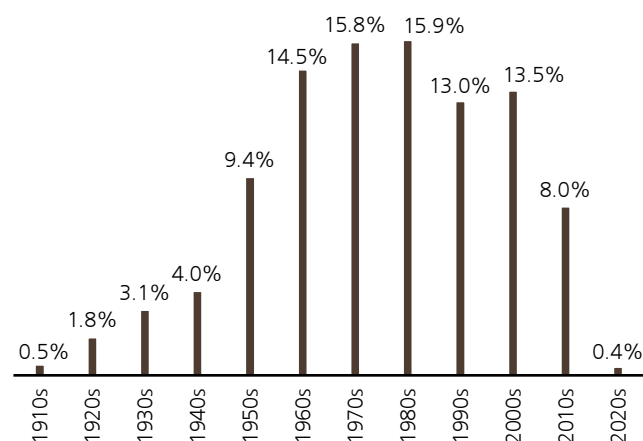
Source: The Hartman Group, 2020

Finally, the evolution of e-commerce supply chains has necessitated the addition of last-mile delivery warehouses in cities, for greater proximity to the end consumer. This is something that has been very apparent within the dry goods sector, and with increased volumes it is likely that food e-commerce will follow a similar development path.

Age of stock

Food e-commerce is growing, however, the rate at which it increases will be highly dependent on refreshing the stock of buildings. The average age of a cold storage building in the US is 42 years (see Figure 8), making much of it obsolete or at least highly inefficient for modern logistics operators. This is a particularly salient point for those active in the food e-commerce space, as this type of operator tends to have higher requirements in terms of specifications. For example, higher ceilings, greater throughput and mezzanine floors, servicing higher inventory turnover tenants, facilitating new evolving technologies including robotics.

Figure 8: Age of stock (% of total)

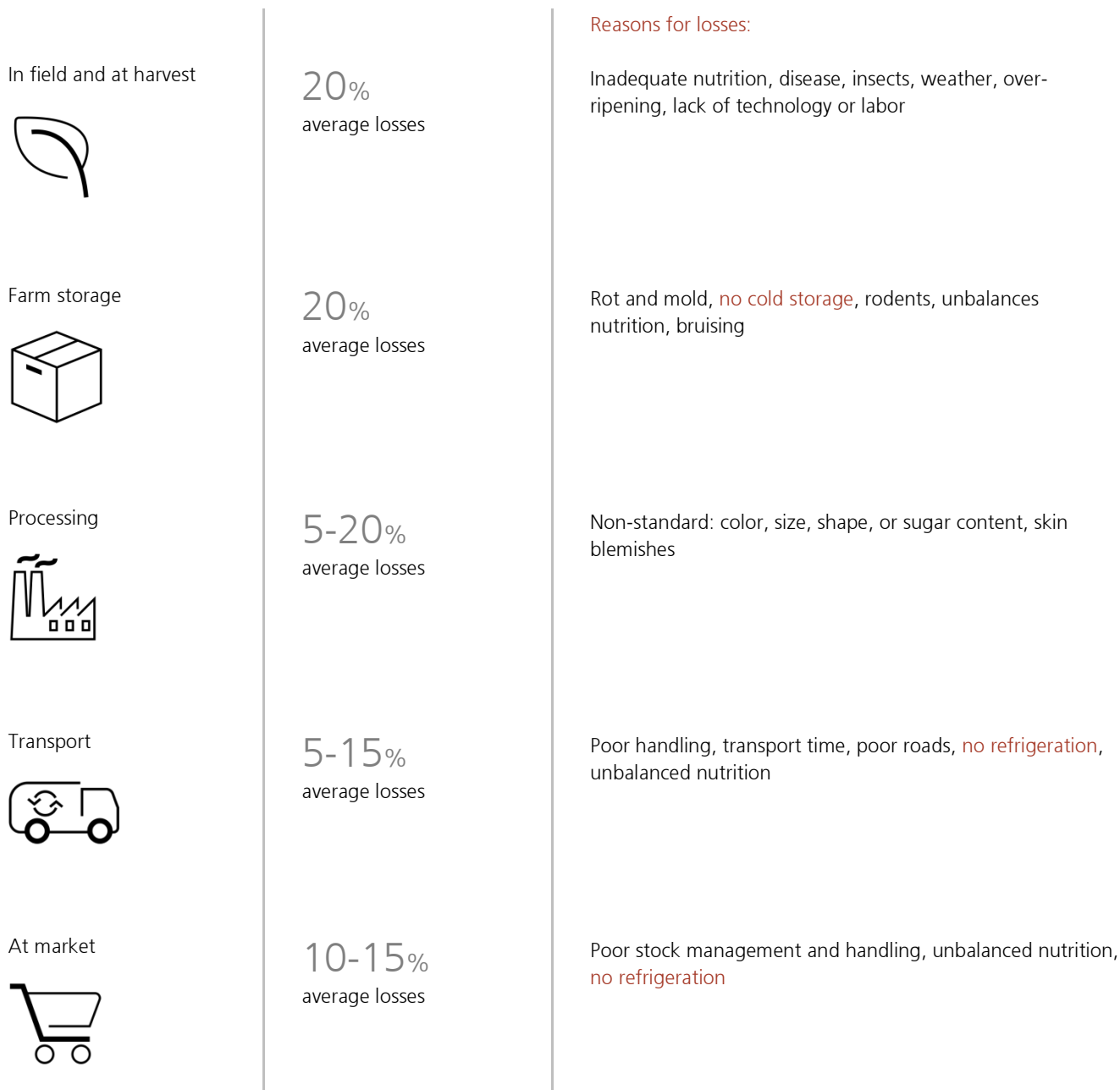


Source: Supply Chain Dive, data from JLL Research, 2020

ESG

Building new modern energy-efficient cold storage warehouses has environmental, social and governance (ESG) benefits. The current old stock of storage facilities are typically neither energy efficient nor environmentally friendly. Furthermore, in the US, 30-40% of the overall food supply is wasted, and roughly 20% of losses at the farm level are due to a lack of storage (see Figure 9).

Figure 9: Food loss from field to market



Source: Yara International, *How to reduce food loss and food waste*, December 2018

It is estimated that new cold storage developments would not only help reduce food spoilage (consequently reducing water waste and negative CO2 impact), but also have environmental benefits from new refrigeration systems that can be 15-30% more energy-efficient and also have reduced or no ozone impact. These benefits also address up to 7 of the UN 17 Sustainable Development Goals (see Figure 10).

Figure 10: Cold storage alignment with the UN Sustainable Development goals

SUSTAINABLE DEVELOPMENT GOALS



Goals show targets and topics related to the UN Sustainable Development Goals as defined in *Transforming Our World – the 2030 Agenda for Sustainable Development*

The outlook

Cold storage has evolved from a niche mainly overlooked sector, to mainstream. The demand growth expected in this historically under-supplied sector is creating what we think is one of the most attractive investment themes looking forward.

Understanding the fundamentals of real estate investing and the unique economic factors affecting the food vertical *from farm to table*, are critical when evaluating where and how to participate in this broad investment theme.

From an investment perspective, cold storage should be seen as a natural addition to any portfolio containing industrial real estate, with arguably better tailwinds and offering less cyclicity than dry goods.

While high build costs have been a barrier to entry in the past, we feel the growth in online food shopping, continued impact of population growth in urban areas and a general shortage of high-quality supply forms a compelling case for institutional investment in this sector.

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