

New Consumption Patterns Will Elevate Tenant Demand for Cold Storage

More shoppers buy groceries online, impacting food supply chains. Grocery stores' share of total online spending grew 470 basis points from 2019 to 2023 — faster than the apparel, consumer electronics and furniture segments — to an all-time high at over 16 percent. Even after pandemic-induced lockdowns, many households are continuing to take advantage of online delivery and pickup options for food, leading grocers, restaurant food service providers and mass market retailers to expand their operational footprints to support changing consumer preferences. As food-related e-commerce operations have grown, so have tenants' needs for temperature-controlled storage facilities. No less than a net of 3.2 million square feet of cold storage spaces was absorbed over each of the last four years — exceeding the 2007 to 2019 annual average by more than 11 percent.

Online sales still capture only a small portion of food consumption. The grocery segment has the most room to grow among major e-commerce sectors, underpinning the long-term trajectory for cold storage demand. Only 14 percent of grocery sales took place online in 2023, compared to portions exceeding 33 percent for apparel, furniture and consumer electronics. Those types of category retailers, like Home Depot and Best Buy, supported white-hot demand for distribution and warehouse space in recent years as they expanded their e-commerce capabilities. Should recent demand trends for online grocery shopping continue, the segment would become the largest e-commerce category by 2026, similarly ramping up tenant needs for cold storage spaces.

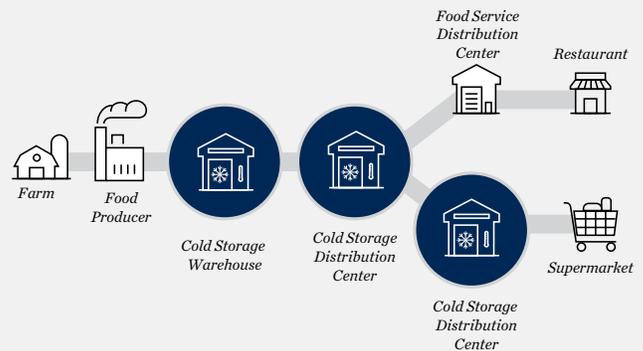
What are Cold Storage Properties?

Physical Attributes: Cold storage properties offer temperature-controlled spaces for commercial tenants to store perishable items. Climate control can span entire facilities, to rooms or specialized racks.

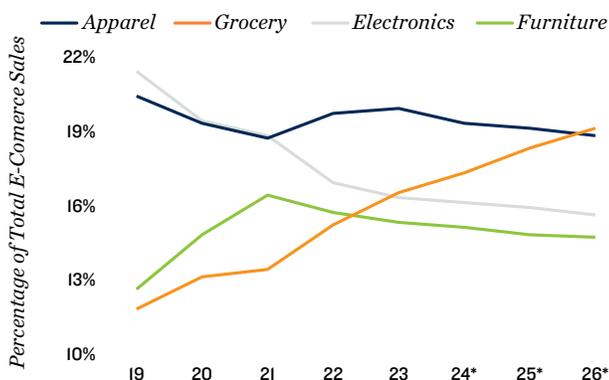
Value Proposition: Cold storage spaces serve as intermediaries in the flow of climate-sensitive goods, like food, pharmaceuticals and some raw materials, through the supply chain and eventually to consumers.

Types of Cold Storage: These spaces encompass a variety of configurations including, but not limited to, industrial-grade freezer facilities, cold rooms, blast chillers and refrigerated storage containers.

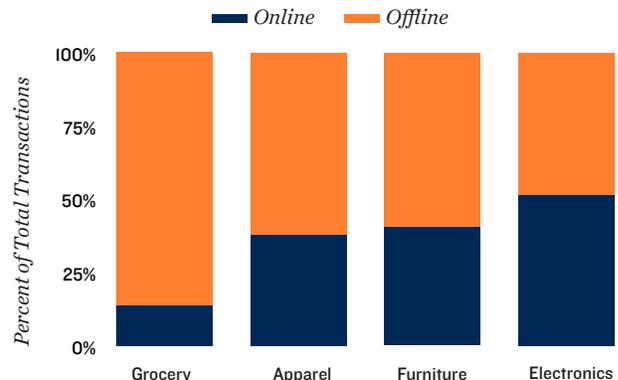
Cold Storage Supply-Chain Overview



Grocery Poised to Lead E-Commerce Sales

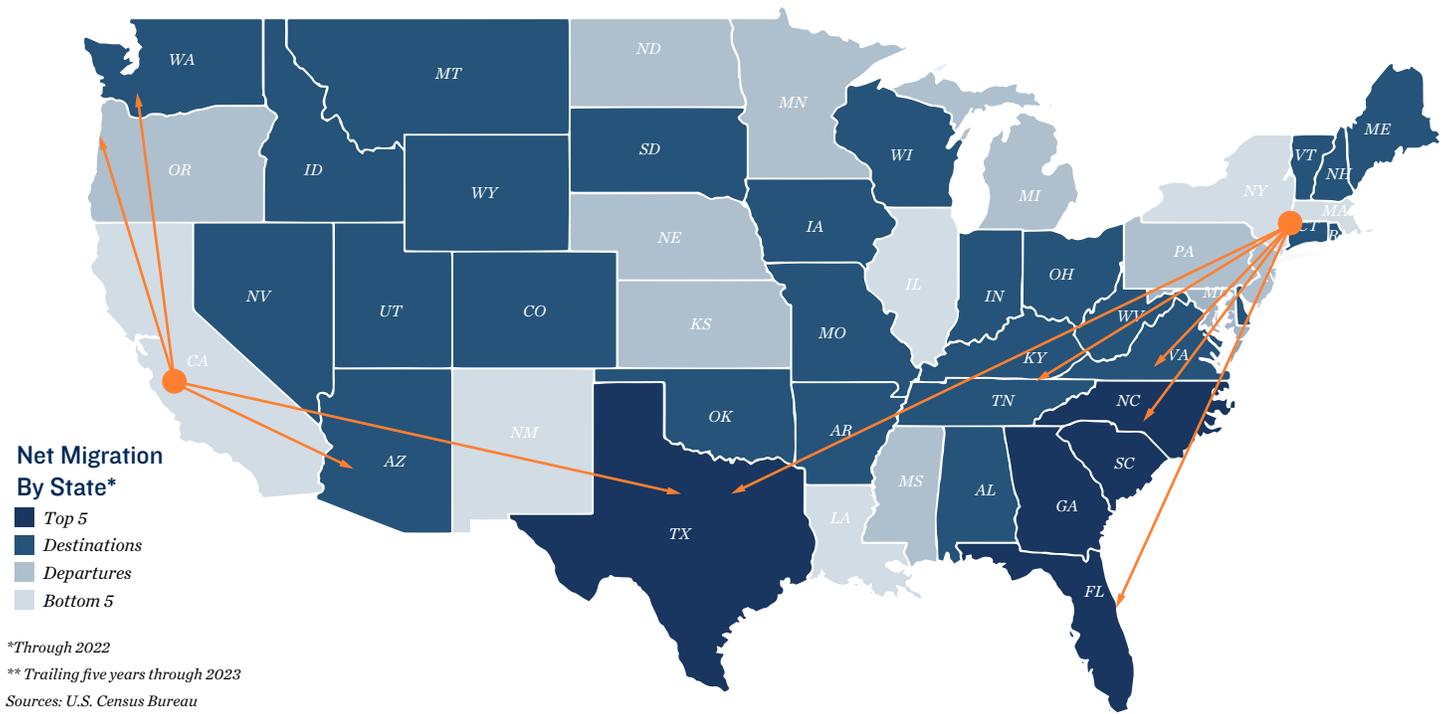


Online Grocery Sales Have Room to Climb



* Forecast
Sources: Insider Intelligence; Moody's Analytics

Net Migration From State to State Favors Sun Belt



Migration Directing Food Consumption and Cold Storage Demand

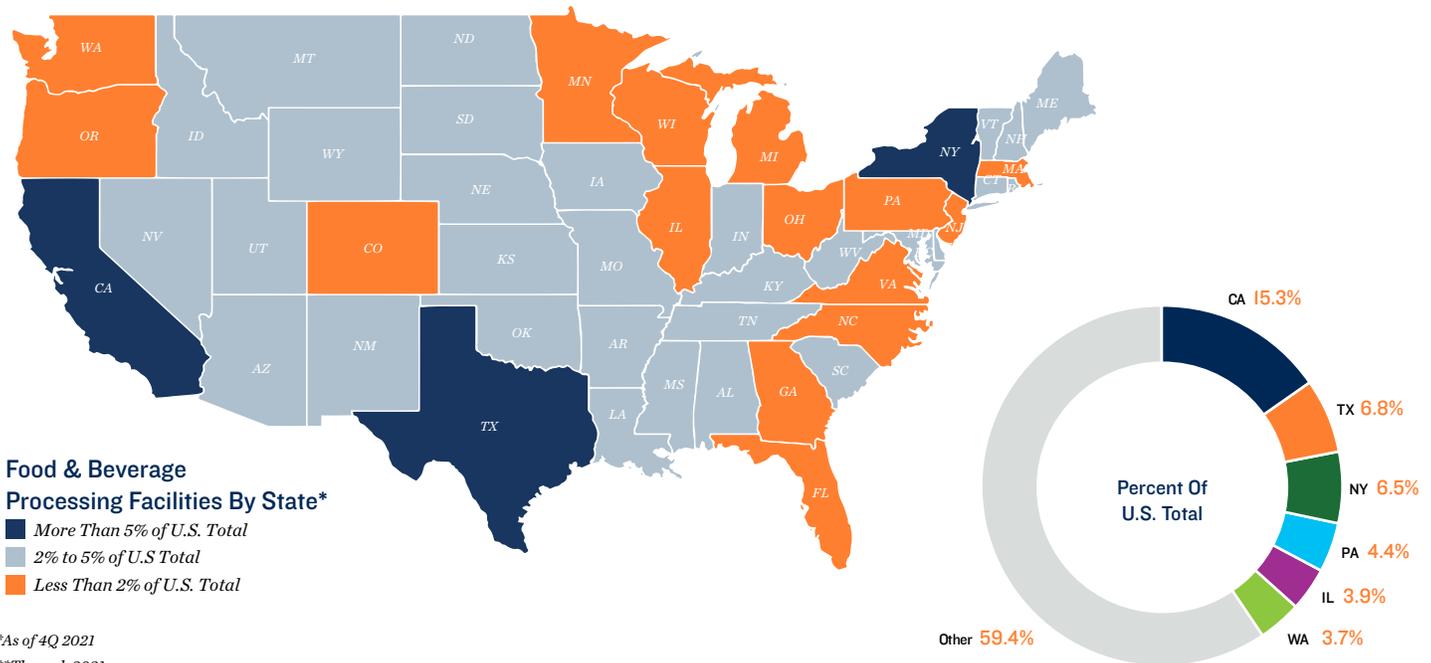
Population shifts elevate economic growth in several states. An out-sized number of households migrated to the Sun Belt and Mountain regions in recent years, shifting U.S. food consumption patterns. While population hubs of prior generations — like Chicago, Los Angeles and New York — all had more than 300,000 people relocate out over the last five years, six Sun Belt markets each welcomed more than 200,000 new transplants. Reflecting increased consumption arising from these relocations, real GDP in Arizona, Texas and Florida grew over 12.0 percent, at least 470 basis points faster than the national pace during the span. Idaho and Utah were Mountain-region states that experienced similar trends, led by in-migration to Boise and Salt Lake City, respectively.

Consumption trends shape cold storage demand. As retailers expanded e-commerce capabilities in recent years, high-migration states like Texas and Florida saw robust tenant demand for back-end logistics space. With online grocery sales projected to increase over the long-term, tenant demand for cold storage facilities should run parallel to this dynamic. These properties enable food producers, restaurant service providers and grocers to manage inventory more resiliently, typically by giving them off-site locations to store perishable goods. They also give tenants opportunities to access direct-to-consumer channels without taking up additional production and retail space, leading cold storage demand to follow where populations and food consumption are fast-growing. Sites located near residential hubs will be especially coveted, reducing lead times for companies storing and transporting food.

Top Migration Metros	Net Migration**
Dallas-Fort Worth	417,500
Houston	282,600
Austin	239,100
Phoenix	237,400
Tampa	235,100
Atlanta	213,000
Orlando	183,700
Charlotte	153,800
Raleigh-Durham-Chapel Hill	140,000
San Antonio	137,600

Top Retail Sales Growth Metros	Retail Sales Increase**
Austin	55.5%
Phoenix	52.6%
Seattle-Tacoma	51.8%
Salt Lake City	51.7%
Raleigh-Durham-Chapel Hill	48.0%
Dallas-Fort Worth	45.3%
Tampa	44.2%
Columbus	43.8%
Charlotte	43.6%
Atlanta	43.1%

Fewer Food & Beverage Processing Facilities Exist in Recent Migration Hubs



*As of 4Q 2021

**Through 2021

Sources: Bureau of Economic Analysis; United States Department of Agriculture

Cold Storage Development Trails Changing Consumption Landscape

Cold storage construction lags behind migration. New cold storage projects have been somewhat infrequent, intimating at a growing mismatch between the geographic concentration of existing stock and recent migration trends. Fewer than 18 million square feet of cold storage space has been delivered since 2019, due in part to greater cost and complexity compared to traditional industrial properties. This relative lack of development occurred despite the emergence of online grocery sales, suggesting that many existing spaces may be physically and locationally mismatched to tenants' e-commerce needs. This dynamic is poignant in states like Florida and North Carolina, where population growth has recently surged to record levels. Rather, much of the nation's existing stock is located in California, Texas and New York, where cold storage facilities have historically supported the import and export of food.

Agricultural production becoming more globalized. Several agreements passed since 2018 have contributed to increasing the nation's food shipment activity. Exports as a share of U.S. food production, and imports as a share of food consumption, each grew to record highs in 2022, at 20.6 and 17.5 percent, respectively. Northeastern ports like Philadelphia and New York continued to host much of this activity, due to the dense, expansive populations residing nearby. However, shipments at Southern ports, such as Port Everglades, Savannah and Houston, have expanded more rapidly due to recent, Mexico-favoring trade agreements and Sun Belt migration trends. Such changes underpin long-term demand for cold storage along the nation's southern coast.

Top Ports	**Cold Food & Agriculture Activity (Tons)
Philadelphia	3,039,000
New York	2,530,000
Wilmington, DE	1,728,000
Los Angeles	1,521,000
Savannah	1,448,000
Oakland	1,278,000
Port Hueneme, CA	1,151,000
Port Everglades, FL	998,000
Long Beach	906,000
Houston	886,000

U.S. Agreements Aim to Increase Food Globalization

United States-Mexico-Canada Agreement:

- Canada and Mexico are the top export markets for U.S. agriculture, totaling \$40.1 billion in 2019.
- USMCA ensures preferential market access for exporters between the U.S., Canada and Mexico.

United States-China Agreement:

- China committed to an additional \$32 billion of purchases of U.S. goods between 2020 and 2021.
- Agricultural exports to China in 2022 were \$3.4 billion and surpassed the prior record with the country.

International and Demographic Forces Keep Cold Storage Investors Interested

Supply hurdles and demand prospects position new projects well. The cold storage sector ended 2023 with nationwide vacancy at 4.3 percent, roughly 100 basis points lower than the broader industrial sector. While a 15-year high completion total in 2022 lifted the metric from the prior year's record low, cold storage rents have continued to grow rapidly. The average asking rent for cold storage facilities advanced more than 15 percent in 2023, nearly matching the prior year's gain despite higher vacancy. New, more sophisticated facilities that are closer to population centers especially remain in high demand, enabling many speculative projects that come online to command increasingly elevated rents. Tenant competition for newer spaces will remain especially tight in the Mountain and West regions for the foreseeable future, as these areas each comprise less than 6 percent of national cold storage development. While high construction in the South and Texas-Oklahoma regions may sustain vacancy recalibration, elevated household growth and agricultural shipping activity will keep new cold storage properties here in high demand. Financial constraints are expected to further limit development moving forward. The batch of speculative spaces currently underway remain well-positioned as a result.

Cold storage cap rates remain low. Owing to sustained, robust rent growth within the sector, cold storage cap rates experienced minimal de-compression since the Federal Reserve began hiking interest rates in mid-2022. The average yield on a cold storage acquisition remained 50 basis points lower in 2023 than in 2018, despite debt costs rising substantially since that time. This discrepancy is even larger than the broader industrial sector's, and alludes to the promising demand prospects and long-term resilience of the subset. As such, cold storage investments will remain a strategic vehicle for investors to safeguard capital against inflation. Asking rents, and subsequently owner revenues, are likely to remain on a strong upward trajectory into the long-term as the U.S. population grows and food shipments expand. While these inflation-hedging characteristics mostly drew private buyers from 2014 to 2022, cross-border investors are ramping up activity in the space. Increased globalization, as well as a temporary pullback in U.S. investor competition amid financial market uncertainty, have given room for international investors to find more opportunities. Still, forthcoming interest rate cuts could reignite competition within the sector, potentially reviving sale price momentum over the next few years.

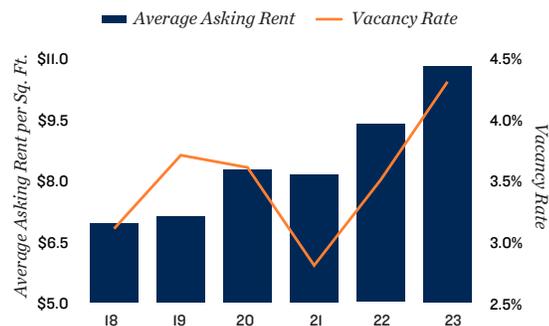
The information contained in this report was obtained from sources deemed to be reliable. Every effort was made to obtain accurate and complete information; however, no representation, warranty or guaranty, express or implied, may be made as to the accuracy or reliability of the information contained herein. This is not intended to be a forecast of future events and this is not a guaranty regarding a future event. This is not intended to provide specific investment advice and should not be considered as investment advice.

Sources: Marcus & Millichap Research Services; Bureau of Labor Statistics; CoStar Group, Inc.; Federal Reserve; Moody's Analytics; U.S. Census Bureau; Bureau of Transportation Statistics; Bureau of Economic Analysis; World Bank; United States Trade Representative; United States Department of Agriculture; AEW; Insider Intelligence

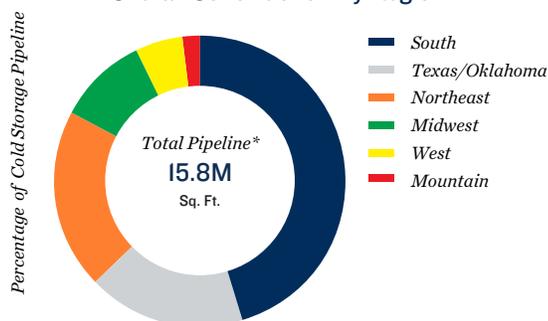
Price: \$1,500

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Rents Elevate Through Higher Vacancy



Overall Construction By Region



Cap Rates Remain Lower Than in 2018



*As of 1Q 2024

Sources: CoStar Group, Inc.; Real Capital Analytics

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