

15 March 2021

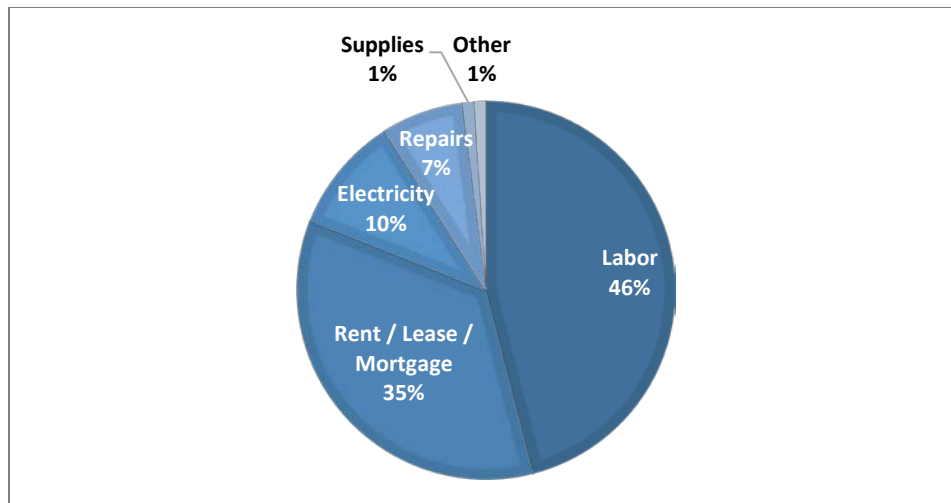
Cold Chain Index: 2020 Quarter 4

In order to improve the economic information available to industry participants, the Global Cold Chain Alliance has commissioned a Cold Chain Index (CCI), reported since the end of 2018. The CCI tracks the growth rates of costs associated with cold storage using predominantly official sources of economic data. The CCI can be customized to the region, state and metro where a warehouse facility operates.

The CCI includes five classes of expenses: labor, electric power, supplies, repairs, and rent; the cost shares typical of a North American refrigerated warehouse are shown in Figure 1. Labor was the largest share of expenses, at 46% of the total. Property rent or lease expenses represented nearly 35% of total expenses. Electric power accounted for 10% of total expenses. The “other” category included the leases on material handling equipment, expenses on utilities other than electric power, and un-specified other expenses. The cost shares used in all 2020 releases of the CCI are based on the 2019 IARW Productivity and Benchmarking Survey results (FY2018).

In the current release, the CCI reports the growth rate in expenses in the fourth quarter of 2020 compared with the fourth quarter of 2019. Members of the Global Cold Chain Alliance and their customers may access a template to better understand the index and customize cost shares to the experience of their business, and to account for variation across geographic regions.¹

Figure 1. Cost Shares of North American Refrigerated Warehouses, based on FY2018 IARW Productivity & Benchmarking Survey



¹ The regions in the CCI are from the Bureau of Labor Statistics geographic information: **Mid-Atlantic** = New Jersey, New York, Pennsylvania. **New England** = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **South** = Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia. **Midwest** = Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin. **Pacific** = Alaska, California, Hawaii, Oregon, Washington. **Mountain** = Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming.

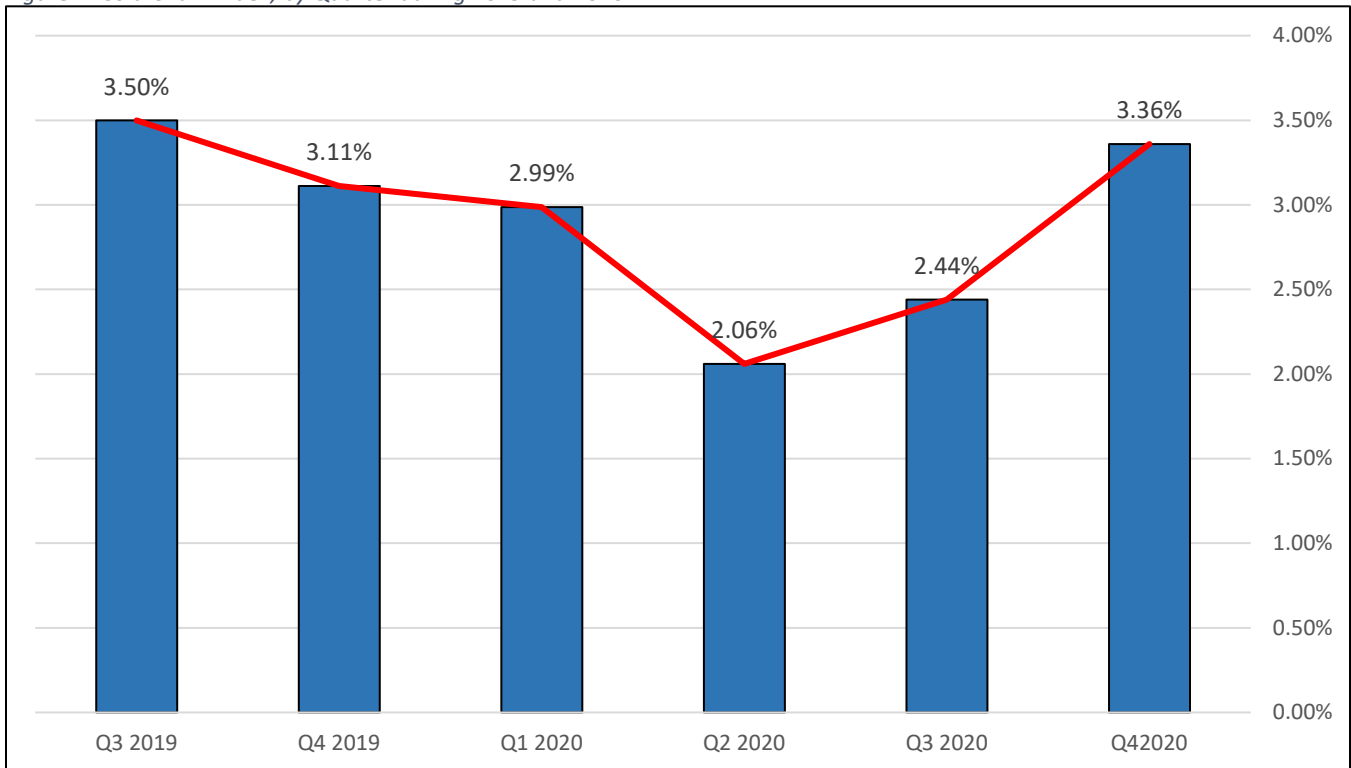
Results

Expenses for refrigerated warehouses rose by 3.36% in the fourth quarter of 2020 relative to the same period in 2019. This was a substantial acceleration in costs relative to the change in earlier quarters of 2020 (Figure 2).

Among the types of expenses, occupancy costs grew at the fastest pace, at 5.7% year-over-year in Q4 (Figure 3). Labor costs ranked second, growing by 3.3% relative to Q4 of last year. Across regions of the USA, the growth rate of labor costs ranged between 2.1% to 3.0%. New England experienced the slowest labor cost growth in Q4 while the most rapid increase in labor cost was in the Pacific region. Electric power costs declined by 1.9% based on the national average, with substantial differences across the states. Electricity cost increases were greater than 5.0% (relative to the same quarter in 2019) in Washington (14.9%), New Mexico (7.4%), and Colorado (6.8%).

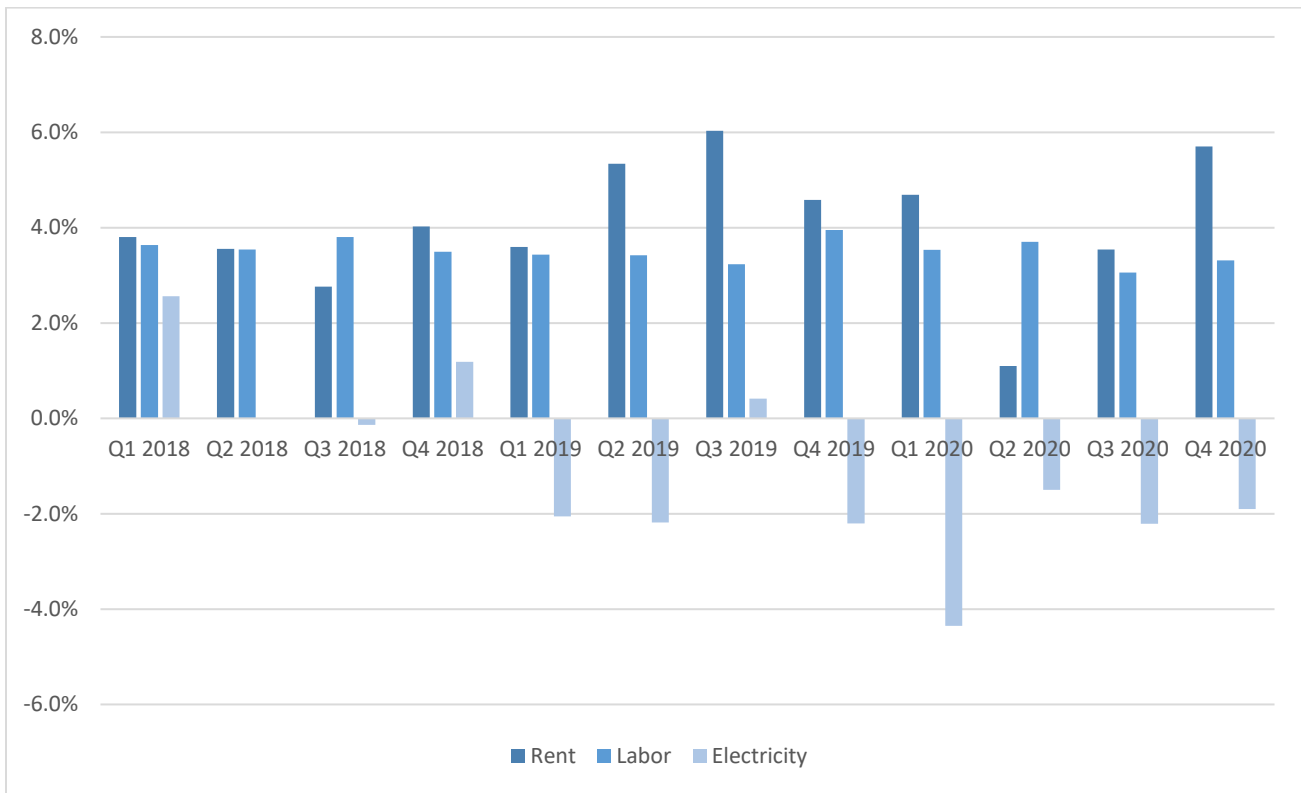
Occupancy cost growth is estimated from data on Quarterly Net Asking Warehouse Rents (dry and cold storage) collected by Cushman & Wakefield across 80 different metro markets in the United States. More details can be found in the template and we are grateful for Cushman & Wakefield's willingness to share this data with GCCA and its members. Replacement cost is an additional factor that may be relevant to the cost of the facility, but not included in the CCI. In Q4 2020, the Bureau of Labor Statistics price index for new warehouse construction declined by 0.4% relative to Q4 2019.

Figure 2. Cold Chain Index, by Quarter during 2019 and 2020



Note: The percentages in Figure 2 are growth rates in the quarter, relative to the same quarter in the previous year.

Figure 3. Main Drivers of the Cold Chain Index, by Quarter during 2019 and 2020



Note: The percentages in Figure 3 are growth rates in the quarter, relative to the same quarter in the previous year.

Data References and Methods

The following data sources were used to track changes in costs:

- National Labor: The U.S. Bureau of Labor Statistics (BLS) Employment Cost Index (ECI) was used; specifically, the ECI for the private industry workers in the “Transportation and Warehousing” industry (Series ID CIU2014300000000I). The labor metric includes all worker classifications and includes both wages and benefits. Accessed at <https://fred.stlouisfed.org/> using Series ID.
- Regional Labor: The U.S. Bureau of Labor Statistics (BLS) Employment Cost Index (ECI) was used; specifically, the ECI for the private industry workers in all industries and occupations (Series IDs CIU2010000000230I, CIU2010000000249I, CIU2010000000220I, CIU2010000000212I, CIU2010000000248I, CIU2010000000211I). The labor metric includes all worker classifications and includes both wages and benefits. Index is used to determine premium for each region relative to national baseline. Accessed at <https://fred.stlouisfed.org/> using Series ID.
- National and State Energy: The U.S. Energy Information Administration Electric Power Prices, by state, were used. The series is the Average Price of Electricity to Ultimate Customers. (Industrial) found in table a Table 5.6.a. The data used in the index is the average of monthly reported rates by state by taking three months of revenue and sales to generate quarterly data. Accessed at <https://www.eia.gov/electricity/monthly/>.
- National and Metro Rent/Lease/Mortgage: Cushman & Wakefield Quarterly Warehouse Net Asking Rents, were used. Overall U.S. rent is based on the average asking rents weighted by vacancy by market. In addition, a surcharge for rental rate growth in 80 selected metro markets was based on the same quarterly data provided by Cushman & Wakefield.
- National Supplies and “Other”: To represent the growth in supplies and also “other” warehouse expenses, the U.S. Bureau of Labor Statistics (BLS) Producer Price Index (PPI) was used; specifically Final Demand: finished goods less foods and energy (Series ID WPUFD4131). Accessed at <https://fred.stlouisfed.org/> using Series ID.
- National Maintenance: To represent the growth in repair and maintenance cost, the U.S. Bureau of Labor Statistics (BLS) Producer Price Index (PPI) by Industry was used; specifically Nonresidential building maintenance and repair (Series ID PCU2381MR2381MR). Accessed at <https://fred.stlouisfed.org/> using Series ID.