

# Mueller

## Real Estate Market Cycle Monitor

### Second Quarter 2020 Analysis

August 2020

#### The Physical Market Cycle Analysis of 4 Property Types in 54 Metropolitan Statistical Areas (MSAs).

The fastest economic crash in history with a 33% GDP drop in the second quarter is being followed by the most unique recovery ever seen. COVID-19 has created a group of haves and have nots for both the economy and real estate property types. Jobs are the key. May June & July saw a monthly average US job growth of 3.1 million including 213,000 in construction, 230,000 in industrial, 237,000 in office, and 1.6 million in retail. Hospitality has fared the worst, as most business travel has not resumed, and leisure demand is focused on auto access destinations. Real Estates reactions and effects are discussed below.

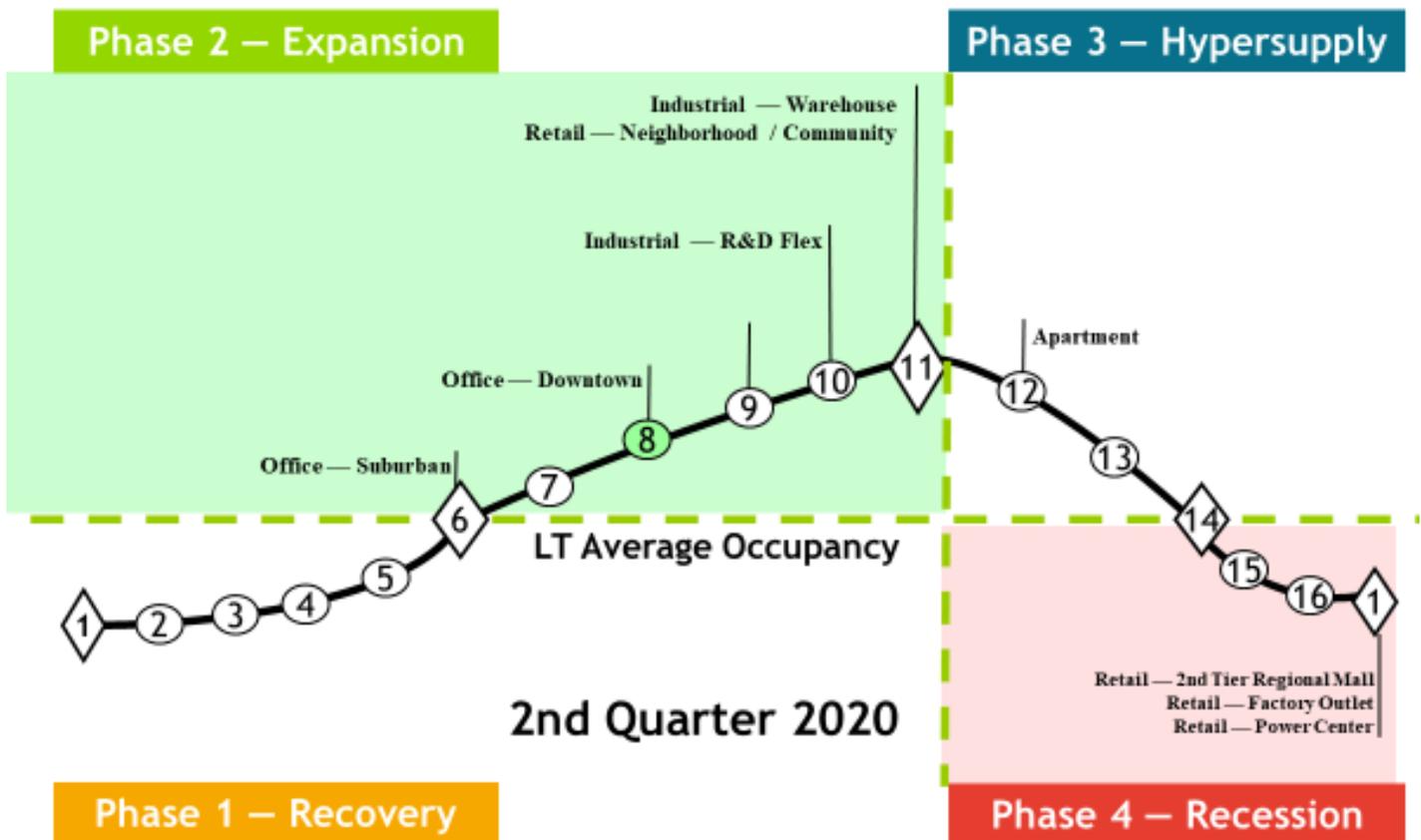
Office occupancy **declined 0.1%** in 2Q20, and rents **grew 0.3%** for the quarter and 1.4% annually.

Industrial occupancy **declined 0.2%** in 2Q20, and rents **grew 1.0%** for the quarter and 4.0% annually.

Apartment occupancy **declined 0.2%** in 2Q20, and rents **declined 0.3%** for the quarter, but were up 0.2% annually.

Retail occupancy **declined 0.1%** in 2Q20, and rents **grew 0.4%** for the quarter and 1.7% annually.

## National Property Type Cycle Locations



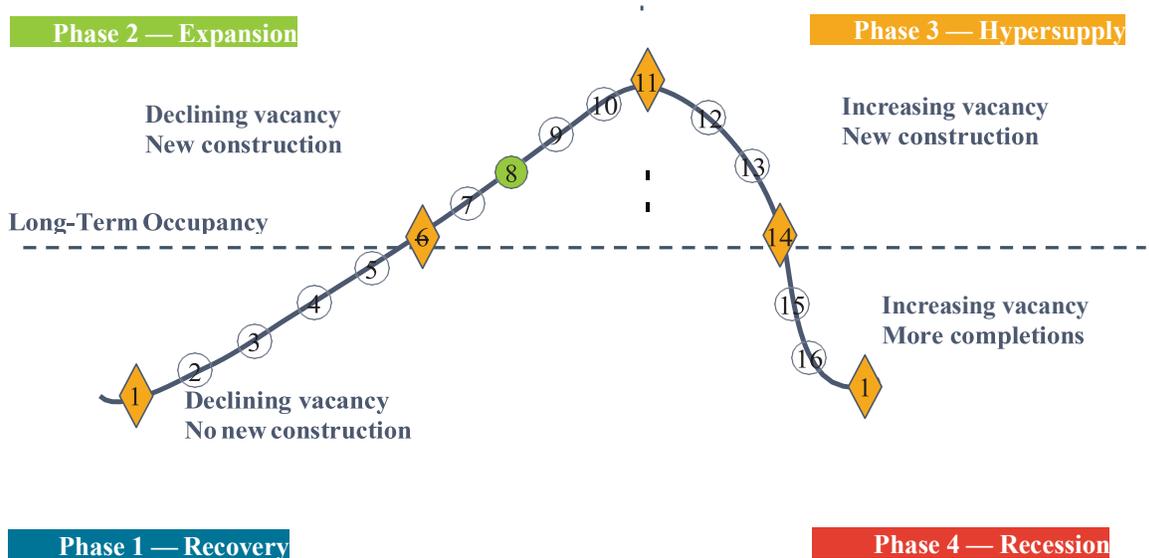
Source: Mueller, 2020

The National Property Type Cycle Locations graph shows relative positions of the sub-property types.

**Glenn R. Mueller, Ph.D.** – Professor,  
 Franklin L. Burns School of Real Estate & Construction Management - [glenn.mueller@du.edu](mailto:glenn.mueller@du.edu)  
 University of Denver - <https://daniels.du.edu/burns-school>

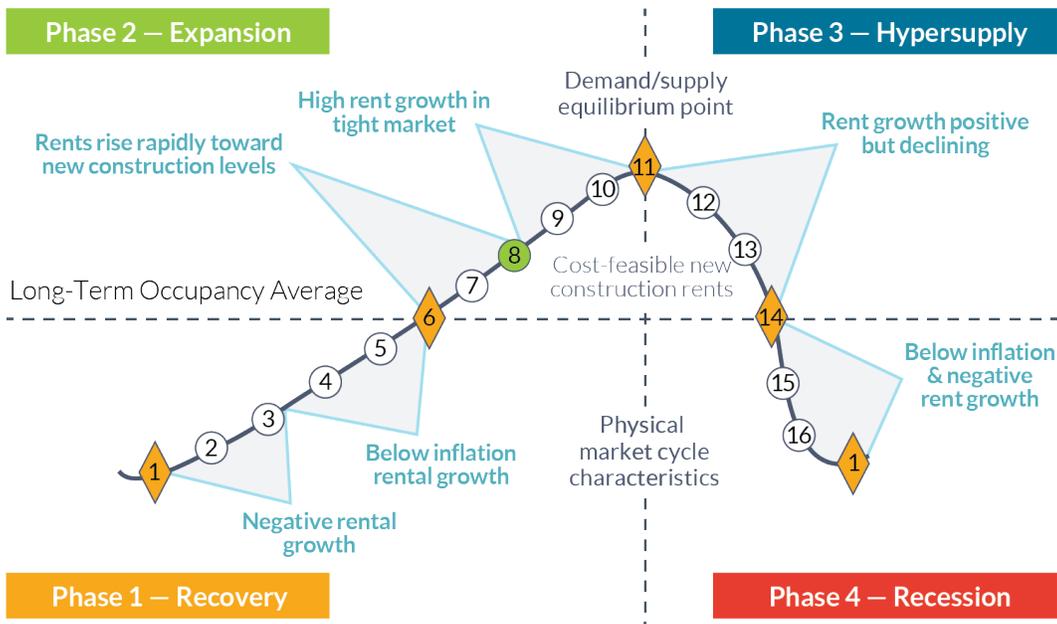
The cycle monitor analyzes occupancy movements in five property types in 54 MSAs. Market cycle analysis should enhance investment-decision capabilities for investors and operators. The five property type cycle charts summarize almost 300 individual models that analyze occupancy levels and rental growth rates to provide the foundation for long-term investment success. Commercial real estate markets are cyclical due to the lagged relationship between demand and supply for physical space. The long-term occupancy average is different for each market and each property type. **Long-term occupancy average** is a key factor in determining rental growth rates — a key factor that affects commercial real estate income and thus returns.

## Market Cycle Quadrants



Source: Mueller, Real Estate Finance, 1996.

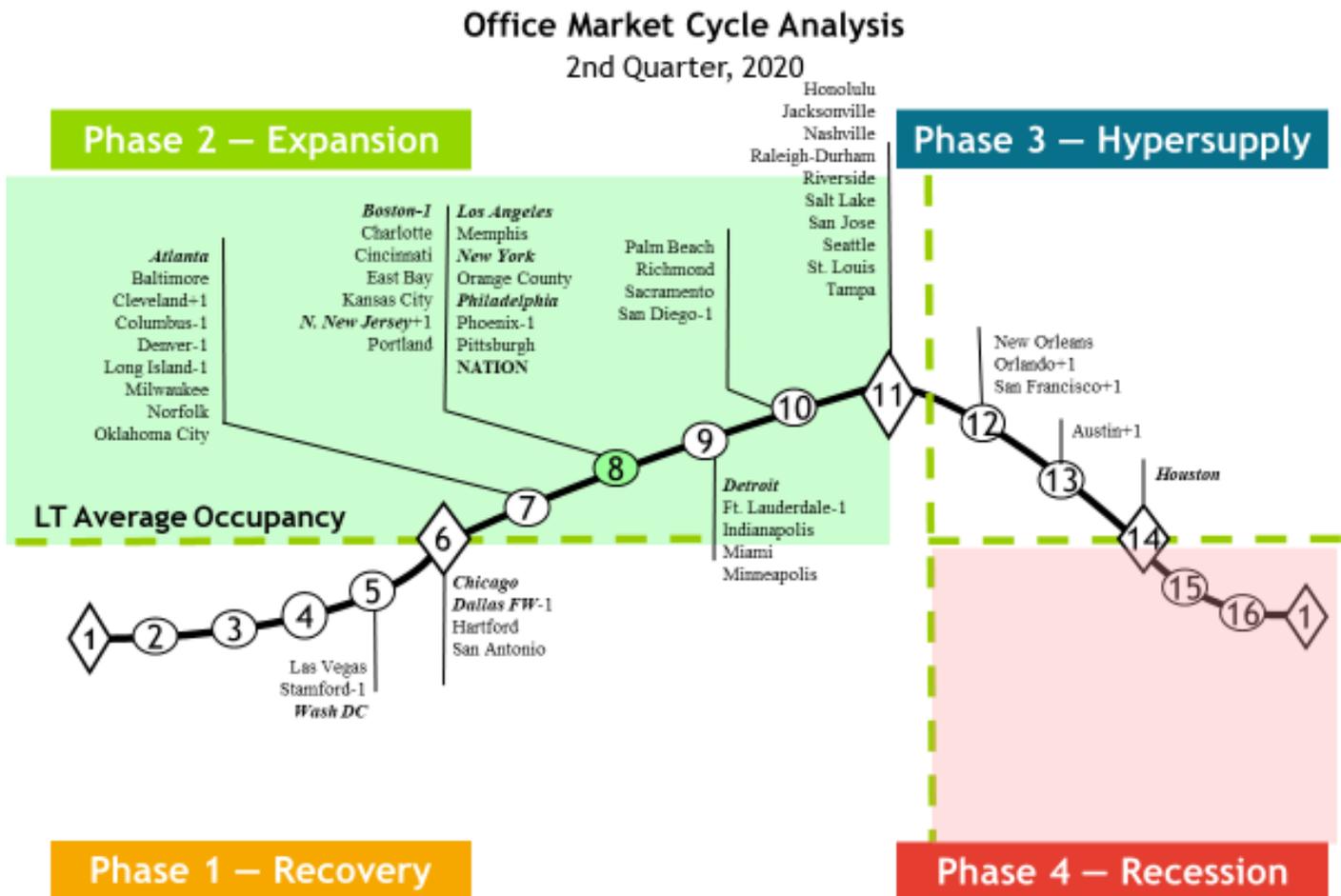
Rental growth rates can be characterized in different parts of the market cycle, as shown below.



Source: Mueller, Real Estate Finance, 1996.

## Office

The national office market occupancy level declined 0.1% in 2Q20 and was flat year-over-year. Net absorption was negative by over 10 million square feet for the quarter, even though over 700,000 office using jobs were regained in the last three months. Many offices have re-opened with split teams (one at home and one in office) to maintain social distancing. If distancing becomes the norm – twice as much office space may be needed for the same number of people. And while some firms are moving to more work at home plans, others are expanding work space. Average national rents increased 0.3% in 2Q20 and produced a 1.4% rent increase year-over-year.



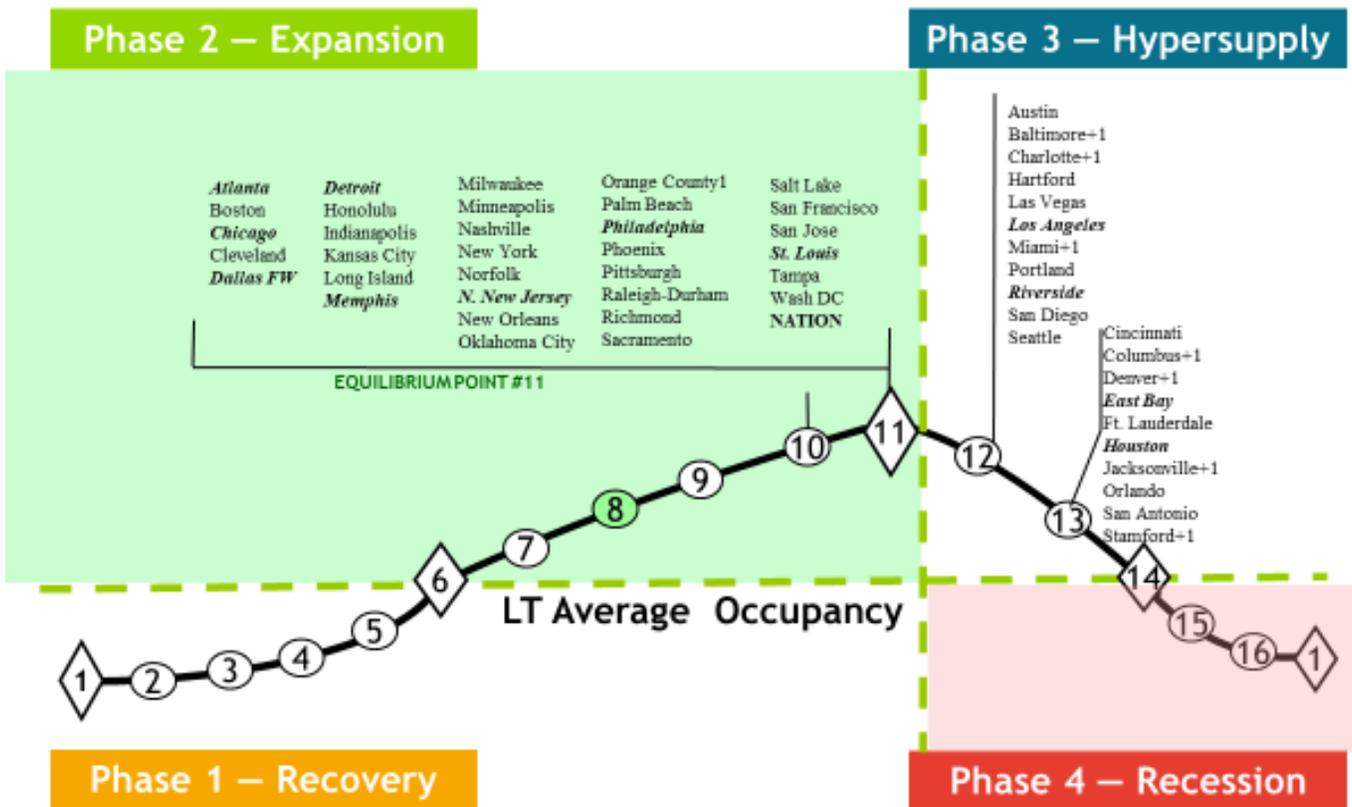
Note: The 11-largest office markets make up 50% of the total square footage of office space we monitor. Thus, the 11-largest office markets are in ***bold italic*** type to help distinguish how the weighted national average is affected.

Markets that have moved since the previous quarter are now shown with a + or - symbol next to the market name and the number of positions the market has moved is also shown, i.e., +1, +2 or -1, -2. Markets do not always go through smooth forward-cycle movements and can regress or move backward in their cycle position when occupancy levels reverse their usual direction. This can happen when the marginal rate of change in demand increases (or declines) faster than originally estimated or if supply growth is stronger (or weaker) than originally estimated.

## Industrial

Industrial occupancies declined 0.2% in 2Q20 and were down 0.5% year-over-year. Slower retail sales caused absorption to decline by over 10% in each of the last two quarters. Seven more markets moved further down in occupancy in the *hypersupply* phase of the cycle. Even though long-term sales demand growth is expected, many retailers have hit the pause button on adding warehouse space to wait for a stronger and sustained sales recovery to emerge. Industrial national average rents increased 1.0% in 2Q20 and increased 4.0% year-over-year. Expect to see even better results in the next few quarters.

### Industrial Market Cycle Analysis 2nd Quarter, 2020



Source: Mueller, 2020

Note: The 12-largest industrial markets make up 50% of the total square footage of industrial space we monitor. Thus, the 12-largest industrial markets are in ***bold italic*** type to help distinguish how the weighted national average is affected.

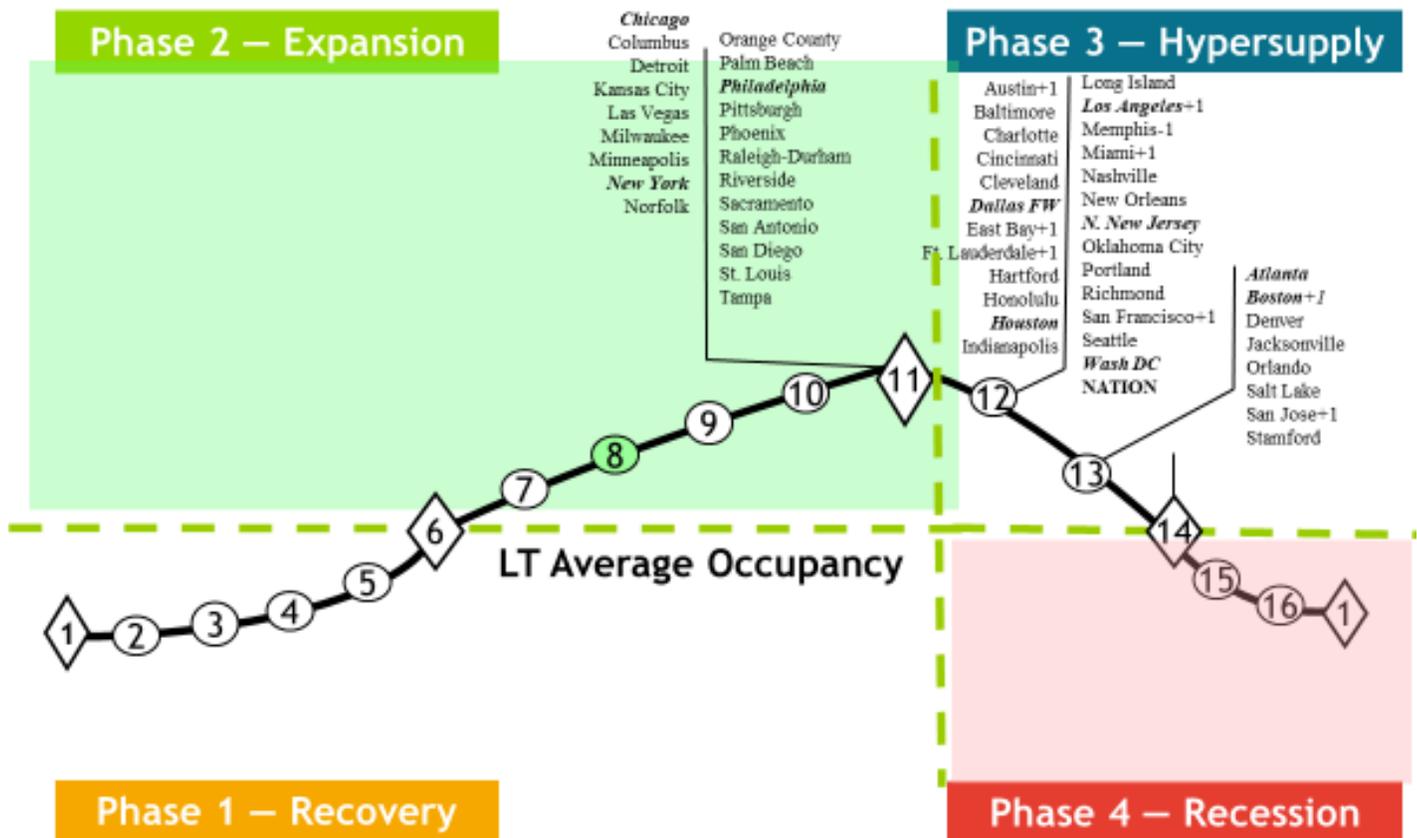
Markets that have moved since the previous quarter are now shown with a + or - symbol next to the market name and the number of positions the market has moved is also shown, i.e., +1, +2 or -1, -2. Markets do not always go through smooth forward-cycle movements and can regress or move backward in their cycle position when occupancy levels reverse their usual direction. This can happen when the marginal rate of change in demand increases (or declines) faster than originally estimated or if supply growth is stronger (or weaker) than originally estimated.

## Apartment

The national apartment occupancy average declined 0.2% in 2Q20 and was down 1.3% year-over-year. Second quarter net absorption was only 40% of its level in 2Q2019. The millennial trend of living downtown is shifting – many have decided to opt for more space in the suburbs, either in larger apartments or by purchasing a home. For those who can afford it, the home ownership option is attractive with the lowest interest rates in a century. The other major trend is that the major gateway markets like Boston and San Francisco are seeing an out-migration by those that can work at home. People are heading to lower cost second tier markets and resort communities. Any market that cannot offer a car friendly and reasonable cost auto commute is facing a challenge in this new social distancing world. Average national apartment rent growth declined -0.3% in 2Q20, and but was up 0.2% year-over-year.

### Apartment Market Cycle Analysis

2nd Quarter, 2020



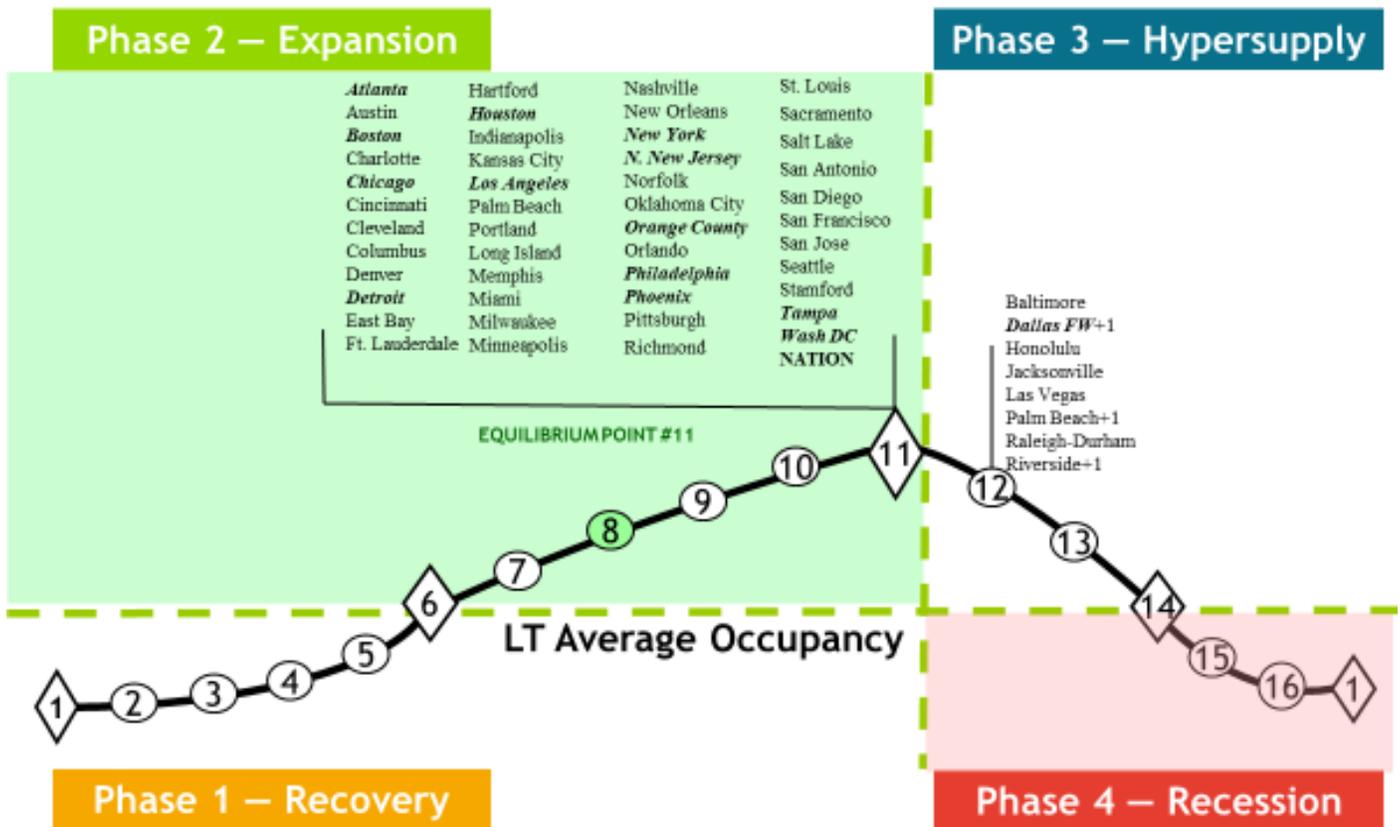
Note: The 10-largest apartment markets make up 50% of the total square footage of multifamily space we monitor. Thus, the 10-largest apartment markets are in ***bold italic*** type to help distinguish how the weighted national average is affected.

Markets that have moved since the previous quarter are now shown with a + or - symbol next to the market name and the number of positions the market has moved is also shown, i.e., +1, +2 or -1, -2. Markets do not always go through smooth forward-cycle movements and can regress or move backward in their cycle position when occupancy levels reverse their usual direction. This can happen when the marginal rate of change in demand increases (or declines) faster than originally estimated or if supply growth is stronger (or weaker) than originally estimated.

## Retail

Retail occupancies were down 0.2% in 2Q20 and were down 1.3% year-over-year. This seems like a small decline as it does not recognize temporary closures that may reopen. Department stores, apparel and home goods have been the hardest hit by COVID 19 and as bankruptcies and closures grow these statistics should come through in the occupancy numbers. Clothing sales were down almost 30% in 2Q20. The other categories hit less include healthcare and personal care product retailers which represent over 10% of retail sales. Malls, strip centers and outlet centers have been the most affected property types and pain may continue. Leases are being signed but at half the pace of a year ago. National average retail rents increased 0.4% for the quarter based upon newly signed leases and were up 1.7% year-over-year. The new metric being watched is rents collected and that is still under 50% in retail. There are many challenges ahead for retail.

### Retail Market Cycle Analysis 2nd Quarter, 2020



Source: Mueller, 2020

Note: The 14-largest retail markets make up 50% of the total square footage of retail space we monitor. Thus, the 14-largest retail markets are in ***bold italic*** type to help distinguish how the weighted national average is affected.

Markets that have moved since the previous quarter are now shown with a + or - symbol next to the market name and the number of positions the market has moved is also shown, i.e., +1, +2 or -1, -2. Markets do not always go through smooth forward-cycle movements and can regress or move backward in their cycle position when occupancy levels reverse their usual direction. This can happen when the marginal rate of change in demand increases (or declines) faster than originally estimated or if supply growth is stronger (or weaker) than originally estimated.

## Hotel

Hotel Occupancy dropped substantially in mid- March 2020, with many hotels closing all together. This drop would put all hotel markets at the bottom of their cycle point #1 on the cycle chart. Business and Convention Travel has not resumed in any major way and leisure travel has only returned in a major way to auto accessible locations. It may easily be a few years before the leisure industry returns to normal.

Data is no longer available from the normal source –  
thus Hotel coverage is suspended till further notice.

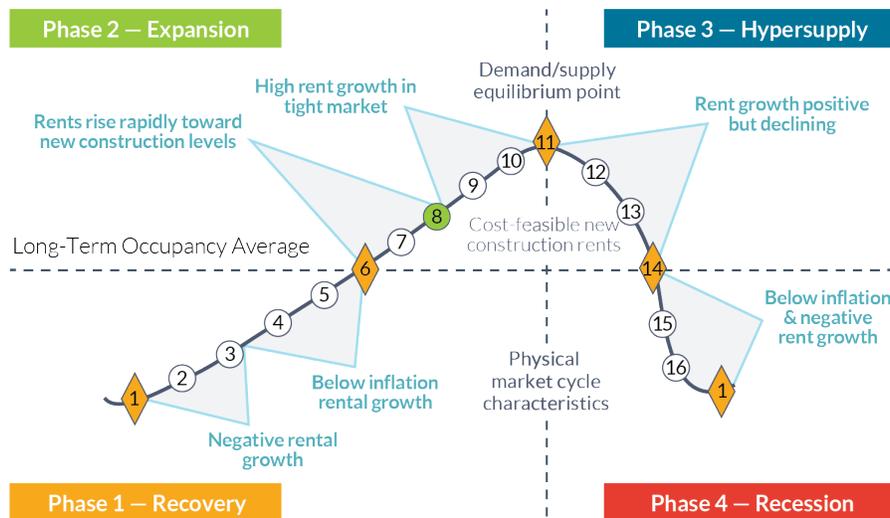
## Market Cycle Analysis — Explanation

**Supply and demand interaction is important to understand. Starting in Recovery Phase I at the bottom of a cycle** (see chart below), the marketplace is in a state of oversupply from either previous new construction or negative demand growth. At this bottom point, occupancy is at its trough. Typically, the market bottom occurs when the excess construction from the previous cycle stops. As the cycle bottom is passed, demand growth begins to slowly absorb the existing oversupply and supply growth is nonexistent or very low. As excess space is absorbed, vacancy rates fall, allowing rental rates in the market to stabilize and even begin to increase. As this recovery phase continues, positive expectations about the market allow landlords to increase rents at a slow pace (typically at or below inflation). Eventually, each local market reaches its **long-term occupancy average**, whereby rental **growth is equal to inflation**.

**In Expansion Phase II, demand growth continues at increasing levels, creating a need for additional space.** As vacancy rates fall below the **long-term occupancy average**, signaling that supply is tightening in the marketplace, rents begin to rise rapidly until they reach a cost-feasible level that allows new construction to commence. In this period of tight supply, rapid rental growth can be experienced, which some observers call “rent spikes.” (Some developers may also begin speculative construction in anticipation of cost-feasible rents if they are able to obtain financing). Once cost-feasible rents are achieved in the marketplace, demand growth is still ahead of supply growth — a lag in providing new space due to the time to construct. Long expansionary periods are possible and many historical real estate cycles show that the overall up-cycle is a slow, long-term uphill climb. As long as demand growth rates are higher than supply growth rates, vacancy rates should continue to fall. The cycle peak point is where demand and supply are growing at the same rate **or equilibrium**. Before equilibrium, demand grows faster than supply; after equilibrium, supply grows faster than demand.

**Hypersupply Phase III of the real estate cycle commences after the peak / equilibrium point #11 — where demand growth equals supply growth.** Most real estate participants do not recognize this peak / equilibrium’s passing, as occupancy rates are at their highest and well above long-term averages, a strong and tight market. During Phase III, supply growth is higher than demand growth (hypersupply), causing vacancy rates to rise back toward the long-term occupancy average. While there is no painful oversupply during this period, new supply completions compete for tenants in the marketplace. As more space is delivered to the market, rental growth slows. Eventually, market participants realize that the market has turned down and commitments to new construction should slow or stop. If new supply grows faster than demand once the long-term occupancy average is passed, the market falls into Phase IV.

**Recession Phase IV begins as the market moves past the long-term occupancy average with high supply growth and low or negative demand growth.** The extent of the market down-cycle is determined by the difference (excess) between the market supply growth and demand growth. Massive oversupply, coupled with negative demand growth (that started when the market passed through long-term occupancy average in 1984), sent most U.S. office markets into the largest down-cycle ever experienced. During Phase IV, landlords realize that they could quickly lose market share if their rental rates are not competitive. As a result, they then lower rents to capture tenants, even if only to cover their buildings’ fixed expenses. Market liquidity is also low or nonexistent in this phase, as the bid-ask spread in property prices is too wide. The cycle eventually reaches bottom as new construction and completions cease, or as demand growth turns up and begins to grow at rates higher than that of new supply added to the marketplace.



Source: Mueller, Real Estate Finance, 1996

This research currently monitors five property types in 54 major markets. We gather data from numerous sources to evaluate and forecast market movements. The market cycle model we developed looks at the interaction of supply and demand to estimate future vacancy and rental rates. Our individual market models are combined to create a national average model for all U.S. markets. This model examines the current cycle locations for each property type and can be used for asset allocation and acquisition decisions.