

# MUELLER

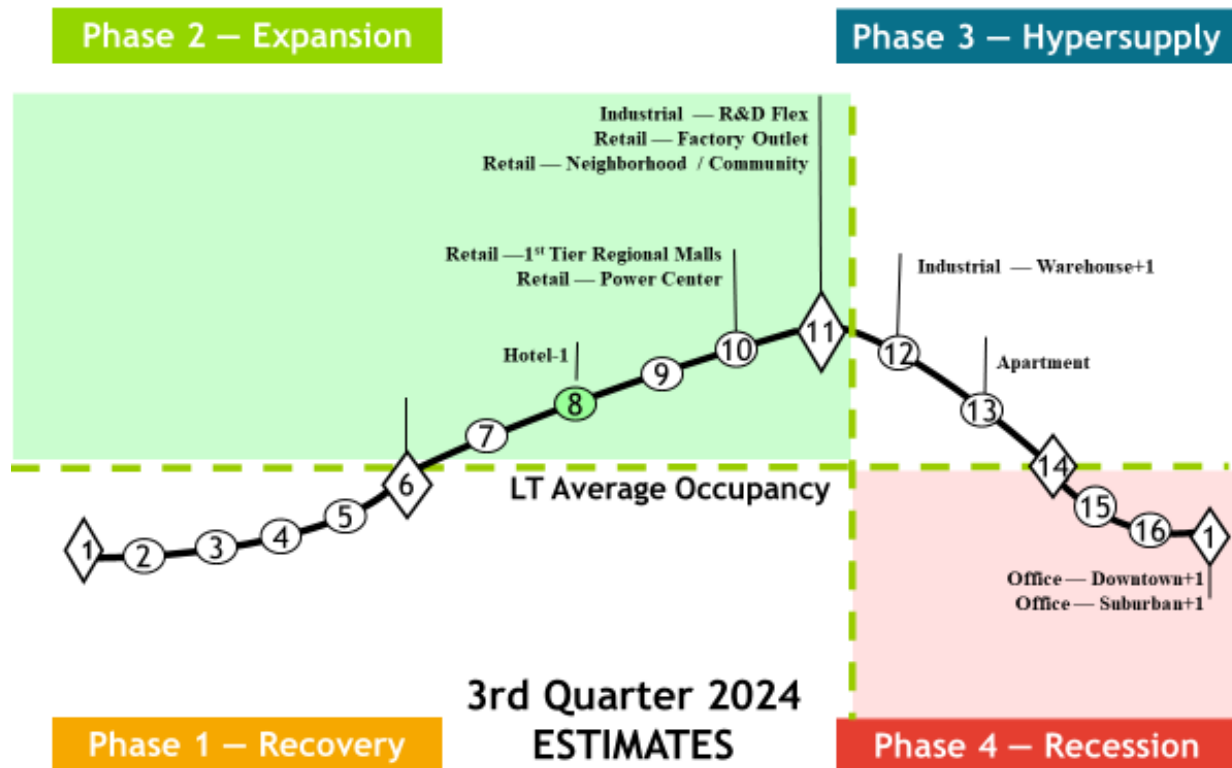
## REAL ESTATE MARKET CYCLE FORECAST

### Third Quarter 2024 Estimates – November 2023

The 2024 economic forecast from the ULI opinion survey has a 1% employment growth, 1% GDP, and 2.7% inflation rate. The survey expects the 10-year treasury bill rate to decline from the current 4.7% to 4% and Cap Rates to rise by an average 0.2%. This could be the first time in 80 years that the Fed has not caused a recession by raising interest rates! With no recession in the forecast we believe that real estate space demand should continue to grow in 2024 at modest rates (except for office, where space utilization per employee is still shrinking). The restricted supply of all property types should help to keep a majority of markets in similar shape to 2023. Debt capital availability is forecast to improve by 25% for well leased space. 2024 transactions are forecast to increase by 25% above the low level of 2023. Generally, a recovery year.

Office occupancies are forecast to **decline -0.2%** in 3Q24, with rents declining -0.1% quarter-over-quarter.  
 Industrial occupancies are forecast to **decline 0.1%** in 3Q24, with rents increasing 0.7% quarter-over-quarter.  
 Apartment occupancies are forecast to **decline 0.1%** in 3Q24, with rents increasing 0.8% quarter-over-quarter.  
 Retail occupancies are forecast to **flat** in 3Q24, with rents increasing 0.5% quarter-over-quarter.  
 Hotel occupancies are forecast to **decline 0.2%** in 3Q24, with RevPar increasing 1.0% quarter-over-quarter.

## National Property Type Cycle Forecast

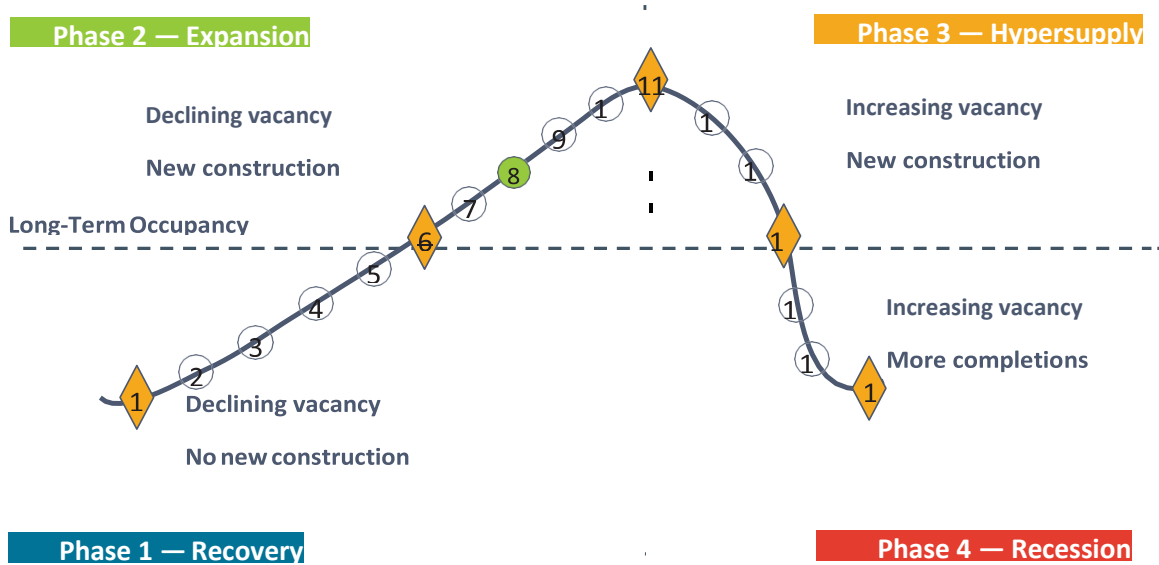


Source: Mueller, 2023

The National Property Type Cycle Locations graph shows relative positions of the sub-property types.  
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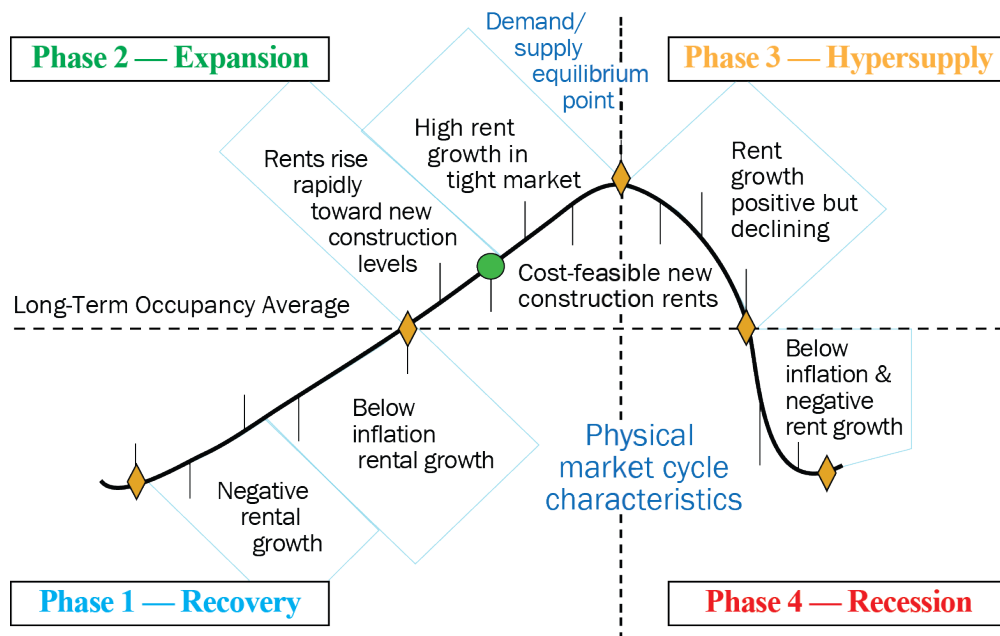
The **Cycle Forecast** analyzes occupancy movements in four property types in more than 50 Metropolitan Statistical Areas (MSAs). The market cycle analysis should enhance investment-decision capabilities for investors and operators. The four property type cycle charts summarize almost 300 individual 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. Long-term occupancy average is different for each market & each property type. **Long-term occupancy averages** (points #6 & #14) are a key factor determining rental growth rates that drive income affecting commercial real estate 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.



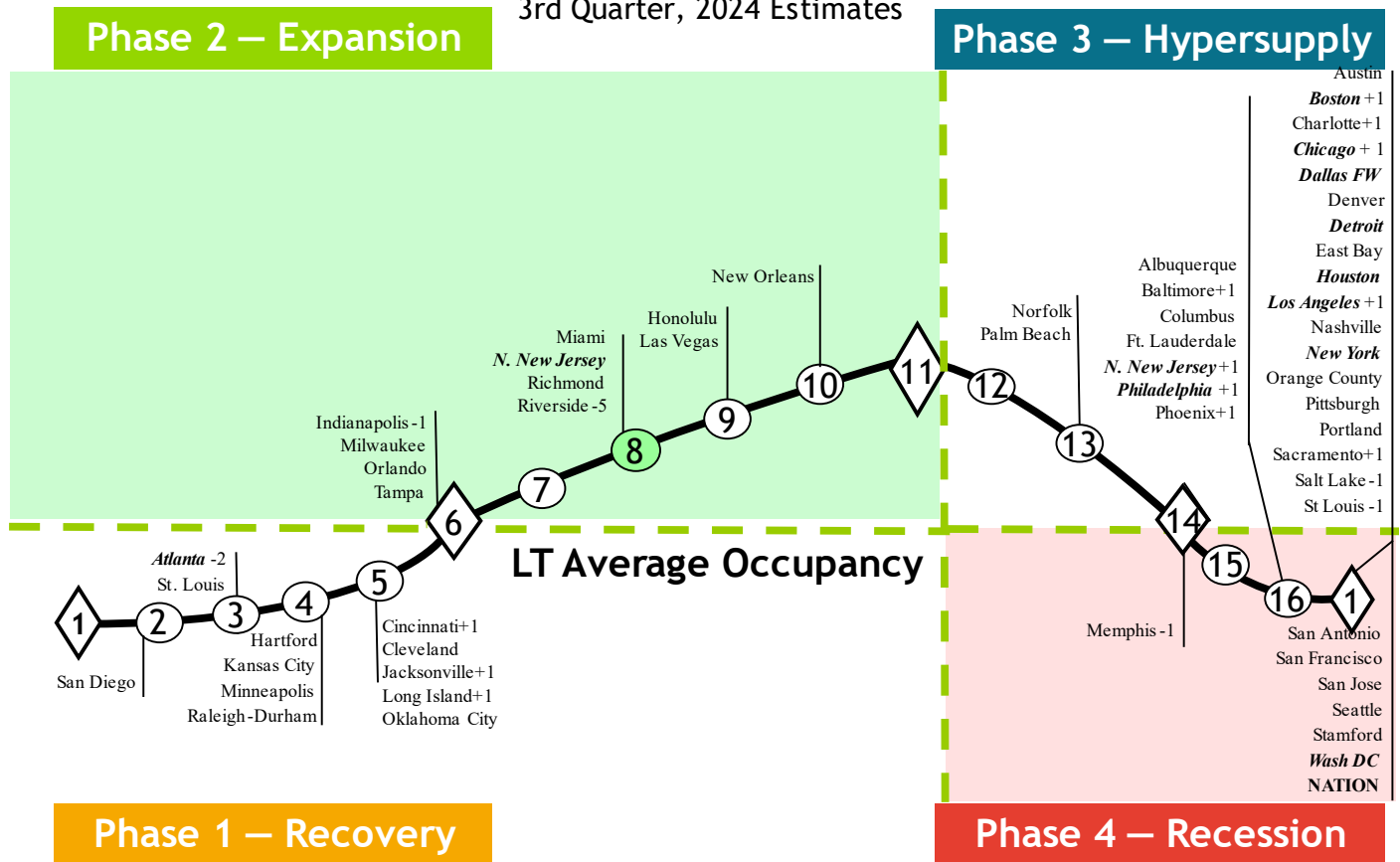
Source: Mueller, Real Estate Finance, 1996.

## OFFICE FORECAST

Office occupancies are forecast to decline 0.2% in 3Q24 and be down 1.4% year-over-year. We believe office occupancy rates should continue at their historic bottom and possibly set additional new lows as 50 % of current office leases are still expiring over the next few years. Firms are working toward more efficient use of office space, which translates to further footprint reductions and smaller lease sizes. Tenants gave back 50 million SF of space in the Great Recession, while that number is already almost 200 million SF since COVID, and the forecast is for another 200 million SF of negative absorption over the next few years. 2023 has seen almost 60 million SF new office space deliveries, and that number should slow in 2024. Unfortunately, conversions to other uses are going to take many years to reduce the total office inventory. Low demand and high supply means continued occupancy declines, hampering rent growth. We expect the national average office asking rents to be down 0.1% in 3Q24 and be down 2,2% year-over-year. Expect effective rents to drop even faster.

### Office Market Cycle FORECAST

3rd Quarter, 2024 Estimates



Source: Mueller, 2023

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

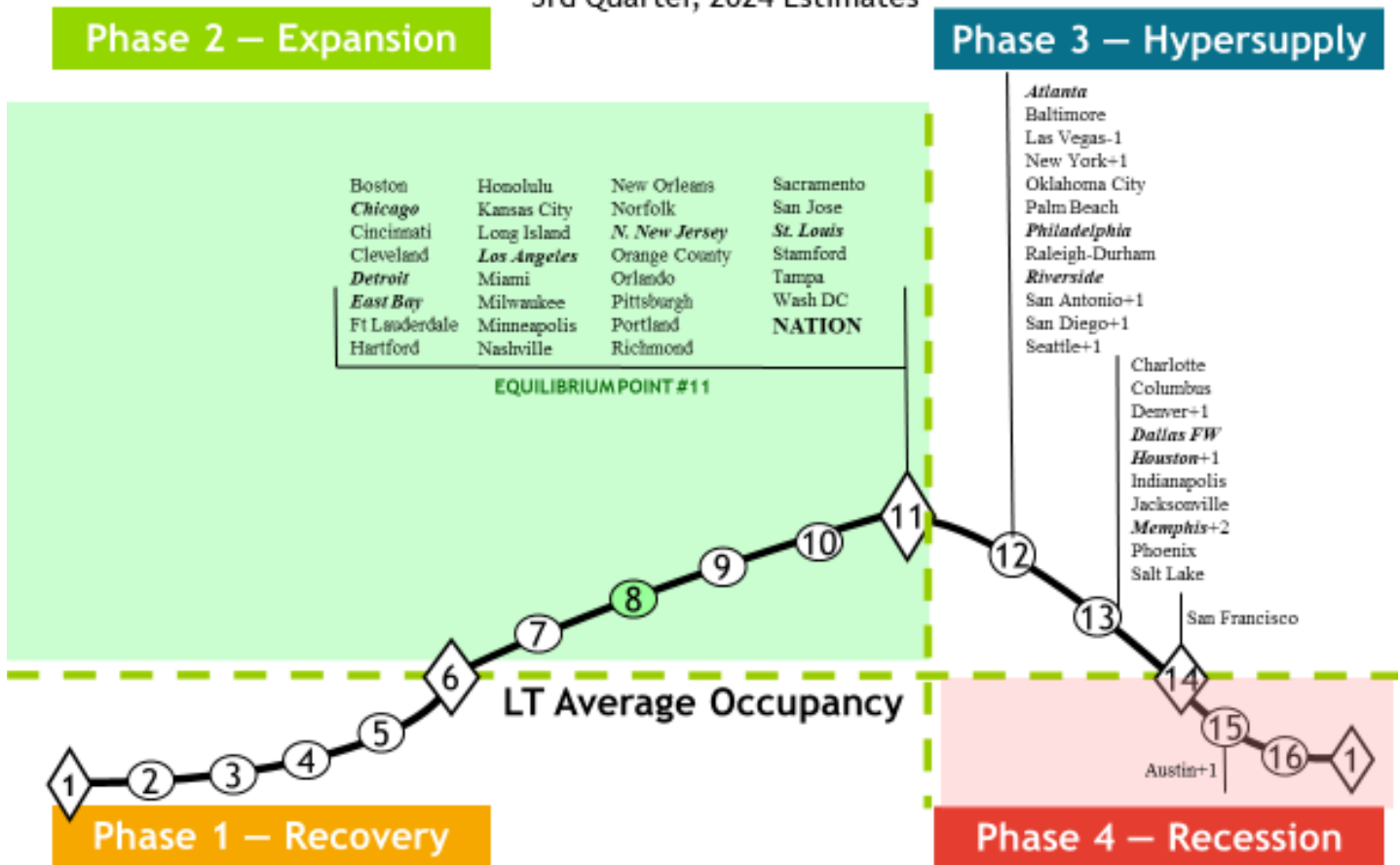
Markets do not always go through smooth forward-cycle movements and can regress or move backward in their cycle position when occupancy levels reverse their usual direction. This can happen when the marginal rate of change in demand increases (or declines) faster than originally estimated or if supply growth is stronger (or weaker) than originally estimated.

## INDUSTRIAL FORECAST

The national industrial occupancy growth is forecast to decline 0.1% in 3Q24 and be down 1.7% year-over-year. Tenants are expected to slow their inventory accumulation with the slower economy and higher interest rate costs. Strong new construction starts of 500 million SF in 2023 are expected to be completed through 3Q24 and most of this space is yet to be leased. The forecast shows that deliveries should slow in 4Q24 due to the higher interest rates on construction and mortgage loans and the moderating rent growth happening now. This slowdown should help to keep most industrial markets above their previous cyclical occupancy peaks. Most of the markets in the hyper-supply phase below are due to oversupply. Rent growth should decelerate in 2024, thus we expect the national average asking rents to increase 0.7% in 3Q24 and be up 3.0% year-over-year.

### Industrial Market Cycle FORECAST

3rd Quarter, 2024 Estimates



Source: Mueller, 2023

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

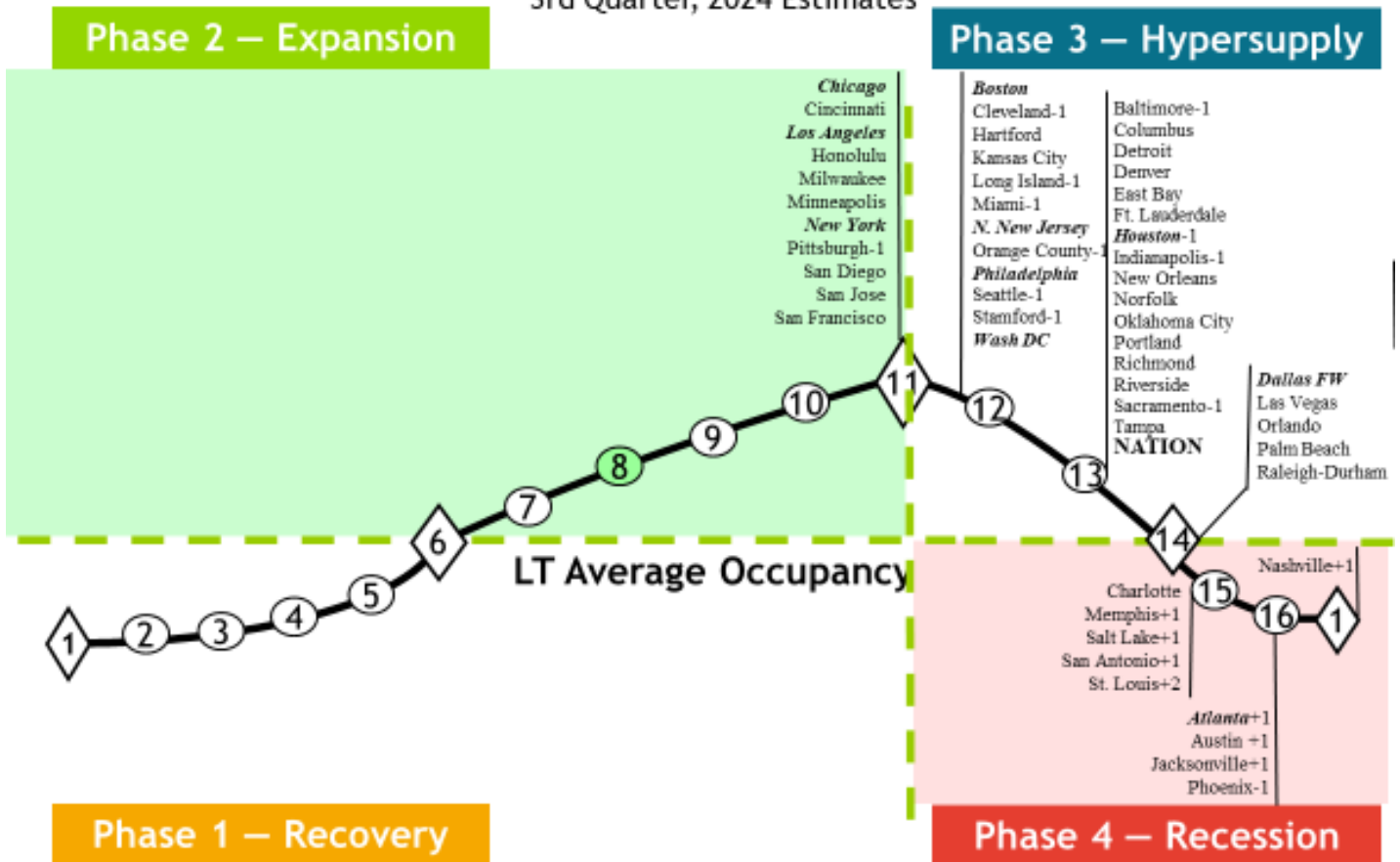
Markets do not always go through smooth forward-cycle movements and can regress or move backward in their cycle position when occupancy levels reverse their usual direction. This can happen when the marginal rate of change in demand increases (or declines) faster than originally estimated or if supply growth is stronger (or weaker) than originally estimated.

## APARTMENT FORECAST

Apartment occupancies are forecast to decline -0.1% in 3Q24 and be down -0.6% year-over-year. We expect apartment demand to continue being positive but moderate at around 300,000 units, as employment expands and home purchases remain unattainable for most renters, due to the high house prices and high mortgage interest rates continuing. The 2024 supply forecast is still too high at 440,000 units that have already been started and are expected to be delivered in 2024. The oversupply is mainly in the sunbelt markets, while moderate growth Midwest and Northeast markets should maintain better balance and have good rent growth. We believe the long-term housing shortage of over 6 million units should allow the apartment markets to move back into the growth phase, possibly in 2025. We forecast the national apartment rental rate to increase 0.4% in 3Q24 and be up 2.1% year-over-year.

### Apartment Market Cycle FORECAST

3rd Quarter, 2024 Estimates



Source: Mueller, 2023

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

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 FORECAST

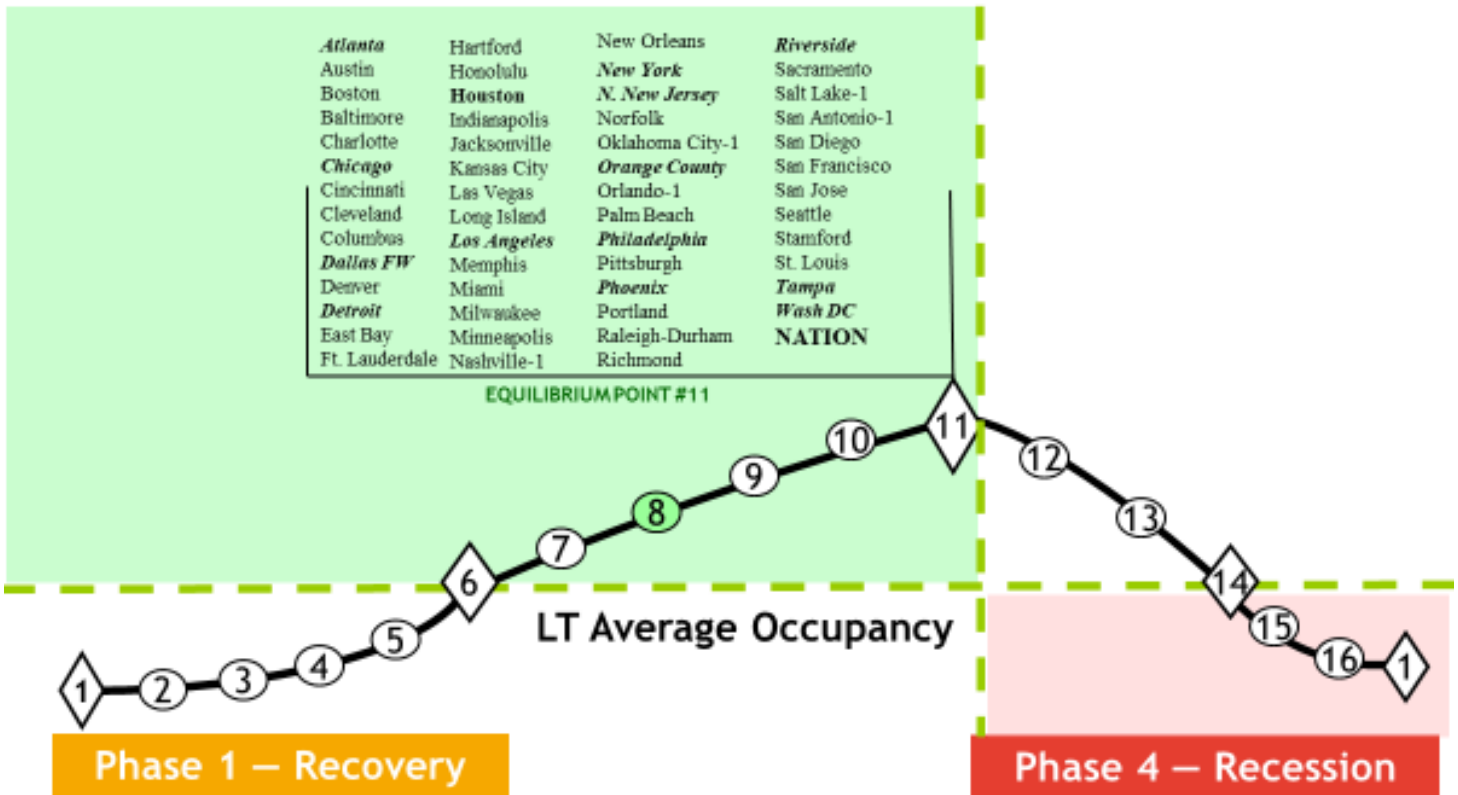
Retail occupancy is forecast to be flat in 3Q24 and flat year-over-year. We expect ALL markets to remain at their peak/equilibrium point #11 on the cycle graph over the next full year. (All markets holding for a year at their peak/equilibrium has never happened before). Retailer demand is expected to be positive, but moderate, while supply growth continues to be constrained. High construction and interest rate costs help to constrain speculative construction. Build to suit should continue to be the majority of new space supplied. More obsolete retail space should continue to be demolished or converted to other uses. We forecast retail asking rental rates to increase 0.5% in 3Q24 and be up 2.3% year-over-year.

### Retail Market Cycle FORECAST

3rd Quarter, 2024 Estimates

Phase 2 – Expansion

Phase 3 – Hypersupply



Source: Mueller, 2023

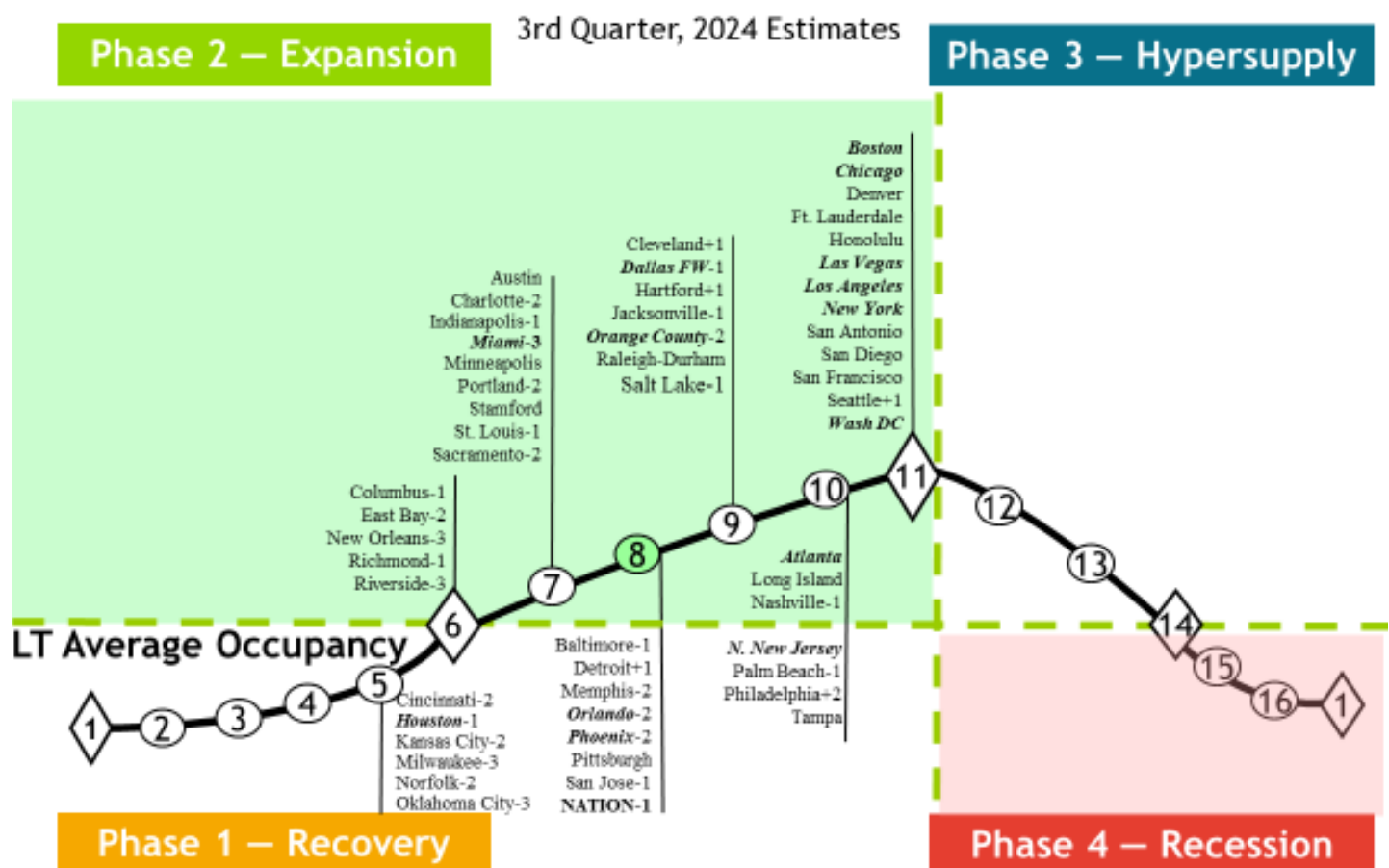
Note: The **15-largest retail markets make up 50%** of the total square footage of retail space that we monitor. Thus, the 15-largest retail markets are in *bold italics* to help distinguish how the weighted national average is affected.

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 FORECAST

Hotel occupancies are forecast to be down 0.2% in 3Q24 and down 0.6% year-over-year. The forecast economic slowdown is driving the lower demand forecast as recreational, conference and business travel slows with higher costs and a more conservative approach to travel spending in slower times. The good news is that new supply is forecast to be only 25% of the long-term historic average, as higher construction costs and interest rates keep new supply in check. We expect national average Revenue Per Available Room (RevPAR) growth to be up 1.0% for 3Q24 and up 4.0% year-over-year. RevPar is also forecast to be back to its 2019-dollar level by year-end 2024.

### Hotel Market Cycle FORECAST



Source: Mueller, 2023

Note: The 14-largest hotel markets make up 50% of the total square footage of retail space we monitor. Thus, the 14-largest hotel 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.

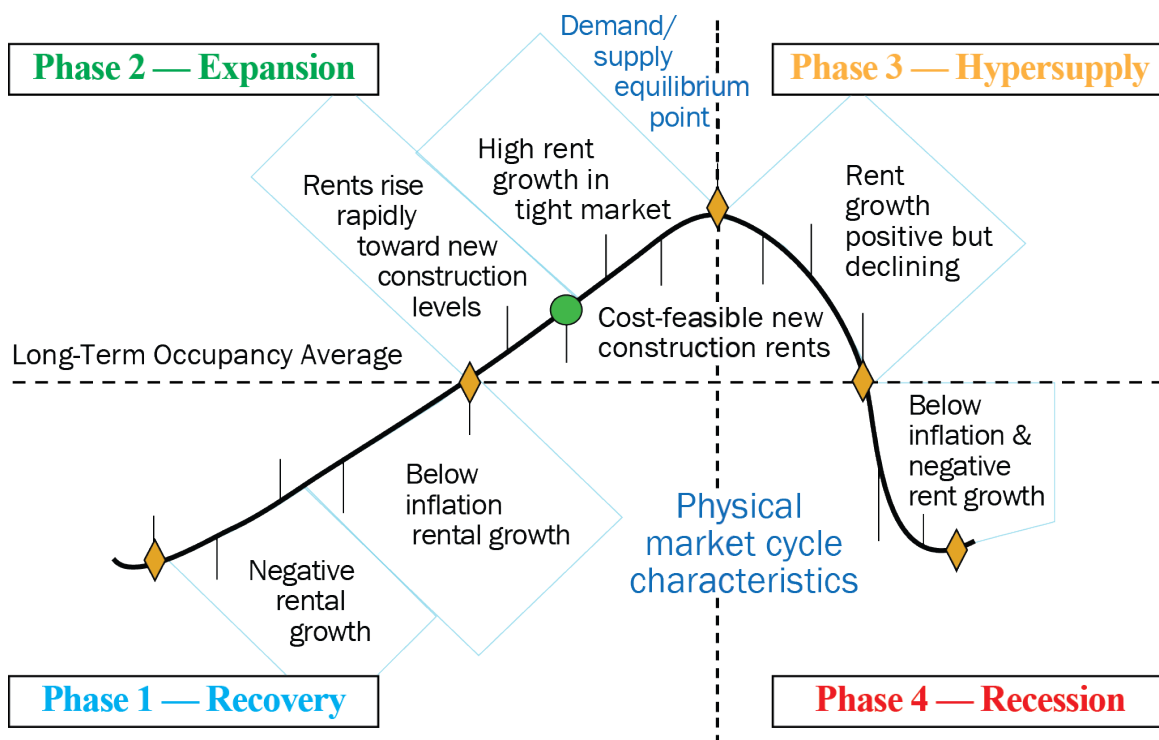
**MARKET CYCLE ANALYSIS — Explanation**

**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 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; 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.