

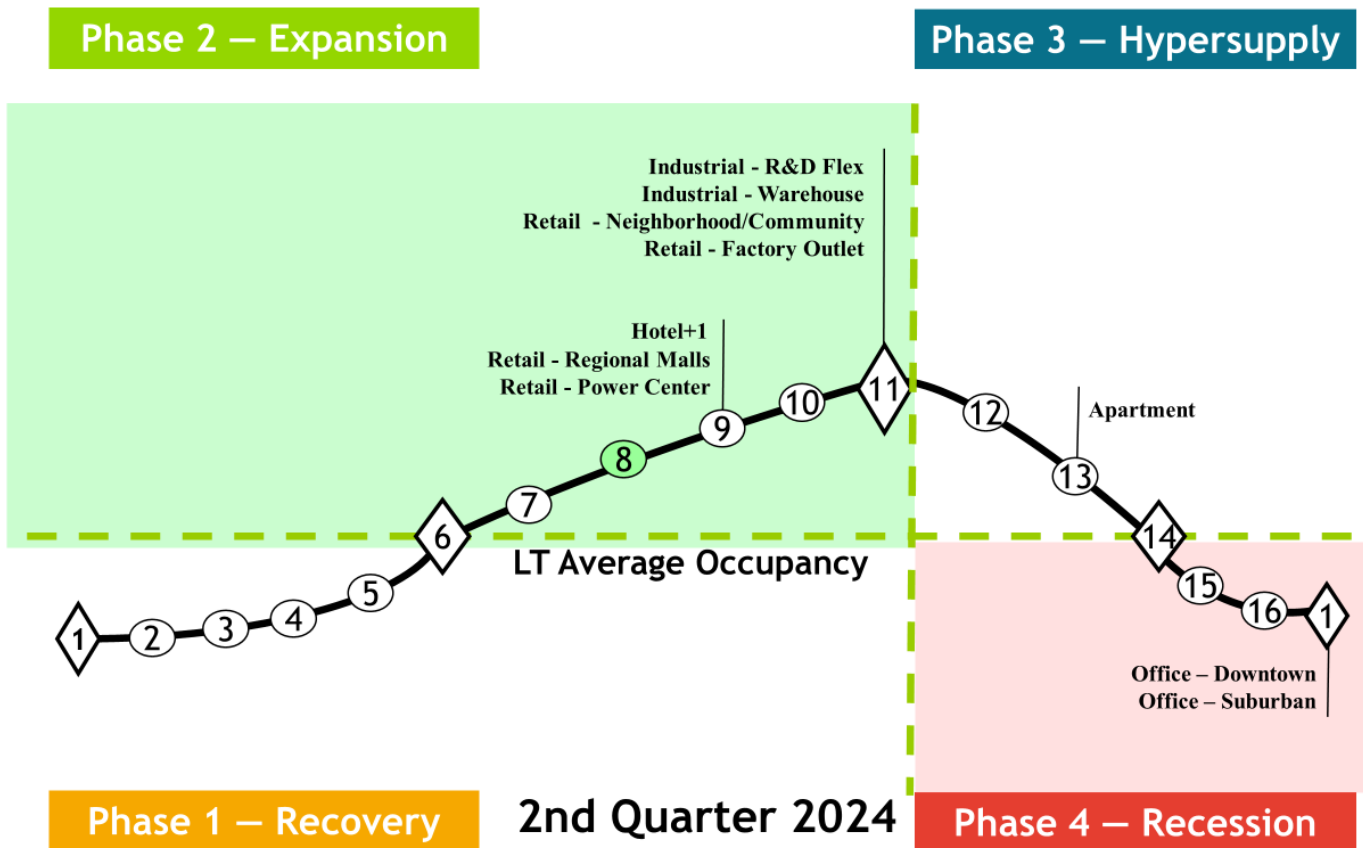
Second Quarter 2024 Analysis – August 2024

The Physical Market Cycle Analysis of 5 Property Types in 54 Metropolitan Statistical Areas (MSAs).

The economy continues to show employment growth at a moderate rate and inflation is slowing to a rate that should allow the Federal Reserve to lower their interest rate some time before the end of the year. Occupancy rates have stabilized and started to increase in many cities in most property types, except for office that hit a new all-time low occupancy. Many investors believe commercial real estate markets are beginning to bottom, both in occupancy and pricing. Forecast rental rate increases have been modest, and growth expectations are low, which mutes transaction volume, depressing prices.

Office occupancy **declined -0.3%** in 2Q24, while rents **were up 0.1%** for the quarter and **were up 0.7%** annually. Industrial occupancy **declined -0.4%** in 2Q24, but rents **grew 0.1%** for the quarter and **were up 4.1%** annually. Apartment occupancy **decreased -0.3%** in 2Q24, but rents **were up 0.1%** for the quarter, and **were up 1.0%** annually. Retail occupancy **was flat** in 2Q24, and rents **were up 0.3%** for the quarter and **were up 2.6%** annually. Hotel occupancy **increased 0.3%** in 2Q24, and average RevPAR **grew 2.9%** for the quarter and **was up 2.7%** annually.

National Property Type Cycle Locations



Source: Mueller, 2024

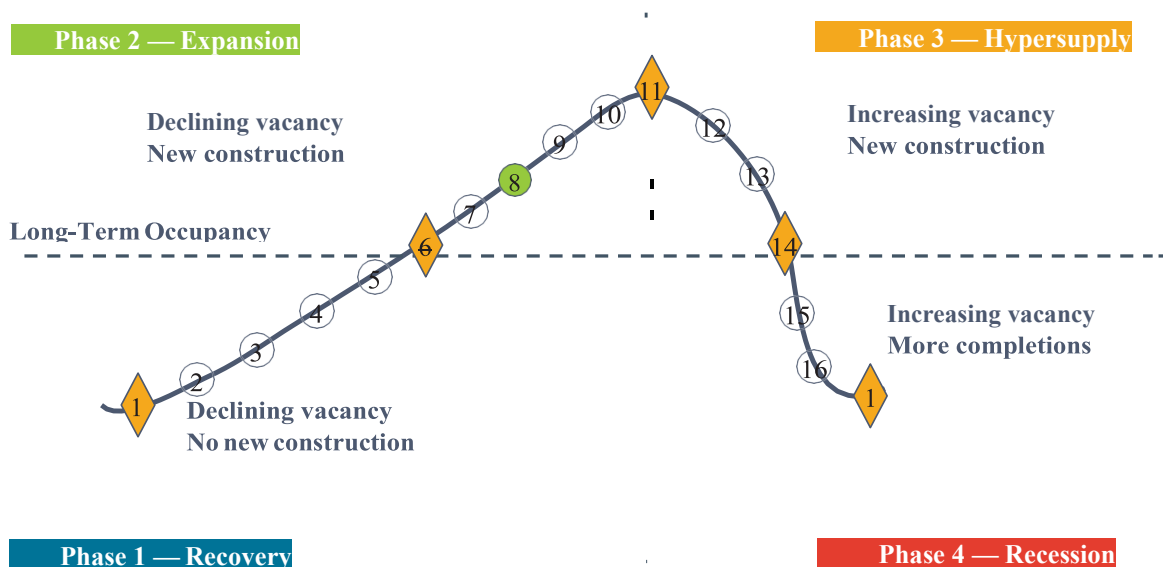
The National Property Type Cycle Locations graph shows relative positions of the sub-property types.

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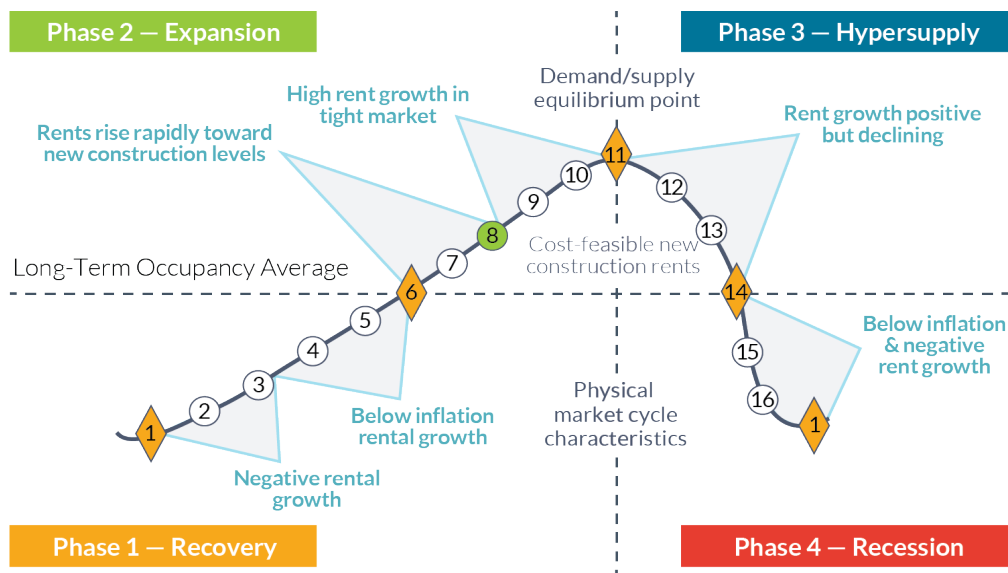
The cycle monitor analyzes occupancy movements in five property types in 54 MSAs. Market cycle analysis should enhance investment-decision capabilities for investors and operators. The five property type cycle charts summarize almost 300 individual models that analyze occupancy levels and rental growth 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.



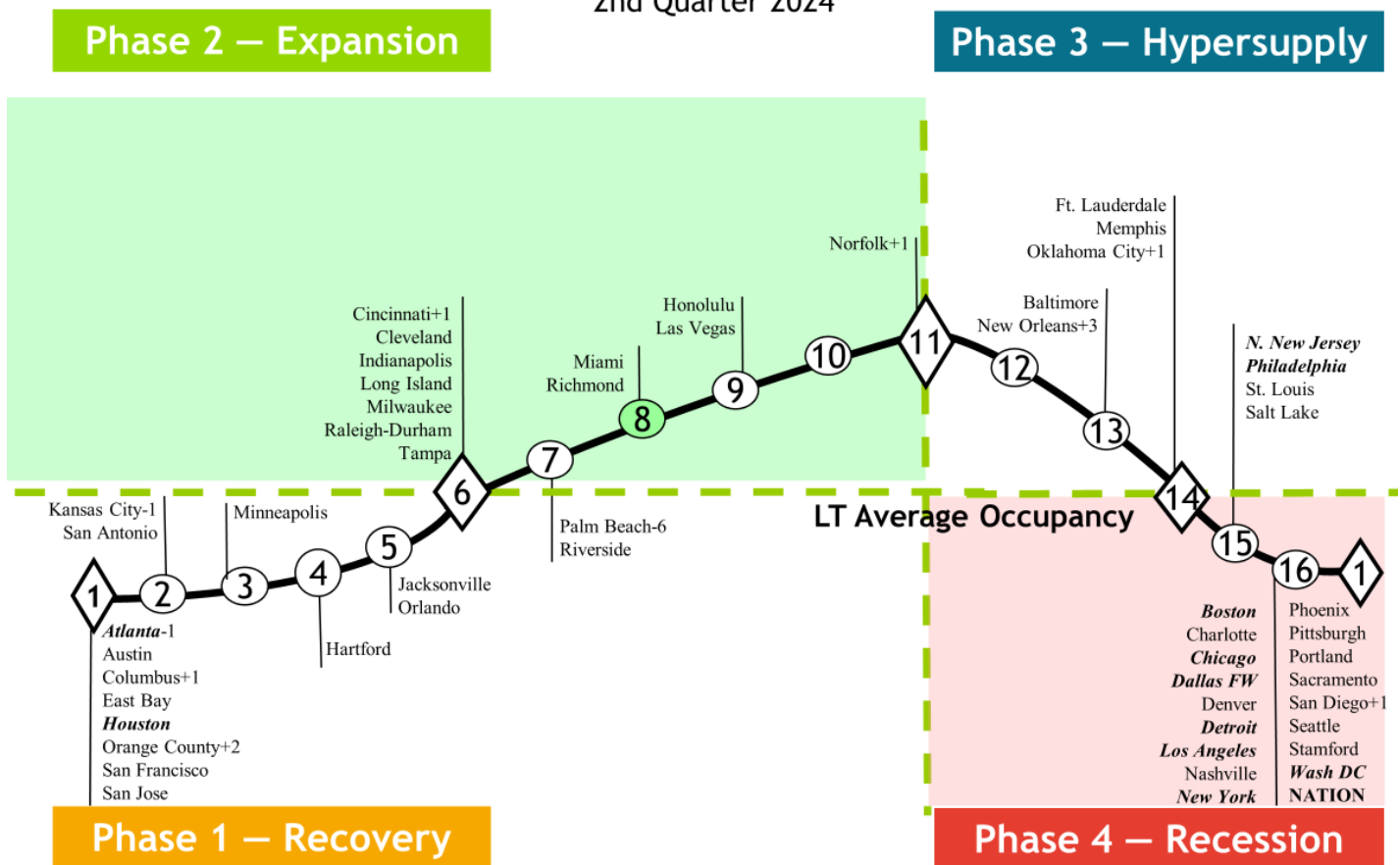
Source: Mueller, Real Estate Finance, 1996.

Office

The national office market occupancy level **decreased 0.3%** in 2Q24 and **was down 0.6%** year-over-year. Less office demand continues with more than 200 Million square feet of net-negative absorption since the beginning of COVID. This is **3 times the loss** from the dot-com crash and **4 times the loss** from the great financial recession. Office using employment growth has been less than 1% over the last 12 months. Tenants have been leasing or re-leasing 20% less space than they would have pre-covid and almost 50% of leases signed pre-Covid have not expired yet, further evidence of future declining demand. New supply starts are the lowest on record and new building completions that started pre-COVID should end by late 2025. Office values have fallen an average of 40% so far. Asking rental rates **were up 0.1%** in 2Q24 and **were up 0.7%** year-over-year – but growing concessions continue to depress net effective rents.

Office Market Cycle Analysis

2nd Quarter 2024



Source: Mueller, 2024

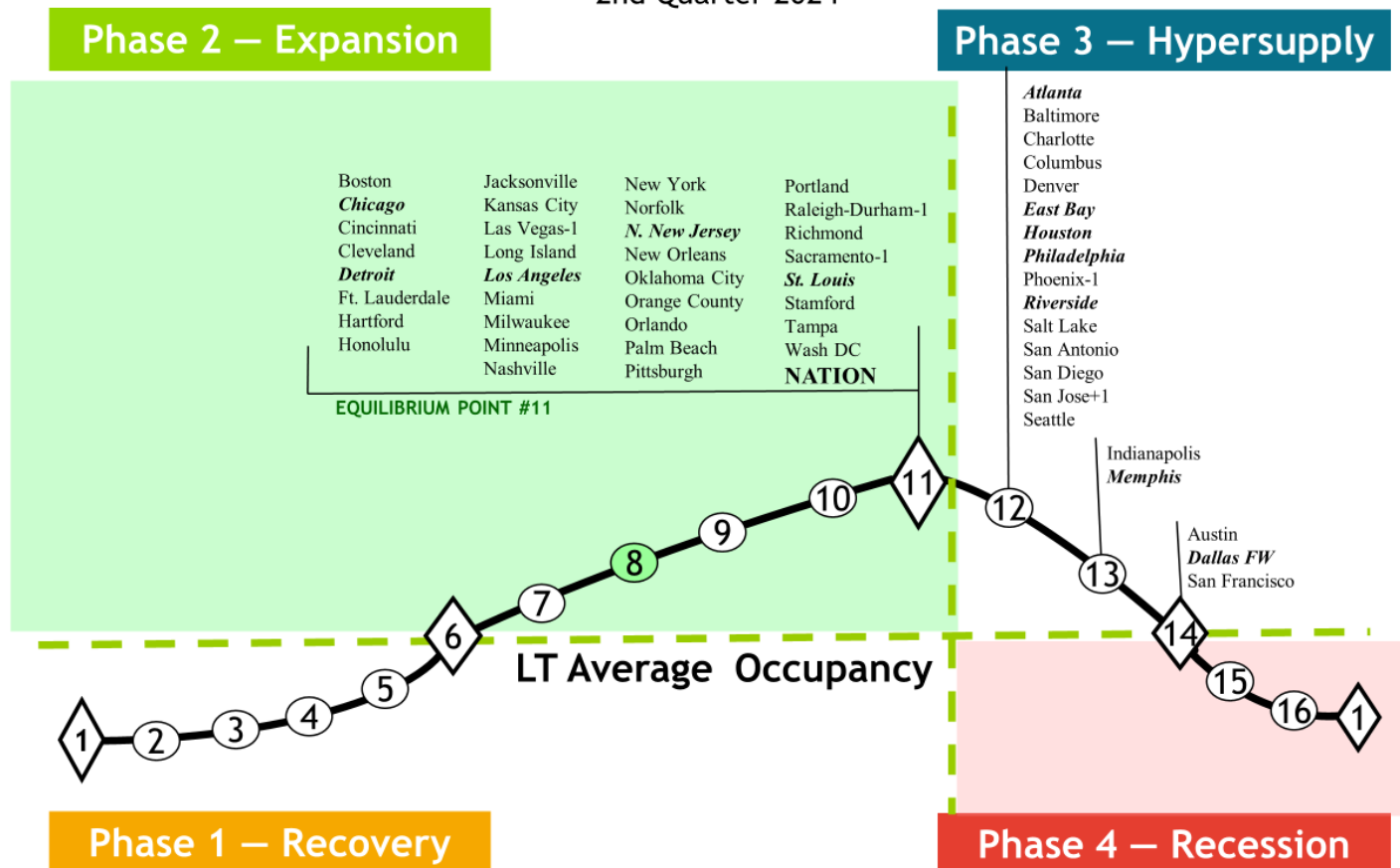
Note: The 11-largest office markets make up 50% of the total square footage of office space we monitor. Thus, the 11-largest office markets are in ***bold italic*** type to help distinguish how the weighted national average is affected.

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 **decreased 0.3%** in 2Q24 and were **down 0.1%** year-over-year (yes – less than the quarter decline). Demand in port markets has declined as imports have slowed. This has also caused sub-lease offerings to increase to double the amount in the great recession. The strong speculative new supply started in the last 2 years are coming on-line, but completions are finally starting to slow and should be minimal by year end 2024. Only 50% of new construction has been pre-leased, stalling any potential increase in occupancy. Bulk warehouse is overbuilt, while close in “last mile” warehouse is in short supply. Asking rent growth **was up 1.0%**, pushed by building costs, and annual rent growth **was up 4.1%** year-over-year.

Industrial Market Cycle Analysis 2nd Quarter 2024



Source: Mueller, 2024

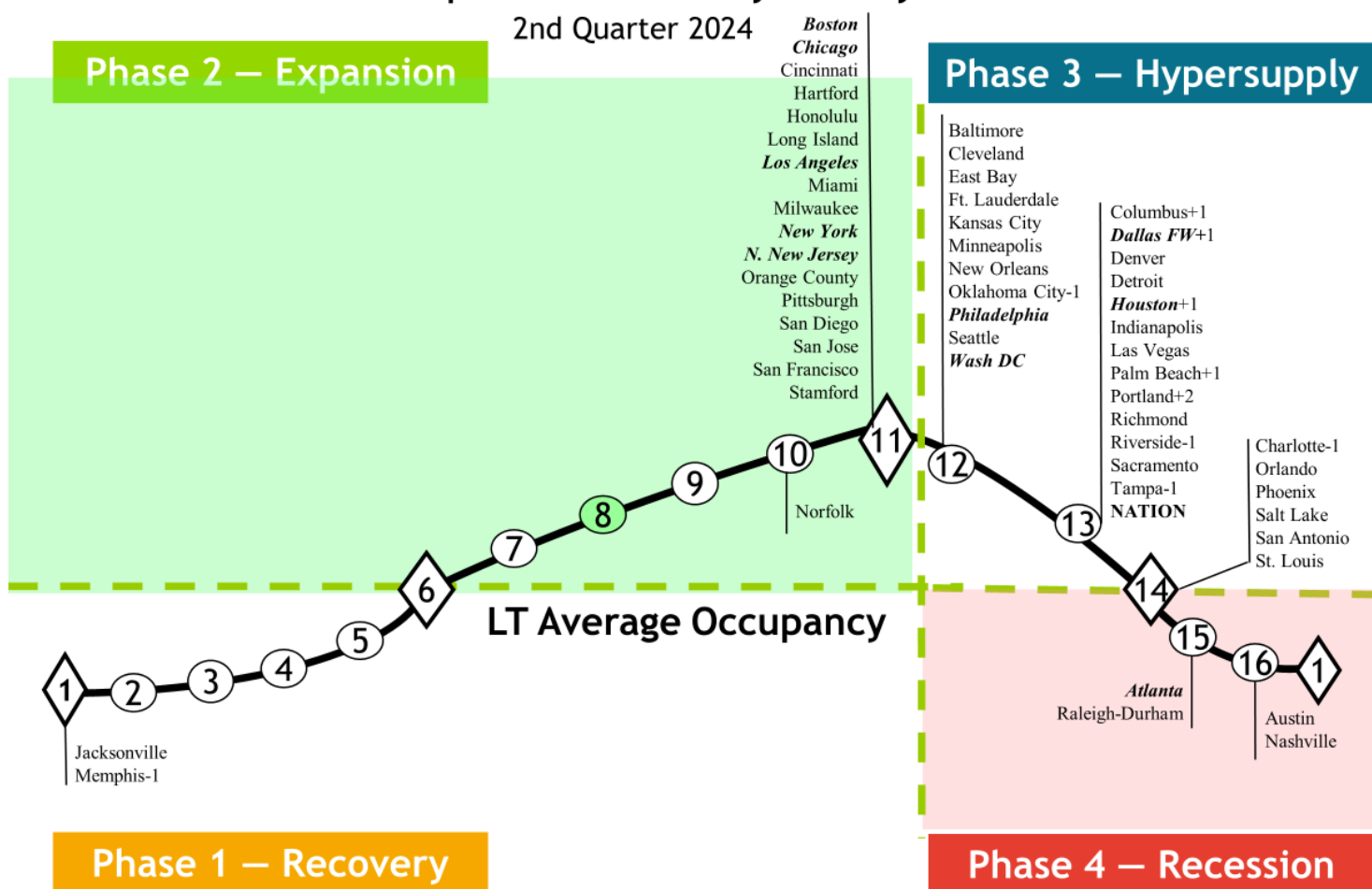
Note: The 12-largest industrial markets make up 50% of the total square footage of industrial space we monitor. Thus, the 12-largest industrial markets are in ***bold italic*** type to help distinguish how the weighted national average is affected.

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 0.3%** in 2Q24 and was **down 0.9%** year-over-year. Rising consumer confidence has propelled strong leasing demand in the first half of 2024. About 150,000 units were leased in 2Q24 an increase from the 117,000 units leased in 1Q24. Unfortunately, this was only 53% of the 316,000 units delivered in the first half of the year, driving the occupancy decline. Most of the new construction is in class A space causing lower occupancy and rent rate declines at the top, while more affordable units continue to be in the highest demand, allowing rent growth in this sub-sector to be positive. The Northeast and Midwest markets continue to perform the best, due to low new supply. This is in stark contrast to the high supply that pushed occupancy lower in Southeast and Southwest markets. The national average apartment rent growth **was up 0.1%** 2Q24 and **was up 1.0%** year-over-year.

Apartment Market Cycle Analysis



Source: Mueller, 2024

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

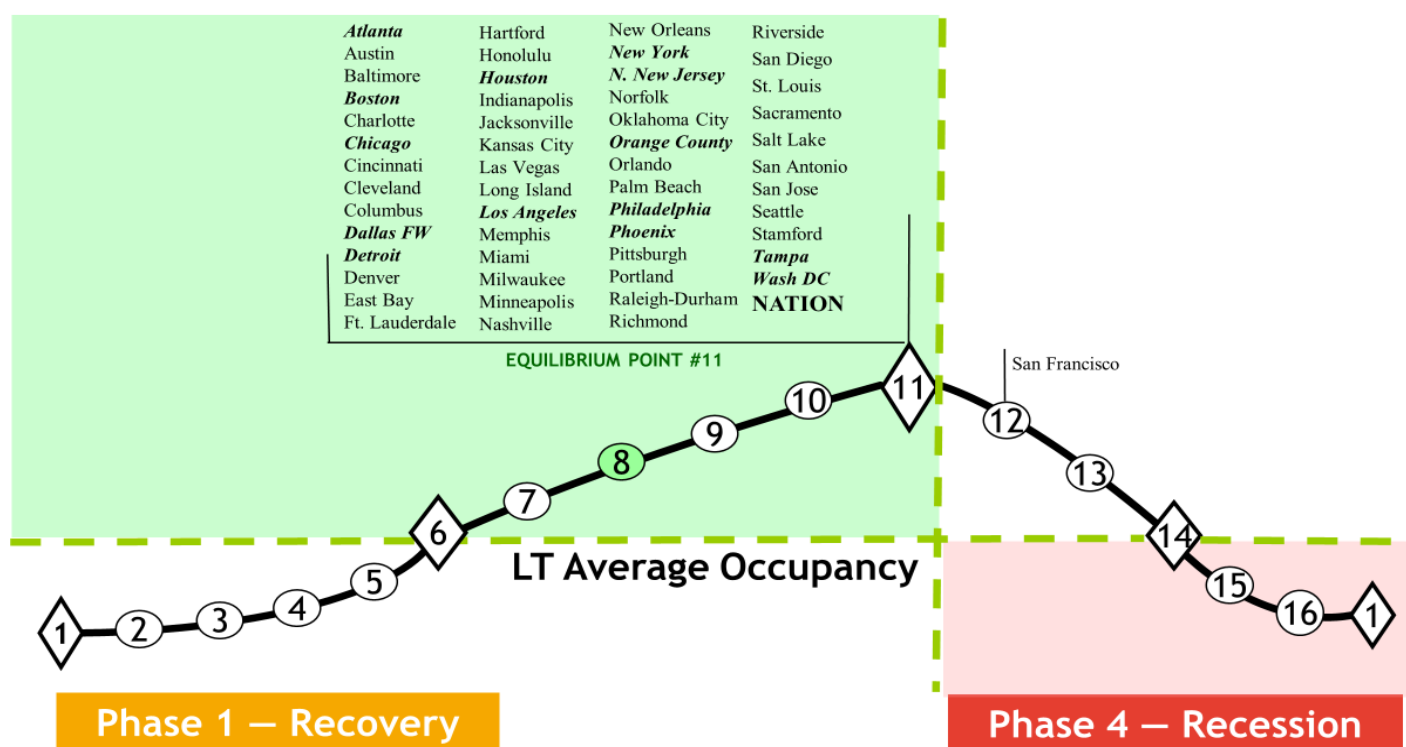
Retail occupancies were **flat** nationally in 2Q24 and **were up 0.4%** year-over-year maintaining the highest peak-occupancy level in history. Retail demand has been driven by neighborhood and community centers allowing occupancy to be at a historic peak. All the empty COVID space had been filled, as successful retailer store openings have been high, allowing for higher rents. Typically, strong fundamentals like these would lead to an increase in supply. However, since '22, strip center development starts have been minimal. Single-tenant pre-leased new construction (mostly stand alone buildings) is still the majority of starts in the market. National average retail asking rents **were up 0.3%** for the quarter and **were up 2.6%** year-over-year.

Retail Market Cycle Analysis

2nd Quarter 2024

Phase 2 — Expansion

Phase 3 — Hypersupply



Source: Mueller, 2024

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

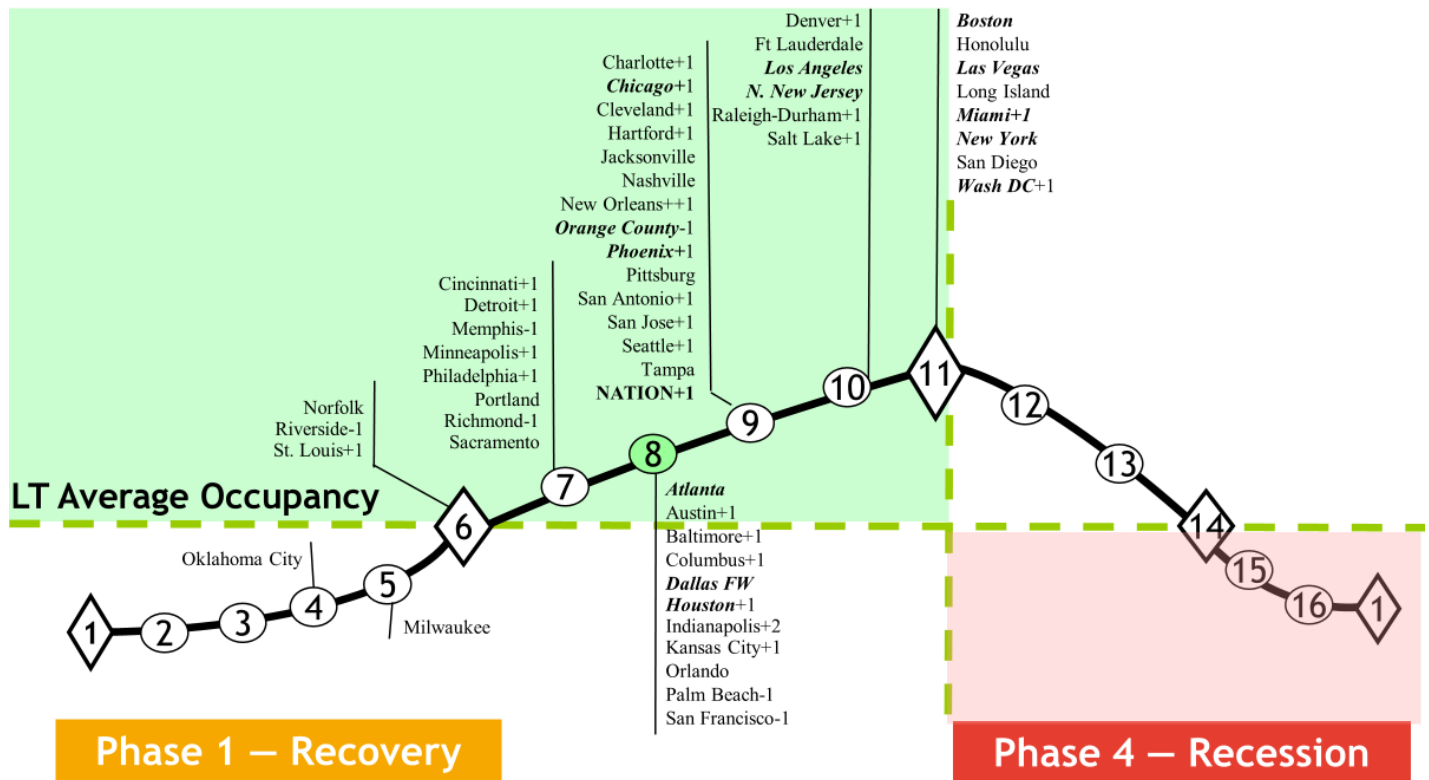
Hotel occupancies were **up 0.3%** in 2Q24 and **up 1.1%** year-over-year. Demand has bifurcated with high end and luxury room demand growing 2+% while mid-price and economy declined almost 5%. This shows that mid-to-lower income travelers are pulling back due to inflation in all their spending needs. New supply growth remained low in 2Q24 helping to improve occupancy levels in balance in most markets. Note that hotel 25 markets improved their occupancy position up on the cycle graph while only 6 markets saw a decline. The national average is now at point #9 on the graph, indicating that rents are high enough to cost-justify new construction. National average Revenue Per Available Room – (RevPAR) was **up 2.9%** for the quarter and **up 2.7%** year-over-year.

Hotel Market Cycle Analysis

2nd Quarter 2024

Phase 2 – Expansion

Phase 3 – Hypersupply



Source: Mueller, 2024

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.

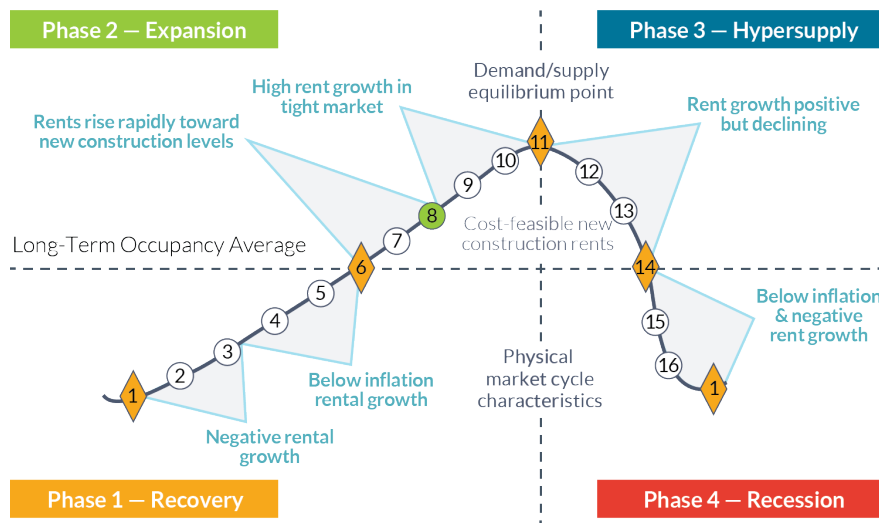
Market Cycle Analysis — Explanation

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 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.

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