UNIVERSITY of DENVER
DANIELS COLLEGE OF BUSINESS
Franklin L. Burns School of Real Estate & Construction Management

VAN KEUREN
FAMILY OFFICE REAL ESTATE ™
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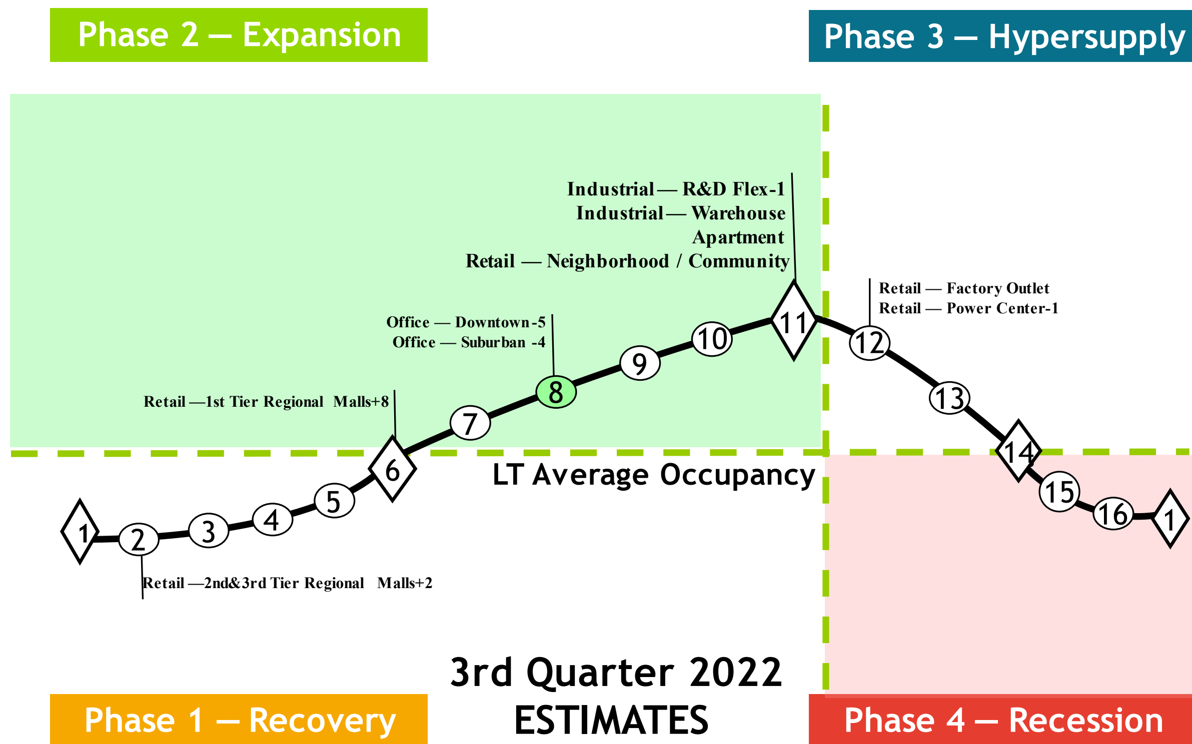
MUELLER
REAL ESTATE MARKET CYCLE FORECAST

Third Quarter 2022 Estimates

The new Biden infrastructure bill should keep the economy growing well for the next 4 to 5 years. We expect economic growth from entertainment and travel (business too!) to continue to grow back to pre-pandemic levels but think durable goods spending could slow back to pre-pandemic levels. Commercial construction should remain lower, hopefully allowing the past three years of oversupply in office to be absorbed. Low new construction and conversions to other property types should help retail stay in a reasonable balance. Inflation pressure should abate as the supply chain reopens; however, construction labor shortages could push wages higher, supporting consumer spending. We expect the Federal Reserve to keep interest rates low to support economic recovery. Most real estate should continue the strong 3Q21 rebound in rents and prices just experienced.

Office occupancies are forecast to **increase 0.1%** in 3Q22, with rents increasing 1.7% quarter-over-quarter.
Industrial occupancies are forecast to **increase 0.1%** in 3Q22, with rents increasing 1.8% quarter-over-quarter.
Apartment occupancies are forecast to **be flat** (at peak) in 3Q22, with rents increasing 0.9% quarter-over-quarter.
Retail occupancies are forecast to **increase 0.1%** in 3Q22, with rents increasing 1.4% quarter-over-quarter.

National Property Type Cycle Forecast



Source: Mueller, 2021

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

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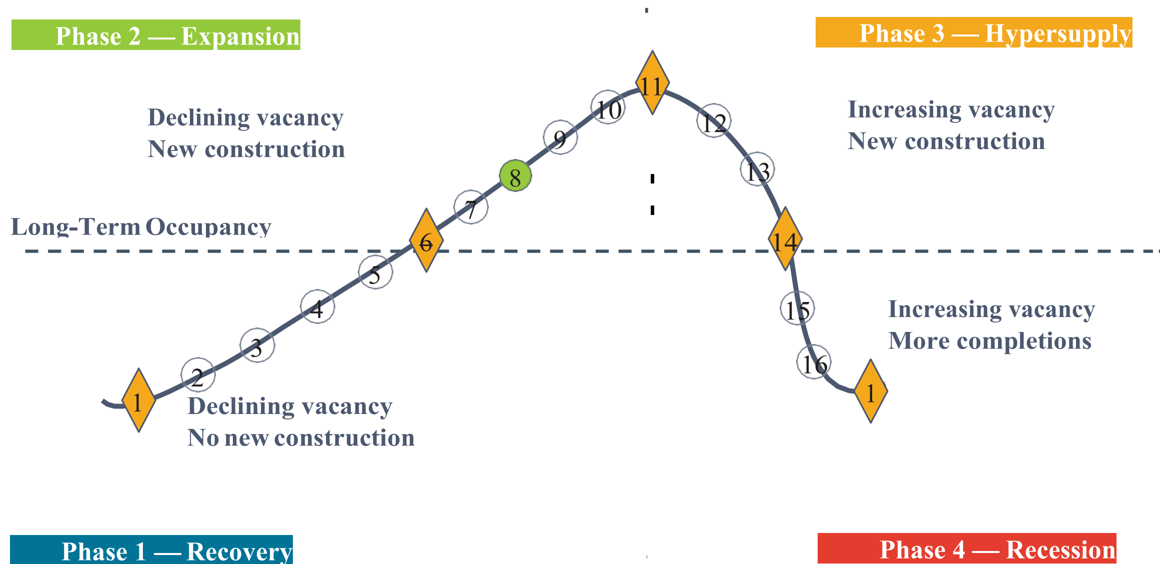
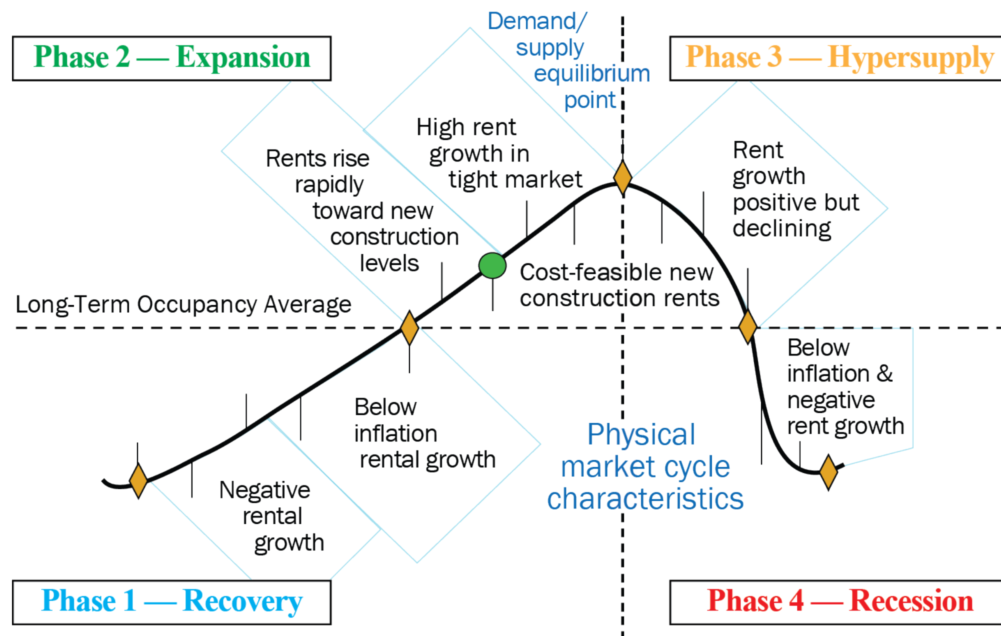
The **Cycle Forecast** analyzes occupancy movements in four property types in more than 50 Metropolitan Statistical Areas (MSAs). The market cycle analysis should enhance investment-decision capabilities for investors and operators. The four property type cycle charts summarize almost 300 individual 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.

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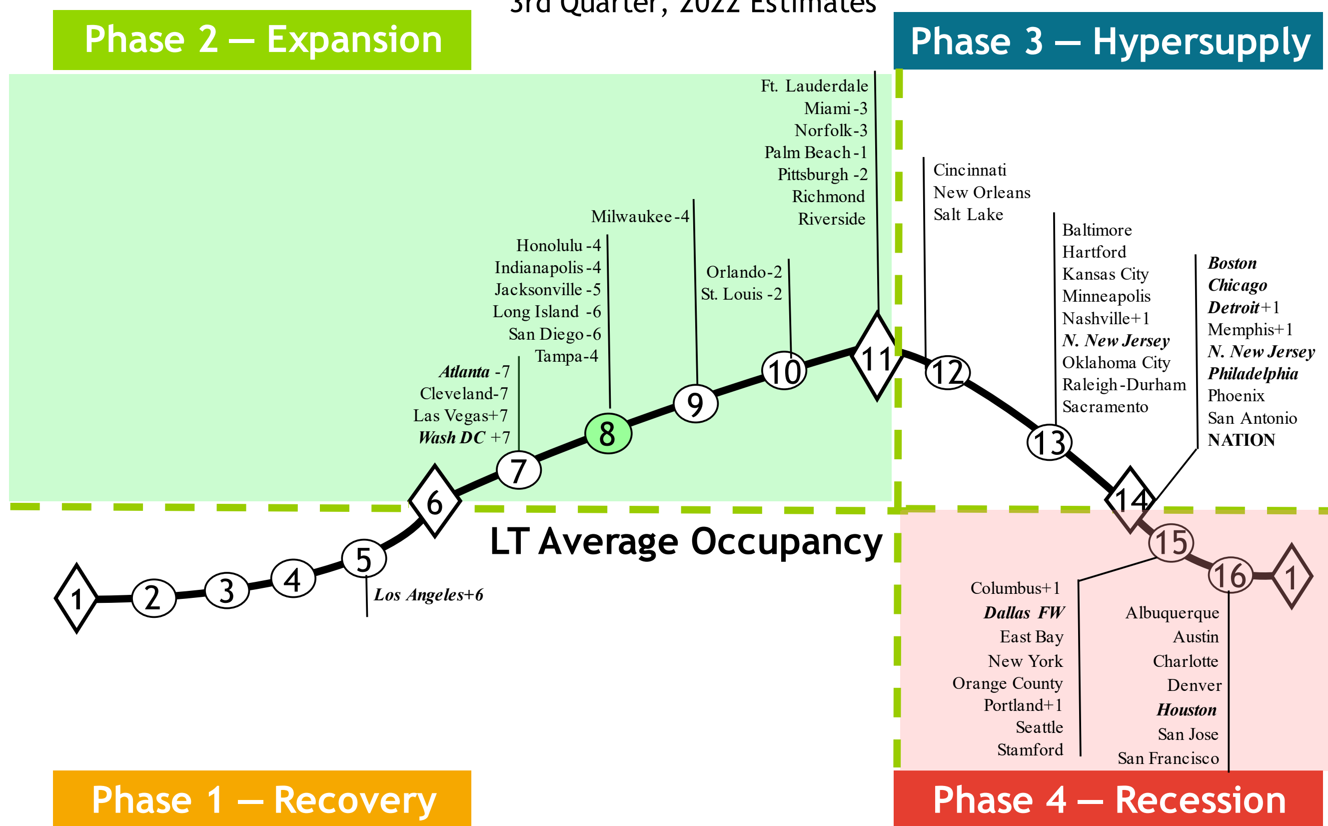
OFFICE FORECAST

Office occupancies are forecast to decline 0.1% in 3Q22 and increase only 0.1% year-over-year. We believe many markets turned the corner in 3Q21 and should be back on their way to increasing occupancies, as employment growth returns. Many of these markets are driven by high tech or tech related companies. Most of the markets are second tier markets that employees prefer to live in, where housing costs are less than the top tier gateway markets. Most to the office markets in the expansion phase of the cycle did not experience the high office construction that created oversupply during the last few years. High amenity class A office is expected to lease quickly, as companies want to make coming back to the office as attractive as possible. National average office asking rents are expected to increase 1.3% in 3Q22 and be up 2.2% year-over-year, not keeping pace with inflation.



Source: Mueller, 2021

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

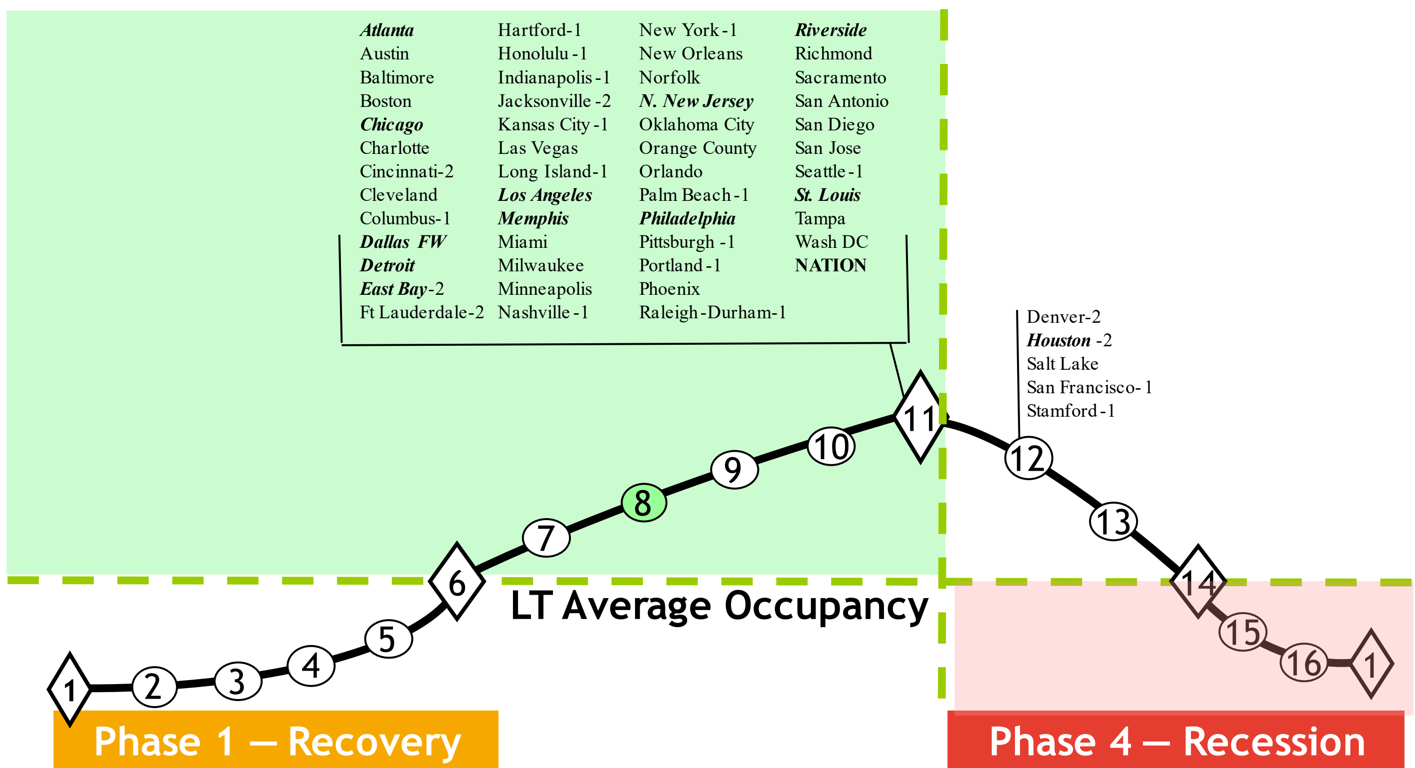
Industrial occupancies are forecast to increase 0.1% in 3Q22 and be up 0.4% year-over-year, creating another new all-time peak occupancy level. Bulk distribution and close-in "last mile" warehouse are expected to be in strong demand for the next three to five years, as both manufacturers and retailers move to improve and safeguard their supply chain systems. As office construction slows, construction resources can be focused on trying to keep up with strong industrial and apartment demand, but this may not happen for a year or two. Only four market remain in the Hypersupply phase, due to some oversupply that is coming online during this next year. We expect national average asking rents to increase 1.8% in 3Q22 and be up 7.6% year-over-year, more than twice the rate of inflation.

Industrial Market Cycle FORECAST

3rd Quarter, 2022 Estimates

Phase 2 — Expansion

Phase 3 — Hypersupply



Source: Mueller, 2021

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.

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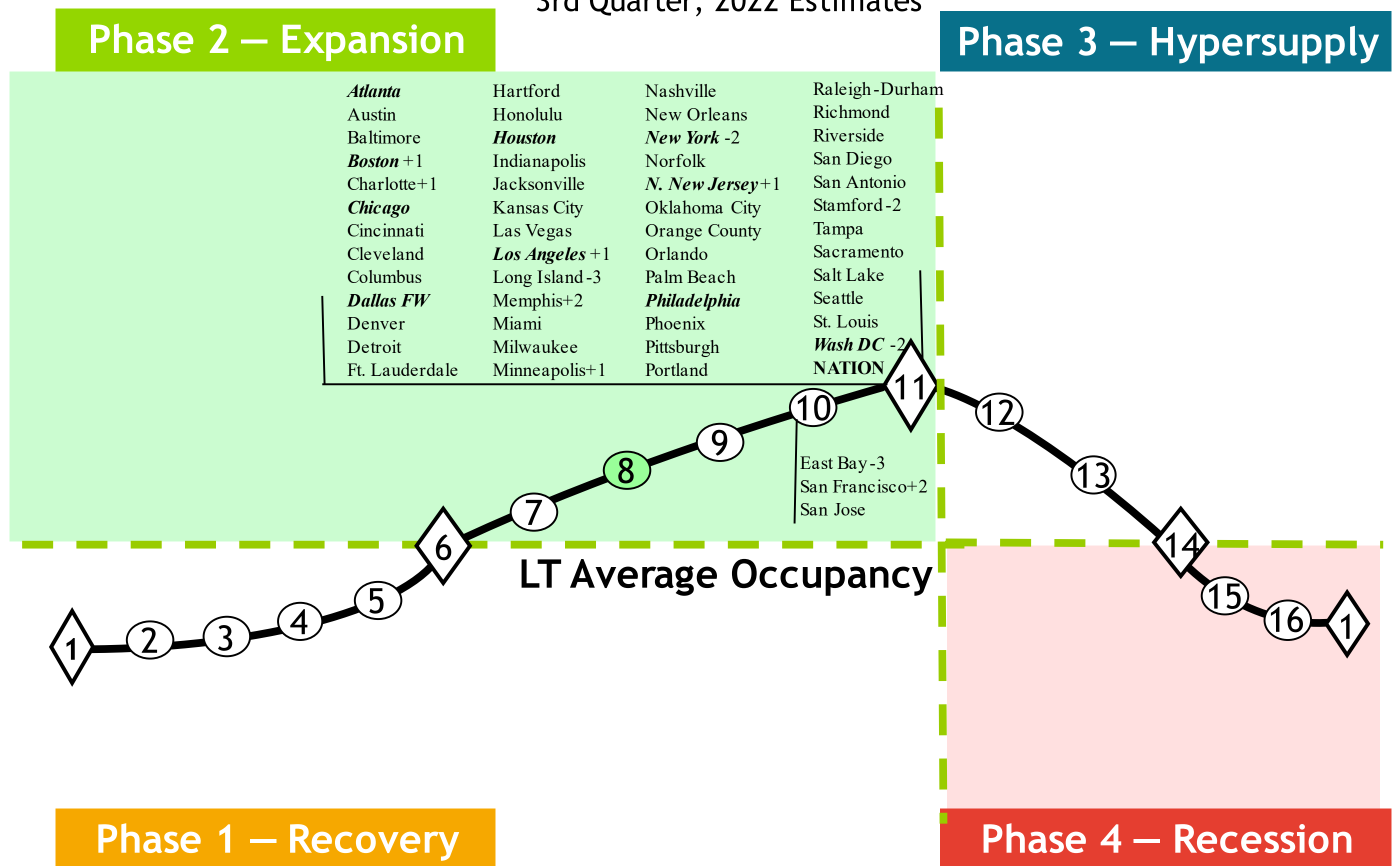
APARTMENT FORECAST

Apartment occupancies are forecast to be flat in 3Q22 and be up 0.1% year-over-year, as new peak occupancy levels continue in most markets. Employment growth should continue to drive apartment demand, a simple demographic fact as people graduate from school. Add high housing prices in almost every metro area that have priced many renters out of the home buying market to get a very positive forecast. COVID did slow new construction and now supply is no longer keeping up with the new apartment demand for the next few years. Peak occupancy levels should continue in all but three of the most expensive housing markets in the US (all in northern California). The trend back to urban submarkets has started and we expect urban occupancies and rents to outpace suburban submarkets. The national apartment asking rental rate may increase by 0.9% in 3Q22 and be up 7.7% year-over-year.

Apartment Market Cycle FORECAST

3rd Quarter, 2022 Estimates



Source: Mueller, 2021

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.

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RETAIL FORECAST

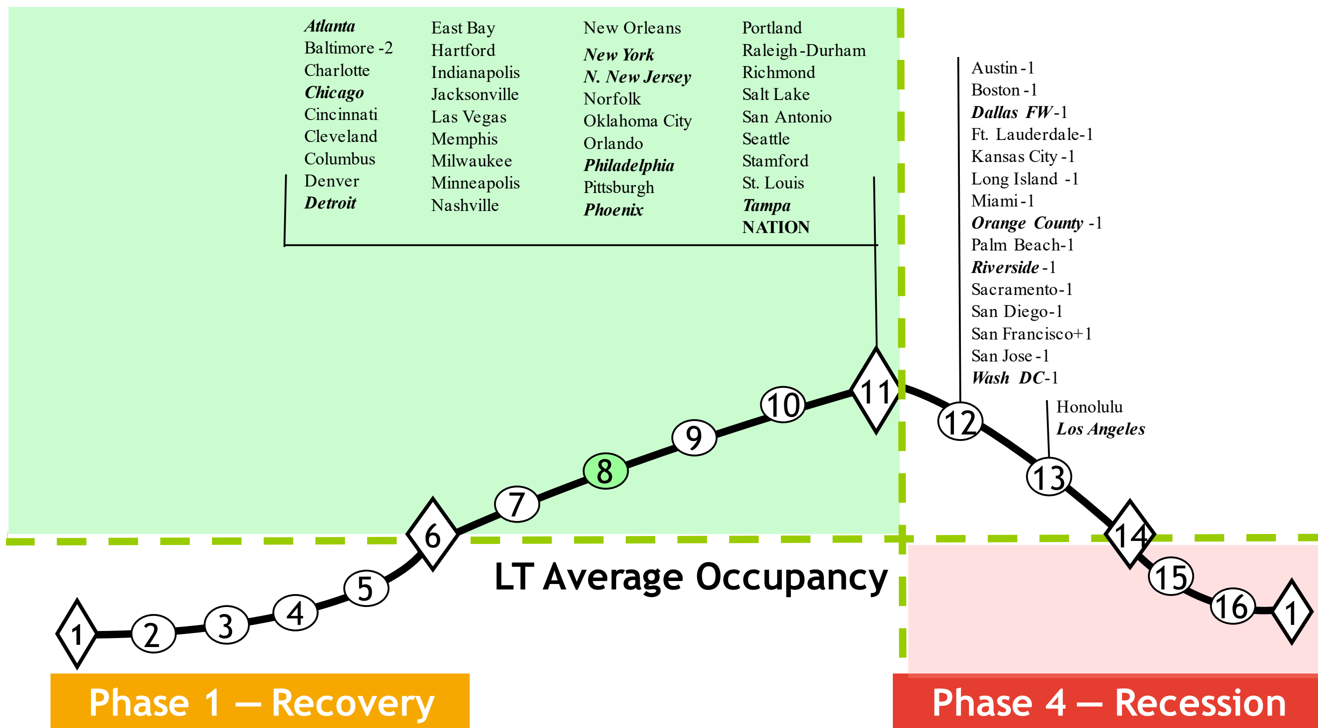
Retail occupancy is forecast to increase 0.1% in 3Q22 and increase 0.4% year-over-year. Internet sales made up 11% of all retail sales pre-pandemic and jumped to 16% during the pandemic. But, post-pandemic internet sales dropped back to 13% in 3Q21 as stores reopened and people went back their old ways. Thus, it is probably 5 or more years before internet sales make up 20% of all retail sales. The expanding economy is expected to produce future retail demand growth and supply growth dropped to 1/3 of its former levels in the last year. This low rate of supply growth is expected to continue for the next year or two until retailers figure out the new normal. We expect "COVID *HAVE"* retailers (essential goods like grocery, building materials, medical) to continue their expansions, and internet retailers like Amazon to expand their brick & mortar footprints. Experience retailing is also expected to continue its strong comeback. Retail asking rental rates are expected to increase 1.4% in 3Q22 and be up 4.9% year-over-year after previous COVID induced declines.

Retail Market Cycle FORECAST

3rd Quarter, 2021 Estimates

Phase 2 – Expansion

Phase 3 – Hypersupply



Source: Mueller, 2021

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.

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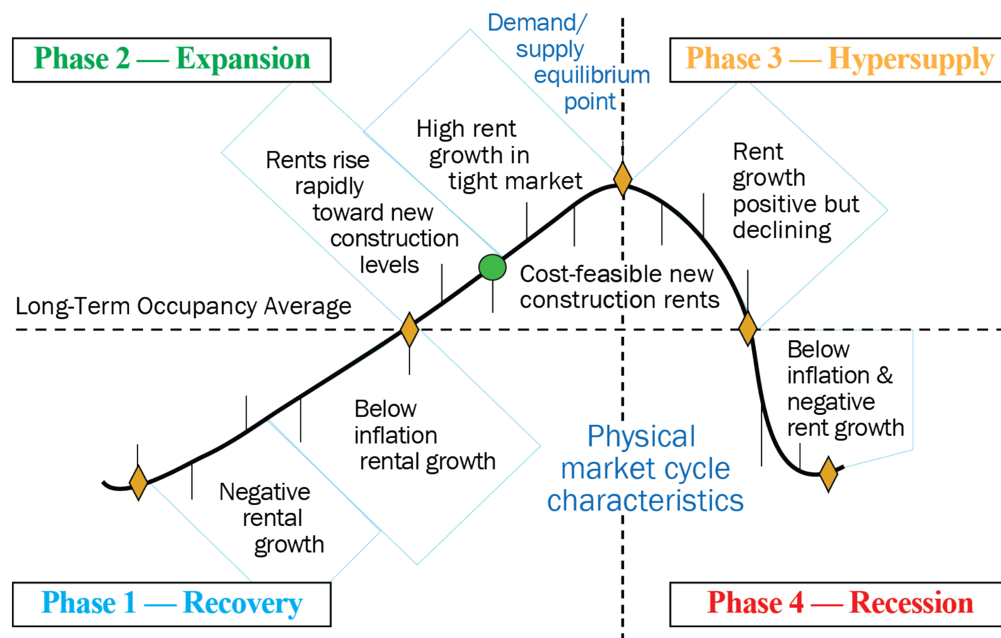
MARKET CYCLE ANALYSIS — Explanation

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.

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