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Mueller

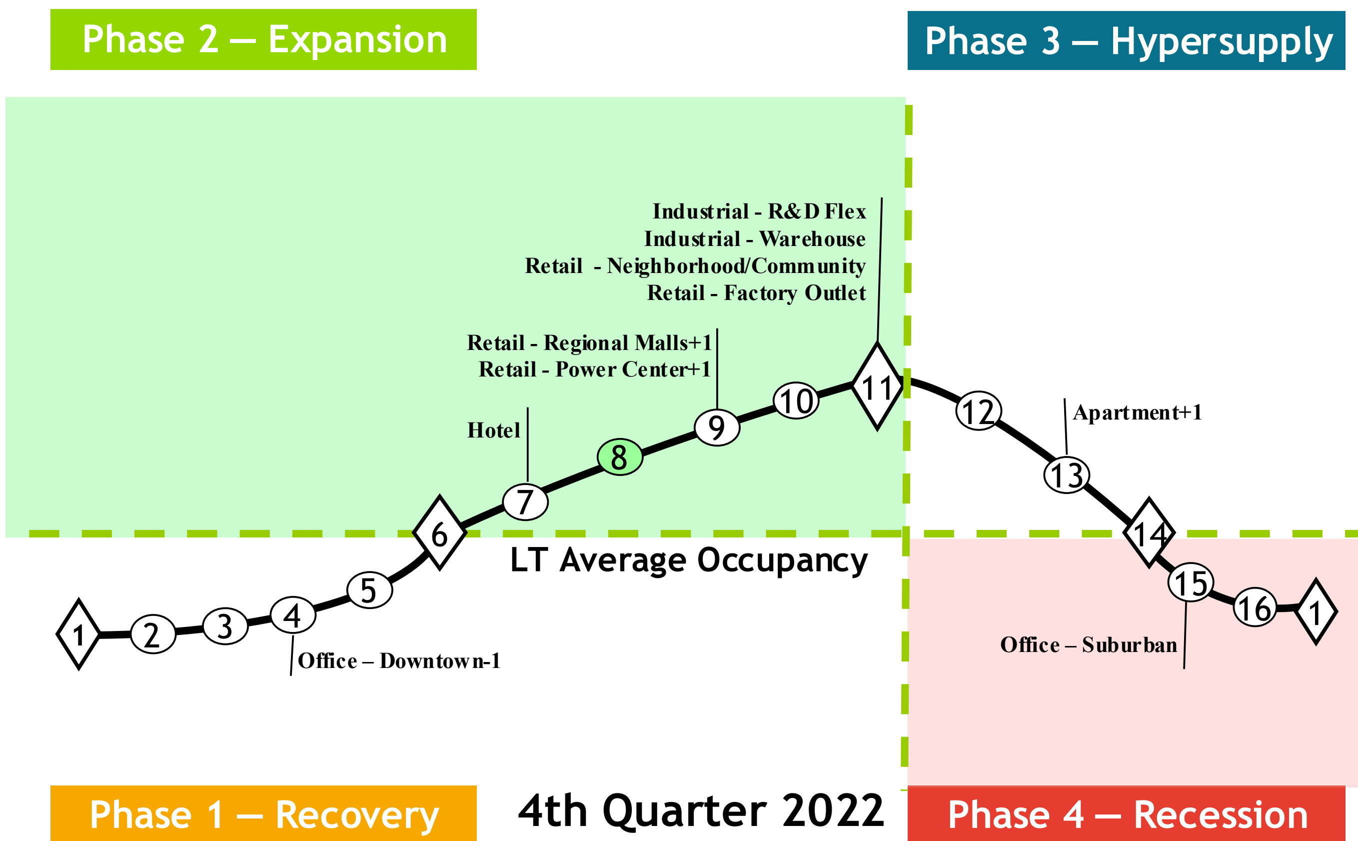
Real Estate Market Cycle Monitor

Fourth Quarter 2022 Analysis – February - 2023

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

The economy continued to grow with a surprising 517,000 new jobs in January 2023 and 11 million job postings. The Fed finally slowed rate hikes to ¼ point from ½ point raises which may end by 2024. Demand for everything but office space was good, and construction continued to be constrained by all the basic factors and banks' reluctance to take more risk in development and construction loans. Fewer economists are now predicting a recession, but consumer spending has slowed with higher goods and services costs. We expect very slow to slightly negative GDP growth in 2023.

Office occupancy **declined 0.1%** in 4Q22, and rents **grew 0.1%** for the quarter were up 1.1% annually.
Industrial occupancy **improved 0.1%** in 4Q22, and rents **grew 2.0%** for the quarter and were up 11.1% annually.
Apartment occupancy **decreased 0.5%** in 4Q22, and rents **declined 0.8%** for the quarter, and were up 3.0% annually.
Retail occupancy **improved 0.1%** in 4Q22, and rents **grew 0.7** for the quarter and were up 4.1% annually.
Hotel occupancy **improved 0.1%** in 4Q22, and average RevPAR **grew 6.0%** for the quarter and was up 19.1% annually.



Source: Mueller, 2022

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

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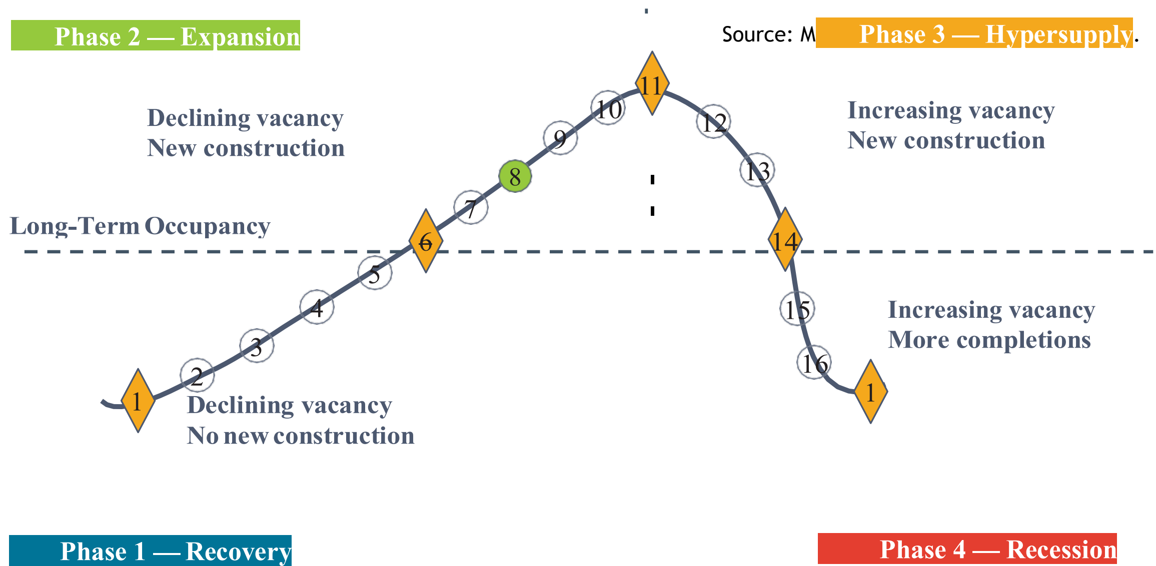
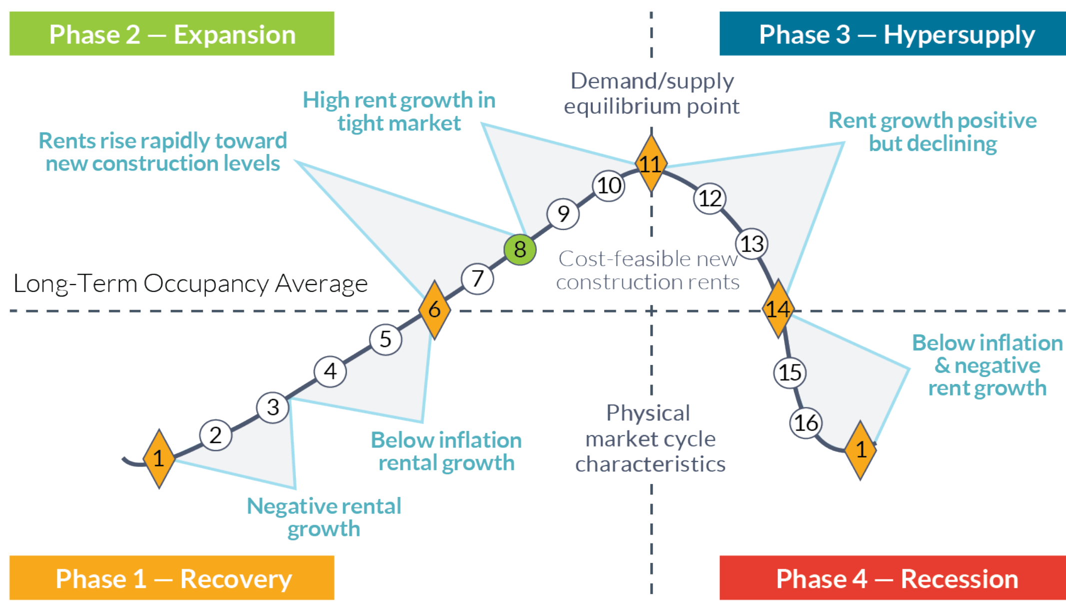
The cycle monitor analyzes occupancy movements in four property types in 54 MSAs. Market cycle analysis should enhance investment-decision capabilities for investors and operators. The five property type cycle charts summarize almost 300 individual models that analyze occupancy levels and rental growth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



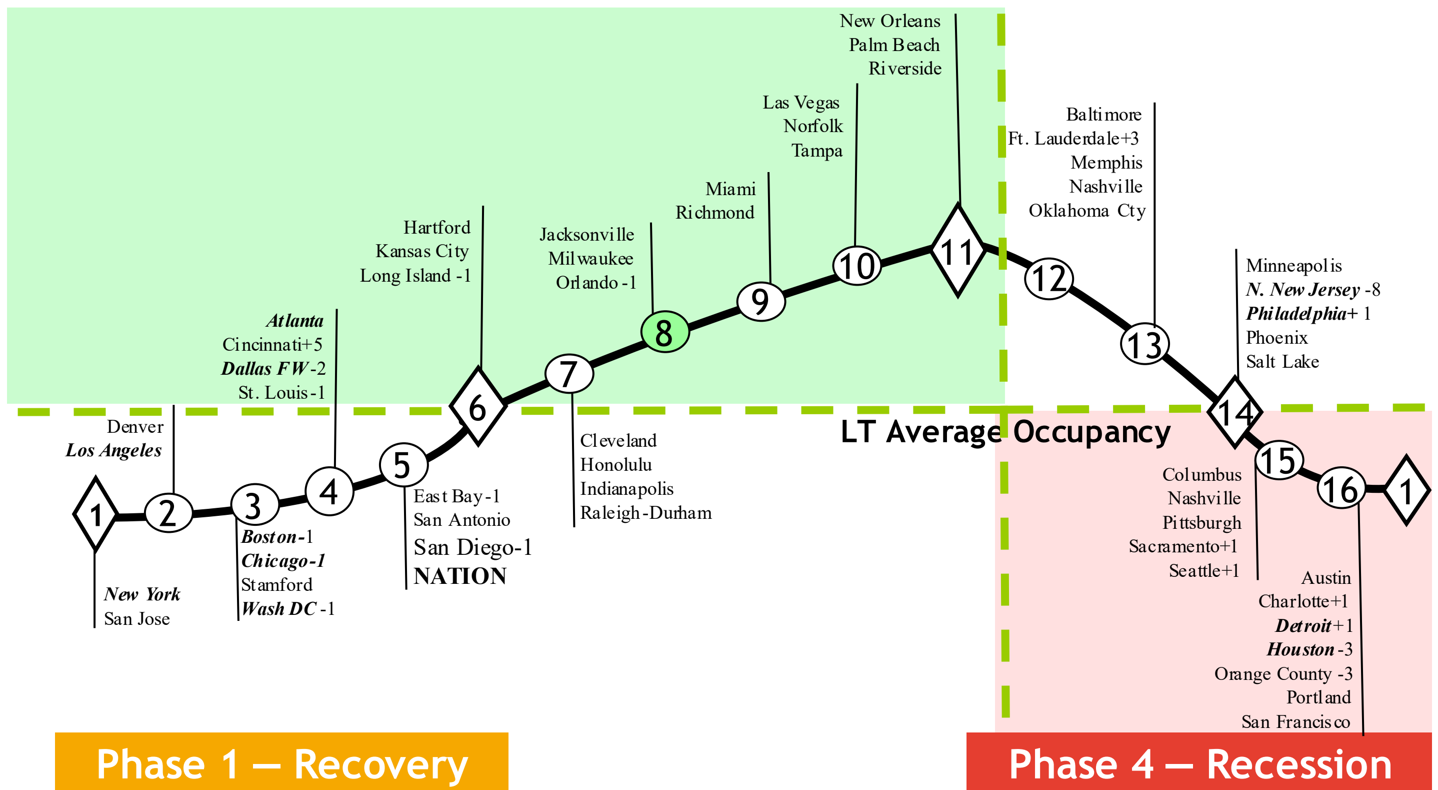
Rental growth rates can be characterized in different parts of the market cycle, as shown below.



Source: Mueller, Real Estate Finance, 1996.

Office

The national office market occupancy level decreased 0.1% in 4Q22 and was down 1.0% year-over-year. Tech firm layoffs were the headline news putting a more outlook on office demand, even though tech is only 3% of all employment. One bright spot was life-science office demand. It is estimated at year end that offices were occupied 50% of the time, versus 30% at mid-year 2022. Sub-lease space has increased to over 200 million square feet – pushing the space availability rate to over 16% (similar to the great recession rate in 2010). Many major owners have started to default on their office loans. Newer, flexible, modern space drives asking rates which improved 0.1% in 4Q22 and were up 1.1% year-over-year.

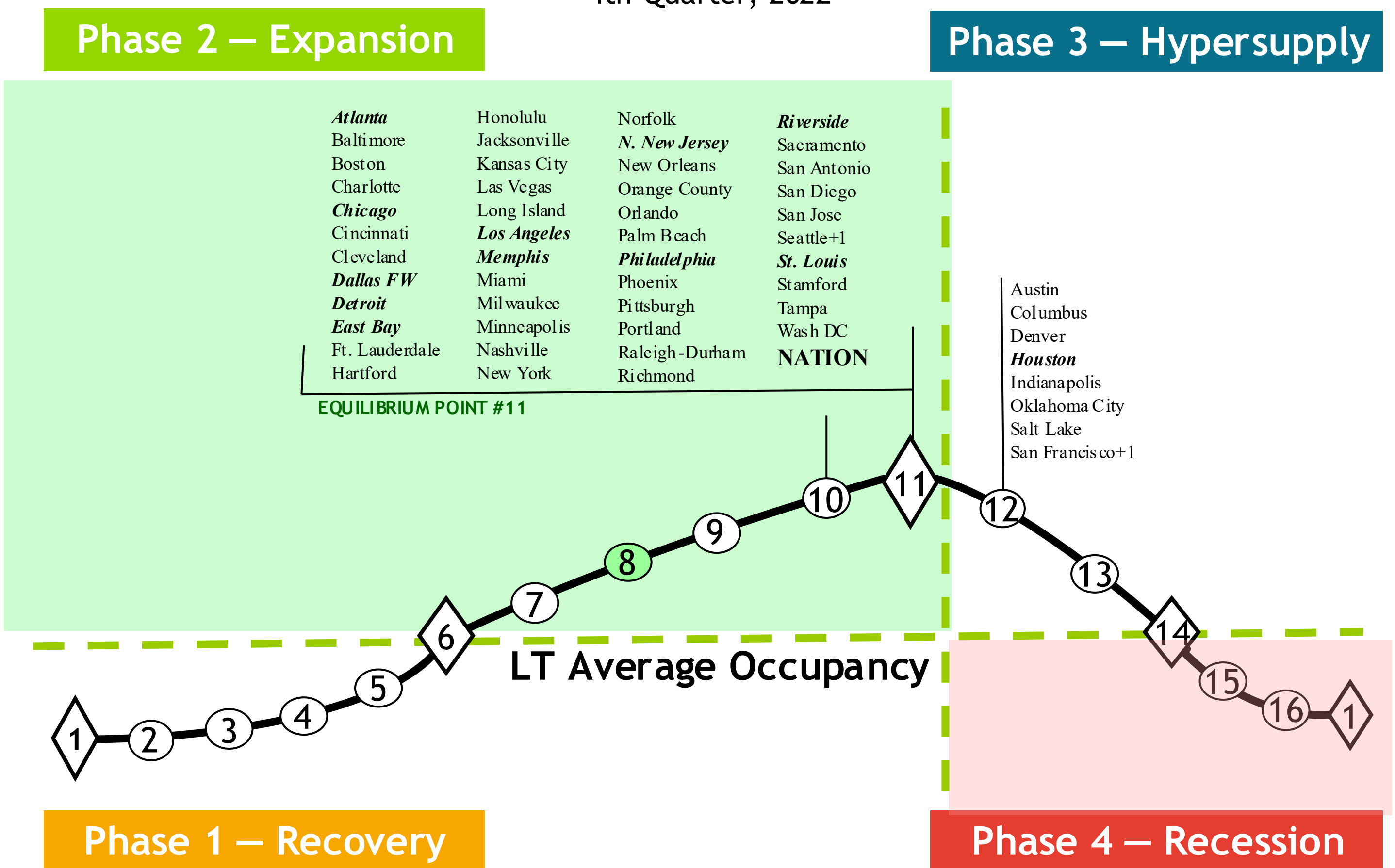


Source: Mueller, 2022

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 increased 0.1% in 4Q22 and but were up 0.3% year-over-year, close to the all-time peak. Leasing activity slowed in 2022 from its all-time high level, but the shortfall of logistics space continues. Higher interest rates, labor and material costs caused new construction to slow to ¾ of its previous 2021 pace, thus demand and supply remained in balance at year end 2022, keeping almost all markets at their peak-equilibrium occupancy level (point 11 on the cycle chart.) We expect a continuation of these fundamentals in 2023, unless the predicted minor recession becomes much larger. Rent growth was 2.0% in 4Q22 and annual rent growth averaged 11.1% year-over-year, still well above inflation.



Source: Mueller, 2022

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.

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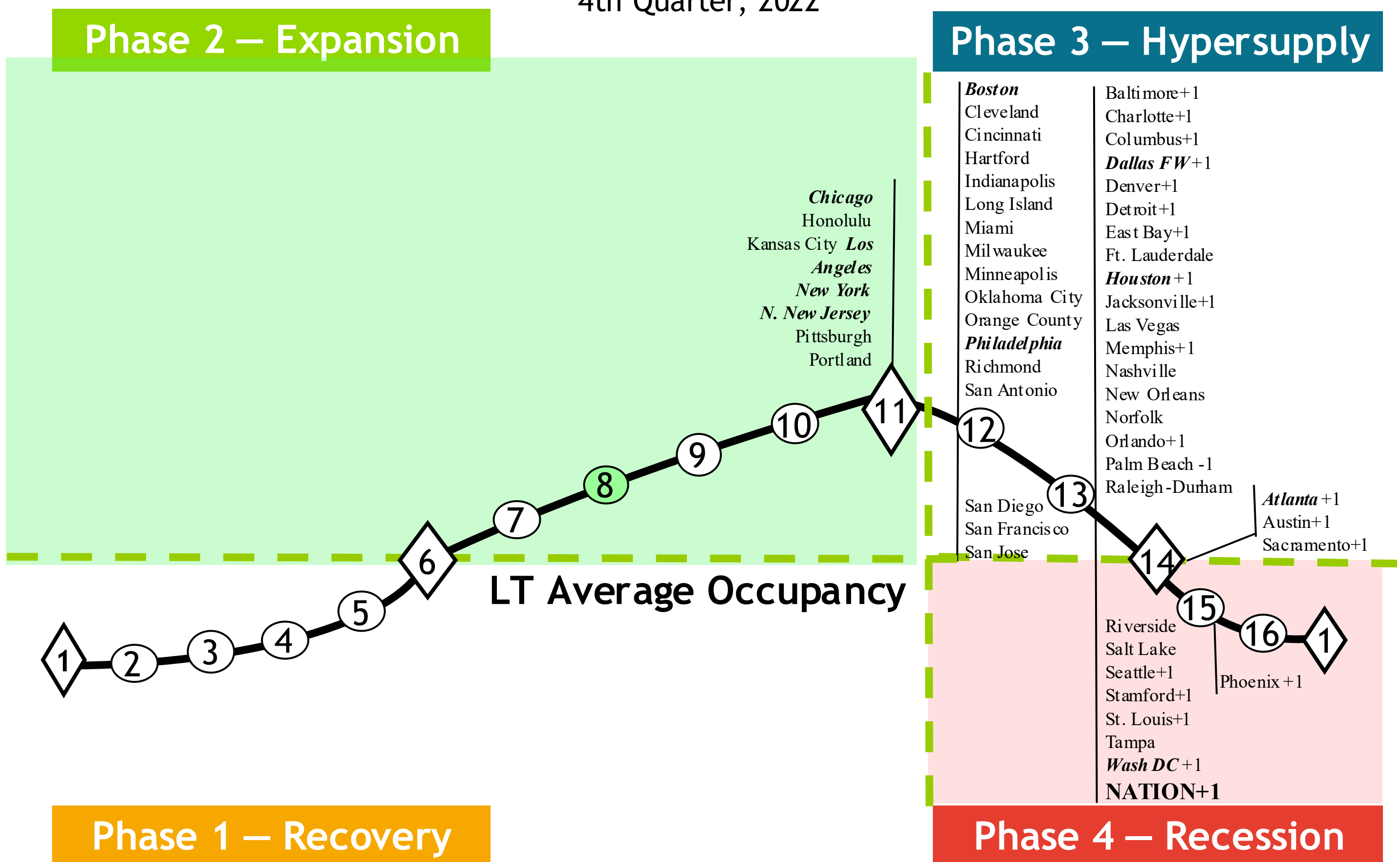
Apartment

The national apartment occupancy average declined 0.5% in 4Q22 and was down 1.5% year-over-year. Inflation in essential goods also restricted renters from affording higher rents, lowering apartment demand. Demand totaled only 141,000 units in 2022 while new supply was 435,000 units. Household formations were down substantially, due to the higher costs of both renting or owning housing. High growth markets like Austin and Phoenix were hit the hardest (with minor rent declines in 2022, after close to 20% increases in 2021). Moderate growth mid-west markets had a much better demand/supply balance and had goo rent growth. National average apartment asking rent growth declined 0.8% in 4Q22, but rent growth was up 3.0% year-over-year.

Apartment Market Cycle Analysis

4th Quarter, 2022



Source: Mueller, 2022

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.

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Retail

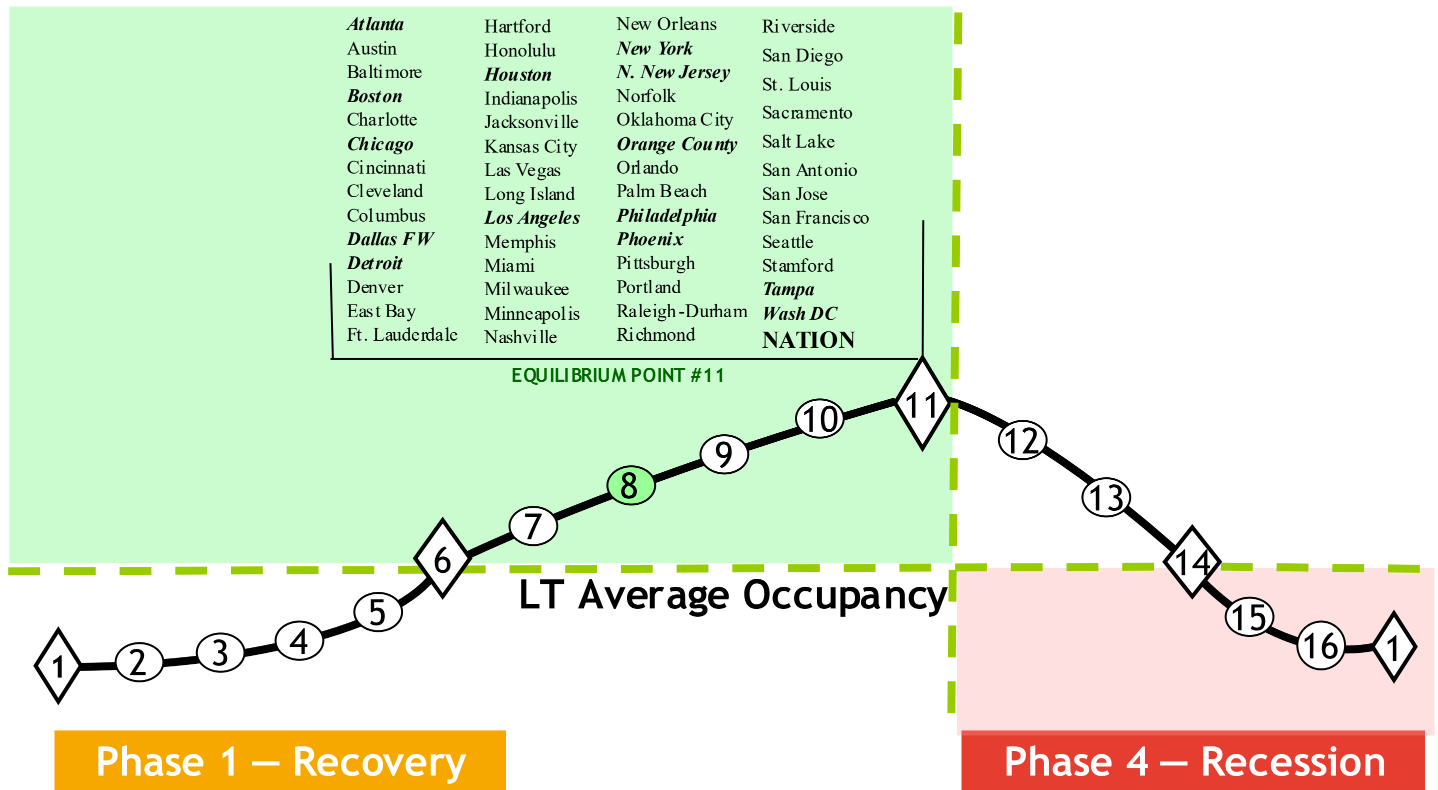
Retail occupancies were up 0.1% in 4Q22 and up 0.5% year-over-year to yet another new peak level. Demand was strong with 230+ million square feet of leasing in 2022 and only 20 million of retail closures and only 48 million square feet of new supply. Additionally, conversions of old retail to apartment or close in warehouse has helped further improve demand-supply fundamentals. Note that 80% of new construction was pre-leased before construction began in 2022, much of this being mandated by tighter lending standards. National average retail asking rents were up 0.7% for the quarter and were up 4.1% year-over-year.

Retail Market Cycle Analysis

4th Quarter, 2022

Phase 2 – Expansion

Phase 3 – Hypersupply



Source: Mueller, 2022

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.

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Hotel

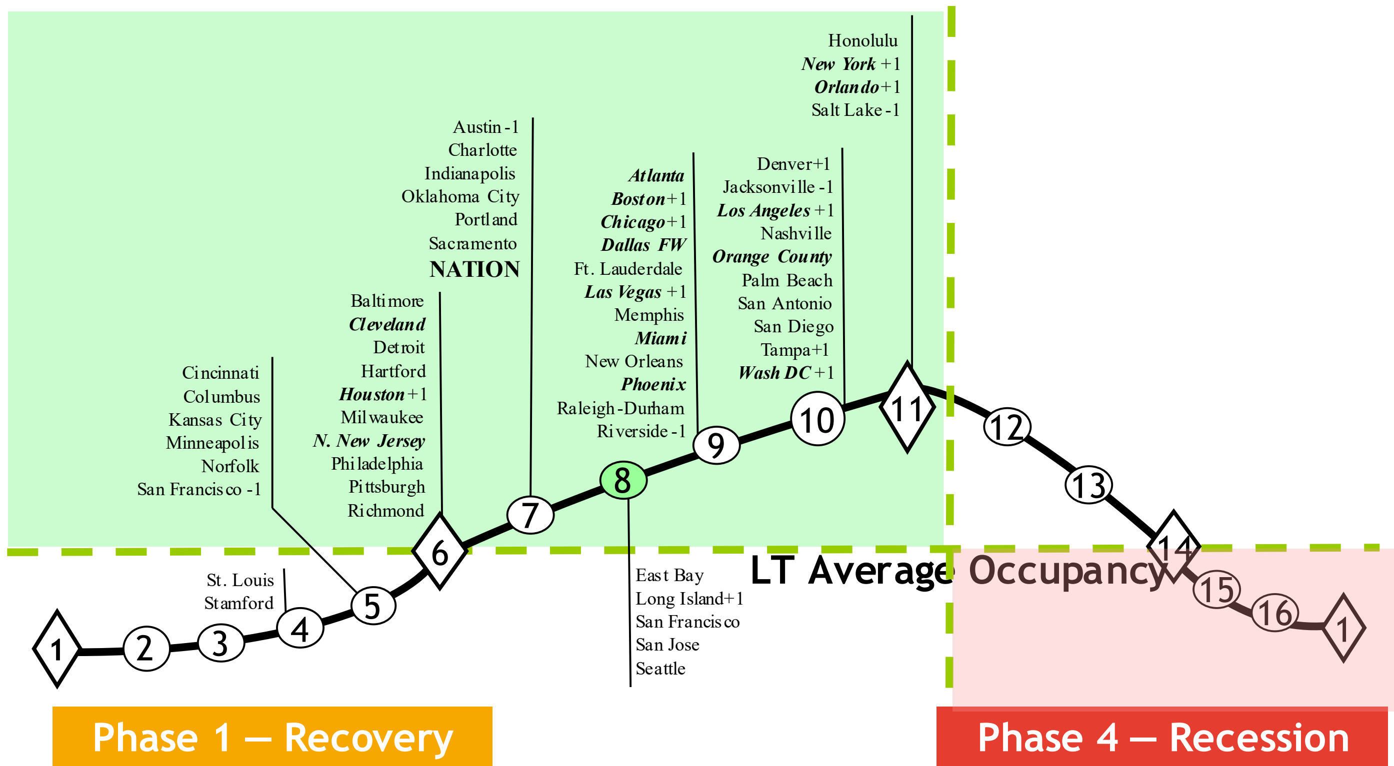
Hotel occupancies were up 0.1% in 4Q22 and up 1.0% year-over-year. Leisure travel continues to be strong, and the re-opening of China travel could produce additional demand for top international destinations like Las Vegas and Orlando. Convention business continued to improve as face-to-face interactions are even more important, now that people are not in the office interacting as much. Urban business travel was still slow, but the US government reopened allowed travel and many business hotels where government employees stay saw an increase in demand. National average Revenue Per Available Room - RevPAR was up 6.0% for the quarter and up 19.1% year-over-year.

Hotel Market Cycle Analysis

4th Quarter, 2022

Phase 2 — Expansion

Phase 3 — Hypersupply



Phase 1 — Recovery

Phase 4 — Recession

Source: Mueller, 2022

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.

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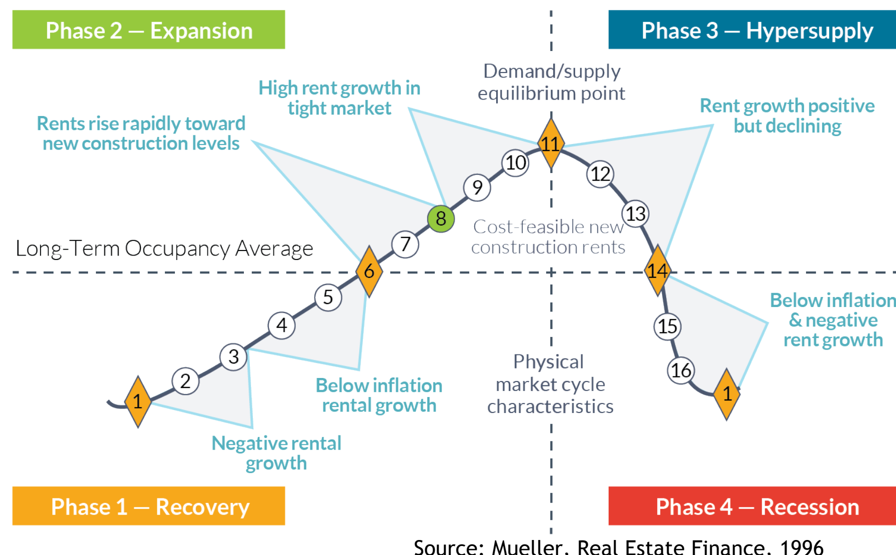
Market Cycle Analysis — Explanation

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 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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