

Mueller

Real Estate Market Cycle Monitor

First Quarter 2021 Analysis

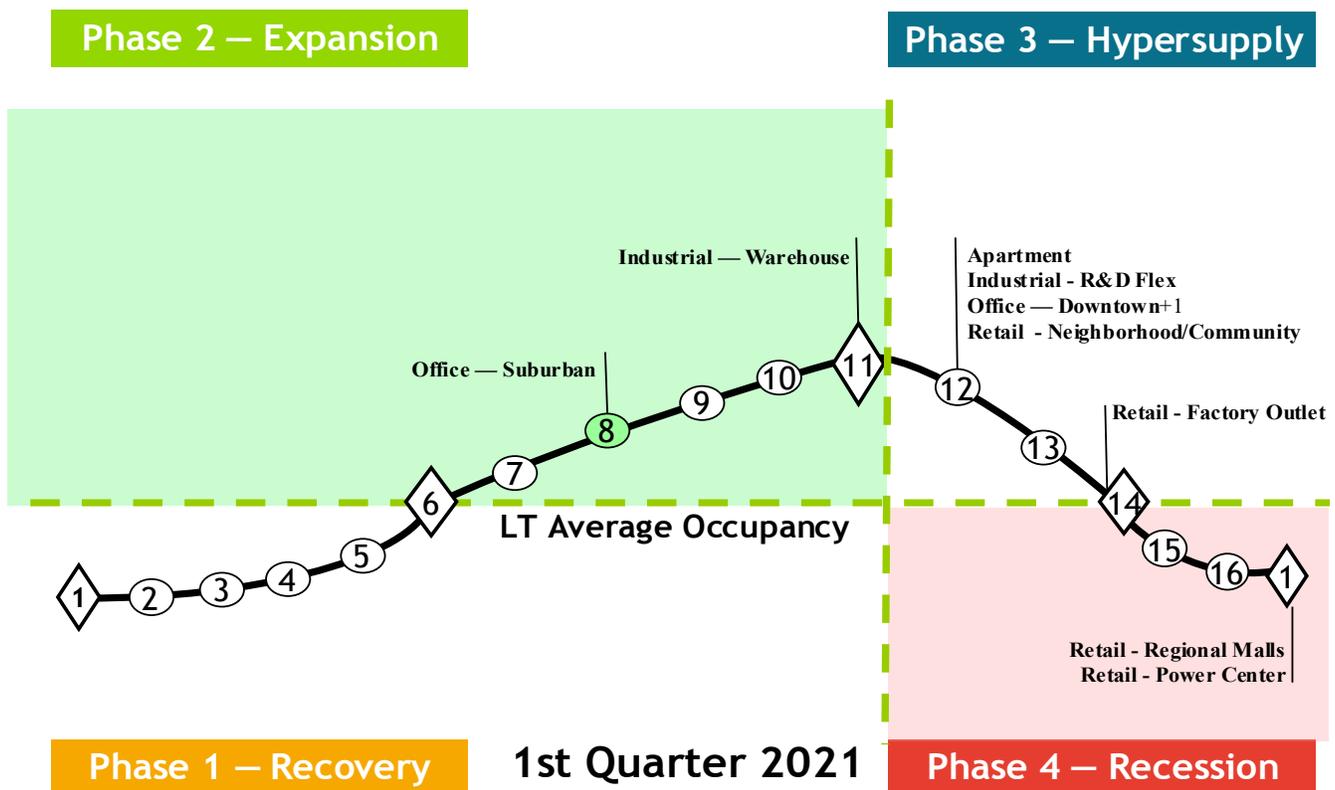
May 2021

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

GDP was up 6.4% in 1Q2021 as COVID infection cases dropped and consumer confidence increased. With restrictions being lifted in 2Q2021 the economic forecast for the full year is very positive. Employment growth has lagged expectations as many people are making more on COVID unemployment benefits than they would working – thus a minor labor shortage is occurring. How space demand evolves is the big question and very different for each property type. It is most likely that the US Government should keep interest rates low to stimulate the economy and to keep their increasing debt service payments low. The future for much of real estate is harder to predict than any post-recession recovery in history.

Office occupancy **declined 0.3%** in 1Q21, and rents **were flat** for the quarter and were down 0.4% annually. Industrial occupancy **improved 0.4%** in 1Q21, and rents **grew 1.5%** for the quarter and 4.6% annually. Apartment occupancy **improved 0.1%** in 1Q21, and rents **grew 2.1%** for the quarter, and up 3.8% annually. Retail occupancy **declined 0.1%** in 1Q21, and rents **grew 0.4%** for the quarter and were flat annually.

National Property Type Cycle Locations



Source: Mueller, 2021

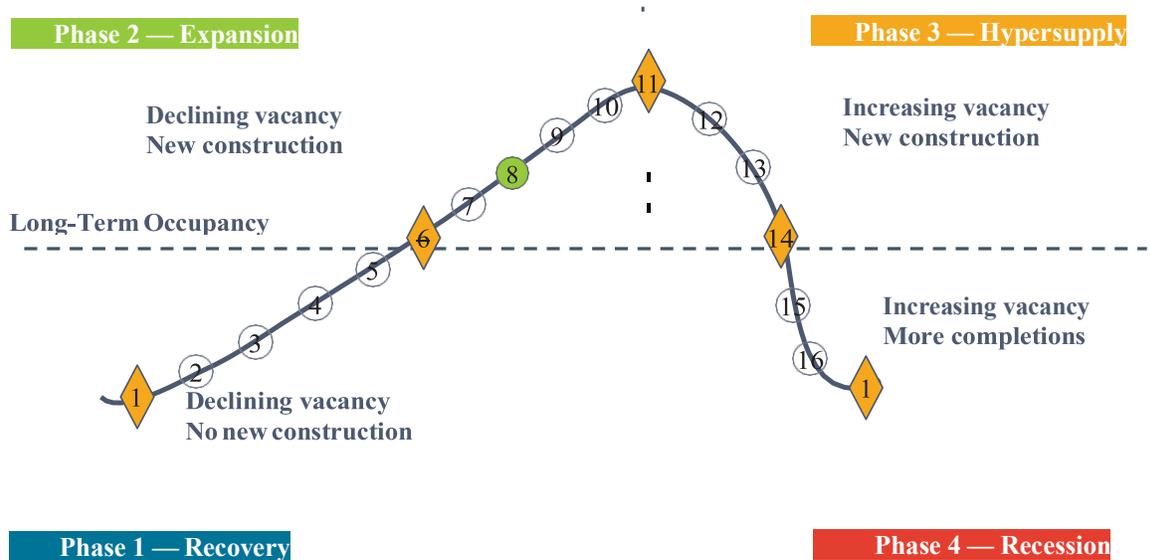
The National Property Type Cycle Locations graph shows relative positions of the sub-property types.

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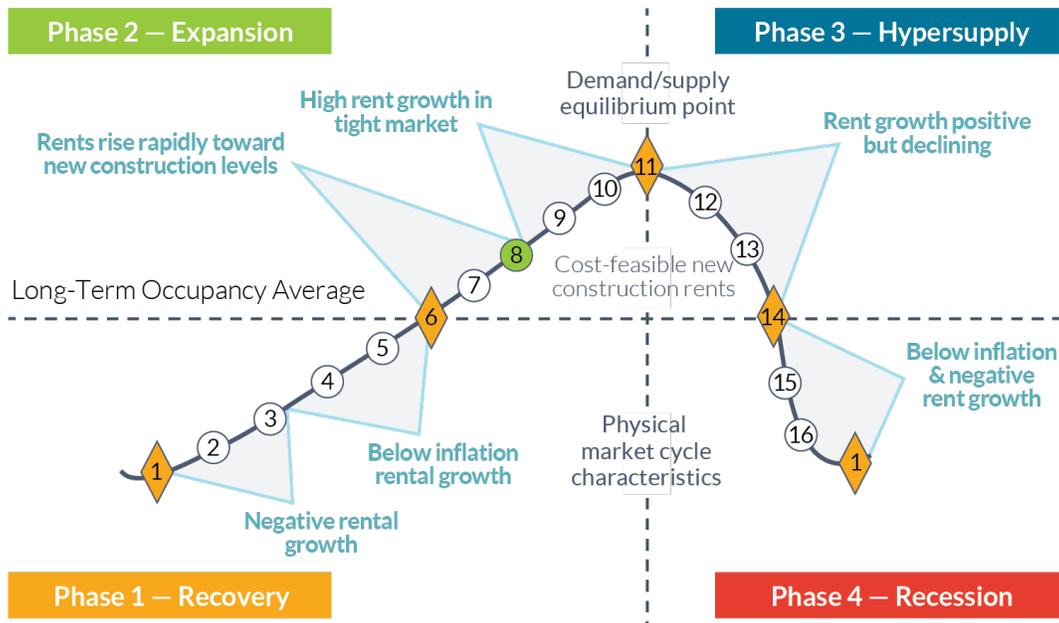
The cycle monitor analyzes occupancy movements in four property types in 54 MSAs. Market cycle analysis should enhance investment-decision capabilities for investors and operators. The five property type cycle charts summarize almost 300 individual models that analyze occupancy levels and rental growth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



Source: Mueller, Real Estate Finance, 1996.

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

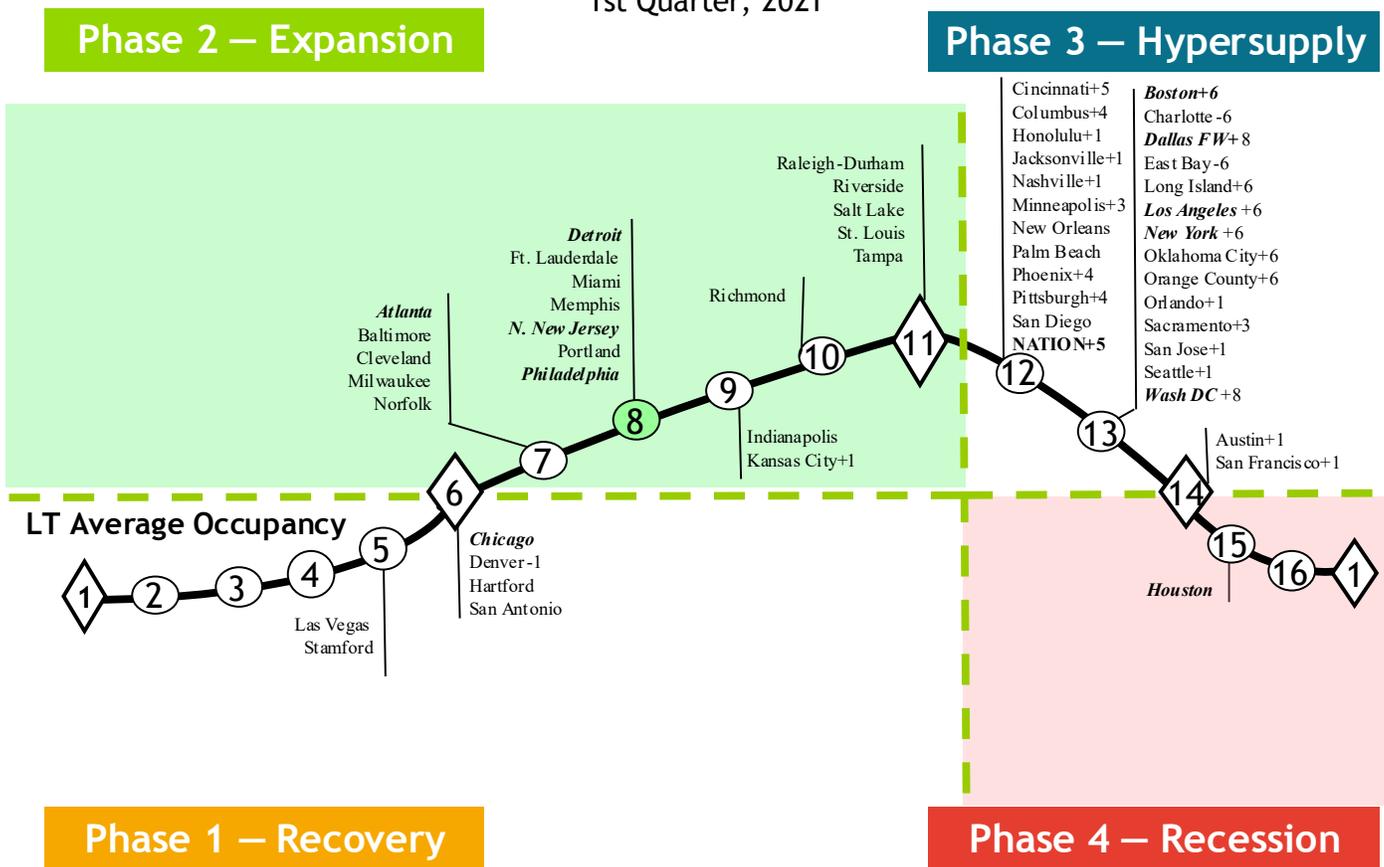


Source: Mueller, Real Estate Finance, 1996.

Office

The national office market occupancy level declined 0.3% in 1Q21 and was down 1.3% year-over-year. Many market occupancies shifted to the hyper-supply phase where they are expected to decline in the future. The move from high cost “gateway” east and west coast markets to the lower cost of living – second tier markets seems to have been accelerated by COVID. Back to the office has begun with the mask mandate lifted, but many firms are taking the return slowly to manage employee flex working desires. The rest of 2021 should give good guidance on how office use may change post-COVID. Average national rents decreased 0.1% in 1Q21 and produced a negative 0.1% asking rent decline year-over-year.

Office Market Cycle Analysis 1st Quarter, 2021



Source: Mueller, 2021

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.

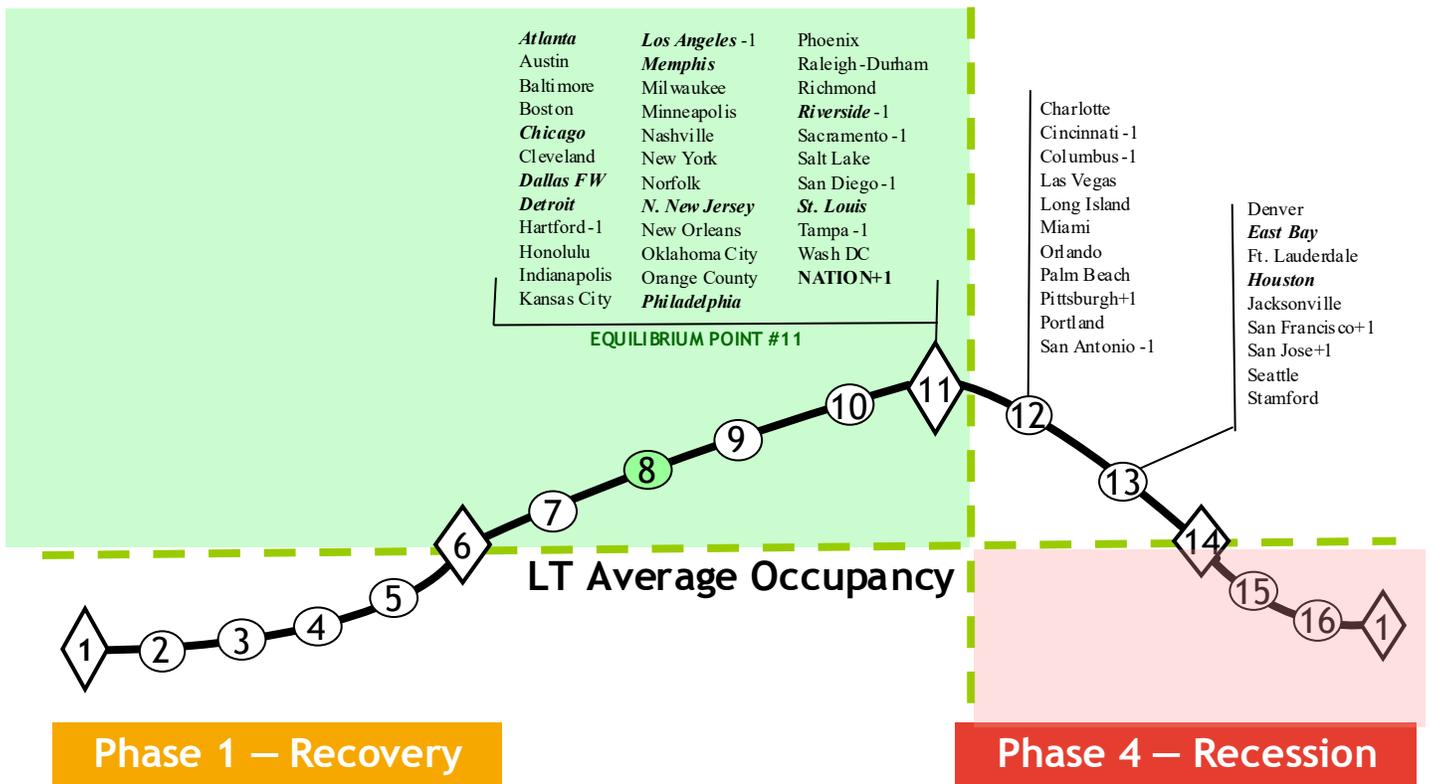
Industrial

Industrial occupancies increased 0.4% in 1Q21 and were up 0.2% year-over-year. The national average occupancy returned to peak equilibrium point #11 on the cycle chart. Demand grew at a 50% higher rate in 1Q21 than two years previously and supply did not quite keep up with demand in the quarter. High supply forecasts are a minor concern in most markets, as the material and labor cost increases may subdue future supply growth. Bulk warehouse continues to have strong demand from essential goods retailers, while close in “last mile” warehouse is the highest demand product from logistics delivery firms like Amazon. As imports have increased the costal markets have returned to peak occupancy with rent growths as high as 10%. Industrial national average rents increased 1.5 % in 1Q21 and grew 4.6% year-over-year.

Industrial Market Cycle Analysis 1st Quarter, 2021

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 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

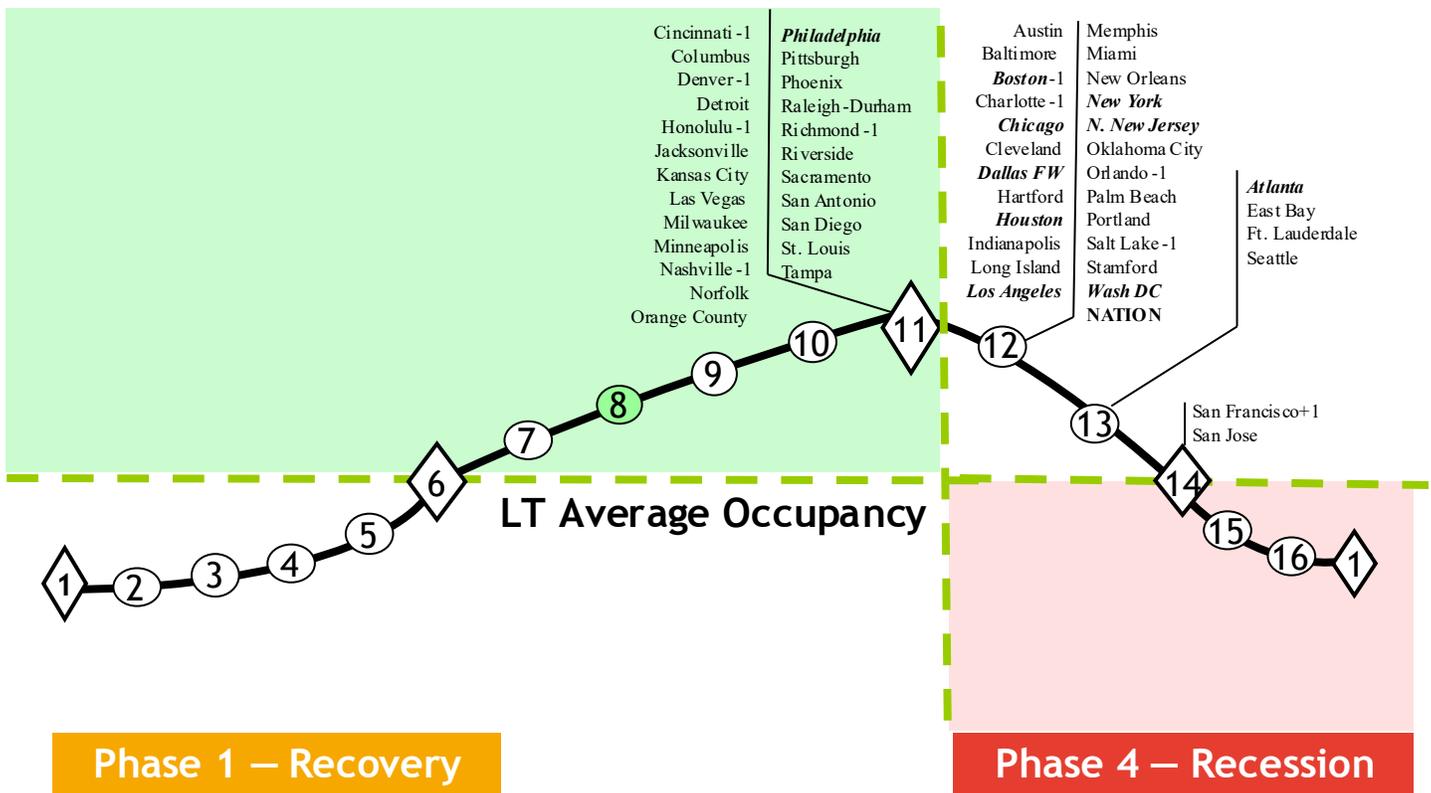
The national apartment occupancy average increased 0.1% in 1Q21 and was up 0.1% year-over-year. Demand improved as jobs grew and supply delivery slowed with COVID restrictions still in place. The trend of moving from downtowns to suburbs continued as people increased apartment size while leaving high amenities locations. The move from gateway major markets also continued and second tier markets absorbed that demand and moved back to peak occupancy point #11 on the market cycle graph. Over-supply was still present in many markets, but at a lower rate than 2020. Rent growth was strongest in the suburbs with average national apartment asking rent growth of 2.1% in 1Q21 and up 3.8% year-over-year.

Apartment Market Cycle Analysis

1st Quarter, 2021

Phase 2 – Expansion

Phase 3 – Hypersupply



Source: Mueller, 2021

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.

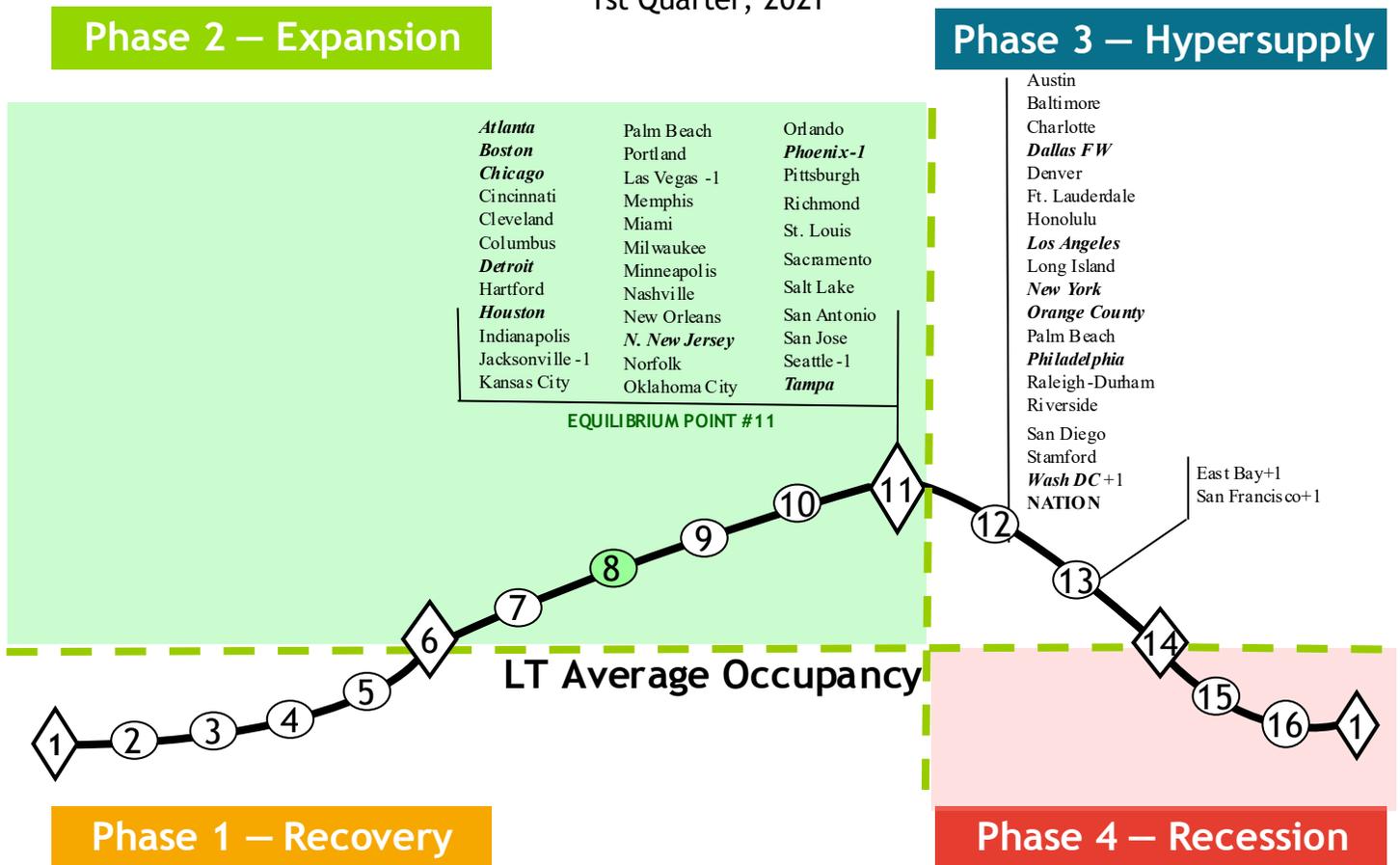
Markets that have moved since the previous quarter are now shown with a + or - symbol next to the market name and the number of positions the market has moved is also shown, i.e., +1, +2 or -1, -2. Markets do not always go through smooth forward-cycle movements and can regress or move backward in their 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 up 0.1% in 1Q21 but were down -0.2% year-over-year. Mall and restaurant re-openings saw major foot traffic return. The new challenge is getting employees, even when offering higher wages. Much retail space is seeing demand from non-retail uses including healthcare, office, and other non-retail users. The COVID “*Haves*” retailers continued to expand and lease additional space in higher growth 2nd tier cities. National average retail asking rents were up 0.4% for the quarter and were flat year-over-year.

Retail Market Cycle Analysis

1st Quarter, 2021



Source: Mueller, 2021

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 began to recover in 1Q21, with many hotels reopening. Leisure travel was driving the new demand with business travel expected to begin in the second half of the year.

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

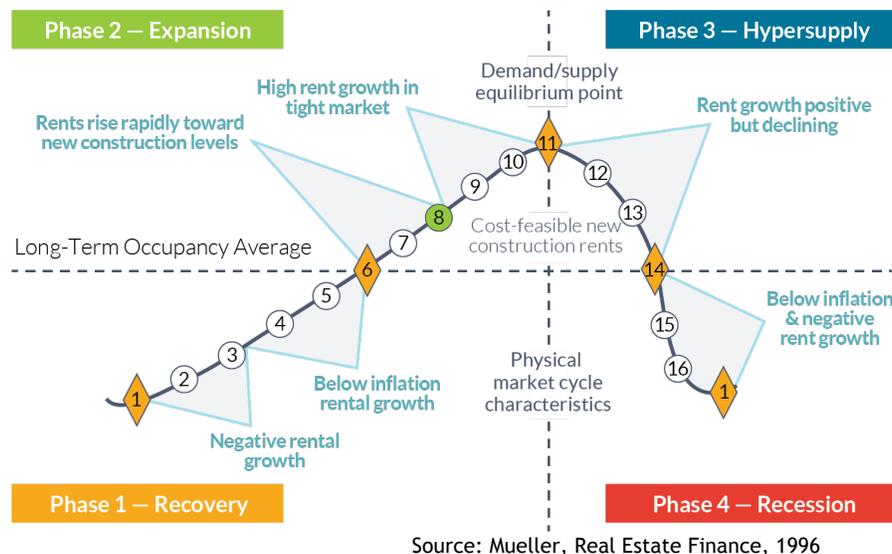
Market Cycle Analysis — Explanation

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.



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.