CBRE

Future Cities

Urban Logistics and Rental Growth: Evidence from Building Level Data

VIEWPOINT

The rise of importance of online sales has stimulated demand for last-mile facilities in urban areas, which are often limited in supply. This has translated to rapid rental growth relative to properties outside of the urban center.

ECONOMETRIC ADVISORS
MAY 2022

Executive Summary

– The industrial sector has maintained significant momentum at the start of 2022, continuing a 10-year trend.

– In large population centers, properties close to the market have experienced healthy demand and faster rental growth.

Demand and rent growth remain strong at the start of 2022

The industrial sector has largely maintained its considerable momentum at the start of 2022, as solid demand pushed industrial availability to a record low of 4.8%. Net absorption slowed at the start of the year after hitting a record at the end of 2021 but was still strong enough to outpace completions for the fifth consecutive quarter.

This continues a long-running trend in the industrial sector which has seen positive absorption in every quarter for the last 12 years. Availability has steadily declined in the sector over this period, falling more than 9.5 percentage points from its peak in mid-2010. Rents have responded to the general strength in demand and declining availability, rising more than 50% over the past 12 years, including 10% rental growth in the last year alone.

Rents have responded to the general strength in demand, rising more than 50% during this run in the industrial sector.

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Much of the strength in industrial demand and rental growth has been driven by the increased significance of e-commerce (Figure 1). E-commerce's share of retail sales (excluding autos and gas) has climbed fairly steadily over the past 20 years, rising from just under 2% in 2002 to 16.3% by the end of 2019 before surging in 2020 during the pandemic.

The online share of retail spending has retreated in recent quarters. As traditional retail locations have reopened, CBRE Econometric Advisors' (CBRE EA) view is that e-commerce sales are unlikely to grow as fast as they did prior to (and especially during) the pandemic but are still expected to gain share steadily in the retail space over the next decade. Because of this, the industrial sector should continue to experience a tailwind from e-commerce-based logistics demand. This should lead to healthy industrial absorption in upcoming years despite a macroeconomy that is projected to slow significantly in 2023 and 2024.

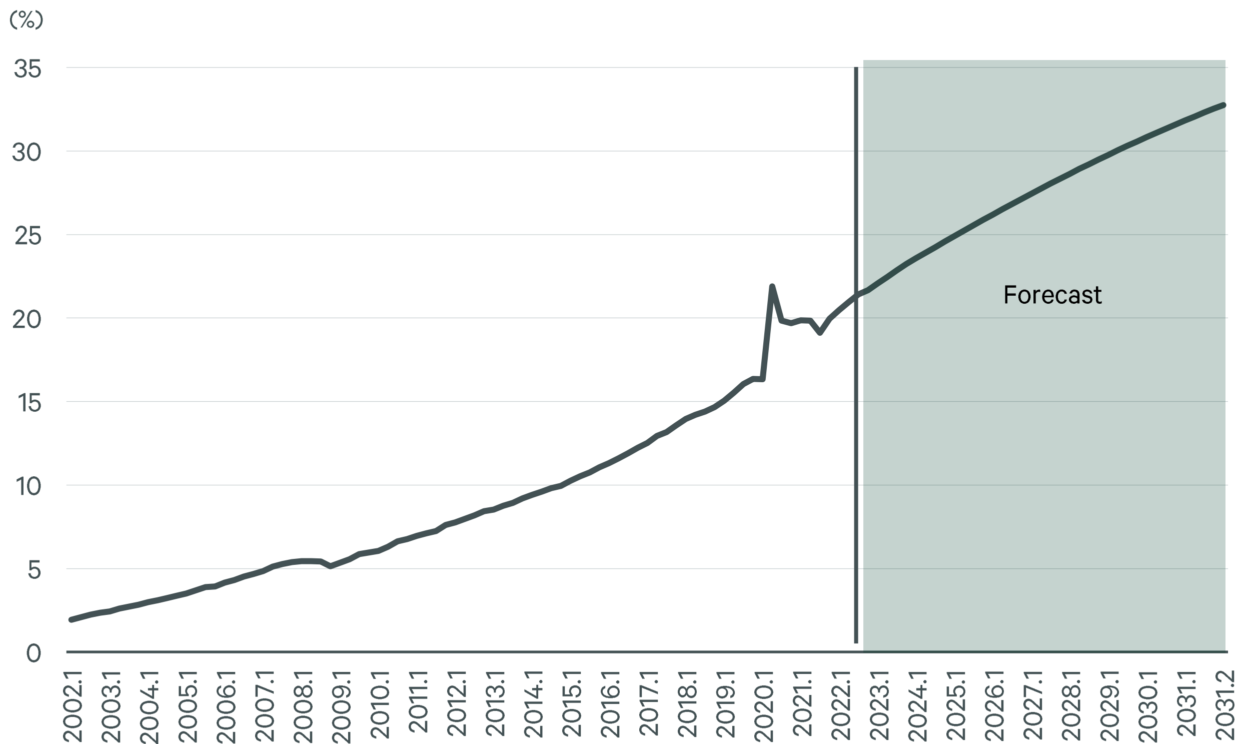
E-commerce share of total retail sales excluding motor vehicle & parts and gasoline in 2021

20.0%

10-year projected CAGR for e-commerce retail sales 2022-32

7.5%

Figure 1: E-commerce share of total retail sales excluding motor vehicles & parts and gasoline



Source: CBRE Econometric Advisors

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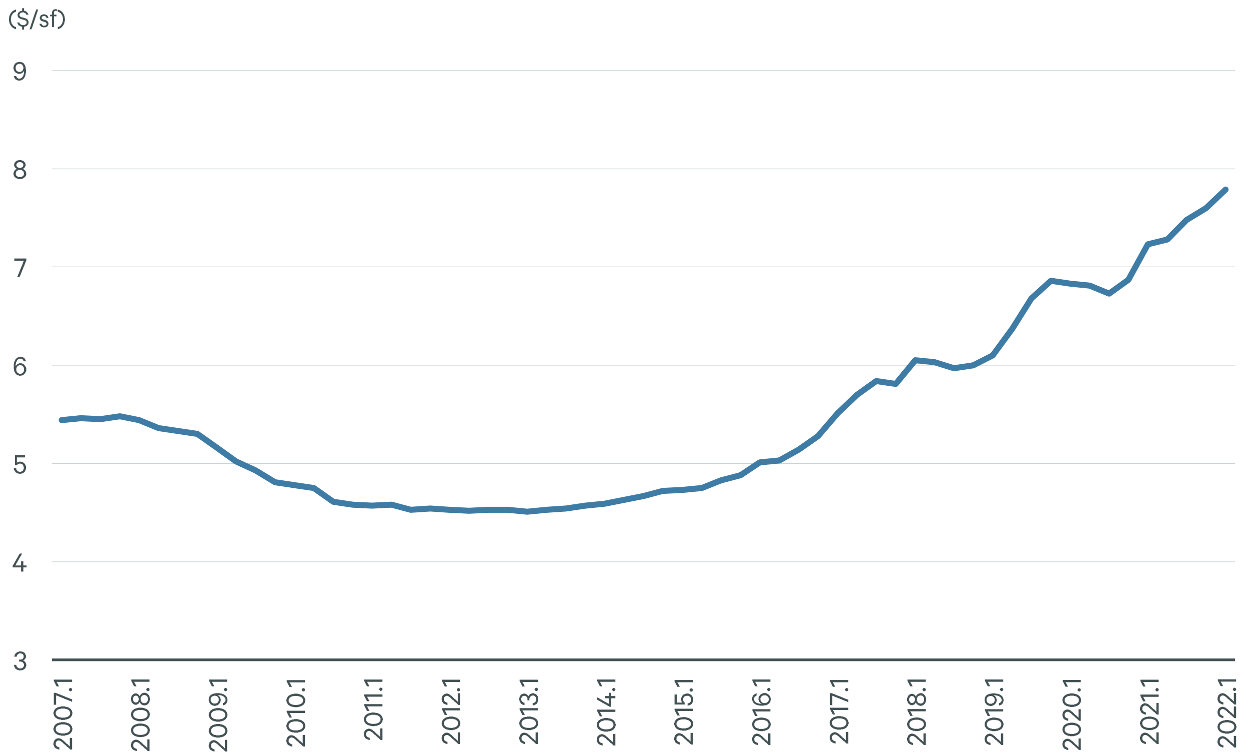
Rent growth and location within markets

The rising importance of e-commerce has forced manufacturers and retailers to rethink their supply chains, particularly over the past 5-10 years as speed of delivery to consumers has become a key differentiator for e-commerce players. This has helped drive demand for distribution centers located closer to population centers, warehousing space to store and process returned goods, and last-mile facilities to quickly deliver goods to the end consumer.

At a market level, this shift in consumer preferences and the resulting change in retail supply chains has had significant implications for activity in several markets. Markets such as Riverside, California and Allentown, Pennsylvania have remained key e-commerce logistics hubs, servicing major population clusters in the Southern California and Mid-Atlantic regions. These areas have seen a rapid expansion of the industrial stock, falling availability, and impressive rent growth. Stockton, for example, has seen the rents grow by approximately 50% in the last five years after years of essentially no growth (Figure 2). Meanwhile, markets like Minneapolis and Cleveland which were traditionally important markets in the industrial sector, have stagnated both in terms of the interest for new construction and the pace of rental growth.

The shift toward e-commerce also has important implications for rent performance by location within markets. While much of the absorption in the sector has occurred on the periphery of major population centers, the rise of importance in last-mile facilities has stimulated demand within the population centers.

Figure 2: Stockton EA Asking Rent Levels



Source: CBRE Econometric Advisors

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Land prices and availability are typically more favorable for industrial construction as developers move away from populations centers, which leaves space for urban logistics and last-mile operations often in short supply.

Building-level analysis

As a result, these properties in central locations within markets have provided opportunities for high rent growth as tenants compete for limited inventory. To illustrate this, CBRE EA recently conducted an analysis using building-level data to compare rental growth by location.

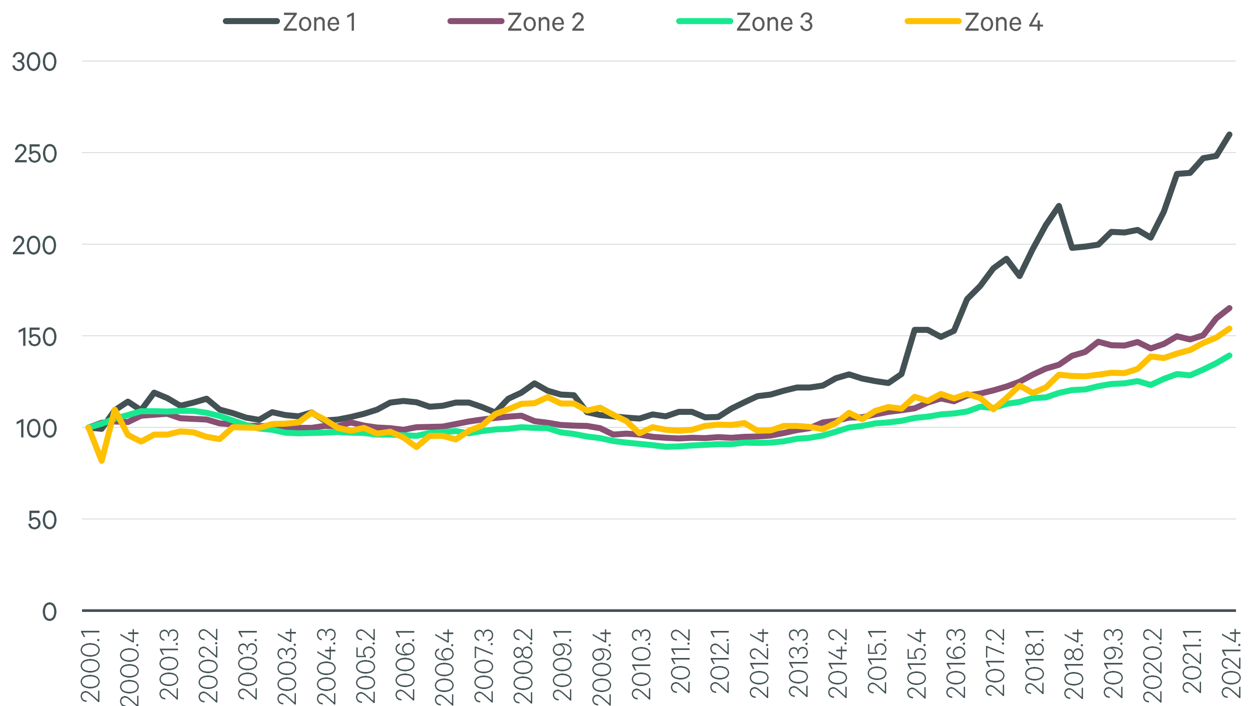
First, we identified the central point of the market's MSA by taking the centroid of each market's central business district or downtown, then established four zones around this central point:

Zone 1: 0-3 miles from the central point
Zone 2: 3-10 miles from the central point
Zone 3: 10-25 miles from the central point
Zone 4: more than 25 miles from the central point

We then looked at the building history for all properties that fell into each of these zones and used the rental history to construct a repeat-rent-based estimate of rental growth by zone over time. This rental growth estimation process follows a similar methodology to our EA Asking Rent estimate, which provides a clearer view of underlying rental growth. This is particularly useful in this analysis because of the disproportionate amount of new construction occurring on the periphery of markets, which can distort average net asking rent levels.

The results of this analysis highlight some of the dynamics surrounding e-commerce and urban logistics. In major population centers such as Dallas (Figure 3) and Atlanta, rents across all zones grew at a similar pace

Figure 3: Dallas Repeat-Rent by Zone, Indexed (2000 = 100)



Source: CBRE Econometric Advisors

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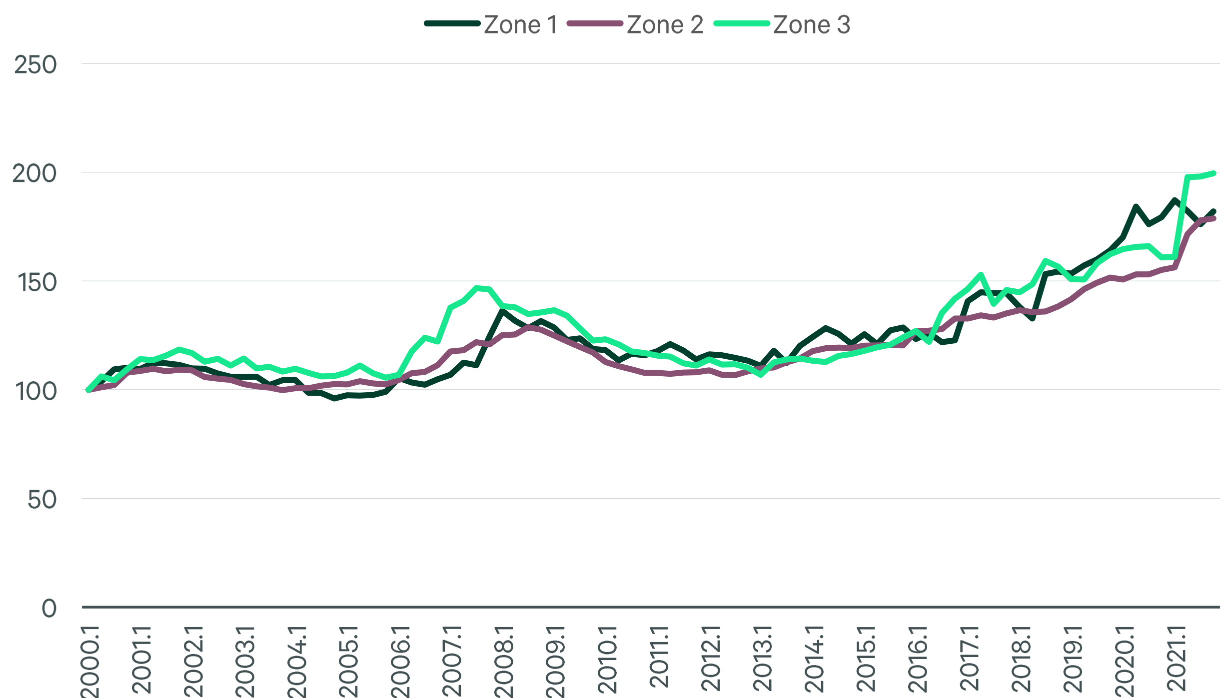
from the start of the data history through the middle of 2012. After this point, there is a disconnect in rent growth by zone as buildings closer to the center of the market begin to grow at a noticeably faster pace. We observed similar trends near other major population centers like Boston, Charlotte, Indianapolis, and Denver, emphasizing the heightened demand and/or limited supply for these properties that are well suited for urban logistics in these markets.

There are also several markets where this phenomenon does not occur. Markets like Salt Lake City (Figure 4) and Cleveland exhibit little to no rental growth advantage for properties located close to the central point in the market. This would suggest either a decreased significance of urban logistics and last-mile delivery in these markets, or heightened importance for space on the periphery of these markets.

It is worth noting that this repeat-rent growth analysis was not possible for every market or every zone. There were several markets for which there was no clearly defined central business district or downtown area in our data and were therefore excluded from this analysis. For markets with a central point, some did not have enough repeat-rent observations over time to establish a rent index for certain zones in the market. This is most common for properties located more than 25 miles from the central point, as these properties often crossed over market boundaries into other neighboring markets. In one case (Washington, D.C.), there were not enough industrial properties located in the closest zone to the central point to calculate repeat-rent growth rates.

To summarize the results of this analysis for each market, we calculated the 10-year compound annual growth rate (CAGR) from Q4 2011 through Q4 2021. A full list of growth rates by market by zone can be found in the table in the Appendix, but a plot of these growth rates by market helps to illustrate the importance of location within markets as it relates to rental growth.

Figure 4: Salt Lake City Rent by Zone, Indexed (2000 = 100)



Source: CBRE Econometric Advisors

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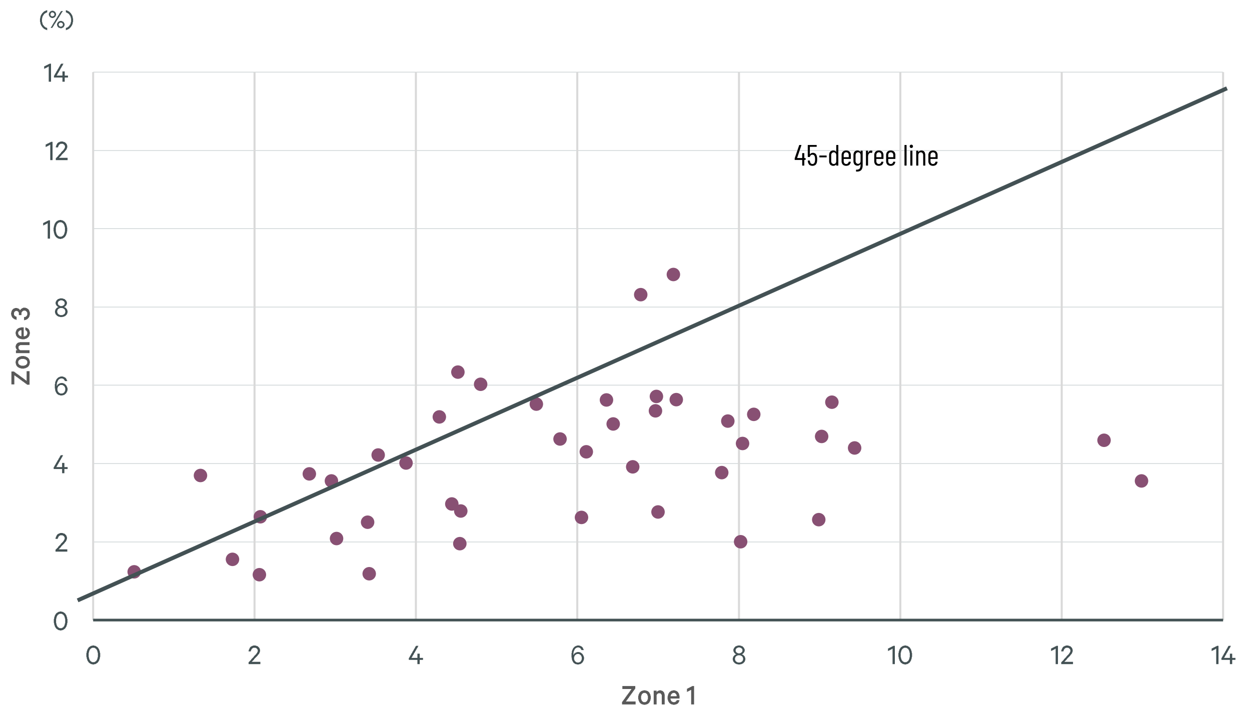
Figure 5: 10-Year CAGR by Market



Source: CBRE Econometric Advisors

Figure 5 shows the gap between 10-year rental growth rates in properties that are close to the central point of the market and properties further away from the center. Because several markets do not have rental values for Zone 4 properties, we compare Zone 1 growth with Zone 3. Markets that are below and to the right of the 45-degree line are markets where rental growth closer to the central point exceeds rental growth in outer areas. The further away from the line, the larger the gap in growth rates.

Conclusion

The rapid growth of online shopping and the increased focus on speed of delivery and easy returns has shifted the way that retailers view supply chains and their needs for warehousing space. While traditional distribution and warehousing facilities have been historically placed outside of urban areas near major highways, ports, or railways, the need for greater last-mile capabilities has stimulated the demand for urban logistics properties located within these population centers.

For these types of properties, the challenge for prospective tenants is that available inventory is typically limited. Zoning restrictions and high land prices makes it difficult for new construction to take place in these market centers, which heightens the competition for the existing available space. As our analysis shows, rents have climbed rapidly in these central locations in most key markets, relative to areas on the periphery where new construction is more feasible. This rapid pace of rental growth has important implications for property owners and investors, and provides an impetus for developers to find creative ways to add to the supply in these areas, including conversions or multi-story warehousing.

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Appendix: Repeat-Rent Growth By Zone: 10-Year CAGR

	Zone 1 (0-3)	Zone 2 (3-10)	Zone 3 (10-25)	Zone 4 (> 25)
METROPOLITAN MARKETS				
Albuquerque	2.9%	1.1%	-1.8%	n/a
Atlanta	12.5%	7.7%	4.6%	5.5%
Baltimore	6.0%	4.0%	2.6%	2.6%
Boston	7.9%	6.3%	5.1%	4.8%
Charlotte	9.0%	5.2%	4.7%	3.9%
Cincinnati	9.0%	4.3%	2.6%	5.0%
Cleveland	1.7%	1.3%	1.6%	2.5%
Columbus	7.0%	5.1%	2.8%	4.8%
Dallas	9.4%	5.8%	4.4%	4.3%
Denver	8.2%	5.9%	5.3%	5.6%
Detroit	6.1%	4.5%	4.3%	4.1%
Ft Lauderdale	7.0%	6.8%	5.7%	n/a
Ft. Worth	4.3%	3.9%	5.2%	3.5%
Hartford	0.5%	1.0%	1.2%	n/a
Honolulu	2.7%	3.6%	3.7%	n/a
Houston	4.4%	4.2%	3.0%	2.6%
Indianapolis	13.0%	3.8%	3.6%	3.7%
Jacksonville	6.7%	4.9%	3.9%	4.8%
Kansas City	4.5%	2.2%	2.0%	1.3%
Los Angeles	5.8%	6.1%	4.6%	2.0%
Louisville	1.3%	3.3%	3.7%	23.1%
Las Vegas	6.8%	6.0%	8.3%	n/a
Miami	9.2%	6.6%	5.6%	3.7%
Milwaukee	2.1%	1.3%	1.2%	0.5%

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Appendix: Repeat-Rent Growth By Zone: 10-Year CAGR (cont.)

	Zone 1 (0-3)	Zone 2 (3-10)	Zone 3 (10-25)	Zone 4 (> 25)
METROPOLITAN MARKETS				
Minneapolis	3.4%	1.6%	1.2%	n/a
Nashville	3.0%	2.3%	3.6%	1.6%
Orlando	7.2%	5.7%	5.6%	3.5%
Phoenix	8.0%	5.7%	4.5%	3.5%
Pittsburgh	4.6%	3.9%	2.8%	3.2%
Portland	7.8%	3.0%	3.8%	n/a
Raleigh	5.5%	5.5%	5.5%	3.2%
Sacramento	7.0%	6.2%	5.3%	3.3%
Salt Lake City	4.8%	5.2%	6.0%	n/a
San Antonio	3.5%	4.3%	4.2%	4.0%
San Diego	6.4%	5.3%	5.6%	4.8%
Seattle	4.5%	6.3%	6.3%	7.5%
San Jose	7.2%	7.5%	8.8%	5.1%
St. Louis	3.0%	3.2%	2.1%	3.2%
Tampa	6.4%	4.8%	5.0%	5.0%
Toledo	2.1%	2.3%	2.6%	n/a
Tucson	2.3%	1.2%	-3.9%	n/a
Washington DC	n/a	3.4%	2.5%	2.7%
Westchester	8.0%	3.4%	2.0%	n/a
Wilmington	3.9%	2.2%	4.0%	n/a

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