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CBRE Econometric Advisors Develops Office Taking Rent Series

VIEWPOINT

New Taking Rent Series Captures More Accurate Movement in U.S. Office Markets

ECONOMETRIC ADVISORS
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Executive Summary

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The CBRE Econometric Advisors (EA) Taking Rent series leverages proprietary CBRE transaction data to model the spread between asking and taking rents across markets over time. By joining this pool of transaction data with suite-level asking rents at the time of transactions (with, on average, a match rate over 70%), we're able to track this spread with unprecedented precision. Some key takeaways from the data include:

- While asking rents fell just 0.5% from Q1 2020 to Q2 2022 on the Sum of Markets level, taking rents declined 4.2% during that time. This indicates that the rise in vacancy during the pandemic did, in fact, hit market fundamentals despite the impact not being fully apparent in asking rents.

- The divergence between asking and taking rents was most pronounced in markets that saw greater changes to vacancy, indicating that taking rents are valuable in times of market volatility.

- Only 11 of 62 major U.S. office markets saw asking rent declines from Q1 2020 to Q2 2022. This would generally be an indication of market resilience, but our EA Taking Rent series dives deeper, showing that 34 markets saw taking rents decline during that time—far more in line with the macro backdrop impacting real-time investment decisions.

Introduction

In 2021, EA introduced the EA Asking Rent series for Tier I office, industrial and retail markets across the U.S. This series—a repeat rent methodology, which is widely considered the gold standard in the industry—leverages a more advanced statistical model than any rent series on the market. After incorporating building-level interpolation and a chain-linked aggregation, the EA Asking Rent series runs back to 1988 for major office and industrial markets and to 2005 for retail and is projected 10 years into the future.

While the EA Asking Rent series captures market movements that are absent from nearly any other competing series, the pandemic has shown us that any series based solely on asking rents fails to detect nuances of real-time market movements in actual negotiated transactions. For this reason, the EA team developed the EA Taking Rent series. Building off the EA Asking Rent series, the Taking Rent series takes things a step further by mapping out the spread between asking and taking rents, how it changes over time, and what drives this spread.

The EA Taking Rent series will be available to EA clients for 62 U.S. office markets and will be rolled out to cover other property types as well. This vital step toward an effective rent series provides invaluable insights to EA clients around real-time market movements giving our clients a much-needed edge in understanding idiosyncrasies across investment opportunities.

How the EA Taking Rent Series was Constructed

As the largest commercial real estate services firm in the country (and the world), CBRE maintains a market share of leasing representation of roughly 20-30% across major U.S. markets. This creates the unique opportunity to leverage a large, relatively random, consistent, and standardized dataset across markets and time periods.

With hundreds of thousands of data points going back to 2010, we were able to join each of these transactions with a suite-level asking rent at the time of transaction. With an average matching rate of over 70%, this step was vital in making the leap from asking rents to taking rents. Obviously, a building level asking rent is not sufficient for drawing conclusions about an asking-to-taking discount given the dramatic variance between asking rents on different floors of a building.

At this point, EA undertakes a relatively standard process for outlier detection and filtering out deals that are not representative of the ‘market.’ Some of these filters leverage a standard deviation outlier detection method and others set a ceiling/floor for certain deal-level characteristics. Once this is complete, we calculate an asking-to-taking rent discount for each transaction that passes our data cleaning and scrubbing process.

Modeling the Discount

With deal-level ask-to-take discounts for a vast transaction database, we model the drivers of that spread across markets and time using the following model:

$$Discount_{ti} = \beta 0 + \beta 1 * MktRent_t + \beta 2 * Term_{ti} + \beta 3 * SF_{ti} + \beta 4 * Vacancy_t + \beta 5 * MatchedRent_{ti}$$

Where

$Discount_{ti}$ = ($MatchedRent_{ti}$ - $TakingRent_{ti}$)/ $MatchedRent_{ti}$

= discount between matched asking rent and taking rent for deal i at time t

$MktRent_t$ = market level EA Asking Rent at time t

$Term_{ti}$ = leasing term in years for deal i at time t

SF_{ti} = leasing square feet for deal i at time t

$Vacancy_t$ = market level total vacancy rate at time t

$MatchedRent_{ti}$ = matched asking rent for deal i at time t

t =1,T time periods

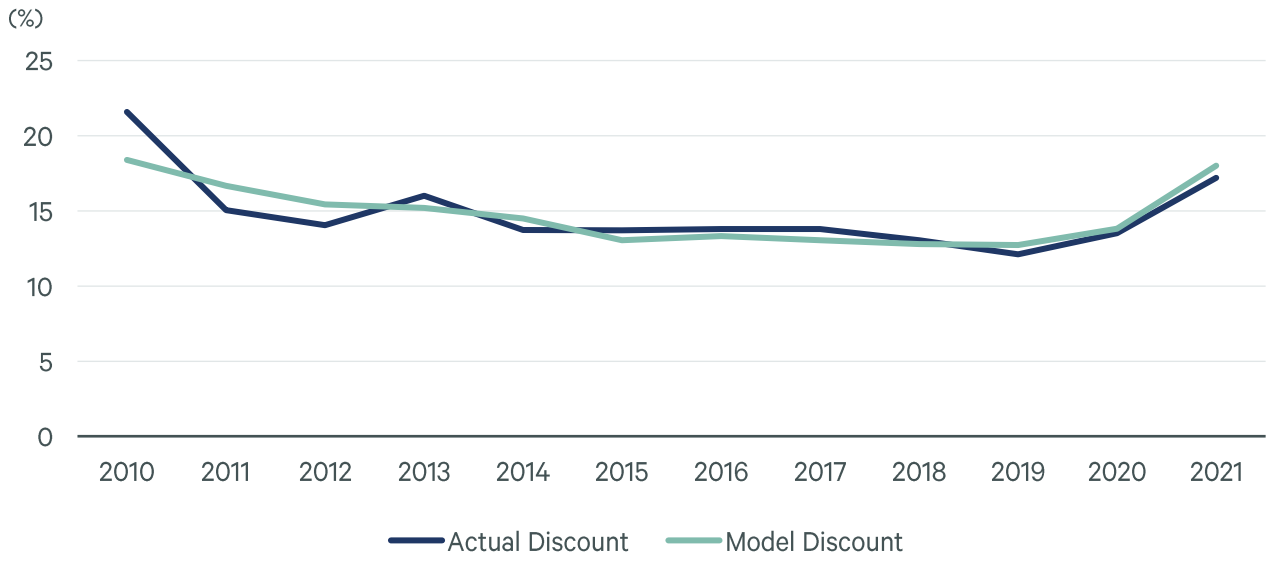
i= 1,N deals

In this process, it is vital to include both deal-level asking rent as well as market-level asking rent. Including both allows us to isolate the impact of changes to the market asking rent, accounting for variation in the sample of what transacted in each period.

As is often the case in commercial real estate, there are certain markets and time periods in which the data is too thin to draw appropriate conclusions. To bolster the data completeness in these cases, the EA team leverages a panel model methodology in which each market is given a market-fixed effect. This allows the model to pick up nuances across markets while smoothing out the noise that comes with limited observations in a particular period. We then single out those markets where data is lacking and use the panel model to predict those discounts.

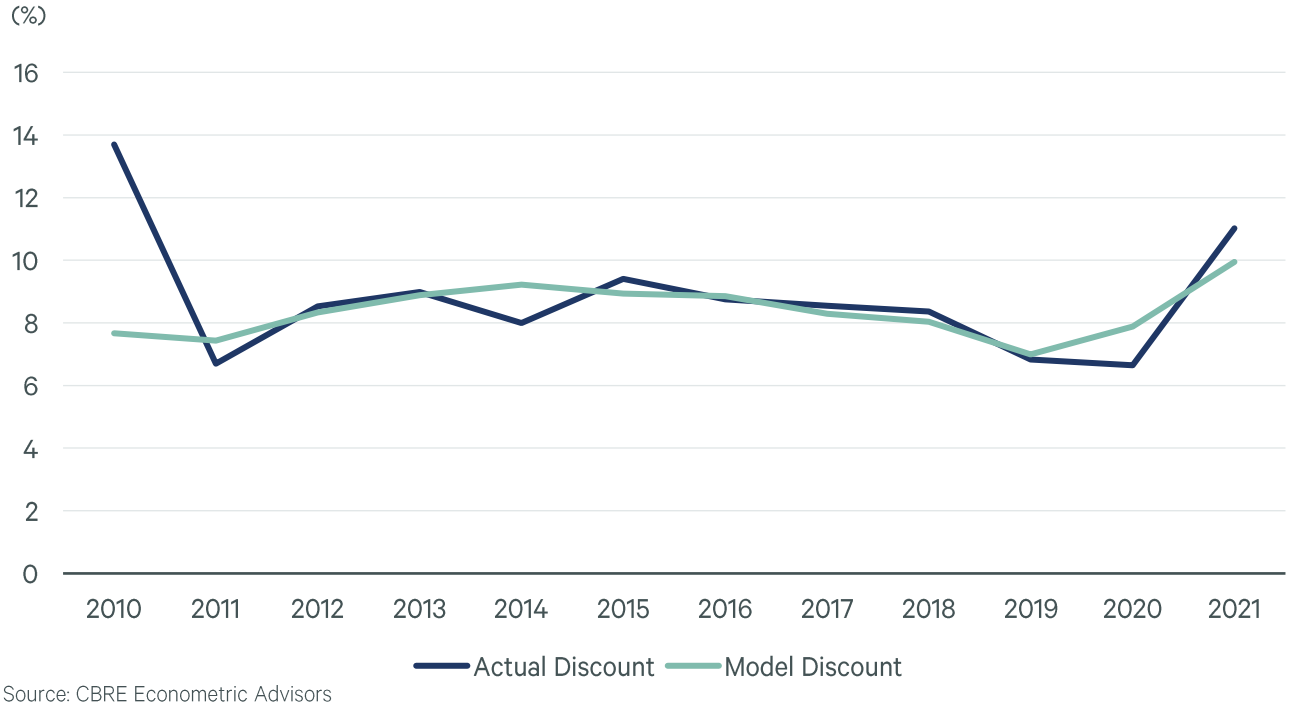
Below are some examples of our model vs. actual discounts across key markets. The model does a great job of predicting the actual discount in markets with ample observations, such as Manhattan and Washington, D.C. In markets with fewer observations, such as San Jose and Orlando, the model is able to pick up the underlying trend in the data while smoothing out the volatility that comes with a limited data set.

Figure 1: Manhattan



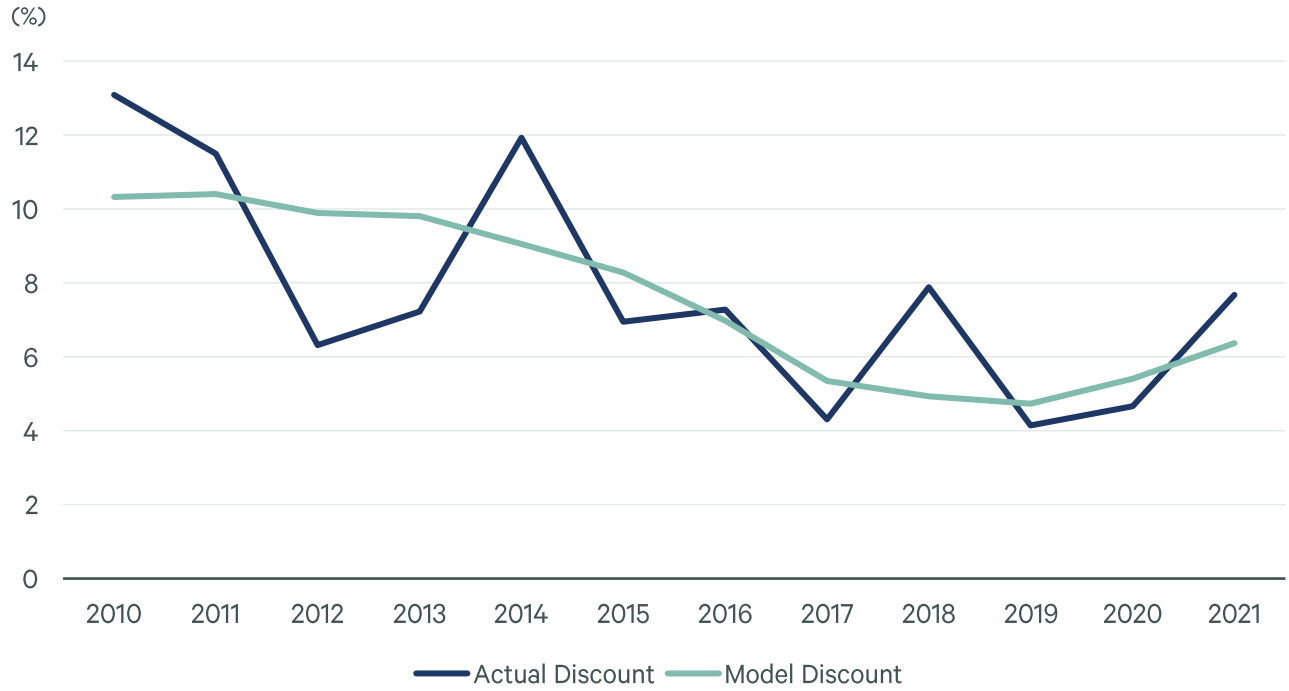
Source: CBRE Econometric Advisors

Figure 2: Washington D.C.



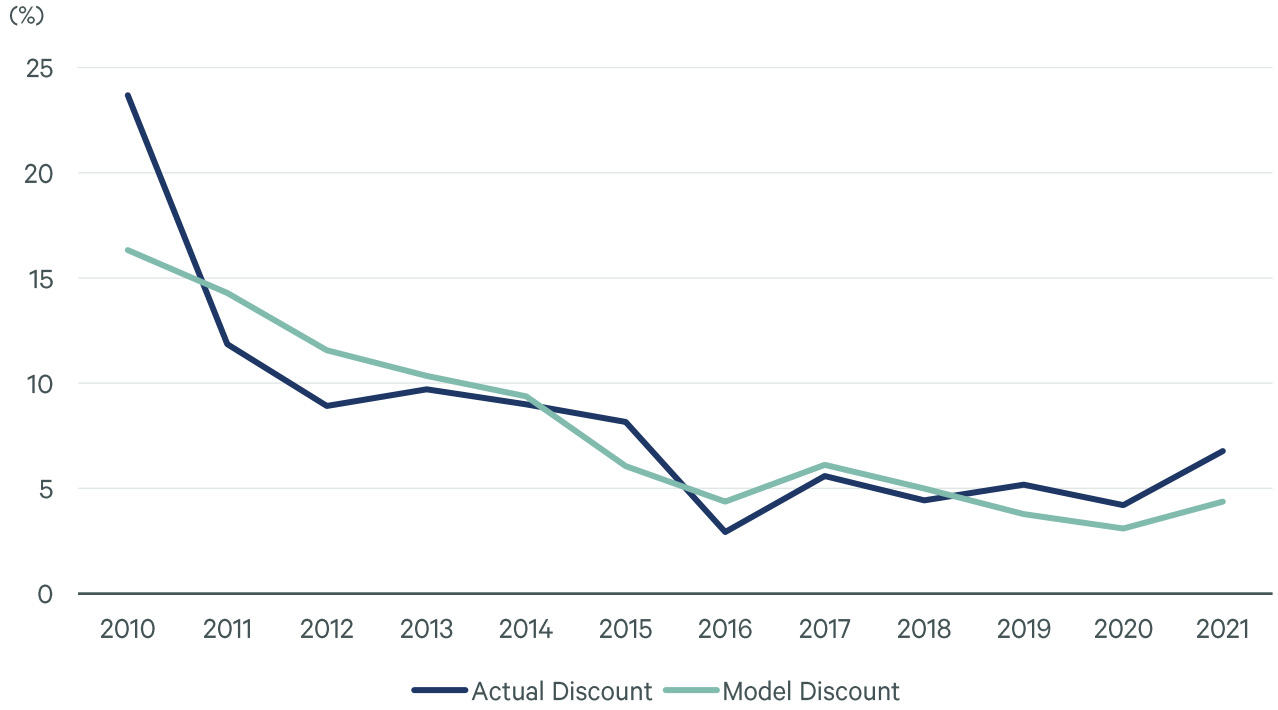
Source: CBRE Econometric Advisors

Figure 3: Orlando



Source: CBRE Econometric Advisors

Figure 4: San Jose



Source: CBRE Econometric Advisors

Weighting each deal equally (since each transaction is one data point representative of 'market,' regardless of size), we then predict the discount across time and markets. Predictions are aggregated by year and then interpolated quarterly using a cubic spine interpolation method, a common practice to smooth the data series.

Finally, we apply the modeled time series of the asking-to-taking ratio to the EA Asking Rent series, resulting in the one-of-a-kind EA Taking Rent series.

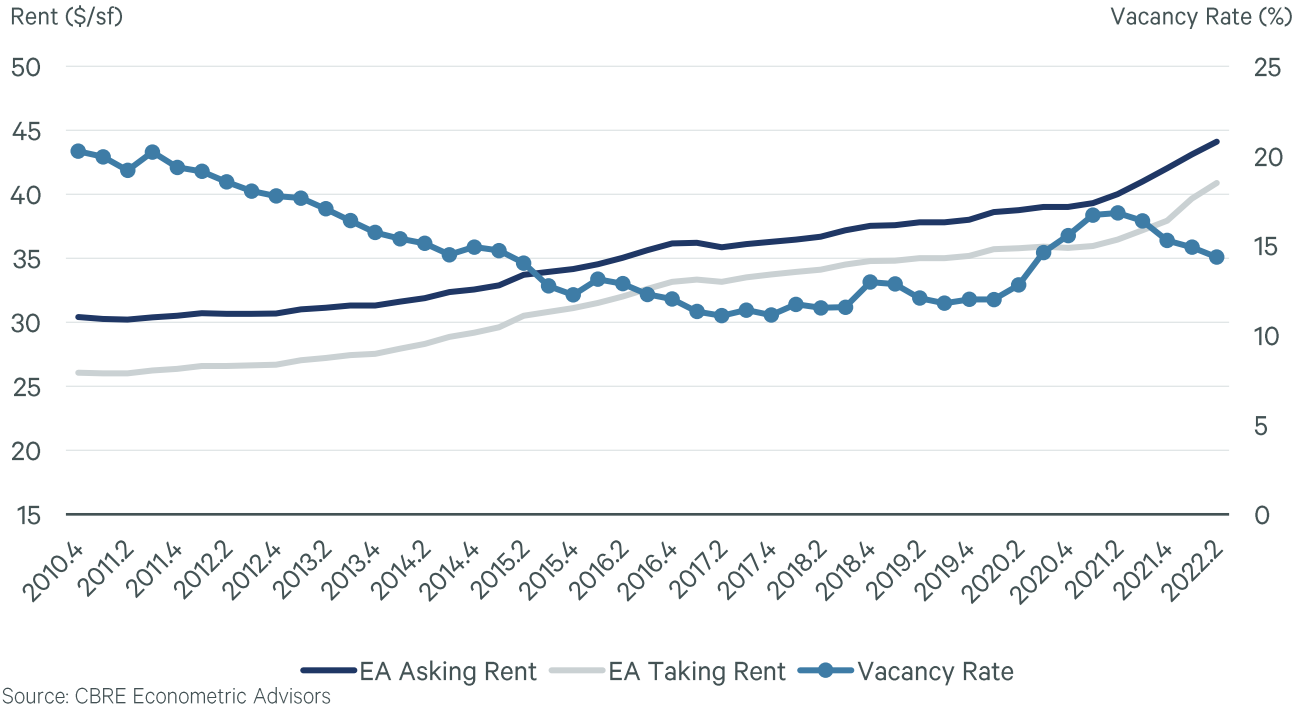
The EA Taking Rent Series in Action

Below are some examples of how the EA Taking Rent series captures market movement that is hidden from any analysis of asking rents. In each of the below markets, asking rents remained relatively unchanged over the course of the pandemic despite vacancy increases exceeding 400 basis points (bps) in some markets.

For example, in Washington, D.C., where the vacancy rate increased from 14.5% in Q1 2020 to 17.5% in Q2 2022, asking rent remained unchanged. But after we layer in taking rent, we see that taking rent decreased 2.6%. In Philadelphia, for example, asking rents increased 2% despite vacancy increases of 430 bps*. Taking rents, on the other hand, actually decreased 4.2%, far more in line with expectations and accurately reflecting what local market participants are experiencing in real time. The story is similar in Manhattan, where the decline in taking rents of 12.7% since 2020 is more than double the drop in asking rents during that time.

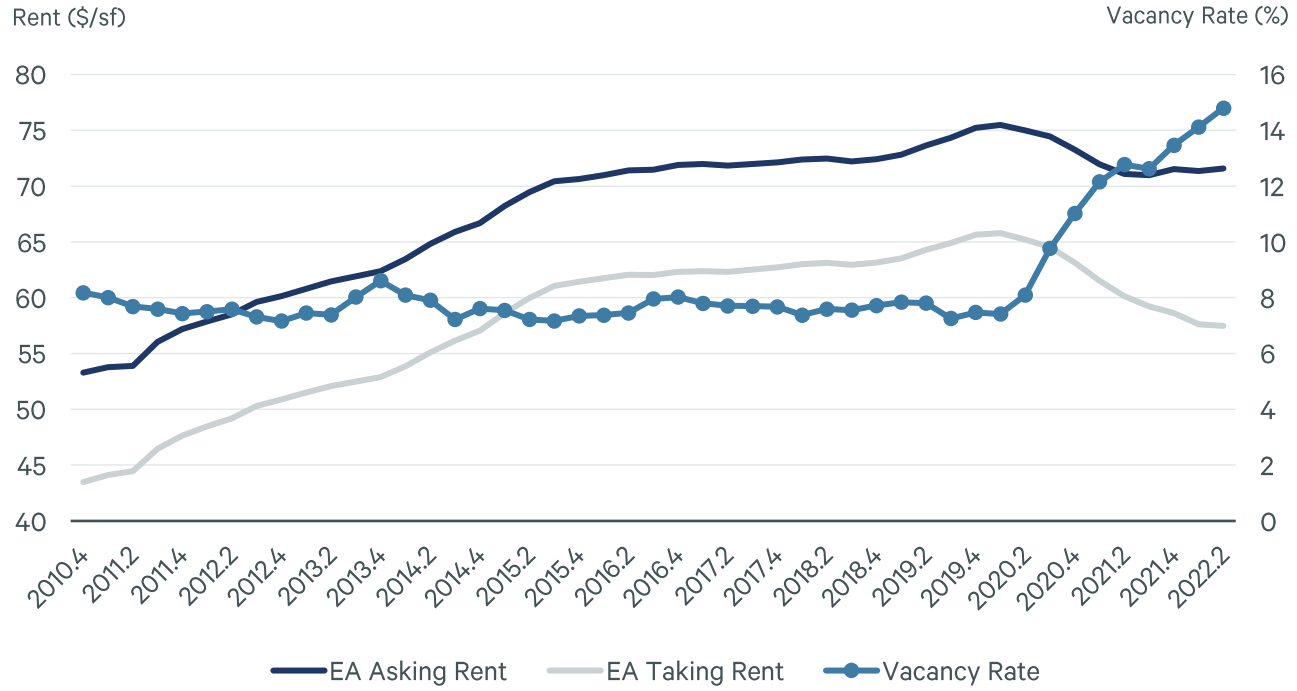
Conversely, in markets such as Miami and West Palm Beach, vacancy fundamentals have bounced back quickly. As such, it is not surprising that asking rents and taking rents are trending in the same direction.

Figure 5: Miami



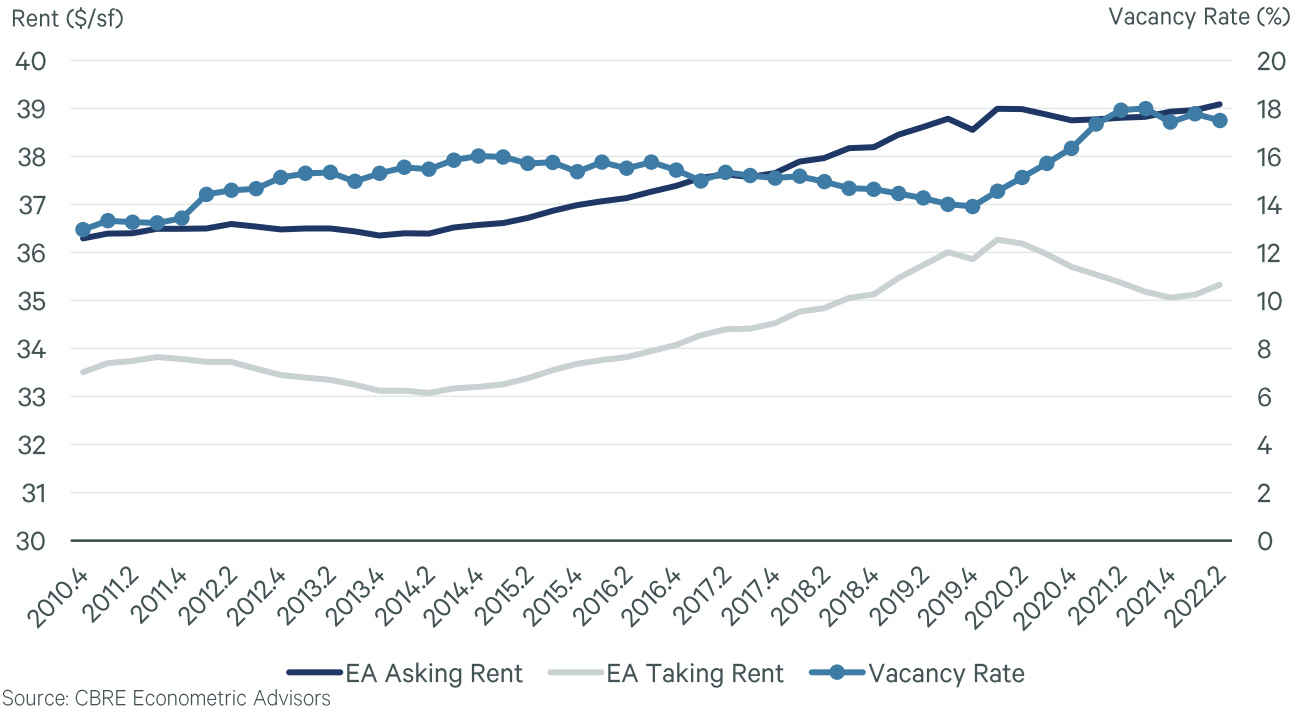
Source: CBRE Econometric Advisors

Figure 6: Manhattan



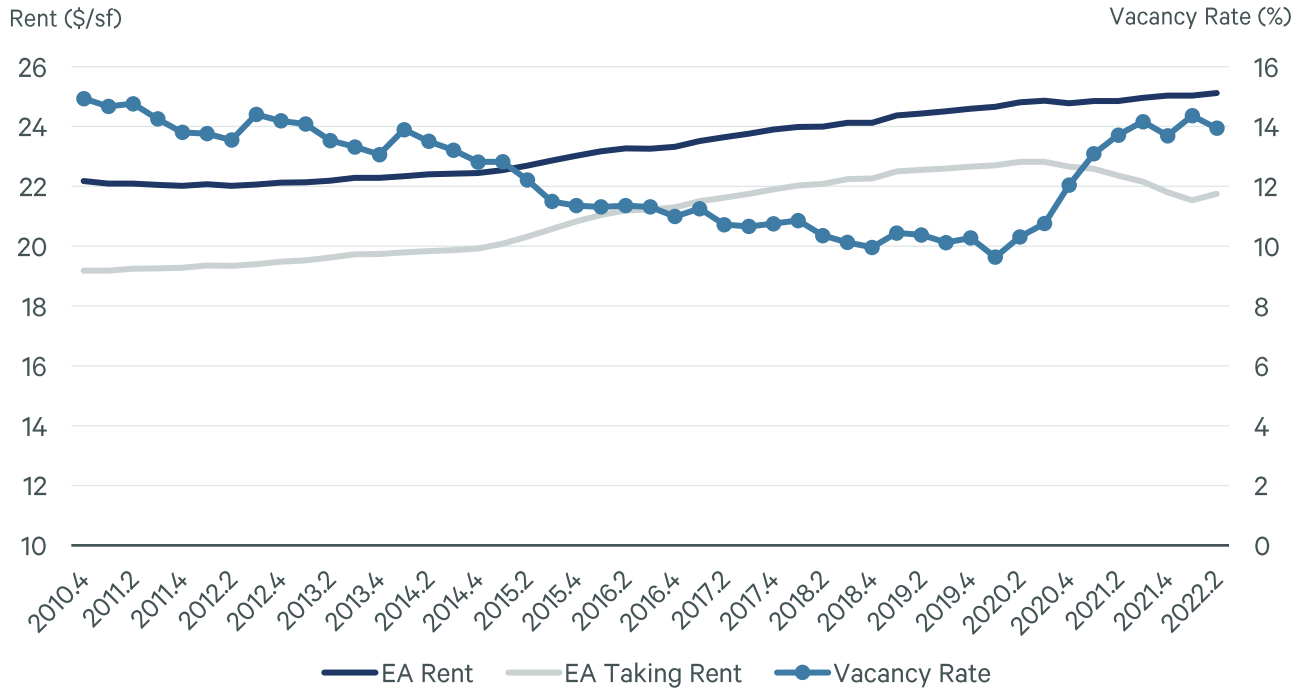
Source: CBRE Econometric Advisors

Figure 7: Washington D.C.



Source: CBRE Econometric Advisors

Figure 8: Philadelphia



Source: CBRE Econometric Advisors

*Note: the EA Asking Rent repeat-rent methodology already accounts for changes in the sample of what is available. So, this increase is not caused by new construction or expensive suites hitting the market, as is often the case in other asking rent series.

The National Picture

Looking at the nation as a whole, the value in the EA Taking Rent series is abundantly clear. While asking rents saw minimal declines of just 0.5% since the start of the pandemic, taking rents dropped 4.2% from Q1 2020 to Q2 2022. The gap between asking and taking rent had been slowly narrowing and stabilized around 9% from 2016 to the end of 2019. The gap then drastically increased since the onset of the pandemic. It is imperative that our clients understand this divergence as taking rents more accurately reflect the environment in which they can expect to transact. In fact, an analysis of asking rents would show that just 11 of the top 62 office markets saw declining rents since the onset of the pandemic. This would generally be an indication of market resilience. But our EA Taking Rent series dives deeper, showing that 34 markets saw taking rents deteriorate during that time, far more in line with the macro backdrop impacting real-time investment decisions.

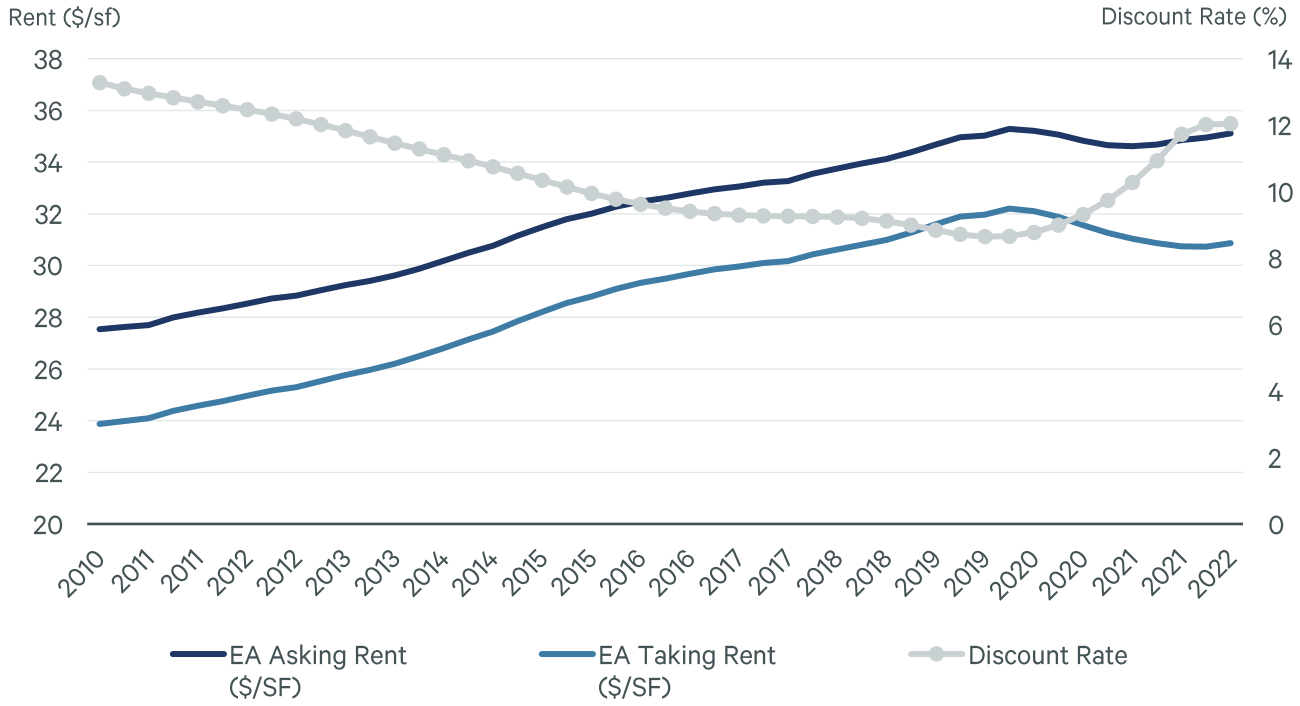
Asking rents saw minimal declines since the start of the pandemic

0.5%

Taking rents dropped from Q1 2020 to Q2 2022

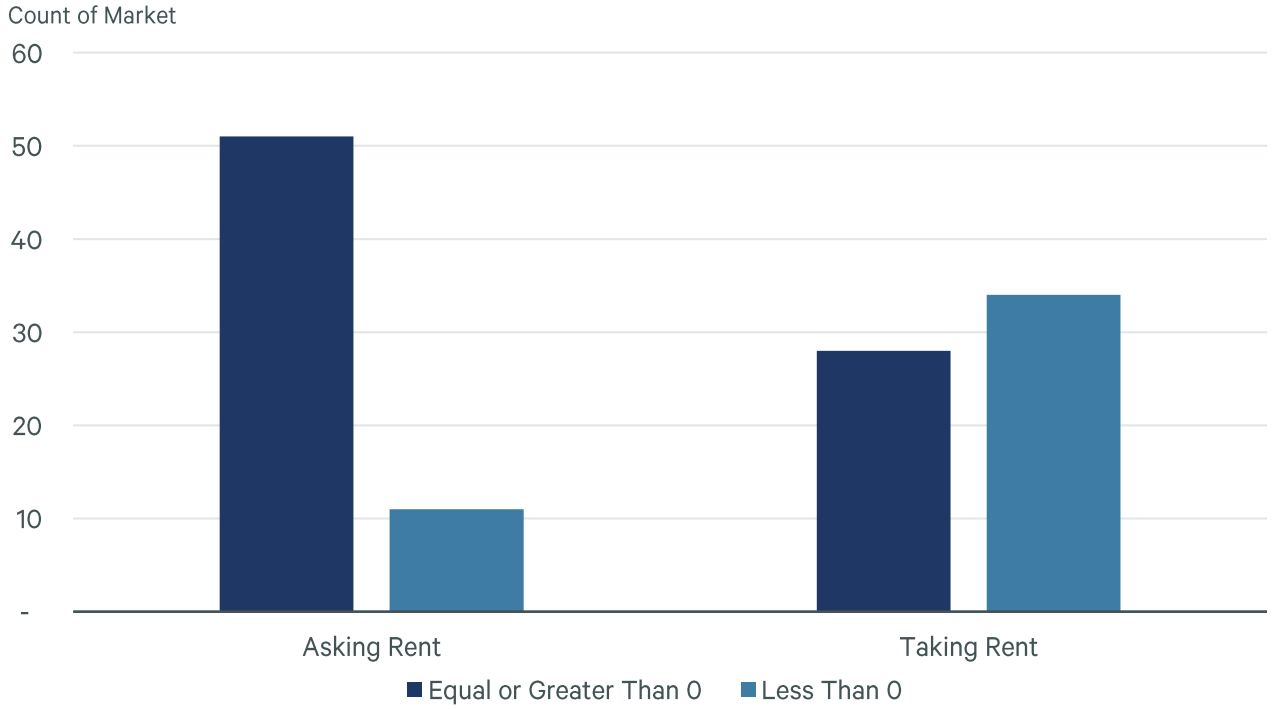
4.2%

Figure 9: Sum of Markets



Source: CBRE Econometric Advisors

Figure 10: Count of Markets

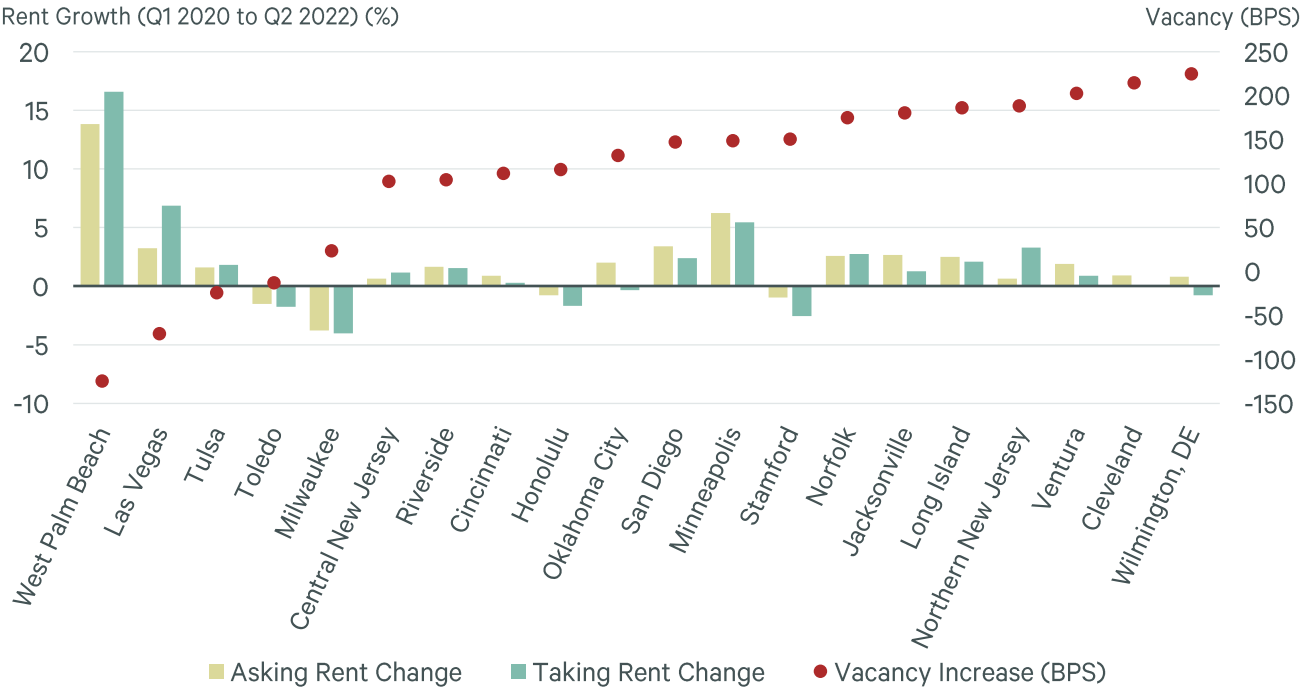


Source: CBRE Econometric Advisors

There are certainly cases in which asking and taking rents are diverging more than others. Understanding the reasons behind these conflicting data points can help investors make more informed decisions. Overlying vacancy trends with this asking vs. taking divergence provides the answer to this conflict.

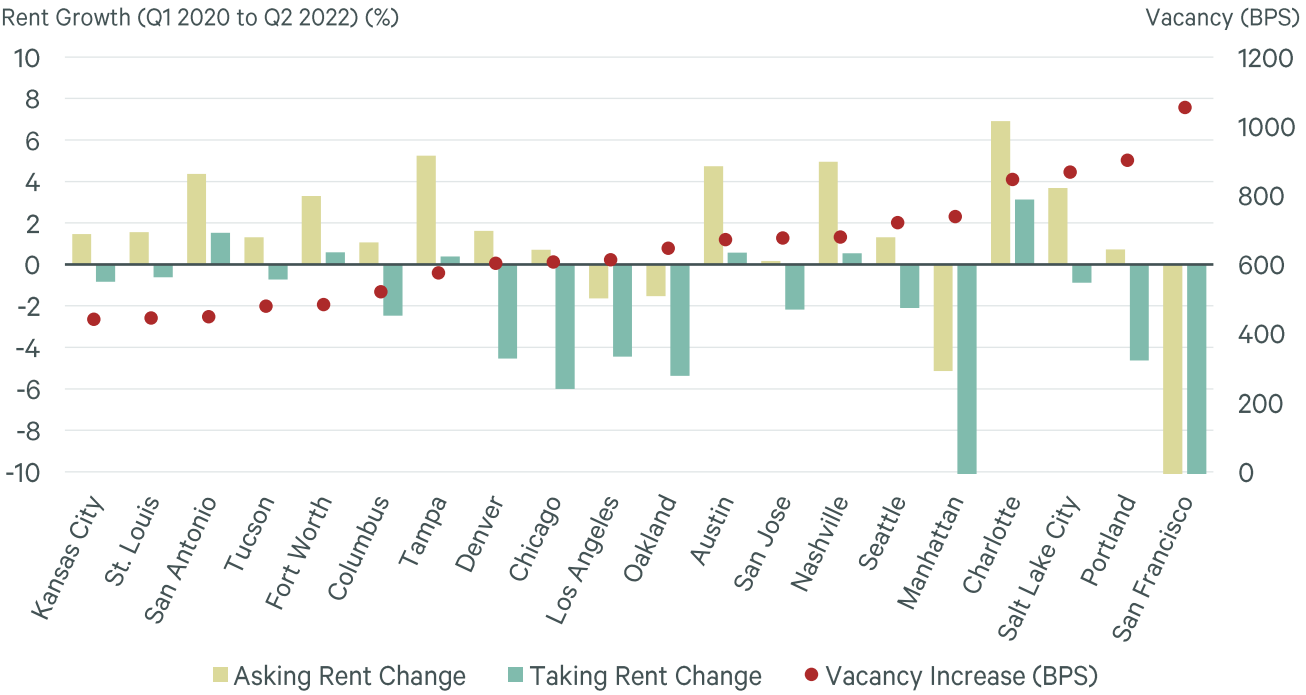
In Figures 11 and 12, markets are divided based on their increase in vacancy since the onset of the pandemic. Those markets in Figure 11 have recorded the smallest vacancy increase since Q1 2020. In this set, the average difference between asking rent growth and taking rent growth is minimal at 0.2%. This is an indication that when vacancy is stable (or relatively stable) asking and taking rents tell roughly the same story.

Figure 11: Bottom 20 Markets with Vacancy Increase



Source: CBRE Econometric Advisors

Figure 12: Top 20 Markets with Vacancy Increase



Source: CBRE Econometric Advisors

The story is quite different for markets in Figure 12. These represent the 20 markets that recorded the largest vacancy increase since Q1 2020. In these markets, the difference between asking rent growth and taking rent growth widened to 4.5%— an indication that when markets are stable, asking rents and taking rents track fairly well. But when markets soften, taking rent shows weaker fundamentals before they are present in asking rents.

About the Report

This new EA Taking Rent series, a complement to the existing EA Asking Rent series, provides EA clients with a 'behind-the-scenes' view of real-time trends in market transactions. It is created by leveraging CBRE's proprietary transaction data and EA's team of economists and data scientists.

The EA team is now working on the EA Effective Rent series. This series will leverage the EA Taking Rent data and methodology, incorporating deal-level incentives and concessions such as free rent, tenant improvement allowances, and escalations to create a time series and forecast that captures the full picture of leasing fundamentals across markets and time periods. The EA Taking Rent series and soon-to-come EA Effective Rent series are just the latest in a long line of products that highlight EA's commitment to arming our clients with tools to ensure their continued success.

We want to thank Professor Bill Wheaton of MIT for his collaboration and valuable input in developing the EA Taking Rent series.

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Appendix: Market List

Taking Rent Market	
Albuquerque	Nashville
Atlanta	Norfolk
Austin	Oakland
Baltimore	Oklahoma City
Boston	Orange County
Chicago	Orlando
Charlotte	Ventura
Cincinnati	Philadelphia
Cleveland	Phoenix
Columbus	Pittsburgh
Dallas	Portland
Denver	Raleigh
Detroit	Richmond
Fort Lauderdale	Riverside
Fort Worth	Sacramento
Honolulu	Salt Lake City
Houston	San Antonio
Indianapolis	San Diego
Jacksonville	Seattle
Central New Jersey	San Francisco
Northern New Jersey	San Jose
Kansas City	St. Louis
Los Angeles	Stamford
Long Island	Tampa
Louisville	Toledo
Las Vegas	Tucson
Manhattan	Tulsa
Memphis	Washington, DC
Miami	West Palm Beach
Milwaukee	Westchester
Minneapolis	Wilmington, DE