

Investment Strategy Quarterly

A New Dawn in Retail

TARGETING RETAIL REAL ESTATE MARKETS WHERE THE SUN STILL SHINES

Executive Summary

- We believe U.S. economic growth and labor markets remain on solid footing.
 Trade frictions and other geopolitical tensions have not pushed the current expansion off course, but the associated uncertainty could pose a risk.
- Experience based retail continues to outperform, and store openings are outpacing closings.
- E-commerce spending varies by market, and we believe this variance is driving retail real estate demand more than investors realize. We developed a framework that aims to estimate which retail real estate markets are most likely, and most unlikely, to be further disrupted by e-commerce.



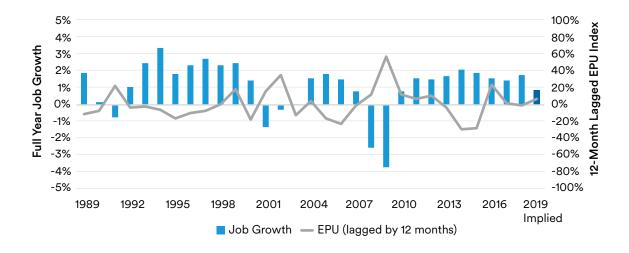
Economic and Real Estate update

The pace of U.S. economic growth has modestly slowed in 2019,¹ roughly in line with our expectations from the beginning of the year. Commercial real estate performance, however, is slightly exceeding our expectations as declining interest rates and a slowing construction pipeline contribute to price and income growth in excess of 3%.² Although we believe risks to economic growth are low in the near term, there are several potential causes of weakness worth monitoring. These include a waning boost from the Tax Cuts and Jobs Act, ongoing trade tensions, a no-deal Brexit, rising provocations with Iran, and the WTO Appellate Body dissolving. Although our base case view is that none of these events are likely to produce a negative outcome, the market uncertainty they are driving may have a negative impact on its own.

Although there are a variety of ways to measure uncertainty, one of the most relevant today may be the Economic Policy Uncertainty (EPU) Index. The index is specific to the U.S., contains monthly data dating back to 1985, and is assembled by economists at Northwestern, Stanford, and the University of Chicago. The team tracks the number and size of tax code provisions expected to change over the next decade, the dispersion of economic forecasts from the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters, and the frequency of certain keywords across 10 major U.S. newspapers.

We believe the EPU Index is a reasonably good indicator of employment growth over time. When employers are uncertain about the future they are generally also hesitant to hire additional workers. Given that employment growth has historically been one of the strongest predictors of real estate demand, this index allows us to connect global economic uncertainties to real estate performance. Exhibit 1 compares the historical change in the EPU Index with the historical change in job growth. Our analysis shows that uncertainty leads slowing job growth by approximately 12 months, so the data is lagged by 12 months on the chart. The final 2019 data point, for instance, shows a 7% increase in EPU and is based on the average monthly reading in 2018 divided by the average monthly reading in 2017. This modest rise in uncertainty during 2018 suggests 2019 employment growth may trail that of 2018, a trend which is holding true so far.

Exhibit 1 | EPU Index is a Leading Indicator of Employment Growth³



Source: Bureau of Labor Statistics, Economic Policy

Uncertainty is trending 15% higher in 2019 than it was in 2018,⁴ with a significant increase in the most recent June and July months. Given the relationship between unemployment growth and uncertainty, we view this trend as a primary risk for employment growth in 2020. Our base case expectation is for trade tensions and other uncertainties to lessen this year. If they do not, however, we expect to soon begin incorporating the uncertainty factor into our forecasts for 2020 employment growth and real estate demand.

Despite these exogenous factors, our view is that commercial real estate fundamentals remain well positioned, evidenced by continued vacancy declines and rent growth across property types thus far in 2019. The office and apartment sectors will likely benefit from a slowing construction pipeline in 2020 and 2021. The industrial sector should continue to benefit from rising e-commerce sales and, perhaps more importantly, consumer demand for faster delivery of their online orders. Lastly, the retail sector remains the most challenging to forecast as it faces e-commerce headwinds. As we will detail, investors have been responding to these headwinds over the last several years, and we believe that although the repricing of the sector has perhaps been appropriate in overall magnitude, it has perhaps not been appropriately differentiating by geography. We also believe the sector's repricing may not be appropriately reflecting the strength of "experience based retailers", nor the impact that e-commerce could have on grocery anchored centers in the 2020s.

Experience Based Retail Continues to Shine

When we outlined our asset-level retail strategy in the 2016 white paper, The Age of Experience Based Retail, we explained why we favored assets that cater to tenants with a focus on experiences. This strategy was based both on the widely observed trend towards e-commerce spending, and on an examination and forecast of our internally developed "experienceto-stuff ratio." We calculated the ratio as 1.3x at the time, meaning for every \$1.00 spent on stuff, \$1.30 was spent on experiences. Today, our analysis of Bureau of Labor Statistics data suggests that around \$1.50 is spent on experiences for every \$1.00 spent on stuff. We believe this has contributed to stronger demand in centers with experiential elements such as restaurants, showrooms, event space, and activities. Stores that are primarily goods based have faced headwinds from both the trend towards spending on experiences rather than stuff, and the trend towards buying that stuff online rather than in a store.



In addition to targeting centers with experience focused tenants, we believe many goods-based retailers are increasingly using their stores as showrooms, to help boost their online sales. The result is less need for inventory, and less need for a large format space. Our analysis of lease signings across more than 150 retailers⁵ suggests this trend is underway, with the median store footprint decreasing by 1.2% between 2017 and 2018, and we believe it will continue shrinking in the years to come. We therefore continue to focus on centers with experienced based offerings as well as centers with smaller spaces, or with layouts that could be subdivided into smaller spaces in the future.

The trend towards smaller stores is also occurring in the grocery category, but we believe this is occurring for a different reason, as discussed below.

Shifting Dynamics in Grocery Anchored Retail

Grocers are also downsizing their store format, a trend foreshadowed by the early success of Trader Joe's. Downsizing in the U.S. has more recently been driven by international grocers who have been able to leverage technology to operate with a smaller number of products that are customized for each store, based on the demographics and demand of the neighborhood.⁶ Headwinds facing large format grocery stores include slower inventory turnover due to higher SKU counts, expanding grocery offerings from more local discount/dollar stores, and the potential for growth in online grocery ordering. But is e-commerce really a threat to grocery stores?

Grocery-anchored centers have been the darling of retail real estate investors for several decades and have been partially immune from the broader retail real estate repricing in recent years. Today, online grocery ordering only has about 2.5% of market share, well below other retail product categories that average closer to 20%. In addition to the logistical challenges associated with e-grocery, the subsector tends to be recession resistant and perhaps even counter cyclical due to discretionary spending pullbacks on things like dining out. Investors are keenly aware of this and as a result we estimate that cap rates for high quality grocery anchored retail centers are near 5% today, while high quality neighborhood centers and power centers without a grocer average 8%. Although grocery store demand remains strong today, we believe e-commerce will begin to modestly detract from grocery store performance by the mid-2020s.

Fresh food delivery, particularly for items like produce, dairy, and poultry, has made grocery one of the last product categories immune to e-commerce. Firms like Instacart, Peapod, Amazon, and FreshDirect, however, have been refining their logistics, and we believe consumers who are increasingly buying non-grocery items online will feel comfortable enough with the process to begin buying groceries online as well. Due to how quickly select online grocers have been growing in their test markets, as well as analysis of public filings from Amazon, trend growth in sales as reported by the BEA, and consumer surveys, we expect that online grocery ordering in the U.S. could grow from around 2.5% of market share today to at least 7% by 2023 (which is, incidentally, the same share of online grocery ordering in the U.K. today). Although some of these online orders will be filled by traditional grocery stores, we

Exhibit 2 | Small Format grocery on the Rise



Grocer	Average SF
Publix/Whole Foods	45,000
Lidl	35,000
Greenwise/Sam's Now	28,500
Trader Joe's	15,000
Fast & Fresh	10,000
Amazon Go	2,000

Source: MIM, CBRE. Chart represents to-scale average footprint.

expect operating costs will push most online ordering growth into cold-storage warehouses.

Across both grocery and non-grocery retail segments, we believe the effects of e-commerce have meant that the days of 3% rent growth likely vanished many years ago,⁹ and investors may generally only achieve IRRs at, or slightly above, going-in cap rates. Within the broader retail category, grocery remains the most well insulated from both economic conditions and e-commerce adoption, but given recent trends we recommend some degree of caution as the sector continues to mature. We believe one way to help manage risk and identify opportunities in the sector going forward is to consider how shopping trends vary from one metropolitan area to the next.

E-commerce & Retail Real Estate

Demographics, building quality, and tenant composition are often among the primary factors investors consider when evaluating retail real estate. Investors have become especially sensitive to tenant composition in recent years as negative headlines have keyed in on the category of retailers that e-commerce is affecting the most (apparel, electronics, etc.). However, just as online shopping habits vary from one retail category to the next, we believe they also vary from one market to the next. Due to the challenge of estimating market level e-commerce spending, however, we believe this factor is mostly being ignored by real estate investors. To address this, we created a framework that estimates e-commerce spending at the market level.

E-commerce spending is easy enough to estimate at the national level. The U.S. Census Bureau provides an authoritative monthly survey, including component/ sector breakdowns. At the metro level, though, there is no authoritative source.

In order to estimate e-commerce spending by market, we used three data sources. The first is from marketing firm Acxiom and contains consumer e-commerce habits captured primarily from credit card transactions and internet browser cookies. We used their data to estimate the current proportion of households who regularly buy goods online, and the growth rate in that proportion, at the MSA level. The second is the level and growth of transportation and logistics workers across every market, as reported by the Bureau of Labor Statistics. Finally, we used Google Trends to identify metro-level changes in Google searches that we believe are correlated with e-commerce spending (we developed a list of keywords that appear to be closely associated with e-commerce spending, such as "amazon" and "coupon code").

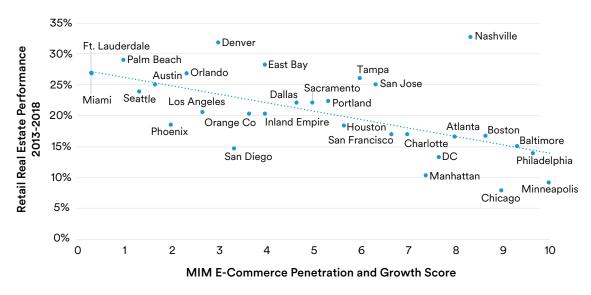
The use of three independent data sources aims to help us minimize errors and increase the accuracy of the analysis. For example, Google Trends searches for "amazon" may be unusually high in Seattle, where Amazon is a major employer. Logistics employment

statistics may overstate e-commerce spending in markets like Memphis which serves as a FedEx hub. Lastly, geospatial data from Acxiom may understate e-commerce spending in markets with higher levels of seasonal leisure or business travel.

Using the three sources, we developed a model that estimates e-commerce spending by city. We scaled the model results from 0 to 10, where 10 represents all three data sources indicating the highest level of e-commerce spending and spending growth, and 0 representing the lowest.

Exhibit 3 depicts the 30 largest markets and shows that markets with greater e-commerce scores had inferior retail real estate performance¹⁰ (analysis of all U.S. markets tracked by MIM concluded a similar result but was excluded from the chart to improve readability).

Exhibit 3 | E-commerce and Retail Real Estate Performance

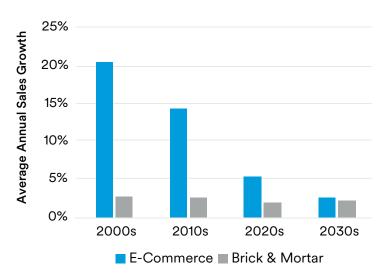


Source: MIM, Acxiom, Google Trends, CoStar.

Looking to the future, we believe e-commerce growth will fall to around the rate of brick & mortar retail sales growth in the 2030s (Exhibit-4).¹¹ This is supported by the declining trend in e-commerce growth over the last several decades, as well as an examination of e-commerce growth by retail product categories. Although the equilibrium between online and in-store retail sales growth may be many years away at the national level, we believe some markets are closer than others, and therefore will have less disruption in the retail sector in the future.

Given these observations, our focus is on targeting markets with high e-commerce spending today, but also with a slowing rate of growth in that spending. These are the markets that we believe are nearer equilibrium and will see less e-commerce disruption of retail going forward.

Exhibit 4 | Retail Sales Growth by Decade



Source: MIM, Census

Markets such as Chicago, Baltimore, and Salt Lake City meet these criteria, with around 53% of residents regularly buying goods online in 2018. Equally important is that the number of residents buying goods online exhibited little change over the last year, while the 50 largest U.S. markets rose from 44% to 49%. We therefore believe retail real estate in these markets is less likely to be disrupted by e-commerce, or will at least be less disrupted than the rest of the country, in the 2020s.

We believe retail real estate in Los Angeles, Las Vegas, and Oklahoma City is the most likely to be disrupted by e-commerce in coming years. In these markets, just 44% of the metro residents reported e-commerce spending. That level also increased 5 percentage points over the last year, more than double the growth rate of the above-mentioned markets. We therefore expect more potential disruption to retail centers in markets that exhibit these e-commerce growth traits in the 2020s, and recommend more conservative demand growth assumptions when considering retail real estate in these areas.

Our e-commerce penetration score was also compared with industrial demand, but exhibited less of a correlation. We believe there are two reasons for this. First, regardless of where the consumer purchases an item (online or in-store), industrial facilities remain an integral part of the supply chain. Second, much of the demand growth in the industrial sector in recent years has been due to faster online order fulfillment (such as next day or same day delivery), not growth in e-commerce sales. We discuss this dynamic at length in our 2019 Outlook, *Industrial, Opportunity, and CRE*.

Conclusion

E-commerce appears to have caused a repricing in retail real estate in recent years. Some of this re-pricing was likely overdue, but we believe it has also created potential opportunities in markets that have already been disrupted by e-commerce sales. With consumer confidence near cyclical highs, selecting markets where further e-commerce disruption risk is lower could provide investors the ability to capture consumer-related economic tailwinds in a sector priced for headwinds. Global uncertainty remains a risk to employment growth and ultimately consumer health, but with the unemployment rate at a historic low, a confluence of several negative geopolitical outcomes may be required to materially degrade U.S. economic growth. Given the strength of the U.S. economy and favorable real estate fundamentals, we maintain a positive outlook for commercial real estate in the foreseeable future.

Endnotes

- ¹ Bureau of Economic Analysis, August 1, 2019.
- ² NCREIF 2019 Q2, annual rates.
- ³ The Economic Policy Uncertainty Index is produced on a monthly basis by a consortium of professors from Stanford University, Northwestern University, and the University of Chicago.
- ⁴ Economic Policy Uncertainty Index.
- ⁵ F-marketer
- ⁶ Forbes Grocery 2.0: How Technology Can Improve the Grocery Supply Chain, CBRE.
- ⁷ U.S. Census Quarterly E-Commerce Report.
- ⁸ CBRE US Retail Food In Demand Grocery Report May 2019.
- ⁹ CBRE-EA. Retail rent growth averaged 2.1% over the last 5 years.
- Real estate performance is measured as 5-year retail asking rent growth (CoStar) multiplied by the occupancy rate (CoStar). We also found similar correlations using NCREIF unlevered total rates of return; however, NCREIF only covers around 20 retail markets whereas CoStar covers over 300.
- ¹¹ Moody's Economy.com.

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