

## ANALYSIS

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# Panic, Volatility, and CRE Finance & Transaction Markets

## Introduction

Volatility has risen significantly in financial markets, driven by COVID-19. How might this affect US multifamily and commercial real estate (CRE) transaction markets? What are the mechanisms through which panic and a flight to safety will hurt some markets but benefit some players? In this paper, we explore these issues, fully acknowledging that learning from experience is challenging – given how interest rate levels for Treasury rates, for example, have registered historic lows.

## The Chain of Transmission: The Immediate Effect

The rout in financial markets precipitated by the spread of COVID-19, though now afflicting broad-based indices like the Dow Jones Industrial Average, first exerted its immediate effect on specific companies and industries. Airlines (and as of this week, energy companies) experienced a severe pullback in business because of cancellations and various forms of delays. Banks therefore, became subject to higher demands for lines of credit, even as the most affected institutions began implementing staggered schedules and selectively shedding jobs to control costs.<sup>1</sup> When the Federal Reserve cut the overnight borrowing rate by 50 basis points last March 3, deals previously predicated on a specific financing package became subject to renegotiation as borrowers clamored for lower interest rates.<sup>2</sup> The launch of additional liquidity measures such as the announcement of repurchase financing on March 12 will likely stimulate similar effects.

The immediate effects of volatility in interest rates are therefore at least two-fold: first, a pause for specific transactions, as the near-term future of deals are reassessed. Second, a spike in refinancing requests, given historically low interest rates. But what do we expect to happen next? And which scenarios are realistic?

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<sup>1</sup> Airlines have been negotiating with their employee unions to implement staggered schedules given travel disruptions, but few have announced wide-scale layoffs. Some ports have begun laying people off given the drop off in demand. Most evidence at this point is anecdotal given the pace at which this issue is evolving, but one recent article that summarizes early job losses is here: <https://www.washingtonpost.com/business/2020/03/11/layoffs-coronavirus/>

<sup>2</sup> Based on interviews and meetings with twenty clients of Moody's Analytics in the banking and CRE brokerage businesses.

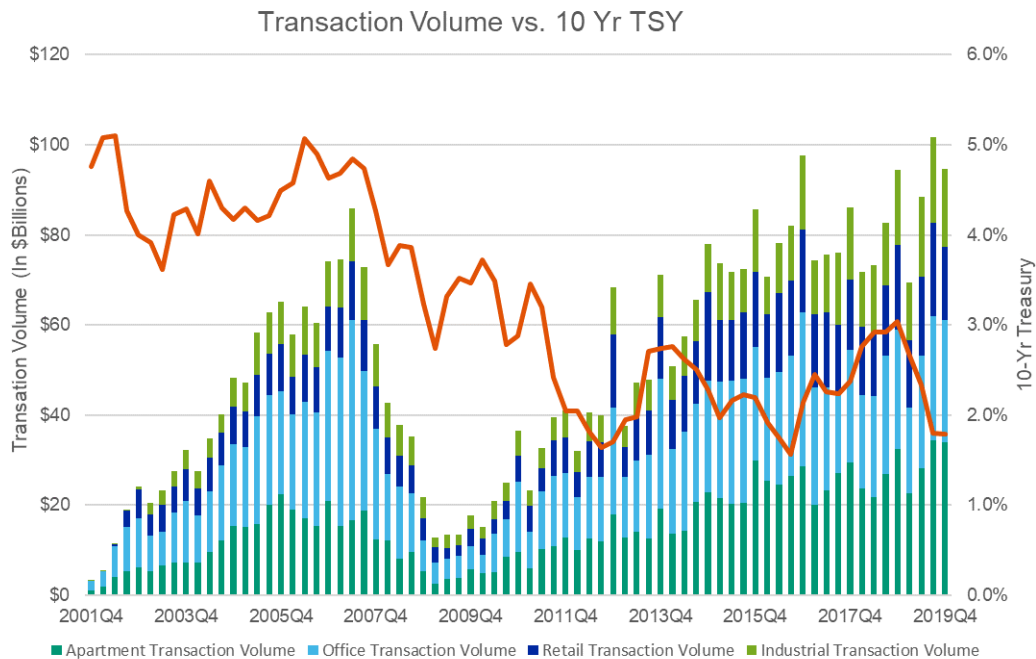
For the remainder of this paper, we will focus on historical evidence from how CRE capital markets have behaved when volatility in financial markets spiked. Specifically, we will analyze how transaction volume and pricing behaved during periods of high interest rate volatility. We will use the 10-year Treasury rate (TSY10) as our primary variable to represent volatility, given its widespread use in the CRE industry as the risk-free rate benchmark.

### CRE Transaction Markets Through the Years

Moody’s Analytics REIS has almost twenty years of reliable data to assess how transaction volumes and prices have behaved relative to the TSY10, which covers at least two business cycles – dating from the end of the recession in 2001 through the end of 2019.

Chart 1 below shows transaction volume for the apartment, office, retail, and industrial sectors, the traditional core four property types in multifamily and commercial real estate investing. We saw an increase in overall transaction volume following the recession of 2001, which peaked in mid-2007 right before experiencing a massive decline driven by the Great Recession from December 2007 to June 2009.

**Chart 1. CRE Transaction Volume and the 10-Year Treasury Rate**

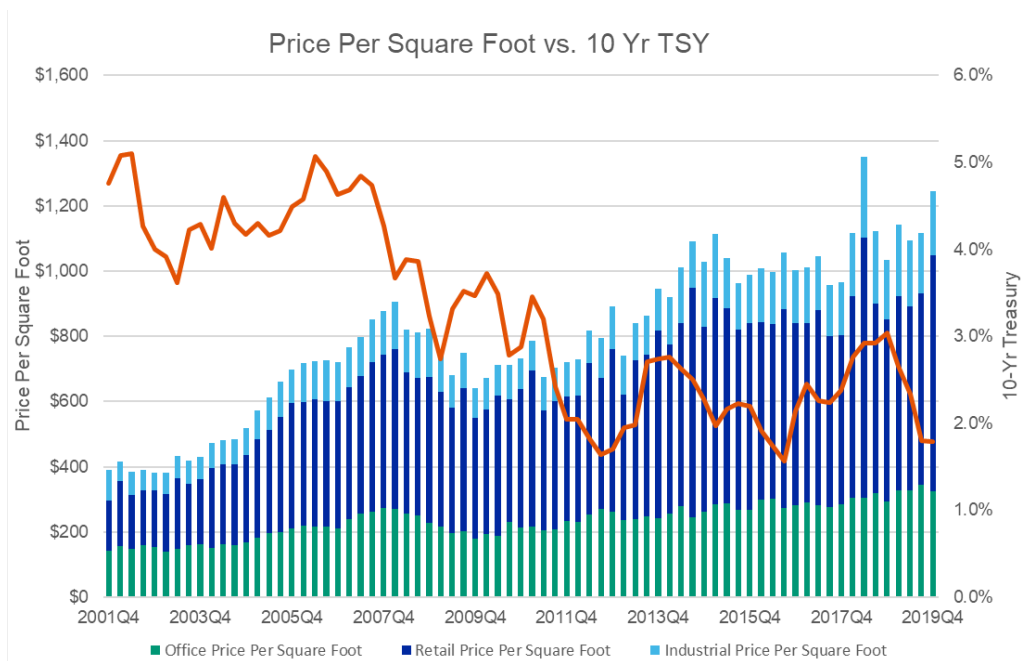


Source: Moody’s Analytics REIS; FRED | St Louis Federal Reserve

Throughout this time, the TSY10 has, in general, followed a declining trend. This is consistent with an overall environment in the United States (and many parts of the world) where interest rates as a whole have been falling.

Over the same period, pricing trends are decidedly more stable than transaction volume patterns. Why?

**Chart 2. Price per SF versus 10 year Treasury (Office, Retail, Industrial)<sup>3</sup>**



Source: Moody's Analytics REIS; FRED | St Louis Federal Reserve

The reason why pricing trends tend to be more stable than transaction volume patterns is because of *selection bias* peculiar to an income-generating asset like CRE. During the 2008-2009 recession, transaction volumes fell by about 90%. That means deals that were clearing likely involved a select few transactions where buyers and sellers actually agreed. In CRE, this tends to act as a *floor* on price declines, because sellers who aren't in distress can simply wait out the downturn and collect income on their real assets.

While transaction volumes reflect near-term sentiment, the consistent rise in CRE prices per square foot over the past two decades (with the exception of a small decline during the Great Recession) reflects the long-term demand for income-generating assets.

### The Effect of Volatility

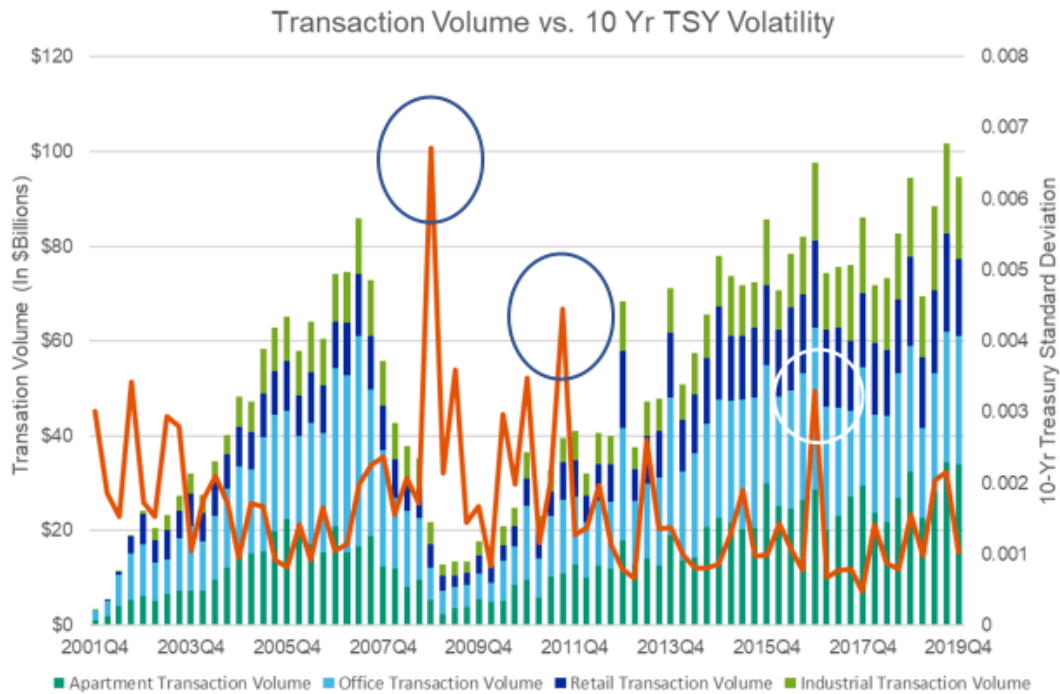
What happens during periods of high interest rate volatility? Interest rates fluctuate constantly, so we need to define "high volatility" carefully. In this paper, we define volatility per quarter as the standard deviation of the *daily* rates of the TSY10 over the specific three month time period.

*Standard* levels of volatility do not appear to correlate with discernible changes in transaction volume. *Higher* levels of volatility, however, capture the dynamic described in the introduction. Market players pause and reassess deal viability, and transaction volume drops.

There are three specific periods of high volatility in the TSY10 that led to identifiable declines in transaction volume. Chart 3 below shows the spikes during the fourth quarter of 2008, the third quarter of 2011, and the fourth quarter of 2016. On a relative scale basis, these spikes in volatility represent an increase of anywhere from 2x to 4x the average level.

<sup>3</sup> Apartment prices are given on a per unit basis, and reflect similar patterns.

**Chart 3. Transaction Volume & 10 year TSY Volatility**



Source: Moody's Analytics REIS; FRED | St Louis Federal Reserve

### What Was Going On?

Each period represented unique events and led to a decline in transaction volume that also needs to be assessed using different measures.

**Late 2008: Lehman Brothers.** The collapse of Lehman Brothers on September 15, 2008 was the high point (low point?) of a recession that had started in December 2007. Transaction volume fell by 41.3% in the first quarter of 2009 as a result, but the quarterly decline was only part of the larger story of a pullback in deal volume that actually began in mid-2007.

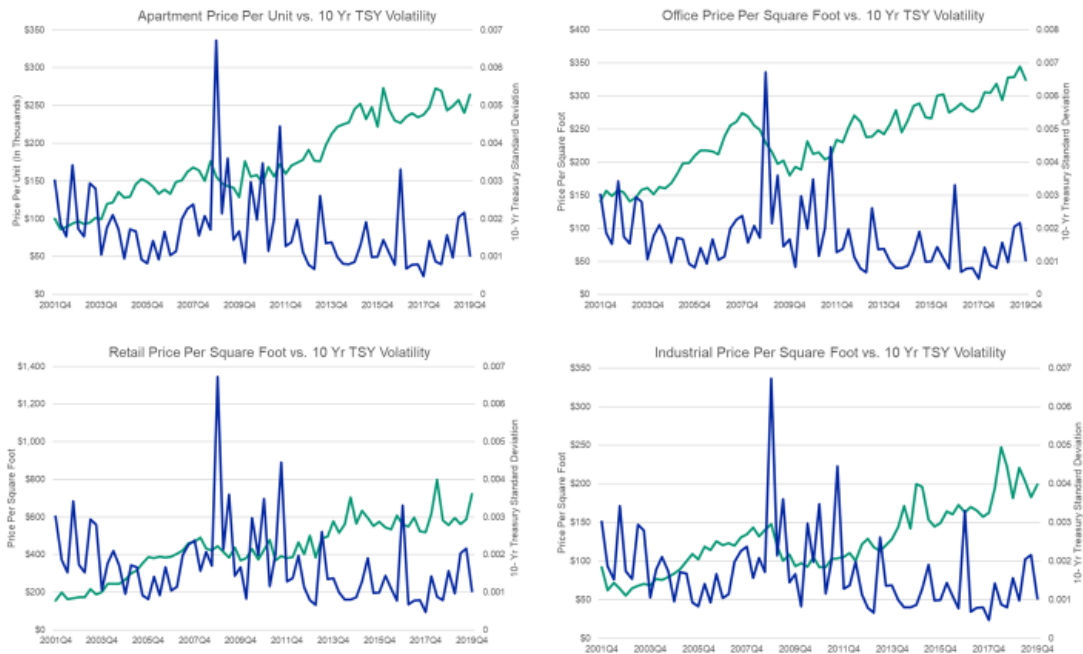
**Late 2011: Troubles in the European Union.** The Greek debt crisis reached a crescendo in terms of TSY10 volatility in the third quarter of 2011, and the decline in transaction volume of 21.6% transpired in the first quarter of 2012, as end-of-year deals in late 2011 pushed volumes slightly up.

**Late 2016: The US Presidential Election.** With uncertainty around how a Trump administration would fare, TSY10 volatility spiked in the fourth quarter of 2016, leading to a drop in transaction volume of 23.9% in the first quarter of 2017.

### But What About Pricing?

Across all property types there seems to be little correlation between TSY10 volatility and pricing. Other variables are driving the systemic declines in prices in 2008 and 2009. In other words, both TSY10 fluctuations *and* the decline in prices were driven by the massive pullback in demand and credit that characterized the Great Recession.

**Chart 4. Pricing Trends and Volatility in the 10-year Treasury**



Source: Moody's Analytics REIS; FRED | St Louis Federal Reserve

### What Happens Next?

In this paper, we argue that a short-run economic disruption that leads to a spike in the TSY10 volatility will manifest in decline in transaction volume, on the order of anywhere from 20 to 40%. Note, however, that this range is based on (only) three specific instances characterized by very different circumstances.

Pricing is unlikely to show much of an effect if solely driven by volatility in TSY10, but if we enter into a recession, that is when price declines will be evident.

If we exclude the Great Recession from the analysis, however, note that the recovery in transaction activity tends to be appreciable as well, if the disruption is truly limited to the short run. The US did *not* enter into a recession in late 2011 because of the debt crisis in the European Union; neither did the economy contract in 2017, after the initial period of uncertainty following the Presidential elections.<sup>4</sup>

### Then There's The Uncertainty Around COVID-19.

Consider three scenarios facing us over the next 12 to 24 months given the main cause of all the current volatility: COVID-19. These will likely encompass the range of scenarios being formulated by economic forecasters today, even as the situation changes daily.

**Scenario 1 (optimistic).** The virus burns out in warmer weather, and its spread across the global population is slowed by social distancing efforts. Activity returns to normal by mid-April, and a massive bounce back in markets occur. Calls for a recession are premature as economic contraction lasts barely six weeks.

If this scenario prevails, the recovery will look like what happened in early 2012 and early 2017, when transaction volume ramped back up in the next one or two quarters as deals put on hold are consummated.

<sup>4</sup> Furthermore, it can be argued that the 23.9% decline in transaction volume following President Trump's election in late 2016 was preceded by a 19.1% increase in volume between the second and third quarters of 2016. Anecdotal evidence suggested that deals were closed in a rush before any change in administration ushered in potential uncertainty.

*The Risk for Lenders: A Snap Back.* In the unlikely event that COVID-19 is resolved within the next three to six weeks, lenders will want to evaluate the risk of interest rates rising quickly after a period of historic lows. What does a snap back mean for loans issued or refinanced at TSY10 levels below 100 basis points? Lenders will need to think this through.

**Scenario 2 (recession).** The virus is warm weather resistant and continues to spread despite efforts. Death toll rises and panic continues to freeze global activity. Global economy goes into recession. Recovery ensues in late 2020 or 2021 when a credible treatment and vaccination protocol becomes widely available.

If this scenario prevails, then pricing will suffer until the economy begins recovering. Transaction volume will begin creeping up once the treatment and vaccination protocol reinvigorates market confidence, and the recovery in both transaction volume and pricing will look more like late 2009 through early 2012 – though it might proceed at a faster pace if the recession does not last as long as the last downturn (18 months).

**Scenario 3 (hysteresis - an economic term for when effects remain even as the cause is removed).** All of Scenario 2 except global behavior changes radically. People refuse to congregate in groups. The premise of many forms of real estate like office, apartment, and retail has to be rethought given how people, businesses, and other institutions no longer prefer co-location benefits.

There is no historical precedent for estimating recovery rates of transaction volume and pricing if this occurs. This, however, seems like an unlikely scenario. “After 9/11, there were several hasty extrapolations about how no one will want to lease high floors again; or targets of terrorist opportunity like Manhattan and Washington, DC will face permanent outflow of businesses,” said Dr Hugh Kelly, who helps write the PriceWaterhouseCoopers/Urban Land Institute *Emerging Trends in Real Estate* report.<sup>5</sup> “While 9/11 permanently changed our security protocols (going through airports will never be the same), the most dire predictions of how urban development patterns would be radically reshuffled didn’t quite come to pass.”

Data for the first quarter of 2020 will be collected and aggregated by the end of March, and the next three months may well be marked by additional periods of volatility until a credible treatment and vaccination protocol becomes widely available. Moody’s Analytics REIS will continue to monitor CRE market conditions as the situation evolves.

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<sup>5</sup> Interview with Dr Hugh Kelly, Special Adviser to Fordham University’s Real Estate Institute. March 12, 2020.

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