

Real Estate's Past Is Rarely Prologue

With the real estate cycle now entering its tenth year of expansion, many investors are wondering just how long it will last. What we know for sure is that it will not last forever. When it ends, and what the causes will be, are likely to remain at the forefront of the discussion until the very moment the market turns and perhaps for a while after. What is less-often discussed is the exact impact the next downturn will have on real estate values. History can serve as a useful guide but not a complete one, as no two previous real estate downturns have been the same.

An Illustrative Journey Through Downturns Past

The first downturn worth revisiting, and the most illustrative, occurred in the early 1980s. The early years of the decade witnessed a “double-dip” recession as the Fed did battle with an inflation rate that had topped 5% since 1973 and 10% since 1979. From March of 1980 to September of 1982, Gross domestic product (GDP) fell by a cumulative 0.6%. According to the official time line, these two recessions spanned a period of 35 months. If treated as a single continuous recession, their length would be second only to the Great Depression. It stands to reason that given the slow economic growth and high cost of capital during this period, it would have been one of the deepest real estate recessions in living memory, but it wasn't—not by a long shot.

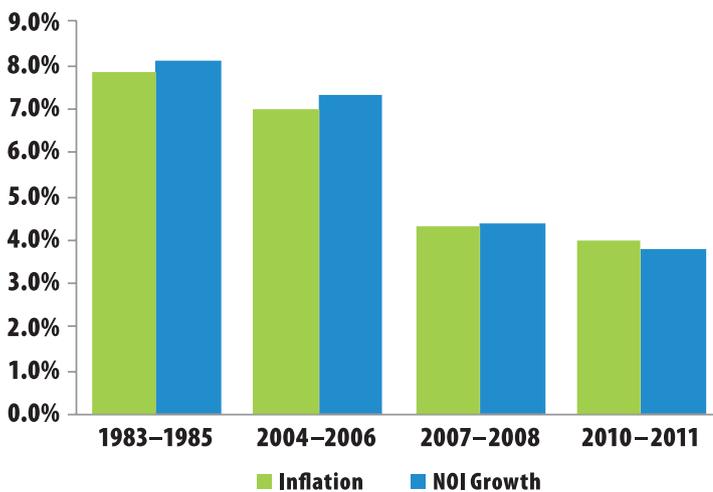
Far from declining, real estate values rose at a brisk pace in the early 1980s. Data from NCREIF indicate that real estate values climbed by more than 24% from 1979 to the end of 1982. The primary reason was inflation. Real estate income growth and real estate values are closely tied to the pace of inflation. This relationship most clearly reveals itself during periods when real estate supply and demand are roughly in balance, as



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in the mid-1980s, the mid- and late 2000s, and the early 2010s (Exhibit 1). From 1979 to 1982, inflation ran a cumulative 28%, as measured by the Consumer Price Index. As a result, real estate values declined by 4% on a real basis. Given the volatility and weakness of economic growth during this period, however, the decline seems unusually small. One of the primary reasons is the nuanced relationship between GDP growth and real estate demand.

Exhibit 1: Income and Inflation Growth, Select Periods



Sources: MIM, NCREIF, Moody's Analytics

GDP is a measure of economic output impacted by productivity growth, but output does not occupy space; renters, workers, and goods do. The economic strength of the 1980s was heavily driven by an event that had occurred more than two decades before, the baby boom. At the start of 1980, baby boomers composed a full 33% of the population, according to data from the US Census Bureau, the largest relative share of any generation in modern history. By the end of 1982, the bulk of that generation had entered the workforce, which had grown by 26% from a decade earlier. These new workers and their families needed homes and apartments to live in, offices to work in, retail centers at which to spend their earnings, and warehouses to store the goods they produced and consumed. The ascendance of the baby boomers helped drive consistently strong real estate demand well into the 1990s and likely would have done

so for values as well, if not for the distinctly visible hand of the US government.

Inflation is not the only short-term factor that drives real estate values; fiscal and regulatory policy can have a substantial impact as well. From 1980 to 1988, US federal spending increased by almost 21% on a real basis, driving strong economic growth and real estate demand across the country. At the same time, the government sought to reduce tax burdens and simplify the tax code

via the Economic Recovery Tax Act of 1981 (ERTA). While the magnitude of ERTAs impact on economic growth is still up for debate, its eventual impact on the real estate sector is not.

A key provision of ERTA was the establishment of the Accelerated Cost Recovery System (ACRS), which categorized depreciable goods into buckets of useful lives and allowed them to qualify for accelerated depreciation. Not only could commercial real estate be depreciated at a useful life of only 19.5 years, the depreciation assessed in the first year could be multiplied by 1.75, and similarly inflated figures could be assessed in the years immediately following. For

many existing and would-be investors, this tax incentive proved irresistible, offering them the chance to either fully shield their rental income or produce significant losses to offset income from other sources. The result was an explosion of new supply that has never been approached in the decades since.

The introduction of ACRS was the seed that grew into a supply-driven downturn that spanned 1990 to 1994. According to data from CBRE Econometric Advisors, new construction of US office space reached an annual pace of 176 million square feet in 1985, slightly more than Houston's entire office market today, and added a further 170 million square feet in 1986. Vacancies soon rose, and rent growth became a thing of the past. By 1986, the government had realized its error, and as part of a new tax reform act, it reset the useful life of commercial property to either 31.5 or 27.5 years and

restricted the use of accelerated depreciation. Real estate supply growth declined in the years that followed but only slowly, finally falling below 100 million square feet in 1990. Unfortunately for the sector, ACRS had one last act remaining.

The development of commercial real estate is capital intensive, and those pursuing it must possess either deep pockets or assistance from those that do. Enter the savings and loan associations (thrifts). Throughout the 1980s, the thrifts lent aggressively in the sector as fundamentals weakened under the weight of the very supply growth they were helping to fund. Though lax commercial real estate lending was not the only cause of the savings and loan crisis that overtook the thrifts in the late 1980s and early 1990s, it was a primary contributor. The failure of more than 1,000 thrifts, combined with the oil shock that preceded the first Persian Gulf War, weakened real estate demand growth and prolonged the real estate downturn until the middle of the decade. Data from NCREIF indicate that from 1990 to 1994, real estate values fell by 24%. This figure, however, understates the magnitude of the decline in many markets.

Nothing about the word *recession* implies that it must be a national phenomenon. The events of the late 1980s illustrate this well. While values in most of the nation's largest markets peaked in 1990, values in Dallas and Houston had already begun to fall by the mid-1980s. Both markets saw fundamentals substantially decline as a result of the 1980s oil glut. Once the already-devalued Texas markets are removed from the national calculation, the true depth of the early 1990s recession becomes apparent. The actual decline was in fact closer to 30% and in a handful of markets, including Boston, Los Angeles, and New York, almost 40%.

While the real estate downturn of the early 1990s was driven by capital market disruption and excessive supply growth, the downturn of the early 2000s was driven by an excess of expectations. As the 1990s drew to a close, speculation on the future of the internet took hold, and prices of tech stocks became unmoored from any reasonable expectation of near-term earnings. When the tech bubble finally burst in 2000, though, the ripple effects were not particularly widespread. Real estate

values declined by as much as 20% in markets such as San Francisco and San Jose, where the tech industry was concentrated. In many of the nation's other major markets, however, there was no downturn at all. Having not experienced the same surge in real estate demand, these markets had not responded with significant supply growth, so when the national economy briefly slowed in 2001, fundamentals were largely unaffected. In the next downturn of course, there was very little that wasn't.

The great financial crisis created a perfect storm for the real estate sector. Between February of 2008 and January of 2009, more than 8.6 million jobs were lost in the most severe economic downturn since the Great Depression. At the same time real estate fundamentals were weakening, capital market conditions were worsening as well. Throughout the mid-2000s, high levels of leverage, fueled in part by lax underwriting in the commercial mortgage-backed securities (CMBS) market and excessive financial engineering in the collateralized debt obligation market, led to a substantial debt bubble. As the labor market soured, the economic outlook became increasingly uncertain, and the nation's largest financial institutions soon grew reluctant to lend on commercial property, causing liquidity to evaporate. According to data from Real Capital Analytics, total transaction volume fell from \$580 billion in 2007 to \$72 billion in 2009, a decline of almost 88%. Real estate values fell nationally by almost 30% and as much as 40% in a handful of property types and markets.

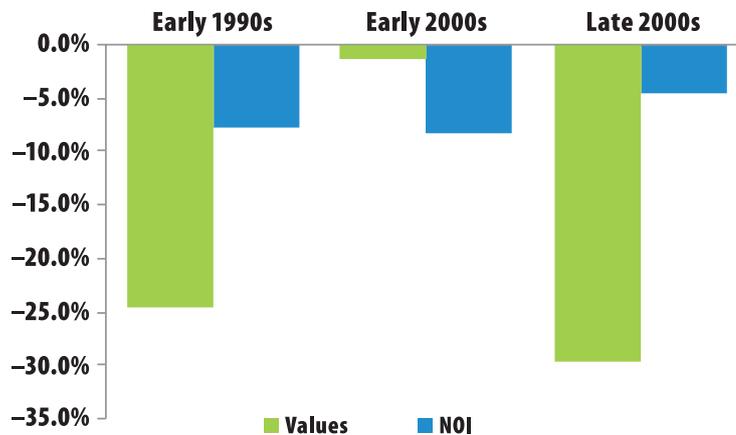
The Next Real Estate Downturn

The downturns of the past illustrate many of the factors that must be considered when attempting to forecast those of the future. Real estate demand is heavily driven by economic growth, which is subject to long-term demographic trends, labor market conditions, and government policy. The balance between supply and demand and the rate of inflation drives growth in rents and net operating income (NOI). Finally, capital flows, movements in interest rates, and the compression of risk premiums determine the trajectory of real estate values.

Looking at the market today reveals a relatively encouraging picture. Job growth remains robust, wages

are rising, and consumer spending is healthy. Supply growth has peaked in most property types and markets, and expectations of future supply growth continue to moderate as the cost of construction rises. Capital market conditions appear healthy as well, with total transaction volume in 2018 surpassing that of the prior year. The spread between cap rates and the ten-year Treasury has narrowed considerably, but a recent compression in Treasury yields has returned that spread to a healthy level. Underwriting standards seem disciplined as well.

Exhibit 2: Peak-to-Trough Declines by Downturn



Sources: MIM, NCREIF, Moody's Analytics

Data from NCREIF indicate that underwriters continue to moderate their future rent growth projections, while indications from life insurers and the CMBS market suggest that lenders have kept loan-to-value and debt-service coverage ratios relatively stable in recent years. As Paul Fiorilla from Yardi Matrix writes in another article in this issue, however, the market is not without risk in the years ahead.

The next economic recession will likely emerge from a combination of several causes. Rising inflationary pressures, restrictive trade policy, waning stimulus, and general government dysfunction may all contribute. While the ultimate cause remains unclear, the economy seems likely to be the primary driver of the next real estate downturn, not an excess of supply, a debt bubble, or a liquidity crisis. In the past, supply-driven downturns have been extended and uneven, while capital market-

driven downturns have been swift, deep, and universal. If there is a preferable form of real estate downturn from the perspective of values, then one driven by a gradual economic slowdown seems to be it. The primary impact on real estate of an economic slowdown is the potential for reduced NOI growth.

At their simplest, the valuations of real estate assets are based on the income they are capable of generating. Capital market factors, however, can cause real estate valuations to become temporarily disconnected from NOI growth (Exhibit 2). Although real estate values had declined by 24% in the early 1990s, NOI had in fact risen modestly by 1994. This suggests that although fundamentals at the time remained weak, values might have overcorrected, perhaps in response to a one-time event. NOI declined sharply in 1991, falling 7.5% in the first nine months of the year before recovering. The sharpness and suddenness of this decline led to a wave of defaults and foreclosures that placed downward pressure on values. The conservative valuations that resulted persisted throughout the decade.

During the 1990s expansion, cumulative NOI growth exceeded value growth, suggesting that even the modest 1% decline in values during the 2001 downturn also might have been an overcorrection. By contrast, NOI growth in the lead-up to the financial crisis was only around 12%, whereas values climbed by 60%. Today's market is somewhere in the middle, with NOI 45% higher through the third quarter of 2018 and values up almost 78%. Examined alone, and in the context of the market's historical tendency to overcorrect, these data could imply a future decline of almost 35%, but that would ignore key factors that are likely to have a significant impact.

The cause of the differential between NOI growth and value growth is just as important as its magnitude. In the mid-2000s, this differential was driven by a combination of excessive leverage and aggressive underwriting. Neither is true today. Instead, values have

been supported by robust capital flows from a variety of domestic and foreign sources. These new investors have broadly enhanced liquidity and stability across markets. Foreign investors in particular have had a stabilizing influence, focusing their investments on core, institutional-quality assets with the intention of holding them for multiple decades. This broadened capital base makes values less susceptible to shocks to both national and regional economies.

The market has also become more efficient. Information transparency has increased dramatically in recent decades, and investment strategists, portfolio managers, and academics, have built an ever-growing body of research on the sector. The result has been a long-term decline in real estate's risk premium, which is reflected in the spread between cap rates and Treasury rates. If compared to the 20-year average of approximately 270 bps, the spread at the end of the third quarter of 2018 implies that values are likely to fall as much as 20% in the event of a downturn, but even a 50 bp adjustment to reflect the maturation of the asset class lowers this potential decline to only 12%. In the end, neither NOI growth nor cap rate spreads are sufficient on their own. Real estate values, after all, are based not only on current NOI and perceptions of risk but also on expectations of future NOI growth.

The ideal metric for judging the degree to which real estate is over- or undervalued from a historical basis is internal rate of return (IRR). IRR takes into account current income, expectations of future income growth, the risk-free rate, and the real estate risk premium. Unfortunately, no historical real estate IRR series is widely available. We can, however, use historical data on other metrics to derive it. Comparing this derived series to historical Treasury rates and historical spreads to Treasuries can provide estimates of premiums and discounts to fair value through history. The results produced by MetLife's proprietary model line up well with historical events. The model suggests that values should not have declined at all during the 2001 downturn, and in all but a handful markets, they did not. It also suggests that values should have fallen approximately 26% following the global financial

crisis, compared to the actual decline of 29%. In line with MetLife's adjusted cap rate analysis, the model also suggests that if the sector were to enter a downturn in 2019, values would fall by approximately 12%. Given the market's historical tendency to overcorrect, however, it is possible that the actual decline could be slightly greater.

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Conclusion

The downturns of the past contain many lessons, but they will never be able to offer a clear picture of the future. Real estate values are ultimately determined by a wide array of factors, many of which are exogenous to the real estate sector itself. Regardless of when the next recession begins, it seems reasonable to believe that it will be a relatively shallow one. While real estate demand will weaken, supply growth likely will as well. As in prior cycles, expectations in the capital markets will probably decline further than NOI growth may suggest, but a broader base of long-term investors benefiting from greater transparency should maintain higher levels of liquidity than in the past. Based on these factors and analyses of historical real estate downturns, it appears likely that values could decline by 10% to 15% were a downturn to begin today. The true depth of the next downturn will ultimately depend on when it occurs and why, but for now at least, investors can take comfort in the knowledge that if it occurs in the near future, it is unlikely to be deep. ■

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