U.S. Municipal Bond Market

State and Local Credit is Incredibly Resilient, and We Expect Only a Very Limited Credit Impact from Commercial Real Estate Weakness

Tom Kozlik
Head of Public Policy and Municipal Strategy
214.859.9439
tom.kozlik@hilltopsecurities.com

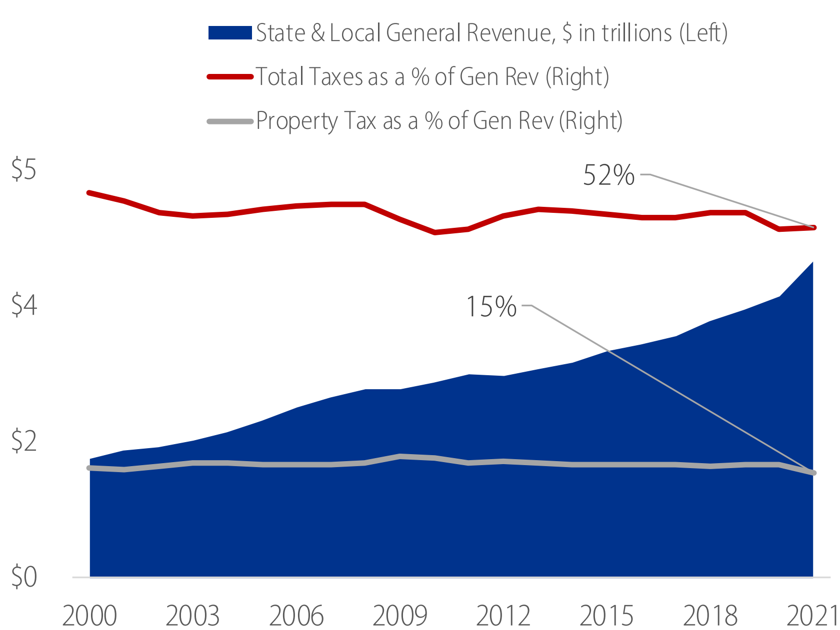
- U.S. state and local government credit quality is incredibly resilient.
- Overall, we believe state and local government credits are only minimally exposed to potential commercial real estate weakness.
- This is largely because state and local government revenue streams are typically well diversified and largely resistant to volatility.
- Exposure to tax revenues generally and property taxes specifically as well as exposure to commercial property valuations is likely not high enough to cause widespread and/ or deep credit deterioration for most state and local governments.
- Commercial real estate weakness in some larger cities is developing and expected to worsen.
- The five-day office week is dead, according to Stanford's Nick Bloom. Kastle Systems Back-to-Work Barometer Average is still only 50% of pre-pandemic levels. The Philadelphia Center City District published data showing non-resident worker downtown activity is still only about 65% of where it was pre-pandemic as well.

Incredibly Resilient

U.S. state and local government credit quality is incredibly resilient. This is largely because state and local government revenue streams are typically well diversified and largely resistant to volatility. This resiliency allows state and local governments to adjust or sometimes even pivot in response to shifts in business, public policy and the economic

Overall, we believe state and local government credits are only minimally exposed to potential commercial real estate weakness.

State and Local Government Revenues are Incredibly Resilient



Source: U.S. Census Bureau, Urban Institute and HilltopSecurities.

cycle over time. This has played-out over not only years but decades as dispersing technologies and events have emerged. Governments also typically possess different levers on the revenue and expenditure side they can use to manage their budgets year-to-year.

In the near term some are concerned about adjustments public finance credits will need to make in order to maintain structural balance.

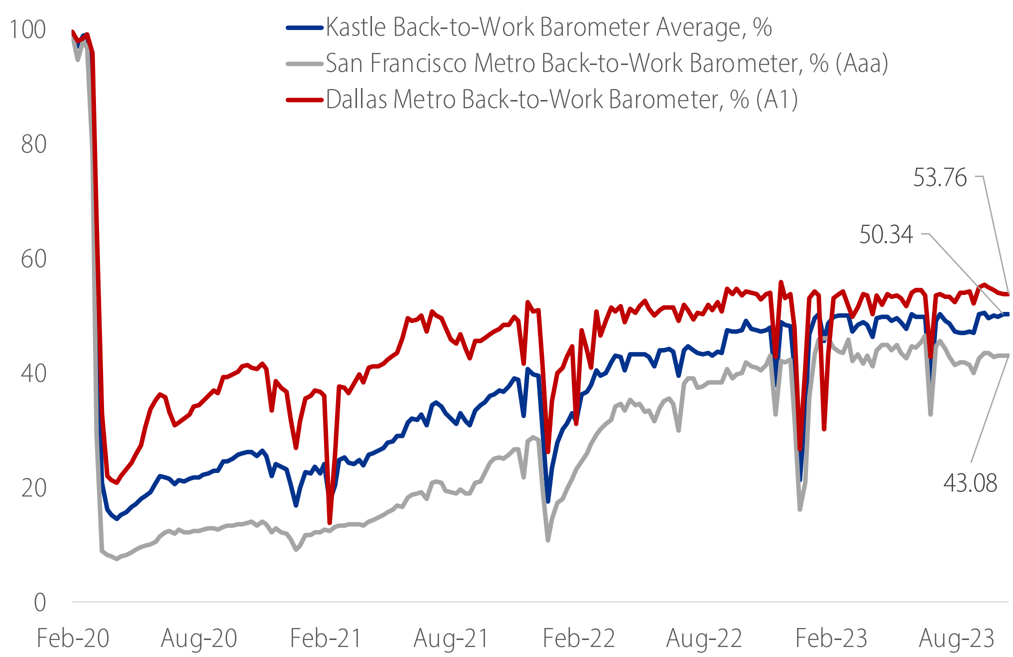
In the near term some are concerned about adjustments public finance credits will need to make in order to maintain structural balance. A key pressure we have heard and read observers are concerned about has to do with the potential for commercial real estate occupancy to worsen, valuations to suffer, and then negatively impact state and local government revenues. We review why this concern has come to pass and why we believe that while some credit pressure could materialize overall, we believe state and local government credits are only minimally exposed to commercial real estate weakness. In the end, state and local government credit quality will continue to prove it is incredibly resilient.

The Five-Day Office Week is Dead, Wrote Nick Bloom

An enduring legacy that COVID-19 has delivered to the U.S. labor market and to U.S. public finance is that remote and especially hybrid work is now a major part of everyday life. The Five-Day Office Week is Dead, wrote Stanford's Nick Bloom in the middle of October 2023 in a guest essay. Bloom announced in his piece that return-to-office (R.T.O.) is dead-on-arrival (D.O.A.) and he reviewed "lots of data" to support his conclusion. One of the key data sets Bloom cites is also one we have been monitoring closely and also citing regularly. The Kastle Systems "Back-to-Work-Barometer" is a weekly occupancy report tracking how often workers in some U.S. cities are using their electronic I.D. cards to enter their office buildings. Occupancy or usage rates as of Oct. 25, 2023 were still only 50% of pre-COVID levels.

An enduring legacy that COVID-19 has delivered to the U.S. labor market and to U.S. public finance is that remote and especially hybrid work is now a major part of everyday life.

The New Back-to-Office Normal, Compliments of Hybrid Work



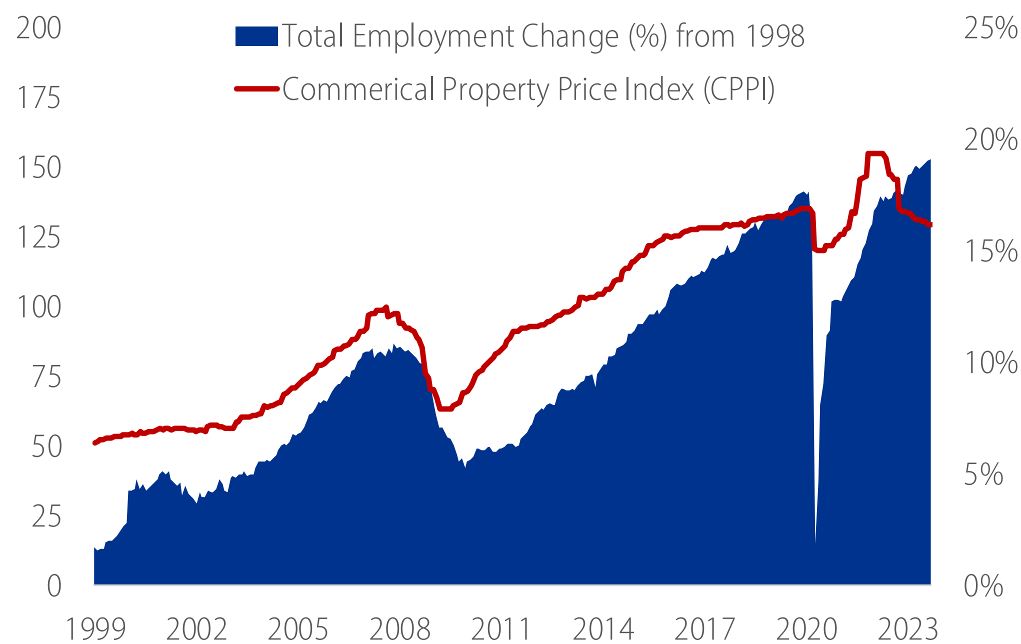
Source: Kastle Systems and HilltopSecurities.

Bloom announced in his piece that return-to-office (R.T.O.) is dead-on-arrival (D.O.A.) and he reviewed "lots of data" to support his conclusion.

You can see in the line chart that the Kastle Systems data has flatlined. Utilization is a little higher in places such as Dallas and Houston, and lower in San Francisco and Philadelphia, but it has flatlined nonetheless. This new normal is evident in the comparison we make below where we relate the Green Street Commercial Real Estate Price Index (CPPI) and U.S. employment levels. Before COVID the CPPI tracks very closely with the ups and downs of the labor market. It is intuitive that this relationship would exist in the pre-pandemic office reality. Post-pandemic however, the CPPI has decoupled from the rising labor market going back to 2022. This is a key indicator that change is emerging.

Post-pandemic however, the CPPI has decoupled from the rising labor market going back to 2022. This is a key indicator that change is emerging.

Commercial Real Estate Decoupled from Labor Trends in Mid-2022



Source: Bureau of Labor Statistics, Green Street and HilltopSecurities.

The commercial real estate market, especially in urban business districts has continued to weaken and its near-term future remains uncertain. Office leasing activity has been negatively impacted by declines in office utilization that relied on business activity from the regular flow of commuters who traveled to downtown urban business districts five days a week. Rising and higher than expected interest rates are likely to negatively impact refinancing opportunities, but largely the office commercial real estate stress is occurring because of less overall demand. CBRE reports that their tenants in the market demand (TIM) index is still only about 70% of pre-pandemic activity. More specifically CBRE reports that tenants are "deferring lease decisions until there is greater economic clarity."

The commercial real estate market, especially in urban business districts has continued to weaken and its near-term future remains uncertain.

The commercial real estate office landscape has been stressed and some expect the landscape could worsen. But, there are property-specific and location-specific nuances that are important to keep in mind. CBRE reports that only 10% of all U.S. office buildings account for 80% of the occupancy losses between the first quarter of 2020 and the fourth quarter of 2022. CBRE highlights that it is the hardest hit buildings (HHBs) which are generally, "older buildings in downtown submarkets with relatively high crime rates

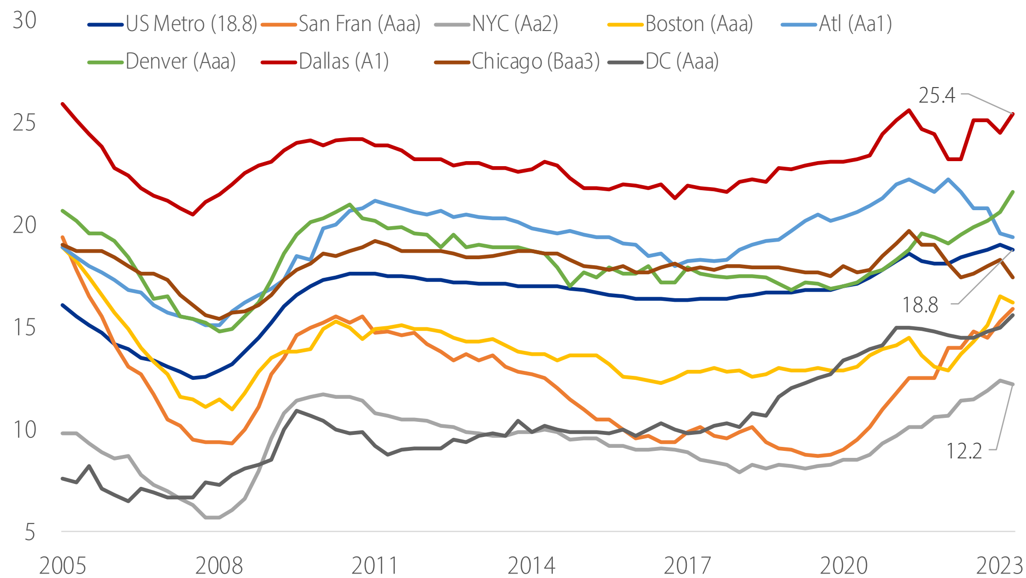
The commercial real estate office landscape has been stressed and some expect the landscape could worsen. But, there are property-specific and location-specific nuances that are important to keep in mind.

and few surrounding amenities" that account for much of the occupancy loss. Therefore, the pain could be considered somewhat contained, at least for now. "Two thirds of all U.S. buildings were more than 90% leased as of Q2 2023- not far off from the 71% of all office buildings in pre-pandemic Q1 2020," also according to CBRE.

Whether or not there is a little or a lot of pain in-store for offices in the commercial real estate market, differing data sources show that office vacancies have largely been on the rise around the country.

Whether or not there is a little or a lot of pain in-store for offices in the commercial real estate market, differing data sources show that office vacancies have largely been on the rise around the country. The national U.S. Metro office vacancy rate climbed to 19.2% in the third quarter 2023, up from the second quarter's 18.8% according to Moody's Analytics REIS data. This mark is approaching the peak of 19.3% set in 1991 also per Moody's. However, the negative impact from these rising occupancy levels is likely to play out over years, not months. About one third of leased space is scheduled to expire between 2023 and 2026 , according to Jones, Lang LaSalle. This means the uncertainty (or weakness) could carry through several state and local government budget cycles.

Office Real Estate Vacancy Percentage (%) of Select U.S. Cities



Source: REIS, Bloomberg and HilltopSecurities

How "Empty" are U.S. Cities Really?

How "empty" are U.S. cities? Overall activity in 26 downtown areas is about 80% of what it was pre-pandemic, on average.

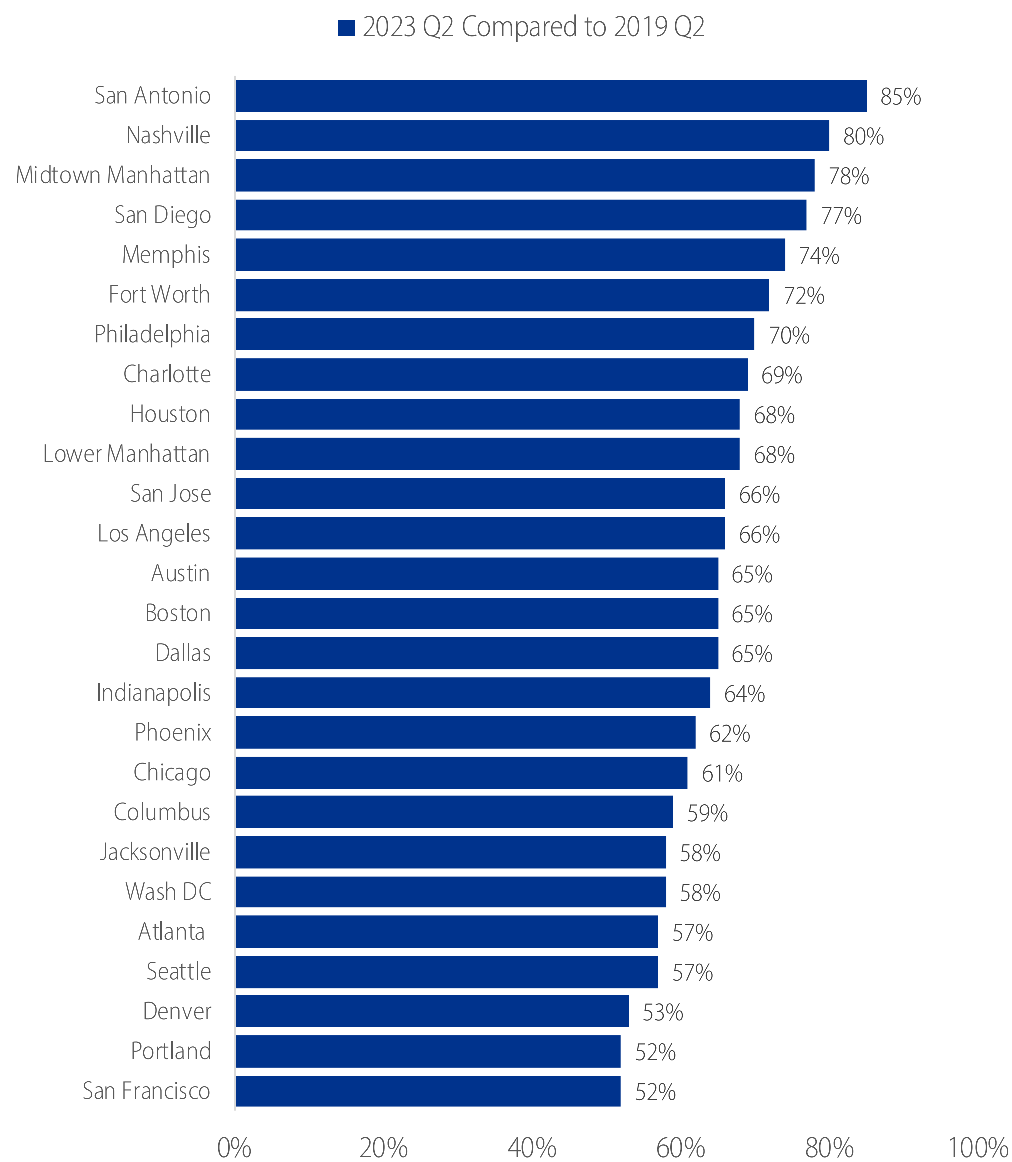
Investors and observers are rightly concerned about the word "empty." They are concerned about the impact "empty" office buildings could have on state and local government budgets. How "empty" are U.S. cities? Overall activity in 26 downtown areas is about 80% of what it was pre-pandemic, on average. This number is the average from a recent study by the Philadelphia Center City District (CCD) Downtowns Rebound: The Data Driven Path to Recovery which compared resident, worker and visitor activity in downtowns in the second quarter of 2023 to the second quarter of 2019. Nashville is already back to 100%, while Washington D.C. and San Francisco remain at the bottom at 69%. "Downtowns are reviving – and visitors are key," according to Richard Florida's What's Driving U.S. Downtown Revivals, which reviewed the CCD data.

Zeroing in on the theme in the CCD report that most impacts commercial real estate paints a slightly more negative picture, however.

However, we think it is important to dig deeper into the CCD data. Zeroing in on the theme in the CCD report that most impacts commercial real estate paints a slightly more negative picture, however. The CCD includes data that shows non-resident worker activity in core downtown activity is still only about 65% of where it was pre-pandemic. This is somewhat closer to the Kastle Systems data we cited above that shows employee swipes are still only about 50% of the pre-pandemic level. The CCD non-resident worker activity in San Antonio is at the top, but still only 85% of where it was pre-pandemic. At the low end is Denver (53%), Portland (52%), and San Francisco (52%). So, downtowns might be reviving, but there is still a process state and local government will likely need to grapple with as it is concerned with downtown business districts.

The CCD includes data that shows non-resident worker activity in core downtown activity is still only about 65% of where it was pre-pandemic.

Non-Resident Workers in Core Downtown in 2023 Q2 Compared to 2019 Q2



Source: Placer.ai, PCCD and HilltopSecurities.

So, downtowns might be reviving, but there is still a process state and local government will likely need to grapple with as it is concerned with downtown business districts.

State and Local Government Credit Quality is Still Very Strong, and Resilient

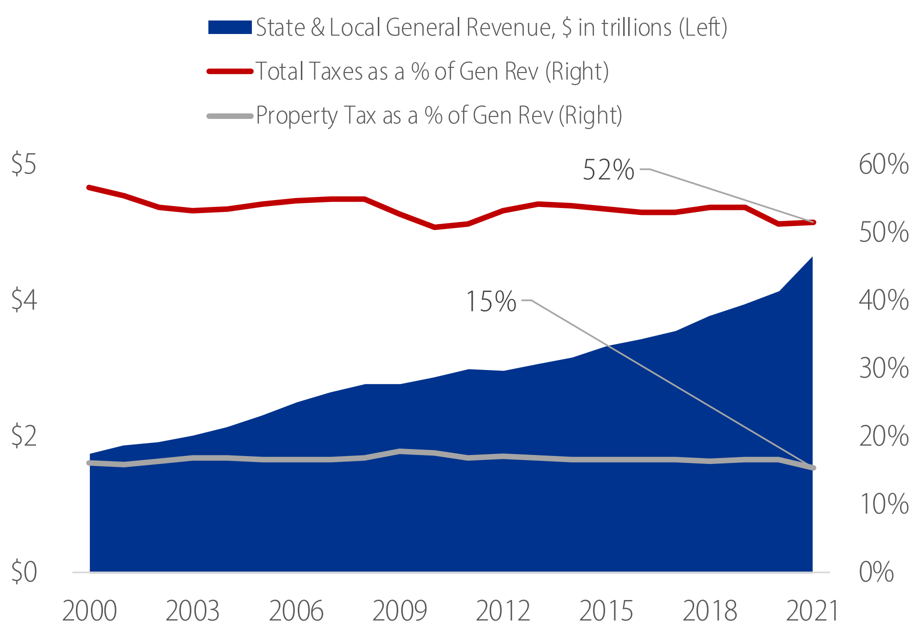
State and local government credit may have peaked a year or two ago, but it still remains more prepared for potential economic deterioration than we have ever seen it. We just indicated that state reserves remain near record levels, and state and local government

State and local government credit may have peaked a year or two ago, but it still remains more prepared for potential economic deterioration than we have ever seen it.

employment is still recovering in our recent U.S. State Fiscal Health update (Oct. 19). U.S. state and local government credit quality is incredibly resilient. This is largely because state and local government revenue streams are typically well diversified and largely resistant to volatility. Tax revenues make up about 52% of the $4 trillion of state and local government general spending. Property taxes make up about 30% of tax revenue and property taxes make up about 15% of all general spending. You can see in the line chart below that these percentages change, but only very slightly. Keep in mind that this breakdown differs across state and local governments across the nation. For example, Boston's property tax as a % of governmental revenue is 64%, or the highest of the cities we include in the chart on page 8. Also, see more detail in the charts on the following page from the Annual State and Local Government Finance Summary: 2021 published August 2023 by the U.S. Census Bureau. Even under duress, state and local government quality has endured. In times of budget stress government entities typically have different levers they can use to balance revenues and expenditures.

U.S. state and local government credit quality is incredibly resilient. This is largely because state and local government revenue streams are typically well diversified and largely resistant to volatility.

State and Local Government Revenues are Incredibly Resilient



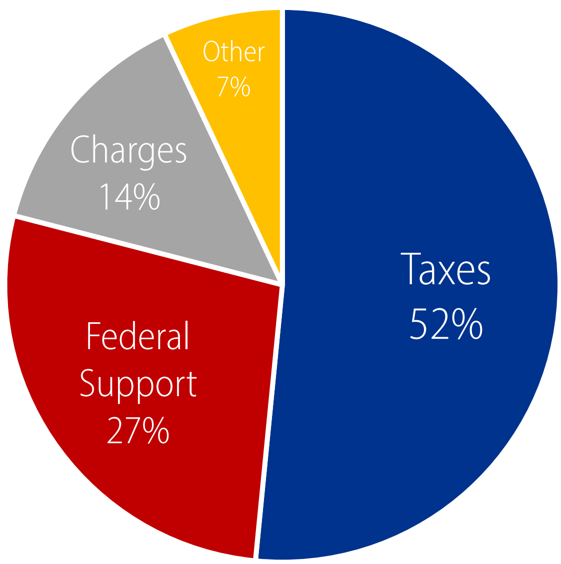
In times of budget stress government entities typically have different levers they can use to balance revenues and expenditures.

Source: US Census Bureau, Urban Institute and HilltopSecurities.

State and local government credit quality was incredibly resilient even in the wake of the World Financial Crisis of 2008 and Great Recession. General revenues fell in 2012, but then they started to climb back. Federal government relief supplemented typical state and local revenues, but a major part of the resiliency of state and local government credit comes from strong and diversified revenue streams as shown in these pie charts.

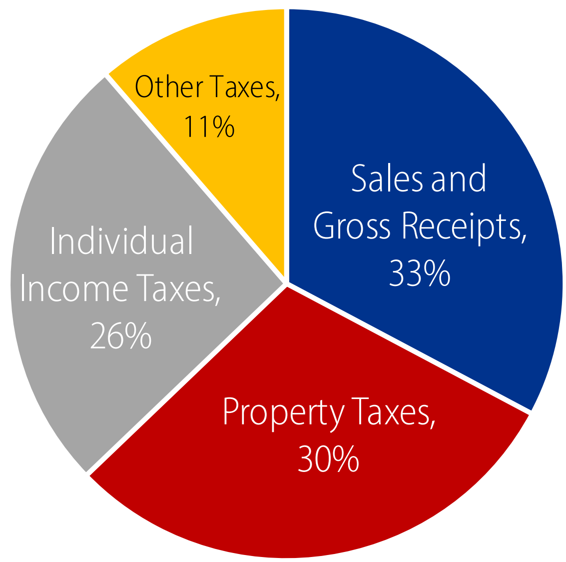
State and local government credit quality was incredibly resilient even in the wake of the World Financial Crisis of 2008 and Great Recession.

Sources of State and Local Government General Revenue



Source: U.S. Census Bureau and HilltopSecurities.

Breakdown of State and Local Government Tax Revenues



Source: U.S. Census Bureau and HilltopSecurities.

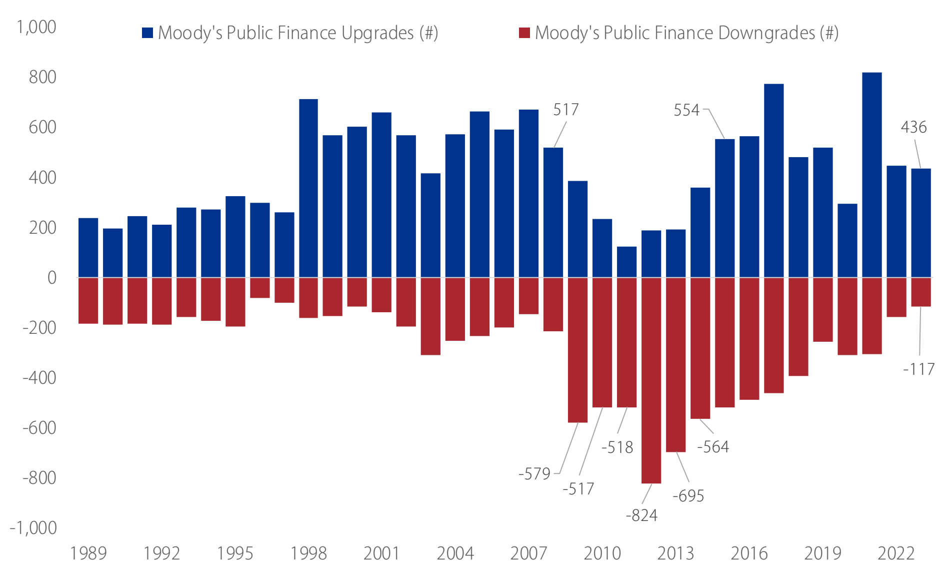
Declining Municipal Credit Quality After the Great Recession

We did see a meaningful shift of declining credit quality in the public finance sector after the Great Recession. Falling revenues and multi-year structural imbalances were key reasons why we saw public finance downgrades outpace upgrades from 2009 to 2014. We saw property tax, sales and use, and income tax revenues fall at varying levels during this time as well. In 2015 upgrades began to outpace downgrades once again.

We did see a meaningful shift of declining credit quality in the public finance sector after the Great Recession.

Downgrades slightly outpaced upgrades in 2020. Starting in 2021 upgrades have significantly outnumbered downgrades and the upgrade activity have been concentrated in the tax-backed sectors mostly because of the substantial federal aid sent to state and local government in the Rescue Plan Act of 2021. This is what caused us to deem this period as "The Golden Age of Public Finance."

Public Finance Downgrades Outpaced Upgrades from 2009 to 2014



Source: Moody's Investors Service and HilltopSecurities.

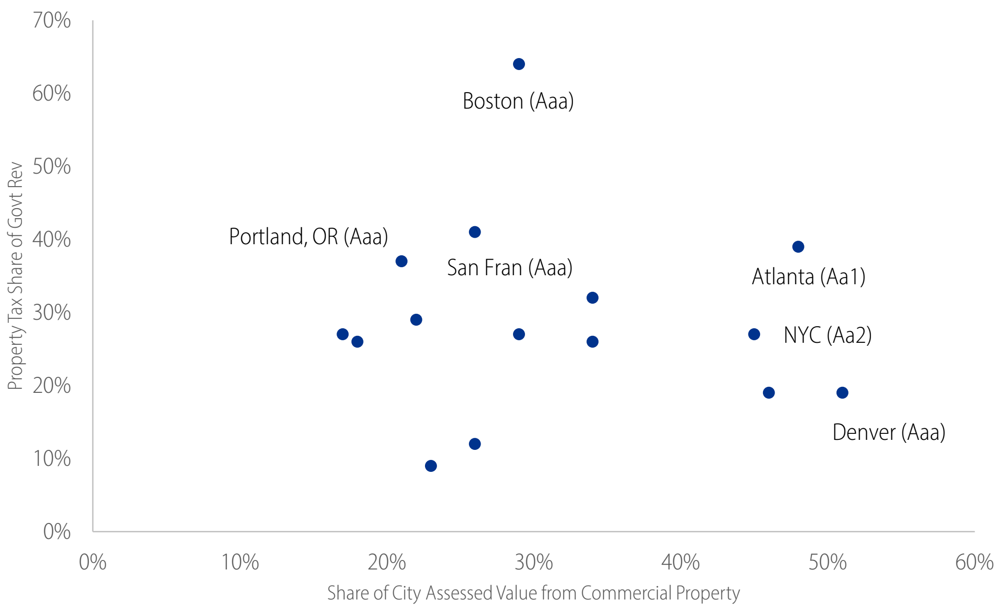
Downgrades slightly outpaced upgrades in 2020. Starting in 2021 upgrades have significantly outnumbered downgrades and the upgrade activity have been concentrated in the tax-backed sectors mostly because of the substantial federal aid sent to state and local government in the Rescue Plan Act of 2021.

We Expect Only a Very Limited Credit Impact Due to Commercial Real Estate Weakness

There could be situations over time where ongoing commercial real estate weakness negatively impacts credit quality, but we do not expect this to be a primary driver of rating downgrades and we especially do not expect rating downgrades anywhere near the pace like we saw after the Great Recession. Moody's Investors Service recently published the following data that shows that cities reliance on property taxes generally and commercial real estate specifically varies significantly. Moody's looked at 14 of the larger cities in the U.S. the rating agency found that the median property tax as a % of governmental funds was 27%, and the median share of assessed value from commercial property was 29% for this collection of cities. We will touch on a few of the more relevant situations based on the below data and the latest credit landscape to help illustrate our key thesis - **that U.S. state and local government credit quality is incredibly resilient**.

There could be situations over time where ongoing commercial real estate weakness negatively impacts credit quality, but we do not expect this to be a primary driver of rating downgrades and we especially do not expect rating downgrades anywhere near the pace like we saw after the Great Recession.

City Reliance on Commercial Real Estate and Property Taxes Varies Significantly



Sources: Moody's Investors Service and HilltopSecurities.

Boston's reliance on property taxes as a % of governmental revenue is very high, at 64%. The city of Boston also has a moderately elevated % of its assessed valuation from commercial property at 29%. However, Boston is a "Aaa" rated ("Stable" outlook) local government with an available fund balance of about 37% of revenues. This offers a comfortable cushion should near term stress appear. Boston's office vacancy rate was about 16% in the second quarter of 2023, and was below the U.S. Metro average of 18.8%. Boston's office vacancy rate was 12.9% in the fourth quarter of 2019.

Boston's reliance on property taxes as a % of governmental revenue is very high, at 64%. The city of Boston also has a moderately elevated % of its assessed valuation from commercial property at 29%.

San Francisco is one of the cities many investors are concerned about because of the potential for commercial real estate weakness. San Francisco is also Aaa rated, but Moody's lowered its rating outlook to "Negative" from Stable in July of 2023 because the city is projecting to draw on its very healthy reserves (46% of revenues, or about $6 billion) until at least fiscal year 2025. San Francisco's downtown utilization has remained among the worst of all big cities across the U.S. the cities office vacancy rate is about

San Francisco is one of the cities many investors are concerned about because of the potential for commercial real estate weakness.

16%, below the U.S. metro average, but a higher than average level of weakness is still expected to materialize in San Francisco.

New York City's office vacancy rate is among the strongest in the country at about 12% as of the second quarter of 2023 but near-term demand remains in question.

New York City's office vacancy rate is among the strongest in the country at about 12% as of the second quarter of 2023 but near-term demand remains in question. That being said, New York City Comptroller Brad Lander reported that even in his office's doomsday scenario as a result of commercial real estate market stress, the potential estimated revenue shortfall "is well within the range in which tax revenues can ordinarily vary."

Recent HilltopSecurities Municipal Commentary

- U.S. State Fiscal Health: State Reserves Remain Near Record Levels, State and Local Employment Still Rising, Oct. 19, 2023
- Municipal Yields Remain Generationally Enticing Amongst the Latest Flight to Quality, Future Attractive Investment Opportunities May Occur But Will Be Less Frequent, Oct. 11, 2023
- Appealing Municipal Market Indicators and Strong Economic Data is Fueling the Golden Age of Municipals Despite Near-Term Uncertainty, Sept. 19, 2023
- Transformative Technology and its Economic Impact, Sept. 6, 2023

Readers may view all of the HilltopSecurities Municipal Commentary here.