

SECTOR IN-DEPTH

24 September 2024



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Local Government – US

Stress tests reveal cities generally secure from office real estate downturn

Summary

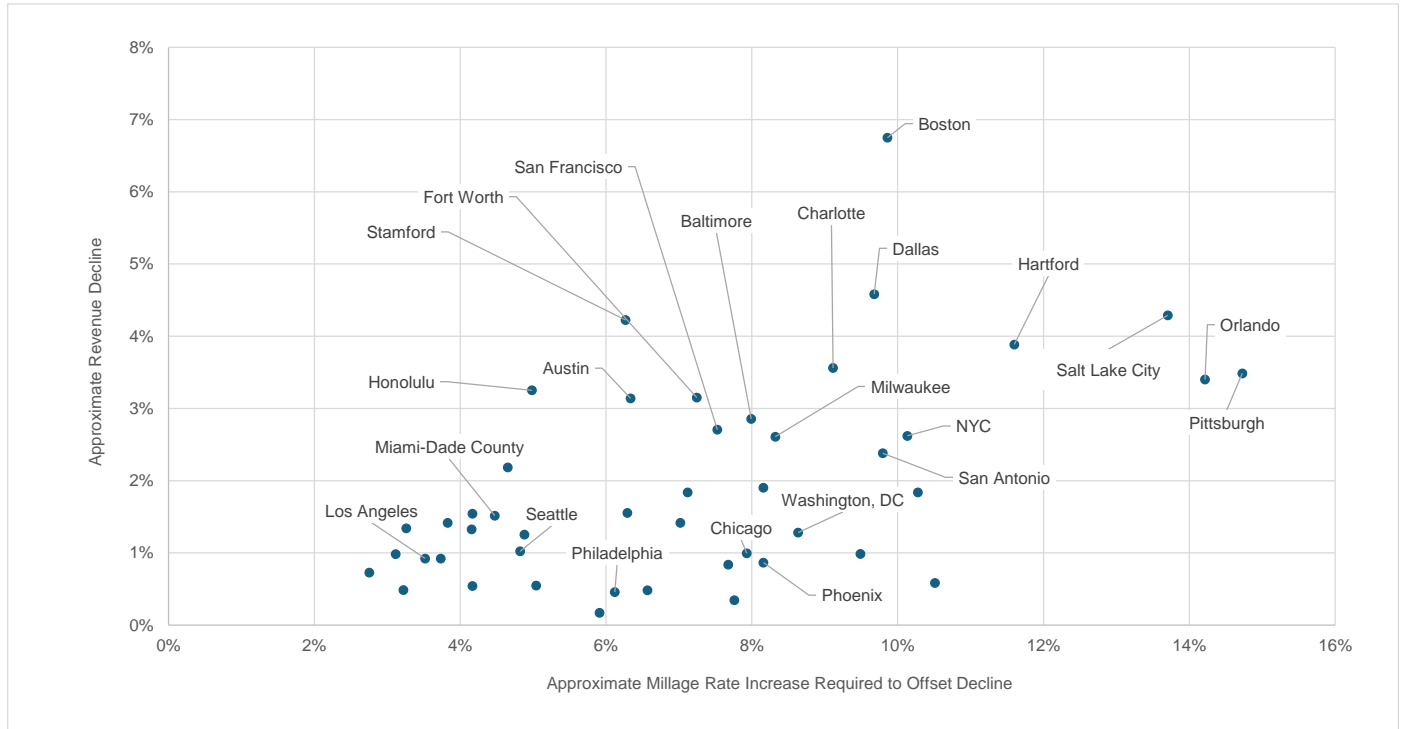
Commercial real estate stress has begun to erode cities' commercial tax base values in 2024, which likely will result in some of the largest assessed valuation (AV) declines in office property value in years. Our stress test indicates the credit quality of most US cities can withstand a significant CRE downturn because the potential impact on overall city tax revenue will be relatively low and manageable. Some cities are more vulnerable than others, such as [Boston](#) (Aaa stable) and [San Francisco](#) (Aaa negative), though for widely differing reasons. Assessing a city's CRE exposure is based on three considerations: the relative weakness of the city's CRE market; how dependent the city is on CRE property taxes and related revenue; and the legal and practical flexibility to adjust tax rates to minimize or avoid a property tax revenue decline.

- » **The relative weakness of a city's CRE market is the first indicator in assessing stress.** The rise in vacancies over the last few years has contributed to 2024 assessed value declines in the office subsector with expectations for 2025 to notch some of the largest valuation declines in commercial tax bases in at least a decade. That, in turn, could reduce cities' property tax revenue in fiscal 2026 budgets. The degree of office stress varies across cities, however, with rents down sharply in some and remaining flat or rising in others despite similarly high vacancy rates. Office employment growth is a main factor buoying rents in some cities. The trend in rents and employment could help soften AV declines and limit a prolonged office market downturn.
- » **Our stress assessment also considers how dependent a city is on CRE property tax revenue.** A greater dependency a city has on property taxes as a primary revenue source increases the risk of imbalanced operations and financial deterioration (see Exhibit 1). The cities of Boston and [Honolulu](#) (Aa2 stable) receive over 60% of governmental revenue from property taxes making them the most reliant in the US. In contrast, [Cleveland](#) (Aa3 stable) and [Philadelphia](#) (A1 stable) rely on property taxes for less than 8% of governmental revenue. Although San Francisco receives less than 40% of revenue from property tax, office-based employment generated about 70% of the city's pre-pandemic GDP and significant other tax revenue.

This report was republished on 14 October 2024 with a correction to Exhibit 1's approximate revenue decline for Boston to 6.75% from 8.98%.

» **Legal and practical flexibility to adjust tax rates to minimize or avoid a property tax revenue decline is our third and final gauge.** A city's ability to adjust tax rates to minimize or avoid a property tax revenue decline is a key consideration to assessing the risk posed by the CRE downturn. A decline in tax base value can have a direct or indirect impact on property tax revenue depending on the legal framework a city has to adjust tax rates and the tax levy.

Exhibit 1
CRE stress test indicates low to moderate revenue vulnerability among major US cities



Analysis is based on an assumed decline in the assessed value for commercial property of 20% or for office property (when available) of 40%. In states where assessed values are limited below market values, the cities' potential revenue losses may be overstated depending on the degree of this valuation difference. Where applicable, we have accounted for differences between millage rates (the amount of tax payable per \$1,000 of AV) on commercial and residential property. Cities located in states with caps on millage rates may be unable to offset revenue declines, with the exception of taxes levied to pay debt service on unlimited tax general obligation bonds.
 Sources: *Cities' audited financial statements and Moody's Ratings*

Assessing the weakness of a city's CRE market includes office vacancies, rents and employment growth

Office vacancy rates as of the first quarter of 2024 have increased to around 20% in many cities, according to CBRE Econometric Advisors, an increase of 5 to 10 percentage points since the first quarter of 2019 prior to the pandemic. The rise in vacancies is contributing to a decline in 2024 AVs with the expectation that 2025 will likely reflect some of the largest AV declines in commercial tax bases in at least a decade. That in turn will affect cities' fiscal 2026 budgets. We expect office properties, a subsector of commercial properties, to be the most vulnerable to very sharp drops in AV over the next few years (see Exhibit 2). Other commercial subsectors like hotels have recovered from pandemic lows while retail property values have been trending down for years making them less vulnerable to a market shock.

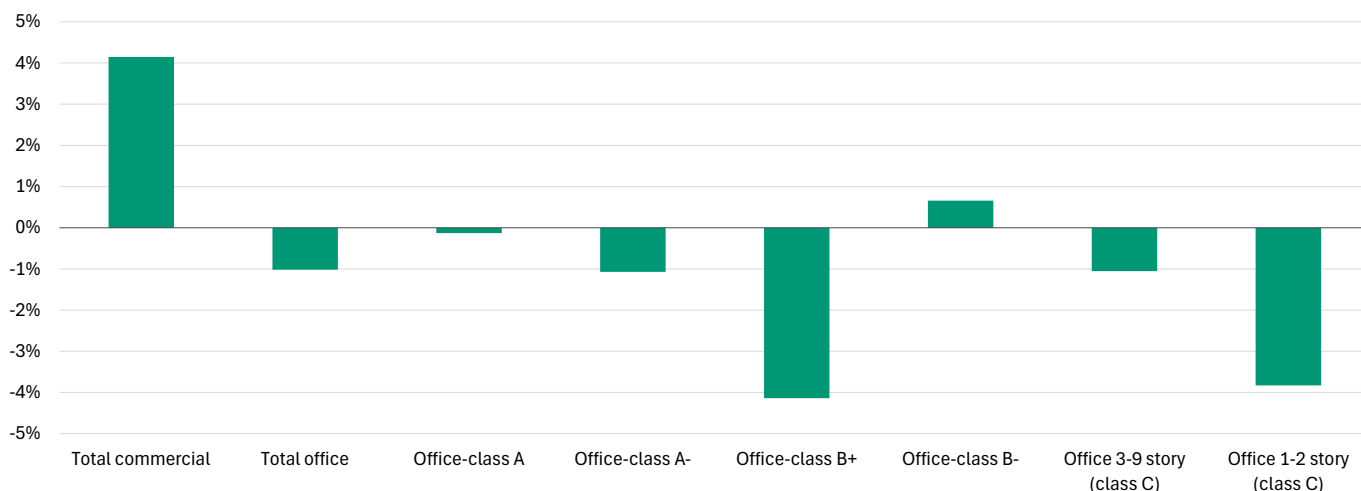
The amount of stress in a city's office market will also depend on the type of office space. Commercial office buildings are typically placed in one of three categories: Class A, Class B or Class C. Each category represents a different level of rent, quality and amenities. As reflected in the Boston exhibit below, AV for Class-A space has held up better than Class-B and Class-C properties. This stems from the

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tendency of businesses to seek out higher quality space to enhance job amenities and attract and retain employees. Another property type that continue to experience stable to growing value is laboratory space for science, research and development.

Boston's laboratory space value increased more than 80% (including new square footage) from 2023 to 2024. This has helped keep the city's overall commercial value growing 4% in 2024 despite the weakness in office property. Ongoing stress in the office market, however, is likely to contribute to larger AV declines in 2025, and new development and valuation growth in other commercial subsectors may not be sufficient to offset the office segment as in 2024.

Exhibit 2
While the commercial sector grew in 2024, stress on office property value is evident
 % change in AV from 2023 to 2024 in Boston's commercial sector and office subsectors



Office class types are based on Boston's 2024 tax roll classifications. Total commercial sector represents 33.3% of 2024 value, total office is 16.3%, Office-Class A is 8.4%, Office-Class A- is 3.3%, Office-Class B+ is 2.4%, Office-Class B- is 0.4%, Office 3-9 story (Class C) is 1%, and Office 1-2 story (Class C) is 0.2%.
 Source: City of Boston

The CRE downturn has been driven by the embrace of remote and hybrid work. The office market cycle's response to this cultural change, however, is expected to stabilize over the next three to five years as leases expire and reprice. Favorable office-related employment growth trends should also help stabilize the office market during this period and limit valuation declines to moderate levels over the short term. Historically, CRE rent revenue has correlated with employment growth (see Exhibit 3). So given the post-pandemic employment recovery, rent revenue should stabilize in most markets, tempering declines in office property values.

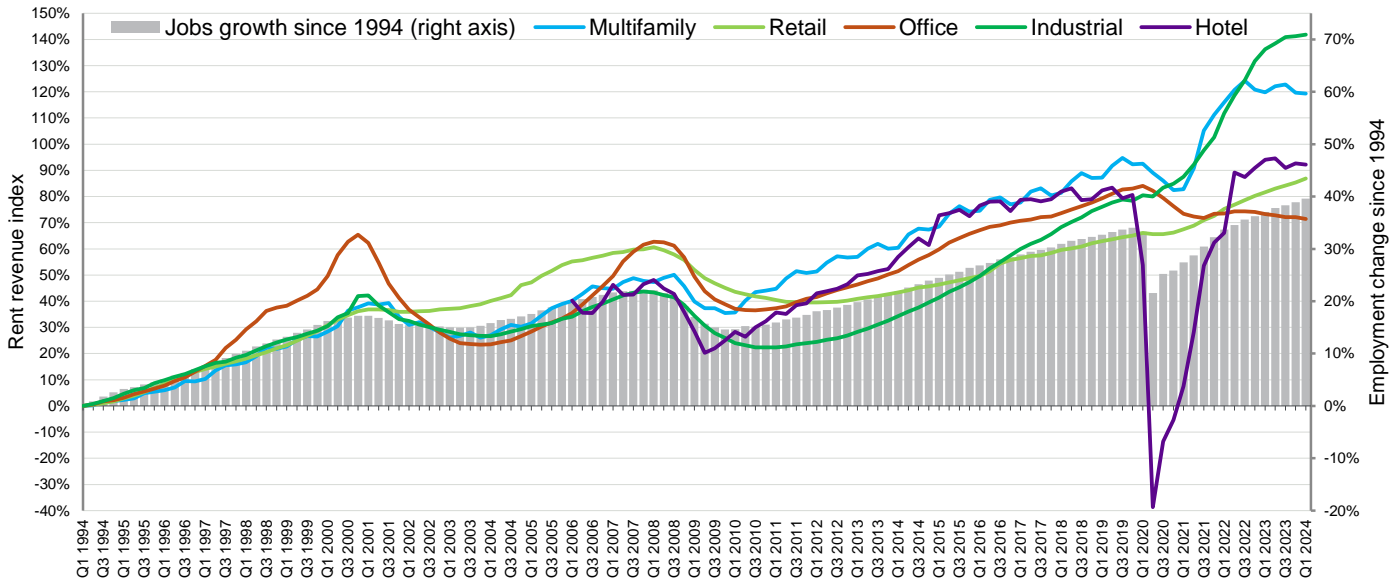
Some high-growth cities have experienced material increases in vacancy rates, although they are often better able than other cities to limit AV declines given significant new development to keep up with population and employment growth. Strong demand is expected to feed the large supply of office space and limit any decline in office rents. For example, [Austin, TX](#)'s (Aa1 stable) Q1 2024 vacancy rate was 21.5%, up 13 percentage points since the end of 2019. However, during that same time, the city increased the amount of rentable space by almost 13 million square feet, and office related employment grew by a significant 32.9%. In [Charlotte, NC](#) (Aaa stable) the Q1 2024 vacancy rate was 20.3%, an increase of 11 percentage points since 2019. Although office-related employment grew by over 13% and office asking rents increased during that same period by 0.5%. Despite the elevated vacancy rate, strong employment growth should help keep rent revenue relatively flat limiting the case for material change in property valuation.

Alternatively, while history normally shows a strong correlation between rent revenue and employment growth, there can be exceptions. Office properties detached from the employment growth trend in 2020, and therefore could be a sign of more prolonged stress. In 2003 in the wake of the dot-com bubble there was a similar detachment trend for a couple years (see Exhibit 3).

Exhibit 3

CRE rent revenue has historically correlated with employment growth although the office trend detached after 2020

Correlation between mark-to-market rent revenues and employment levels for five property types, 1994-2024



Hotel property experienced a temporary negative shock during the pandemic due to lack of recreation and business travel. The sector has largely recovered as of 2024.

Sources: CBRE Econometric Advisors, BLS and Moody's Ratings

San Francisco's office market stress is the most pronounced of any major market we reviewed with the citywide vacancy rate increasing by 24.2 percentage points since Q4 2019 to 28.0% as of Q1 2024 and asking rents declining by 20%. The city's growth in office employment since Q4 2019 has been less than 1% and is not likely to mitigate the downward trend in rents over the near term, given its high rate of hybrid work. Other economic metrics point to San Francisco's economic challenges being larger than other cities. San Francisco County's real GDP declined by 2.4% in 2022, as compared to the San Francisco-Oakland-Hayward MSA (which comprises five Bay Area counties including San Francisco), where real GDP declined by only 0.2%. The city's economist has attributed 70% of the city's pre-pandemic GDP to office-based employment.

San Francisco's office vacancy rate is likely to increase through 2026, given a significant mismatch of supply and demand, leading to continued decline in rents. The city's office space inventory increased by nearly six million square feet between 2018 and 2020 and nearly three million square feet of active subleases are expiring in 2025 and 2026. Employers seeking new office leases will be able to trade up to higher quality space discounted from pre-pandemic rents and are generally consolidating into a smaller footprints to accommodate hybrid work models (see Exhibit 4).

Exhibit 4

San Francisco has the highest vacancy rates in the nation, as well as the largest drops in asking rents
New office construction contributed to vacancies at the start of the pandemic

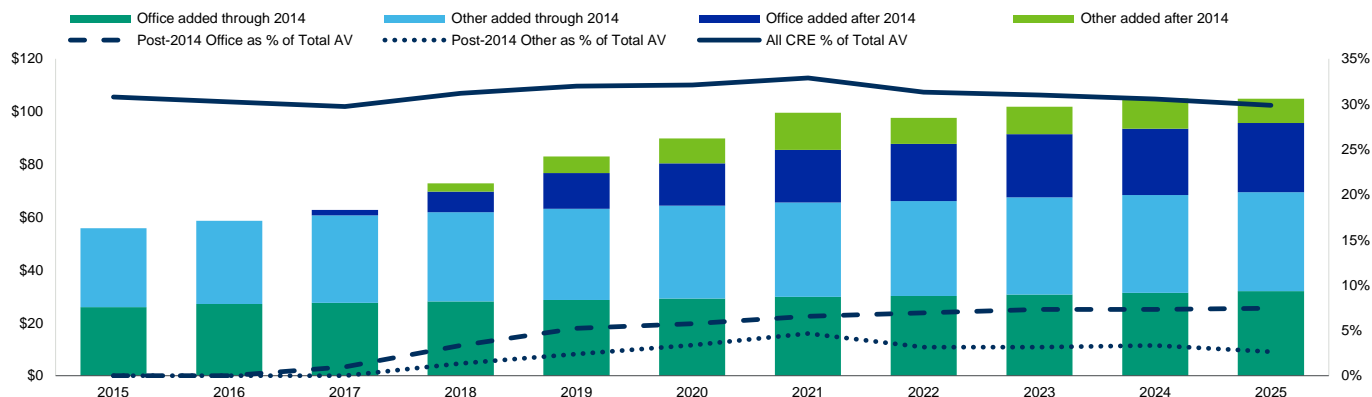
Submarket	Office Inventory (million SF)	Net New Inventory since 2017	Vacancy Rate (Q4 2023)	Change in Vacancy Rate since Q4 2019	Asking Rents (Q4 2023)	Change in Asking Rents since Q4 2019
North Waterfront/ Jackson Square	3.5	-	29.2%	23.5%	52.19	-10.89
Civic Center/ Van Ness	1.3	-	36.3%	16.1%	49.93	-6.31
Union Square*	2.1	0.2	24.4%	14.9%	37.84	-13.77
Financial District*	28.3	0.4	29.2%	24.9%	48.44	-13.96
South Financial District*	25.2	2.9	24.6%	22.0%	50.14	-12.31
South of Market West/ Yerba Buena	4.7	0.7	44.5%	43.4%	43.14	-10.75
South of Market*	5.6	0.9	27.2%	24.3%	41.82	-19.29
Mission Bay/ China Basin/ Potrero Hill	5.7	2.9	22.9%	21.4%	46.28	-16.40
Total	76.4	7.9	28.0%	24.2%	47.78	-13.19
* Central Business District	61.2	4.3	27.0%	23.3%	48.15	-13.29

The city defines its downtown as including the Financial District, South of Market and Union Square.
 Source: CBRE Econometric Advisors

The high stress reflected in increased vacancies and reduced rents is resulting in a greater rate of decline in the office market values for San Francisco than most US cities. Positively, due to Proposition 13 many San Francisco commercial properties are assessed far below their market values, so in most cases a sharp market decline would not affect their AVs or property taxes. However, it is important to note that the surge in commercial development leading up to the pandemic includes the properties most likely to have nearly equal market and assessed values, making their taxable values less protected from decline by Proposition 13 (see Exhibit 5). At the same time, the desirability of these properties for tenant relocations will help maintain their value. Given the large amount of vacant space, however, and trend of negative net absorption, their values are still likely to decline some.

Exhibit 5

The third of San Francisco's CRE AV that is most susceptible to decline in the current market downturn was added since fiscal 2017
Commercial Real Estate AV (\$billions) and Percentages of Total AV, Fiscal 2015-2025



"Other" CRE includes taxable AV for retail, hotel and miscellaneous commercial properties AV. A property's AV is calculated annually as the lower of its market value and its prior year AV adjusted by the Proposition 13 inflation factor, which can be at most 2%, unless there is a market transaction in the prior year, in which case the market value will be the new AV. Our analysis is based on a calculation of the change in the city's AV each year minus the value of the prior year's AV adjusted by the permitted Proposition 13 inflation factor to determine the amount of the AV change that is attributable to market transactions in the prior year.
 Source: Urban Analytics LLC and Moody's Ratings

The city's CRE AV has nearly doubled in the last ten years, equaling about \$100 billion as of fiscal 2025, though it has declined as a percentage of the city's total AV since the pandemic. Office AV added since 2017 equals about \$35 billion, accounting for 7% of the city's fiscal 2025 AV, mostly the result of the surge in new office space that contributed to the rise in vacancies and drop in rents exacerbated by the pandemic.

Ongoing stress in the office market is likely to reduce AVs of San Francisco office properties in the next few years. In November 2022, the city's economist recommended budgeting for tax refunds in the range of \$150 million to \$200 million annually through the end of the decade based a scenario close to the market conditions that have developed since that time. Starting in 2021, the city assessor attempted informal review of commercial properties' AVs, resulting in reductions for those where market values were determined to have dropped below their Proposition 13 AV. The rate of responses to information requests by taxpayers was exceedingly low and the AV reductions have primarily been for hotel and retail properties. As of November 2023, the city had over 8,700 pending appeals, over 7,000 of which were appeals of fiscal 2024 AVs. This represented a significant increase in the number and value of appeals over prior years. Taxpayers file appeals to protect their appeal rights, and together with the Assessment Appeals Board, play an active and key role in determining timelines for reductions in AVs.

How we stressed cities finances to determine affects CRE downturn

Our office property value stress test is based on: 1) the percentage of each city's tax base that is made up of commercial properties in general or, if available, office properties; 2) the percentage of a city's governmental revenue that property taxes represent; and 3) a city's ability to change tax rates and shift to other income streams to maintain its revenue.

For each major office market, we calculated the percentage of revenue that would be lost if commercial property assessed values dropped by 20%, or office properties, when the percentage of the base that they represent was available, lost 40% of their assessed value. Then we calculated the percentage by which taxes on all properties would have to increase to make up for the decline in revenue from commercial or office properties. Finally, we considered the health of individual cities' office real estate markets based on trends in office vacancies, office rents and office-based employment as well as legal and practical flexibility to maintain or grow their property tax levy as values decline by adjusting their millage rates.

Results of our stress test highlight Boston as an outlier for the percentage of revenue that could be lost in a sharp decline in office values partly due to taxation of commercial properties at a much higher rate than residential, as well as the tax rate increase that would be required to offset that decline. Positively, Boston has significant millage rate flexibility. Although less of an outlier in terms of the percent of revenue that could be lost under our stress test, San Francisco stands out based on elevated risk of prolonged weakening in its CRE market due to high vacancy rates and a shift to remote work. While the mechanics of property assessment in California protect built-out cities like San Francisco from AV volatility, given AV is generally far below market value for most properties, the state's municipalities also lack the ability to increase property tax rates.¹

Cities' dependence on CRE property tax revenue varies, modest budget adjustments will suffice for most, but a few outliers will be strained

Our stress test (assuming a 20% decline in the total CRE AV or 40% decline in office-only AV) indicates that while property taxes are one of the largest sources of revenue for cities, representing around 30% of total revenues, most cities still have significant revenue diversity from other sources which can help them make budget adjustments over the next few years to the extent that commercial assessed values decline.

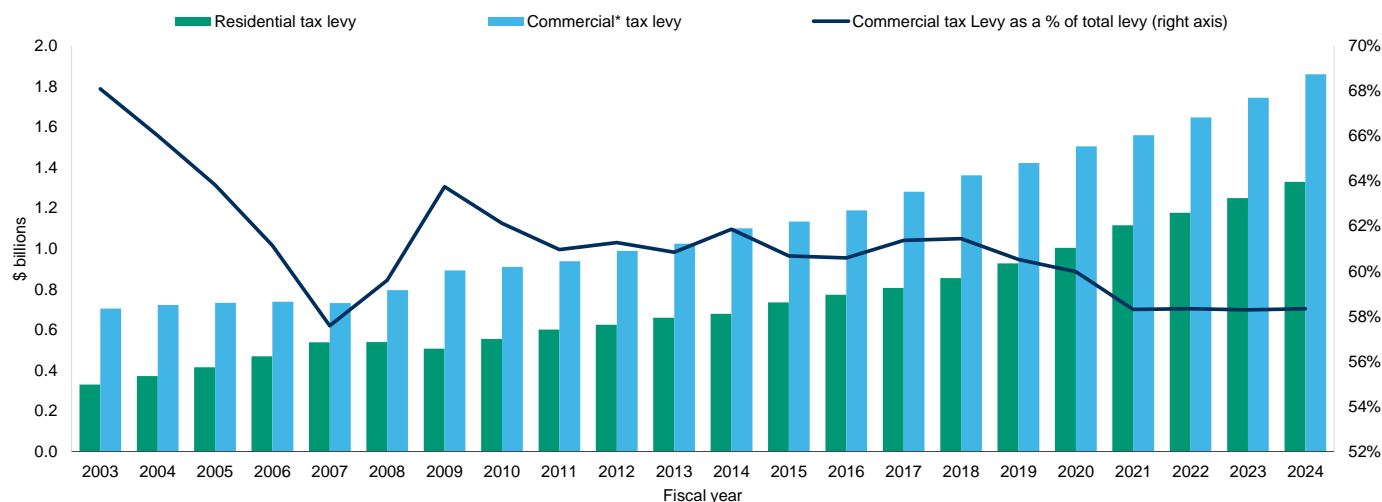
Overall, in our stress test, most cities showed less than a 2% loss in total revenue from a sharp decline in commercial or office values, all else being equal. A small group of cities showed revenue losses of up to 5% and, among major commercial real estate markets, only Boston was an outlier at 6.75%. Boston is not a surprising outlier given its larger reliance than other cities on property taxes in general and particularly high reliance on taxes on commercial properties. As previously stated, Honolulu is just as reliant on property taxes as Boston but in contrast, Honolulu's commercial sector makes up around 15% of the overall tax base resulting in an approximate revenue decline of 3.25% in the stress test.

Even though property taxes are one of local governments' most stable revenue sources, over reliance on any one revenue can be a risk. Boston provides a case study of this vulnerability. Property taxes represented 73% of government revenue in fiscal 2024, and the commercial sector contributes 60% of the tax levy driven largely by a millage rate on commercial properties that is twice that on the

residential sector (see Exhibit 6). Our stress test highlights that a material decline in the commercial sector value would result in a 9% decline in governmental revenue, more than any other city, if the tax levy and tax rates were not adjusted to offset the decline.

Currently, Boston plans to increase the tax levy as it has historically while at the same time widening the relationship between rates on commercial and residential properties to minimize the increase in the tax on residential properties. The city is seeking approval by the state legislature on a home rule petition that would temporarily increase the commercial sectors maximum proportional share of the tax levy so that a decline in commercial value can more easily be absorbed by all real estate sectors. If the home rule petition is not granted, the city projects it would have to consider an unprecedented double digit increase in its residential tax rate for fiscal 2026.

Exhibit 6
Boston has always been heavily reliant on commercial property tax revenue
 Annual tax levy composition



*Commercial tax levy includes industrial and personal property sectors
 Source: Massachusetts Division of Local Services

Boston and San Francisco examples demonstrate challenges under two of the considerations of our stress test, but not under all three considerations. Boston's office market is experiencing AV declines as evident in the 2024 AV, and is highly dependent on CRE property tax revenue. However, the city's legal flexibility to increase taxes in a declining AV environment will be an important mitigant.

While San Francisco is not as highly dependent on property taxes, this revenue source is expected to stagnate, which will contribute to budget stress for the city. This is compounded by declines in multiple revenues, which while not directly associated with CRE property values, are sensitive to or correlated with market stress (see Exhibit 7). For example, retail transactions in the city's downtown had generated 45% of the city's fiscal 2019 sales tax revenue, which remains down 7.4% as of fiscal 2023 and is forecasted to drop further. In combination these CRE-sensitive tax revenues are down by 20.4% from fiscal 2019 to fiscal 2023. Increases in total property taxes have mostly offset this decline, though total general fund revenue, excluding pandemic-related funding and grants, is down by 1.2% from its pre-pandemic level.

Exhibit 7

Other than property tax, San Francisco's major general fund revenues are 20% below pre-pandemic levels and are forecasted to remain stagnant

General fund revenues, excluding federal grants, compared to pre-pandemic levels

Fiscal Year	2019	2023	% Change	2025 Budget
Business Tax	\$918	\$851	-7.3%	\$883
Sales Tax	\$214	\$198	-7.4%	\$194
Hotel Tax	\$392	\$253	-35.5%	\$285
Parking Tax	\$86	\$83	-3.8%	\$87
Real Property Transfer Tax	\$364	\$186	-48.8%	\$219
Subtotal CRE-Sensitive Revenue	\$1,974	\$1,570	-20.4%	\$1,668
Property Tax	\$1,698	\$2,122	25.0%	\$2,158
All Other Revenues (Excluding Federal Grants)	\$2,216	\$2,167	-2.2%	\$2,088
Transfers In	\$239	\$192	-19.7%	\$207
Total Revenue	\$6,127	\$6,052	-1.2%	\$6,120

Source: City & County of San Francisco revenue letters and five-year financial plans

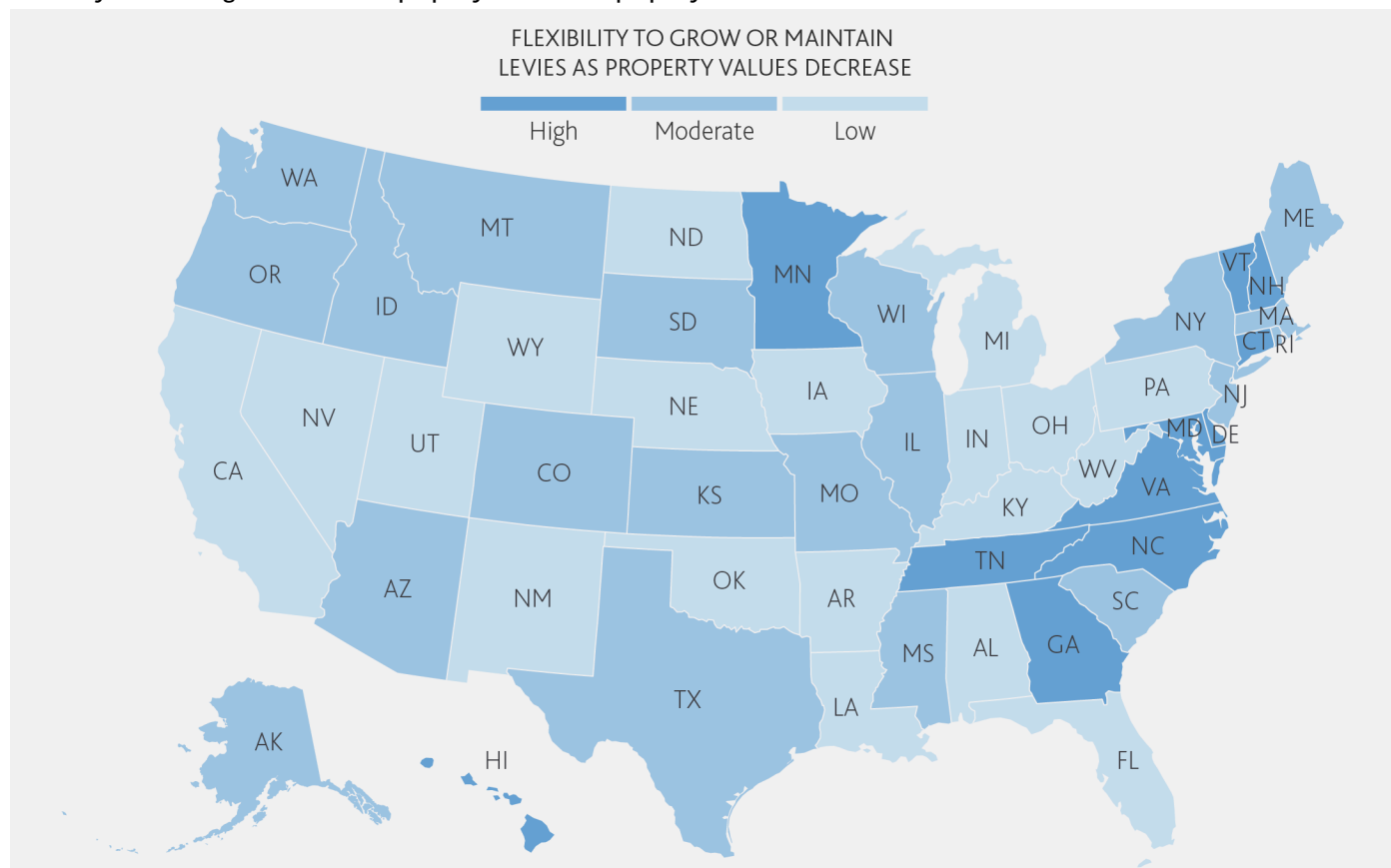
[New York City](#) (Aa2 stable) is experiencing steady but slower revenue growth due to challenges in its commercial real estate market. The city's tax revenue is expected to grow at just under 2.5% annually through 2028, down from a 5.4% CAGR from 2010 to 2023. Property taxes, which account for about 29% of 2023 governmental revenue, indicate relatively high resilience in our 20% tax base decline stress test. Unlike San Francisco, NYC's sales taxes rose by 6% in 2023, outpacing the state's 4% growth. Structural features, like the five-year phase-in of changes in assessed value for multifamily and commercial properties and backlog of unrealized assessed value from previous years' increases in single-family home values help drive this. Year-to-date through August, NYC sales taxes increased by 2.9%, compared to the state's 1.9% increase. In the last quarter of fiscal 2024, ending June 30, income taxes rose by 11.6% over the previous year. That growth reflects two main factors: private sector employment that exceeds its pre-pandemic peak and recovery in tourism to approximately pre-pandemic levels.

Legal and practical flexibility to adjust tax rates is a strong mitigant to a city's CRE stress

A city's legal and practical flexibility to adjust tax rates to minimize or avoid a property tax revenue decline is a key consideration to assessing the risk posed by the office real estate downturn. A decline in tax base value can have an impact on property tax revenue depending on the legal framework a city has to adjust tax rates and the tax levy (see Exhibit 8).

Exhibit 8

Flexibility of cities to grow or maintain property tax levies as property values decrease



High - Local governments have the authority to maintain or increase property tax revenue without limit despite tax base contraction given the absence of any mill rate or levy cap.
Moderate - Local governments' authority to maintain or increase property tax revenue as property values decline is limited by a cap on increases in the levy amount.
Low - Local governments' authority to maintain or increase property tax revenue as property values decline is limited by a mill rate cap. Flexibility to maintain or increase property tax revenue varies depending on headroom relative to the cap.
 Source: Moody's Ratings

In Boston's case, the main question that remains for the city is the practical ability to significantly increase taxes on the residential sector, by as much as 30% according to the city, if the home rule petition is not granted by state lawmakers.

New York City has legal authority over adjustments to its residential and commercial tax rate. The city's debt service levy is unlimited but the state constitution limits the amount of property tax the city can raise for operating purposes to 2.5% of average full value in its current and prior four fiscal years. To date, in the current cycle the city has chosen not to increase tax rates and revenues have continued to grow, albeit at a slower rate than in recent years, based on overall tax base growth.

San Francisco, on the other hand, is not highly reliant on property taxes and under our stress test scenario could lose only about 3% of revenue. Unlike most other cities we analyzed, however, California local governments have no legal ability to increase taxes on other properties to maintain revenue as values in one sector decline.

Endnotes

1 Under Proposition 13, properties are reassessed to market value when there is a sale or new construction. Otherwise, properties are assessed annually at the lower of 1) market value, 2) the prior year's value inflated by the consumer price index and 3) the prior year's value inflated by 2%. The ad valorem property tax rate is set by statute at 1% of a property's AV and can only be increased to pay debt service on voter-approved general obligation bond. San Francisco's share of the 1% basic tax rate is roughly 60%.

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