



**OFFICE OF THE CONTROLLER**  
**CITY AND COUNTY OF SAN FRANCISCO**

Ben Rosenfield  
Controller  
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Deputy Controller

## MEMORANDUM

**TO:** The Honorable Supervisor Catherine Stefani

**FROM:** Ted Egan, Chief Economist

**DATE:** October 19, 2022

**SUBJECT:** **Response to Letter of Inquiry Regarding Downtown Commercial Property**

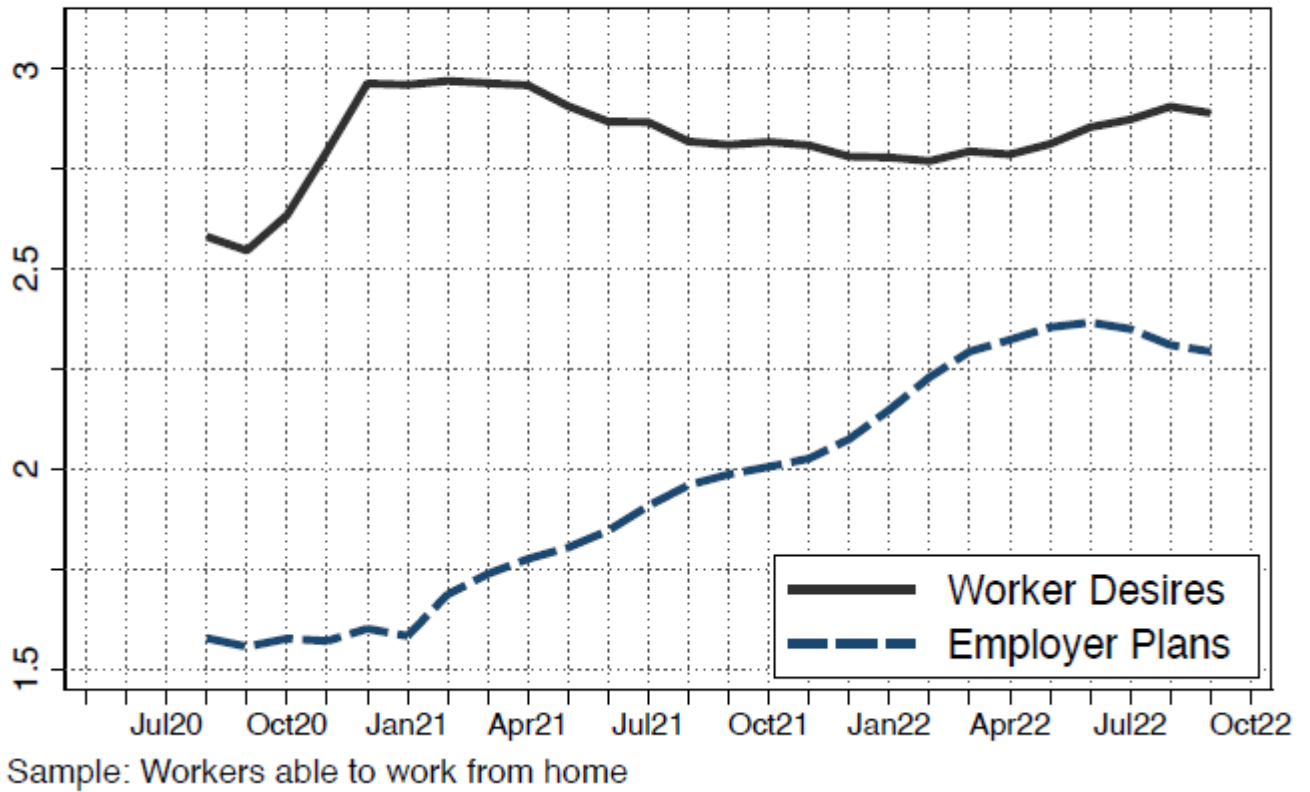
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### The Persistence of Pandemic-Era Remote Work

This memo is the written response from the Controller's Office to your Letter of Inquiry regarding the impact of remote work on commercial property and tax revenue in San Francisco.

As you noted, working from home became the norm for many office workers from the beginning of the COVID-19 Pandemic. In mid-2020, many employers expected, and preferred, most employees to return to the office, when it was safe to do so. Many employees, on the other hand, preferred to spend most of the week working at home, even after the pandemic. A monthly survey of workplace attitudes, conducted by academic economists since 2020, indicates that this once-wide gap between employers and employees regarding work-from-home expectations has narrowed. By mid-2022, employers were planning on employees spending more than 2.25 days a week working at home, on average, while employee desires had come down somewhat to between 2.75 and 3 days per week. Thus far, employers have, on average, generally acquiesced to employees' demand for greater workplace flexibility.

### Average Days per Week Working From Home After the Pandemic Ends: Workers Able to WFH



Source: Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis, 2021. "Why working from home will stick," National Bureau of Economic Research Working Paper 28731.

The persistence of the work-from-home phenomenon can also be observed from data about office attendance, which Kastle Systems is tracking through the use of office security cards. Since the start of the pandemic, office attendance has declined significantly relative to pre-pandemic levels. This trend has been seen in virtually every major U.S. city but is particularly pronounced in San Francisco. None of the ten metro areas tracked by Kastle show office attendance above 60% of pre-pandemic levels; San Francisco is near the bottom of the list, with attendance at around 40% of normal.

**OCCUPANCY OVER TIME - MARCH 4, 2020 TO SEPTEMBER 28, 2022**



Source: Kastle Systems

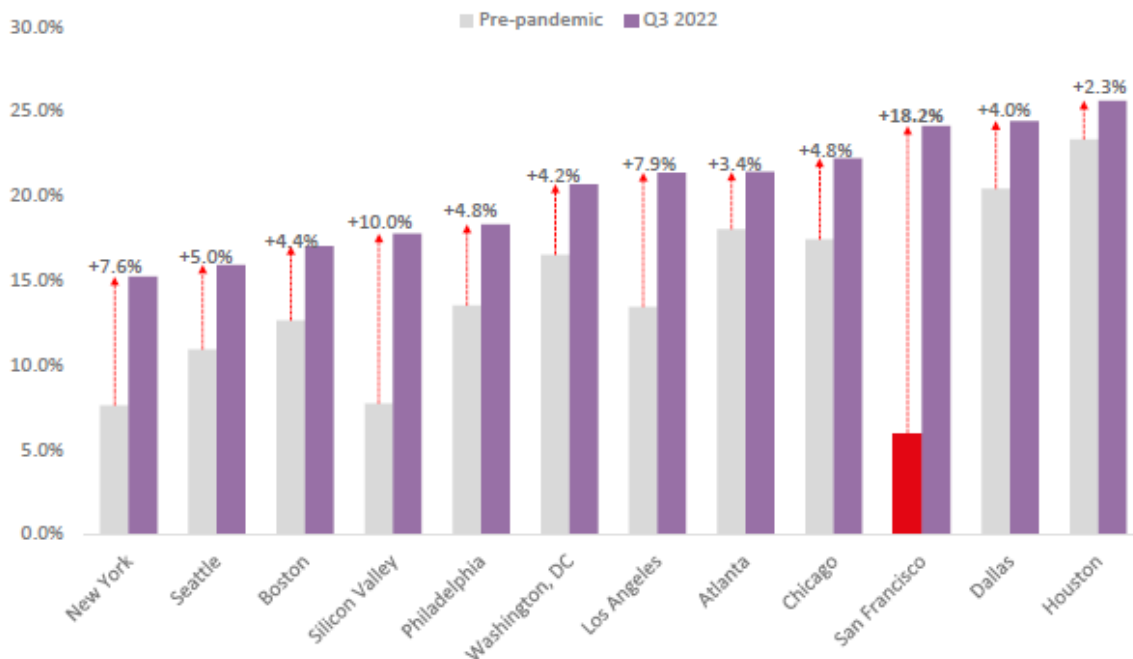
Prior to the pandemic, the average office employee worked about 0.5 days per week at home. A permanent shift to 2-3 days per week of working at home would therefore represent a major change in how businesses and workers use office space. Office-based industries generate nearly 75% of San Francisco’s GDP, and the trend toward working-at-home appears to be particularly pronounced here. For this reason, if expanded working-from-home does prove to be a permanent feature of work, it will impact virtually every aspect of San Francisco’s economy. In this memo, we are specifically focused on the potential impact on commercial offices, which according to the Assessor’s Office account for about 18% of assessed value in the city. These properties are concentrated downtown and have historically been a major source of revenue for businesses in other industries, both downtown, and across the city. The memo concludes with a discussion of how the Controller’s Office is now modelling property tax revenues from offices, in light of these new trends.

**Changes in the Office Market**

Although some analysts claim that employers are not yet fundamentally changing their office space needs, despite the increase in working from home, it is undeniable that office

markets across the country have profoundly changed since 2020. During the pandemic, businesses that lease offices began to reduce their demand for office space, and in many cases put space on the sublease market. This has led to increases in the office vacancy rate. This is a national phenomenon, as vacancy rates have risen in virtually every city. Again, however, San Francisco is at the forefront of these trends. The city has experienced the largest increase in office vacancy among major office markets, from around 5% before the pandemic, to 24% in the 3<sup>rd</sup> quarter of 2022. It is hard not to see a connection between reduced employee time in the office, and reduced demand for office space from their employers.

### Market Vacancy Comparison



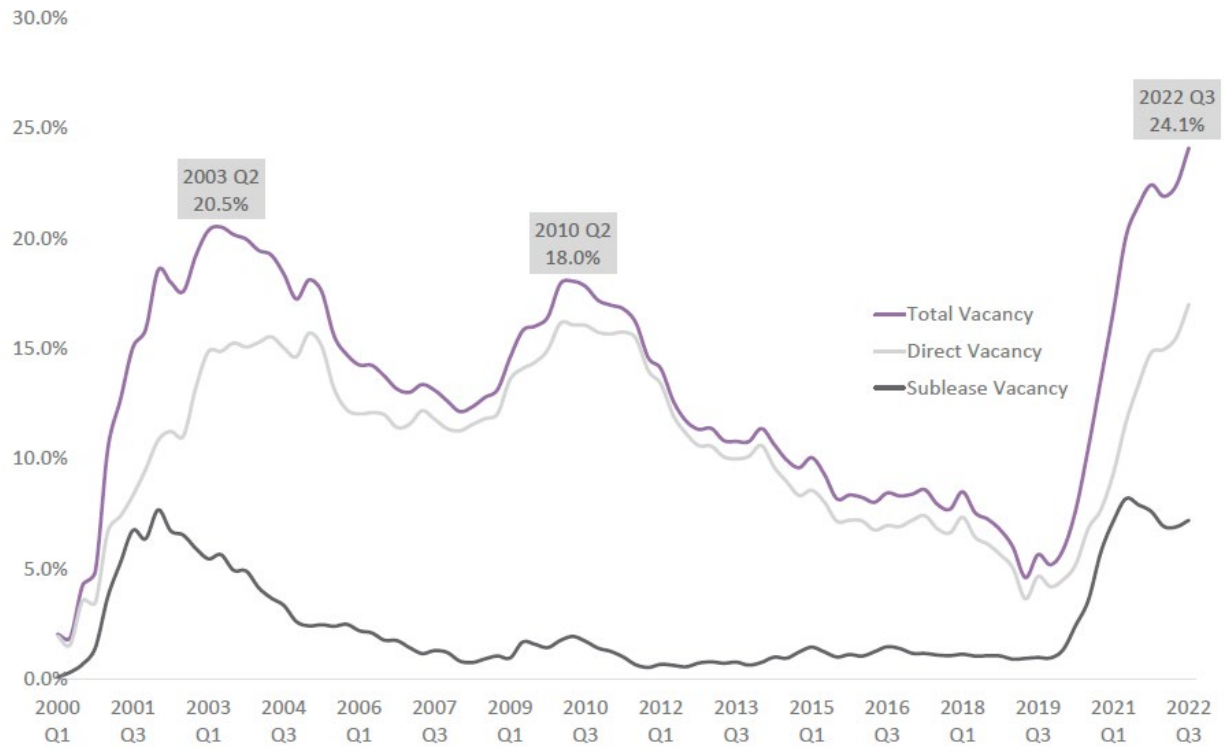
Source: JLL

Because of the prevalence of long-term leases in the commercial real estate industry, sudden reductions in demand often result in increases in sublease vacancy, instead of direct vacancy. Sublease vacancy occurs when existing tenants vacate their space and seek to find sub-lessees, but continue to pay rent under the original lease. A direct vacancy occurs when the original lease has been broken, or has been expired and not renewed. In this case, the property’s income declines until a new lease is signed.

In San Francisco, sublease vacancies were a very high percentage (80-90%) of office vacancies during 2020 and 2021. In 2022, the sublease vacancy rate has declined, while the

direct vacancy rate has continued to rise. By mid-2022, direct vacancies accounted for most of the vacant office space in the city, according to JLL.

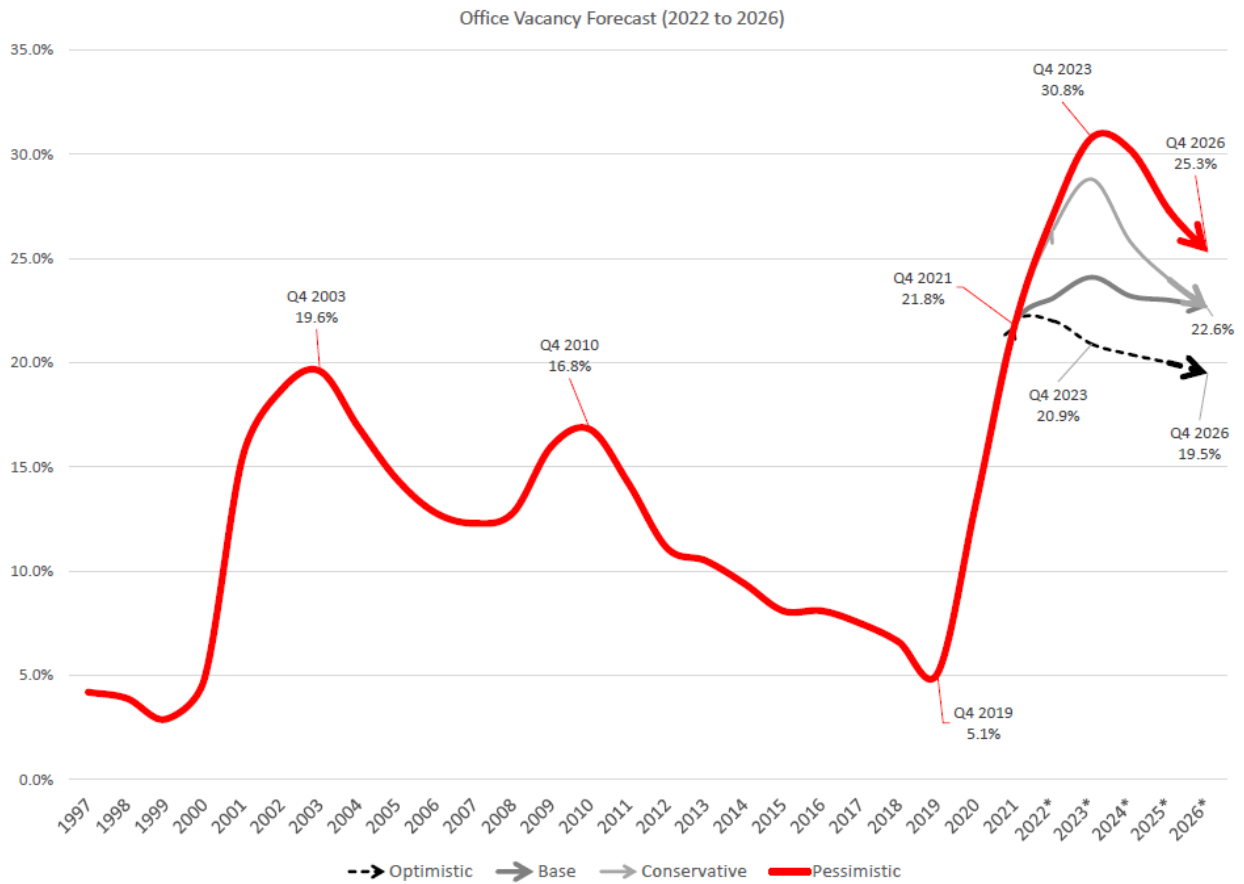
### Historical Office Vacancy



Source: JLL

The increase in vacancy rate since 2020 has influenced office market forecasts, in ways that can inform property tax revenue forecasts. For example, JLL has developed a series of office vacancy rate forecasts for San Francisco, through the year 2026. They generally show historically high office vacancy rates persisting throughout the forecast period.

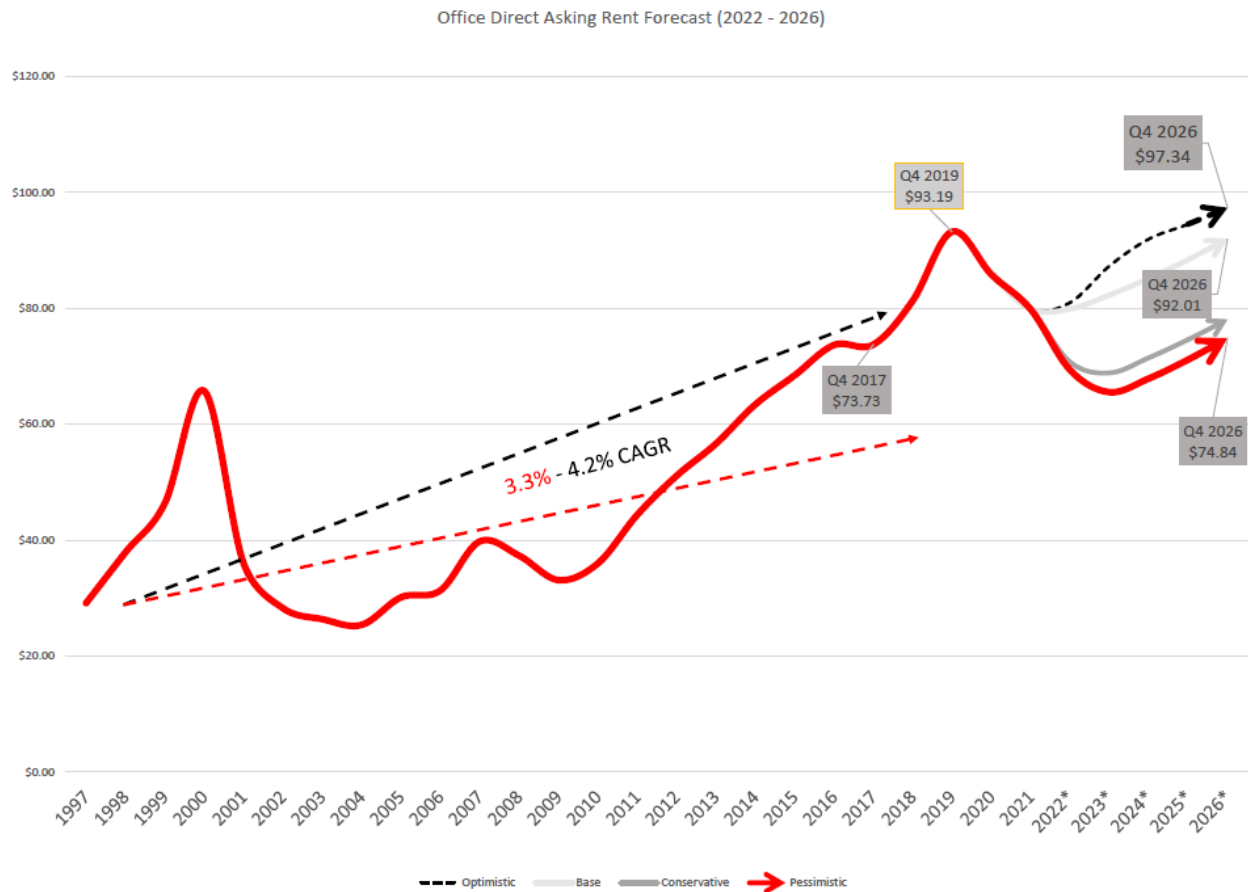
## 6 | Response to Letter of Inquiry Regarding Downtown Commercial Property



Source: JLL

JLL forecasts office vacancy in the city to remain between 19.5% and 25.3% by 2026, a range which is as high, or higher than any previous peak in office vacancy dating back to the 1990s. JLL also forecasts rents to rise again by the end of the forecast period, but at a slower rate than was seen in the 2010s.

## 7 | Response to Letter of Inquiry Regarding Downtown Commercial Property



Source: JLL

If vacancy rates remain at this elevated level, and a large share of these are direct vacancies, then the income, and market value, of office buildings in the city are likely to be negatively affected. The market value of commercial real estate reflects the current and future income that the market expects the property to generate. If expectations of future income streams are reduced, because remote work has reduced what businesses are prepared to pay for office space, then the market value of office properties will be reduced.

A reduction in demand from tenants is not the only thing that could reduce the market value of San Francisco office buildings in the near future. Using an income valuation approach, the market value of properties is commonly estimated as the property's net operating income, divided by its capitalization rate (its effective rate of return). Capitalization rates are generally calculated from the sales of comparable properties, and vary across markets, and over time, according to changes in investors' perception of risk, and the risk-free rate of return. When investors perceive greater risk, they require a higher rate of return, and the spread between that asset's capitalization rate and the risk-free rate

widens. When the capitalization rate rises, for whatever reason, the market value of a property will decline, all other things being equal.

At present, the Federal Reserve is in the process of raising short-term interest rates, and pursuing other forms of restrictive monetary policy, in an attempt to reduce inflation. This has had the effect of raising the yield for 10-year Treasury notes, the standard risk-free investment benchmark. 10-year Treasury yields are currently close to 4%, the highest they have been in more than a decade. Based on forecasts from the Blue Chip Economic Indicators, expectations are for 10-year Treasury rates to remain above 3% until 2028.

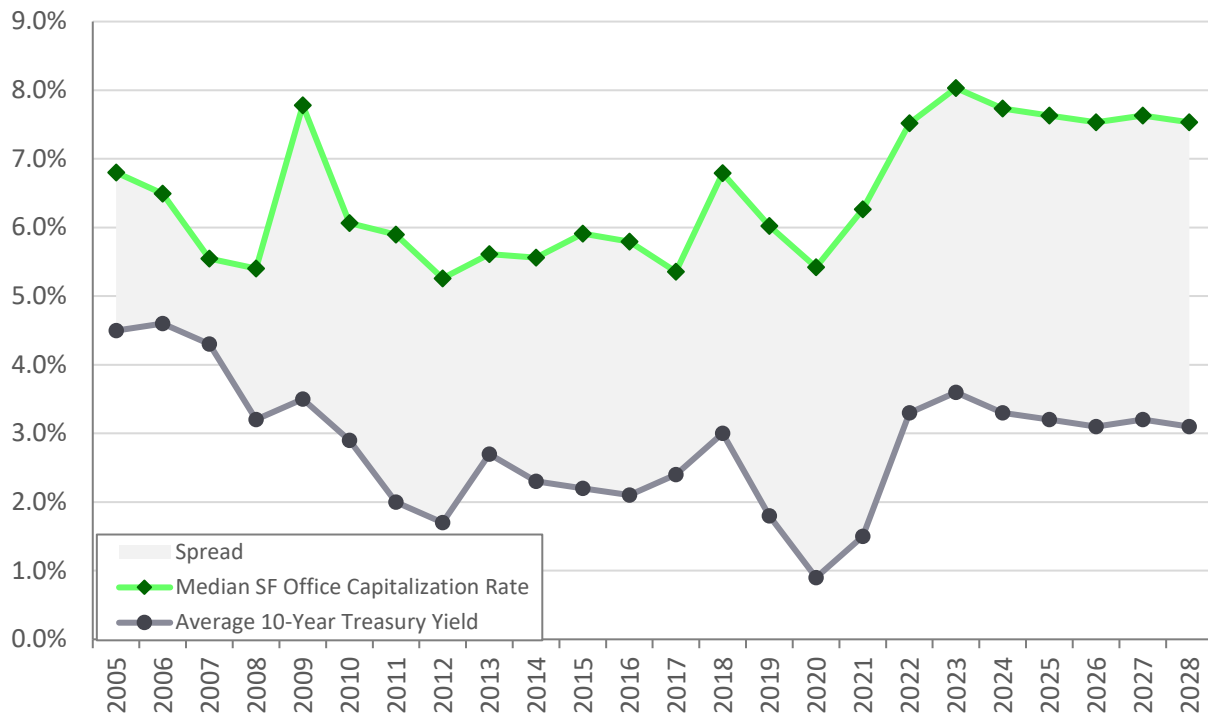
Additionally, since 2019, the spread between San Francisco office capitalization rates (as measured by the median rate of reported transactions), and 10-year Treasuries has widened, according to Moody's Analytics. If that spread persists until 2028, and the Blue Chip forecasts for the 10-year yield are accurate, San Francisco office capitalization rates will sit in the 7% - 8% range between now and 2028, instead of the 5% - 6% range that prevailed during most of the 2010s. The market value of office buildings would decline proportionately<sup>1</sup>.

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<sup>1</sup> Rising interest rates would have a depressive effect on all property types, including residential, but the focus in this report is exclusively on commercial offices.



Historical and Forecast San Francisco Capitalization Rate, 10-Year Treasury Yield, and Spread, 2005-2028



Source: Historical data from Moody’s Analytics; our forecast of San Francisco office capitalization rates based on Moody’s and Blue Chip Economic Indicators.

### Market Value and Property Tax Risk

The market value of a property is important for property tax revenue, because a property’s assessed value – the basis of its property tax liability – may not exceed its market value. If a property owner believes a property is assessed above its market value, they can request a reduction in assessment from the Assessor, and/or appeal a decision to the Assessment Appeals Board.

Under California’s Proposition 13, a property’s assessed value may grow by no more than 2% per year, unless a sale or other assessable event (like new construction) prompts a reassessment. In San Francisco, for several decades, the average market value of most classes of property has increased by well more than 2% annually. Proposition 13 has thus created a situation in which most San Francisco properties, that have not been recently sold, are assessed at levels below their market value. Most properties would not be over-assessed, and property tax revenue would not be at risk, if their market values declined by a small amount. In other words, Proposition 13 effectively cushions the City’s property tax

base from downturns in property markets, at the cost of reduced growth in property tax revenue during periods of strong economic growth.

### **Forecasting Property Tax Revenue**

A key challenge of forecasting property tax revenue, in a time of declining market values, is estimating the extent of this cushion. How much can the market values of office buildings drop before property tax revenue is at risk?

The Controller's Office is in the process of building a model that makes such an estimate and will incorporate the results of the model into its financial planning beginning this Fall of 2022. The remainder of this memo describes how the model works and draws some general conclusions.

Because of Proposition 13, the assessed value of a property's land and improvements (such as buildings) is simply a function of the number of years since the property was last sold, and its sales price at that time. Its market value, on the other hand, may bear no relationship to when it was last sold. Consequently, the difference between market value and assessed value, which defines the cushion that we need to understand, has to be estimated at the property level, and requires data about a large enough set of individual properties to yield meaningful estimates for the city as a whole. To build the model, we have used data on more than 200 office buildings, provided by the Assessor's Office, the Treasurer's Office, Moody's Analytics, JLL, and the Blue Chip Economic Indicators. These properties account for 59% of the total assessed value of offices in the city.

To estimate market value, we began with tax filings made by office property owners who are subject to the City's Commercial Rents Tax, during the years 2019-2021. These filings contain information on gross rents. We excluded rents received by sub-lessors, since these do not generally affect the value of the property. Using a sample of office property transactions from Moody's Analytics, we estimated the property's net operating income from its gross rents. With net operating income and the capitalization rate, we estimated market value.

To project how market value might change in the future, we are using JLL's forecasts of office vacancy and rent through 2026. We also have data from JLL on when long-term leases expire in individual properties. In future years, when leases expire, the model assumes that the citywide rent and vacancy rate forecast for that year will apply to the newly available space. Estimates for the property's gross rents and net operating income are updated, the forecast capitalization rate is applied, and a new market value estimate is created, for each property, each year over the 2023-2028 forecast period.

Forecasting assessed value is obviously much easier. Assessor data is available for the 2019-2021 period, and the model simply increases those assessed values by 2% per year.

For each year of the forecast, the model compares the estimated market value and assessed value for each property in the sample, and notes when the estimated market value falls below the forecasted assessed value. Those situations create the revenue risk that the Controller's overall property tax revenue forecast will incorporate. The total amount that is at-risk is summed each year of the forecast, and then further scaled-up to reflect the fact that the model is operating on a sample of the office buildings in the city, and not the entire universe. The result is a gross amount that the City will plan to reserve for potential future decisions to reduce office property values, which may be made by the Assessor or upheld by the AAB. In time, if reductions in market value persist, some properties may even record a lower base year value after their next sale, which would further reduce property tax revenue in the future.

As we noted earlier, the model is still being reviewed within the Controller's Office, and we are not currently in a position to present any quantitative results of the modeling at this time. However, a few general qualitative conclusions can be made. First, forecasts of rent and vacancy in the San Francisco office market should be considered as highly speculative. While forecasts are always subject to uncertainty, the post-pandemic shift to a hybrid office environment is historically new. Employees and employers have not, in many cases, settled on an established work-from-home routine, and office demand is likely to be unusually unstable for some time.

Secondly, despite the uncertainty, few if any market observers are expecting a return to a status quo ante situation. Across the U.S., virtually every indicator of economic activity – from the number of employed people, the length of airport security lines, the number of restaurant reservations, attendance at NBA games—are near or above pre-pandemic levels: except office attendance. If office rents, and/or vacancy rates, are permanently lowered because of a new work-from-home pattern, then property taxes from office buildings will, eventually, be reduced in proportion.

Having said that, the prevalence of long-term leases, and the cushioning effect that Proposition 13 has provided San Francisco's property tax base, will be mitigating factors in the short term. The fact that, until mid-2022, most of the city's vacant space is on the sublease market, and still generating rent for the building owners, is an indication of the lag between a downturn in office demand, and a downturn in property tax.

Thirdly, cyclical factors, in the form of rising interest rates, are currently impacting office property values in ways that have not been seen in more than a decade and create more downside risk for the City in the short and medium term.