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The Office Sector Debt-Funding Gap

VIEWPOINT

The United States office sector faces a large aggregate future funding gap in the near-term due to lower LTVs and substantial value erosion.

ECONOMETRIC ADVISORS
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Executive Summary

- Commercial properties face funding gaps when investors are forced to refinance at a loan-to-value (LTV) ratio lower than the one at which they first borrowed or when the value has fallen since the loan was originated.

- The United States office sector faces a large aggregate future funding gap in the near-term due to lower LTVs and substantial value erosion.

- Between 2023-2025, CBRE Econometric Advisors (CBRE EA) forecasts office owners will have a financing gap of $52.9 billion (19.3% of the lending volume originated in 2018-2020). This will likely lead to distress for some property investors and force others to inject more cash into their properties.

- The heavy concentration in the office sector differentiates the current funding gap from the Global Financial Crisis (GFC) when large funding gaps were prevalent across all major sectors.

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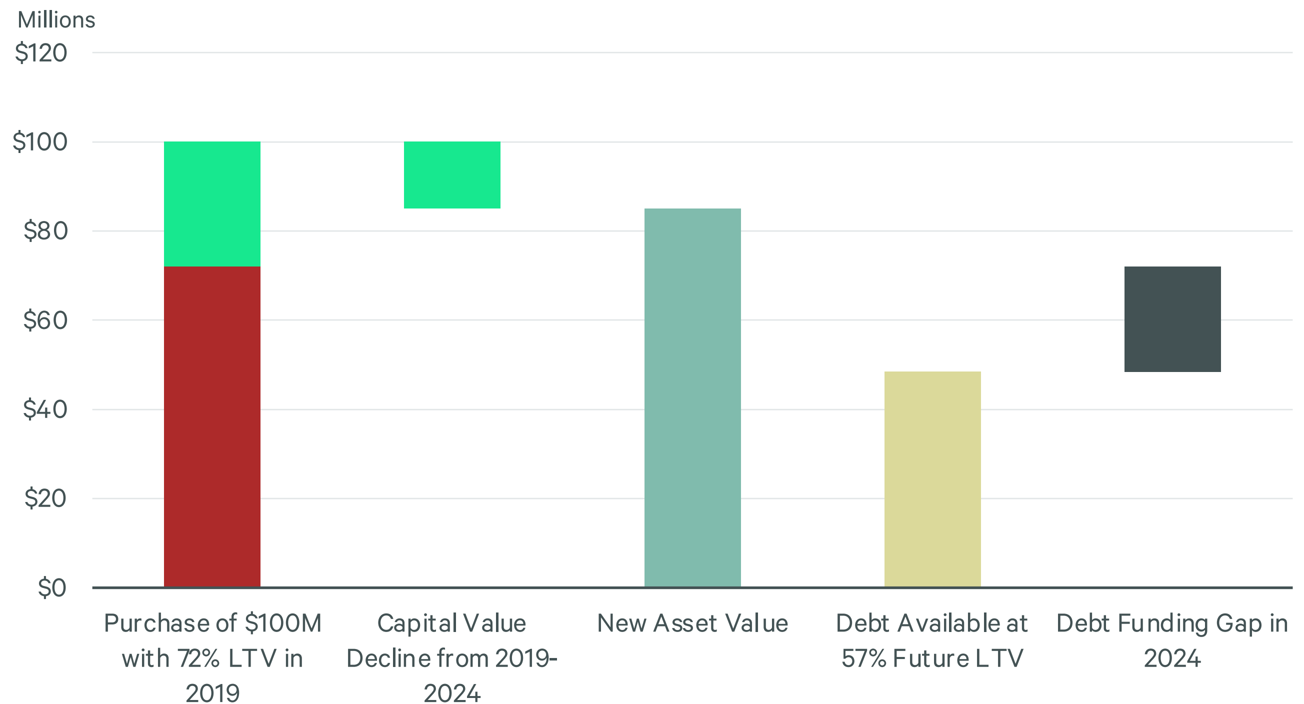
As the largest source of capital for commercial real estate, debt financing plays a major role in facilitating investment activity. Amid tighter financial conditions and a hawkish Fed, interest rates and swaps have risen sharply. As lenders become more selective, borrowers may face a debt-funding gap issue if they need to refinance.

To understand the debt-funding gap, consider a theoretical office building worth $100 million in 2019 shown in Figure 1. By 2024, we expect the value of the property to have fallen by 15% to $85 million. With a constant LTV of 72%, the property owner could expect to borrow $61.2 million against it. So far, this would create a debt-funding gap of ($72 – $61.2) $10.8 million. However, once the lower LTV of 57% is used, the property owner can only borrow $48.4 million. Together, the combination of expected value decline and lending conditions means this building will experience a debt-funding gap of $23.6 million by 2024 ($72 – $48.4). This means that a capital structure that initially consisted of $28 million of equity (72% LTV) will have to find a way to nearly double the equity in the asset. Borrowers facing a potential refinancing gap may pursue additional equity or mezzanine financing to pay off the existing loan. In addition, they may negotiate a discounted payoff with the lender, or an extension of the loan term if property income conditions are likely to improve. Ultimately, some borrowers may be forced to default. This Viewpoint seeks to estimate the near-term future funding gap.

FIGURE 1: Debt-Funding Gap Methodology for Sample Building



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So far in 2022, lending conditions have become tighter with lower LTVs across all commercial real estate sectors. The office sector in the United States in recent years has faced both lower LTVs and falling values. The retail sector faces the same problem, but at a much smaller magnitude. The multifamily and industrial sectors have also faced lower LTVs but have previously had large value increases to offset this. By combining sector-level origination data from the Mortgage Bankers Association, average LTVs and terms from CBRE-brokered commercial mortgages, and CBRE EA expected changes in values, we can estimate the funding gap each sector will face in a given year. [1]

For each origination year and sector, we calculate the fraction of loans due within five years. We then divide this volume by the average LTV in the origination year to calculate the total value of a property with upcoming debt expirations. We then adjust the value of this property to reflect the expected change in the EA value index. Using this new value, we size a refinance loan based on a forecasted LTV ratio. The forecasted LTV is assumed to remain constant relative to H1 2022 average LTV figures for loans closed by CBRE Capital Markets professionals. We then compare the refinance loan amount against the original loan amount to calculate the debt-funding gap by maturity year.

Table 1 reports the total origination value, percent due within five years[2], origination LTV, future expected LTV, five-year expected value changes, and of course the expected funding gap for the 2019 origination year (2024 maturity year). This analysis is conducted at the origination-year level and considers the funding gap that results from loans issued in the origination year over the next five years. This likely underestimates the size of the funding gap. However, it is important to note that for simplicity, this analysis assumes loans are interest only. Empirically, roughly 40% of CBRE-brokered commercial mortgages include amortization, which means our funding gap estimate is slightly biased upward. The impact of our assumptions likely offset to a large degree.

Due to large, expected value declines, the office sector has the largest funding gap by far at approximately $28.5 billion during 2024. Retail is next in line at $1.8 billion. Due to significant value appreciation, the industrial and multifamily sectors have negative gaps. As a check, we repeated this exercise using our alternative Downside, Severe Downside and Upside scenarios in Table 2.

[1]Annual sector level origination figures are from the Mortgage Bankers Association's Commercial/Multifamily Annual Origination Volume Summation reports. Sector level weighted average LTV figures are calculated using loan level data from CBRE-brokered commercial mortgages. Expected changes in values are calculated using each sector's annual baseline value index from CBRE Econometric Advisors.

[2]For each mortgage, we assign a dummy variable equal to 1 if the maturity year is five years or less from the origination year. We calculate the weighted average of this variable for each sector by origination year.

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TABLE 1: Funding Gap for Loans Originated in 2019 (Maturing in 2024)

Sector	Total 2019 Origination Value (billions)	Percent Due Within 5 Years	LTV (2019)	Future Expected LTV (H2 2022)	5-Year Value Change %	5-Year Funding Gap (2024)
Office	$113	78%	72%	57%	-15%	$28.46
Industrial	$58	57%	69%	59%	49%	-$9.08
Retail	$40	36%	63%	57%	-2%	$1.78
Multifamily	$287	18%	65%	59%	25%	-$7.00

CBRE Econometric Advisors, Mortgage Bankers Association

TABLE 2: Scenario Comparison of Funding Gap for Loans Originated in 2019 (Maturing in 2024)

Sector	5-Year Value Change % (Baseline)	5-Year Funding Gap (Baseline)	5-Year Value Change % (Severe Downside)	5-Year Funding Gap (Severe Downside)	5-Year Value Change % (Downside)	5-Year Funding Gap (Downside)	5-Year Value Change % (Upside)	5-Year Funding Gap (Upside)
Office	-15%	$28.46	-33%	$41.07	-25%	$35.62	4%	$15.12
Industrial	49%	-$9.08	31%	-$3.87	45%	-$7.97	69%	-$14.81
Retail	-2%	$1.78	-12%	$3.04	-5%	$2.16	11%	$0.08
Multifamily	25%	-$7.00	14%	-$1.65	24%	-$6.38	34%	-$11.50

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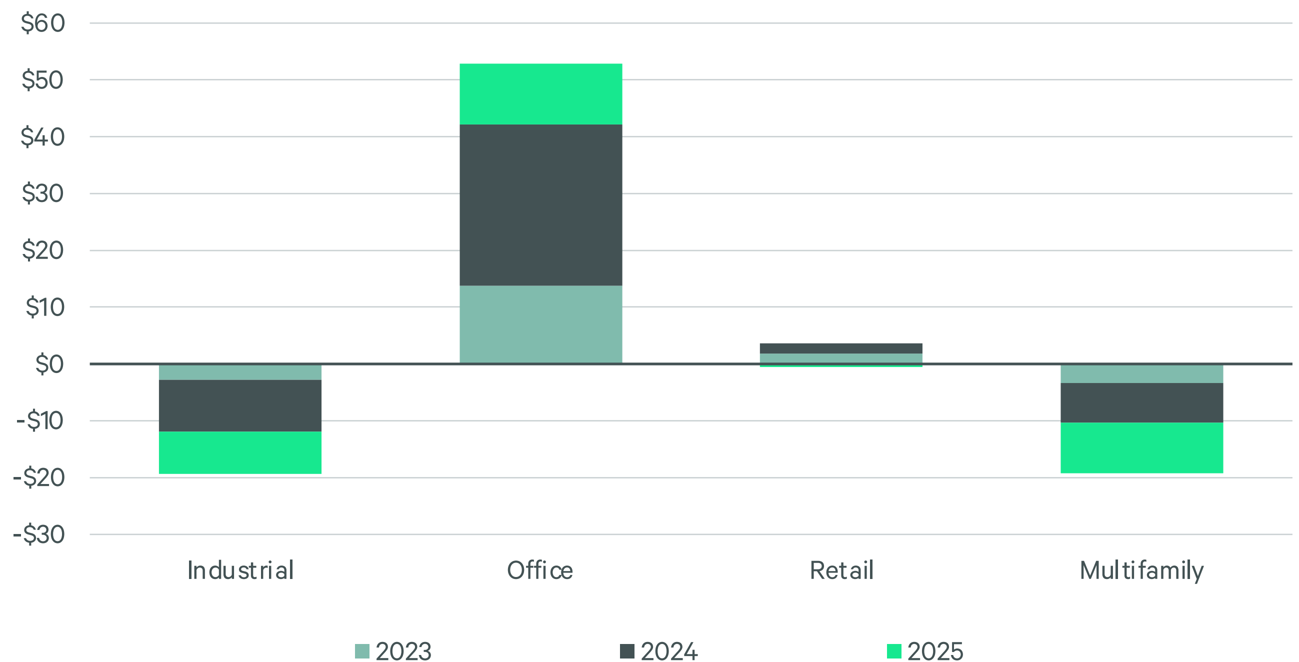
Examining alternate scenarios highlights how the office-sector pain differs from all others. For the industrial and multifamily sectors, the debt-funding gap remains non-existent even in our Severe Downside scenario – speaking to the income returns since 2019 that are able to offset any reduction in capital returns or tighter lending environments. Conversely, the 2024 office debt-funding gap exceeds $15 billion even in our increasingly unlikely Upside scenario and reaches $28 billion and $35 billion in our Baseline and Downside, respectively.

This large gap for the office sector suggests there will be some coming distress. We also expect the demand for, and volume of, mezzanine debt to increase making this a good opportunity for nimble lenders. Otherwise, investors will be forced to add more equity through cash infusions. Between 2023-2025, we expect the cumulative debt gap to reach $52.9 billion for the office sector and $3.1 billion for the retail sector. These cumulative gaps represent 19.3% and 3.0% of the unadjusted lending volume originated in 2018-2020 for the office and retail sectors, respectively. We repeat our exercise from Table 1 for the origination years 2018 and 2020. By adding each maturity year's gap together, Figure 2 shows each sector's cumulative 2023-2025 debt gap, as well as the sector composition by year.

FIGURE 2: Debt-Funding Gap by Maturity Year by Sector ($ Billions)

5-year loans originated in 2018, 2019, 2020



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To put this in perspective, it is worthwhile to compare the coming debt-funding gap to the situation during the GFC. While historical origination data for this period is not available, we use the fraction of total U.S. CMBS origination in each year relative to 2019 to determine annual sector-level origination figures. The next parameter we assume is the fraction of origination volume due within five years for each year and sector during this period. Using 100% gives us an upper bound on the size of the GFC funding gap. Figure 3 shows the comparable years during the GFC to compare the relative sizes of the two funding gap events.

The cumulative $72.2 billion gap we estimate for the office sector was roughly 36% larger than the one markets are currently facing. With a more conservative 75% fraction due within five years assumption, this gap falls to $54.9 billion, only slightly above the current gap.

There are two key differences between the current situation and the GFC:

- The GFC had large debt gaps across all asset classes whereas currently it is concentrated in the office sector.
- The GFC was characterized by a steep one-year decline in office values followed by a quick recovery, whereas our forecasted losses are deeper and longer lasting due to secular decline in demand for office space.

FIGURE 3: Debt Funding Gap by Maturity Year by Sector ($ Billions)

5-year loans originated in 2005, 2006, 2007

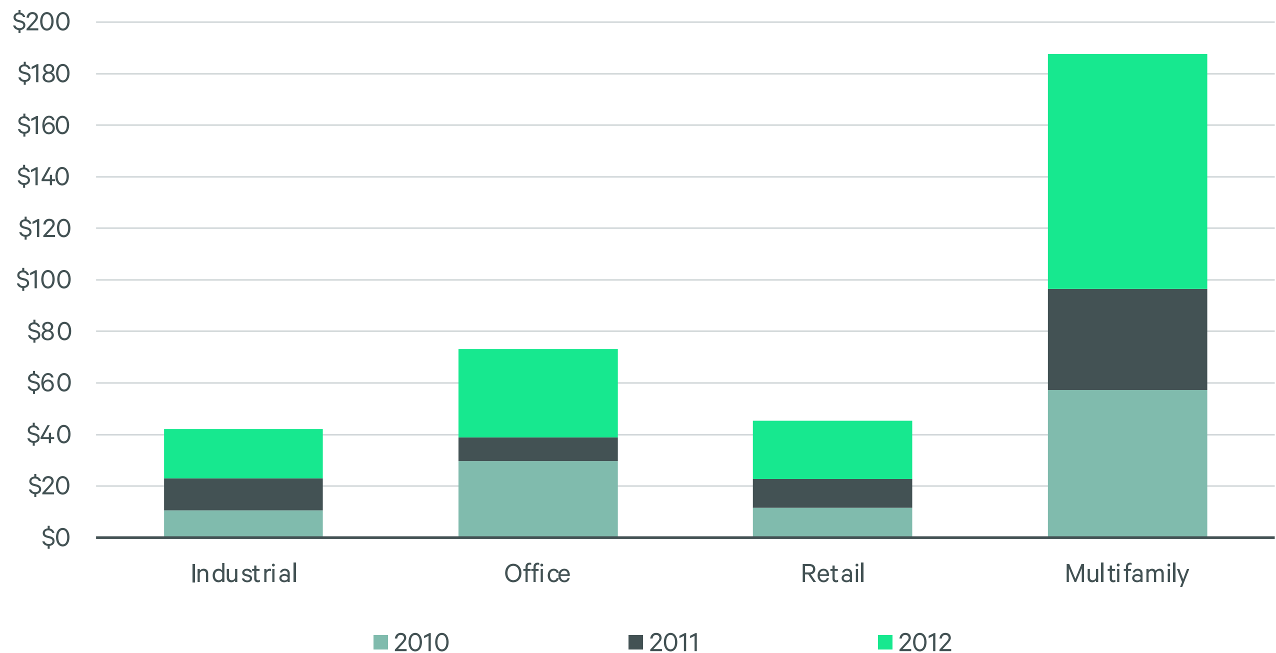

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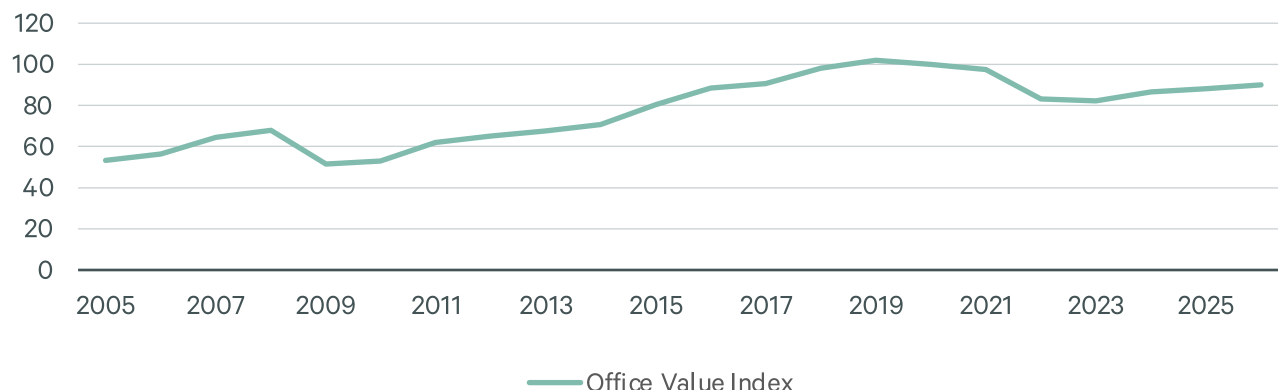
Figure 4 displays the Baseline CBRE EA value index for national office values. Peak-to-trough, our office value index loss was higher during the GFC (24.2% loss from 2008-2009) than our forecasted loss of 23.9% from 2019-2023. Unlike the current gap that was driven by lower LTVs and value losses, the 2008 office funding gap was almost entirely driven by lower LTVs.

FIGURE 4: Baseline Annual National Office Value Index



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This cumulative funding gap will likely create distress for some investors unable or unwilling to invest additional cash because it does not make sense to do so. Lenders will face losses in some cases due to falling property values and illiquid markets. Among bearish lenders, we might increasingly see non-performing loans (NPLs) packaged together and sold on the secondary market at discount. For lenders with more conviction and those working with established owners, we're sure to see an increase in loan workouts and short-term loan accommodations – in fact, the Fed recently released a policy statement on just such workouts to mitigate some of the expected distress in debt markets. At the same time, this gap will create many opportunities for equity investors interested in entering joint ventures at an attractive basis as well as creating significant opportunities for mezzanine lenders. However, demand for mezzanine debt to fill this gap will not guarantee its availability. There is evidence in Europe of lower subordinated debt origination as debt investors bide their time. Which of these strategies any individual borrower or lender enacts will be driven, at least in part, by their outlook for the sector and their individual asset(s). How this funding gap is bridged in the coming years will provide key insights into large investors' expectations for the sector.

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