APOLLO

Mind the (Funding) Gap: Finding Opportunities in Real Estate Debt Amid Dislocation

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KEY TAKEAWAYS

- Aggressive interest rate hikes by the Federal Reserve and other central banks have led to a valuation reset in commercial real estate (CRE). Not only have asset prices declined, but the substantial increase in the cost of financing has also slowed transactions activity. Moreover, negative sentiment in the press, in our view, downplays the opportunity in key segments of the market and does not reflect the whole of what is happening in the sector.
- Specifically, certain challenged office is indeed a part of CRE that is in distress due to structural changes in the way office space is used following the Covid-19 pandemic. But, apart from office, sectors such as industrial, multifamily, and others are showing resilient fundamentals. Additionally, secular trends continue to carry on for some traditional and specialized sectors. In other words, it is key, in our view, to not equate CRE as a whole to what's happening specifically in the office space.
- CRE is a highly diverse asset class, comprising of other traditional sectors such as multifamily, industrial, retail, and hotels. It also includes sub-sectors (e.g., student housing, cold storage, self storage, and data centers)

that arise from traditional sectors due to changes in needs, advances in technology, changing consumer behavior, and other trends. Each type of property has its own use cases, characteristics, trends, and demand drivers that can offer opportunities for growth.

- There is a large need for capital on the horizon as significant amounts of real estate loans are expected to mature over the next few years. And funding gaps from declining property values and stricter loan standards need to be closed, offering another area to provide capital. We believe that real estate debt presents an attractive opportunity in the current market environment due to the potential for higher yields and lower leverage levels on reset valuations, providing more protective loan structures. We see the opportunity to originate real estate debt attractive in both the US and Europe.
- The opportunity is augmented for private capital providers, given some traditional funding sources—such as banks and the securitization market—have retrenched, leaving a void for other lenders to fill.

A sharp rise in interest rates after almost 15 years at ultra-low levels has impacted the commercial real estate industry, where financing is essential to the levered asset class. The steep increase in the cost of funding has depressed property valuations across the board and has sharply slowed the buying and selling of properties. Moreover, negative headlines continue to paint the entire CRE space as in turmoil, an overgeneralization that, in our view, does not correspond to all of the reality on the ground.

While there are areas of weakness, predominantly office, other sectors are showing resiliency in the face of this high interest rate environment. Even though valuations have reset across property types, operating fundamentals in many sectors remain sound. Additionally, secular growth trends—long-term structural events such as changes in consumer behavior and advances in technology—continue to persist for sectors including industrial, multifamily, as well as specialty areas such as data centers, cold storage, self storage, and student housing. These powerful trends continue to underpin the long-term investment thesis in these segments of CRE.

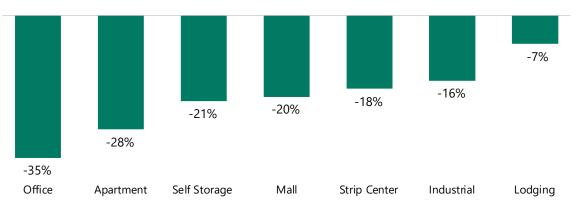
That said, we believe that, at this stage of the economic cycle, the opportunity remains more compelling towards real estate debt as a confluence of factors have come together. On a risk-adjusted basis, real estate credit offers what we believe to be a more attractive proposition due to high base interest rates, widening spreads, more protective loan structures, as well as expectations for interest rates to stay higher on a relative basis compared to the previous decade. We also see the opportunity to originate real estate loans as even more compelling as key sources of funding (e.g., banks and commercial mortgagebacked securities, or CMBS) have stepped back, leaving a void for alternative lenders to fill. We see this opportunity to provide debt capital not only in the US but also in Europe, where the potential for diversification and the opportunity to capitalize on region-specific differences exist. Additionally, tremendous amounts of real estate loans are set to mature over the next few years in the US and Europe, which can provide significant refinancing opportunities at today's valuations and higher interest rates. And funding gaps from the combination of lower yet potentially stabilizing property values and reduced lender leverage can create a need for additional capital.

Why we believe certain concerns for CRE are overstated

In efforts to fight inflation, the Federal Reserve and European central banks embarked on their most-aggressive monetary tightening campaigns in decades, lifting their policy interest rates from rock-bottom levels where they had been in the years following the Global Financial Crisis (GFC) and the Covid-19 pandemic by significant amounts over relatively short periods. The Fed increased the Federal funds rate by over 500 basis points (bps) over 16 months; the European Central Bank lifted its refinancing rate by 450 bps over 14 months; and the Bank of England raised its Bank Rate by more than 500 bps in a little under two years.

Borrowing costs in the CRE space have correspondingly increased substantially, dragging down property values. Last year was especially hard on CRE as the Green Street Commercial Property Price Index (GS CPPI) dropped 10%, leaving it 22% below its 2022 record high.¹ Office, apartments (multifamily), and self storage have been the hardest hit and are now down 35%, 28%, and 21%, respectively from their 2022 highs (**Exhibit 1**). European property prices have put in a similar performance, with Green Street's Pan-European Commercial Property Index falling 11% in 2023.¹ Despite the downbeat performance, property prices appear to be stabilizing. The US gauge rose 0.3% in January 2024, while the European index climbed 1%.

Exhibit 1: Commercial real estate prices have fallen since interest rates began rising in 2022



Commercial Real Estate Performance from 2022 Highs

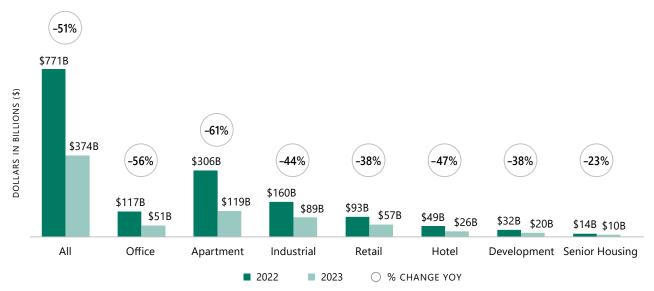
¹ The Green Street Commercial Property Price Index and the Green Street Pan-European Commercial Property Price Index both measure unleveraged commercial property values computed from prices at which commercial real estate transactions are currently being negotiated and contracted in the US and Europe, respectively. Data as of February 6, 2024.

Source: Green Street

Meanwhile, transactions activity in 2023 further pulled back from the post-pandemic investment surge in 2021 as buyers and sellers were at an impasse over asset pricing, the significant increase in the cost of debt following years of easy money, and the scarce availability of debt. CRE sales in the US slumped 51% to approximately \$374 billion in 2023 from almost \$771 billion in 2022. Multifamily property sales plunged 61% year over year in 2023, while office deals slumped 56% (**Exhibit 2**). Debt originations in the US dropped 44% year over year in 2023 as borrowing costs surged.² Financing activity was also down 33% from the 2017-2019 pre-pandemic period. Originations fell across all property types, with multifamily and office again showing the worst performance, down more than 50% each from 2022 (**Exhibit 3**).

Exhibit 2: Commercial real estate transactions down sharply from 2022

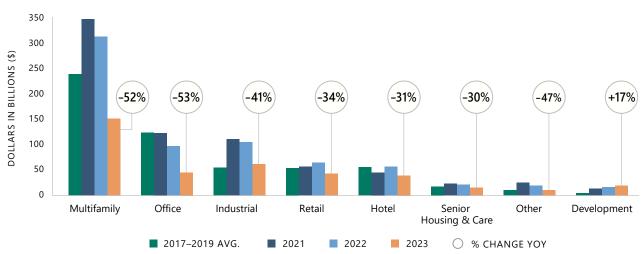
US CRE Transactions 2022-2023 (\$ Billions)



Data as of January 24, 2024. Based on independent reports of properties and portfolios \$2.5 million and greater. Source: MSCI Real Assets

Exhibit 3: Debt originations down considerably across property sectors

US Real Estate Origination Volume by Asset Type



Data as of February 2, 2024.

Sources: MSCI Real Capital Analytics, Newmark Research

² According to research from Newmark and MSCI Real Capital Analytics. Data as of February 2, 2024.

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With activity down sharply across the board, headlines in the press have tended to paint the entire commercial real estate space in a negative light. But the performance of one or a few asset classes don't necessarily speak for the whole. Distress in CRE is primarily centered in the office sector, which is undergoing a structural change in the way workspace is used following the pandemic and the shift to working from home—either fully remote or hybrid. In the US, the office sector is characterized by high vacancies (more than 20% in some markets) and rising loan delinquencies (**Exhibits 4** and **5**). But the situation is less dire in Europe, as notably more Europeans are returning to the office.³

Exhibit 4: Office vacancies have increased, sometimes substantially

Office Metrics of Top 25 US Markets

MARKET	Inventory square feet (millions)			Office-using services jobs (thousands)			Total vacancy		Asking rents (PSF)			Taking rents (PSF)			
	Q4 2019	Q3 2023	Change	Q4 2019	Q3 2023	Change	Q4 2019	Q3 2023	Change, ppts	Q4 2019	Q3 2023	Change	Q4 2019	Q3 2023	Change
Atlanta	147.4	155.9	5.7%	835	913	9.3%	14.3%	20.9%	6.6	\$27.27	\$28.90	6.0%	\$25.49	\$25.52	0.1%
Austin	49.8	60.9	22.2%	320	422	31.8%	7.2%	20.7%	13.5	\$36.23	\$37.91	4.6%	\$34.32	\$33.97	-1.0%
Baltimore	64.0	65.1	1.7%	344	343	-0.2%	12.8%	16.1%	3.3	\$23.83	\$24.26	1.8%	\$21.78	\$21.91	0.6%
Boston	199.0	211.1	6.1%	935	997	6.6%	8.7%	14.3%	5.6	\$43.75	\$46.49	6.3%	\$39.27	\$41.33	5.2%
Central NJ	55.6	56.8	2.2%	436	458	5.2%	14.6%	15.9%	1.3	\$25.18	\$25.65	1.9%	\$23.22	\$23.42	0.9%
Charlotte	51.5	56.6	9.8%	346	387	11.9%	9.6%	20.2%	10.6	\$30.40	\$33.64	10.7%	\$29.02	\$31.14	7.3%
Chicago	244.5	255.5	4.5%	1,253	1,281	2.2%	13.9%	20.4%	6.5	\$27.78	\$28.60	3.0%	\$24.58	\$23.67	-3.7%
Dallas	180.5	191.6	6.2%	853	1,025	20.2%	18.1%	23.5%	5.4	\$22.72	\$24.15	6.3%	\$20.68	\$21.68	4.8%
Denver	107.3	111.0	3.5%	524	555	5.9%	12.1%	21.2%	9.1	\$25.58	\$26.62	4.1%	\$24.31	\$24.27	-0.2%
Detroit	72.1	73.9	2.5%	596	609	2.1%	13.1%	17.7%	4.6	\$19.77	\$19.93	0.8%	\$18.70	\$18.40	-1.6%
Houston	179.1	183.2	2.9%	718	784	9.3%	21.4%	24.4%	3.0	\$24.40	\$24.38	-0.1%	\$21.37	\$21.34	-0.1%
Los Angeles	189.0	197.7	4.6%	1,091	1,120	2.6%	11.6%	20.5%	8.9	\$39.35	\$39.24	-0.3%	\$37.15	\$35.90	-3.4%
Manhattan	409.8	419.7	2.4%	1,240	1,252	0.9%	7.5%	15.0%	7.5	\$74.59	\$72.30	-4.4%	\$65.97	\$60.95	-7.6%
Minneapolis	73.7	75.6	2.5%	502	485	-3.5%	18.5%	22.0%	3.5	\$15.75	\$16.97	7.7%	\$12.97	\$13.99	7.9%
Northern NJ	87.4	88.7	1.5%	483	502	3.8%	15.6%	19.1%	3.5	\$27.91	\$28.97	3.8%	\$25.45	\$26.09	2.5%
Orange County	76.7	78.6	2.5%	475	476	0.3%	12.5%	18.4%	5.9	\$31.34	\$29.56	-5.7%	\$28.86	\$26.73	-7.4%
Philadelphia	110.8	113.6	2.5%	646	691	6.9%	10.3%	16.3%	6.0	\$24.90	\$25.40	2.0%	\$22.93	\$22.89	-0.2%
Phoenix	87.1	93.4	7.3%	623	668	7.1%	13.3%	20.5%	7.2	\$26.61	\$28.94	8.8%	\$25.08	\$25.97	3.5%
Pittsburgh	83.5	85.4	2.3%	283	295	4.3%	10.9%	14.2%	3.3	\$21.52	\$21.86	1.6%	\$19.26	\$19.51	1.3%
Raleigh	60.7	65.5	7.8%	248	304	22.5%	7.5%	14.8%	7.3	\$26.01	\$27.97	7.5%	\$24.20	\$25.84	6.8%
San Diego	57.5	59.0	2.7%	359	388	8.0%	10.3%	14.6%	4.3	\$33.48	\$34.97	4.5%	\$31.46	\$32.58	3.6%
San Francisco	107.1	114.3	6.7%	515	557	8.1%	5.2%	23.2%	18.0	\$64.68	\$53.50	-17.3%	\$60.55	\$41.22	-31.9%
San Jose	53.0	59.2	11.7%	387	400	3.5%	9.5%	18.5%	9.0	\$50.33	\$49.38	-1.9%	\$48.28	\$25.85	-5.0%
Seattle	103.4	111.9	8.2%	590	650	10.2%	7.1%	17.9%	10.8	\$36.65	\$37.40	2.0%	\$33.51	\$32.49	-3.0%
Washington, DC	324.2	333.2	2.8%	1,025	1,047	2.1%	13.9%	18.3%	4.4	\$38.68	\$39.20	1.3%	\$35.98	\$35.52	-1.3%
Top 25 markets weighted avg.				15,627	16,605	6.3%	12.1%	18.8%	6.6	\$37.56	\$37.47	- 0.1 %	\$34.12	\$32.80	-3.8%
Nation				21,752	23,191	6.6%	12.2%	18.4%	6.2	\$35.16	\$35.45	0.8%	\$32.25	\$31.87	-1.2%

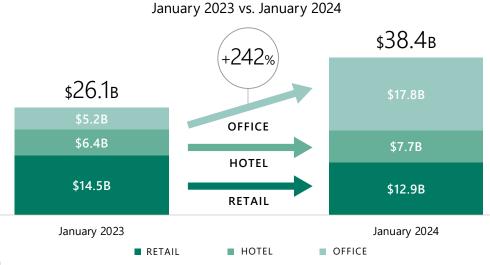
Data as of December 2023.

Sources: CBRE Econometric Advisors, Moody's Investors Services

³ https://www.wsj.com/articles/as-americans-work-from-home-europeans-and-asians-head-back-to-the-office-db6981e1

Exhibit 5: Office delinquencies have spiked

US Property Sector Delinquency

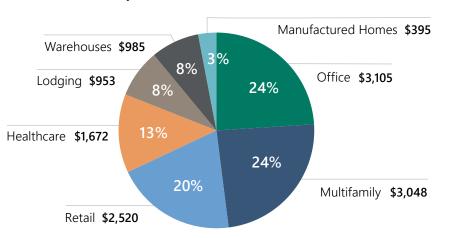


Data as of February 14, 2024. Source: Trepp

While office is one of the traditional property sectors, CRE is much more than just office. It encompasses an incredibly diverse set of other property types that can provide opportunities in both debt and equity. Besides other traditional sectors such as multifamily, retail, industrial, and hotels (**Exhibits 6** and **7**), the space also consists of specialty areas such as data centers, self storage, cold storage, and student housing. These specialized property types are sometimes spawned from traditional sectors due to evolving needs, technological advances, changing consumer behavior, and other trends. Not all property sectors are created equal. Each property type has its own specific use cases, characteristics, trends, and unique demand drivers that can offer opportunities for growth. And while strong economic growth can be an accelerant to the demand for space for all sectors, some areas in CRE are more resistant to downturns in the economy due to their necessitybased nature. Astute managers can uncover assets in property sectors with promising prospects while avoiding those in less-ideal areas.

Exhibit 6: CRE is much more than just office...

CRE Market Breakdown (\$ Billion, % of Market)



Only 24% of CRE consists of office

Commercial real estate market size is as of December 2023. Sources: BEA, Haver Analytics, Morgan Stanley Research

Exhibit 7: ...and property types have different risk profiles



Based upon the opinion of Apollo Analysts as of March 2024, subject to change without notice. Source: Apollo Analysts

Outside of office, other sectors have largely reported fundamental operating metrics such as occupancy and net operating income (NOI) that are resilient in the face of high interest rates (**Exhibits 8** and **9**). Further, NOI growth is expected to remain positive for most sectors, excluding office (**Exhibit 10**). And while a few sectors are experiencing what appear to be short-term increases in new supply or moderating demand following years of outsized growth, secular trends that have the potential to drive demand for the long haul remain intact for some property types. In the remainder of this section, we dig deeper into the investment case for each individual CRE sub-sector.

Exhibit 8: US occupancy largely better than pre-Global Financial Crisis (GFC)

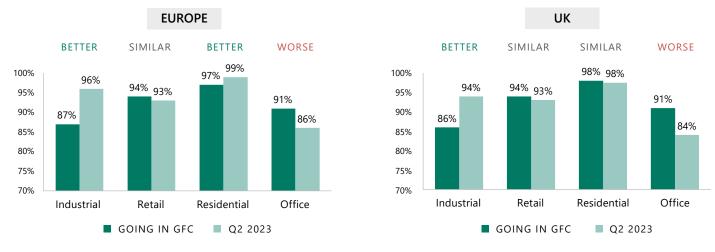
Occupancy Rates



Data as of February 21, 2024. Sources: CoStar, Cushman & Wakefield Research

Exhibit 9: European occupancy levels mostly better or in line than pre-GFC

Occupancy Rates



Data as of September 2023.

Sources: Cushman & Wakefield Research, MSCI

Exhibit 10: Net operating income growth projections positive for all but office

3Y 5Y (From Dec. 2023) (From Dec. 2023) 160 5Y CAGR 150 3Y **O** 7.6% CAGR 140 8.7% 130 INDEX 120 **O** 3.2% 3.4% 110 0.7% **O** 1.4% 100 **O** -1.6% -1.6% 90 80 2024 2025 2027 2028 2023 2026 INDUSTRIAL - RETAIL - APARTMENT - OFFICE

US NOI Forecasts (Three- and Five-Year Growth)

Net operating income growth forecast based on Green Street's model that incorporates key demand and supply drivers such as employment, office-use employment, real GDP, retail sales, e-commerce, real disposable income, brick & mortar retail sales, corporate profits, and recession indicators to adjust demand and supply for each sector. Compound annual growth rate (CAGR) calculation assumes base of 100 at December of 2023. Data as of September 30, 2023. Source: Green Street

CRE Sub-Sectors

Data centers

Data centers house computer systems, related hardware, and other equipment that are responsible for storing, processing, and transmitting data. They are critical in supporting new technologies for the future economy. Advances in technology such as artificial intelligence (AI) is a key driver of demand for data centers, along with others such as streaming, gaming, and autonomous vehicles. But the enormous amount of power used by data centers is a big hurdle to the sector's growth, and it raises environmental, social, and governance (ESG) concerns.

According to Mckinsey & Company, demand for data centers in the US is expected to grow by approximately 10% annually until 2030. In addition to AI, edge computing, which brings data storage and computing capabilities closer to the producing devices and consumers, is another key driver for data centers. Edge computing reduces latency and enhances security. While many data centers are large facilities located in rural areas, edge computing centers are smaller and located in urban areas.

Industrial (including cold and self storage)

The industrial property sector continues to be driven by the shift in consumer preference towards e-commerce. The race to deliver goods to consumers quickly and efficiently, while being cost effective, has led to tremendous competition for industrial space (e.g., warehouse, manufacturing facilities, and flex space) among companies. Having optimal supply chains has become critical for businesses today. As a result, tenants are increasingly demanding not only well-located assets, but also modern facilities that can accommodate the latest technology and infrastructure. As such, older buildings are at higher risk of functional obsolescence. Approximately 82% of US logistics properties were built prior to 2000 and often fall short of modern tenant specifications for ceiling height, column spacing, and other building characteristics.⁴

We expect continued competition for modern logistics facilities in most-desirable areas to drive growth moving forward. Additionally, onshoring (the practice of moving supply chains within a company's home country to lessen the risk of disruptions and transportation costs, among other benefits) is another trend driving demand for industrial space.

Cold storage (temperature-controlled warehouses), a sub-sector of industrial, benefits from steady demand and is generally insulated from economic and social disruptions due to the necessity to store perishables at proper temperatures. The space has witnessed strong demand in recent years as more consumers are purchasing groceries online. Through 2027, online grocery sales in the US are projected to grow at an annual rate of nearly 12% according to grocery industry firms Mercatus and Brick Meets Click. Migration patterns are another key driver of cold storage demand. Another specialty segment in the industrial space is self storage. Despite some moderation in demand following the large number of people that moved during the pandemic, storage space is utilized in everyday life, from divorce to death to people that wish to declutter to baby boomers downsizing. The sector also benefits from larger trends such as urbanization and household formation. And compared with the US, there's much less self-storage space in Europe (particularly France and the UK), offering the potential for strong growth.

Multifamily

Despite increases in new supply, multifamily operating fundamentals remain healthy. The US had a national occupancy rate of 95% as of the fourth quarter of 2023 according to CBRE Econometric Advisors, which is in-line with the 15-year historical average. The continued positive tailwinds for multifamily remain strong, driven by demographic and migration trends such as structural shortages in national housing supply and elevated cost of homeownership. While mortgage rates in the US have moderated after surging past 8% in October, they remain at levels that are more than double from early 2022. When combined with elevated home prices, the case for renting is bolstered in many markets.

After hitting a peak in 2022, multifamily construction starts have dropped off sharply amid the rise in interest rates. CBRE expects construction starts to fall 70% from 2022 levels, which can support occupancy and rent growth.

Student housing

Student housing, which consists of on-campus purpose-built residential communities with student-specific amenities (e.g., communal study space, fitness center, outdoor space, and laundry room) benefits from secular growth driven by demographic trends such as rising college enrollment, a rising middle class, and the population of 18- to 24-year-olds. The sector is also recession resistant as people attend college throughout good economic times and bad. Following a strong Fall 2023 season, pre-leasing activity for the Fall 2024 academic year is off to a solid start. As of December 2023, 41.2% of beds at the core 175 universities tracked by RealPage have already been leased, surpassing the 40.1% mark from December 2022.

In Europe, demand for purpose-built student accommodation varies widely depending on the country, and the sector is less regulated in many parts, allowing for more potential for rent growth. According to JLL, France and Germany each have a shortage of more than 1 million beds. Additionally, with top universities such as the University of Oxford, University of Cambridge, and the University College London, we believe the UK is another area that has an undersupply of student accommodations.

⁴ According to research from CBRE. Data as of January 2023.

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Why real estate credit?

We believe that today's market landscape characterized by high base interest rates, widening credit spreads, lender friendly loan structures, and the ability to drive terms in a constrained market has created an attractive risk-return proposition for privately originated real estate loans. And despite the Fed's shift to a more dovish stance in December, we anticipate interest rates to stay higher for longer, extending the opportunity to provide funding for property acquisitions, refinancings, and other cases.

Base rates have sharply increased in recent years following a long period of essentially zero interest rates. The Secured Overnight Financing Rate (SOFR)⁵ has risen to 5.3% in early January. Base rates in Europe have also rose markedly from low levels in late 2021, with Euro area's Euro Interbank Offered Rate (Euribor)⁶ increasing over 400 bps and the UK's Sterling Overnight Index Average (SONIA)⁷ rising more than 500 bps. Also, economic uncertainty has led to widening credit spreads to compensate lenders for future volatility. We believe the combination of today's base rates and widening spreads can make for higher coupon rates for lenders (Exhibits 11 and 12).

9.07%

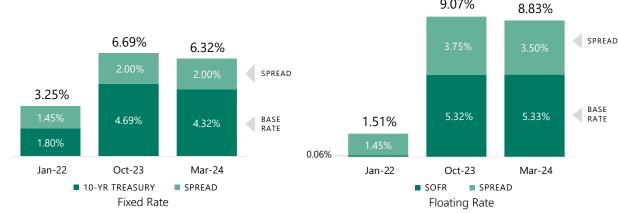


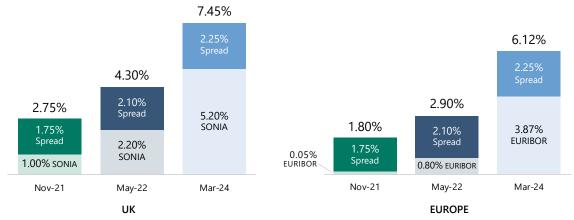
Exhibit 11: Base rates and spreads have risen in the US...

Data as of March 18, 2024.

Jan-22 spreads are best available rates for 55% loan to value (LTV) per Eastdil Secured. Spreads shown for Oct-23 and Mar-24 for fixed and floating rates reflect the market views of Apollo Analysts. As such, the analysis is based on certain assumptions which are subject to change without notice. SOFR rates are CME Group term SOFR values.

Sources: Apollo Analysts, CME Group, Bloomberg, Eastdil Secured

Exhibit 12: ...as well as in Europe



Data as of March 1, 2024.

One-month SONIA and EURIBOR rates used. Spreads shown are representative of best available rates for 60% loan to value (LTV). Source: Eastdil Secured

⁵ The Secured Overnight Financing Rate is a broad measure of the cost to borrow cash overnight collateralized by US Treasury securities. It is a benchmark interest rate that replaces the London Interbank Offered Rate (LIBOR).

⁶ The Euro Interbank Offered Rate is an average interbank interest rate at which European banks lend to each other.

⁷ The Sterling Overnight Index Average is a benchmark interest rate that reflects the average rate banks pay to borrow sterling overnight from other banks and financial institutions. It is derived from actual transactions.

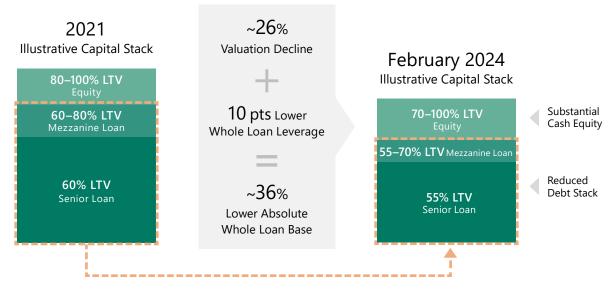
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Also, lender protection from loan structuring and terms have become more favorable. Today, lenders can reduce their risk by providing debt financing at lower loan-to-value (LTV) ratios compared with similar loans from just a few years ago. The average LTV ratio on new deals following the failure of Silicon Valley Bank in 2023 has declined to 51%, down from the post-Covid average of 60%, according to Trepp and Goldman Sachs. Lower leverage and higher equity support can help move investors higher in the capital structure, improving lender protection of principal (Exhibit 13). Lenders can also reduce risk through terms or covenants such as establishing minimum levels for interest coverage and debt yields, or requiring regular financial reporting and approval rights. And as coupon rates have risen, a borrower's ability to pay interest may be negatively impacted. Thus, it's even more crucial for lenders to do their due diligence and set baselines for risk measures. Lenders can have a full toolkit of execution

strategies to ensure loans are well structured, including guarantees, performance tests, and cash sweep triggers that provide enhancement to credit positions. It also is critical to work with well-capitalized, institutional quality borrowers who have the ability to support their properties.

Additionally, even though the Fed shifted to a more dovish stance in December, we expect rates to stay higher for longer on a relative basis due to still-tight monetary policy, high borrowing needs by the US Treasury, as well as other cyclical and secular factors (see <u>2024 Economic and Capital Markets</u> <u>Outlook: What's Next After the "Fed Pivot"?</u>). Thus, we expect the opportunity to provide funding for property acquisitions, refinancings, and other cases to persist. Even if base interest rates decline, a floor level can be set in the coupons of floating-rate loans to mitigate risk for lenders.

Exhibit 13: Today's loans carry more downside protection on reset valuations



Represents the views and opinions of Apollo Analysts. Subject to change at any time without notice. Illustrative decrease in price, based on the Green Street Commercial Property Price Index decrease between Q1 2022 and Q1 2024. All figures as of February 2024. Sources: Apollo Analysts and Green Street

> Lenders can have a full toolkit of execution strategies to ensure loans are well structured to provide enhancement to credit positions.

Lender/manager prowess

Although market dynamics are favorable for real estate credit in our view, accessing these opportunities requires lenders or private debt managers with experience, expertise, and scale to source and structure the most-attractive deals. We believe those that have successfully navigated multiple market cycles, have expertise in lending across the risk-return spectrum (e.g., core, core-plus, value-add, and opportunistic), different property types and geographies, as well as possess the ability to complete complex transactions, and those with key industry relationships for access to proprietary deal flow can provide added value. Additionally, ESG considerations are increasingly important to not only building owners but lenders and managers as well. In addition to assessing potential financial risks, evaluation of ESG risks should also be integrated into the due-diligence framework, in our view. Also, understanding the full ESG impact of an asset—as well as its preparedness for existing (and potential future changes) in the regulatory framework can help increase (or decrease) an investor's confidence on the expected risk-adjusted performance of the investment over the long run.

THE OPPORTUNITY IN EUROPE vs US

In Europe, where capital markets are less developed, elevated interest rates have also caused property values to decline and lenders to retreat ahead of significant debt maturities. We believe the region can provide lenders with diversification and the opportunity to deploy capital at attractive pricing.

Key Differences in Europe

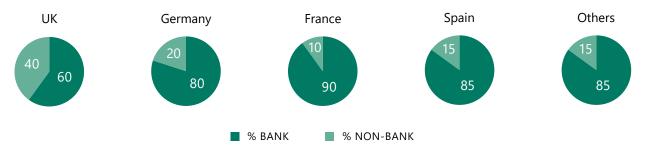
- Banks are the dominant lenders for CRE in Europe.
- European capital markets are less developed.
- CMBS markets in Europe are significantly smaller.

What It Means

- Bank pullback offers potentially larger opportunity for other lenders to step in (Exhibit 14).
- We see opportunities to capitalize on pricing inefficiencies.
- We see less competition for lending.

Exhibit 14: Europe is far more reliant on banks for CRE financing

	H1 2023 Totals (€B)	Bank	Non-Bank
UK	280	60%	40%
Germany	360	80%	20%
France	150	90%	10%
Spain	75	85%	15%
Others	700	85%	15%
All Lenders	1,565		
CMBS	24		100%
Bonds	414	100%	
Total Debt	2,003		



Estimated total European real estate loans outstanding as of the first-half of 2023. Source: Bayes Business School

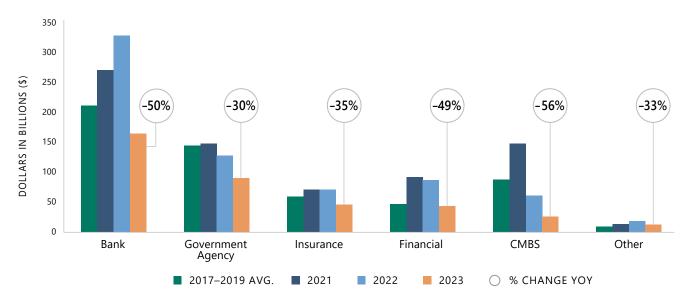
Traditional funding sources pulled back

As the cost of financing has sharply increased, traditional providers of debt capital in CRE have largely stepped back. The number of active lenders in the US has shrunk 26% since the second half of 2022, according to MSCI Real Capital Analytics and Newmark. Banks, major lenders in CRE, are tightening lending criteria as they face regulatory concerns such as higher capital requirements. Lending activity from banks tumbled 50% year over year in 2023 (Exhibit 15) amid continuing tougher credit standards for loans of various property types and uses. A large majority of banks that provide loans in the areas of construction and development loans, nonfarm nonresidential properties, and multifamily buildings have been increasing credit standards.⁸ This marks a sharp contrast from credit conditions in early 2022.

Banks may need to further retrench to shore up their balance sheets as some real estate loans may not be repaid as the effects of higher rates take their toll on borrowers. In early 2024, for example, regional bank New York Community Bancorp noted of a steep increase in charge-offs in Q4 of 2023 tied to real estate investments and set aside hundreds of millions for potential losses in the future.⁹ And, much-larger Deutsche Bank has also increased its provisions for real estate loan losses.

Meanwhile, the securitization market has also slowed markedly as new issuance of commercial mortgage-backed securities (CMBS) have dropped off sharply. CMBS loan originations plunged 56% from a year ago in 2023. Spreads have moved vastly higher in the lower tranches and are wider than they were during early 2020.

Exhibit 15: Traditional funding sources have sharply pulled back



US Real Estate Loan Origination Volume by Lender

Data as of February 2, 2024.

Sources: MSCI Real Capital Analytics, Newmark Research

⁸ According to the Federal Reserve's October 2023 Senior Loan Officer Opinion Survey on Bank Lending Practices, 64.9% of banks said credit standards either tightened greatly or moderately for construction and development loans. In the areas of loans for nonfarm nonresidential properties, and multifamily properties, the percentage of banks that increased standards were 67.3% and 65.5%, respectively.

⁹ https://www.marketwatch.com/story/new-york-community-bancorp-stock-slides-as-it-cuts-dividend-posts-surprise-loss-785f285f

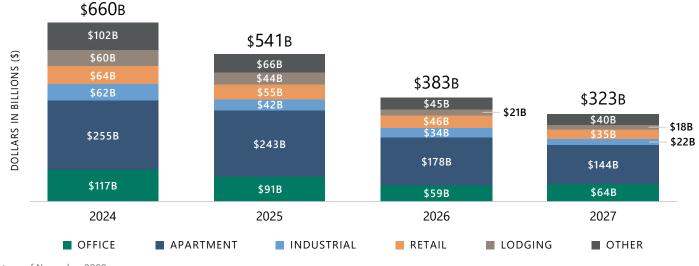
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Lending opportunities

While traditional providers of debt capital have stepped back amid a sharp rise in interest rates, market uncertainty, and other factors, the significant needs for financing in CRE remain. And this need for capital at a time of low supply can allow other lenders to negotiate for higher rates and more favorable terms. In the US, an estimated \$1.9 trillion of real estate loans are set to mature from 2024 to 2027, with most maturities coming from multifamily and the troubled office sector (Exhibit 16). While European markets also have substantial refinancing pressure over the next few years (Exhibit 17).

Exhibit 16: \$1.9 trillion of US CRE loans coming due over the next few years...

US CRE Loan Maturity

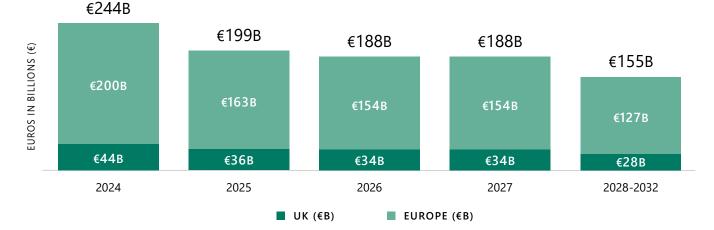


Data as of November 2023.

Source: Mortgage Bankers Association

Exhibit 17: ...and Europe also has substantial amounts of maturing CRE loans

EU CRE Loan Maturity



Expected maturities between 2024-2025 based on outstanding loans in the UK. Euro exchange rate used is GBP:EUR FX of 1.13. European maturities extrapolated based on UK loan maturity profile and applied to the RCA transaction volumes across Europe in 2021.

Data as of September 30, 2023.

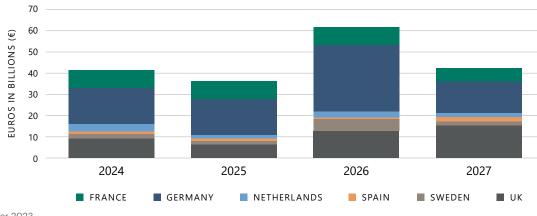
Source: MSCI Real Capital Analytics

Closing the debt funding gap from declining property values and lower lender leverage is another key opportunity to provide debt financing. With lenders tightening standards and lowering the LTV ratios—essentially reducing the amounts they are willing to lend—borrowers might find it challenging to refinance the amount previously borrowed to replace their maturing loans because property values have fallen amid the sharp increase in interest rates. The difference between the prior borrowed amount and level that of debt available today needs to be filled with either an additional equity contribution or subordinate debt can be used. This debt funding gap issue is more of a challenge in Europe than in the US. On a country basis, Germany is expected to have the largest gaps (**Exhibit 18**). And sector-wise, office has the largest funding gap issue (**Exhibit 19**).

We believe that private credit can help fill this gap and, for reasons previously outlined in this paper, do so in a downsideprotected fashion as conditions are—and will likely remain in the foreseeable future—more favorable to lenders than to borrowers.

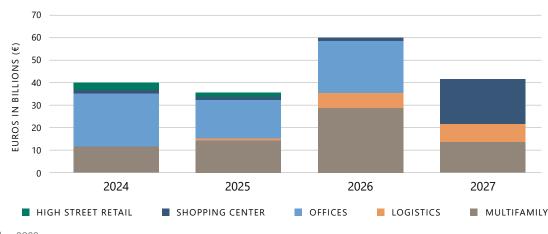
Exhibit 18: Germany has largest real estate debt-funding gaps





Data as of December 2023. Source: CBRE Research

Exhibit 19: Funding gap is largest in office



European Debt Funding Gap Maturities (By Sector)

Data as of December 2023. Source: CBRE Research

Conclusion

Falling commercial property prices from a sharp increase in interest rates have led to worries for the entire CRE space. But we believe the entire CRE space is *not* in distress. Weakness is predominantly in the office sector, which is undergoing a structural shift in the way office space is used following the Covid-19 pandemic. CRE is much more diverse than just office, and fundamentals in other sectors such as industrial, multifamily, data centers, student housing, and others remain stable. And secular growth trends continue to provide a tailwind for many sub-sectors. As market conditions have evolved, we believe that originating private real estate debt in the current environment makes for an attractive risk-reward proposition due to high base rates, widening spreads, and more-protective loan structures. Retrenchment in lending from traditional funding sources have left alternative lenders to fill the void, bolstering the case to provide financing. Additionally, we see the opportunity to provide debt capital not only in the US but in Europe as well.

Significant amounts of debt are set to mature over the next few years, creating a large need for refinancing capital. And funding gaps from lower property values and more conservative lending practices make for an additional area of demand for funding.

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