Angelo Gordon's Capital Markets Perspectives

FOURTH QUARTER 2022

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Angelo Gordon's Capital Markets Perspectives (CMP) is a quarterly publication that provides information and our portfolio managers' views on the credit, real estate, and private equity markets. We hope you find this to be a valuable resource and enjoy our latest look at the markets.

Angelo Gordon is a leading, privately-held alternative investment firm, managing approximately $52 billion across a broad range of credit and real estate strategies. Founded in 1988, the firm has been investing on behalf of pension funds, corporations, endowments, foundations, sovereign wealth funds, and individuals for over 30 years.

Over our entire history, Angelo Gordon's investment approach has consistently relied on disciplined portfolio construction backed by rigorous research and a strong focus on capital preservation.

We have grown by pursuing strategies that complement and build on our core capabilities, and we now have over 600 employees in offices across the U.S., Europe, and Asia. Combining deep industry sector and market expertise with a collaborative, knowledge-sharing culture, we creatively seek out investment opportunities that allow us to exploit inefficiencies in global credit and real estate markets.

Co-CIO Overview

In the third quarter of 2022, a range of macroeconomic themes continued to dominate the headlines and pressure credit markets globally. These themes include hawkish central banks, recessionary concerns, persistently high inflation, rising interest rates, and a slowdown in corporate earnings.

In corporate credit, U.S. high yield saw spread narrowing and interest rate widening, ending the period with moderately negative performance that belies the volatility seen intra-quarter; the strong gain seen in July was reversed in August and September. European high yield similarly saw spread tightening combined with interest rate widening, and issuance in the primary market also remained low—depressed by the interest rate environment and low wall-too-maturity. Meanwhile, investors continued to withdraw funds from U.S. high yield, bringing year-to-date outflows to a record level.

In residential and consumer debt, spread levels were similarly volatile during the quarter but ultimately ended the period with little change. Quarterly new issuance of RMBS was lower on a year-over-year basis; however, full-year 2022 RMBS issuance is projected to eclipse 2019 issuance volume. Home prices are expected to decline due to historically low affordability and increasing supply in select areas. In ABS, performance reflected diverging collateral performance, with credit card ABS spreads widening while auto ABS spreads were mixed. In commercial real estate debt, the market saw an acceleration of existing trends; trading volume was sporadic and delinquency rates continued to fall, led by sectors that are seeing pandemic recovery, such as retail and lodging.

In middle market direct lending, spread widening was witnessed across the upper, lower, and unitranche markets. Additionally, there continued to be gaps between the leverage profiles of borrowers across sub-segments, with lower middle market leverage levels continuing to be significantly lower than core and unitranche.

In convertible bonds, the primary market started to see some nascent signs of recovery in the third quarter, which was led by the U.S., followed by Europe and Asia. Those new deals generally performed well, as investor demand for convertibles held up. The SPAC new issuance market was muted; however, anticipated regulatory changes have spurred a new trend of sponsors seeking early liquidations, benefiting yield-focused investors.

The U.S. merger arbitrage universe saw a lower dollar volume of deals, as concerns about rising interest rates and recession risk resulted in a reduced number of large-scale deals. However, the total arbitrage profit pool swelled as merger spreads widened, indicating an increase in potential profit in the merger universe.

Turning to real estate, the commercial real estate market has been challenged by quantitative tightening measures implemented by global central banks. Investment volumes decreased considerably in the third quarter, as buyers have grappled with less available leverage, increased borrowing costs, and uncertain economic outlooks. This has put significant pressure on valuations across all property types, including some of the more in-favor sectors such as multifamily and industrial. Limited private market data has made it difficult for real estate owners to accurately ascribe value to their existing holdings. Even in the face of weakened private investment activity, public market sentiment suggests material downward pressure on real estate valuations. Angelo Gordon has already begun witnessing pockets of distress and the need for rescue capital. We believe the market is in a period of transition, and we expect this trend to continue in the near-term.

In the U.S., transaction volume fell 21% year-over-year in the third quarter, reflective of the impact of the rapid increase in debt costs. We have observed multiple scenarios in which sellers have decided not to transact in the face of pricing adjustments, though this was witnessed only in situations where a sale was not necessary. With regard to valuations, the Green Street Commercial Property Price Index declined 6.0% from its March high, and U.S. REIT shares declined 28.1% year-to-date as of the end of the third quarter. Although there are macroeconomic and financing pressures driving a correction in pricing, many property sectors have continued to exhibit strong fundamentals, and importantly, there is no evidence of broad oversupply.

In Europe, global inflationary pressures have been compounded by the Ukraine-Russia conflict and a rapid increase in energy prices, which—together—have increased the likelihood of a recession and put the region at risk for a slow recovery. Real estate investment volumes in the eurozone decreased 7% year-over-year—this decline occurring as borrowing costs increased two-to-three-fold in the matter of six months.

On a relative basis, economies in Asia have been less impacted by macroeconomic headwinds, although we are starting to see some signs of pressure in certain regions—particularly in China and South Korea. However, real estate fundamentals have been resilient across the region, particularly in the office and logistics sectors. Although the Hong Kong real estate market has continued to be challenged, we are beginning to see signs of improving fundamentals, particularly in the residential and industrial sectors.

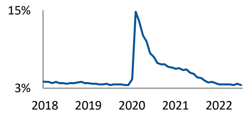
Josh Baumgarten
Co-Chief Executive Officer
Co-Chief Investment Officer
Head of Credit

Adam Schwartz
Co-Chief Executive Officer
Co-Chief Investment Officer
Head of Real Estate

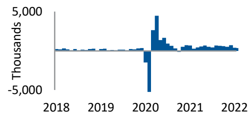
Economic Dashboard & Market Indices

Job Market

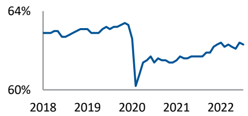
U.S.—Unemployment Rate	As of 9/30/2022
Latest Level	3.5
Change from Prior Period	▼ (0.2)
Frequency	Monthly



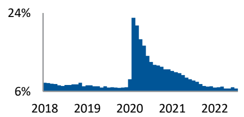
U.S.—Non-Farm Payroll	As of 9/30/2022
Latest Level	263.0
Change from Prior Period	▼ (52.0)
Frequency	Monthly



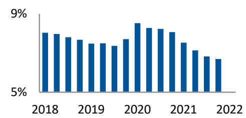
U.S.—Labor Participation Rate	As of 9/30/2022
Latest Level	62.3
Change from Prior Period	▼ (0.1)
Frequency	Monthly



U.S.—U-6 Unemployed & Margin & Part-Time as Percent of Labor Force & Margin	As of 9/30/2022
Latest Level	6.7
Change from Prior Period	▼ (0.3)
Frequency	Monthly

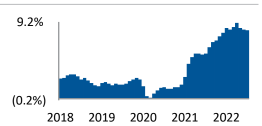


Eurozone Unemployment Rate	As of 6/30/2022
Latest Level	6.7
Change from Prior Period	▼ (0.4)
Frequency	Quarterly

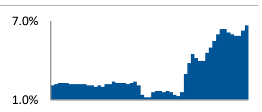


Inflation

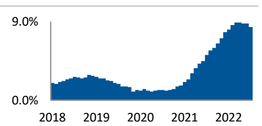
U.S. Consumer Price Index (CPI) Y-o-Y (%)	As of 9/30/2022
Latest Level	8.2
Change from Prior Period	▼ (0.1)
Frequency	Monthly



U.S. CPI Goods Less Food & Energy Y-o-Y (%)	As of 9/30/2022
Latest Level	6.7
Change from Prior Period	▲ 0.4
Frequency	Monthly

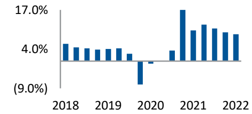


U.S. Producer Price Index (PPI) Y-o-Y (%)	As of 9/30/2022
Latest Level	8.4
Change from Prior Period	▼ (0.4)
Frequency	Monthly

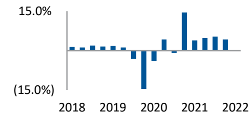


GDP Growth

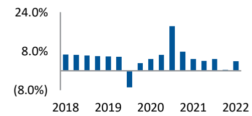
U.S.—GDP Y-o-Y (%)	As of 9/30/2022
Latest Level	9.0
Change from Prior Period	▼ (0.6)
Frequency	Quarterly



Eurozone—GDP Y-o-Y (%)	As of 6/30/2022
Latest Level	4.3
Change from Prior Period	▼ (1.2)
Frequency	Quarterly

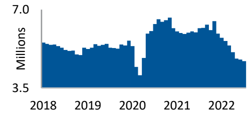


China—GDP Y-o-Y (%)	As of 9/30/2022
Latest Level	3.9
Change from Prior Period	▼ (0.9)
Frequency	Quarterly

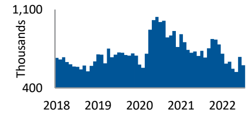


Housing

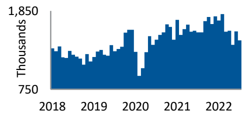
Existing Home Sales	As of 9/30/2022
Latest Level	4.7
Change from Prior Period	▼ (0.1)
Frequency	Monthly



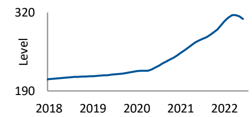
New Home Sales	As of 9/30/2022
Latest Level	603.0
Change from Prior Period	▼ (74.0)
Frequency	Monthly



Housing Starts	As of 9/30/2022
Latest Level	1,439.0
Change from Prior Period	▼ (127.0)
Frequency	Monthly



Case-Shiller Index of Home Value in 20 Cities	As of 8/31/2022
Latest Level	309.9
Change from Prior Period	▼ (4.1)
Frequency	Monthly



Note: All charts are based on a five-year trend.
Source: Bloomberg (All).

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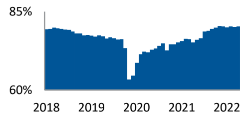
Economic & Market Confidence

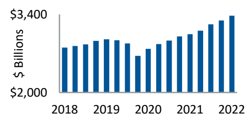
Capacity Utilization as a Percent of Capacity
As of 9/30/2022

Latest Level	80.3
Change from Prior Period	▲ 0.2
Frequency	Monthly



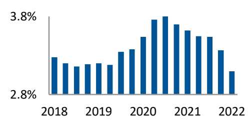
Private Fixed Investment Nonresidential SAAR
As of 9/30/2022

Latest Level	3382.3
Change from Prior Period	▲ 90.1
Frequency	Quarterly



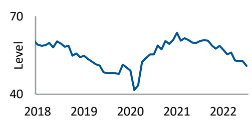
Residential Fixed Investment as a Percent of GDP
As of 9/30/2022

Latest Level	3.1
Change from Prior Period	▼ (0.3)
Frequency	Quarterly



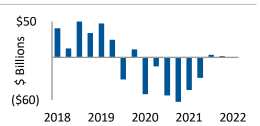
ISM Manufacturing Index
As of 9/30/2022

Latest Level	50.9
Change from Prior Period	▼ (1.9)
Frequency	Monthly



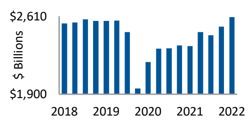
Manufacturing Inventory Change Q-o-Q ($)
As of 9/30/2022

Latest Level	0.1
Change from Prior Period	▼ (1.7)
Frequency	Quarterly



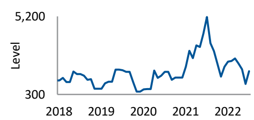
Exports of Goods/Services
As of 6/30/2022

Latest Level	2,517
Change from Prior Period	▲ 80
Frequency	Quarterly



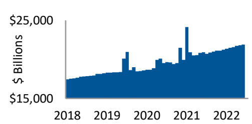
Shipping Rates
As of 9/30/2022

Latest Level	1,760
Change from Prior Period	▲ 795
Frequency	Quarterly



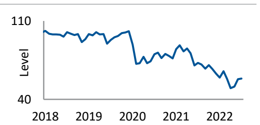
Personal Income Level
As of 8/31/2022

Latest Level	21,896
Change from Prior Period	▲ 72
Frequency	Monthly



Michigan Consumer Confidence Sentiment
As of 9/30/2022

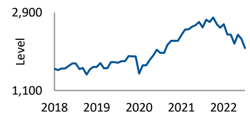
Latest Level	58.6
Change from Prior Period	▲ 0.4
Frequency	Monthly



Equity

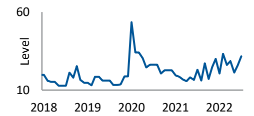
U.S. Equity Markets—Russell 3000
As of 9/30/2022

Latest Level	2,077.6
Change from Prior Period	▼ (215.6)
Frequency	Monthly



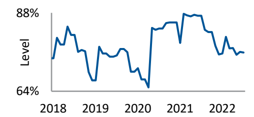
U.S. Equity—VIX
As of 9/30/2022

Latest Level	31.6
Change from Prior Period	▲ 5.8
Frequency	Monthly

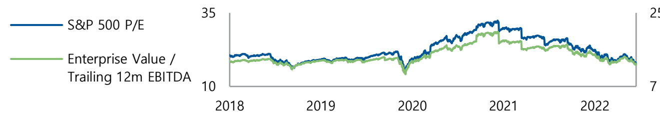


S&P 500 Percentage Exceeding Earning Estimates
As of 9/30/2022

Latest Level	75.9
Change from Prior Period	▼ (0.2)
Frequency	Monthly

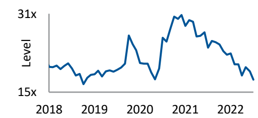


S&P 500 Historical Valuation Levels
As of 9/30/2022



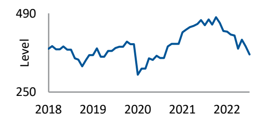
Trailing P/E on S&P 500
As of 9/30/2022

Latest Level	17.6
Change from Prior Period	▼ (1.7)
Frequency	Monthly



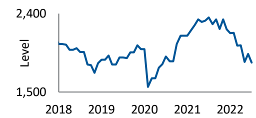
Equity Markets—Euro Stoxx
As of 9/30/2022

Latest Level	364.6
Change from Prior Period	▼ (24.5)
Frequency	Monthly



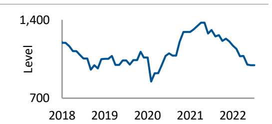
Equity Markets—MSCI EAFE
As of 9/30/2022

Latest Level	1,661.5
Change from Prior Period	▼ (179.0)
Frequency	Monthly

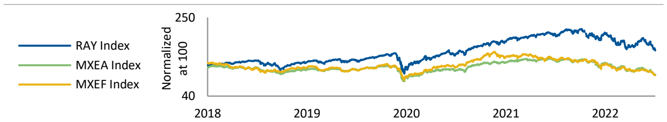


Equity Markets—MSCI EM
As of 9/30/2022

Latest Level	875.8
Change from Prior Period	▼ (118.3)
Frequency	Monthly



Russell 3000 & MSCI EAFE & MSCI EM
As of 9/30/2022



Note: All charts are based on a five-year trend.
Source: Bloomberg (All).

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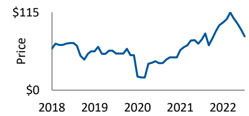
Commodities

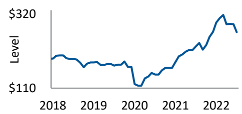
WTI Crude Oil Price
As of 9/30/2022

Latest Level	79.5
Change from Prior Period	▼ (10.1)
Frequency	Monthly



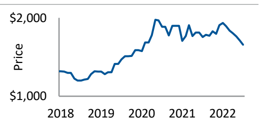
Reuters/Jefferies Commodity Index
As of 9/30/2022

Latest Level	268.3
Change from Prior Period	▼ (22.1)
Frequency	Monthly



Gold
As of 9/30/2022

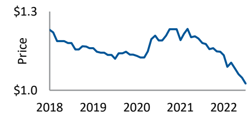
Latest Level	1,660.6
Change from Prior Period	▼ (50.4)
Frequency	Monthly



Foreign Exchange Rates

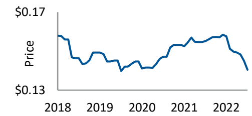
Euro Spot Rate vs. 1 USD
As of 9/30/2022

Latest Level	0.98
Change from Prior Period	▼ (0.03)
Frequency	Monthly



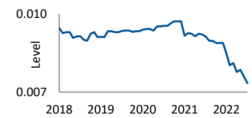
Yuan Spot Rate vs. 1 USD
As of 9/30/2022

Latest Level	0.1406
Change from Prior Period	▼ (0.0045)
Frequency	Monthly



Yen Spot Rate vs. 1 USD
As of 9/30/2022

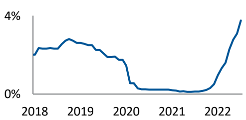
Latest Level	0.0069
Change from Prior Period	▼ (0.0003)
Frequency	Monthly



Rates

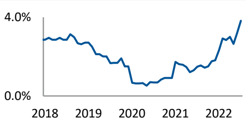
Libor 3M
As of 9/30/2022

Latest Level	3.75
Change from Prior Period	▲ 0.66
Frequency	Monthly



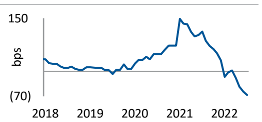
Treasury 10-Yr Yield
As of 9/30/2022

Latest Level	3.83
Change from Prior Period	▲ 0.64
Frequency	Monthly

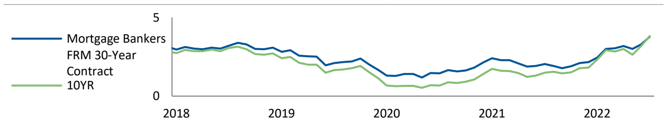


Swaps 2-Yr vs. 10-Yr
As of 9/30/2022

Latest Level	(66.49)
Change from Prior Period	▼ (9.69)
Frequency	Monthly



30-Yr Mortgage & 10-Yr Treasury
As of 9/30/2022



Note: All charts are based on a five-year trend.
Source: Bloomberg (All).

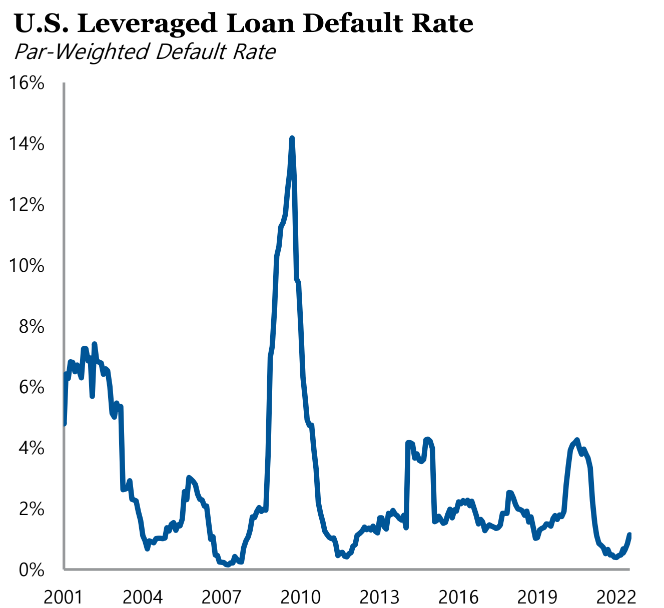
Performing Credit

The third quarter could be described as bifurcated, with the beginning and end portions of the period being distinctly different. The leveraged loan market showed strong positive performance in July and August, followed by a partial give back of those quarterly gains in September. Supported by expectations of a dovish turn in the Fed's policy, the J.P. Morgan U.S. Leveraged Loan Index posted gains of 1.9% in July and 1.5% in August. This was followed by a 1.9% loss in September, as concerns about inflation and the Fed's response resumed being the key topics of investor focus after the Jackson Hole Economic Symposium and the Fed's September meeting. The J.P. Morgan U.S. Leveraged Loan Index ended the third quarter with a quarterly return of 1.5% and year-to-date return of -2.6%, as compared to year-to-date losses of 13.9% for U.S. high yield, 18.1% for investment grade, and 22.7% for the S&P 500. Leveraged loans ended June at a spread of 673 basis points and yield to 3-year takeout of 10.9%. The index's weighted average price fell to $92.30, the lowest level since July 2020.

In terms of issuance, many sell-side research desks have been adjusting their 2022 forecasts downward to account for the significantly more hawkish Fed narrative and higher yield environment witnessed in the third quarter. J.P. Morgan's forecast for full-year 2022 institutional gross loan issuance is $250 billion, implying a 70% year-over-year decline and the lightest gross loan issuance since 2011. Turning to CLOs, $125.9 billion of U.S. CLOs have been issued year-to-date though the third quarter, as compared to $311.8 billion over the same time period in 2021. Looking ahead, CLO market participants are evaluating their options, balancing the cost of financing with the rising spreads and yields provided by the leveraged loan market.

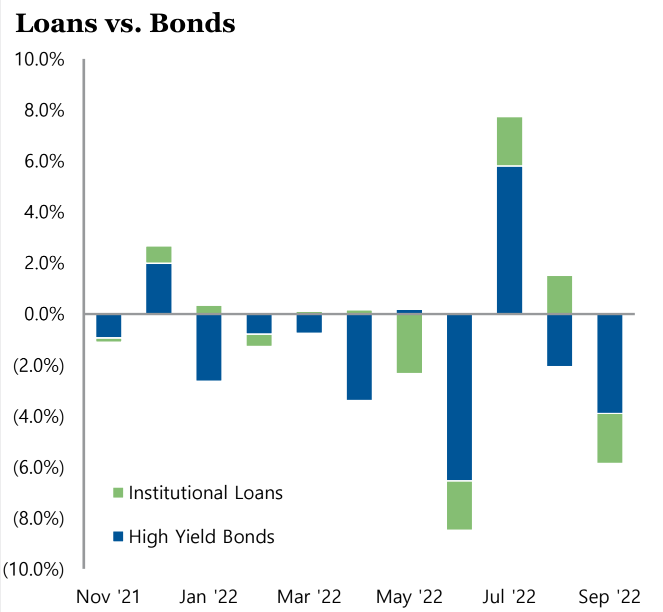
In Europe, high yield corporate supply slowed even further during the third quarter, with volume of just €2.9 billion, which brought year-to-date gross issuance to €22.8 billion. Late in the quarter, interest rate volatility stemming from the continued Russia-Ukraine war, rising inflationary pressures, the UK tax cut, and the subsequent plunge in sterling spilled over into credit spreads. The J.P. Morgan European Leveraged Loan Index posted a 1% quarterly return, bringing the year-to-date return to -6.3%, and ended the quarter at a spread of 575 basis points.

Turning to defaults, the default rate on U.S. leveraged loans—including distressed exchanges—rose to 1.6% in the third quarter, though that increase is off the historic lows seen in early 2022. J.P. Morgan is forecasting a U.S. default rate of 1.75% in 2022 and 2.25% in 2023, below the long-term average of 3.1%.



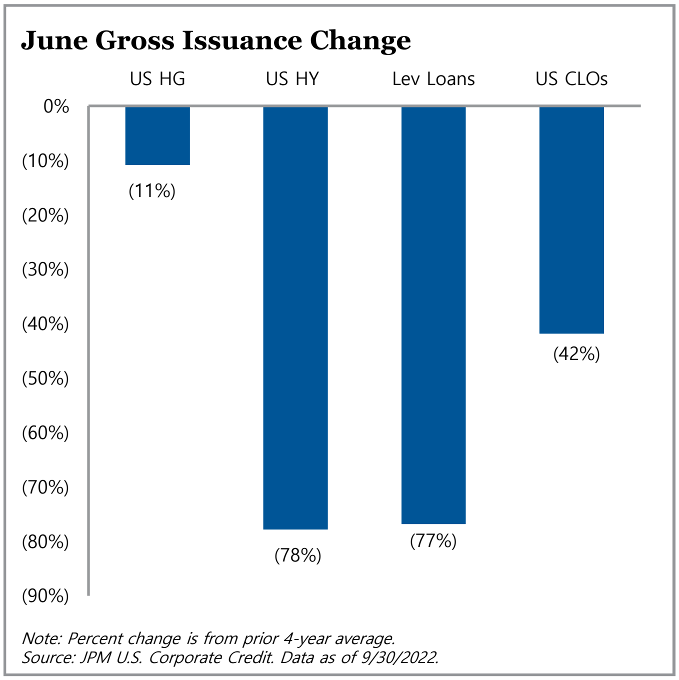
Note: Represents the last 12-month default rate.
Source: J.P. Morgan. Data as of 9/30/2022.

The U.S. leveraged loan default rate rose from historic lows and is expected to continue to increase, albeit below the long-term average rate of 3.1%.

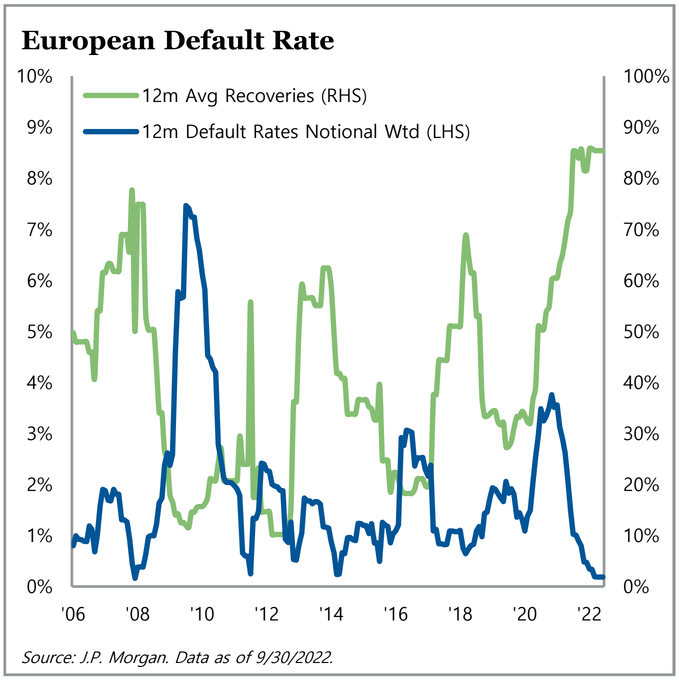


Source: J.P. Morgan High Yield Bond and Leveraged Loan Market Monitor. Data as of 9/30/2022.

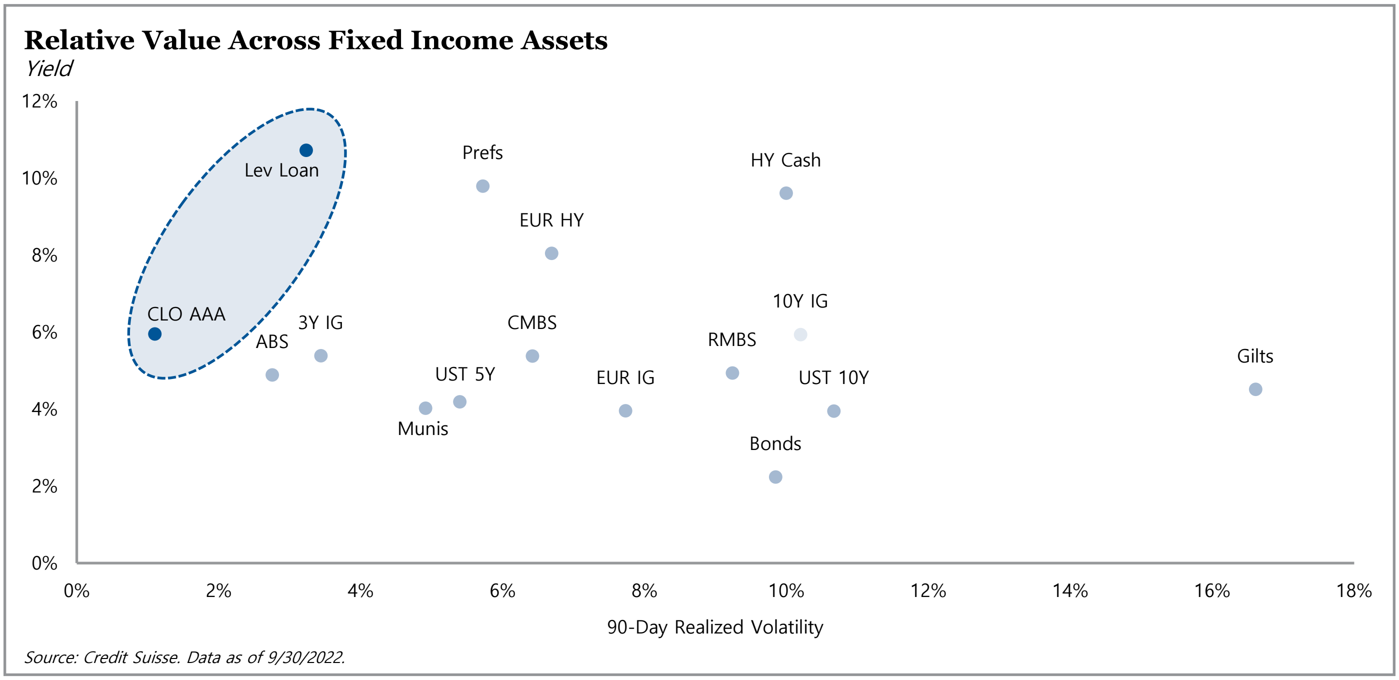
In Q3 2022, loans showed lower volatility than high yield, with demand continuing to be strong.



Issuance volume remained muted, with most sell-side analysts expecting a greater than 60% year-over-year decline in full-year 2022 volume.



In Europe, default rate remained flat. Looking ahead, market participants are closely watching for a potential rise in default rate



Leveraged loans appear relatively attractive compared to their own historical range and to other fixed income assets.

Maureen D'Alleva
Portfolio Manager

For more information on Performing Credit, click here.

High Yield Credit

Both the U.S. and European high yield markets ended the third quarter with modestly negative performance, with returns of -0.4% in the United States and -0.2% in Europe for the three-month period ended September 30, 2022. The intra-period volatility was notable, as a 5.8% gain in July ceded losses of 2.1% in August and 3.9% in September, which was the third-largest monthly decline since the global financial crisis (GFC). A range of macroeconomic themes continued to pressure credit markets globally, including hawkish stances from central banks and ongoing worries surrounding recession, inflation, rising rates, and slowing corporate growth. For the first nine months of 2022, U.S. high yield returns fell to -13.7% while returns for European high yield dropped to -14.2%. This year is on pace to overtake 2000's -6.0% as the second-worst annual return for U.S. high yield bonds in the last 30 years.

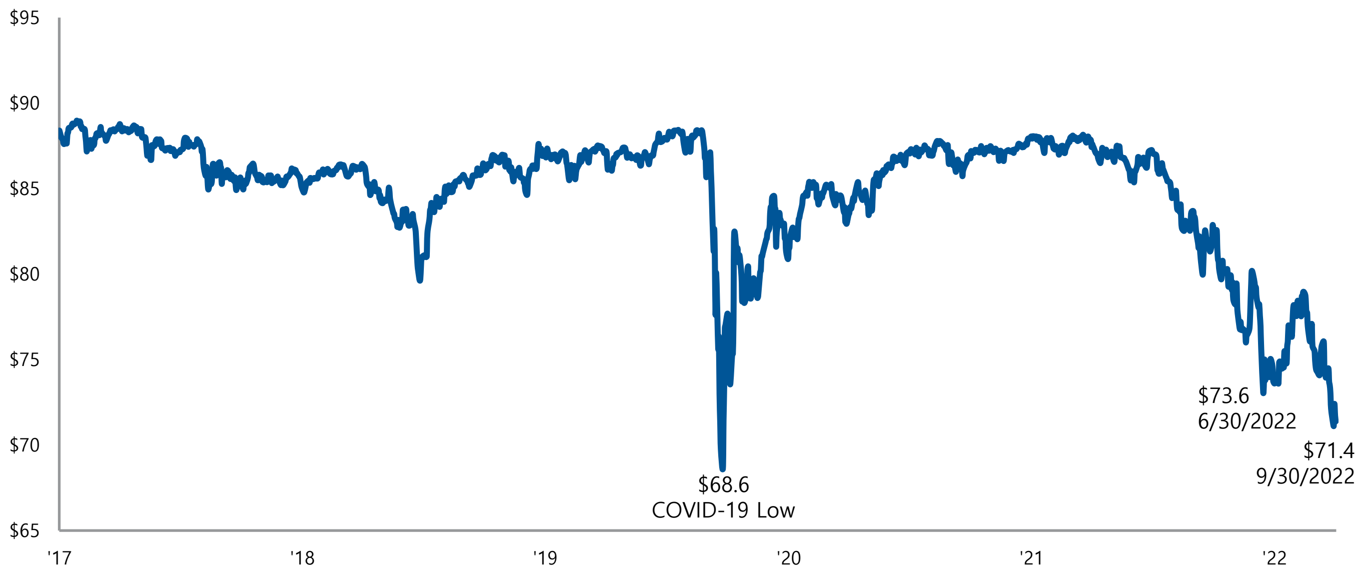
U.S. high yield bond spreads tightened 45 basis points during the third quarter, ending September at 574 basis points. In Europe, high yield spreads compressed 10 basis points to close the quarter at 714 basis points. Yields of U.S. high yield bonds increased 65 basis points in the third quarter, rising to 9.68%, which was more than double the 4.71% yield recorded at the beginning of 2022. In the U.S., lower-rated bonds underperformed higher-quality bonds in the quarter, with BBs returning -0.4%, while CCCs returned -1.2%. However, in Europe, a 2.1% quarterly return for CCCs bested the -0.4% three-month performance of BBs.

There were $23.4 billion of defaults and distressed exchange transactions in the third quarter, more than doubling the year-to-date volume and marking the highest quarterly amount since the pandemic-impacted second quarter of 2020. The U.S. high yield default rate rose approximately 37 basis points to a trailing annual rate of 1.57%. In Europe, there were no defaults in the high yield bond market in the third quarter, which resulted in the trailing 12-month default rate remaining at 0.4% at the end of September.

U.S. high yield bond new issuance totaled $18.9 billion from July through September, representing the lightest volume since the first quarter of 2009. The Federal Reserve's hawkish stance and an increasing rate environment have depressed the high yield primary market, with only $90 billion of bond issuance in the first nine months of 2022 compared to a total of $410 billion in the same period in 2021. In Europe, high yield new issuance totaled €2.9 billion, leaving year-to-date issuance 80% lower relative to 2021 levels.

Investors withdrew an additional $8.7 billion from U.S. high yield funds in the third quarter, bringing year-to-date outflows to a record $53.6 billion. High yield funds reported outflows in eight of the first nine months this year. In Europe, high yield funds experienced outflows of €2.4 billion, increasing year-to-date total outflows to €11.7 billion.

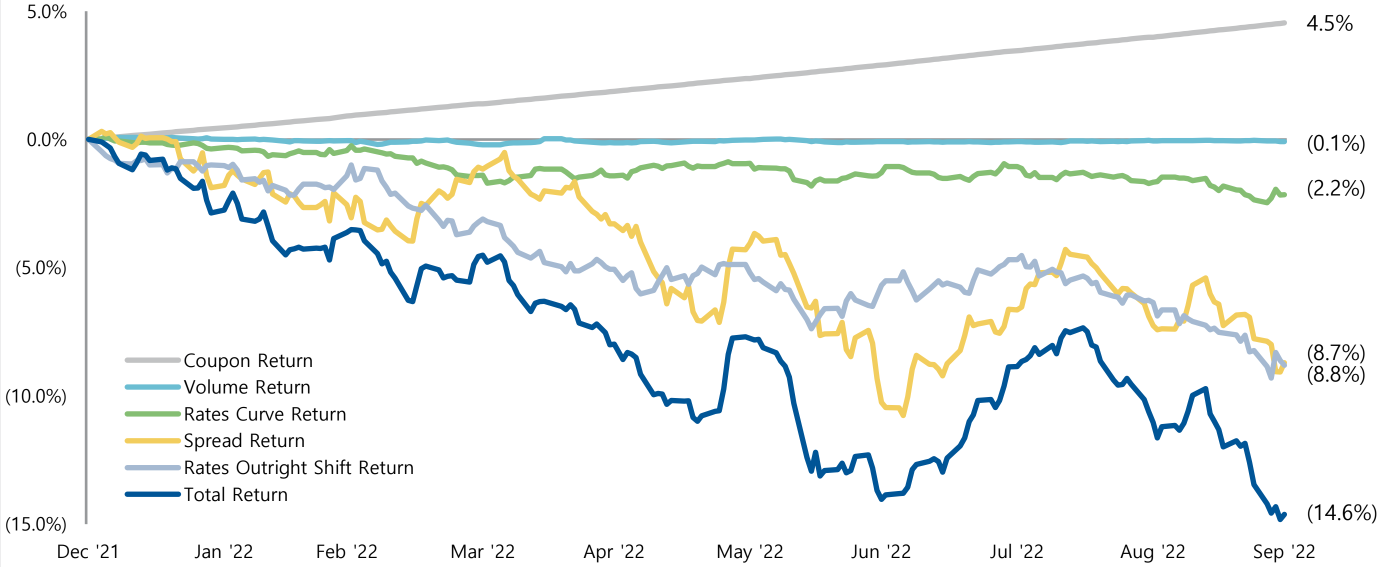
iShares iBoxx $ High Yield Corporate Bond ETF ("HYG") Price History



Source: Bloomberg. Data as of 9/30/2022.

U.S. high yield bond prices are approaching the COVID-19 low witnessed in 2020.

Drivers of U.S. High Yield Returns in 2022

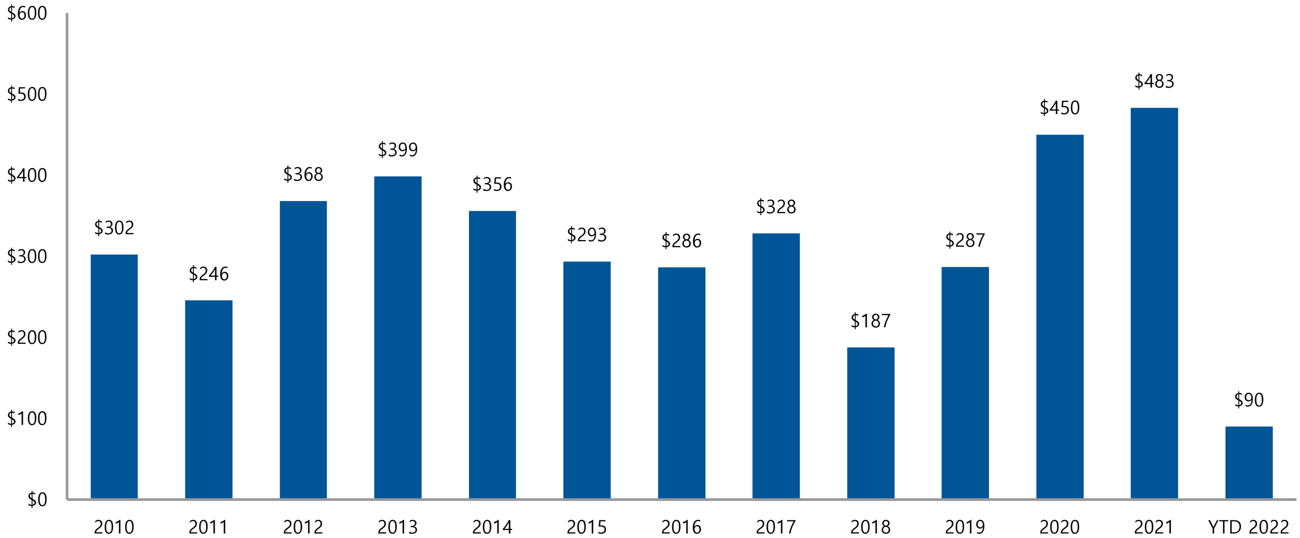


Sources: Bloomberg, Bank of America. Data as of 9/30/2022.

Rising interest rates and widening credit spreads have driven negative year-to-date performance.

U.S. High Yield Bond Issuance

Gross High Yield Issuance ($ Billions)



Source: J.P. Morgan. Data as of 9/30/2022.

Year-to-date new issuance is down nearly 80% from last year and is tracking to the lowest annual volume since the GFC.

Ryan Mollett
Global Head of Distressed & Corporate Special Situations

For more information on Distressed Debt, click here.

Structured Credit: RMBS

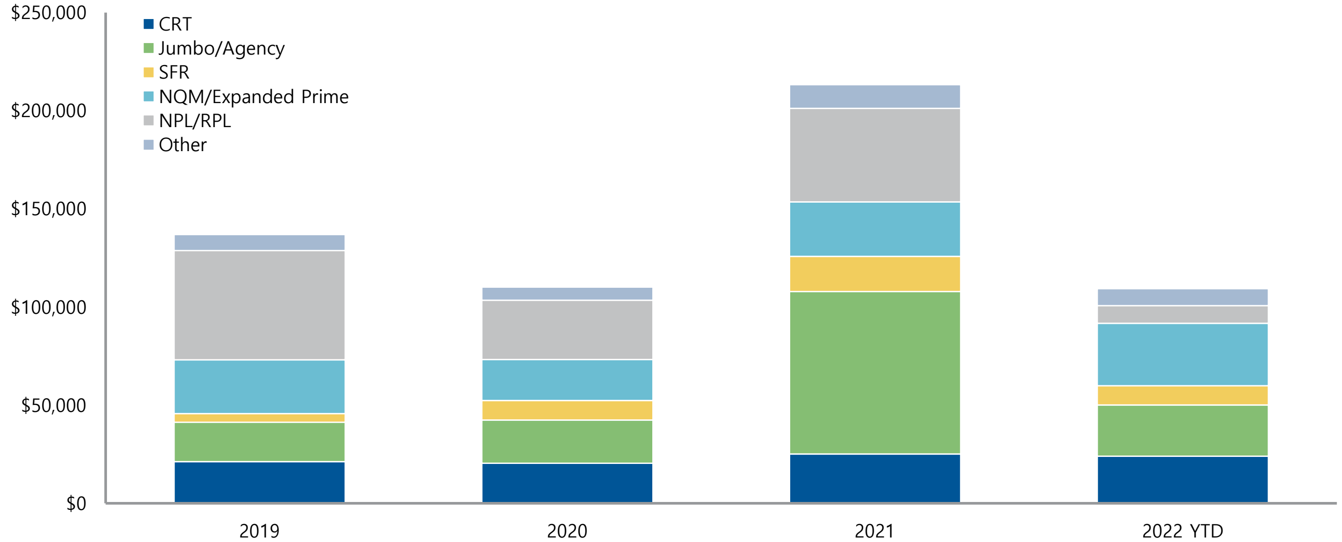
Spreads for securitized residential debt sectors were volatile during the third quarter but ultimately saw little quarter-over-quarter change. Credit risk transfer (CRT) tranches were broadly unchanged but volatile during the quarter, though specific pockets of risk were changed by 30-40 basis points in both directions. Spreads for senior non-qualified mortgage (NQM) tranches rallied from around 250 basis points at the end of the second quarter to as tight as approximately 175 basis points, before reversing back to 250 basis points by quarter-end.

Quarterly new issuance of RMBS fell to $20 billion, down about 47% from the second quarter and 62% from year-ago levels, bringing the year-to-date tally to $109 billion. The sharpest declines came from prime jumbo and agency-eligible investor loans, which were 80-90% lower quarter-over-quarter, as deal sponsors were reluctant to issue amid sharply higher all-in costs from rising benchmark yields and wider spreads. Primary issuance of NQM fell 27% to $7.8 billion, and CRT activity halved to around $4 billion. Single-family rental transactions also fell sharply, down 63% to $1.6 billion during the quarter. Primary RMBS volume is unlikely to reach the 2021 level of over $210 billion of activity, which was a post-GFC peak. However, this year's issuance has matched the 2020 full-year tally of $110 billion and may eclipse 2019's volume of $137 billion.

Monthly home price readings have turned negative in the most recent data. The July reading from the S&P/CoreLogic Case-Shiller Index reported that home prices fell 0.33%, down close to 4% when annualized. Year-to-date home price appreciation (HPA) was 10.8% as of July, according to the latest data from Case-Shiller; therefore, prices must decline into year-end in order for the high end of third-party forecasts—of mid-to-high single-digit HPA—to be realized. We expect home prices to decline on reduced affordability and increasing supply in certain areas, though supply still remains constrained. Our underwriting currently assumes national home prices will fall over the balance of the year and end 2022 flat with year-end 2021—effectively erasing any gains to-date this year—then fall by 10% in 2023 and gradually recover to a long-term rate of +3% thereafter.

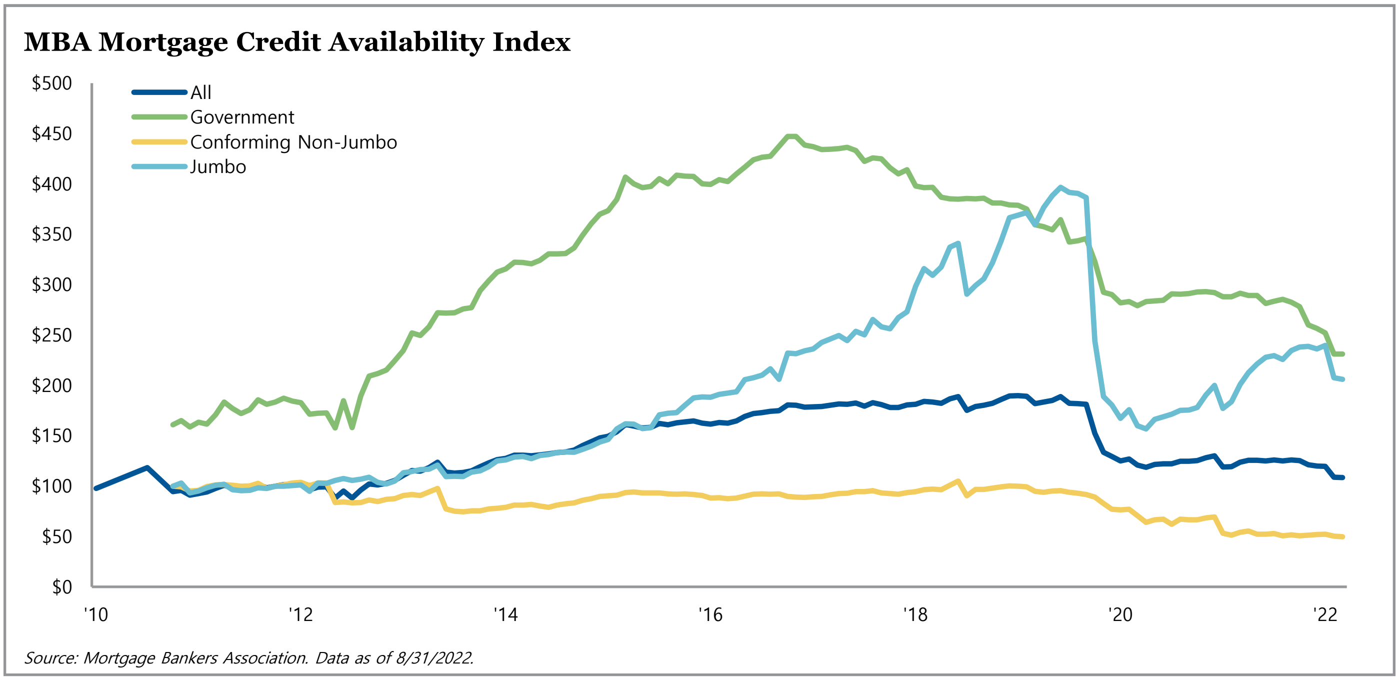
Mortgage prepayments are at a plateau, as the pipeline of refinance candidates has dried due to most of the mortgage loans outstanding having economic disincentives to refinance or move. Mortgage underwriting remains very tight—similar to 2013 levels, according to the Mortgage Bankers Association—and is particularly tight for conforming balance agency mortgages, which are a primary mechanism to fund new mortgages. Home ownership affordability is historically low and in line with 1986 and 2006 readings, according to the National Association of REALTORS® (NAR). Price cuts have risen sharply and are sustaining around 7-8% of active listings, significantly exceeding 2019-2021 levels. Additionally, the average sale price to list price ratio is nearing 0.99x, or a 1% discount to list, according to the latest Redfin data.

RMBS New Issue by Sub-Sector
$ Millions

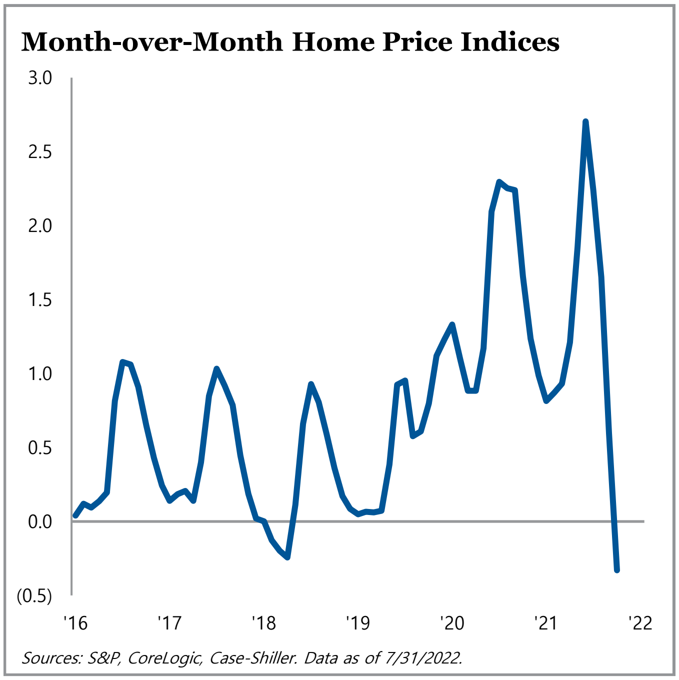


Source: BofA Securities. Data as of 9/30/2022.

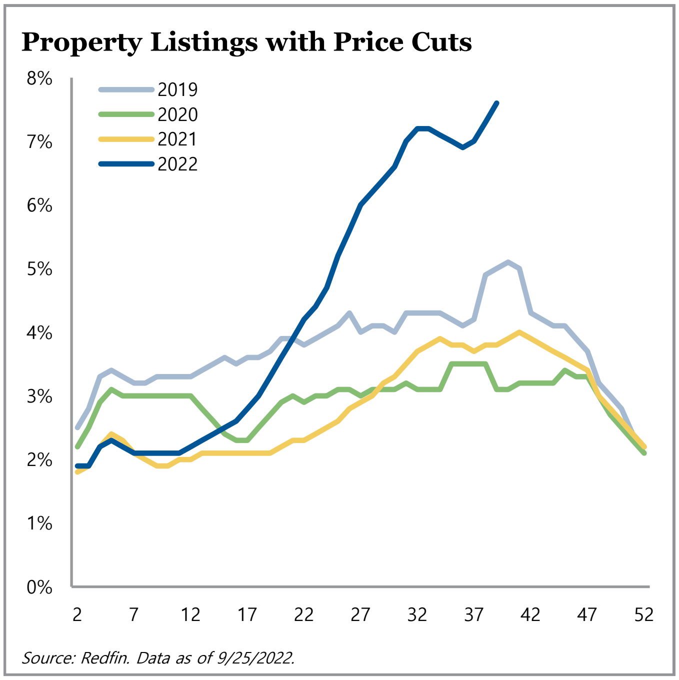
Quarterly RMBS new issuance fell 47% from Q2 2022, and year-to-date new issuance is 27% lower than year-ago levels.



Mortgage credit remains tight, particularly for conventional non-jumbo loans.



Case-Shiller month-over-month home price indices fell into negative territory in the latest data.



Over 7% of property listings have had price cuts.

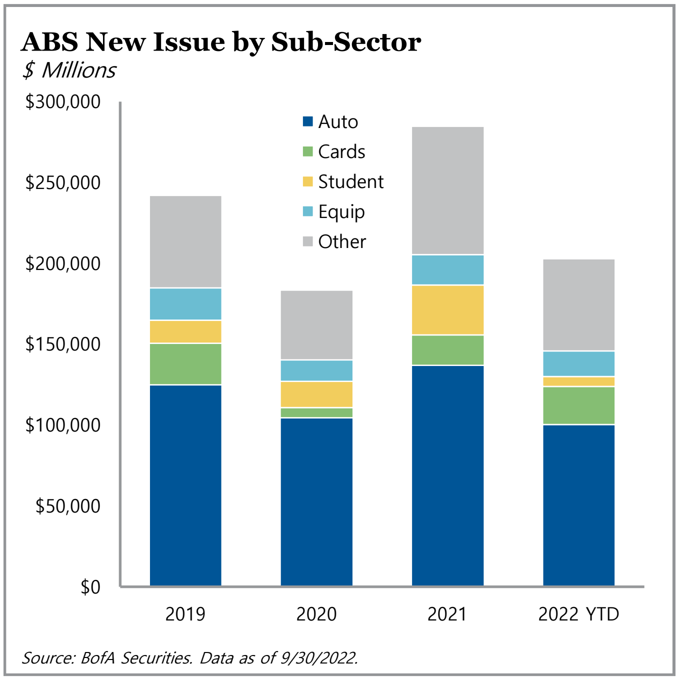
Structured Credit: ABS

Spreads for securitized consumer debt sectors were mixed during the third quarter, as spreads reflected diverging collateral performance across asset classes and new issue activity and liquidity was challenged across the market. Credit card ABS spreads were generally 10-15 basis points wider at quarter-end; meanwhile, auto ABS spreads were far more mixed, with some profiles tightening as much as 50 basis points and others unchanged to a little wider. Student loan spreads were also more mixed, with some government-guaranteed profiles catching a bid following the White House's student loan relief announcement, while others were a little wider. Consumer loan ABS widened nearly 50 basis points, and other esoteric profiles moved within a 30-basis point range in both directions.

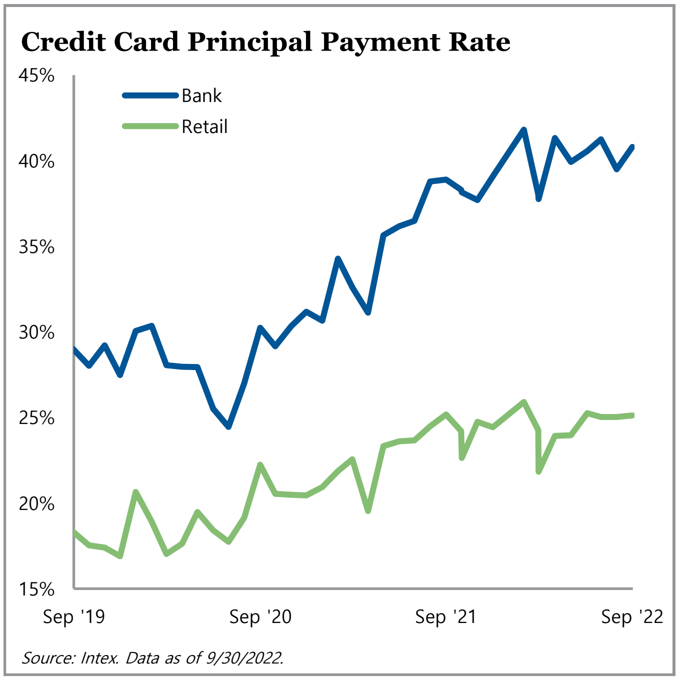
Primary ABS activity totaled $57 billion in the third quarter, a decline of 28% from both the second quarter and year-ago levels. The quarterly decline was relatively broad-based across benchmark asset classes; auto ABS, in particular, fell by 30%, though esoteric sectors were nearly flat compared to year-ago levels. As of September 30, 2022, ABS issuance totaled $203 billion, down approximately 7% from the first three quarters of 2021.

Consumer debt performance data has been varied, with certain pockets of stability. Credit cards remain stable on payment rates, low front-end delinquencies, and high gross yields. For legacy private-credit student loans, we continue to see ample cash flows owing to recovery proceeds, which have more than offset new defaults; front-end delinquencies—an early indicator of performance degradation—have been limited for several months. Unsecured consumer loan performance continues to weaken according to the latest data, with lower voluntary prepayments and higher front-end delinquency rates for most platforms. We believe recent originations from certain lenders have the potential to significantly underperform pre-pandemic vintages. Fundamental performance of subprime auto loans has visibly worsened, and the latest data showed slower prepayments as well as higher delinquency and default rates. Further, some shelves are already weaker than pre-pandemic data.

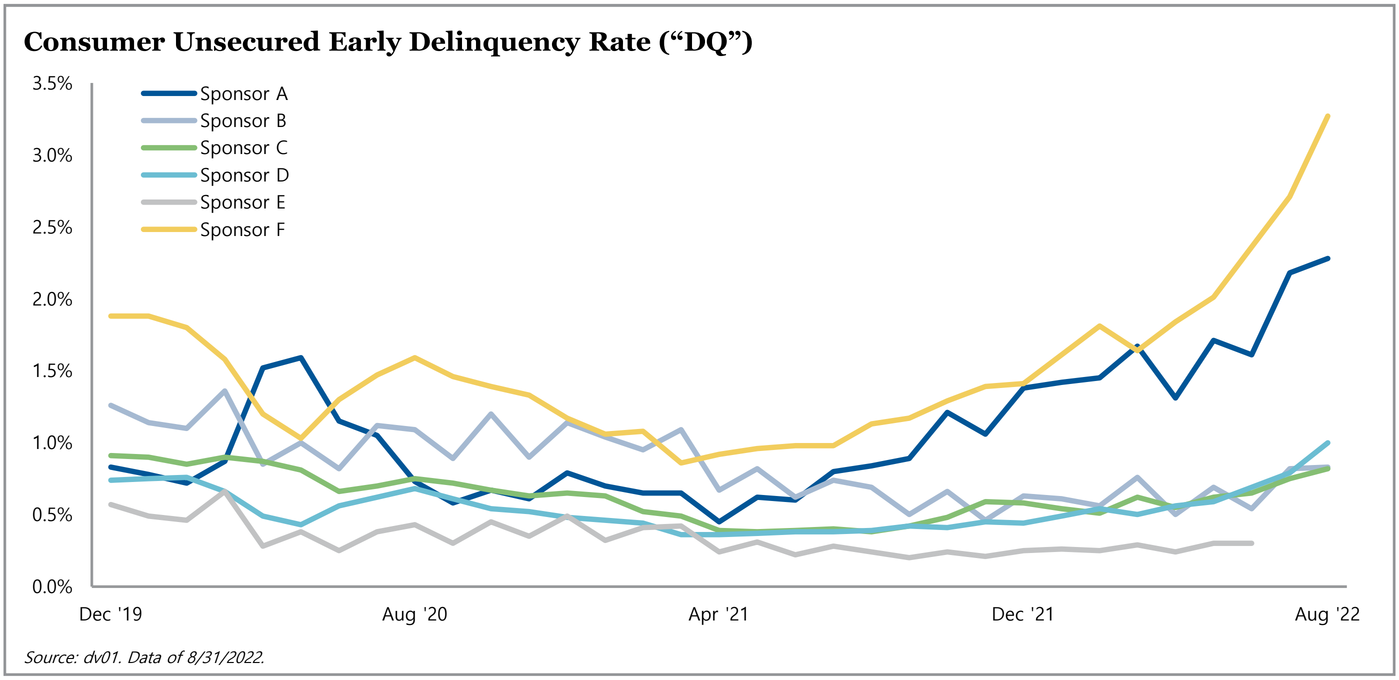
The White House's student loan relief plan may provide a net positive for consumer credit profiles and could catalyze small changes to repayment behavior. For example, beyond the headline relief, the plan lowers the payment requirement from 10% of disposable income to 5%—limiting borrowers' student loan obligations. However, it is important to note that in contrast to the pandemic-related stimulus bills, there are no direct cash inflows to borrowers. Furthermore, the student loan payment moratorium is expected to expire, and borrowers must resume payments in 2023.



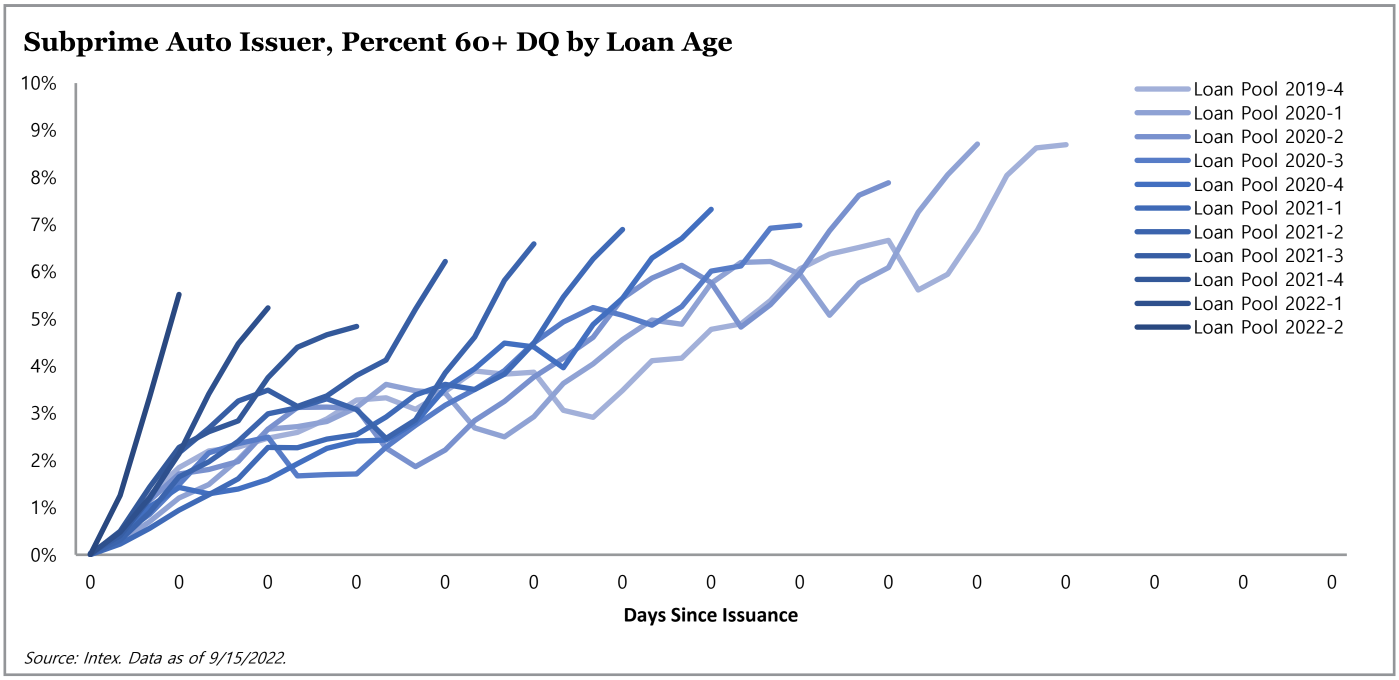
ABS new issuance is 28% lower than Q2 2022 and, compared to year-ago levels, 7% lower over the first three quarters of 2022.



Credit card principal payment rates remain stable at elevated levels.



Unsecured consumer loan performance continues to weaken.



Subprime auto ABS have sequentially deteriorated.

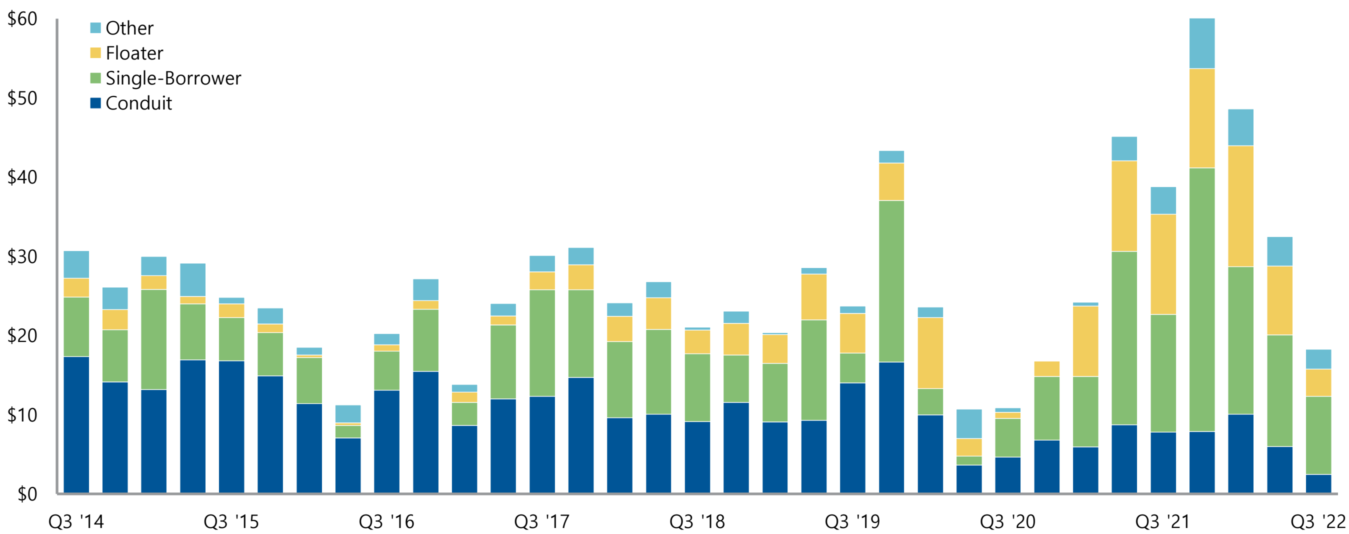
Structured Credit: CMBS

The third quarter was challenging, with the same themes that have been pressuring markets for the past year often accelerating. CMBS debt initially rallied, as investors realized that new issue volumes would be lower than anticipated and selling in the secondary markets was light. Demand technicals also started the quarter with a positive tone. These themes reversed on the heels of a higher-than-expected U.S. inflation reading and hawkish Fed messaging. New pools of capital evaporated quickly, and redemptions from certain funds soon became larger than expected, triggering high selling volumes as the quarter progressed. Although these sales were absorbed reasonably well, spreads widened with each successive listing. By the end of September, AAA-rated conduit bonds were trading approximately 10 basis points wider than at the end of June. BBB conduit paper was roughly 70 basis points wider during the quarter and 250 basis points higher year-to-date. Single borrower bonds dropped by 1-2 basis points. Combined with the movement in benchmark rates, most CMBS bonds are now offering yields that are more than double what was available a year earlier.

In terms of fundamentals, CMBS delinquency rates continued their decline, dropping from 3.20% to 2.92% during the third quarter. For context, this rate was in the low 2% range from late 2019 to early 2020. The declines were once again led by the retail and lodging sectors, which were hardest hit at the onset of the pandemic. The delinquency measure is lagging, and as we look to more real-time information, the picture is less rosy. With the cost of financing for commercial real estate higher than it has been in well over a decade, it's no surprise that transaction volumes are dropping rapidly. In the third quarter, just 16 CMBS deals totaling $13.3 billion priced—a 35% decline from the prior quarter and down 39% year-over-year. This reflects the challenges borrowers are facing in obtaining new financing, even for well-performing assets, and is starting to result in an increased number of loans being transferred to CMBS special servicers.

The trends we have previously seen within specific property sectors continued during the third quarter. The return to offices continued to be a slow process. The retail, industrial, self-storage, and multifamily sectors continued to perform well, but experts are starting to question how much longer landlords will be able to increase rents in the face of a slowing economy. The least favored property sector ten quarters ago is by far the strongest fundamental performer today; hotels nationally posted revenue per available room (RevPAR) of $102.30 for the month ended September 30, 2022. This measure was up 25% year-over-year and 15% higher than the same period in 2019.

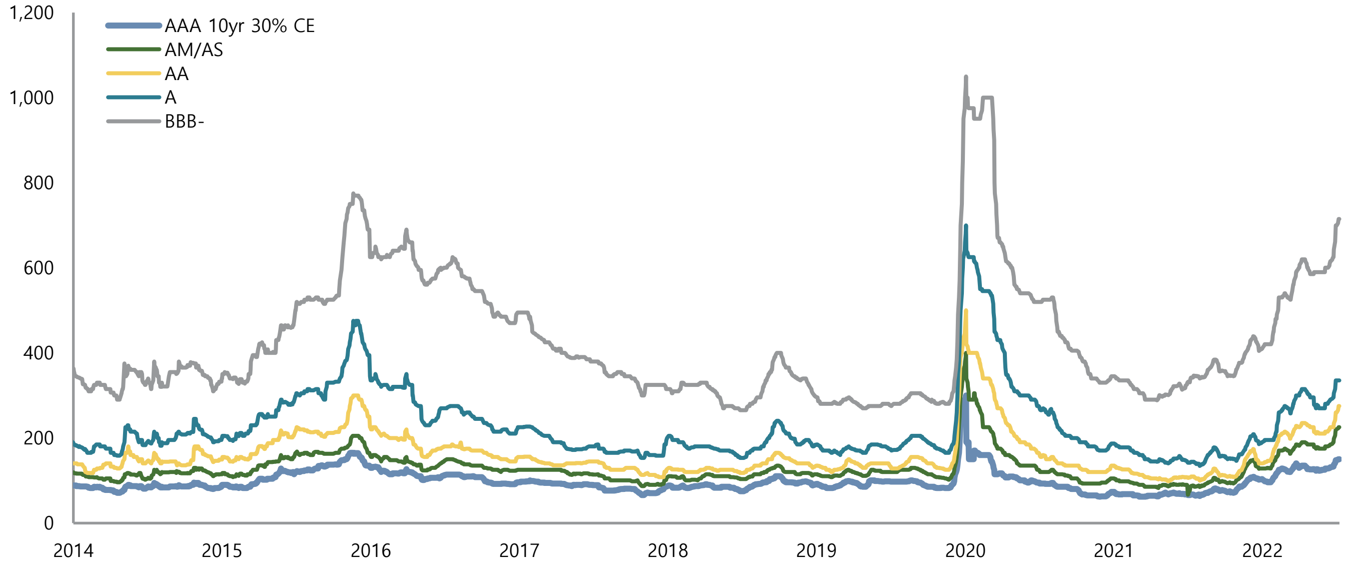
Quarterly Private Label Issuance
$ Billions



Sources: Credit Suisse, Commercial Mortgage Alert. Data as of 9/30/2022.

Issuance volume slowed in the third quarter as broader market volatility and higher interest rates reduced demand for securities and cooled acquisition activity.

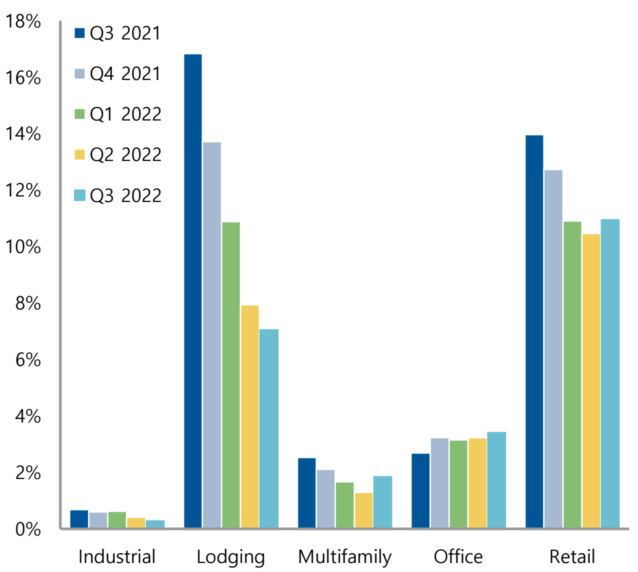
CMBS New Issue Spread



Source: Credit Suisse. Data as of 9/30/2022.

New issue spreads continued to widen from their 2021 lows.

CMBS Special Servicing Rate

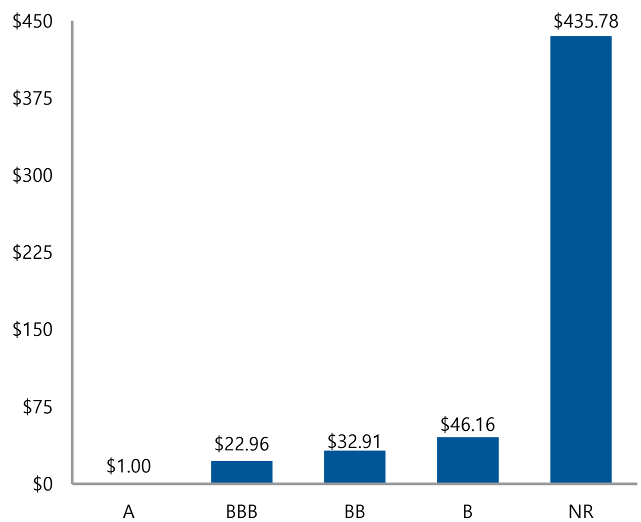


Source: Trepp. Data as of 9/30/2022.

The percentage of specially serviced CMBS loans inched up for the first time since Q3 2020, with the multifamily, office, and retail sectors all showing increases.

Interest Shortfall by Rating

$ Millions



Note: CGCMT 2016-P5 revised its June 2021 remit to remove the interest shortfall to classes A and B. Ratings have been clubbed to letter.
Source: Intex. Data as of 9/30/2022.

Interest shortfalls in conduit CMBS continue to be highly concentrated in the non-rated, first-loss portion of the market.

TJ Durkin
Head of Structured Credit

Yong Joe
Co-Portfolio Manager, Structured Credit

Andrew Solomon
Portfolio Manager, Commercial Real Estate Debt

For more information on Structured Credit, click here.

Middle Market Direct Lending

U.S. middle market direct lending origination volume decreased during the third quarter of 2022, totaling $41 billion versus $56.9 billion in the second quarter of 2022. While total volume was lower quarter-over-quarter, it was higher than the $38 billion seen in the third quarter of 2021 and the $40 billion witnessed in the fourth quarter of 2021, which was a record at the time. Looking to the past 12 months, the third quarter of 2022 was the only one in which LBO activity represented the majority of capital deployed, at 54%. LBO activity as a percentage of capital deployed in the other three quarters ranged from 35% to 43%.

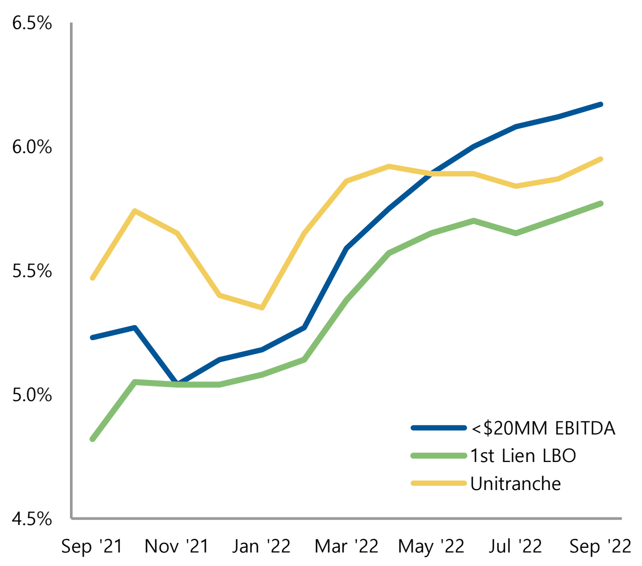
Spreads in the lower middle, upper middle, and unitranche markets all continued to increase during the third quarter. The median lower middle market spread increased 17 basis points to 6.17%, while spreads in the unitranche and upper middle markets increased 6 and 7 basis points, respectively. The lower middle market remained the sector with the highest average spreads, with unitranche following at 5.95%.

There continued to be gaps between the leverage profiles of borrowers in the lower, core, and unitranche markets. The lower middle market leverage ratio was 4.3x as of the end of September 2022, while the core and unitranche markets posted leverage ratios of 5.3x and 5.6x, respectively. The lower middle market and unitranche figures both declined from year-end 2021 levels, which were 4.7x and 5.9x, respectively. Similar to leverage multiples, first-lien lending standards are indicative of the slightly more conservative sentiment across the market. Refinitiv's most recent middle market lender outlook survey indicated that 35% of first-lien lenders were willing to lend at leverage multiples greater than 6.0x EBITDA in the third quarter. This number is down from 57% at the end of the second quarter of 2022 and the peak of 69% in the second quarter of 2021; however, the figure is higher than the 18% posted in the third quarter of 2020.

Middle market default statistics, as measured by the Proskauer Private Credit Default Index, remained below historical medians in the lower and upper middle markets in the third quarter. The annualized lower middle market default rate decreased to 1.3%, down from 1.9% a quarter earlier, and the upper middle market default rate remained at 0.4%. The default rate in the core middle market, however, increased to 1.8%, which was higher than the second quarter rate of 1.1% and the median default rate since the end of 2019 of 1.6%.

Fundraising activity in the U.S. direct lending market declined in the third quarter of 2022, with $6.8 billion raised during the period. The number of funds closed in the third quarter, at six, was the lowest since the third quarter of 2020, when five funds closed. The dollar amount raised was the lowest recorded since the second quarter of 2021's $4.8 billion.

Direct Lending Pricing

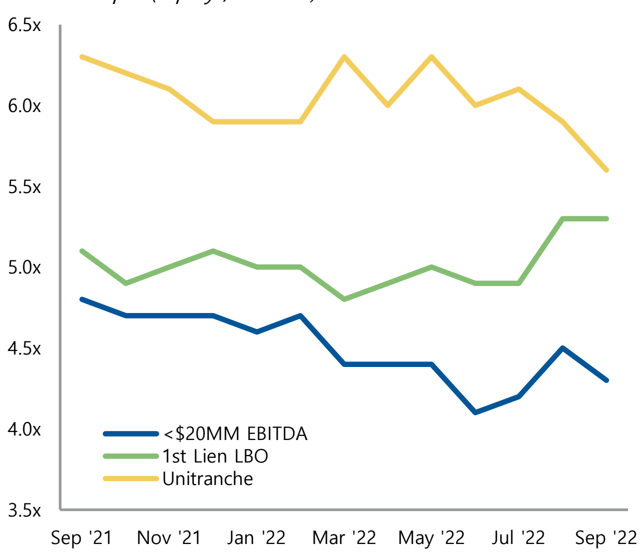


Source: Direct Lending Deals. Data as of 9/30/2022.

Direct Lending spreads continue to widen, and LBO pricing is 1% wider year-over-year.

Leverage Multiples by Loan Type

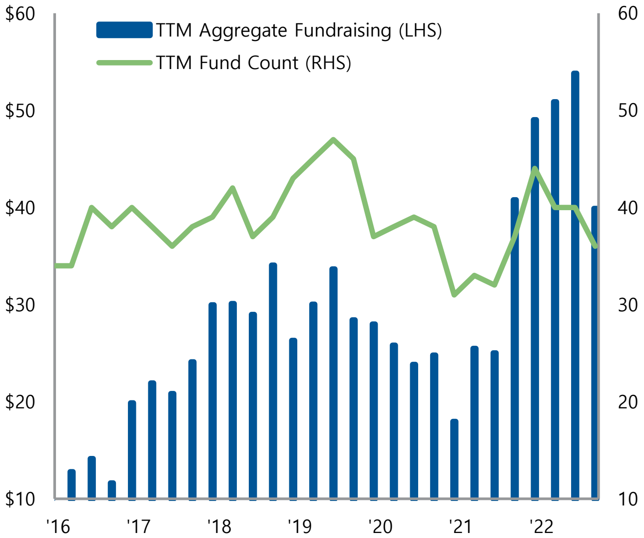
Debt Multiple (Equity / EBITDA)



Source: Direct Lending Deals. Data as of 9/30/2022.

Leverage multiples have decreased, but leverage remains lower in the lower middle market than in the core or unitranche markets.

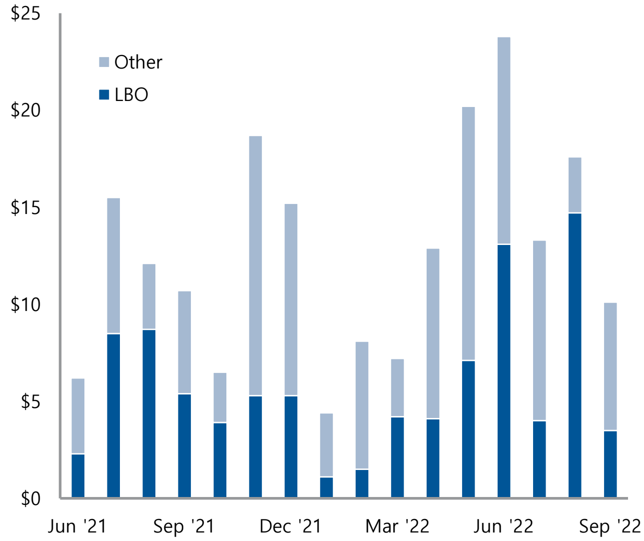
Direct Lending Fundraising
$ Billions *Number of Funds*



Source: Preqin. Data as of 9/30/2022.

U.S. direct lending fundraising has slowed, with only six funds closed in the third quarter.

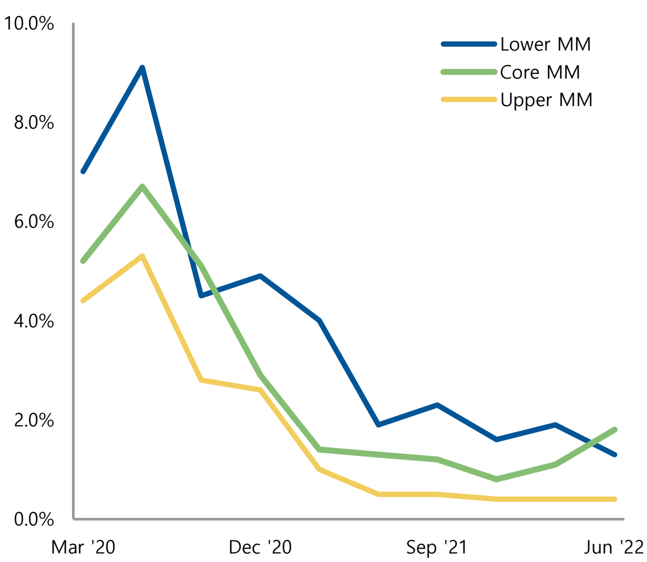
Monthly Middle Market Originations
$ Billions



Source: Direct Lending Deals. Data as of 9/30/2022.

In Q3 2022, origination volumes dropped 28% quarter-over-quarter, but it was the second strongest quarter of last five quarters. LBOs represented 54% of origination volumes in Q3 2022.

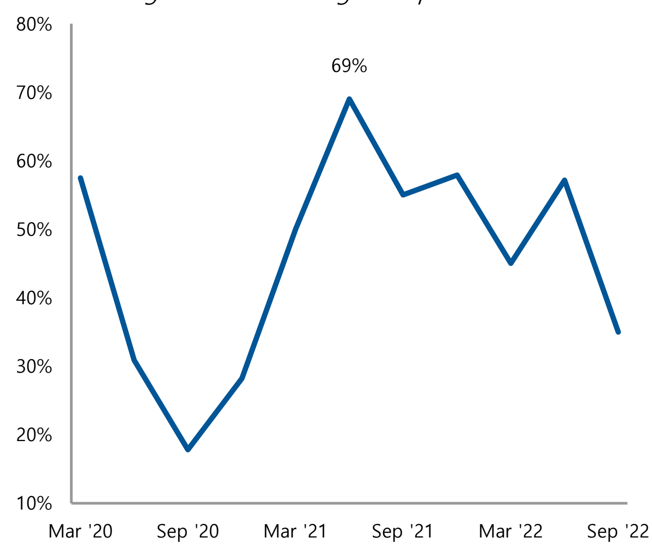
Annualized Middle Market Default Rates



Source: Proskauer. Data as of 9/30/2022.

Annualized direct lending default rates remained muted, but defaults in the core middle market have begun to increase.

First-Lien Lender Leverage Tolerance
Lenders Willing to Lend at Leverage Multiples >6x EBITDA



Source: Refinitiv. Data as of 9/30/2022.

The percentage of first-lien lenders willing to lend at leverage multiples greater than 6x EBITDA dropped from 57% to 35% in Q3 2022, the lowest level since Q4 2020's 28%.

Trevor Clark
Portfolio Manager

For more information on Middle Market Direct Lending, click here.

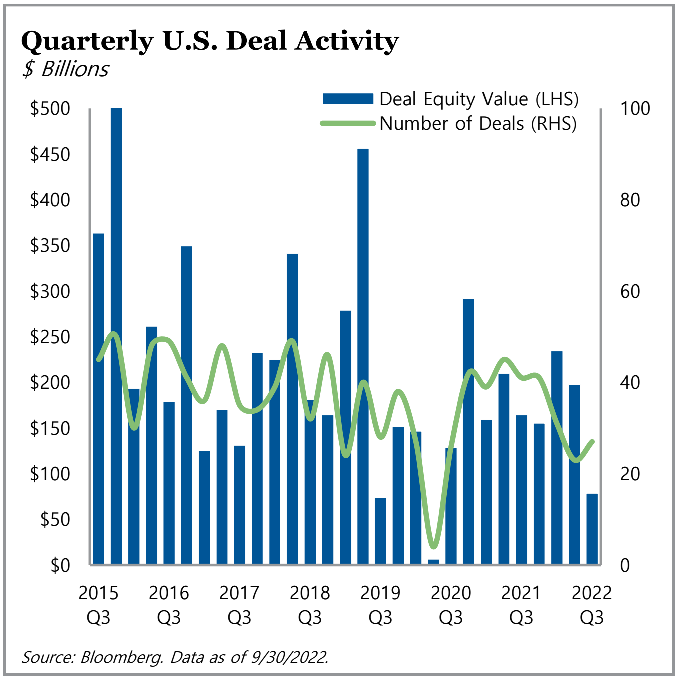
Merger Arbitrage

Announced M&A transaction value declined 60% quarter-over-quarter and registered its lowest quarterly level since the second quarter of 2020. The steep drop in volumes—despite the number of deals announced being up slightly—was due to fewer large-scale transactions being announced. Rising interest rates and growing recessionary concerns caused Wall Street banks and potential acquirers to shun larger deals. At quarter-end, the deal universe saw the average adjusted annualized spread widen 150 basis points to 17%. Aggregate deal value declined by $25 billion, as deal closings were not adequately replaced by newly announced deals; however, the total arbitrage profit pool swelled to $63.2 billion.

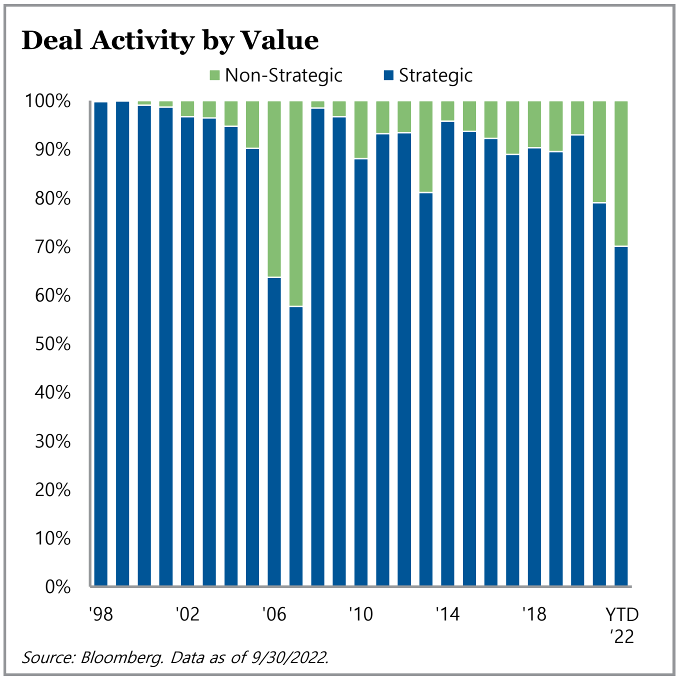
In the third quarter, we saw a departure from the recent trend of large deals powering M&A activity. Not a single deal announced was larger than $10 billion of market capitalization, and the average deal size fell to a three-year low. One area of strength for strategic M&A was in healthcare, which accounted for four of the top ten deals in the quarter. While financial sponsor activity slowed in the quarter, they continued to represent a larger percentage of total deals compared to historical averages and were responsible for the two largest deals of the quarter. A consortium led by GIC announced the acquisition of STORE Capital for $9.2 billion of market capitalization, and Vista Equity Partners announced its purchase of Avalara for $8.8 billion of market capitalization.

Arbitrage spreads tightened along with the rise in the broader market between July and mid-August. That market rally was subsequently erased, as the Fed continued to deliver a hawkish message. As credit markets weakened and banks began struggling to syndicate LBO debt financings they had committed to months earlier, arbitrage spreads also widened. Digging into intra-quarter trading activity, some deals that had a greater than 10% gross spread at the end of the second quarter closed, headlined by Ericsson's acquisition of Vonage Holdings Corp. Additionally, the Department of Justice (DOJ) and Federal Trade Commission (FTC) both lost a few antitrust cases they had filed to block deals. The most watched case was Change Healthcare/UnitedHealth Group versus the DOJ, which concluded with the DOJ losing its vertical theory of harm case. In the past, court losses have resulted in pivots by the antitrust agencies; however, given recent statements from the head of each agency, we believe arbitrage investors are not anticipating a pivot in the near term.

Although uncertainty about near-term deal activity persists as banks regroup from recent failed and deeply discounted debt syndications, we believe private equity dry powder will continue to be a tailwind. Direct lenders have continued to be important financing partners for private equity, and their ability to attract assets has matched that of PE sponsors. In the short term, we expect arbitrage investors will be intently focused on the current deal universe, which offers a potential 13% market-cap-weighted gross return.



The absence of mega-cap deals led to a steep drop in M&A volume despite a small uptick in the number of deals announced compared to last quarter.



Through the third quarter, financial sponsors accounted for the largest percentage of total deal volume since 2007.

Mark Wojtusiak
Head of Merger Arbitrage

For more information on Merger Arbitrage, click here.

Convertible Arbitrage

Elevated levels of uncertainty and corresponding episodes of extreme volatility continued to dominate markets during the third quarter. Hawkish central banks trying to balance inflation and recession risks, combined with unabated geopolitical pressures and their impact on energy supply, allowed little time for respite. Declines were broad-based across equities, sovereign bonds, credit, and commodities. Global equities suffered a third consecutive quarterly loss, with the MSCI World Index falling 4.82% in local currency terms. Convertible bonds dropped by a more moderate 0.379% on an outright basis, as steep first half losses left the overall universe with reduced equity sensitivity. Hedged convertible strategies remained under pressure, with the HFRX Relative Value Fixed Income Convertible Arbitrage Index returning -1.5% during the third quarter.

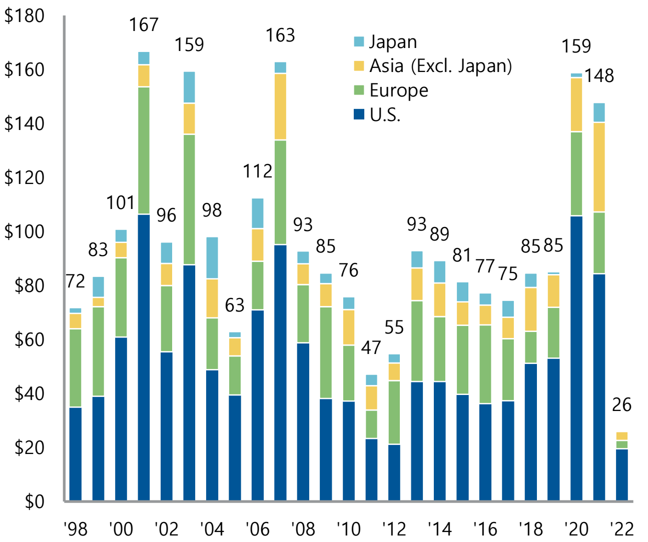
The primary market for convertibles, while still depressed in a historic context, recovered somewhat from a very slow first half of the year. A total of $14.8 billion of new deals came to market during the third quarter. The U.S. was the strongest region, representing $11.2 billion of new issuance, followed by $1.9 billion out of Europe and $1.7 billion out of Asia. These new deals generally performed well, as demand for balanced convertibles has held up.

The global SPAC market only saw sporadic new issuance during the third quarter. New deal volume amounted to less than $1 billion, with almost half of it attributable to Asia.

Primary activity in the U.S. and in Europe remained muted, as finding targets and closing mergers continued to be challenging. A new excise tax on buybacks that may apply to SPAC redemptions created additional headwinds for U.S. SPAC issuers. In this context, a new trend of sponsors seeking early liquidations has taken hold, benefitting yield-focused investors.

Annual Convertible Issuance by Region

$ Billions

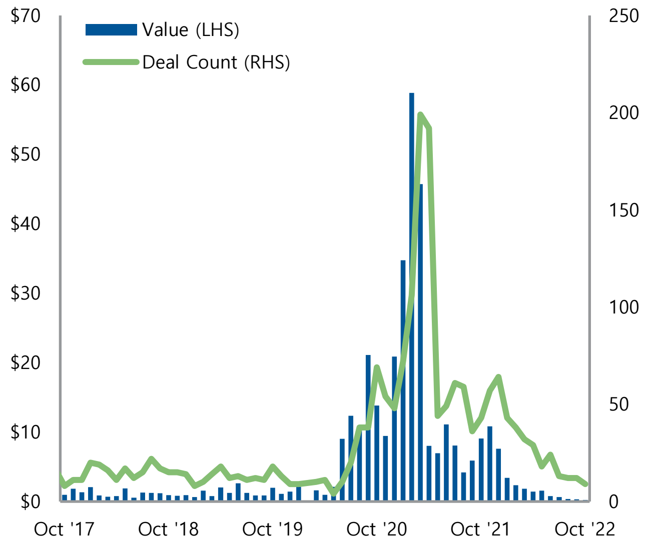


Source: Bank of America Merrill Lynch. Data as of 9/30/2022.

Global convertible primary activity has remained significantly below historic levels.

Global SPAC Deal Activity

$ Billions



Source: Bloomberg. Data as of 10/19/2022.

SPAC issuance was negligible in the third quarter.

Gary Wolf
Head of Convertible Arbitrage

For more information on Convertible Arbitrage, click here.

U.S. Real Estate

During the third quarter, commercial property transaction volume fell 21% year-over-year, driven by spiking interest rates, continued inflationary pressures, and weak consumer sentiment. Lenders and buyers have been playing catch-up to rapidly deteriorating debt markets and prospective economic conditions. Sellers have been forced to adjust accordingly, and many are pulling back offerings where a sale is not necessary. While direct real estate property pricing indices don't yet universally reflect declining values, debt financing is becoming scarcer, and surging borrowing costs suggest a repricing of real estate is underway. With markets seizing up, Angelo Gordon has begun to observe a need for rescue capital and gap equity, as well as the first handful of what we expect will be many stressed and distressed sales. Cross-border investment volume in the U.S. dipped to 5% of total first half 2022 acquisition activity, and with the rise in the U.S. dollar, this trend will likely continue.

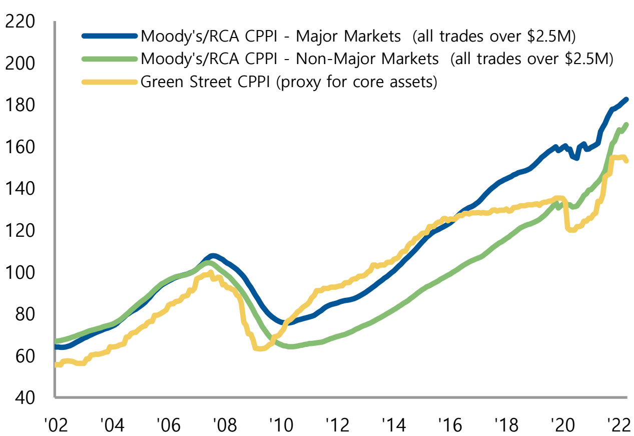
Economic growth is slowing as consumer balance sheets weaken and softening business confidence leads to hiring freezes and layoffs. The Fed's efforts to aggressively tamp down inflation and create labor force slack have shown mild results thus far, likely due to the lagged effect of monetary policy. It is clear the Fed is staying the course, greatly increasing the risk of a recession, as evidenced by the inverted Treasury yield curve, declining PMIs, and cooling commodity prices. With residential mortgage rates surging higher, the NAR's Housing Affordability Index hit its lowest level in over 30 years, with properties becoming even less affordable than during the 2006 housing bubble.

Deteriorating fundamentals, spiking borrowing costs, and contracting transactional evidence are challenging the precision of spot real estate value estimates. The Green Street Commercial Property Price Index ended September down 6% from its March high, after increasing 24% in 2021. U.S. REIT shares have plunged, ending September down 28.1% year-to-date. Public company valuations varied by property type; traditional property types—including apartments, industrial, office, and shopping centers—have been trading at a 31% equal-weighted discount to NAV on average, implying further declines for private market property valuations. Green Street Advisors' model, which tracks the relative value relationship between private real estate and fixed income (investment grade and high yield), pegged real estate as 20-25% overvalued.

Despite a challenging macroeconomic and financial backdrop, U.S. real estate fundamentals for most property types are entering this environment on relatively strong footing. While there are certain areas of elevated supply, there is no evidence of broad oversupply. Real estate has also shown its ability to benefit from inflation, as many property types with pricing power have increased rents alongside rising inflation. Additionally, inflationary construction costs should regulate new supply going forward, as many new developments become uneconomic.

Commercial Real Estate Price Indices

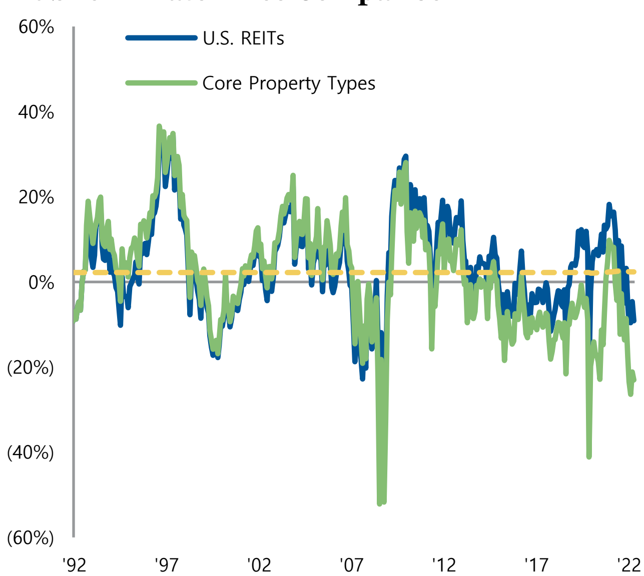
Index



Note: For this chart, Green Street CPPI was indexed to 100 at its 2007 peak (Aug 2007) and Moody's CPPI was indexed at 100 in Dec 2006. Major markets include Boston, Chicago, Washington D.C. Metro, Los Angeles Metro, New York City Metro, and San Francisco Metro.
Sources: Moody's CPPI = Moody's/RCA All Property Types; Green Street CPPI = Major Sectors; Moody's – Commercial Property Price Index (Moody's CPPI). All data as of 9/30/2022.

Key indicators imply that private real estate pricing is declining.

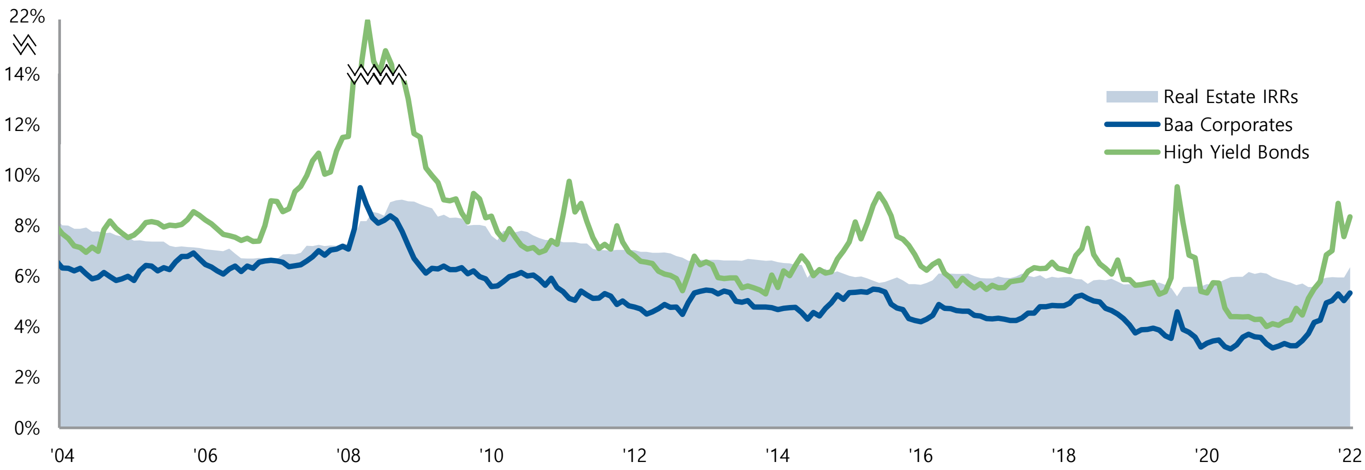
Public-Private Price Comparison



Note: Core Property Types include Office, Retail, Apartment, and Industrial.
Source: Green Street Advisors. Data as of 9/30/2022.

Public company valuations vary by property type but, on average, imply private market property valuations are overvalued and expected to experience further declines.

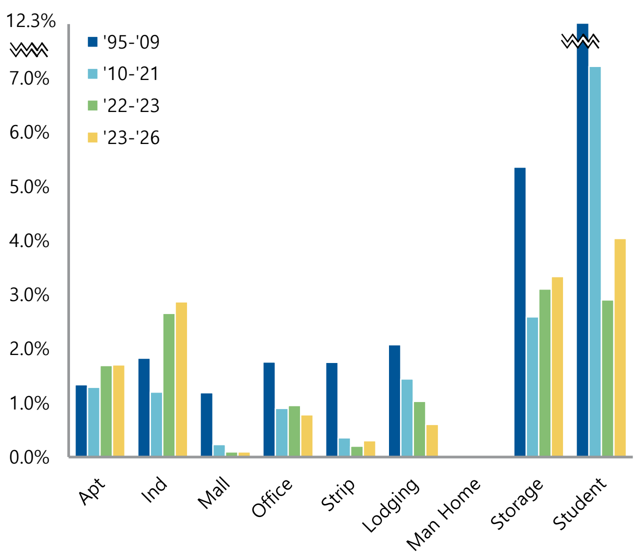
Unlevered Total Return Expectations on Real Estate vs. Corporate Bond Yields



Note: Real Estate IRRs is an equal-weighted average of the asset-weighted averages for the five major property sectors (apartment, industrial, mall, office, and strip center).
Sources: Green Street Advisors (October '20), Moody's (Baa Corporates), BAML (High Yield Bonds). Data as of 9/30/2022.

Unlevered real estate has historically offered a return between investment grade and high yield bonds. Real estate is currently overvalued relative to bond yields.

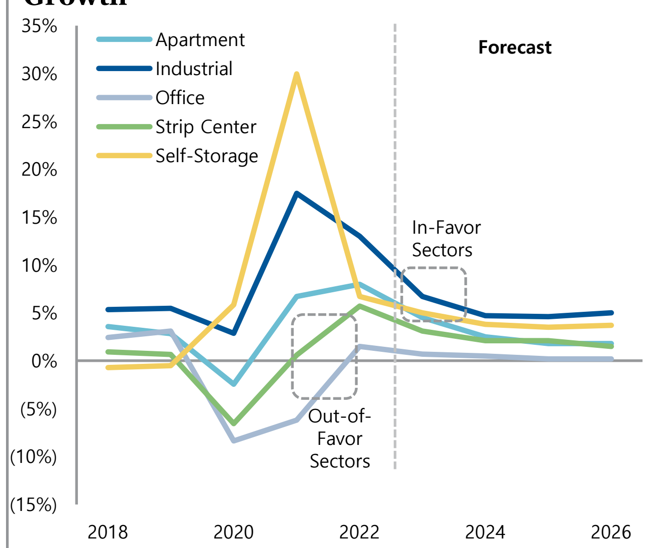
Supply by Sector



Note: Estimates are not shown because impact has not been quantified.
Source: Green Street Advisors. Data as of 6/30/2022.

New deliveries are waning for property types facing challenges, while apartments, industrial, and alternative sectors are experiencing elevated and rising supply.

Market RevPAF Growth: Occupancy & Rent Growth



Source: Green Street Advisors. Data as of 9/30/2022.

Multifamily, industrial, and alternative sectors have exhibited moderating revenue growth, while office and retail remain on a slow growth trajectory.

Reid Liffmann
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Head of U.S. Real Estate

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Europe Real Estate

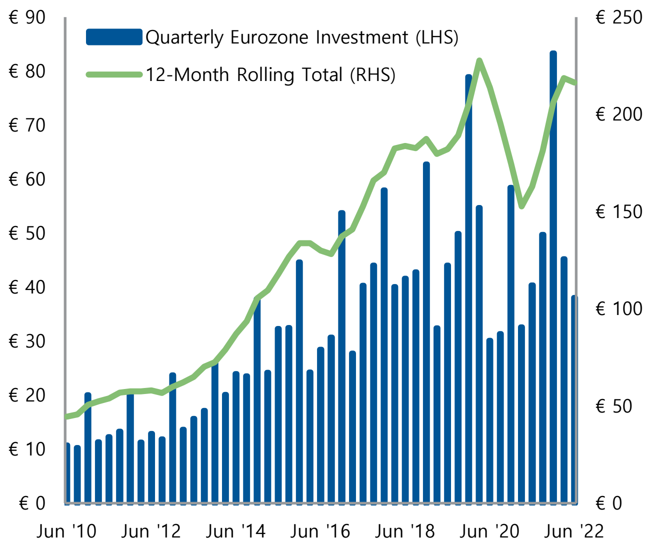
Like the U.S., Europe has been grappling with rising inflation and its repercussions. The Ukraine-Russia conflict and Russian reductions of natural gas have had a predictably extreme impact on energy prices. Since the conflict began, natural gas costs have increased 10- to 15-fold. As an input price to almost any economic transaction, the spike in energy prices, along with supply chain bottlenecks, has led to European inflation levels not seen in decades. Headline inflation rates range from just over 6% in France to more than 17% in the Netherlands. The European Central Bank (ECB) has continued trying to tame inflation by rapidly raising interest rates, as evidenced by a hike of 75 basis points in September. In the face of these policy measures, households will see dramatically reduced disposable income, corporates will face pressure, and even sovereigns will struggle to contain bond yields. All signs point to a recession, and given the inherent inefficiency of European economies, a recovery is likely to be muted and slow.

As a result of increasing base rate expectations, interest rate hedging has become extremely expensive, pushing total commercial real estate borrowing costs to double or even triple from early 2022 levels. This cost increase has led to declines in the prices of publicly listed real estate companies. In private markets, transactions virtually stopped after the summer. Volatility in currency markets has led to central bank interventions, and going forward, we expect there will be many unintended consequences, leading to forced sellers.

Backward-looking data has not yet reflected these recent movements, but it is not surprising that real estate investment activity has slowed throughout the year. In the second quarter, eurozone investment volume totaled €37 billion, representing a 7% decrease year-over-year and 5% lower than the five-year second quarter average. France, Germany, and Spain all saw notable drops in transaction volume, while Italy and the Netherlands had modest investment growth during the quarter on a year-over-year basis. Prime office rents hit their highest level since the pandemic began, reaching 4.8% growth year-over-year in the second quarter. However, we believe a looming recession and upcoming increases to office supply will likely push rental growth back down late this year and into 2023.

In the UK, the government has introduced an energy support package that will curb inflation, likely causing it to peak around 11% later this year. This package requires an increase in government borrowing and therefore inflation, so the Bank of England will probably raise rates again this year. After a strong first half of the year, UK real estate transactions reached a mere £2 billion in July, representing the weakest month since August 2020. Central London office take-up reached only 630,000 square feet in August, less than the monthly average of approximately 1 million square feet. However, several of the largest deals were for brand new office space in prime locations, suggesting occupier demand for high-quality space is still strong.

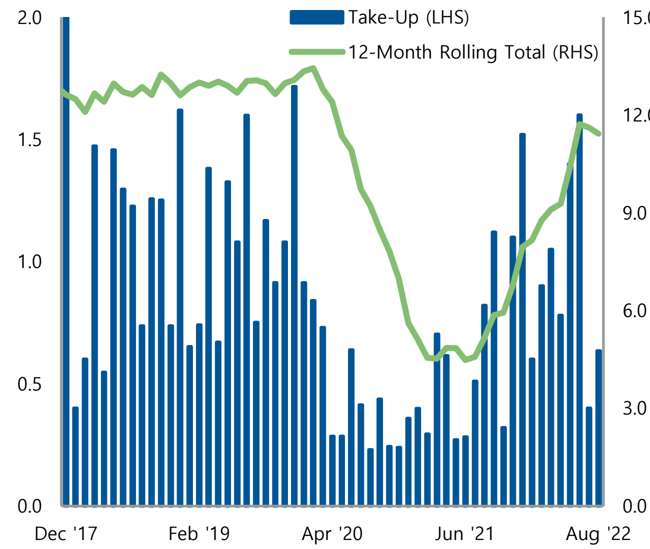
Quarterly Eurozone Investment
€ Billions



Source: Capital Economics. Data as of 6/30/2022.

Rising economic concerns have led to decreased investment activity in the eurozone.

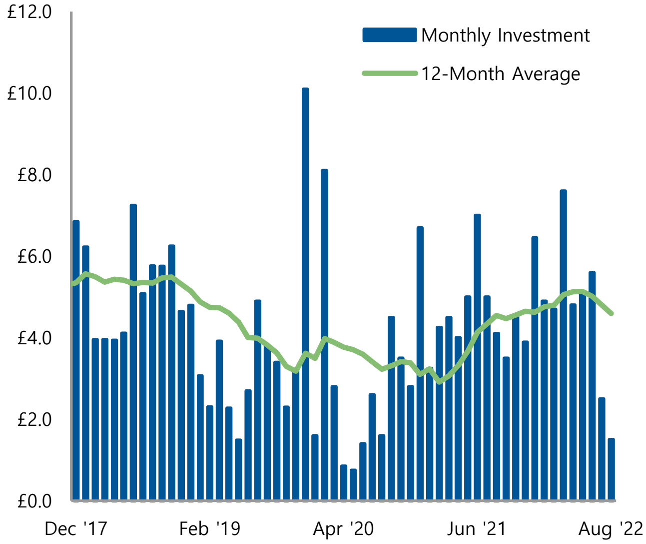
Central London Office Take-Up
Square Feet (Millions)



Source: Capital Economics. Data as of 8/31/2022.

Office leasing slowed in the second half of 2022, but tenants continue to demand prime space.

UK Investment Volume
GBP Billions



Source: Capital Economics. Data as of 8/31/2022.

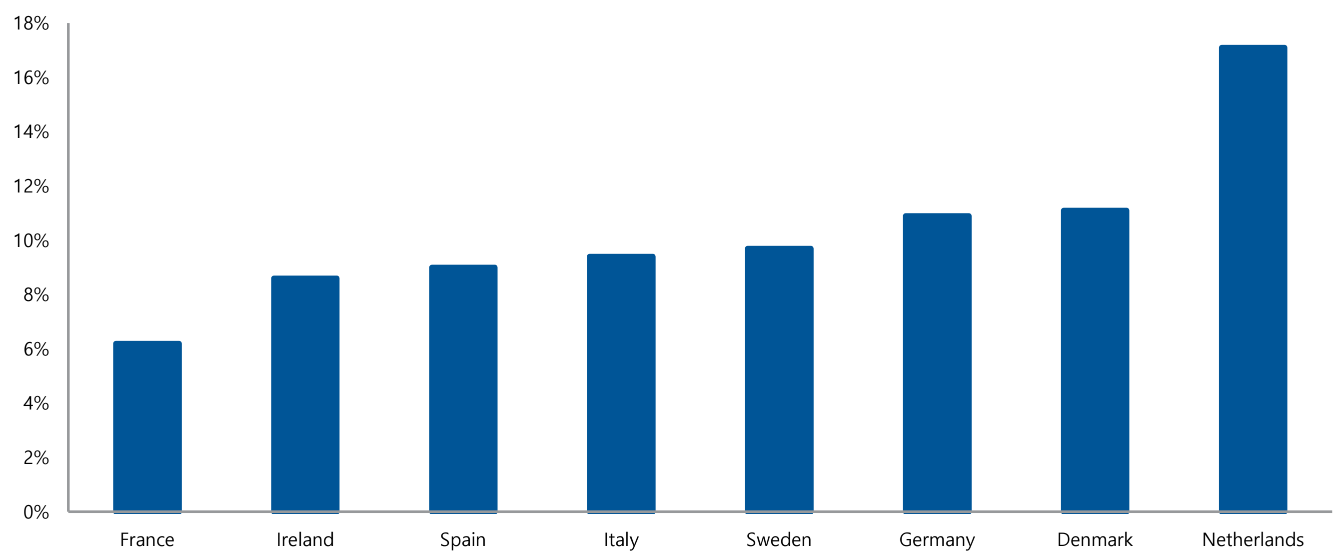
Political and economic uncertainty have caused investment activity in the UK to slow in 2022.

5-Year SONIA Swap Rates

Source: IRMS. Data as of 10/18/2022.

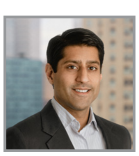
Ongoing base rate increases have led to a significant jump in debt costs for real estate owners.

Headline Inflation by Country



Source: Capital Economics. Data as of 9/30/2022.

Inflation levels remained high as of Q3 2022 but varied across countries.



Anuj Mittal
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Head of Europe Real Estate

Tom Rowley
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Europe Real Estate

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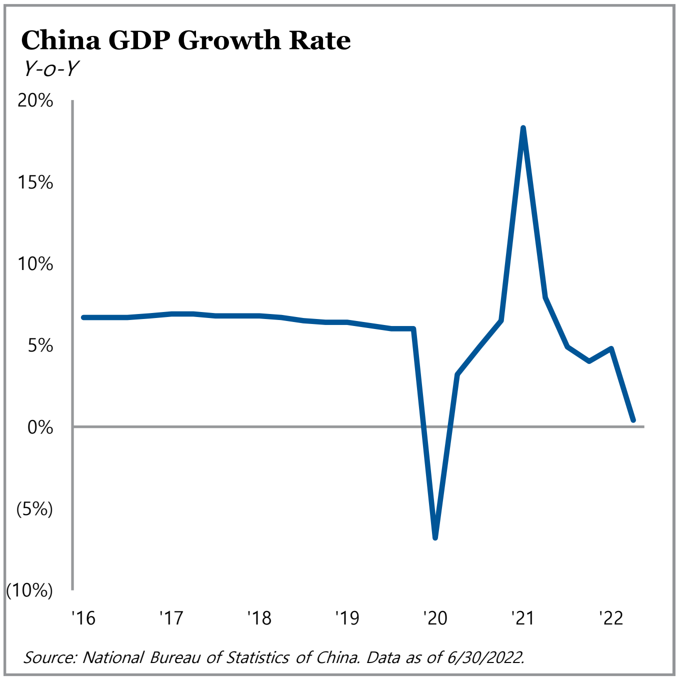
Asia Real Estate: China

China's economy remained sluggish, as the zero-COVID-19 policy impacted all sectors. The economy grew 0.4% year-over-year in the second quarter of 2022, marking the lowest growth rate since China's economy shrank 6.8% in the first quarter of 2020. The slower pace of expansion in the second quarter of 2022, as compared to the 4.8% year-over-year growth recorded in the first quarter, can be attributed to the government lockdown measures implemented in April and May. In the first half of 2022, exports increased 13.2% year-over-year, while value-added industrial output rose by 3.4%. Domestic retail sales decreased only 0.3% in the first half of 2022, but online retail sales increased 3.1%. China remains highly focused on further developing its advanced manufacturing sector, particularly industries such as life sciences, integrated circuitry, and new energy. While total fixed-asset investment activity only grew 6.1% year-over-year, fixed-asset investment in high-tech industries grew 20.2% year-over-year in the first half of 2022.

In Beijing, we observed stagnant office leasing demand, mainly driven by the large-scale lockdowns covering key office submarkets. No new supply was delivered in the second quarter. Net absorption was roughly 47,000 square meters, declining approximately 66% from the quarterly net absorption recorded in the first quarter, as stringent COVID-19 policies erased expansionary and relocation demand. Domestic companies accounted for nearly 75% of the leasing demand. Overall, Grade A office rents were largely flat in the second quarter. With no new completions, the office market's overall vacancy rate declined for the sixth consecutive quarter, sliding from 10.2% to 9.8%—the lowest vacancy level recorded in the last eleven quarters. In the Zhongguancun submarket of Beijing, known as China's Silicon Valley, rents remained unchanged and vacancy stood at 2.1%, the lowest level in the city.

Industrial and logistics leasing slowed in the first half of the year but remained resilient in the major submarkets. In Shanghai, industrial rents rose 3.6% year-over-year; meanwhile, vacancy increased 1.4 percentage points to 9.9% due to new supply and weak absorption during the lockdowns.

In terms of overall market activity, total commercial real estate transaction volume amounted to RMB 100 billion in the first half of 2022, a 35% decrease year-over-year. Business parks and logistics warehouses remained the most popular asset classes and are well-positioned to benefit from the structural upgrading of China's economy toward innovation-driven growth as well as the continued expansion of e-commerce and third-party logistics companies.



China's GDP growth continued to slow due to pandemic-related lockdowns.

Similar to other global currencies, CNY has weakened significantly against the U.S. dollar.

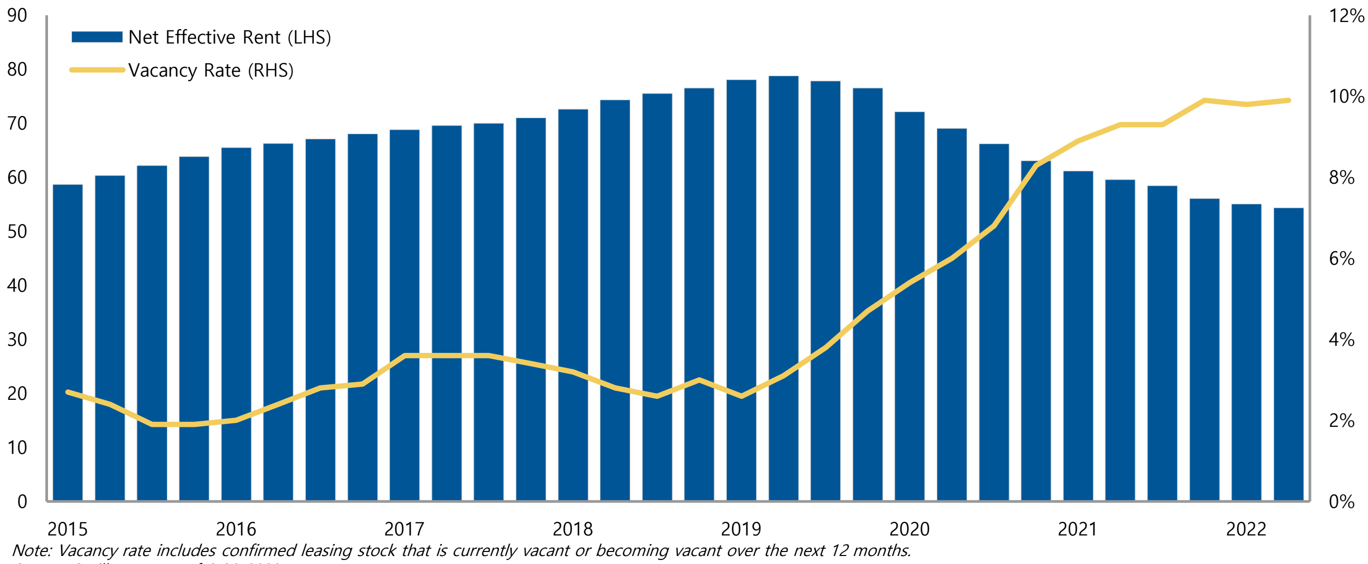
Asia Real Estate: Hong Kong

Relative to the first quarter, Hong Kong's economy improved in the second quarter of 2022, declining 1.3% year-over-year, as compared to the year-over-year contraction of 3.9% recorded in the first quarter. Domestic economic activities rebounded slightly, but the momentum softened in the latter part of the quarter. Externally, weakened global demand and continued cross-boundary transportation disruptions dragged heavily on export performance. Total exports of goods declined significantly in the second quarter, falling 8.6% year-over-year. Private consumption expenditure regained lost ground with marginal growth of 0.1%; this growth can be attributed to the generally improved local epidemic situation and relaxed social distancing mandates, as well as the government's various support measures. Additionally, unemployment fell from 5.0% in the first quarter to 4.7% in the second quarter.

After reaching a high in September 2021, residential prices retreated 3.7% year-over-year but increased 2.3% quarter-over-quarter in the second quarter. Industrial buildings remained keenly sought-after, with HK$7.0 billion worth of industrial assets changing hands in the second quarter, which was largely consistent with deal activity in the first quarter. Commercial real estate investment transaction volume rose 20% quarter-over-quarter to HK$16.3 billion, which can be attributed to several large deals that were completed this year. Investment demand in the second quarter was largely supported by Chinese capital, which accounted for 42% of the quarter's total transaction volume—the highest percentage recorded since the third quarter of 2018. As of June 2022, Hong Kong's office vacancy remained relatively unchanged at 9.9%, while rents fell by 1.9% in the second quarter.

Hong Kong Overall Grade A Office Vacancy Rate & Net Effective Rent

HK$ psf



Note: Vacancy rate includes confirmed leasing stock that is currently vacant or becoming vacant over the next 12 months.
Source: Savills. Data as of 6/30/2022.

Hong Kong's office vacancy edged up slightly to 9.9%, with rental levels remaining weak.

Asia Real Estate: Japan

The overall real estate investment landscape in Japan continues to be very favorable, particularly in comparison to other markets around the world. In the second quarter of 2022, Japan's real GDP increased 3.5% quarter-over-quarter. The lifting of pandemic-related restrictions in March boosted both consumer spending and capital expenditure. The Japanese labor market is healthy, with unemployment at only 2.6%. Despite global inflation trends, Japan's inflation rate remains low, at 2.2% as of June 2022. The Bank of Japan (BoJ) has continued to maintain its expansionary monetary policy; the base interest rate is below 10 basis points, and most analysts expect the BoJ will remain accommodative into the foreseeable future. We believe this is a uniquely positive environment for real estate investors in this market, as there is no looming interest rate hike cycle putting downward pressure on real estate values.

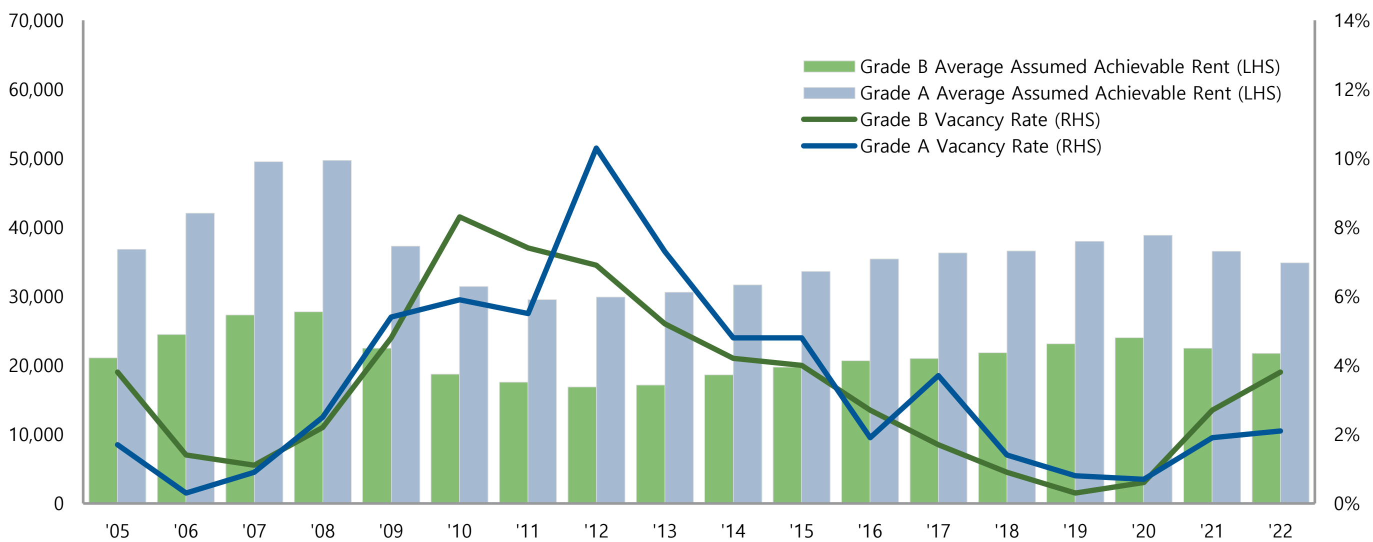
Japan's office fundamentals remain very healthy, with limited to no impact from work-from-home measures. Grade A vacancy rates rose slightly in the second quarter, increasing from 2.0% to 2.1% in Tokyo and 3.8% to 4.3% in Osaka. Grade B vacancy rates in Tokyo and Osaka remained flat at 3.8% and 3.6%, respectively. We have continued to see strong demand from office tenants given the limited availability of vacant space in the marketplace.

The Japanese logistics market remained strong during the second quarter, with vacancy rates for multi-tenant facilities in Greater Tokyo falling from 4.7% to 4.4%. Demand from tenants was healthy due to the expansion of e-commerce companies and logistics players. Given that modern logistics facilities account for only 10% of all warehouses in Japan, this robust demand is expected to continue.

Turning to the capital market environment in Japan, we've observed strong liquidity, with real estate investment volume up 38% year-over-year as of the end of the second quarter. Many Japanese corporates are selling their non-core assets, and both domestic and foreign core buyers are active in the marketplace. Given the diverging interest rate cycles in Japan versus the U.S., we are seeing more foreign buyers take advantage of the 300-400 basis point annual currency gain and bidding aggressively on core assets. We expect more of these buyers to access core opportunities in the coming year. The lending market has also been very accommodative, with domestic banks continuing to lend aggressively and at competitive rates. In fact, many local banks expect lending volumes to grow through the balance of 2022.

Tokyo's 23 Wards Grade A & B Office Rent And Vacancy

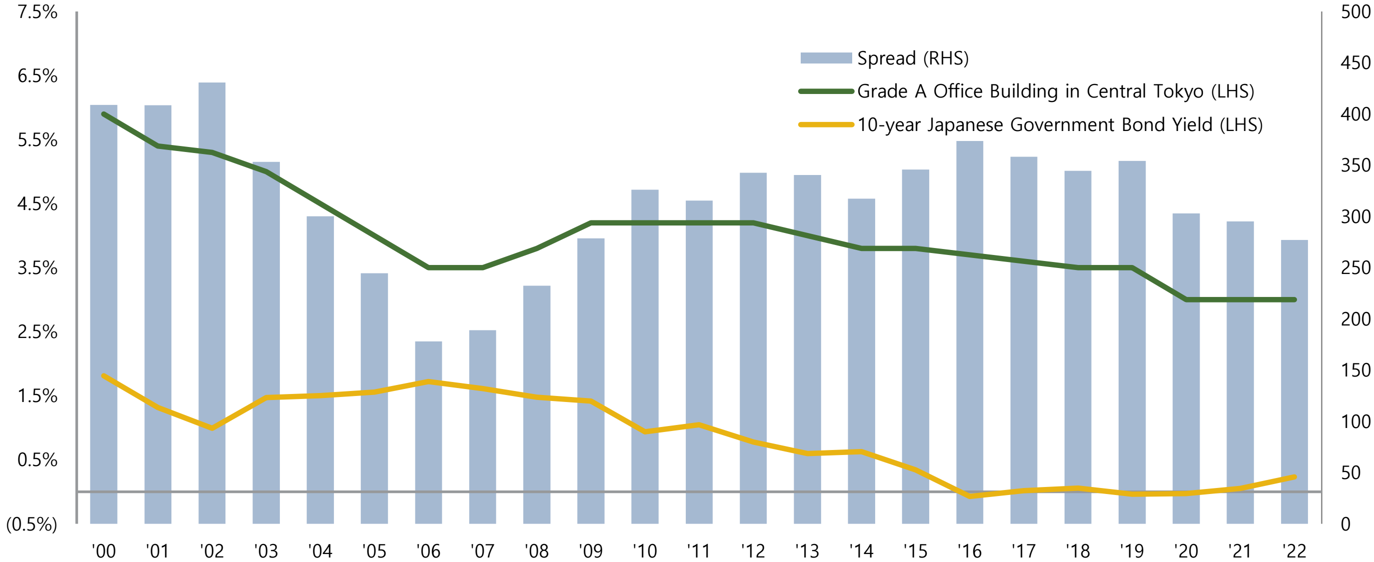
JPY/tsubo/mon



Note: One tsubo is equal to approximately 3.3 square meters.
Source: CBRE. Data as of 6/30/2022.

Tokyo's office fundamentals remained stable.

Tokyo Grade A Office Cap Rates vs. Borrowing Costs

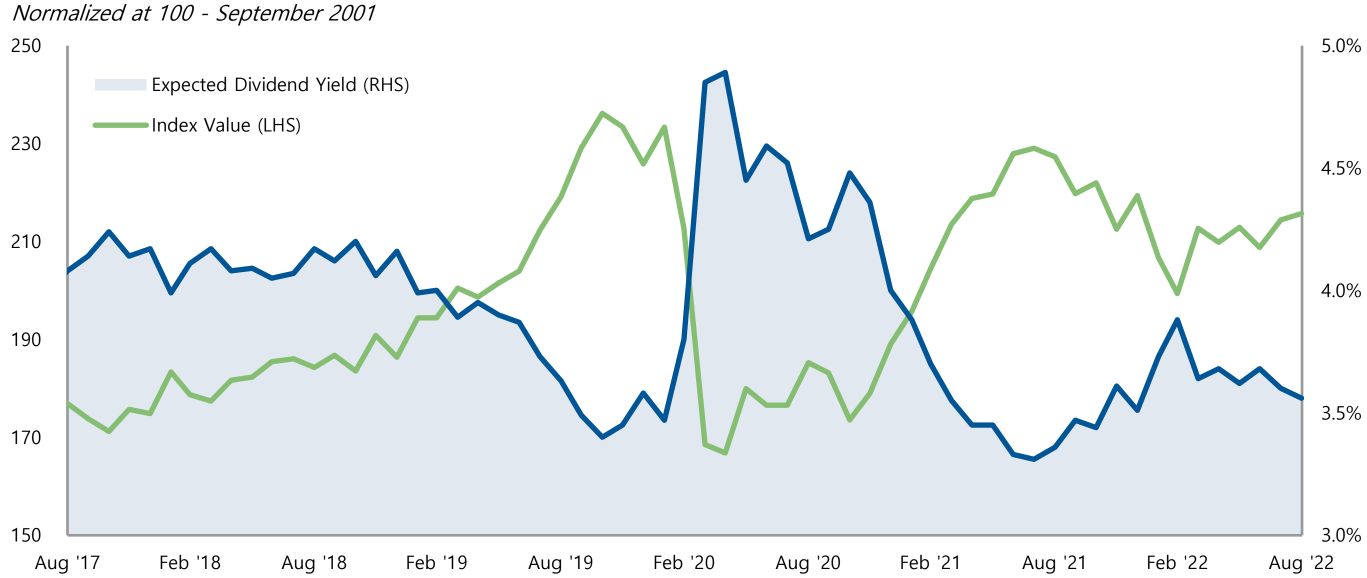


Source: Japan Real Estate Institute. Data as of 4/30/2022.

Despite global interest rate increases, interest rates in Japan remained low and, as a result, office cap rate spreads continued to remain wide.

Japanese Real Estate Investment Trust (J-REIT) Index And Dividend Yield

Normalized at 100 - September 2001



Source: Sumitomo Mitsui Trust Research Institute Co. Data as of 8/31/2022.

J-REIT yields tightened, as the J-REIT market has continued to perform.

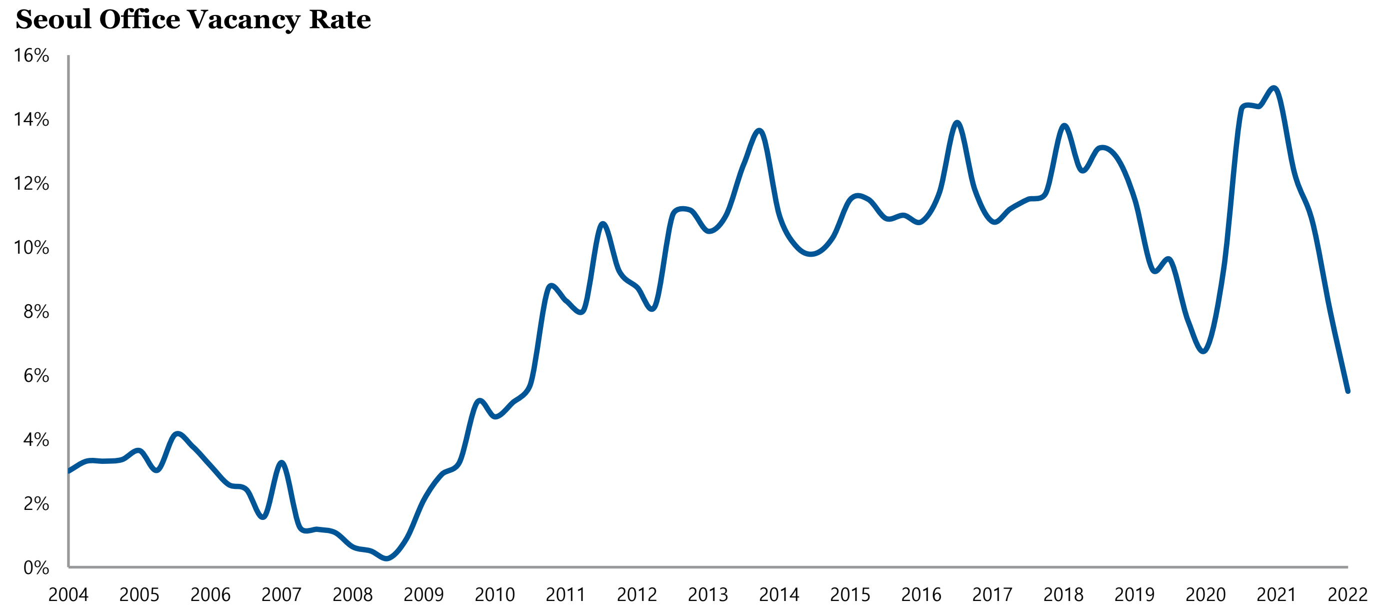
Asia Real Estate: South Korea

In South Korea, the Bank of Korea (BoK) is battling inflation, so we are seeing an interest rate hike cycle similar to those observed in the U.S. and Europe. In the second quarter, South Korea's GDP increased 2.9% year-over-year, mainly driven by increased domestic consumption and export activities, which have continued to recover from the pandemic. However, the global economic slowdown—driven by geopolitical risks and increasing interest rates—is expected to negatively impact the Korean economy. The BoK lowered its forecast for 2022 annual economic growth by 40 basis points, decreasing from 3.0% in the fourth quarter of 2021 to 2.6% in the second quarter of 2022. Additionally, Korea's inflation rate as of the end of June was 6.0%—the highest level since November 1997. To counter this inflation risk, the BoK raised base rates by 25 basis points in both April and May. The base rate reached 1.75% in May and will likely continue rising in lockstep with the U.S., as analysts expect the BoK's tightening monetary policy to continue and for the base rate to reach 2.75-3.0% by the end of 2022. This higher interest rate environment is putting significant pressure on landlords, and we are beginning to see some distressed owners look to sell assets in order to gain liquidity.

On the real estate front, office cap rates stood at 3.9% in the second quarter, remaining unchanged from the previous quarter despite the BoK's base rate increases. Spreads between prime office cap rates and Korean government bond yields (i.e., 5-year treasury bonds) tightened and ended the second quarter at 60 basis points. This is a significant contraction, as compared to the spread of 150 basis points recorded in the first quarter of 2022. This 90-basis point reduction in the spread can be attributed to higher treasury yields, as office cap rates remained unchanged.

Despite the spread compression, office fundamentals remained robust. Prime office vacancy in Seoul decreased to 4.9% at the end of the second quarter, down 2.2% from the prior quarter, with all major business districts indicating a decrease in vacancy, healthy office demand, and limited supply. Additionally, the average office rent for all business districts in Seoul increased 2.7% year-over-year due to the positive fundamentals. Investment activity remained robust at ₩6.7 trillion as of the end of the second quarter—49% of annual transaction activity in 2021, which was a record year with activity totalling ₩13.6 trillion.

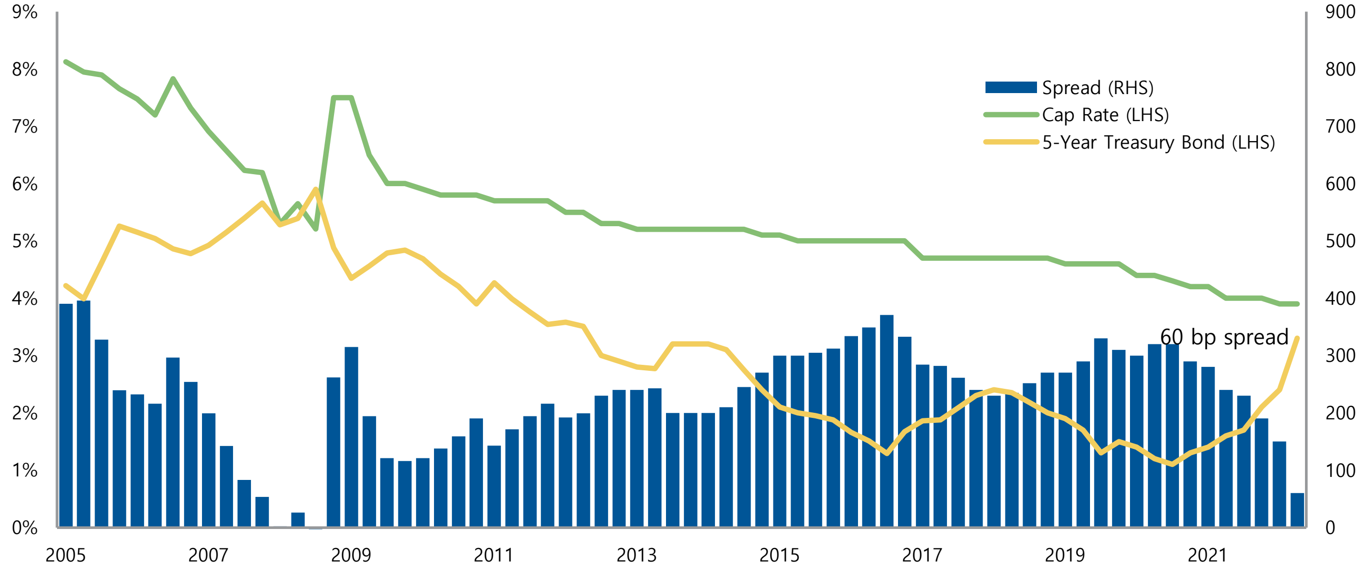
Market fundamentals in the logistics sector remained strong, with logistics vacancy in Greater Seoul at 3.6%. Most of the new supply that was delivered in the first half of 2022 has been quickly absorbed due to strong leasing demand. Investment activity also remained resilient, with transaction volume at ₩3 trillion as of the end of the second quarter—approximately 48% of the annual transaction volume in 2021, which totalled ₩6.3 trillion.



Source: Jones Lang Lasalle Research. Data as of 6/30/2022.

Strong tenant demand driven by IT companies continues to drive down office vacancy rates across the city.

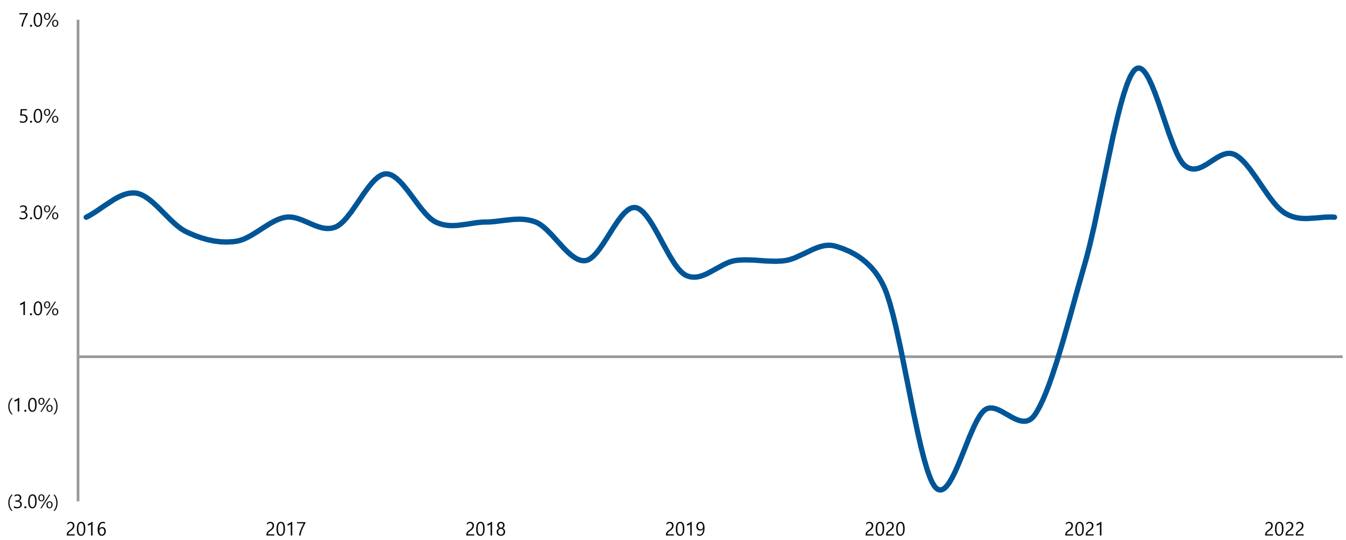
Seoul Prime Office Cap Rate and Spread Over 5-Year Treasury Yield



Note: 5-year Treasury is average for quarter.
Source: Savills Research. Data as of 6/30/2022.

Cap rate spreads tightened significantly as Treasury yields have moved in response to U.S. rate hikes.

Korea GDP Growth
Y-o-Y



Source: Bank of Korea. Data as of 6/30/2022.

The Korean economy has showed signs of recovery in 2022, though a slowdown is expected as interest rates rise in conjunction with U.S. rate hikes.

Wilson Leung
Co-Portfolio Manager
Head of Asia Real Estate

Steven Cha
Co-Portfolio Manager
Asia Real Estate

For more information on Asia Real Estate, click here.

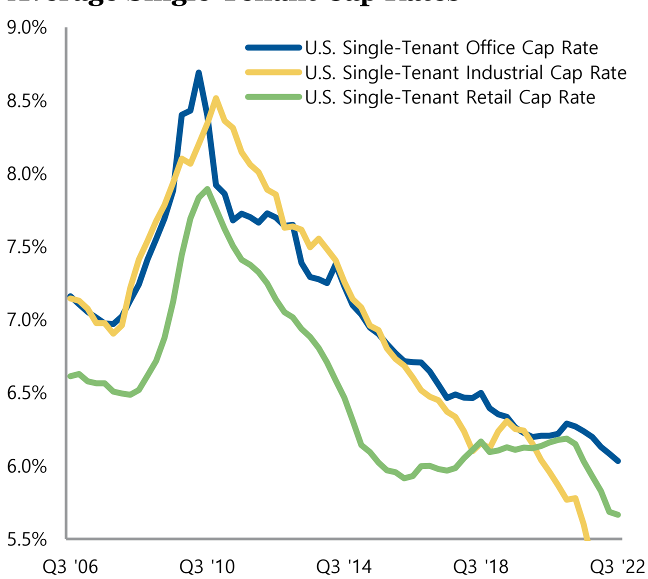
Net Lease Real Estate

As of the third quarter of 2022, the trailing 12-month U.S. single-tenant transaction volume totaled $97 billion, according to Real Capital Analytics (RCA). Volume fell 12% quarter-over-quarter in the third quarter of 2022, and this marks the second consecutive quarter of volume declines. The decrease in volume was most pronounced in office—down 16% quarter-over-quarter—followed by industrial and retail, which were down 11% and 6%, respectively.

Although less favorable market conditions may negatively impact sale-leaseback volume, this could be offset by the demand—or even need—for companies to raise capital during a time when liquidity is tight and the corporate debt markets are challenging.

Single-tenant cap rates have started to flatten out after a long period of compression. In the fourth quarter of 2022, we have started to see some reversal in cap rates and a return to longer-term averages of 6-7%, in contrast to the third quarter 2022 average of 5.6%. According to RCA, industrial cap rates averaged 5.10% in the third quarter of 2022, which is 56 basis points lower than retail cap rates and a nearly 100 basis points below office cap rates. While industrial real estate may have better fundamentals than office and retail, these tight cap rates are not immune to the current environment and faced some upward pressure following the end of the third quarter of 2022.

Average Single-Tenant Cap Rates

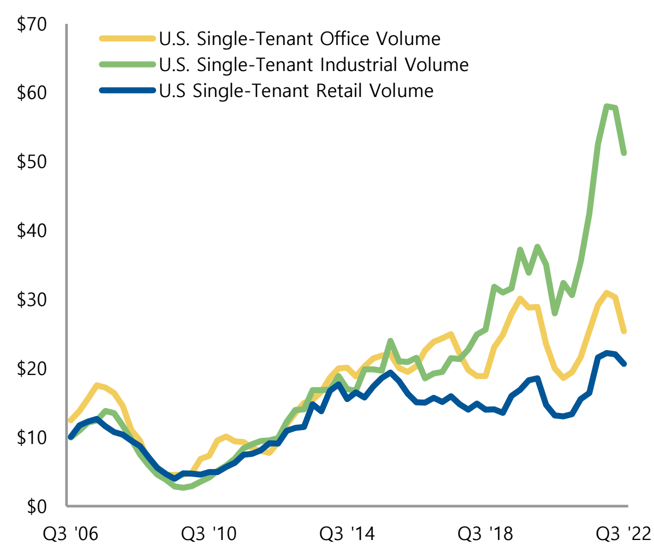


Source: Real Capital Analytics. Data as of 9/30/2022.

Following several years of compression, single-tenant cap rates have started to flatten or reverse.

12-Month Rolling Single-Tenant Deal Volume

$ Billions



Source: Real Capital Analytics. Data as of 9/30/2022.

Single-tenant volume fell for the second consecutive quarter.

Gordon Whiting
Portfolio Manager

For more information on Net Lease Real Estate, click here.

Private Equity

Private equity continued to experience weakness across a number of metrics during the third quarter of 2022. Our expectation is that the weakness will persist until there is greater economic and geopolitical stability.

Global deal volume in the first nine months of 2022 totaled $635 billion, down 34% year-over-year from $420 billion in 2021. Furthermore, North American deal volume in the first three quarters of 2022 declined 38% year-over-year. We expect both global and North American deal volumes will remain at lower levels than prior years given a number of factors, including the Russia-Ukraine war, economic concerns, higher interest rates, a volatile and depressed stock market, and financing challenges.

Dry powder at September 30th stood at a record $945 billion, a 4% increase from June 30th levels. The increase in dry powder is likely a result of lower deal activity. Average multiples paid in the first nine months of 2022 stood at 11.9x, which is lower than the 12.1x multiple reported for the first half of 2022. From a historical perspective, these multiples remain high. However, given tightening credit markets as well as recessionary and geopolitical concerns, we believe the downward shift in pricing for assets will continue and will be reflected in the quarters to come.

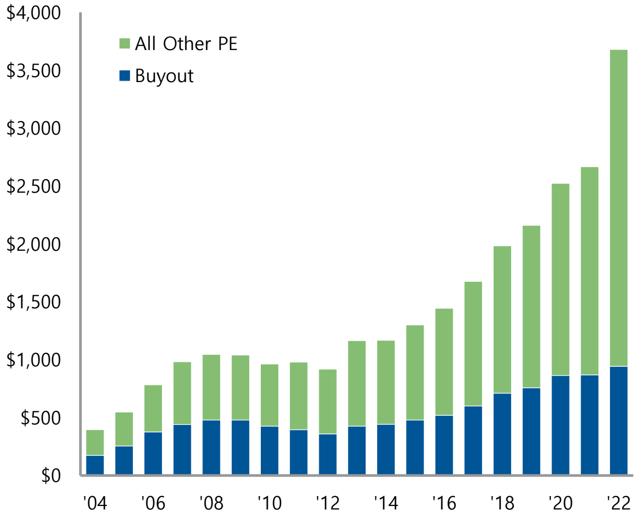
Average leverage for buyouts in the first nine months of 2022 was 6.1x multiple of EBITDA, which is consistent with prior years. Similar to our comments on transaction multiples, we have observed an increase in average loan spreads and a downward shift in the quantum of leverage being provided for buyouts. Debt providers, including traditional banks, have continued employing a more risk-off mentality. Finally, on a year-over-year basis, the number of exits and dollar volume in the first nine months of 2022 decreased nearly 40% and 50%, respectively, reflecting both the robust market conditions in 2021 and the bearish, cautious sentiment in 2022.

Given that the aforementioned challenges have continued to persist since early in 2022, we expect that barring a material change in a number of factors impacting the market environment—such as the trajectory of the Russia-Ukraine war, inflation fears, and Fed interest rate hikes—the next few quarters will continue to be difficult for the private equity industry.

In the first nine months of 2022, global and North American deal volume declined year-over-year—down 34% and 38%, respectively—reflecting the challenging market conditions.

Private Equity *(continued)*

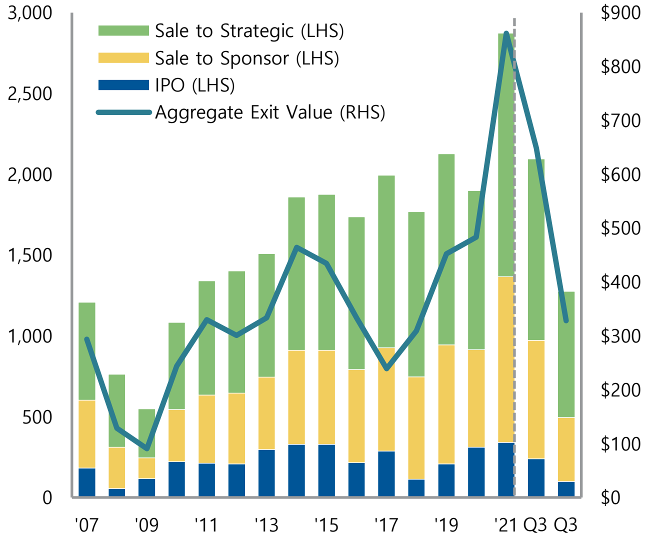
Global Private Equity Dry Powder
$ Billions



Note: All other PE Funds = Real Estate, Venture, Infrastructure, Growth, Distressed, Mezzanine, Other.
Source: Preqin. Data as of 10/18/2022.

Buyout dry powder at September 30, 2022 stood at $945 billion, an all-time high.

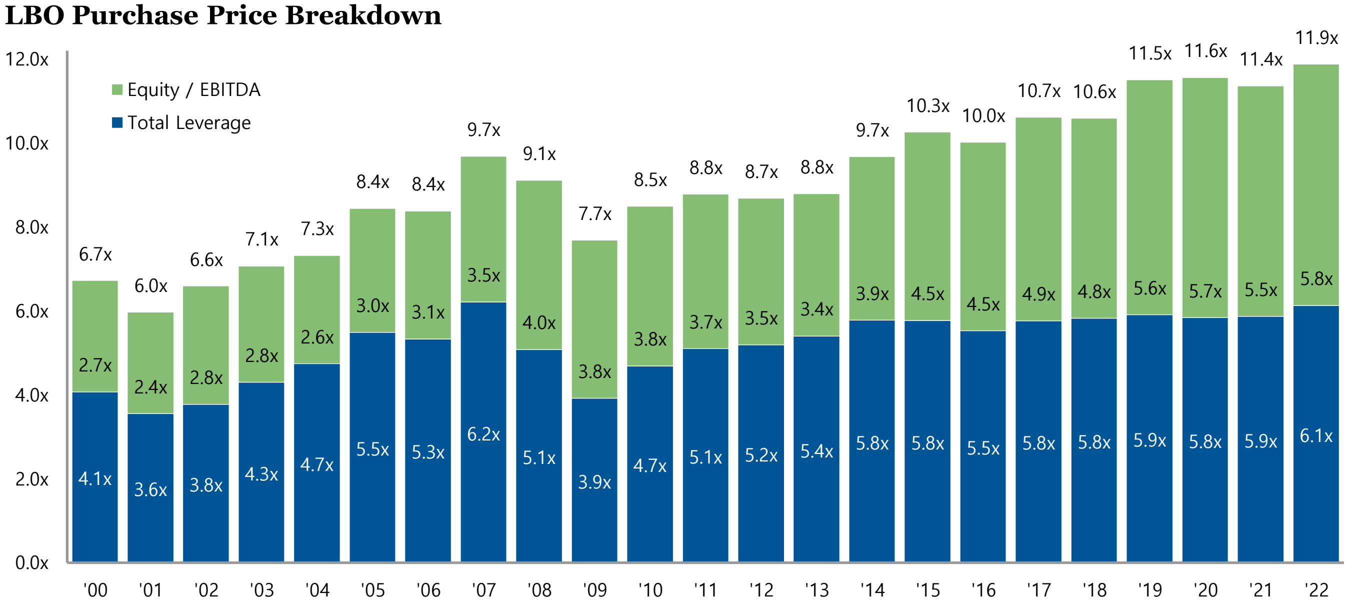
Private Equity Exits
Number of Exits *Value of Exits ($ Billions)*



Note: Sale to Sponsor includes management-led buyouts.
Source: Preqin. Data as of 9/30/2022.

The number of exits and dollar volume decreased on a year-over-year basis reflective of a bearish and cautious sentiment in the market.

LBO Purchase Price Breakdown



Source: S&P Capital IQ LCD. Data as of 9/30/2022.

LBO multiples while still elevated should continue its downward trend reflecting the challenging market conditions.

Art Peponis
Portfolio Manager

For more information on Private Equity, click here.

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