# 2023 Economic and Markets Outlook

Industrial / Residential Real Estate and Private Credit Weather the Downturn

JANUARY 2023

BLUEROCK™

# What We Do:

We serve a **Growing Market Need** for alternative investments for individuals

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We seek **Beneficial Coin Tosses**, i.e. asymmetric return/risk in favor of our investors

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We seek **Up Escalators**, i.e. growing markets with long-term structural tailwinds

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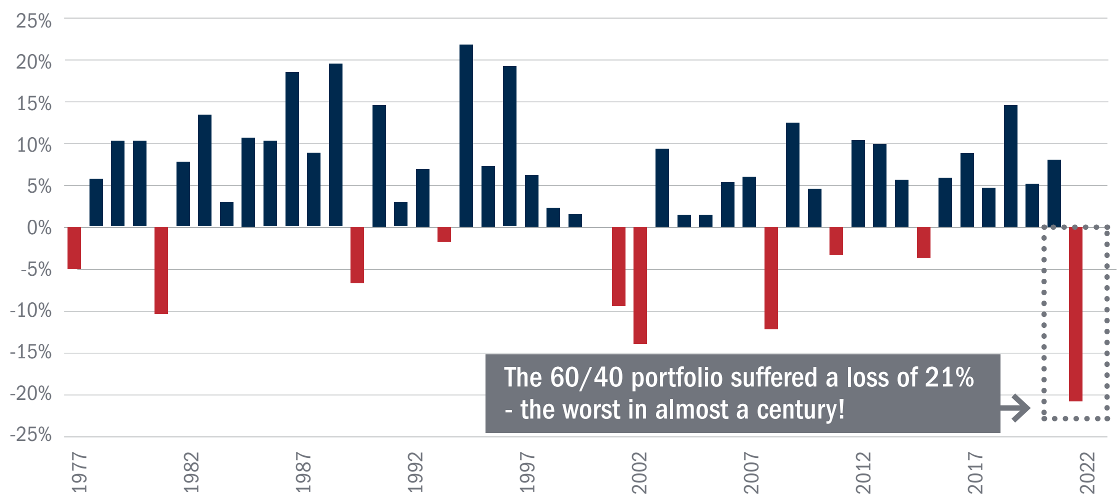
## Introduction

The 2022 economy posed many challenges for investors stemming from 40-year highs in inflation and aggressive Federal Reserve rate hikes. Stock and bond markets became significantly positively correlated, both declining sharply in response to rising rates.

Our 2022 Outlook proved prescient. We forecast bond and equity returns would be challenged by high valuations and increasing rates. In fact, both bond and equity markets suffered significant losses and 2022 was the worst performing year in almost a century for the conventional 60/40 stock/bond portfolio with a loss of 21%.

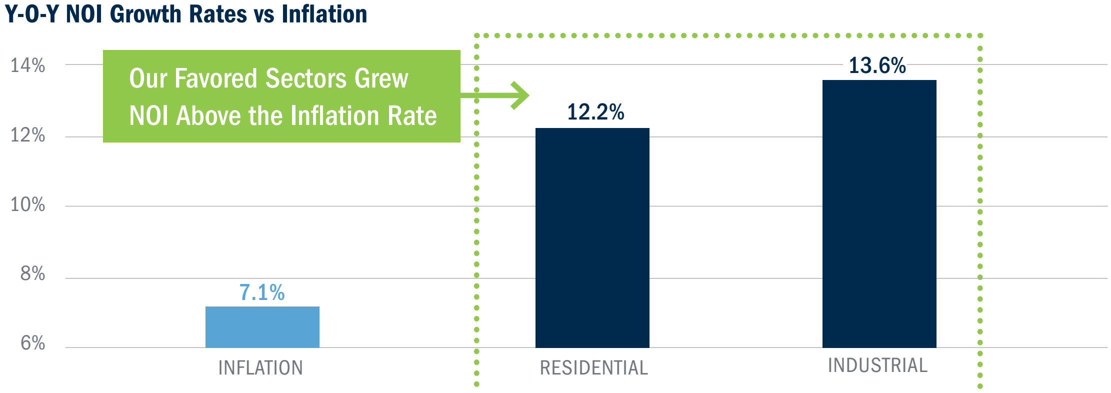
**Traditional 60/40 Portfolio YTD Returns**




*Source: Blackstone Investment Strategy and Bloomberg, as of 9/30/2022. Represents the total return of a hypothetical portfolio that is weighted 60% to the S&P 500 Index and 40% to the Bloomberg US Aggregate Bond Index.*

At the same time, we forecast that above trend inflation would drive private institutional real estate values higher given real estate rents have historically kept pace with inflation. Specifically, we favored the industrial and residential real estate sectors where rent growth and values soared in 2022.

**Y-O-Y NOI Growth Rates vs Inflation**




*Source: NCREIF, John Burns Real Estate Consulting, Residential comprises 50% NCREIF apartment and 50% John Burns Single Family Rental; Bureau of Labor Statistics, CPI, year over year through November, 2022.*

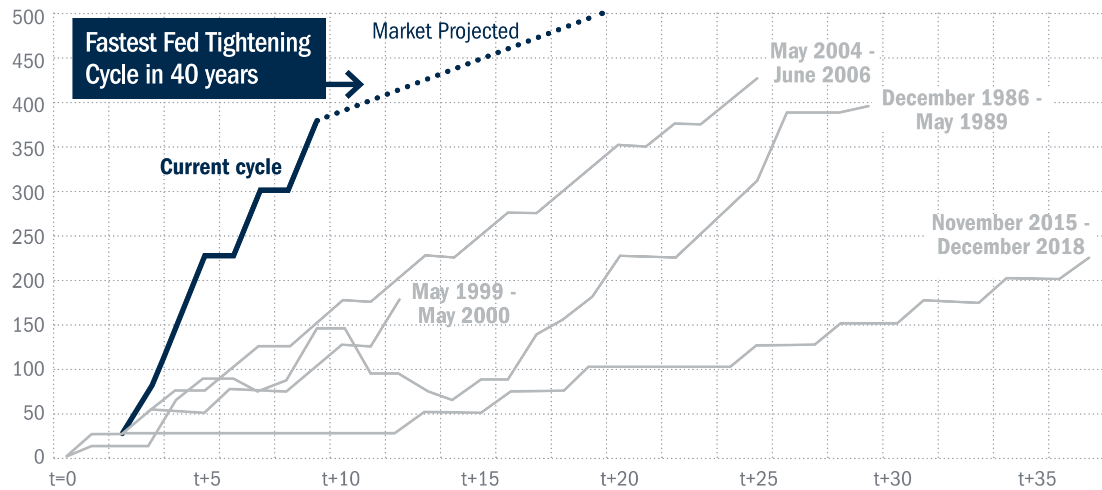
**We continue to believe, as evidenced in 2022, that non-correlated investment alternatives such as private real estate and private credit are a critical allocation in individual investor portfolios.**

## Macro Outlook

### The most aggressive start to a Fed tightening cycle over the last 40 years is likely to continue toward a 5% Federal Funds rate, likely prompting a mild recession.

There have been 14 post-war Fed Fund rate hiking cycles and 11 have led to recession. Given the speed and steepness of the 2022 rise, we anticipate a recession in 2023 may very well result from these series of rate hikes.

**United States: Cumulative Change in Federal Funds Rate Since First Hike**

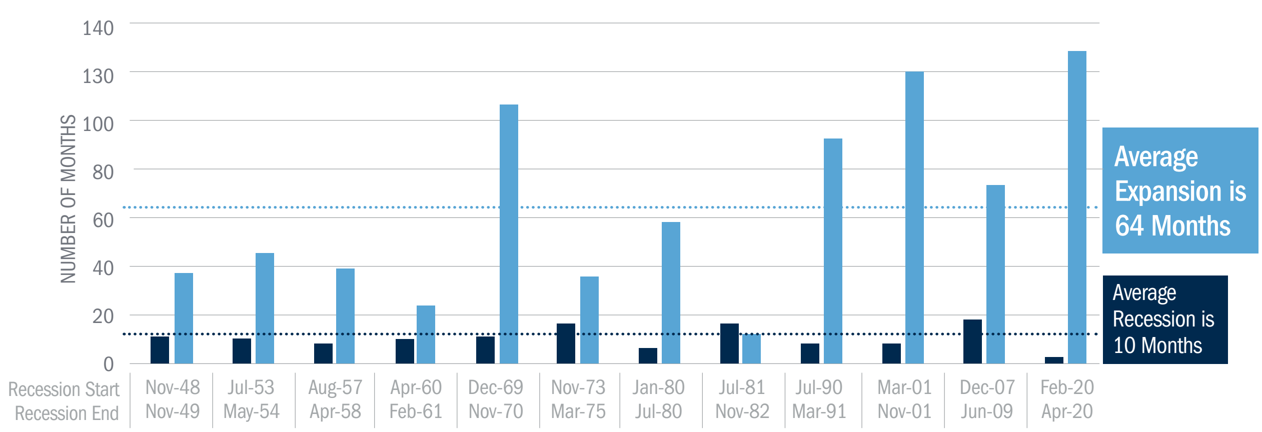



*Source: Haver Analytics, Rosenburg Research*

### Recessions historically tend to be brief, setting the stage for the next expansion

Recessions post WWII have averaged 10 months, while expansions have averaged 64 months. A recession sets the stage for a Fed pivot and lowering of interest rates, which in turn sets the stage for the next economic recovery and bull markets in private real estate and credit.

**Recession and Expansion Lengths**



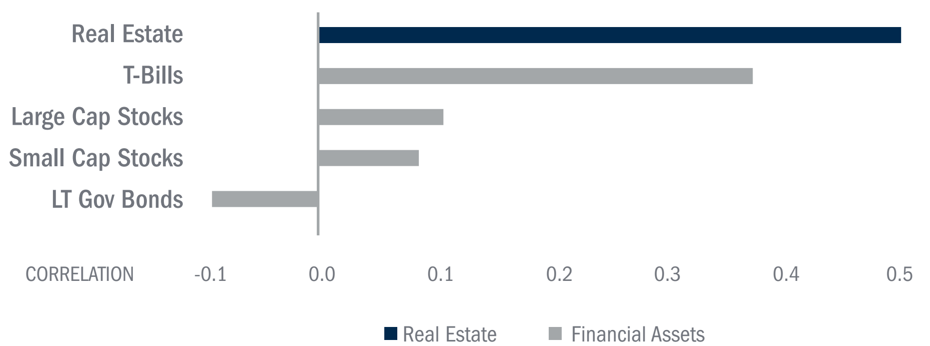

*Source: National Bureau of Economic Research*

# Institutional Real Estate Outlook

## Institutional real estate is better positioned than financial assets given the current inflationary environment

Real estate has a historically higher correlation to inflation than financial assets such as stocks and bonds. Higher inflation tends to drive higher rents as demonstrated in 2021-2022 while bonds' fixed incomes are negatively impacted by high inflation and long duration assets like stocks tend to lose value in inflationary environments.

**Financial and Real Asset Correlations with Inflation**



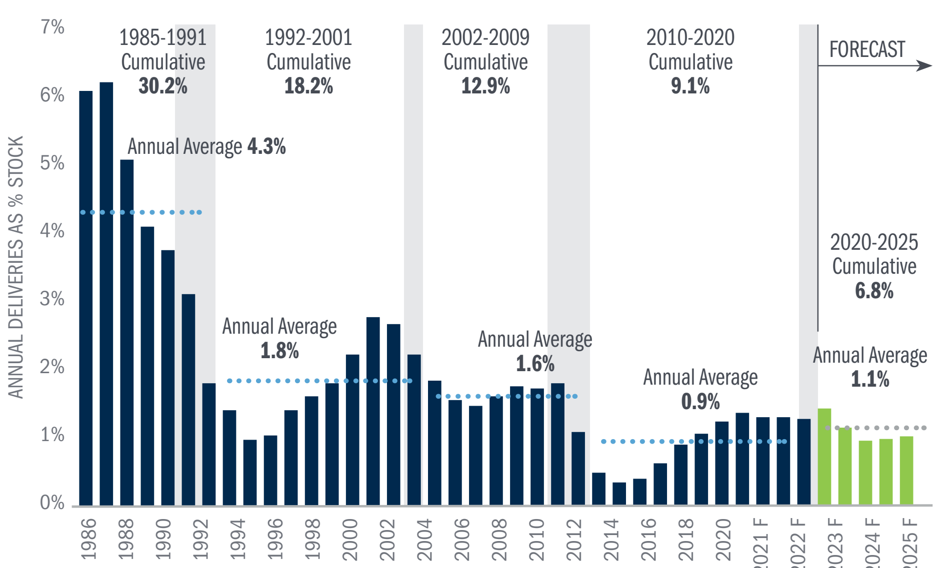

*Source: BofA Global Research*

- Real Estate has a high correlation with inflation vs. Stocks / Bonds, which means it has generally delivered higher returns in a high inflation environment.

## Constrained new real estate construction should contribute to higher revenue and values for existing assets

The last decade has seen the lowest amount of new space delivered as a percent of total inventory than any of the prior three decades. Disciplined new construction will help to keep occupancy rates and rent increases high, pushing values higher.

**Cumulative and Average New Supply (% of Stock)**




- Institutional real estate values are ultimately driven by underlying property net operating income which we believe will be strong particularly among our favored sectors. We project this rent growth benefit will outweigh negative impacts from capital market dislocations.

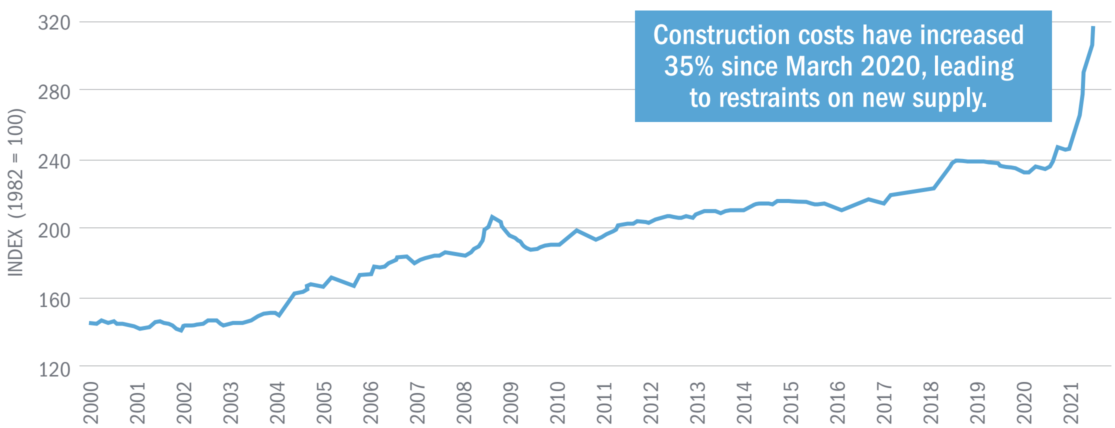
*Source: CBRE-EA, Clarion Partners Investment Research, Q2 2021.*

*Note: Forecasts were provided by Clarion Partners Investment Research as of Q2 2021 based on historic data from CBRE-EA. Cumulative new supply was calculated from the beginning of the cycle to the end of recession. Past performance is not indicative of future results. Forecasts have certain inherent limitations and are based on complex calculations and formulas that contain substantial subjectivity and should not be relied upon as being indicative of future performance.*

## Higher material and labor costs restrain construction and limit new supply

Low supply levels are likely to persist due to higher construction costs, as construction material is over 35% higher today as compared to March 2020. The high cost of new supply tends to drive replacement rents higher which is positive for existing real estate values.

**Producer Price Index (PPI) for Construction Materials (2000-2021)**

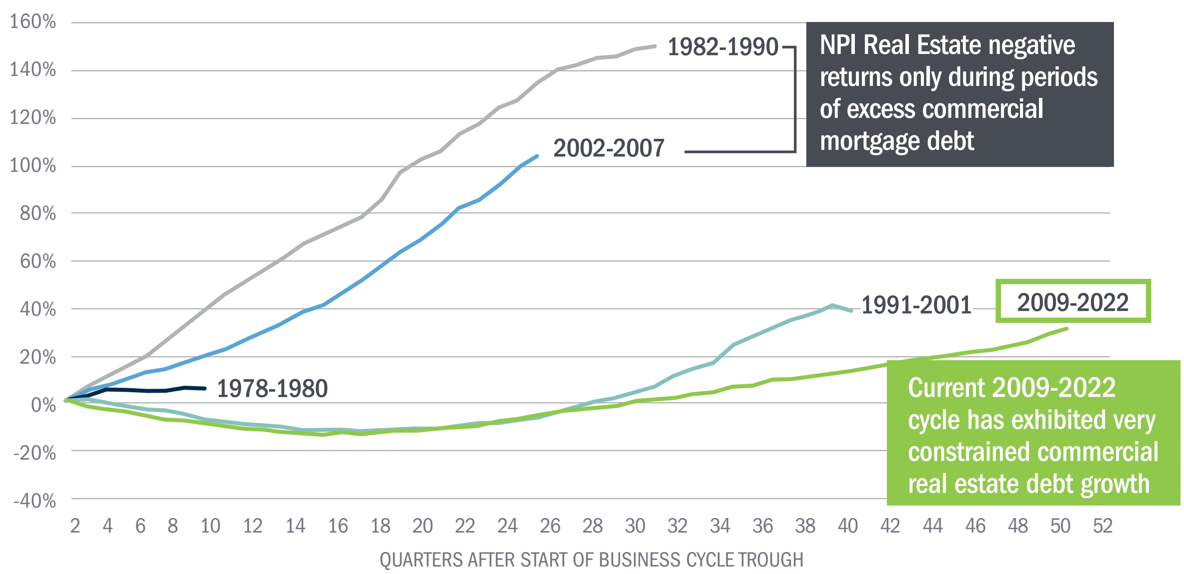



*Source: U.S. Bureau of Labor Statistics, Clarion Partners Investment Research 2021.*

## Constrained commercial real estate debt growth may be the leading indicator of minimal value declines and healthy future real estate returns

Mortgage growth has been constrained in the current real estate cycle, which is a key indicator of healthy future returns. Over the 44-year history of the institutional private real estate index, returns have been negative in only two periods, both of which were preceded by exceedingly high growth in mortgage debt. The relatively low level of debt bodes well for private real estate values in 2023.

**Cumulative Growth in Commercial Mortgage Debt from Trough of Prior Business Cycle**



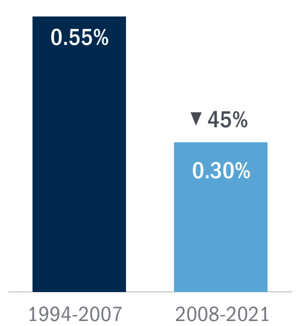

*Source: Bluerock analysis of Federal Reserve Z.1, Flow of Funds. National Council of Real Estate Investment Fiduciaries.*

# Bluerock High Conviction Sectors Outlook: Industrial and Residential

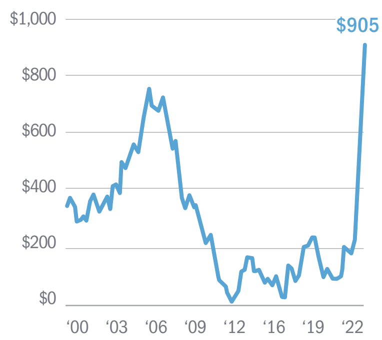
## Industrial and residential rentals have favorable long-term supply and demand trends

In the multifamily sector, an overall lack of housing supply and a historic premium for homeownership makes renting very attractive. In the industrial sector, the penetration of e-commerce as a share of retail sales is expected to continue to increase, providing long term tailwinds for industrial sector demand.

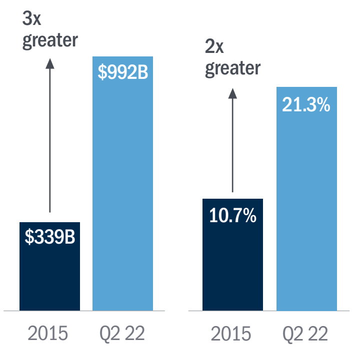
**U.S. Housing Completions[1]**
As Percentage of Population




**Spread Between Cost to Own vs. Rent a Home[2]**
(higher = owning is relatively more expansive)




**U.S. E-Commerce Growth[3]**
Annual Sales and Annual Penetration




*Sources:*

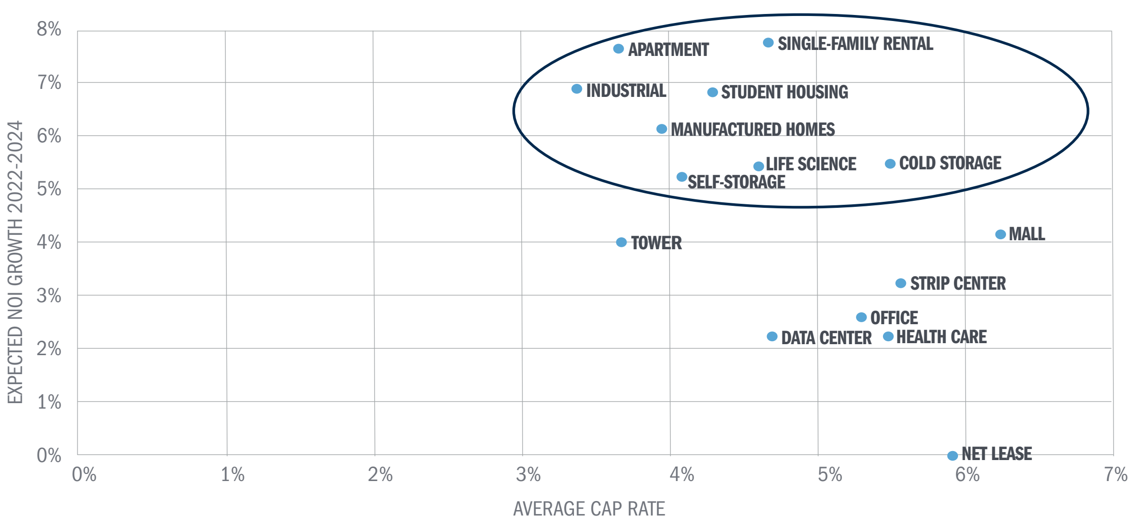
*1) U.S. Census Bureau, as of May 31, 2022. represents average annual single family and multifamily housing completions as a percentage of total U.S. population between 1994-2007 and 2008-2021*

*2) Zillow and Axiometrics, as of 9/30/2022. In-place net-effective rents and the 30-year fixed rate mortgage data as of10/13/2022. Data reflect US national averages. Monthly mortgage payments assume median home prices are finances at 80% loan-to value and include closing costs, insurance, taxes and monthly capital expenditure.*

*3) U.S. Census Bureau , as of June 30, 2022. Penetration calculated on a trailing one-year basis and represents e-commerce sales' share of total retail sales excluding auto, gas, and food services.*

## These same sectors (Industrial and Residential) have very positive long-term NOI growth prospects

The intermediate term outlook is also strong for the industrial and residential sectors, with NOI growth likely to continue to beat inflation rates.



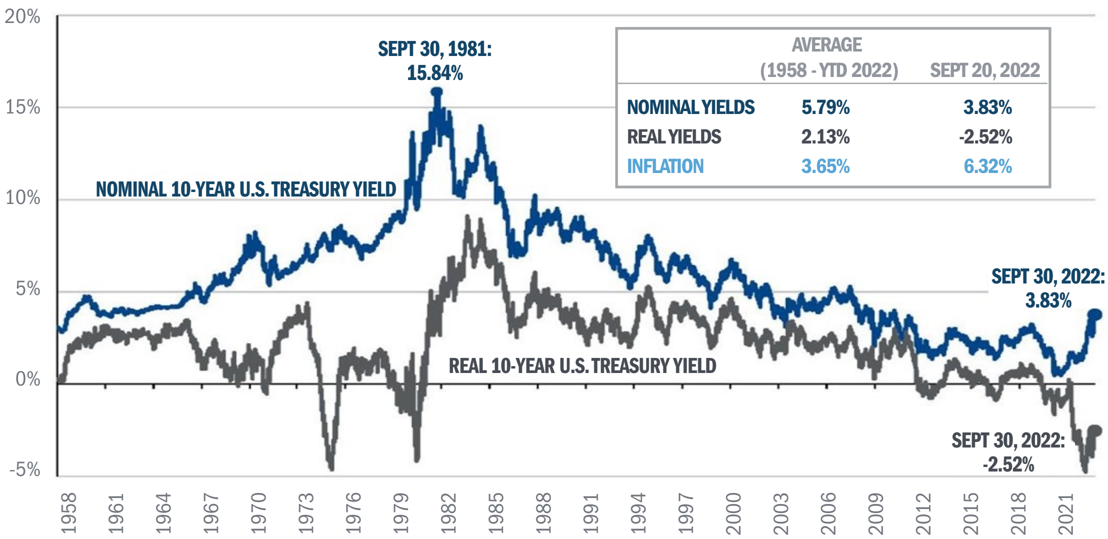

*Source: AEW U.S. Economic & Property Market Outlook March 2022; Green Street.*

# Fixed Income and Credit Outlook

## Negative real yields make fixed income investments very challenging

Recently higher rates offer little relief for bond investors as real yields (inflation adjusted) have been negative for over a year. As is typical during economic downturns, we expect the 10-year U.S. Treasury yield to decline overall in 2023 as inflation expectations adjust toward long-term averages. While real yields may climb back to zero or even slightly above, we do not anticipate any meaningful inflation-adjusted yield from U.S. Treasuries.

**Nominal and Real U.S. 10-Year Treasury Yields**




| | AVERAGE (1958 - YTD 2022) | SEPT 20, 2022 |
|---|---|---|
| NOMINAL YIELDS | 5.79% | 3.83% |
| REAL YIELDS | 2.13% | -2.52% |
| INFLATION | 3.65% | 6.32% |

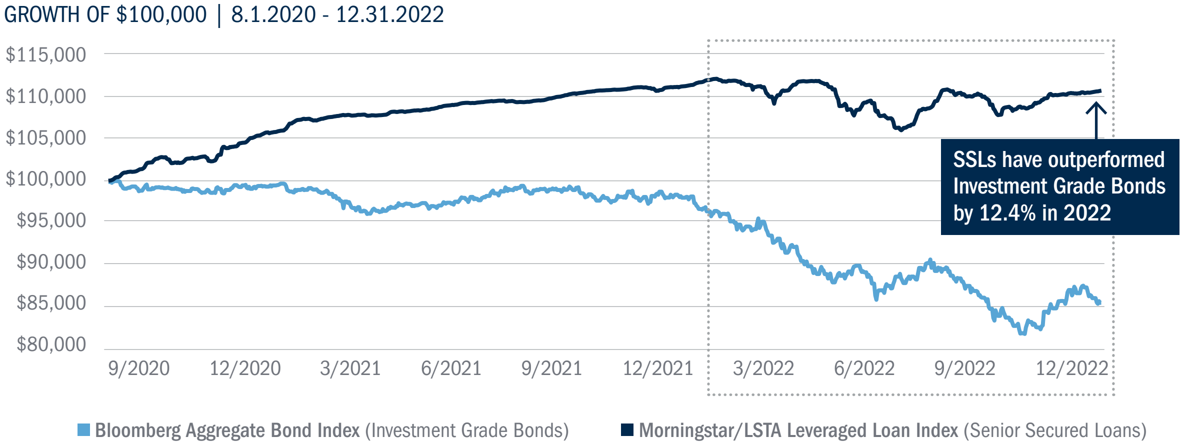
*Source: JP Morgan Guide to the Markets, Q4 2022*

## Senior secured loans may continue outperforming investment grade bonds given market turmoil

The leading investment grade bond index has historically been a source of stability in the liquid financial markets, however that index declined nearly 20% at its trough in 2022. Senior secured loans (SSLs) have significantly outperformed in 2022's rising rate environment. We believe SSLs are less rate sensitive given their floating rates and low duration, which should make them relatively attractive again in 2023.

**Index Comparison Since Long-Term Interest Rates Began to Rise in 2020**

GROWTH OF $100,000 | 8.1.2020 - 12.31.2022

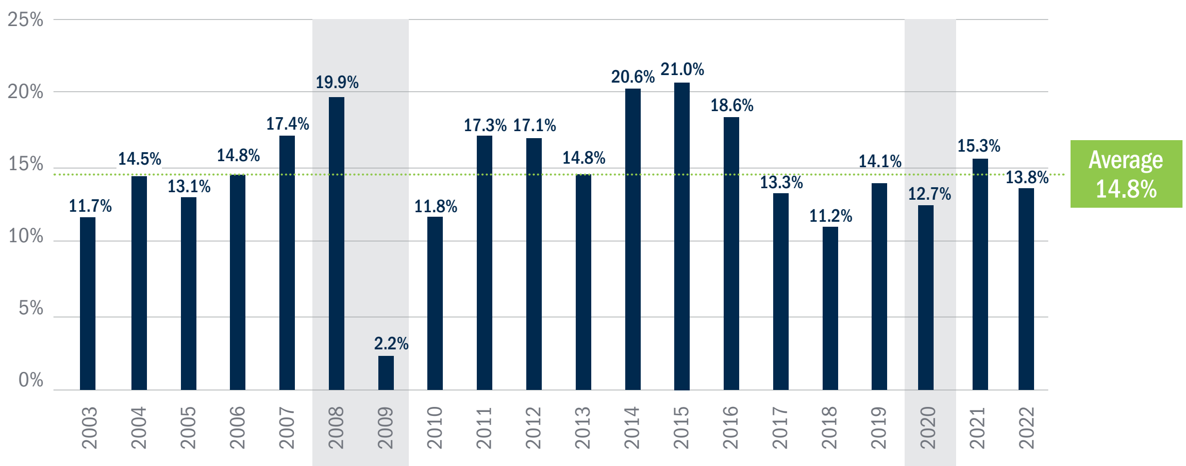



*Source: Morningstar Direct*

## Collateralized Loan Obligations (CLOs) may demonstrate that they continue to be a useful and efficient structure to unlock the potential value in senior secured loans

Active management and structural safeguards have allowed CLOs to generate favorable distribution rates in multiple market cycles.

**CLO Equity Annual Distribution Yields**




*Shading indicates recessions.*

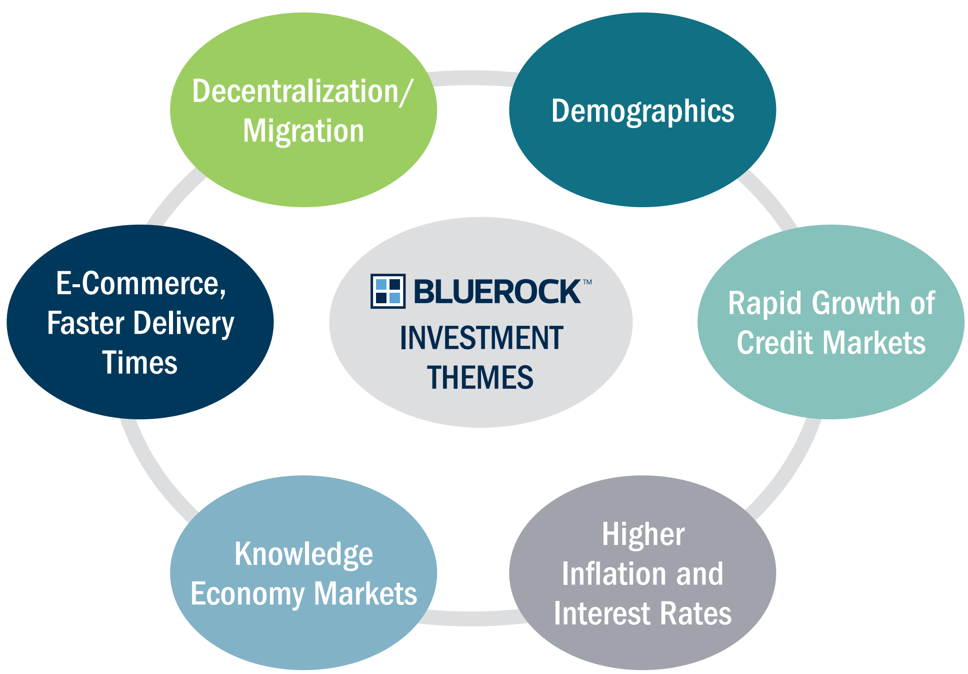
*CLO Equity (or CLO equity tranche): The tranche within a CLO that is paid any excess spread. The equity tranche payment is prioritized after all the debt and subordinated tranches.*

*Source: Kanerai, Intex, Markit, Barclays Research, includes CLO 1.0 and 2.0 broadly syndicated loans. Yields do not include return of principal.*

*Data thru September 2022. Does not represent total return experienced by investor.* ***Past Performance is not a guaranty of future performance.***

# Bluerock Investment Themes

## Bluerock Investment Themes are defined by megatrends: broad, structural forces that transcend economic cycles



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