MEKETA

INVESTMENT GROUP

CalSavers Retirement Savings Program

Economic and Market Discussion and Education

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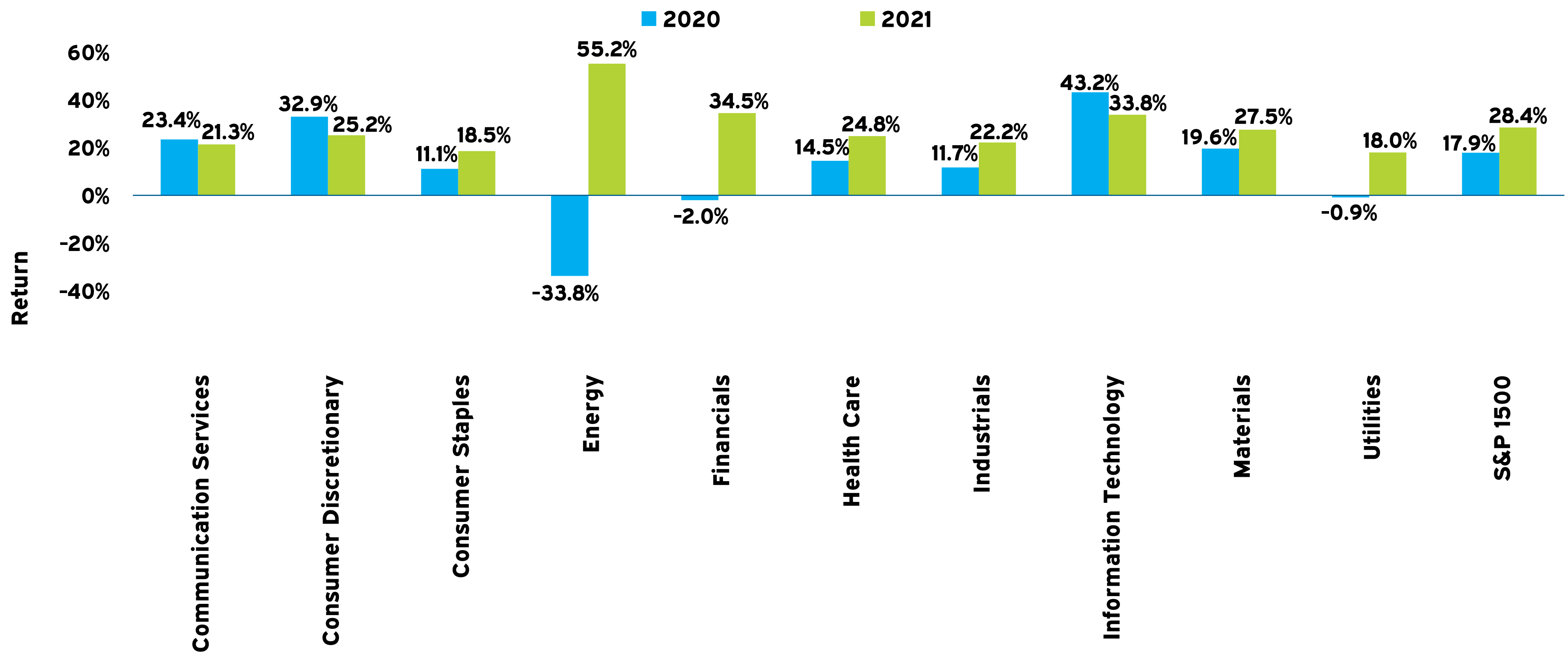
Market Returns[1]

Indices	December	1 Year	3 Year	5 Year	10 Year
S&P 500	4.5%	28.7%	26.1%	18.5%	16.6%
MSCI EAFE	5.1%	11.3%	13.5%	9.6%	8.0%
MSCI Emerging Markets	1.9%	-2.5%	10.9%	9.9%	5.5%
MSCI China	-3.2%	-21.7%	7.8%	9.4%	7.2%
Bloomberg Barclays Aggregate	-0.3%	-1.5%	4.8%	3.6%	2.9%
Bloomberg Barclays TIPS	0.3%	6.0%	8.4%	5.3%	3.1%
Bloomberg Barclays High Yield	1.9%	5.3%	8.8%	6.3%	6.8%
10-year US Treasury	-0.4%	-3.6%	5.1%	3.5%	2.4%
30-year US Treasury	-2.1%	-4.6%	9.7%	7.0%	4.4%

- Declining fears over the Omicron variant and expectations for continued corporate strength contributed to global equity markets posting positive returns for December. Developed markets led the way with international equities (MSCI EAFE) outpacing US equities (S&P 500). Emerging markets lagged mainly due to continued concerns related to China. Overall in 2021, US equities had the best results given continued policy support, relative success in reopening the economy, and strong corporate fundamentals.
- In December, rising inflation and expectations for less accommodative policy led to the US bond market (Bloomberg Barclays Aggregate) declining slightly, while high yield bonds increased in the risk-on environment. For the year, TIPS led the way in bonds, up 6%, followed by high yield with the broad bond market index declining by 1.5%.

[1] Source: Investment Metrics and Bloomberg. Data is as of December 31, 2021.

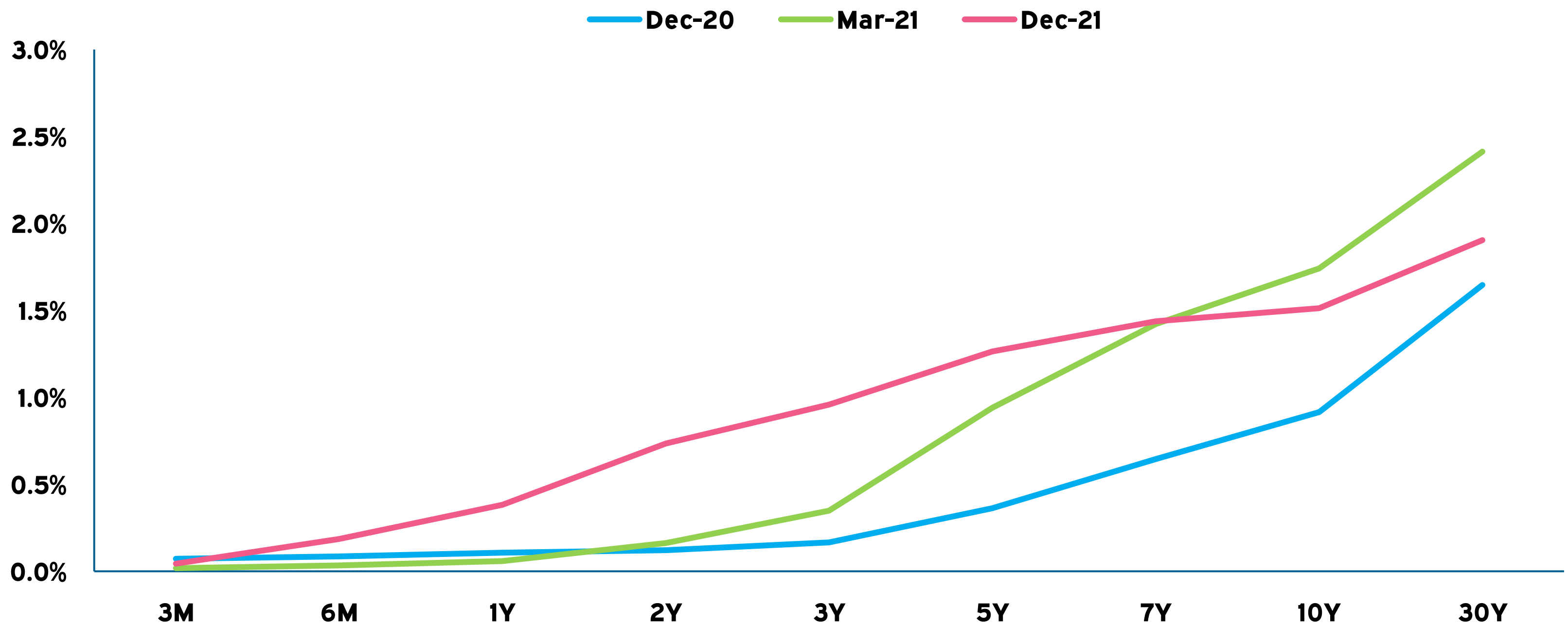
Sector Returns[1]



- All sectors advanced in 2021 with energy leading the way followed by financials, a reversal of the 2020 trend.
- The technology sector also produced strong results last year building on the 40%+ returns in the prior year.

[1] Source: Bloomberg. Data is as of December 31, 2021.

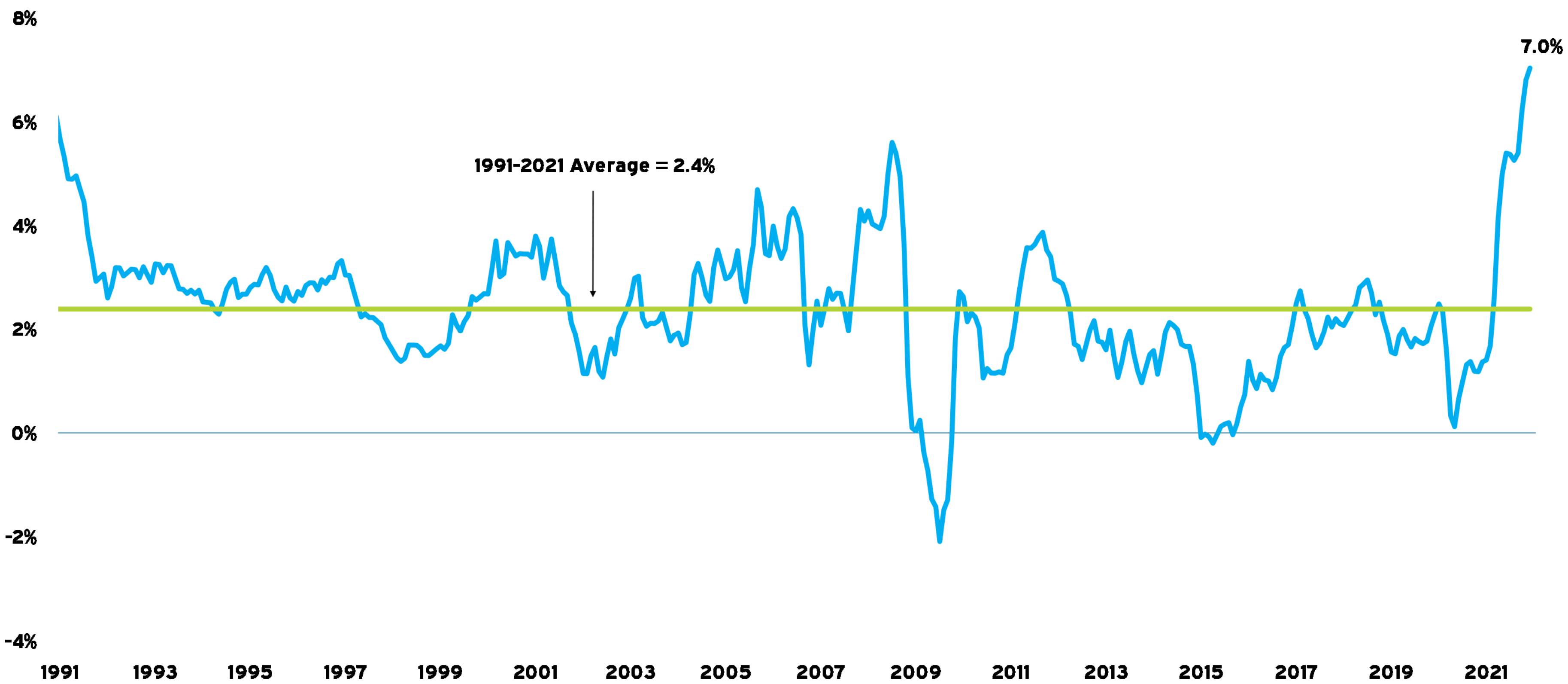
US Yield Curve[1]



- During the first half of 2021, the Treasury yield curve steepened on both higher growth and inflation expectations as vaccines were deployed and economic growth prospects improved on the opening of the economy, while monetary policy anchored short-dated rates near 0%.
- Over the latter-half of the year, however, shorter-dated yields from 1- to 5-years rose sharply as the FOMC signaled that policy rates may be tightened more aggressively than previously anticipated.

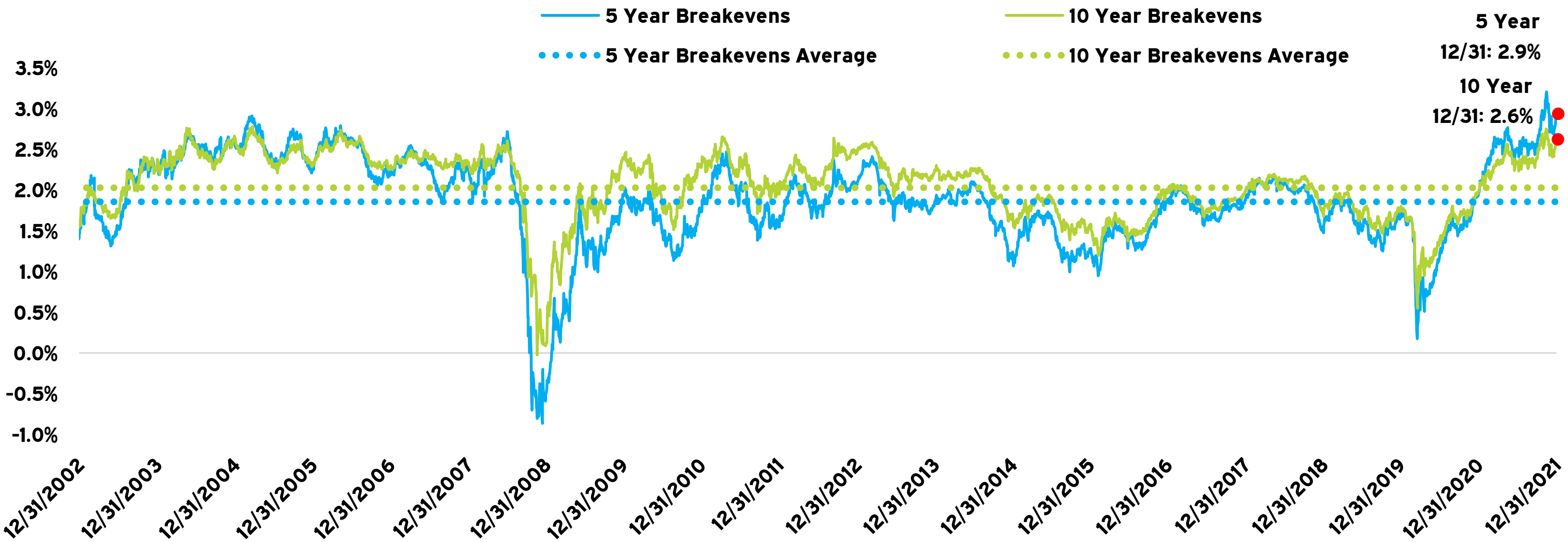
[1] Source: Bloomberg. Data is as of December 31, 2021.

US Inflation (CPI)
Trailing Twelve Months[1]



[1] Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of December 31, 2021.

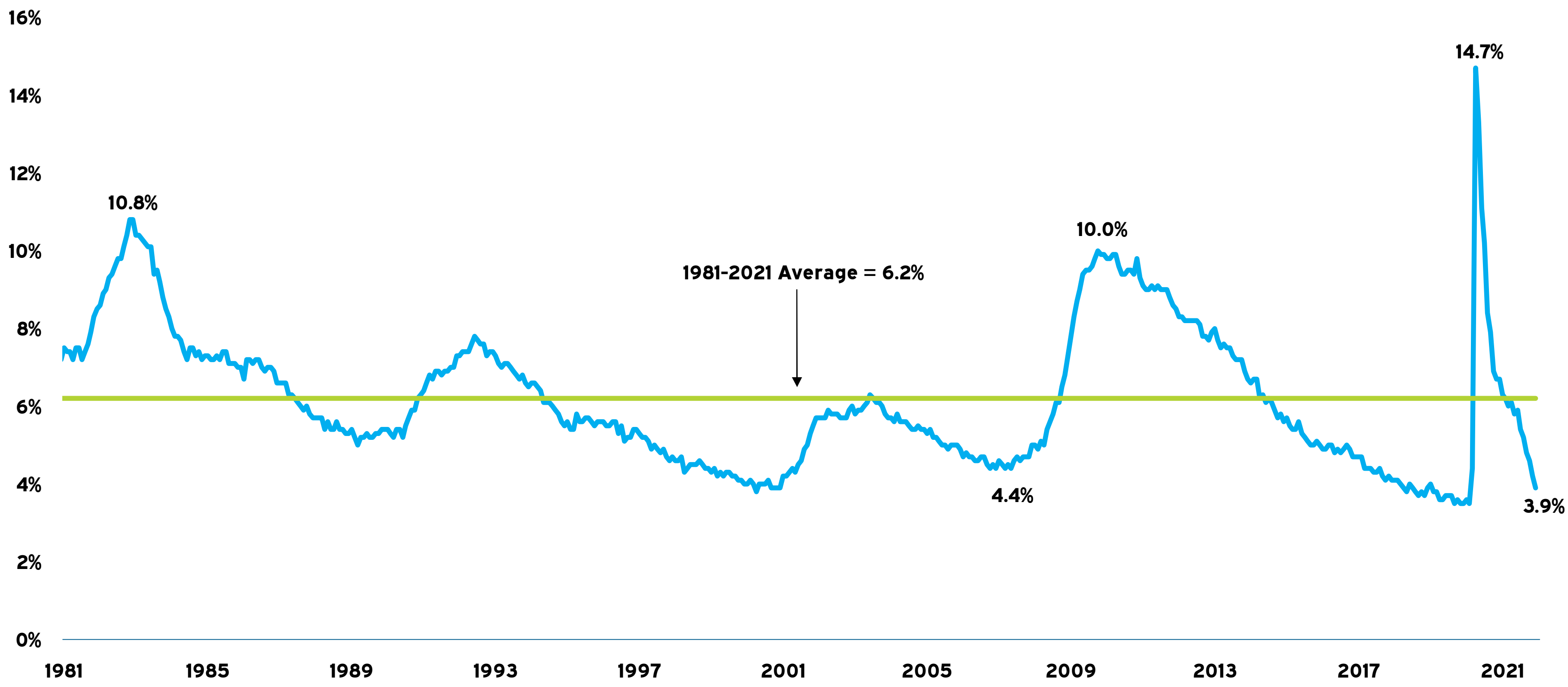
Breakeven Inflation[1]



- Inflation expectations finished the year higher than they started, ending at a level well above the Fed's 2% target.
- Supply chain issues potentially persisting as new variants of the virus increase the risk of re-shuttering sectors of the global economy and wage pressures remain key drivers of inflation expectations.
- Additionally, changes to Fed policy focused on an average inflation target may play a role in inflation market dynamics and, specifically, the risk that consumer inflation expectations get entrenched at higher inflation growth rates.

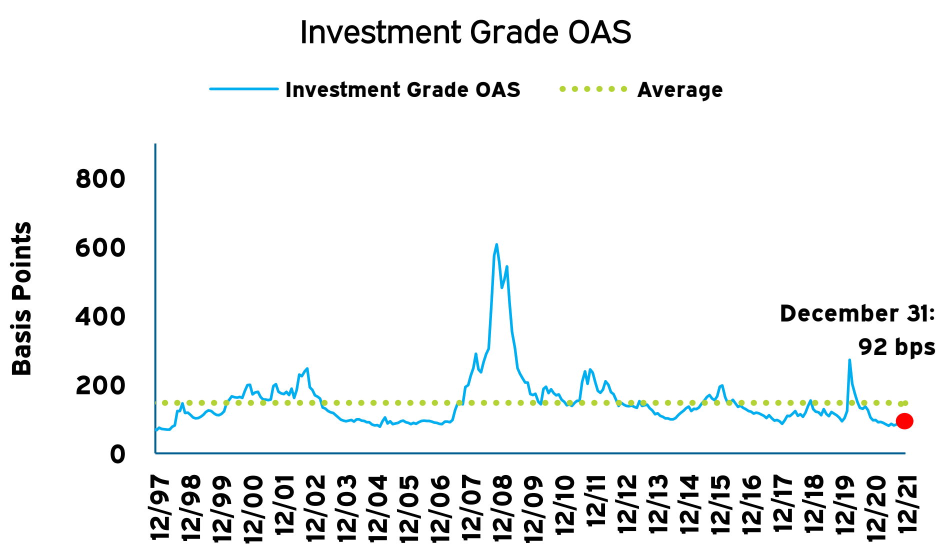
[1] Source: Bloomberg. Data is as of December 31, 2021.

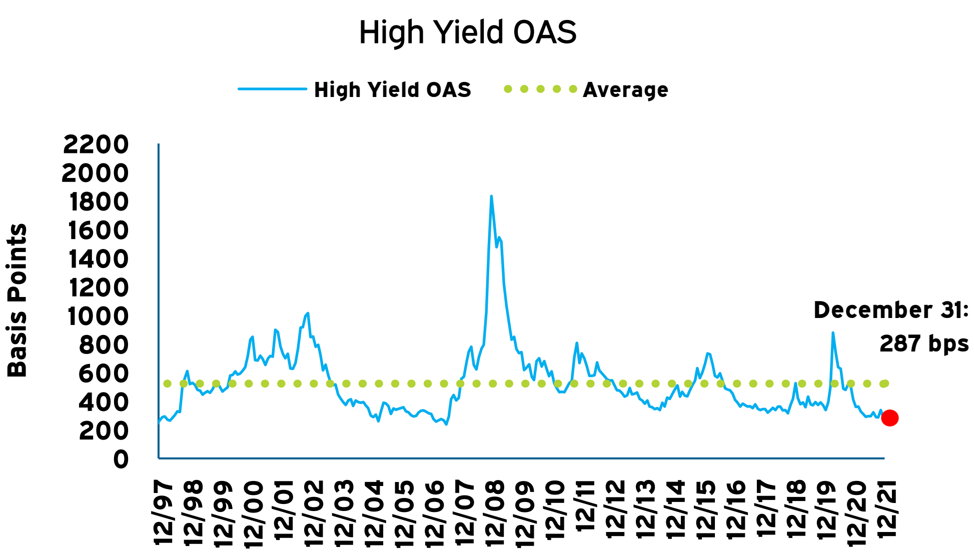
US Unemployment[1]



1 Source: Bureau of Labor Statistics. Data is as of December 31, 2021.

Credit Spreads (High Yield & Investment Grade)[1]

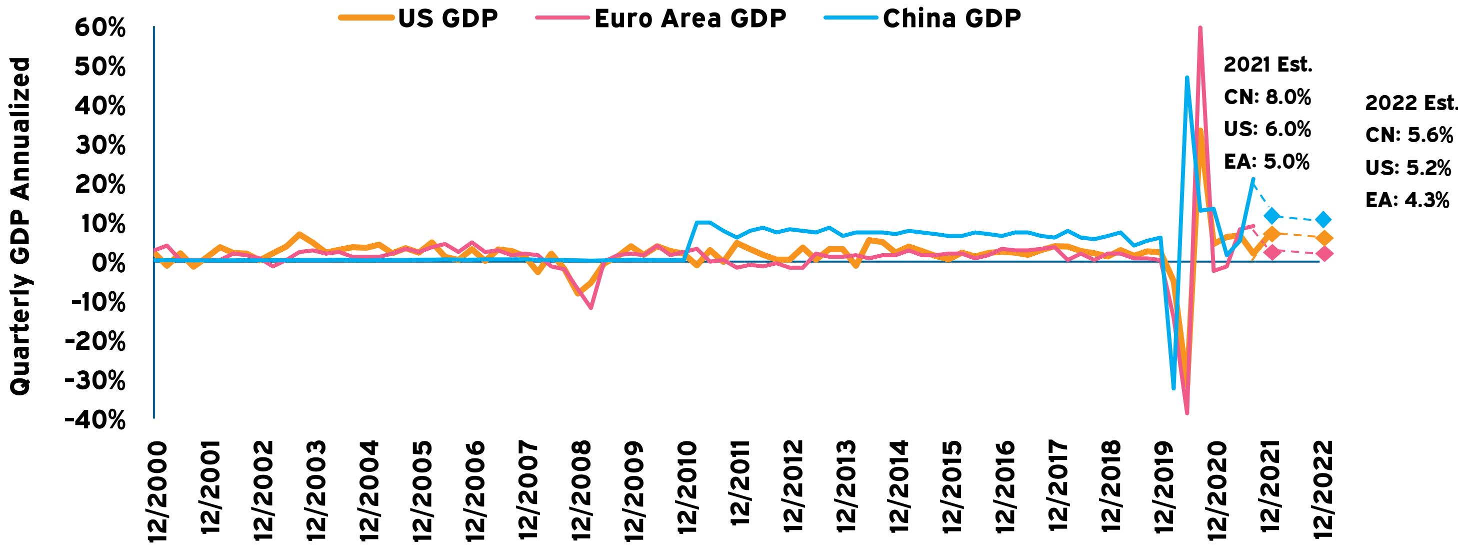




- Credit spreads (the yield spread above a comparable maturity Treasury) narrowed in December after the modest widening in November on the discovery of the new virus variant (Omicron).
- Policy support, strong corporate fundamentals, and the search for yield in a low-rate environment have been key drivers in the decline in US credit spreads to well below long-term averages, particularly for high yield issuers.

[1] Source: Barclays Live. Data represents OAS and is as of December 31, 2021.

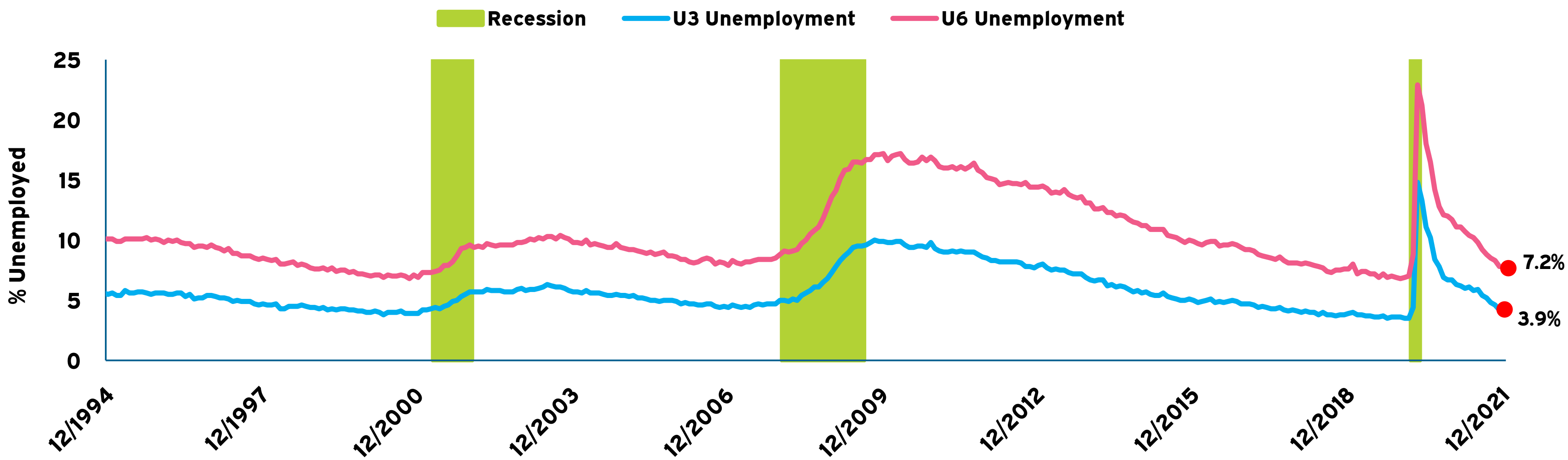
GDP Data Shows Slowing Growth in 2022[1]



- In late 2020 and early 2021, major economies grew at rates far above potential. These high rates of growth are expected to decline slightly, with projections continuing to decline due to supply disruptions, reopening trends moderating, and some countries continuing to struggle with the virus.
- The US is expected to grow faster than the euro area again in 2022, with some growth pulled forward due to the relative success in distributing the vaccine and a substantially larger fiscal stimulus response to the pandemic.
- China is projected to grow at 8.0% in 2021 and 5.6% in 2022, both above the expected US growth rate. Questions remain, though, about the highly levered property market and increased government regulations.

[1] Source: Bloomberg, and IMF; Euro Area and China figures annualized by Meketa. Projections via October 2021 IMF World Economic Outlook and represent annual numbers.

US Unemployment[1]



- The US labor market continues to recover, and the unemployment rate (U3) fell from 4.2% to 3.9% in December. It still remains slightly above pre-pandemic levels though, but far below the pandemic peak.
- The broader measure of unemployment (U6) that includes discouraged and underemployed workers also continued to decline but is much higher at 7.2%. Also, the labor force participation rate remains quite low at 61.9% and is below the 63.4% level of January 2020.
- Continued improvements in the labor market have contributed to recent expectations that the Federal Reserve will increase its pace of policy removal in 2022.

[1] Source: Bloomberg. Data is as of December 31, 2021. Bars represent recessions as observed by the National Bureau of Economic Research.

Meketa's Future Asset Class Expectations

Executive Summary

- We update our capital markets expectations each year in January.
  - Changes are driven by many factors, including interest rates, credit spreads, cap rates, and equity prices.
- The good news is that most investors achieved returns in 2021 that were above their target return.
  - The strong performance was driven by an increase in prices for most risk assets.
- Some additional good news is that bond yields increased in 2021.
  - However, this was offset by tightening credit spreads.
- Further good news is that higher rates are being priced into future bond yields.
  - This directly impacts fixed income assets and flows through to many other asset classes.
- As a result, our expected returns increased, on average.
- That said, some of these same factors (higher valuations and future rate increases) will serve as headwinds over the next decade.
  - Absent significant growth and only modest increases in rates, this will be a damper on future returns, especially in relationship to those realized during the post-GFC period.

20-Year Rising Rates = **Higher Yields**

- Rising interest rates more than offset the tightening of credit spreads to result in higher yields across every major sector of the global bond market.

Index	Yield to Worst 12/31/21 (%)	Yield to Worst 12/31/20 (%)
Fed Funds Rate	0.1	0.1
10-year Treasury	1.52	0.93
Barclays Aggregate	1.75	1.12
Barclays Corporate	2.33	1.74
Barclays Securitized	1.97	1.24
Barclays Global Aggregate	1.31	0.83
Barclays EM Local Currency Government	3.83	3.20
Barclays EM Hard Currency Aggregate	3.96	3.20
Barclays US Corporate High Yield	4.21	4.18

Source: Bloomberg. Data is as of December 31, 2021 and 2020.

The Link between Economic Growth and Expected Returns

- We have long assumed that earnings growth is linked to economic growth
  - However, one can exceed the other (and vice versa)

1948 - 2019[1]	
Nominal GDP Growth P.A.	Corporate Earnings Growth P.A.
6.4%	6.5%

- Net issuance vs buybacks affects EPS
  - In the US, net shareholder buybacks have resulted in EPS growing faster than earnings
- Corporate profits can comprise a higher or lower share of the GDP pie
  - In the US, corporate profits have grown faster than the rest of the economy
- Intervention by the state & structural inefficiencies also affect earnings growth
  - The degree to which maximizing shareholder wealth is a primary motivation varies by market
    - This can take many different forms, such as SOEs, state-controlled enterprises, and direct intervention by the state (see China, 2021)
  - Corruption, graft, nepotism, lack of property rights or clear rule of law, can all affect the link between economic growth and earning growth

[1] Source: Federal Reserve Economic Data. Corporate earnings defined as Corporate Profits After Tax (without IVA and CCAdj).

20 Earnings Growth

- EPS has grown faster than earnings in the US in recent years, acting as a tailwind.
- This is due to companies using excess cash to buy back their shares.[1]

EPS with no change in shares	EPS with 2% reduction in shares
$1,578 bil / 10.5 mil shares	$1,578 bil / 10.3 mil shares
= $150.3 per share	= $153.2 per share

- Over ten years, this can have a significant compounding effect.

EPS with 2% reduction in shares for ten years
$1,578 bil / 8.6 mil shares
= $183.9 per share

- Data show that this trend is almost two decades long.[2]
- This bucks the longer-term trend (still common in non-US markets) of companies being net issuers of shares.

[1] Buying back shares reduces the denominator in the Earnings per Share equation, thus increasing the result of the calculation.
[2] Source: Yardeni research

20-Year Geomentric Expected Return

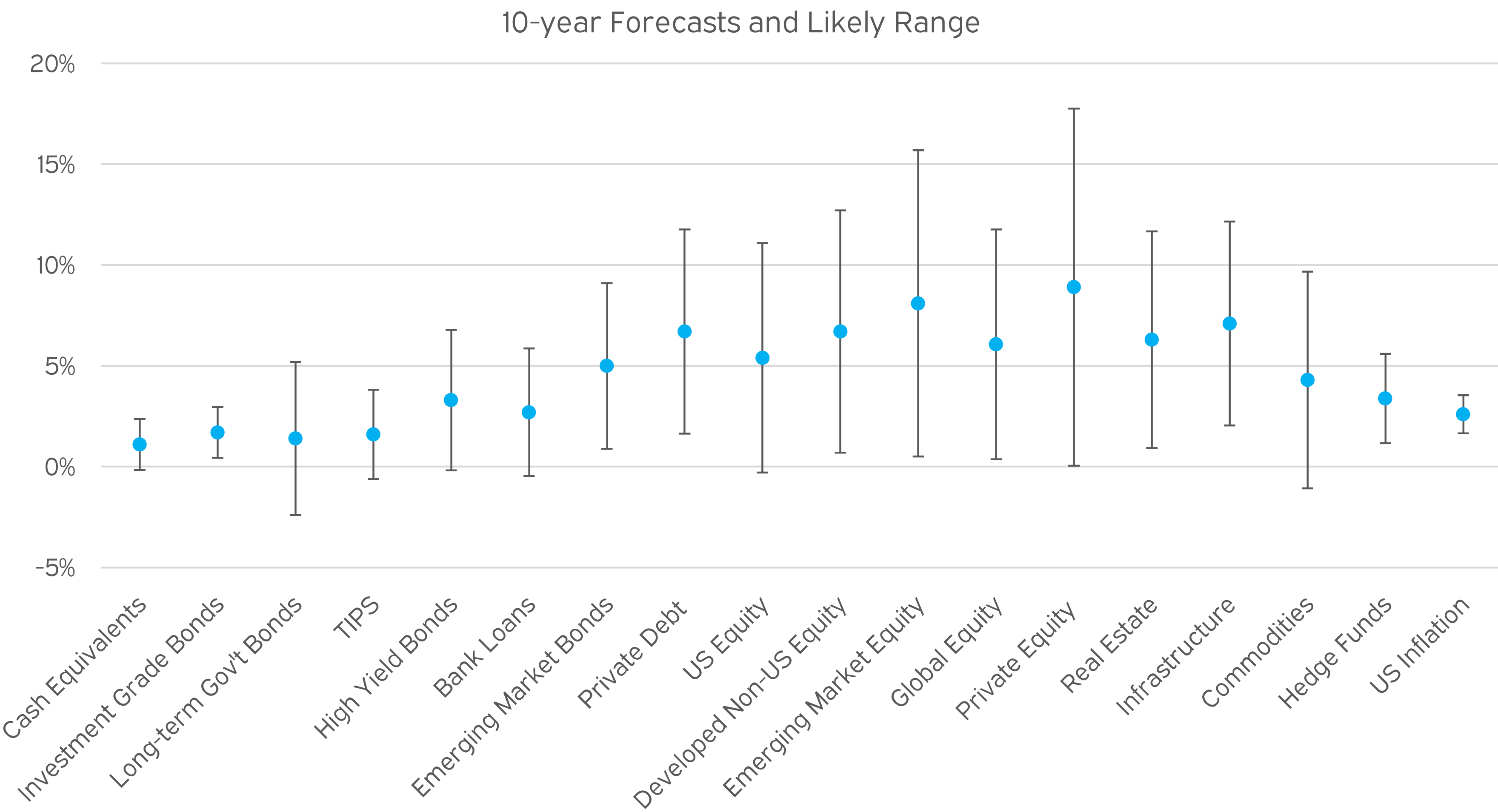
Broad Asset Classes

	2022 E(R) (%)	2021 E(R) (%)	Δ From 2021 (%)	Notes
Cash Equivalents	1.7	1.1	0.6	higher future yields expected
Investment Grade Bonds	2.4	1.8	0.6	higher yields
TIPS	2.4	1.8	0.6	higher inflation expectations & higher real yields
US Equity	6.8	6.8	0.0	higher earnings offset by higher prices
Developed Non-US Equity	7.5	7.1	0.4	lower earnings growth offset by lower prices
Emerging Market Equity	8.4	8.1	0.3	lower earnings growth offset by lower prices & higher dividends
Real Estate	7.4	6.9	0.5	lower REIT yields, slightly less attractive pricing in private markets
Natural Resources (Public)	7.7	7.3	0.4	strong earnings rebound but questions about the future

Correlation Data

	Inv. Grade Bonds	Long-term Gov't Bonds	TIPS	High Yield Bonds	US Equity	Dev. Non-US Equity	Em. Market Equity	Private Equity	Real Estate	Commod.	Infra.	Hedge Funds
Investment Grade Bonds	1.00											
Long-term Government Bonds	0.83	1.00										
TIPS	0.76	0.53	1.00									
High Yield Bonds	0.22	-0.22	0.41	1.00								
US Equity	0.02	-0.31	0.20	0.74	1.00							
Developed Non-US Equity	0.09	-0.28	0.26	0.76	0.89	1.00						
Emerging Market Equity	0.14	-0.23	0.34	0.76	0.77	0.87	1.00					
Private Equity	0.00	-0.10	0.05	0.70	0.85	0.80	0.75	1.00				
Real Estate	0.20	0.05	0.10	0.50	0.50	0.45	0.40	0.45	1.00			
Commodities	0.00	-0.29	0.31	0.55	0.53	0.61	0.65	0.30	0.15	1.00		
nfrastructure	0.29	0.09	0.31	0.64	0.63	0.65	0.58	0.50	0.57	0.41	1.00	
Hedge Funds	0.03	-0.34	0.26	0.77	0.86	0.87	0.85	0.60	0.45	0.69	0.65	1.00

10-Year Return Expectations



Conclusion

While CalSavers is a program designed for individuals to select their own mix of retirement assets, it is imperative to ensure that the Board understands the influence of the capital markets on the historical returns and potential future returns, of those investment options.

- Target Date Funds provide a diversified asset allocation with exposure to many underlying assets.
- Investors can also select from global equity, core fixed income, money market, or ESG investment options to supplement their retirement savings.

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