

Market Dynamics and Portfolio Implications

Investment Committee

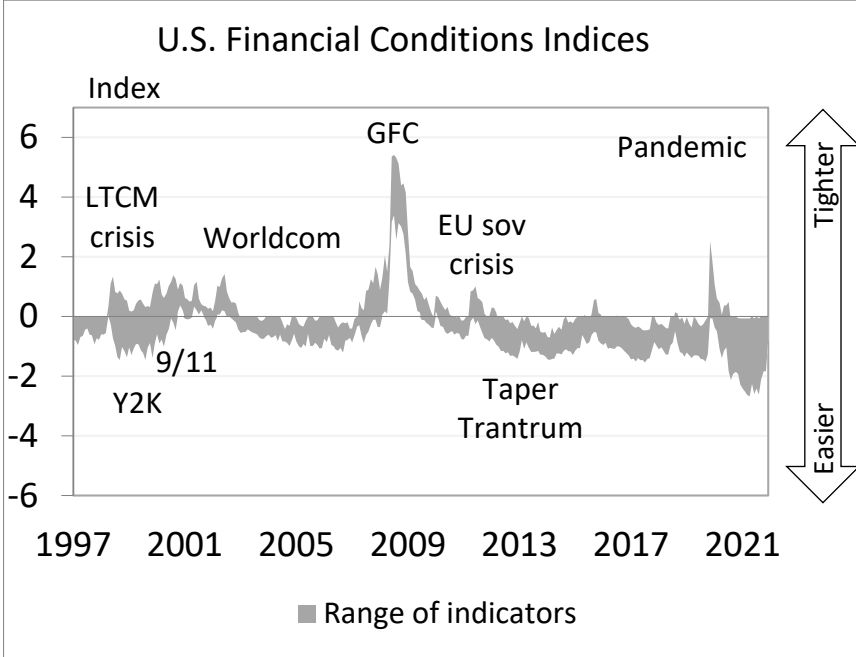
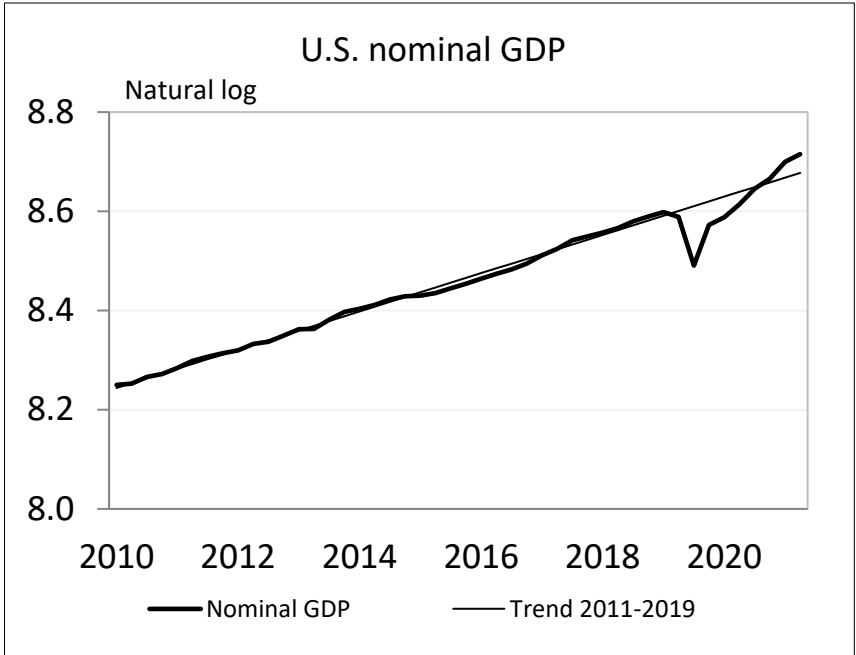
June 13, 2022

Agenda

- Current economic environment
- Portfolio positioning
- Markets and portfolio overview
 - Equity
 - Fixed income
 - Private markets

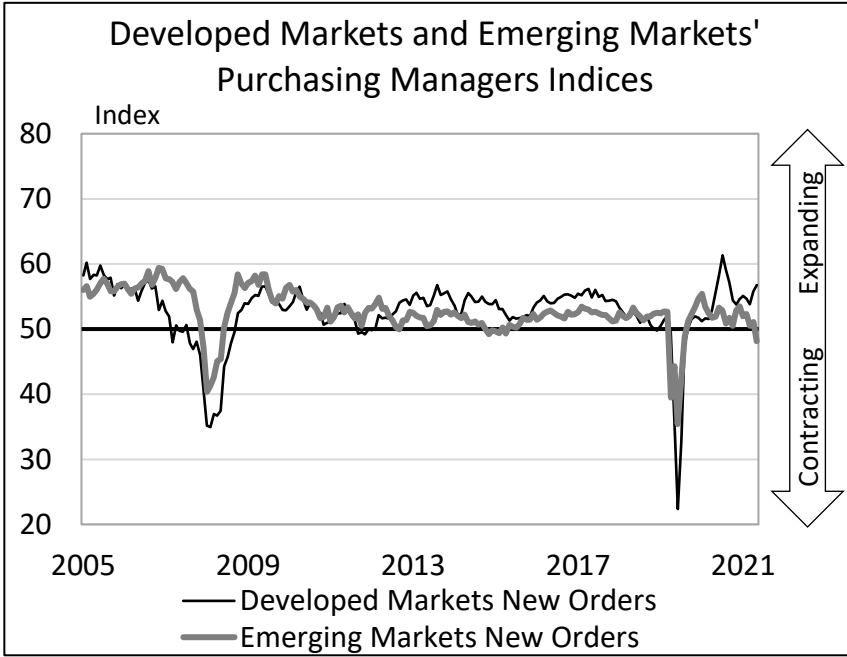
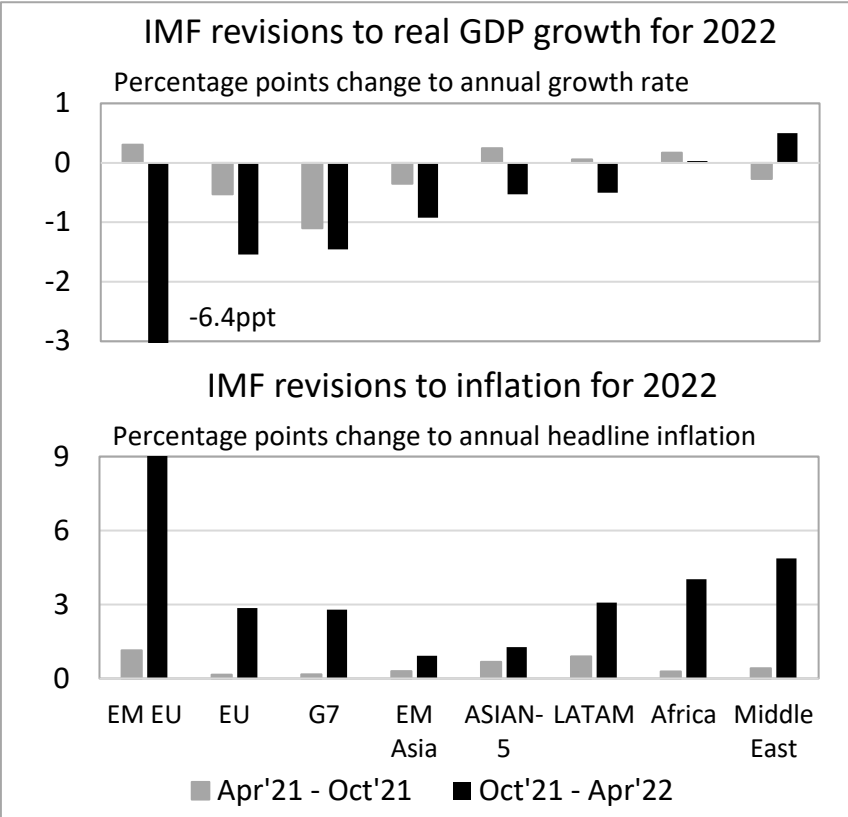
U.S. has Experienced a Robust Recovery

Headwinds are evident

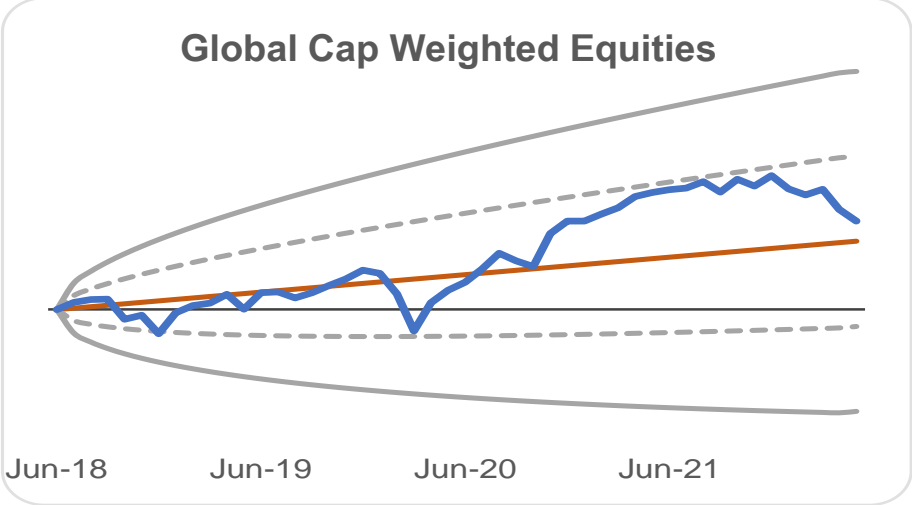
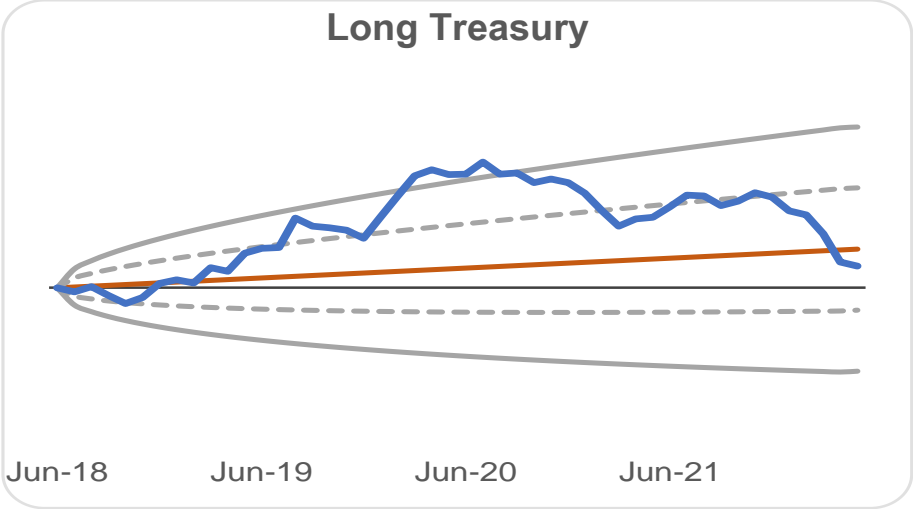
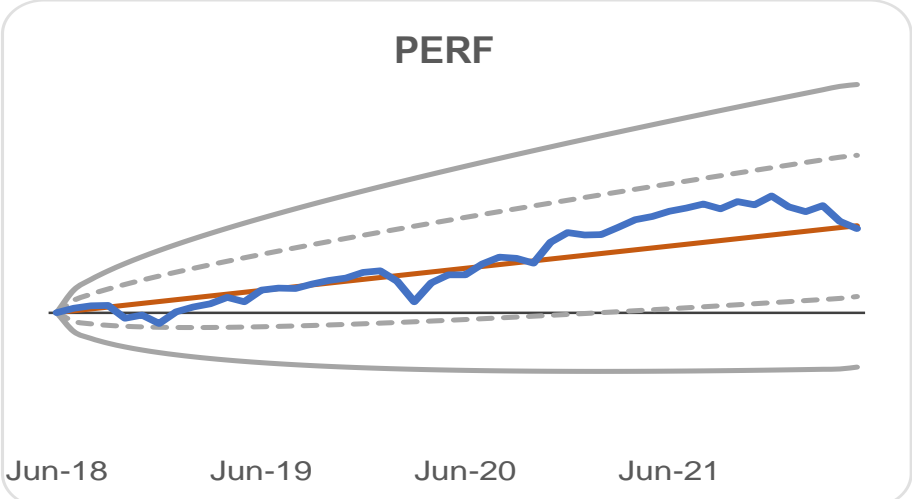


Deterioration in Global Economic Recovery

Uncertainty around duration and severity



Outcomes in Context of Expectations (as of May 18, 2022)

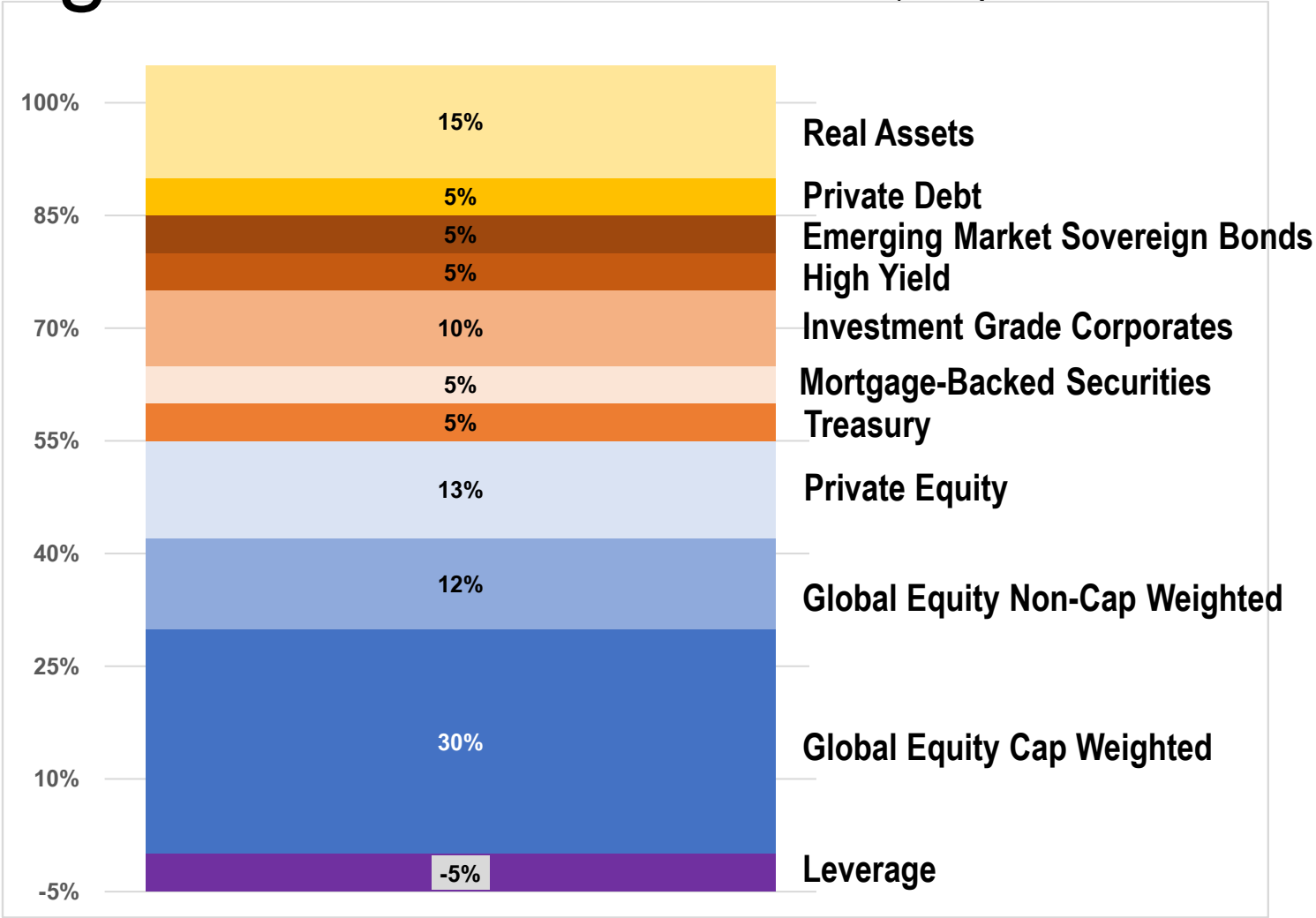


— Realized Return - - - +/- 1 Expected Std Dev
— Expected Return — +/- 2 Expected Std Dev



Expectations are derived from CMAs approved by the Board's Investment Committee in 2017 for new strategic asset allocation effective July 2018

PERF Strategic Asset Allocation (Adopted November 2021)



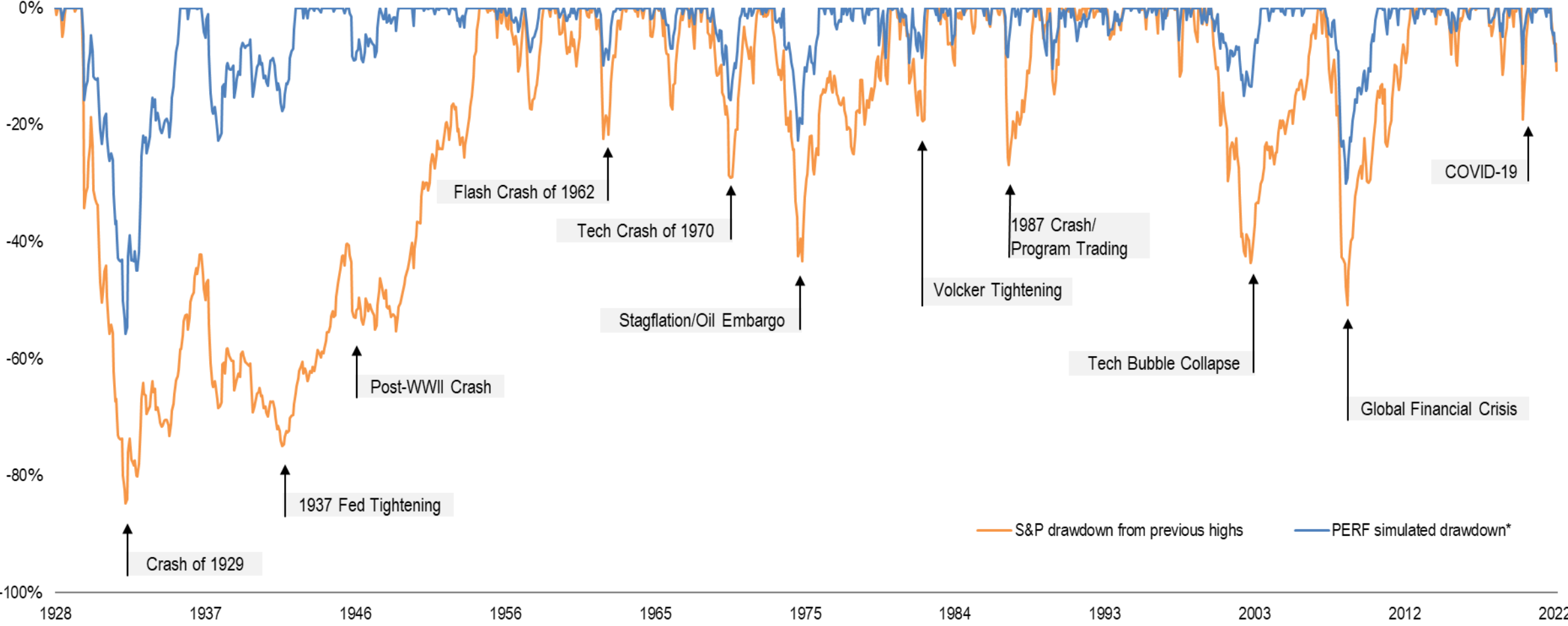
PERF Returns Relationship to Equity Markets

1-yr rolling returns



Equity Markets Drive PERF Drawdowns

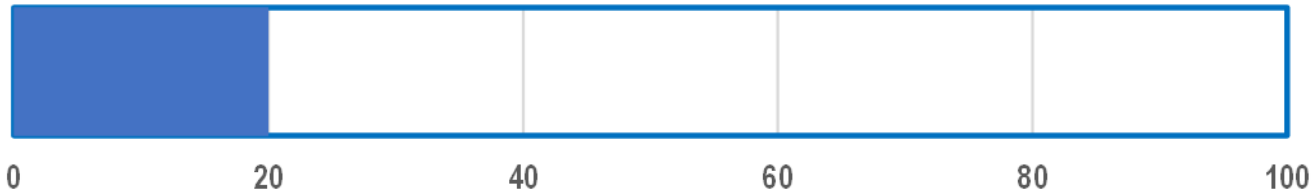
Simulated Monthly Performance of PERF Strategic Asset Allocation*



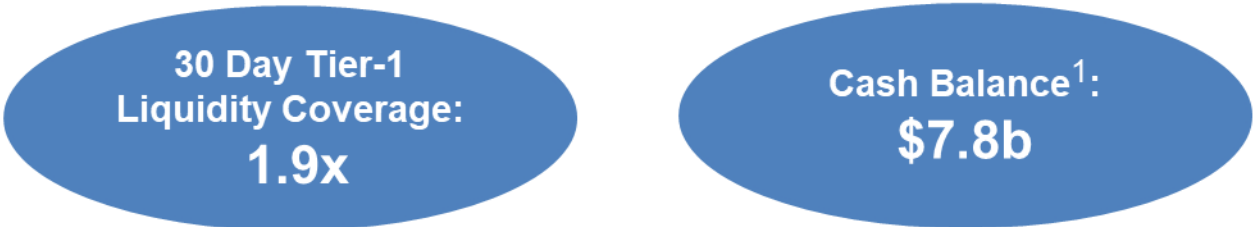
*Simulated performance of PERF asset allocation rebalanced quarterly to the current policy targets assuming historical returns for current benchmarks. For historical periods when performance data is not available for some asset classes risk comparable proxies are used.

Current Portfolio (as of May 18, 2022)

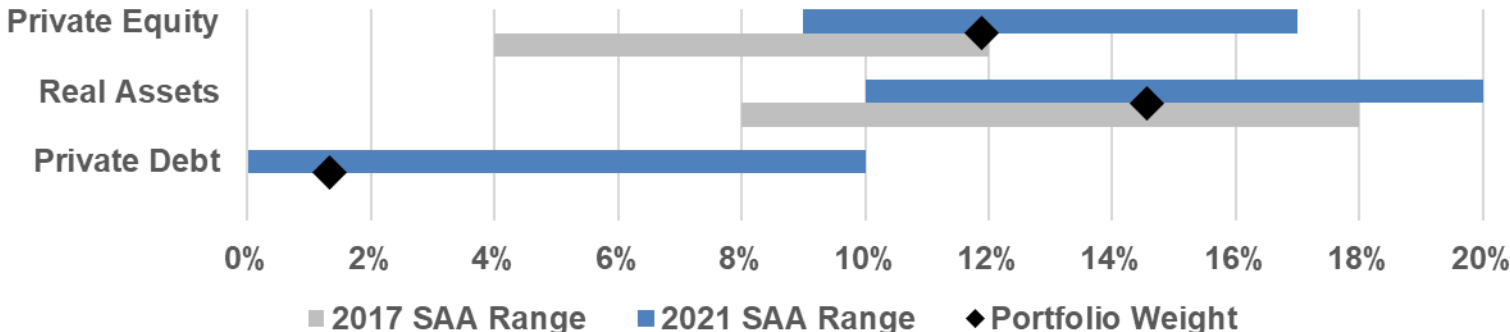
Actionable Tracking Error (bps)



Liquidity



Private Asset Allocation



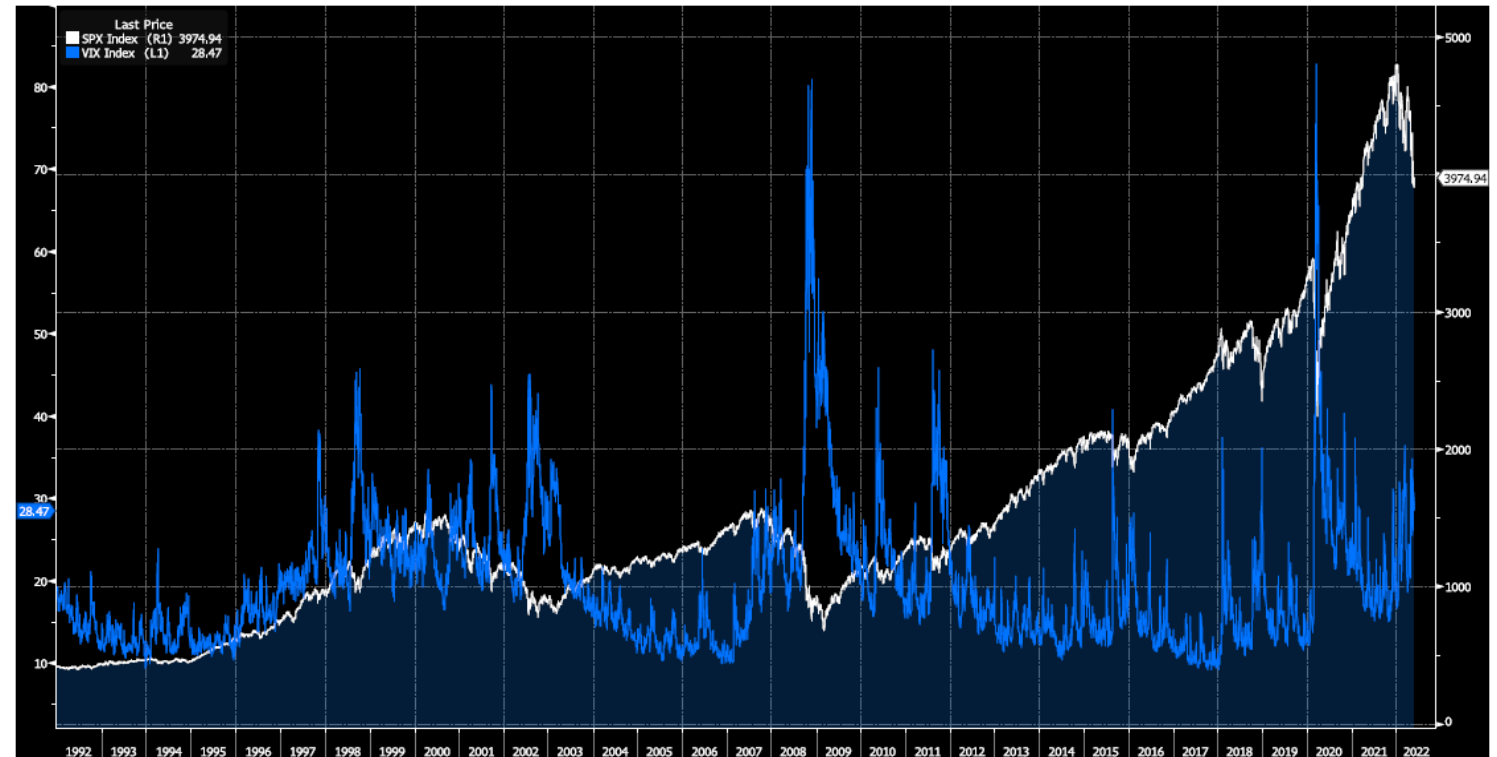
¹ Includes only Liquidity segment

Equity Markets

Equity markets have always been volatile

- Equity markets always go through periods of heightened volatility and drawdowns
- Each period of volatility is unique, conditional on its causes
- Current concerns: high inflation, tightening financial conditions, recession fears, and geopolitical risks are all leading to contraction of valuation multiples
- Over the long-term, equity markets have generated positive absolute returns despite periods of intermediate drawdowns

SPX Index (S&P 500 INDEX)
VIX Index (Chicago Board Options Exchange Volatility Index)



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Equity Markets & Portfolio

- Market volatility presents favorable entry points for long-term investors like CalPERS and richer opportunities for active strategies
- Our factor-weighted segment is defensive and is intended to mitigate drawdowns better than our cap-weighted segment
- Our equity portfolio is well-diversified across countries, regions, sectors, industries, and strategies
- Staff will seek to take advantage of market volatility to position the portfolio well for a potential future rebound in prices
- Staff will pursue a differentiated approach via active investment strategies to take advantage of market dislocation

Fixed Income Markets

What happened

- Global events have led to Volatile Markets (COVID, Supply Chain Impacts, Russia/Ukraine Conflict, etc.)

What was the result

- Deglobalization momentum and higher inflation
- Higher interest rates and wider spreads
- Global economy expected to slow

	<u>Start of Fiscal Year</u>	<u>May 19, 2022</u>	<u>Fiscal Year Change</u>
2-Year Treasury	0.25%	2.61%	+2.36%
5-Year Treasury	0.89%	2.84%	+1.95%
10-Year Treasury	1.47%	2.84%	+1.37%
30-Year Treasury	2.09%	3.05%	+0.96%
Investment Grade Corp Spread	108 bp	181 bp	+ 73 bp
High Yield Spread	279 bp	486 bp	+ 207 bp

Fixed Income Markets & Portfolio

What Now?

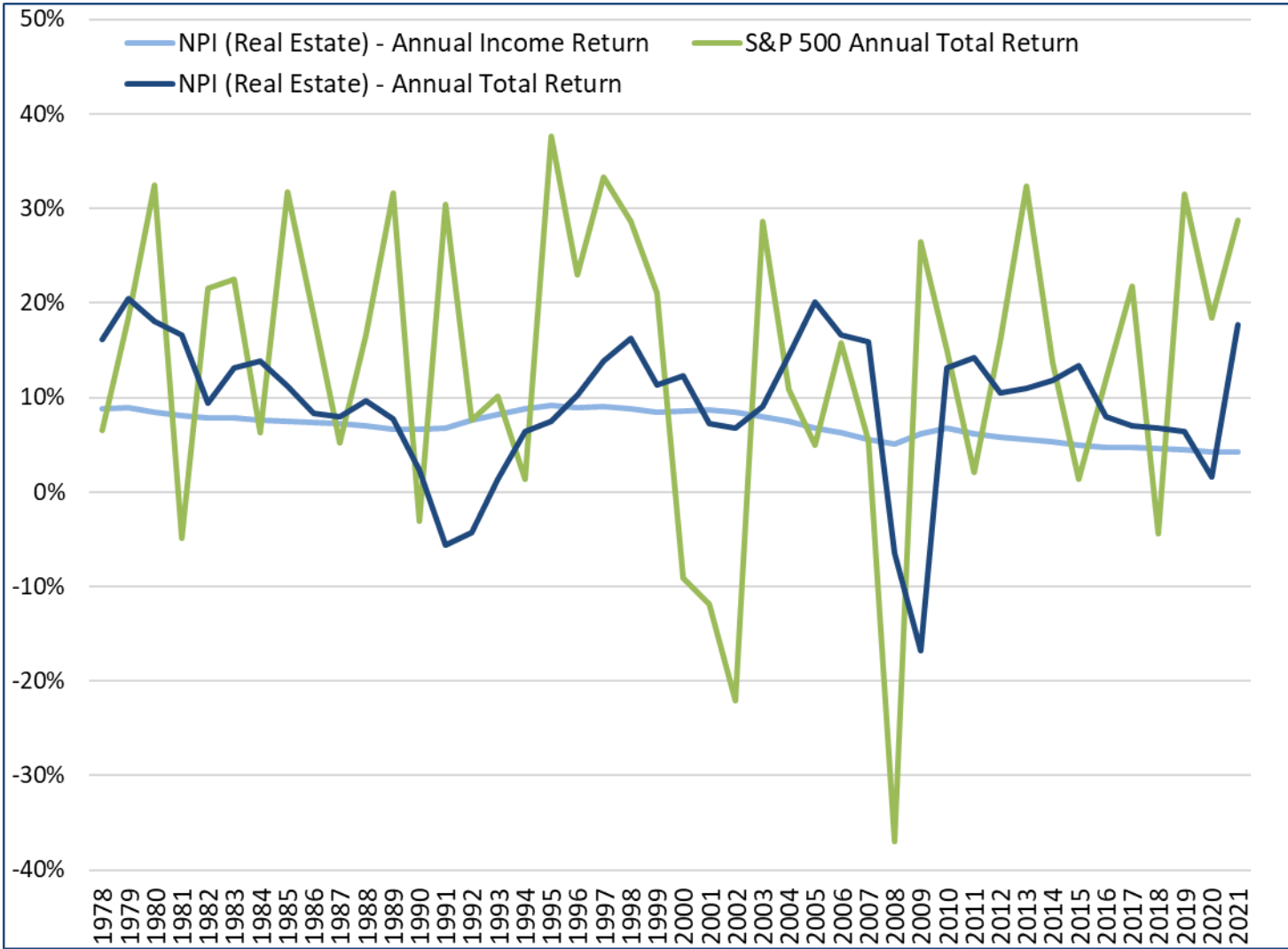
- Different points in an economic cycle provide different opportunities
 - Upside/downside potential is impacted by starting valuations
- Portfolio Positioning
 - During the 1st Quarter of 2020, GFI did not like the upside/downside outlook, so we were positioned relatively index neutral
 - Following the COVID breakout, fixed income markets cheapened substantially, and the portfolio was repositioned and produced in excess of \$700 million in return above the index
 - Prior to the 2021/22 fiscal year, the upside/downside outlook became less appealing, and the portfolio was repositioned and has been relatively index neutral this fiscal year

Current Opportunity

- The GFI portfolio is now positioned to take advantage of the improved upside/downside outlook and cheaper valuations

Private Markets

- A record amount of capital was raised for private market investments in 2021
- Private markets have historically been less volatile compared to the equity markets
- Real Assets can serve as a diversifier to equity market returns
- Real Estate can provide an important source of income



Private Markets & Portfolio

- The Private Markets portfolio is diversified – no single asset, sector or geography accounts for a disproportionate share
- CalPERS has capital committed across Private Markets that could take advantage of market dislocations

Real Assets

- Majority of the portfolio has a “Core” risk profile – quality assets, generating contracted revenues which gives them resiliency in economic downturns
- The portfolio is built to provide a steady cash yield, even in market downturns
- Higher interest rates may push out leveraged buyers, providing all equity, long-term investors such as CalPERS a competitive advantage