3CHOPT INVESTMENT PARTNERS

2022 Outlook

April 2022

Disclosure

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2022 Market Forecasts Summary

2022 Market Forecasts

		2022 10-Year Outlook		Y / Y Change
Equity Markets	Valuations year-over-year went down slightly due to earnings rising faster than market prices. This helped push our forecasted returns modestly higher. However, our forecast remains below long-term market averages given full valuations. A combination of more compelling Chinese equity valuations and China making up nearly one third of the Emerging Markets Index have buoyed our outlook in that region.	**5.9%** **7.7%** **9.6%**	U.S. All Cap Equity Int'l Developed Equity Emerging Market Equity	0.3% 0.7% 1.1%
Fixed Income Markets	Coming off of lows in 2021, yields around the globe rose pushing many investment grade fixed income forecasts higher. The exception is credit asset classes where yields moved lower in High Yield and Muni High Yield. Corporate High Yield forecasts were benefited by extraordinarily low default rates. Nonetheless, fixed income globally remains under pressure as inflation has risen pushing returns into negative real territories (nominal returns, less inflation). Additionally, we believe shifting global monetary policy means active risk management is prudent.	**1.7%** **1.2%** **1.4%** **3.7%** **4.9%** **2.0%**	U.S. Bonds Muni Bonds Global Bonds High Yield Bonds Muni High Yield Bonds Dynamic Bonds	0.5% 0.2% 0.6% 0.4% -1.8% 0.3%
Real Assets / Alternatives	Real Estate forecasts are flat relative to last year in spite of higher inflation expectations due to a very strong 2021. Broad Real Assets benefited due to the shifting winds of inflation with transitory effects fading and more persistent factors taking the lead. Marketable Alternatives and Private Equity forecasts both moved up based on modestly better opportunities across global equities and disparity among asset classes.	**5.4%** **4.7%** **5.9%** **8.9%**	Real Estate Broad Real Assets Marketable Alternatives Private Equity	0.1% 0.8% 0.5% 0.3%

Source: Fiducient Advisors Capital Market Assumptions. Outputs and opinions are as of the date referenced and are subject to change based on market or economic conditions. Information is intended for general information purposes only and does not represent any specific investment recommendation. Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice. There is no guarantee that any of these expectations will become actual results. For additional information on forecast methodologies, please speak with your advisor. Please see Index Proxy Summary information at the end of this presentation for summary of indices used to represent each asset class.

2022 Themes

From Pandemic to Endemic

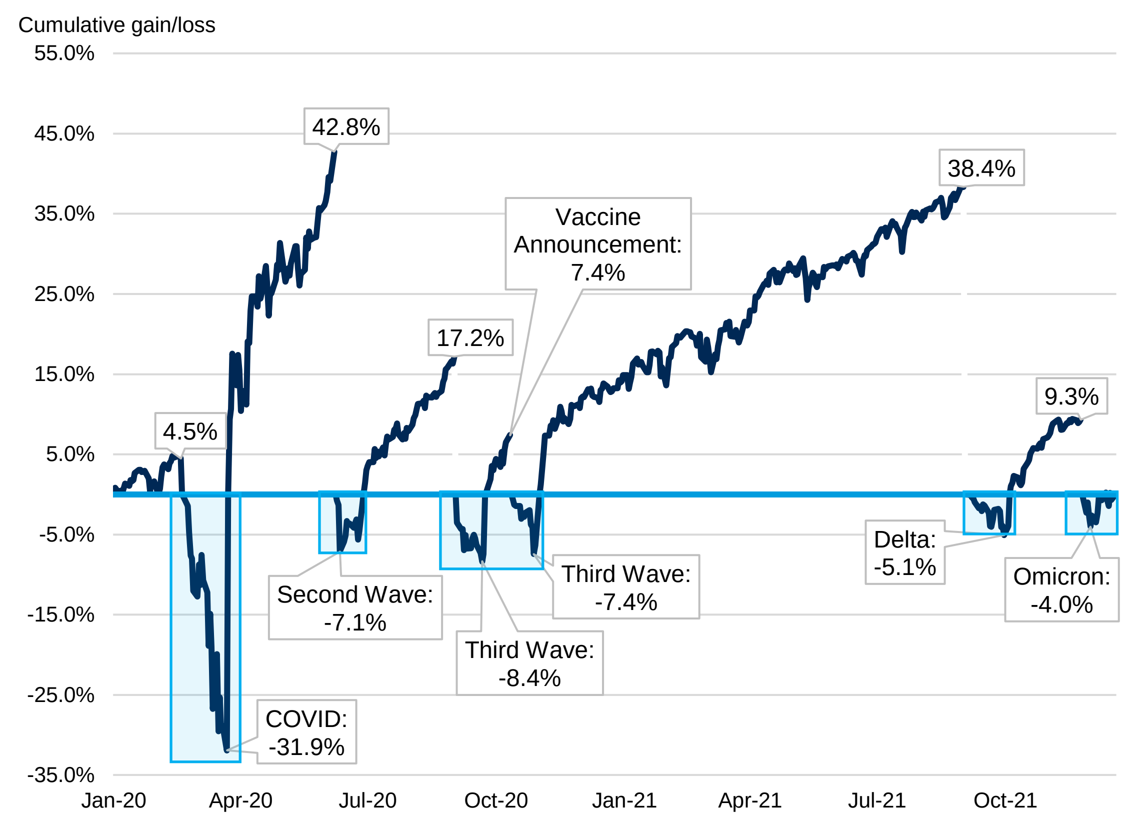
Policy Maker Tightrope

Inflation: Coming or Going?

Volatility Ahead

From Pandemic to Endemic

COVID Variant Emergence Has Led Drawdowns



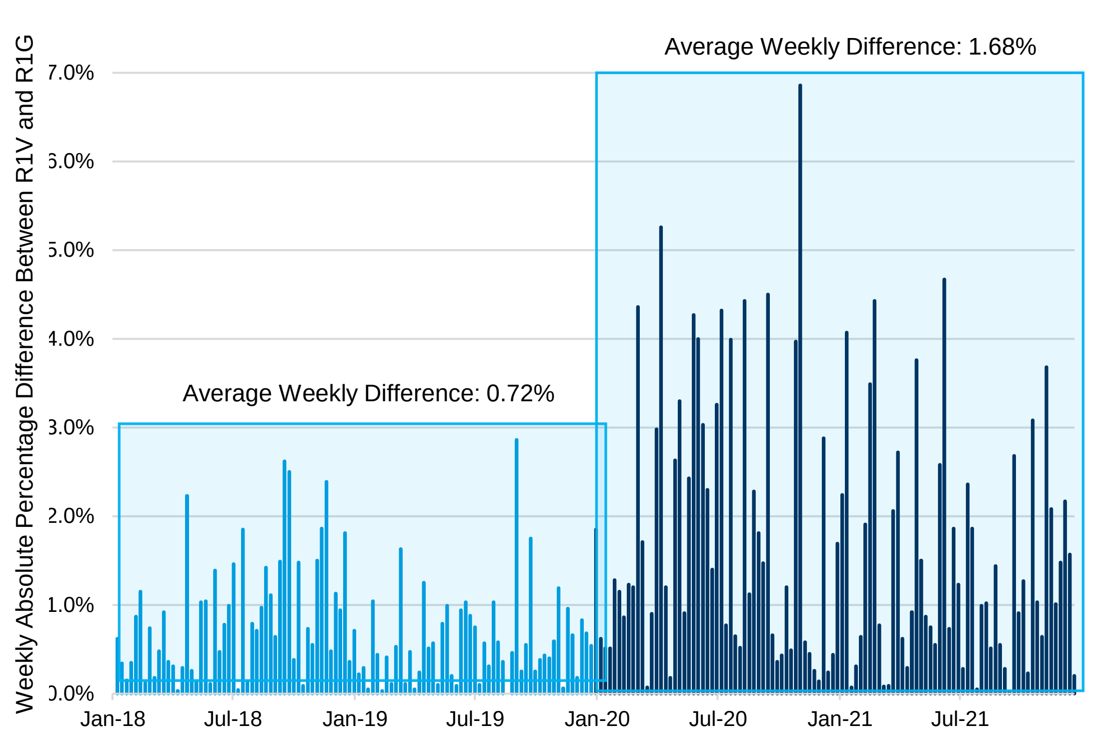
Since the onset of the pandemic in March 2020, uncertainty related to the coronavirus and its new variants have been the primary source of downside volatility in equity markets.

However, as markets have moved from treating it as an *unknown unknown* to a *known unknown*, the severity of drawdowns has reduced. Nonetheless, this headline risk is likely here to stay. Planning regarding risk posture, thoughtful rebalancing that goes beyond calendar-based time periods and patience will help navigate this secular trend.

Source: FactSet, as of December 20, 2021. Returns represented by S&P 500 Index. Use of Indices and Benchmark Return Indices cannot be invested in directly. Index performance is reported gross of fees and expenses and assumes the reinvest dividends and capital gains. Past performance does not indicate future performance and there is a possibility of a loss. See disclosure page for indices representing each asset class.

From Pandemic to Endemic (cont.)

Disparity Among Winners & Losers



COVID's impact on market conditions exaggerated the "style wars" among growth and value securities. The weekly absolute return difference between these style indexes more than doubled from the two years preceding 2020 to the two years after.

Additionally, the disparity has not come simply at the cost of value. Value indexes experienced significant gains after vaccination development in late 2020. This level of disparity continues to reinforce the benefits of diversification and the cautionary tale of timing allocations.

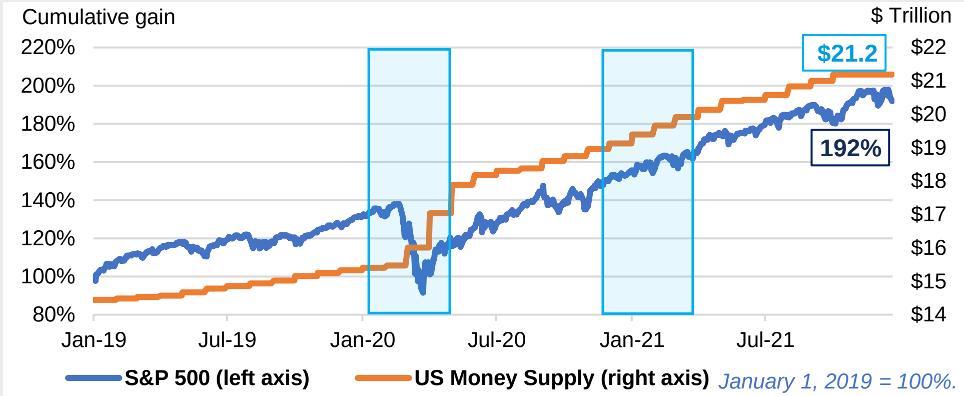
Source: FactSet, as of December 26, 2021. R1V represented by Russell 1000 Value Index and R1G represented by Russell 1000 Growth Index. Use of Indices and Benchmark Return Indices cannot be invested in directly. Index performance is reported gross of fees and expenses and assumes the reinvest dividends and capital gains. Past performance does not indicate future performance and there is a possibility of a loss. See disclosure page for indices representing each asset class.

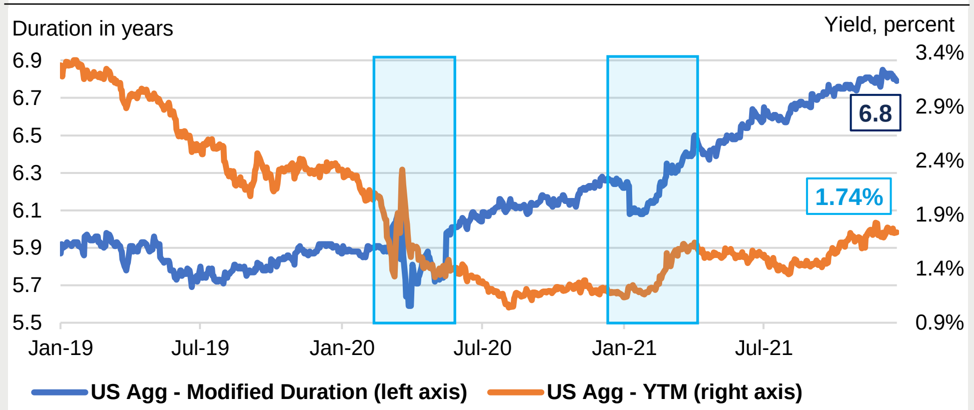
Portfolio Impact

Headline risk is here to stay. Thoughtfully assessing risk posture ahead of future events can help avoid costly emotional decisions during bouts of volatility. Additionally, given the disparity of winners and losers in a volatile environment, diversification matters as much now as it ever has before. **Finally, a more active approach to rebalancing may be warranted.** It is unlikely COVID-induced volatility will fit neatly in a calendar year or quarterly cycle. Plan ahead to take advantage.

Policy Maker Tightrope

Asset Inflation & The Fed





The Federal Reserve grew the money supply by almost 50 percent since 2019, from $14 trillion to over $21 trillion today, mostly in response to COVID. The expansionary stance has moved in lockstep with the upward movement in equity markets and the extension of duration in U.S. fixed income.

As the Fed enters a new regime and moderates its accommodative measures, it will have to walk a thin line of moderating inflation and not adding material volatility to markets.

Returns in equities will more likely come from earnings growth as the Fed steps back and fixed income investors should consider the potential impact on portfolio volatility.

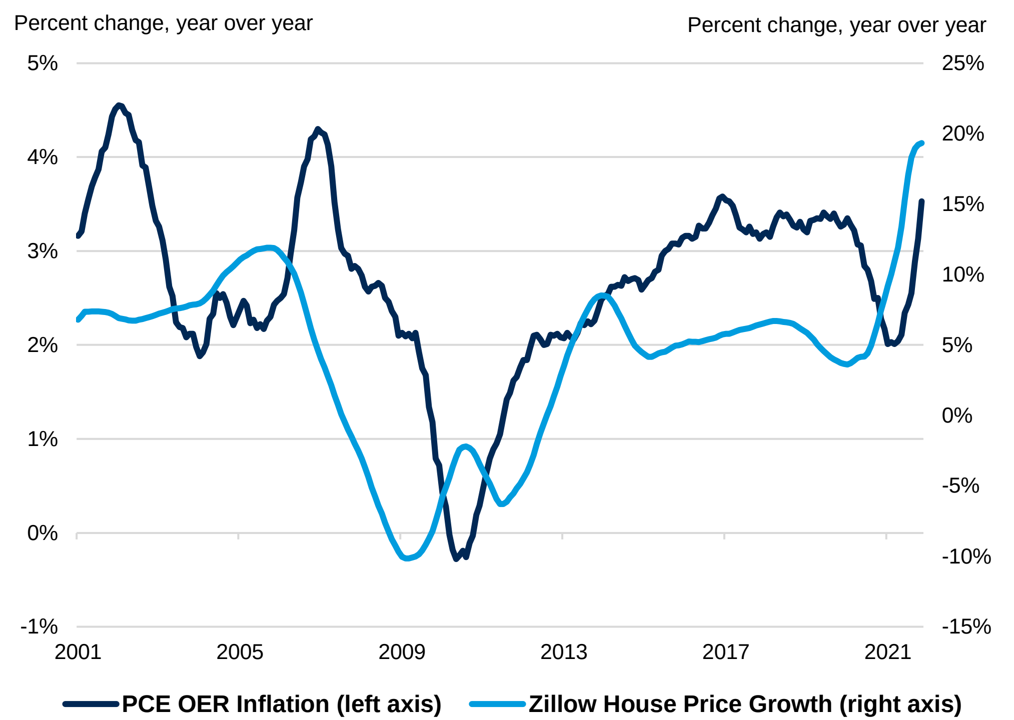
Source: FactSet, as of December 20, 2021. U.S. Money Supply represented by US M2. US Agg represented Bloomberg US Aggregate Index. Use of Indices and Benchmark Return Indices cannot be invested in directly. Index performance is reported gross of fees and expenses and assumes the reinvest dividends and capital gains. Past performance does not indicate future performance and there is a possibility of a loss. See disclosure page for indices representing each asset class.

Portfolio Impact

We believe this environment is attractive for **active fixed income management**, providing a greater opportunity to add value. Additionally, **management of interest rate risk is prudent** in such a macro-environment. Within equities, we believe **maintaining an allocation to Emerging Markets is warranted**, particularly on the heels of Chinese market volatility. Increasing regulatory oversight appears to be reflected in the recent market pullback and stimulus measures from the People's Bank of China provide near-term support. There may be opportunity ahead.

Inflation: Coming or Going?

More Inflation to Come from Housing?



Note: OER is owners' equivalent rent, the rent equivalent of the cost of ownership.
Sources: Zillow, FactSet, Federal Reserve Bank of Dallas; as of November 30, 2021.

Owners' Equivalent Rent (OER), a measure of home ownership cost, often lags home prices observed in the market.

OER makes up 30 percent of CPI and is the single largest component in the inflation benchmark. Should this relationship hold, this could put upward pressure on inflation readings in 2022.

2020 and 2021 have been unique years to put it modestly. Some of the inflationary pressures during this period are also unique and less likely to persist into the future. As these more transitory factors moderate it does not mean inflation will completely fade with it.

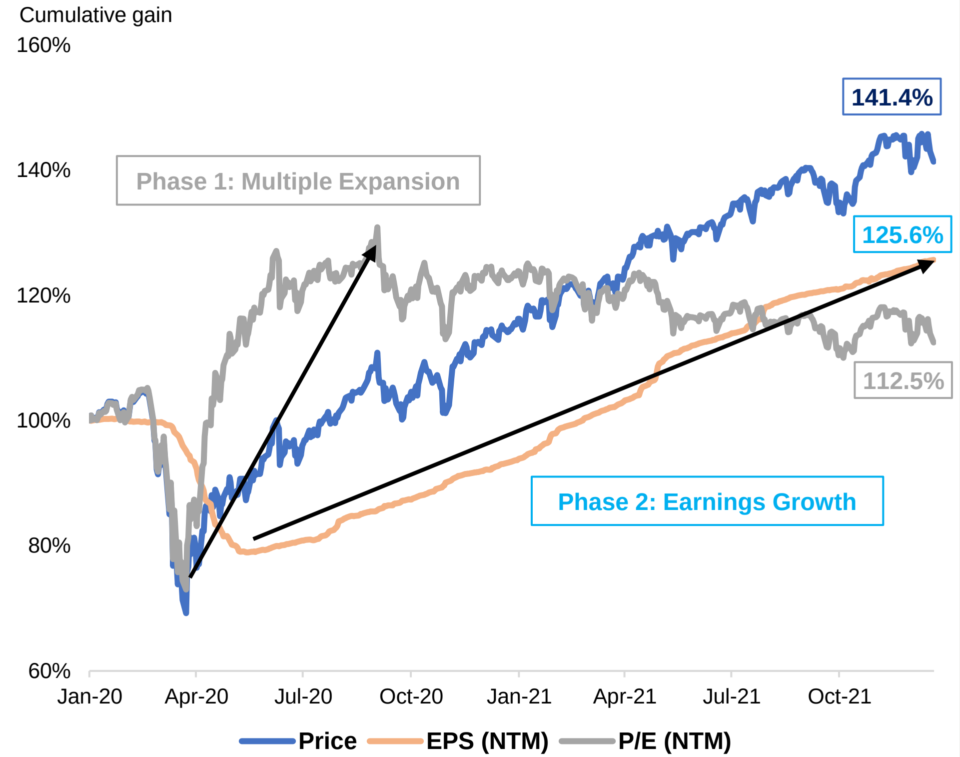
More persistent inflationary factors are more likely to keep inflation figures from reverting to the benign levels seen over the last two decades.

Portfolio Impact

Inflation can and does take many forms. In 2021, inflation was led by rising energy prices, supply chain issues and shortages. Inflation in 2022 and beyond is likely to see these factors subside, but only to be supplanted by persistent recent changes like rising wages and the cost of housing. As a result, inflation-related assets may be impacted in a number of different ways. We believe **broadening exposure to real assets can help guard against the shifting tides and sources of inflation** and help maintain long-term purchasing power of portfolios while diversifying away from equity risks.

Volatility Ahead: Be Comfortable With Your Risk Exposure

Equity Returns – Two Phases, One Index



Note: January 1, 2020 = 100%.

From the COVID-induced stock market bottom in March 2020, equity markets rebounded and trended upwards, as demonstrated by the appreciation of the S&P 500.

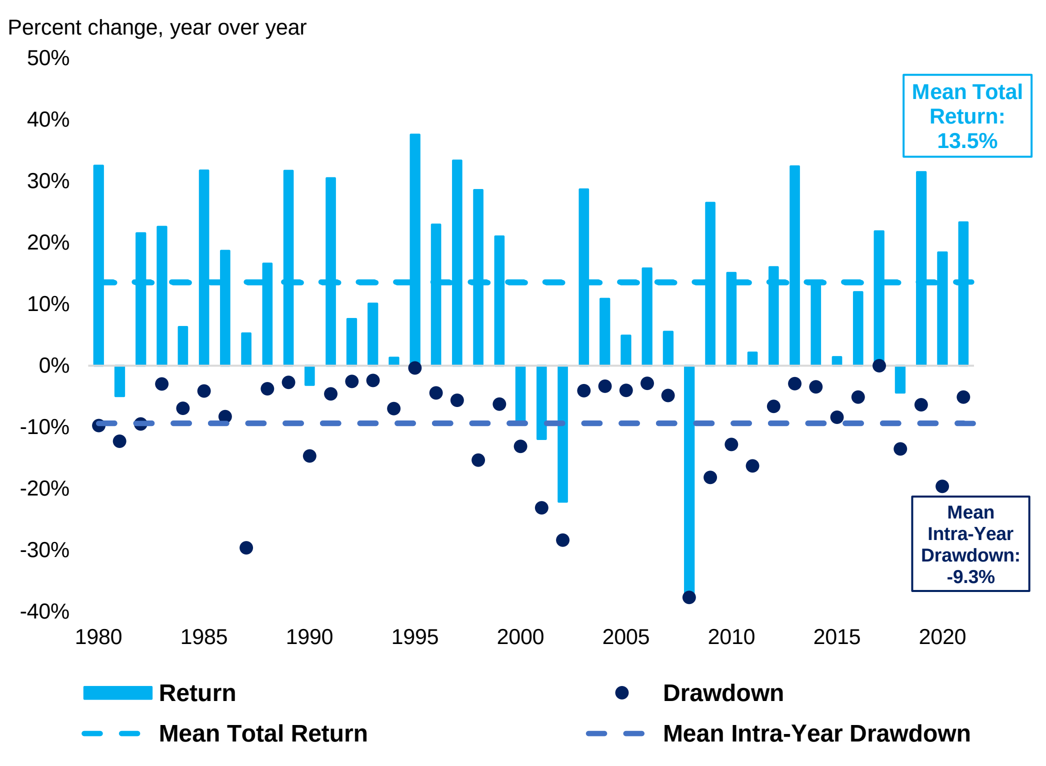
Decomposition of the index's return indicates two distinct factors behind returns. Phase 1 was led by multiple expansion as the index's price-to-earnings ratio expanded from 13.4x to 24.1x from March to September 2020. Phase 2 was fundamentals driven as earnings per share grew from $139 in May 2020 to $221 in December 2021.

With multiples less likely to move higher under a new Federal Reserve regime, focus will shift to earnings growth which may struggle to keep up with higher expectations.

Source: FactSet, as of December 20, 2021. Returns represented by S&P 500 Index. Use of Indices and Benchmark Return Indices cannot be invested in directly. Index performance is reported gross of fees and expenses and assumes the reinvest dividends and capital gains. Past performance does not indicate future performance and there is a possibility of a loss. See disclosure page for indices representing each asset class.

Volatility Ahead: Be Comfortable With Your Risk Profile (cont.)

Volatility is Not Inherently Evil



Volatility is a necessary evil in the investing landscape. However, more volatility is not always a recipe for lower market returns. Since 1983, the mean intra-year drawdown was 9.3 percent. However, the mean calendar year return was 13.5 percent.

Higher volatility means a higher likelihood of making an emotional decision at the wrong time when allocating capital. Reassessing your ability to bear risk ahead of volatility helps stay the course when it arrives.

Source: Morningstar, as of December 20, 2021. Returns represented by S&P 500 Index. Use of Indices and Benchmark Return Indices cannot be invested in directly. Index performance is reported gross of fees and expenses and assumes the reinvest dividends and capital gains. Past performance does not indicate future performance and there is a possibility of a loss. See disclosure page for indices representing each asset class.

Portfolio Impact

Increasing allocations to U.S. equities, **diversifying away from concentrated interest rate risks** present in fixed income indexes and further **distributing allocations across real assets** can help guard against the potential for higher volatility across global markets and the numerous ways in which it can manifest. However, we continue to remind investors that timing markets rarely proves to be a successful investment strategy. Rather, understanding your ability to bear risk and thoughtfully managing risk exposures can lead to more persistent success over time.

Disclosures and Definitions

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When referencing asset class returns or statistics, the following indices are used to represent those asset classes, unless otherwise notes. Each index is unmanaged, and investors

Indices used to generate historical risk and return metrics	Most Recent Index	Index Dates			Linked Index 1	Index Dates			Linked Index 2	Index Dates			Linked Index 2	Index Dates		
Cash	FTSE Treasury Bill 3 Mon USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
ST Bonds	Bloomberg US Govt/Credit 1-3 Yr TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
TIPS	Bloomberg US Treasury US TIPS TR USD	11/21	-	3/97	Bloomberg US Agg Bond TR USD	2/97	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Muni Bond	Bloomberg Municipal 5 Yr 4-6 TR USD	11/21	-	1/88	Bloomberg US Agg Bond TR USD	12/87	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Muni High Yield	Bloomberg HY Muni TR USD	11/21	-	11/95	Bloomberg Municipal 5 Yr 4-6 TR USD	10/95	-	1/88	Bloomberg US Agg Bond TR USD	12/87	-	1/79	N.A.	N.A.	-	N.A.
US Bond	Bloomberg US Agg Bond TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Bonds - Dynamic	*Custom Blend of Indices	11/21	-	2/90	Bloomberg US Agg Bond TR USD	1/90	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
For. Dev. Bond	50% CITI WGBI NonUSD Hdg 50% CITI WGBI NonUSD	11/21	-	1/85	Bloomberg US Agg Bond TR USD	12/84	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
HY Bond	Bloomberg US Corporate High Yield TR USD	11/21	-	7/83	Bloomberg US Agg Bond TR USD	6/83	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
EM Bond	JPM GBI-EM Global Diversified TR USD	11/21	-	1/03	JPM EMBI Global Diversified TR USD	12/02	-	1/94	Bloomberg US Corporate High Yield TR USD	12/93	-	7/83	Bloomberg US Agg Bond TR USD	6/83	-	1/79
Bank Loans	S&P/LSTA Leveraged Loan TR	11/21	-	12/96	Bloomberg US Corporate High Yield TR USD	11/96	-	7/83	Bloomberg US Agg Bond TR USD	6/83	-	1/79	N.A.	N.A.	-	N.A.
Global Bonds	Bloomberg Global Aggregate TR Hdg USD	11/21	-	2/90	Bloomberg US Agg Bond TR USD	1/90	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Global Equity	MSCI ACWI GR USD	11/21	-	1/88	S&P 500 TR USD	12/87	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Equity (AC)	Russell 3000 TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Equity (LC)	S&P 500 TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Equity (MC)	Russell Mid Cap TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
US Equity (SC)	Russell 2000 TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Int'l Dev. Equity	MSCI EAFE GR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
EM Equity	MSCI EM GR USD	11/21	-	1/88	MSCI EAFE GR USD	12/87	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Real Estate	Wilshire US RESI TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Private Real Estate	Wilshire US RESI TR USD	11/21	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Broad Real Assets	S&P Real Asset TR USD	11/21	-	5/05	*Custom Real Assets Index	4/05	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Commod. Fut.	BCI+TIPS-CASH	11/21	-	3/97	BCI+AGG-CASH	2/97	-	1/91	GSCI+AGG-CASH	12/90	-	1/79	N.A.	N.A.	-	N.A.
Global Infrastructure	DJ Brookfld Global Infra TR USD	11/21	-	2/03	Alerian MLP TR USD	1/03	-	1/96	Wilshire US RESI TR USD	12/95	-	1/79	N.A.	N.A.	-	N.A.
Marketable Alternatives	HFRI Fund of Funds Composite USD	11/21	-	1/90	HFN Hedge Fund Aggregate Average	12/89	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Hedge Funds (Liquid)	HFRI Fund of Funds Composite USD	11/21	-	1/90	HFN Hedge Fund Aggregate Average	12/89	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.
Private Equity	Cambridge PE 67% Buyout vs. 33% Venture	11/21	-	4/86	Russell 2000 TR USD	3/86	-	1/79	N.A.	N.A.	-	N.A.	N.A.	N.A.	-	N.A.

The S&P 500 is a capitalization-weighted index designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.
Russell 1000 Growth measures the performance of those Russell 1000 companies with higher P/B ratios and higher forecasted growth values.
Russell 1000 Value measures the performance of those Russell 1000 companies with lower P/B ratios and lower forecasted growth values.