MARKET INSIGHTS

Principles for successful long-term investing

Using insights to achieve better client outcomes

2022

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The economic landscape is uncertain and volatility has rocked global markets. As we plan ahead, the key to successful investing is not predicting the future; instead, it is learning from the past and understanding the present. In "Principles for Successful Long-Term Investing," we present seven time-tested strategies for guiding investors through today's challenges and toward tomorrow's goals. Inside, you will find slides from our industry-leading *Guide to the Markets* and *Guide to Retirement*. You will also find commentary providing additional perspective and suggested actions.

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Principles for successful long-term investing

1. Plan on living a long time
2. Cash isn't always king
3. Harness the power of dividends and compounding
4. Avoid emotional biases by sticking to a plan
5. Volatility is normal, so don't let it derail you
6. Diversification works
7. Staying invested matters

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1 PLAN ON LIVING A LONG TIME

and perhaps, saving and investing more

We are living longer

Life expectancies in the United States continue to increase as more people are living to older ages. For a 65-year-old couple, there is nearly an even chance that one of them will live to age 90 or beyond. Individuals should plan for living well beyond the average – to age 95 or even 100 – especially those in good health and with a family history of longevity.

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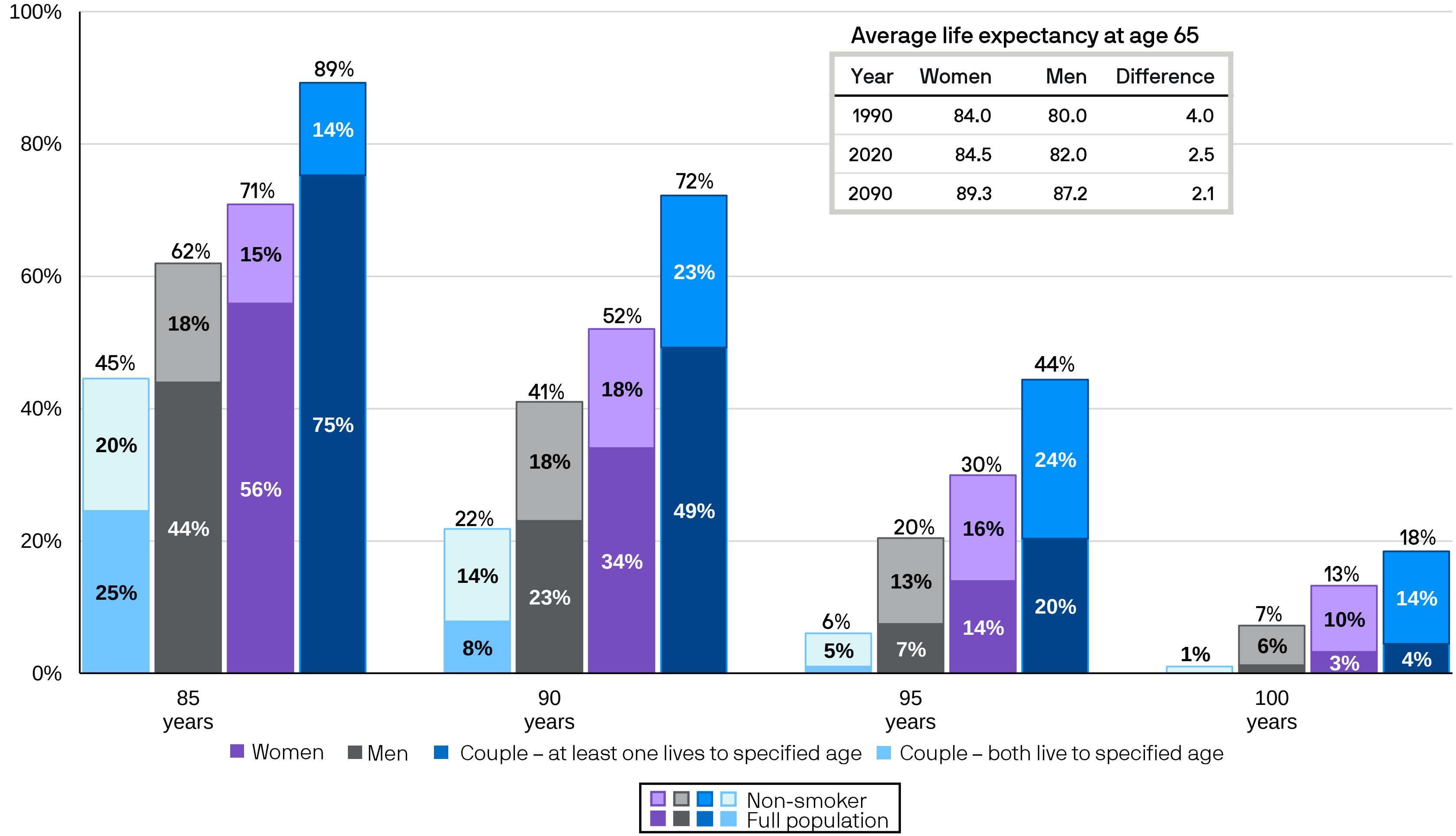
1 – Plan on living a long time

If you're age 65 today, the probability of living to a specific age or beyond



Average life expectancy at age 65

Year	Women	Men	Difference
1990	84.0	80.0	4.0
2020	84.5	82.0	2.5
2090	89.3	87.2	2.1

Source (chart): Social Security Administration, Period Life Table, 2018 (published in the 2021 OASDI Trustees Report); American Academy of Actuaries and Society of Actuaries, Actuaries Longevity Illustrator, http://www.longevityillustrator.org/ (accessed January 14, 2022), J.P. Morgan Asset Management.
Source (table): Social Security Administration 2021 OASDI Trustees Report.
Probability at least one member of a same-sex female couple lives to age 95 is 26% and a same-sex male couple is 14%.

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2 CASH ISN'T ALWAYS KING

and it doesn’t earn what it used to

Cash pays less

Investors often think of cash as a safe haven during volatile times, or even as a source of income. However, despite a more hawkish stance by the Federal Reserve, nominal and real yields are still low relative to history. Investors should be sure an allocation to cash does not undermine their long-term investment objectives.

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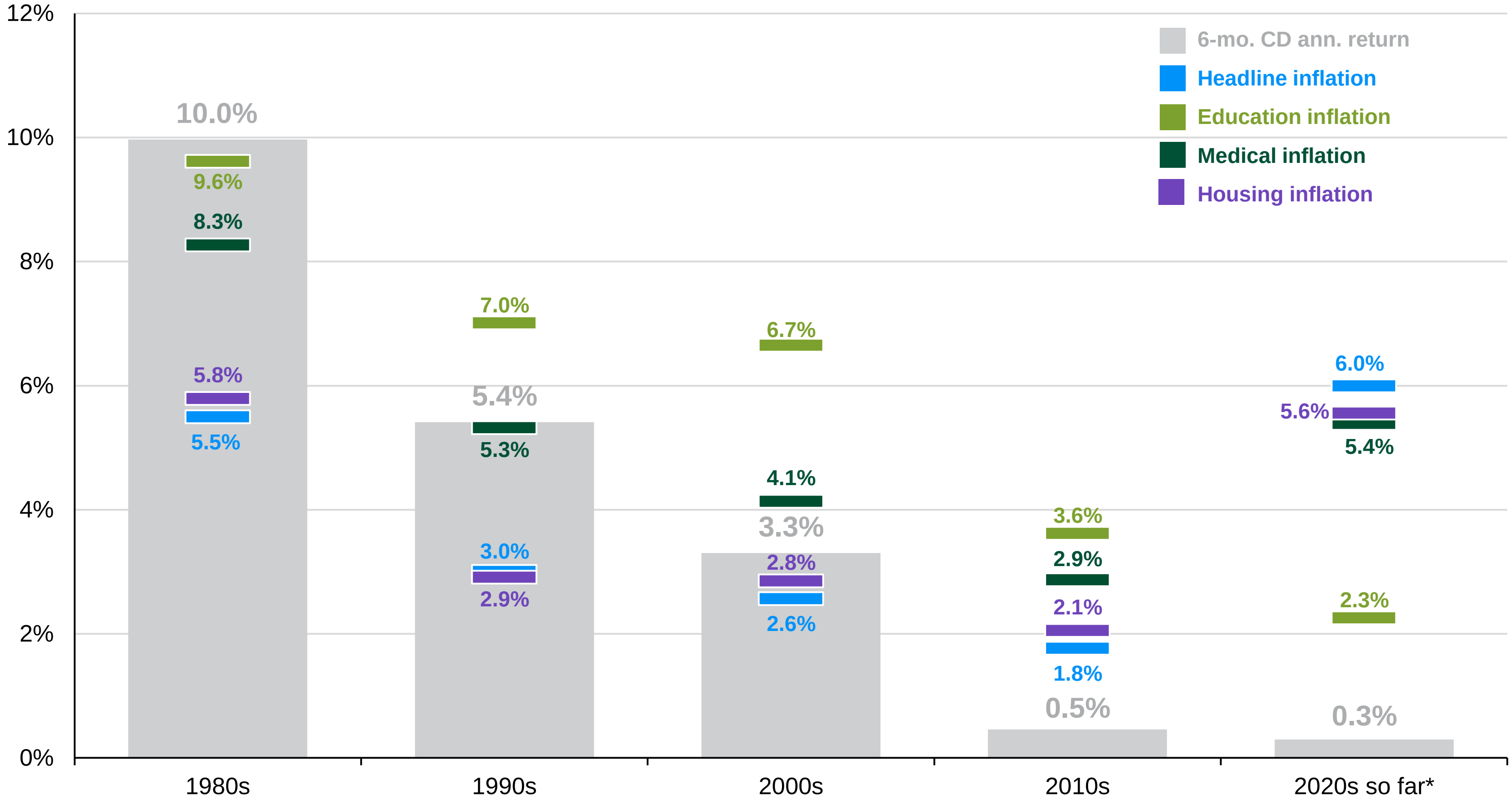
2 – Cash isn't always king

Annualized return on 6-month CD vs. average annual CPI inflation and subcomponents

By decade, derived from subcomponents of the consumer price index



Source: Bankrate.com, BLS, Federal Reserve System, FactSet, J.P. Morgan Asset Management.
6-month CD return is the annualized return over the period. Headline CPI and subcomponents inflation is based on the average year-over-year change over the period. *2020s so far is based on inflation readings from 12/31/2019 through 12/31/2021. Past performance is not indicative of comparable future results.
Guide to the Markets – U.S. Data are as of December 31, 2021.

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Investing Principles

3 HARNESS THE POWER OF DIVIDENDS AND COMPOUNDING

and have them working for you

TOP: The power of dividends and compounding

In this simple illustration, an initial investment of $10,000 in the S&P 500 price return index would have grown to almost $115,000 over the last 30 years. However, if dividend payments were included, reinvested and allowed to compound over time, that same $10,000 investment would be worth almost $210,000 today.

BOTTOM: Investing in risk assets is critical

Many investors shy away from the stock market, unwilling to take on added risk. But this chart shows a staggering difference in the value of $10,000 invested in a variety of different asset classes over time, ranging from low-risk T-bills to U.S. small cap stocks.

There is no guarantee that companies will declare, continue to pay or increase dividends

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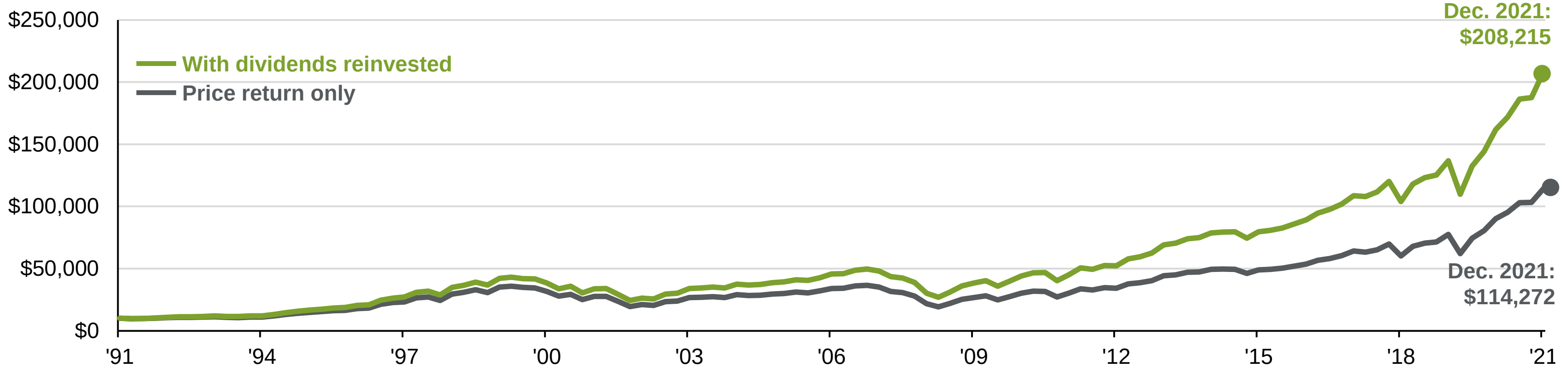
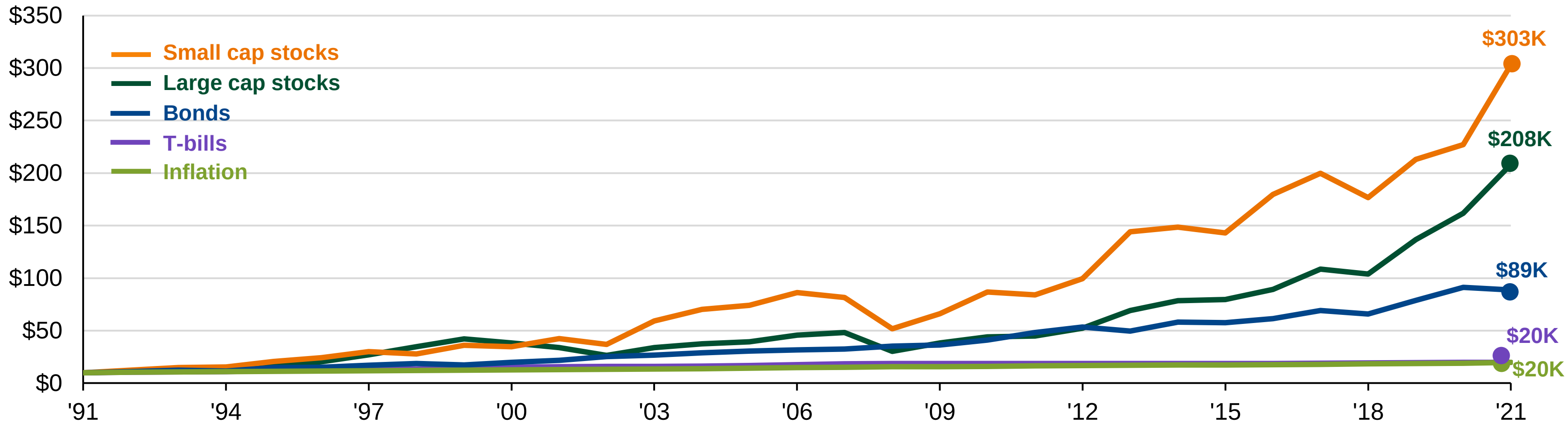
3 – Harness the power of dividends and compounding

The power of compounding
S&P 500 price return versus total return, growth of $10,000, quarterly, last 30 years



Major asset classes versus inflation
Growth of $10,000 from 1992-2021, annual, USD thousands



Source: Ibbotson, Standard & Poor's, J.P. Morgan Asset Management.
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Investing Principles

4 AVOID EMOTIONAL BIASES BY STICKING TO A PLAN

and avoid the urge to time the market **(Part 1)**

TOP: In good times and bad, stick to a plan

Investors often lament that a diversified portfolio has failed keep up with the stock market during bull markets. However, as the chart shows, a 60/40 portfolio is your friend during the worst of times. Over the last 20 years, a 60/40 portfolio saw reduced daily losses on the S&P 500's bottom decile days.

BOTTOM: The heavy cost of market timing

This chart is based on the famous Dalbar study titled "Quantitative Analysis of Investor Behavior." This study estimates that over the last 20 years, the average investor has achieved a scant 3.6% annualized return compared to 7.4% in a 60/40 stock/bond portfolio, thanks in part to badly timed (and often emotionally driven) investment decisions.

Diversification does not guarantee investment returns does not eliminate the risk of loss. Diversification among investment options and asset classes may help to reduce overall volatility.

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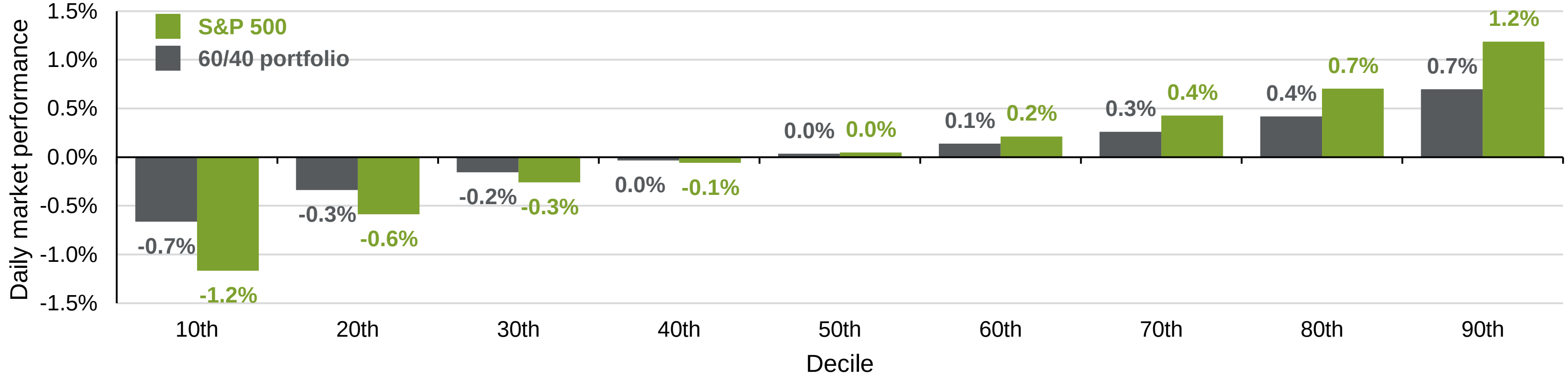
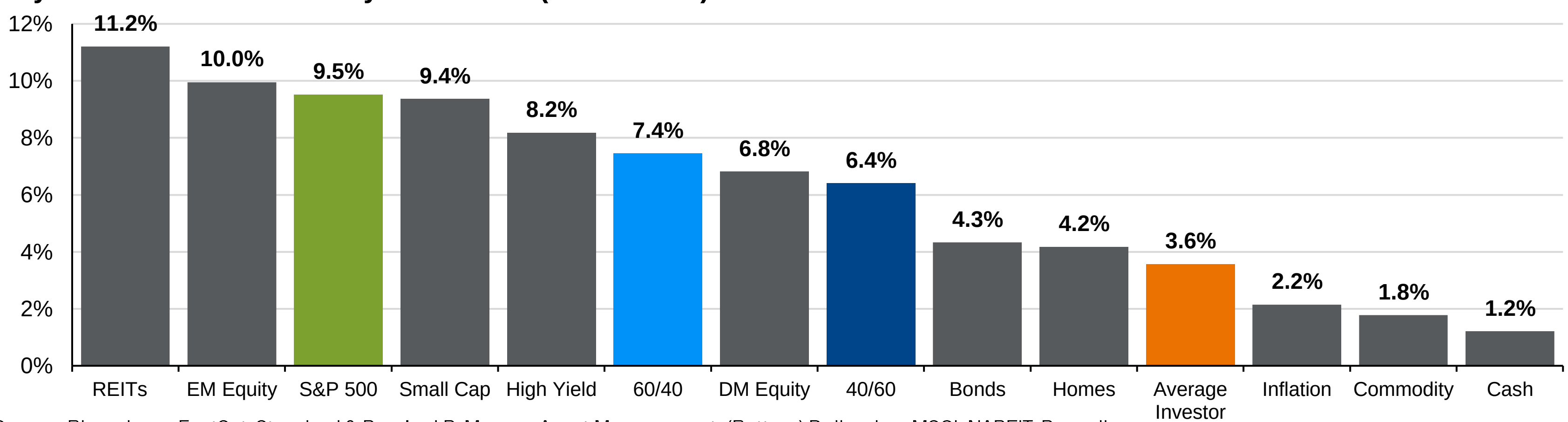
4 – Avoid emotional biases by sticking to a plan (Part 1)

Equities vs. 60/40 portfolio: Last 20 years daily market performance by decile



20-year annualized returns by asset class (2002 – 2021)



Source: Bloomberg, FactSet, Standard & Poor's, J.P. Morgan Asset Management; (Bottom) Dalbar Inc, MSCI, NAREIT, Russell.
Indices used are as follows: REITs: NAREIT Equity REIT Index, Small Cap: Russell 2000, EM Equity: MSCI EM, DM Equity: MSCI EAFE, Commodity: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Bonds: Bloomberg U.S. Aggregate Index, Homes: median sale price of existing single-family homes, Cash: Bloomberg 1-3m Treasury, Inflation: CPI. 60/40: A balanced portfolio with 60% invested in S&P 500 Index and 40% invested in high-quality U.S. fixed income, represented by the Bloomberg U.S. Aggregate Index. The portfolio is rebalanced annually. Average asset allocation investor return is based on an analysis by Dalbar Inc., which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior.
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4 AVOID EMOTIONAL BIASES BY STICKING TO A PLAN

and avoid the urge to time the market **(Part 2)**

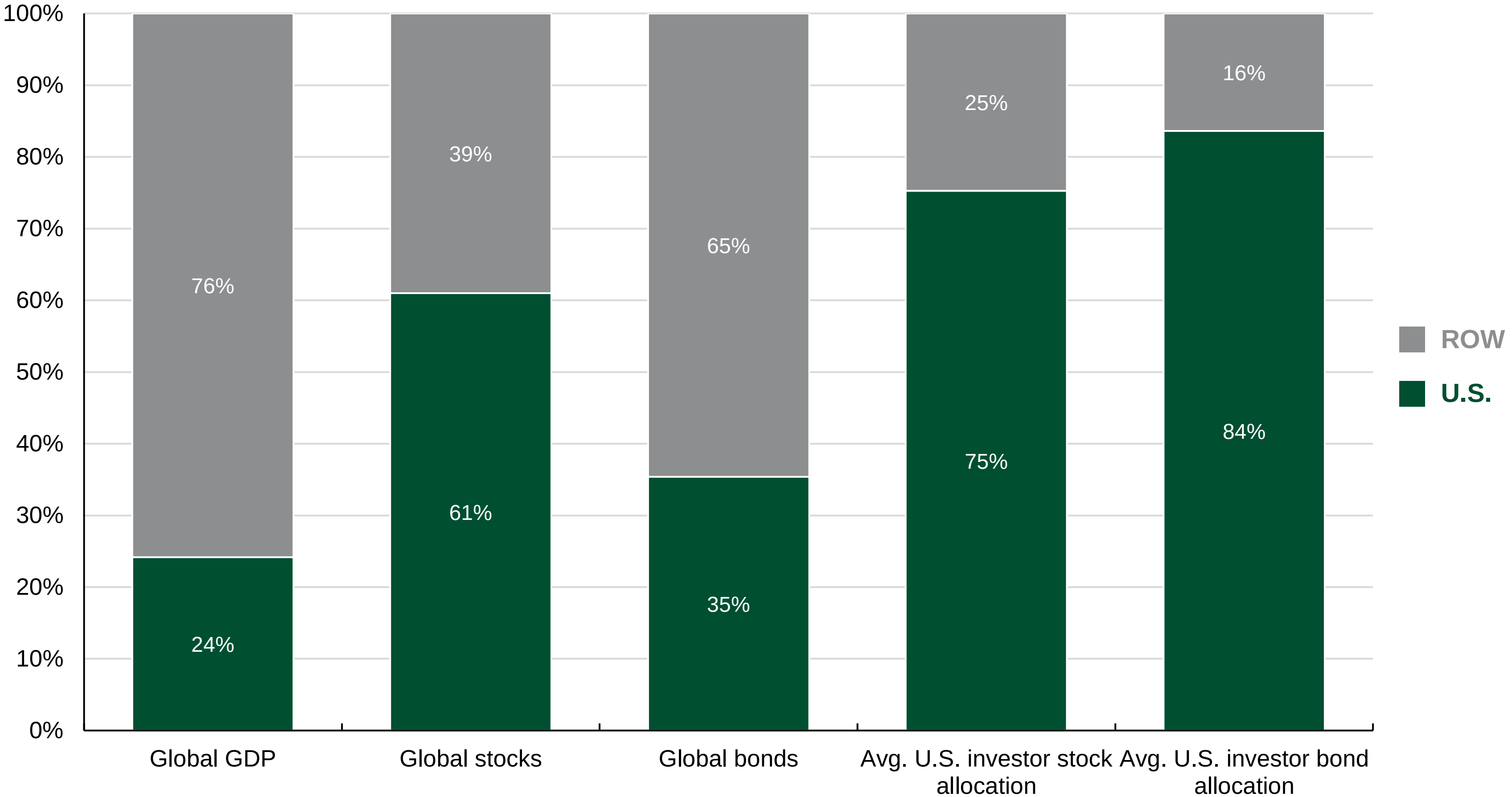
Home-country bias

While the United States still boasts the single largest economy in the world, it accounts for only a fraction of global GDP and less than half of the world's public market capitalization. However, statistics show that U.S. investors have 75% of their investments in U.S.-based assets, indicating a strong home-country bias that may result in missed opportunities overseas.

4 – Avoid emotional biases by sticking to a plan (Part 2)

Investment universe and average U.S. investor positioning

Percent of market capitalization, 2021



Source: BIS, FactSet, IMF, MSCI, J.P. Morgan Portfolio Insights, J.P. Morgan Asset Management.
Global GDP are from IMF WEO Outlook and are in current prices using 2021 GDP estimates as of October 2021. Global stock markets data are as of 2021 and global bond markets data are as of June 2021. Average U.S. investor allocation Is based on proprietary portfolio screenings of advisor portfolios and are aggregated.
Guide to the Markets – U.S. Data are as of December 31, 2021.

5 VOLATILITY IS NORMAL, SO DON'T LET IT DERAIL YOU

and plan on riding it out instead of reacting emotionally

Seeing through the noise

Every year has its rough patches. The red dots on this chart represent the maximum intra-year decline in every calendar year for the S&P 500 going back to 1980. While these pull-backs cannot be predicted, they can be expected; after all, markets suffered double-digit declines in 23 of the last 42 years.

However, despite the many pull-backs, roughly 75% of those years ended with positive returns, as reflected by the gray bars. As a result, volatility is unlikely to derail a long-term allocation. Investors therefore need a plan for riding out volatile periods instead of reacting emotionally.

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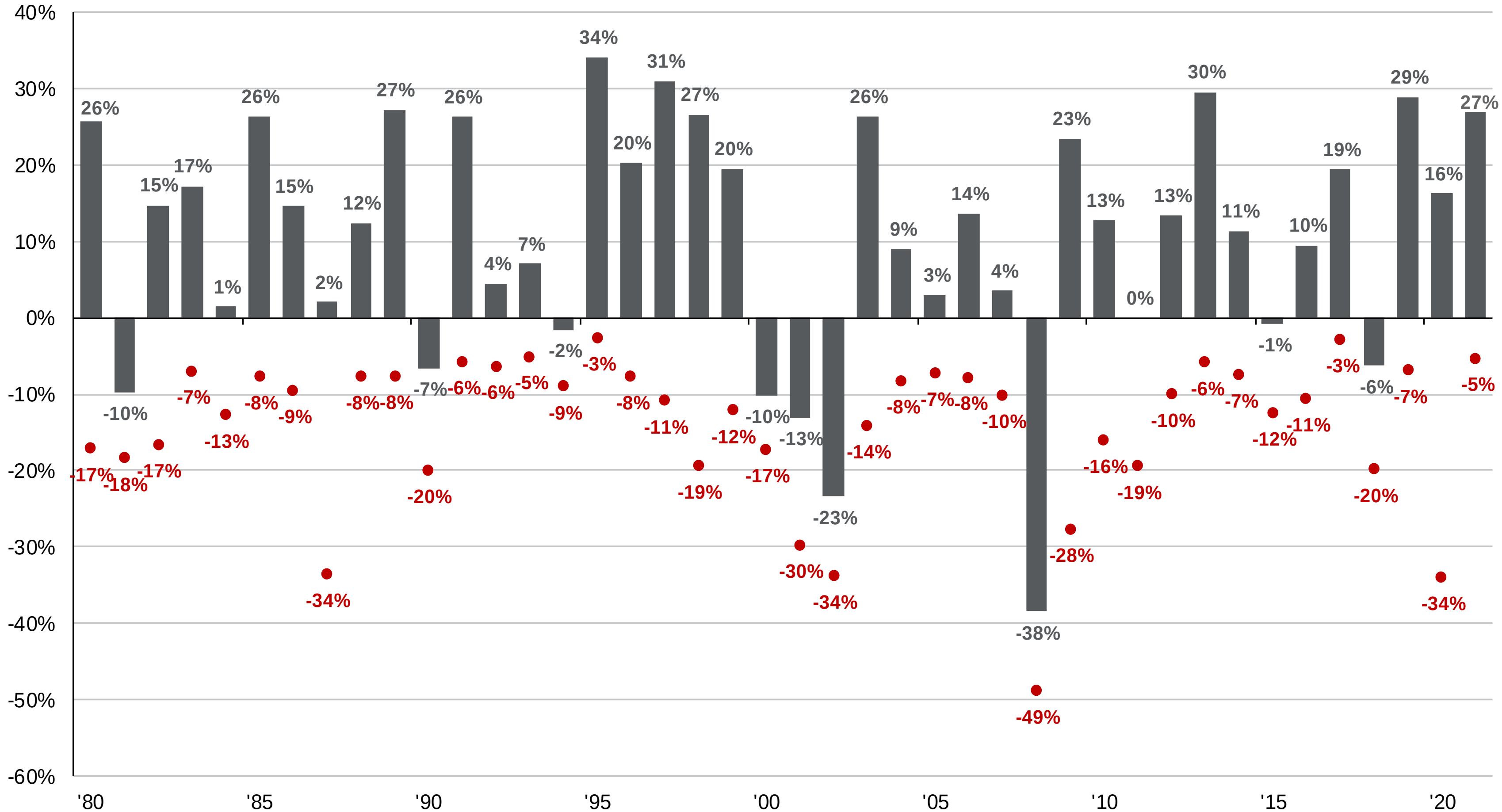
Equities

5 – Volatility is normal, so don't let it derail you

S&P intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.0%, annual returns were positive in 32 of 42 years



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2021, over which time period the average annual return was 9.4%.
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6 DIVERSIFICATION WORKS

and it is a winning strategy over the long run

Diversification has served its purpose

The last 15 years have provided a volatile and tumultuous ride for investors, with multiple natural disasters, numerous geopolitical conflicts, a global pandemic and two major market downturns.

Yet despite these difficulties, cash was among the worst performing asset classes over this time period. Meanwhile, a well-diversified portfolio of stocks, bonds and other uncorrelated asset classes returned roughly 6% per year over this time period (and around 150% on a cumulative total return basis).

6 – Diversification works

															2007 - 2021	
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Ann.	Vol.
EM Equity 39.8%	Fixed Income 5.2%	EM Equity 79.0%	REITs 27.9%	REITs 8.3%	REITs 19.7%	Small Cap 38.8%	REITs 28.0%	REITs 2.8%	Small Cap 21.3%	EM Equity 37.8%	Cash 1.8%	Large Cap 31.5%	Small Cap 20.0%	REITs 41.3%	Large Cap 10.6%	REITs 23.2%
Comdty. 16.2%	Cash 1.8%	High Yield 59.4%	Small Cap 26.9%	Fixed Income 7.8%	High Yield 19.6%	Large Cap 32.4%	Large Cap 13.7%	Large Cap 1.4%	High Yield 14.3%	DM Equity 25.6%	Fixed Income 0.0%	REITs 28.7%	EM Equity 18.7%	Large Cap 28.7%	Small Cap 8.7%	EM Equity 22.9%
DM Equity 11.6%	Asset Alloc. -25.4%	DM Equity 32.5%	EM Equity 19.2%	High Yield 3.1%	EM Equity 18.6%	DM Equity 23.3%	Fixed Income 6.0%	Fixed Income 0.5%	Large Cap 12.0%	Large Cap 21.8%	REITs -4.0%	Small Cap 25.5%	Large Cap 18.4%	Comdty. 27.1%	REITs 7.5%	Small Cap 22.5%
Asset Alloc. 7.1%	High Yield -26.9%	REITs 28.0%	Comdty. 16.8%	Large Cap 2.1%	DM Equity 17.9%	Asset Alloc. 14.9%	Asset Alloc. 5.2%	Cash 0.0%	Comdty. 11.8%	Small Cap 14.6%	High Yield -4.1%	DM Equity 22.7%	Asset Alloc. 10.6%	Small Cap 14.8%	High Yield 6.6%	Comdty. 19.1%
Fixed Income 7.0%	Small Cap -33.8%	Small Cap 27.2%	Large Cap 15.1%	Cash 0.1%	Small Cap 16.3%	High Yield 7.3%	Small Cap 4.9%	DM Equity -0.4%	EM Equity 11.6%	Asset Alloc. 14.6%	Large Cap -4.4%	Asset Alloc. 19.5%	DM Equity 8.3%	Asset Alloc. 13.4%	Asset Alloc. 5.7%	DM Equity 18.9%
Large Cap 5.5%	Comdty. -35.6%	Large Cap 26.5%	High Yield 14.8%	Asset Alloc. -0.7%	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Alloc. -2.0%	REITs 8.6%	High Yield 10.4%	Asset Alloc. -5.8%	EM Equity 18.9%	Fixed Income 7.5%	DM Equity 11.8%	EM Equity 4.8%	Large Cap 16.9%
Cash 4.8%	Large Cap -37.0%	Asset Alloc. 25.0%	Asset Alloc. 13.3%	Small Cap -4.2%	Asset Alloc. 12.2%	Cash 0.0%	High Yield 0.0%	High Yield -2.7%	Asset Alloc. 8.3%	REITs 8.7%	Small Cap -11.0%	High Yield 12.6%	High Yield 7.0%	High Yield 1.0%	DM Equity 4.1%	High Yield 12.2%
High Yield 3.2%	REITs -37.7%	Comdty. 18.9%	DM Equity 8.2%	DM Equity -11.7%	Fixed Income 4.2%	Fixed Income -2.0%	EM Equity -1.8%	Small Cap -4.4%	Fixed Income 2.6%	Fixed Income 3.5%	Comdty. -11.2%	Fixed Income 8.7%	Cash 0.5%	Cash 0.0%	Fixed Income 4.1%	Asset Alloc. 11.7%
Small Cap -1.6%	DM Equity -43.1%	Fixed Income 5.9%	Fixed Income 6.5%	Comdty. -13.3%	Cash 0.1%	EM Equity -2.3%	DM Equity -4.5%	EM Equity -14.6%	DM Equity 1.5%	Comdty. 1.7%	DM Equity -13.4%	Comdty. 7.7%	Comdty. -3.1%	Fixed Income -1.5%	Cash 0.8%	Fixed Income 3.3%
REITs -15.7%	EM Equity -53.2%	Cash 0.1%	Cash 0.1%	EM Equity -18.2%	Comdty. -1.1%	Comdty. -9.5%	Comdty. -17.0%	Comdty. -24.7%	Cash 0.3%	Cash 0.8%	EM Equity -14.2%	Cash 2.2%	REITs -5.1%	EM Equity -2.2%	Comdty. -2.6%	Cash 0.7%

Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.
Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg US Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg US Aggregate, 5% in the Bloomberg 1-3m Treasury, 5% in the Bloomberg Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/2006 to 12/31/2021. Please see disclosure page at end for index definitions. All data represents total return for stated period. The "Asset Allocation" portfolio is for illustrative purposes only. Past performance is not indicative of future returns.
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7 STAYING INVESTED MATTERS

and it is the most essential principle of all **(Part 1)**

It's always darkest just before dawn

Market timing can be a dangerous habit. Sometimes, investors think they can outsmart the market; other times, fear and greed push them to make emotional, rather than logical, decisions.

When investors feel gloomy and worried about the outlook, their natural tendency is to sell risk assets in general and stocks in particular. However, history suggests that trying to time markets in this way is a mistake. Over the last 50 years, there have been eight distinct peaks and troughs in the University of Michigan Consumer Sentiment Index. On average, buying at a confidence peak yielded a return of 4.1% while buying at a trough returned 24.9%.

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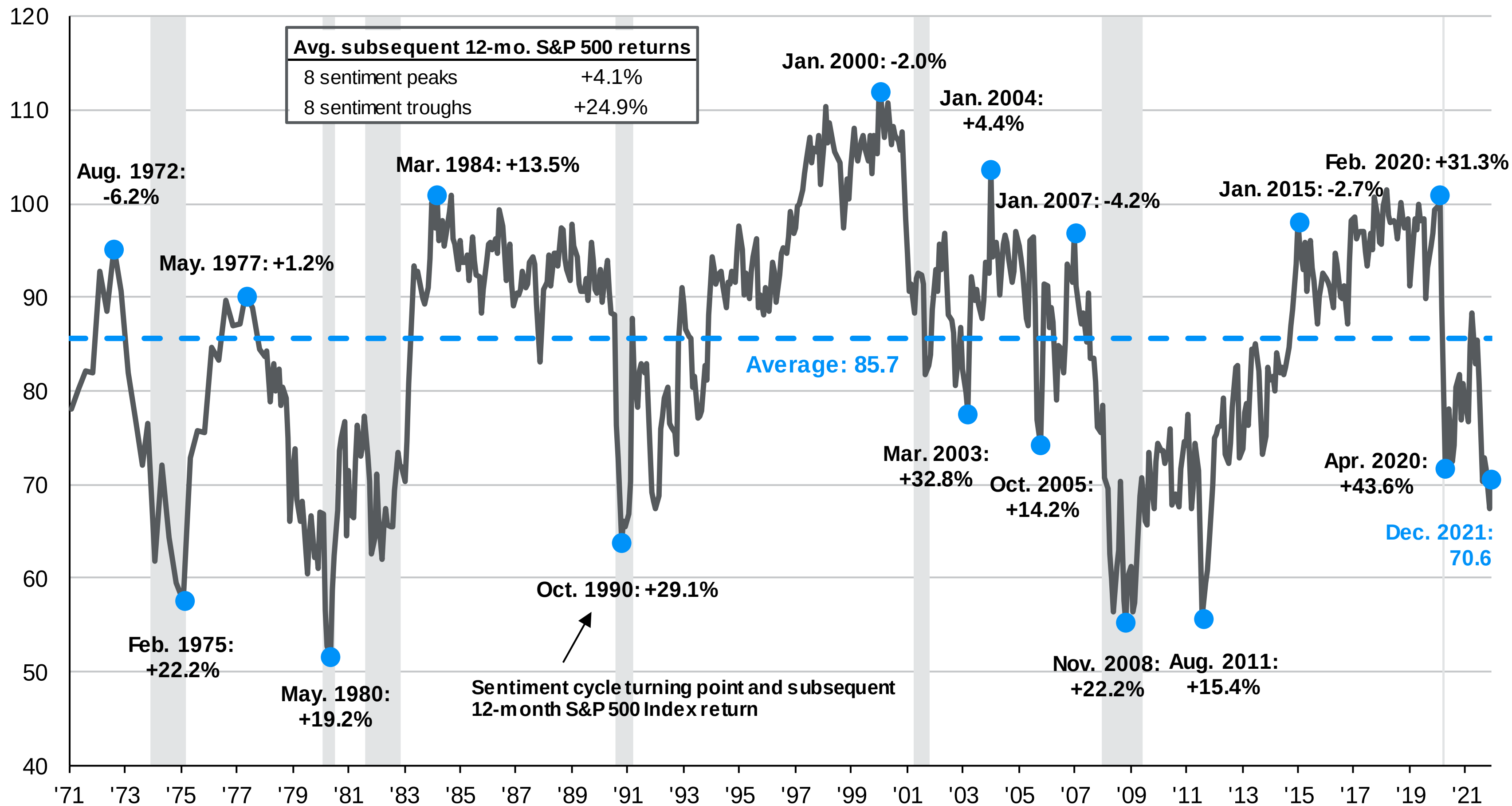
7 – Staying invested matters (Part 1)

Consumer Sentiment Index and subsequent 12-month S&P 500 returns



Source: FactSet, Standard & Poor's, University of Michigan, J.P. Morgan Asset Management.
Peak is defined as the highest index value before a series of lower lows, while a trough is defined as the lowest index value before a series of higher highs. Subsequent 12-month S&P 500 returns are price returns only, which excludes dividends. Past performance is not a reliable indicator of current and future results.
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7 STAYING INVESTED MATTERS

and it is the most essential principle of all **(Part 2)**

Good things come to those who wait

While markets will always have a bad day, week, month or even year, history suggests that investors are less likely to suffer losses over longer periods.

This chart illustrates that concept. While one-year stock returns have varied widely since 1950 (+47% to -39%), a blend of stocks and bonds has not suffered a negative return over any five-year rolling period over the past 70 years.

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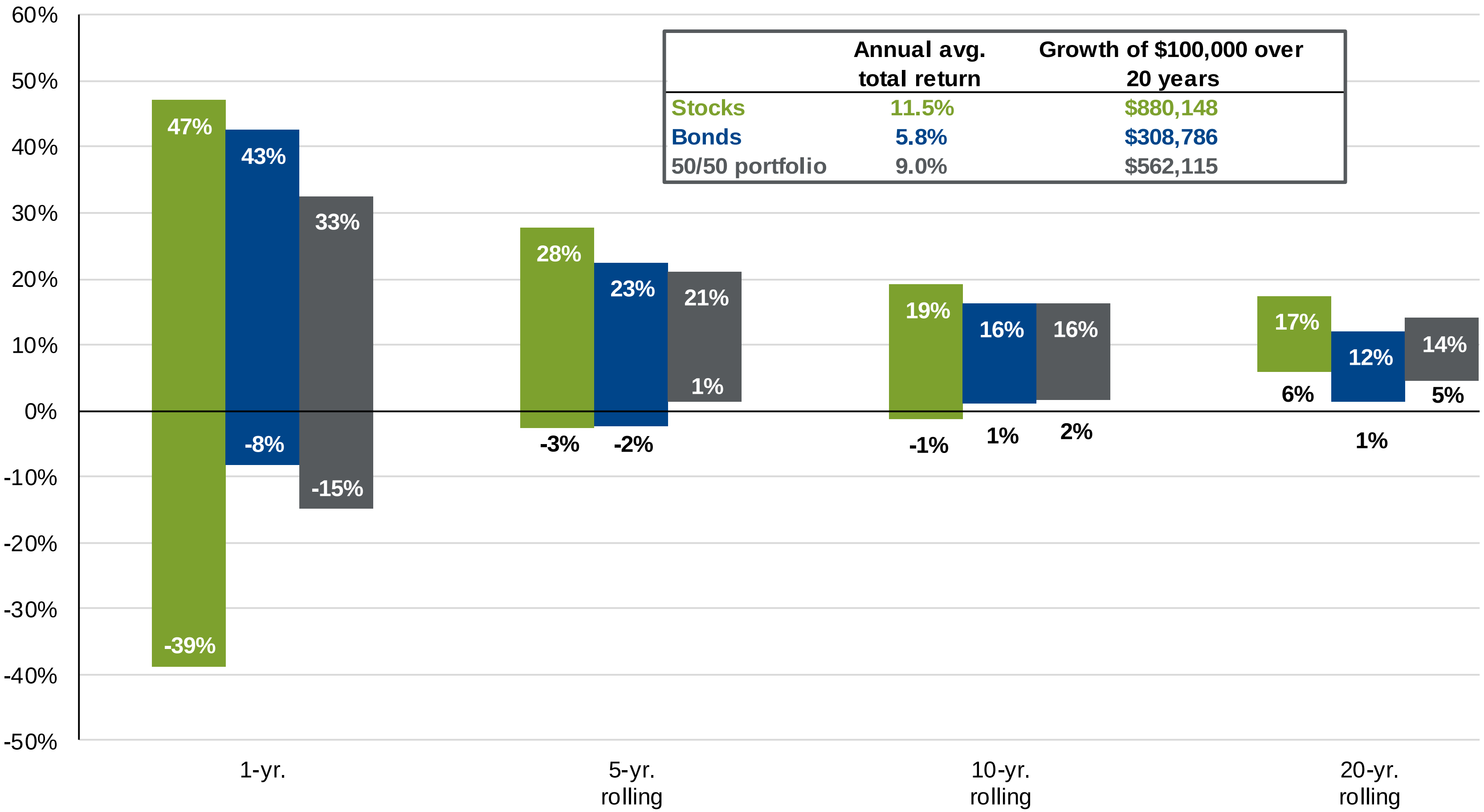
7 – Staying invested matters (Part 2)

Range of stock, bond and blended total returns
Annual total returns, 1950 - 2021



	Annual avg. total return	Growth of $100,000 over 20 years
Stocks	11.5%	$880,148
Bonds	5.8%	$308,786
50/50 portfolio	9.0%	$562,115

Source: Bloomberg, FactSet, Federal Reserve, Robert Shiller, Strategas/Ibbotson, J.P. Morgan Asset Management.
Returns shown are based on calendar year returns from 1950 to 2021. Stocks represent the S&P 500 Shiller Composite and Bonds represent Strategas/Ibbotson for periods from 1950 to 2010 and Bloomberg Aggregate thereafter. Growth of $100,000 is based on annual average total returns from 1950 to 2021.
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PUTTING IT ALL TOGETHER

Each of the Principles for Successful Long-Term Investing is vital to help investors navigate today's challenging markets and reach their financial goals. Important as they are alone, they are most effective and powerful when used together. Moreover, they all depend on staying invested – the most essential principle of all.

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