MARKET INSIGHTS

Principles for successful long-term investing

Using insights to achieve better client outcomes

2023

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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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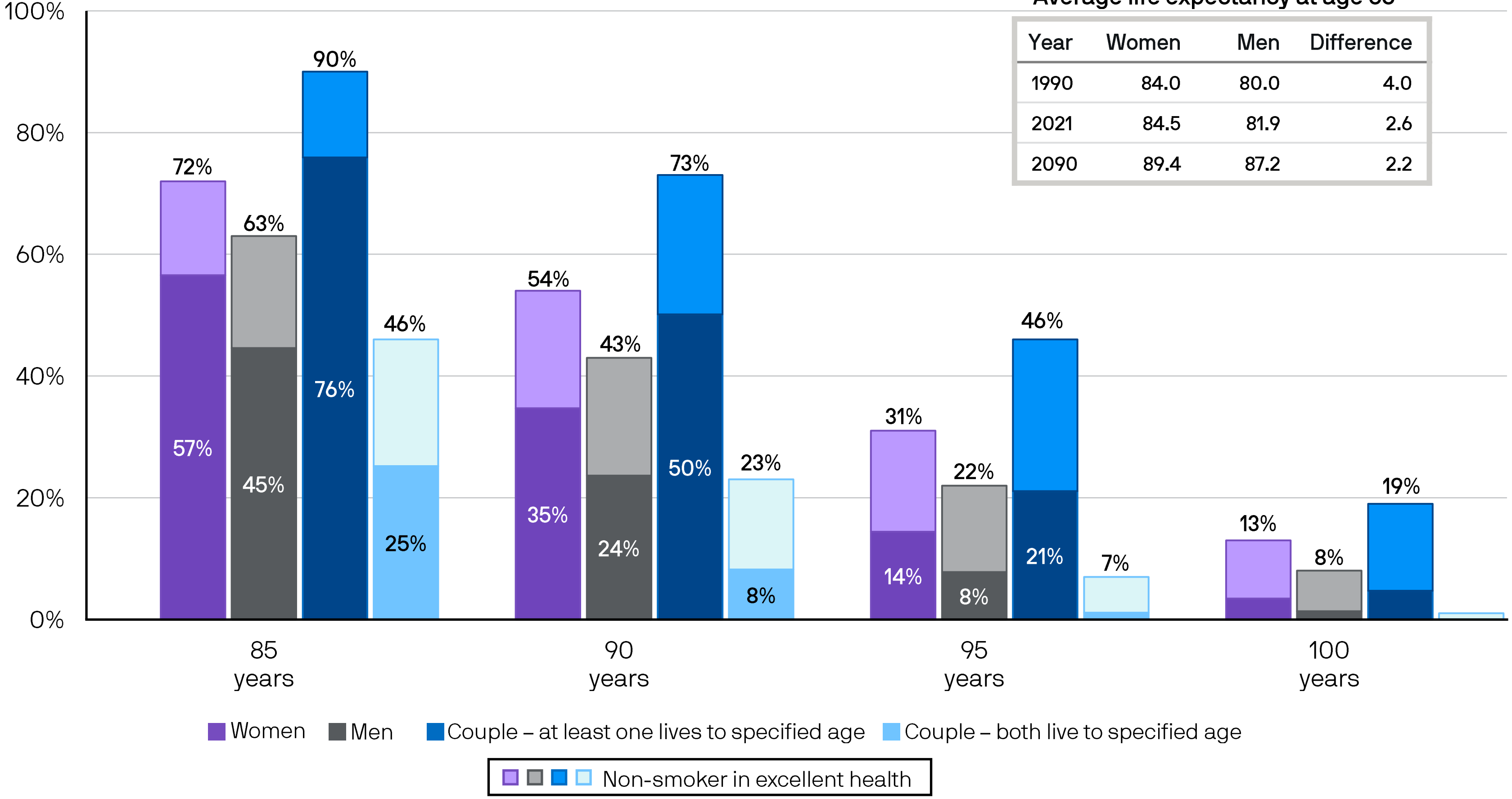
1 – Plan on living a long time

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
2021	84.5	81.9	2.6
2090	89.4	87.2	2.2

Source (chart): Social Security Administration, Period Life Table, 2019 (published in the 2022 OASDI Trustees Report); American Academy of Actuaries and Society of Actuaries, Actuaries Longevity Illustrator, http://www.longevityillustrator.org/ (accessed September 29, 2022), J.P. Morgan Asset Management.

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2 CASH ISN'T ALWAYS KING

and there may be better opportunities

Cash has an opportunity cost

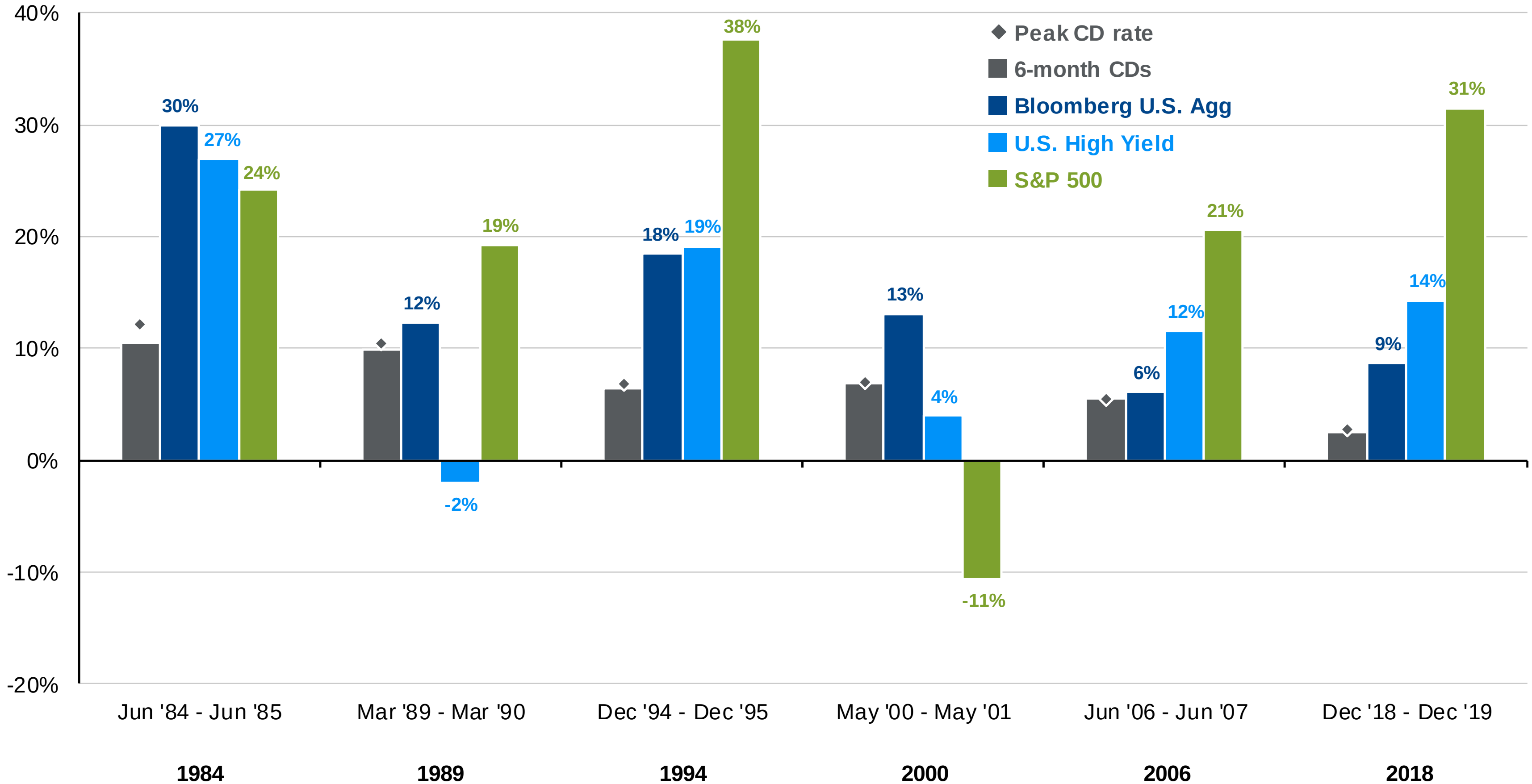
Since the start of 2022, the Federal Reserve has raised interest rates more aggressively than at any point in decades. As a result, for the first time in a long time, cash appears to be a worthwhile “investment”. Of course, having cash on hand for day-to-day expenses and potential emergencies is an important part of financial well-being.

That said, it is also important to consider the opportunity cost of holding too much cash. Throughout history, peak cash yields have not persisted and returns from other fixed income instruments and the stock market have typically outpaced the return on cash. In other words, while cash is an important part of any portfolio, excess cash should be deployed into the market.

2 – Cash isn't always king

Investment opportunities outside of CDs

Peak 6-month certificate of deposit (CD) rate during previous rate hiking cycles and subsequent 12-month total returns



Source: Bloomberg, FactSet, Federal Reserve, Robert Shiller, J.P. Morgan Asset Management.
U.S. High Yield: Bloomberg U.S. Corporate High Yield Index. The S&P 500 total return figure from the 1984 period was calculated using data from Robert Shiller. The analysis references the month in which the month-end 6-month CD rate peaked during previous rate hiking cycles. CD rate data prior to 2013 are sourced from the Federal Reserve, whereas data from 2013 to 2023 are sourced from Bloomberg. CD subsequent 12-month return calculation assumes reinvestment at the prevailing 6-month rate when the initial CD matures.
Guide to the Markets – U.S. Data are as of June 30, 2023.

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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, $10,000 is invested two ways: first into the S&P 500 without reinvesting dividends, and second into the S&P 500 with dividends reinvested. Shortly after investment, there is minimal difference in performance. However, after a long enough period of time, the magnitude of outperformance of the portfolio with dividends reinvested becomes apparent.

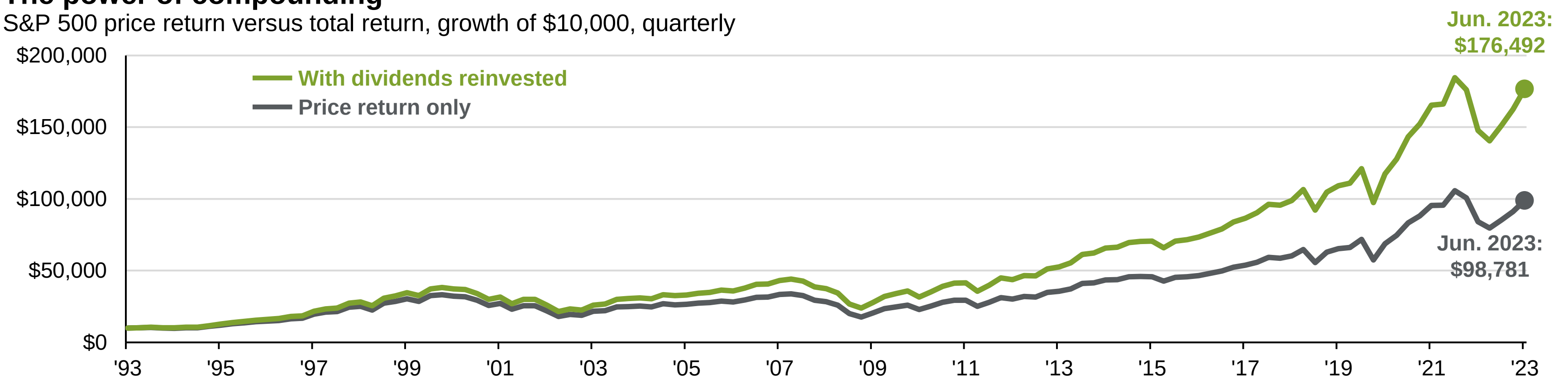
BOTTOM: Investing in risk assets is critical
Many investors shy away from the stock market, unwilling to take on added risk. But this chart shows a staggering difference in the value of $10,000 invested in a variety of different asset classes over time, ranging from low-risk T-bills to U.S. small cap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

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

3 – Harness the power of dividends and compounding

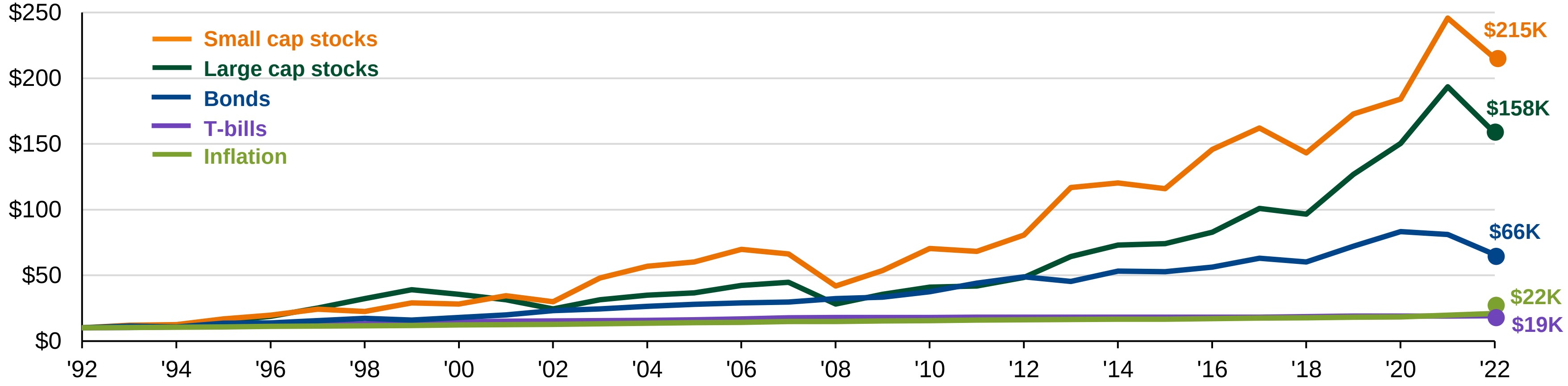
The power of compounding

S&P 500 price return versus total return, growth of $10,000, quarterly



Major asset classes versus inflation

Growth of $10,000 from 1992 – 2022, annual returns, USD thousands



Source: Ibbotson, Standard & Poor's, J.P. Morgan Asset Management.
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4 AVOID EMOTIONAL BIASES BY STICKING TO A PLAN

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

In good times and bad, stick to a plan

Investors are often tempted to let momentum carry their portfolios forward, and as a result fail to rebalance to target weights. In other words, they fail to stick to a plan. Over time, this lack of rebalancing translates into significant portfolio drift. A “buy-and-hold” portfolio also results in a significant increase in standard deviation relative to a portfolio that is annually rebalanced, which translates into an inferior Sharpe ratio, or risk-adjusted return.

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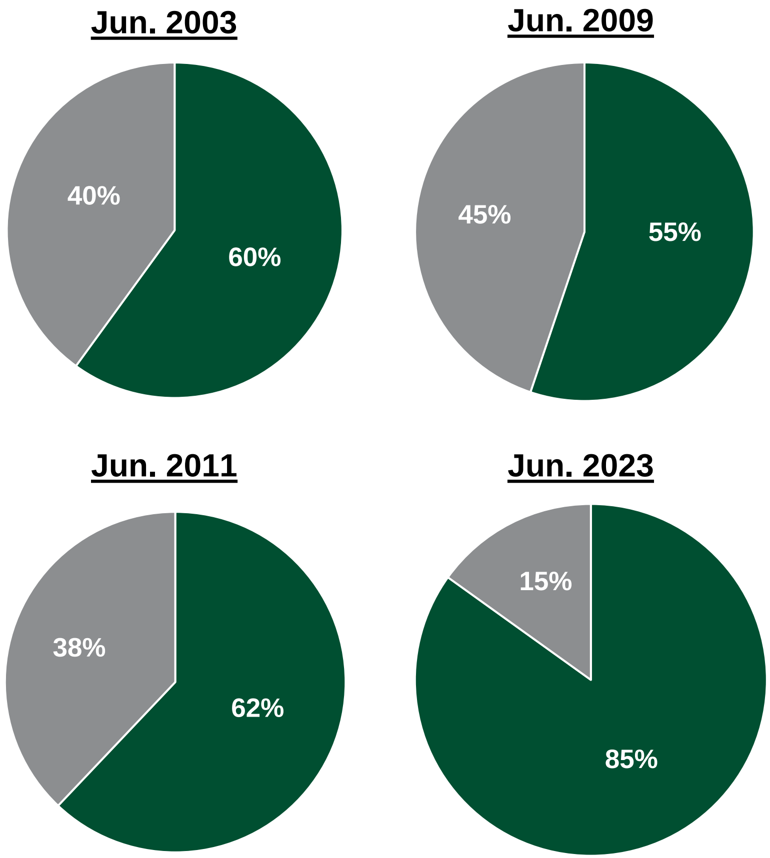
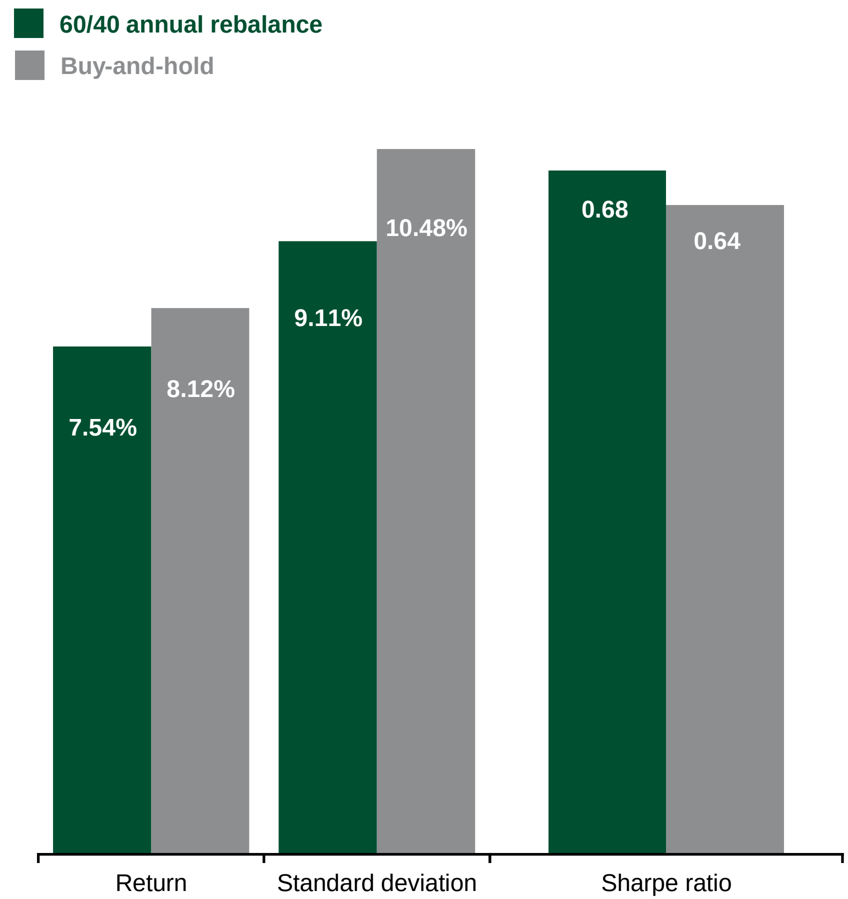
4 – Avoid emotional biases by sticking to a plan (Part 1)

Actual portfolio drift in a buy-and-hold portfolio
Portfolio drift of a 60% equity, 40% fixed income buy-and-hold portfolio



Risk/return for rebalanced vs. buy-and-hold strategy*
60% equity and 40% fixed income portfolio, 20-year holding period



Source: Standard & Poor's, Bloomberg, FactSet, J.P. Morgan Asset Management.
*Annual rebalance and buy-and-hold strategies are composed of S&P 500 and Bloomberg U.S. Aggregate total return indexes on a monthly basis. Annualized risk and return statistics are calculated from 6/30/2003 – 6/30/2023 using monthly data. The risk-free rate is represented by the Bloomberg 1-3 month Treasury Bellwether index.
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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.

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

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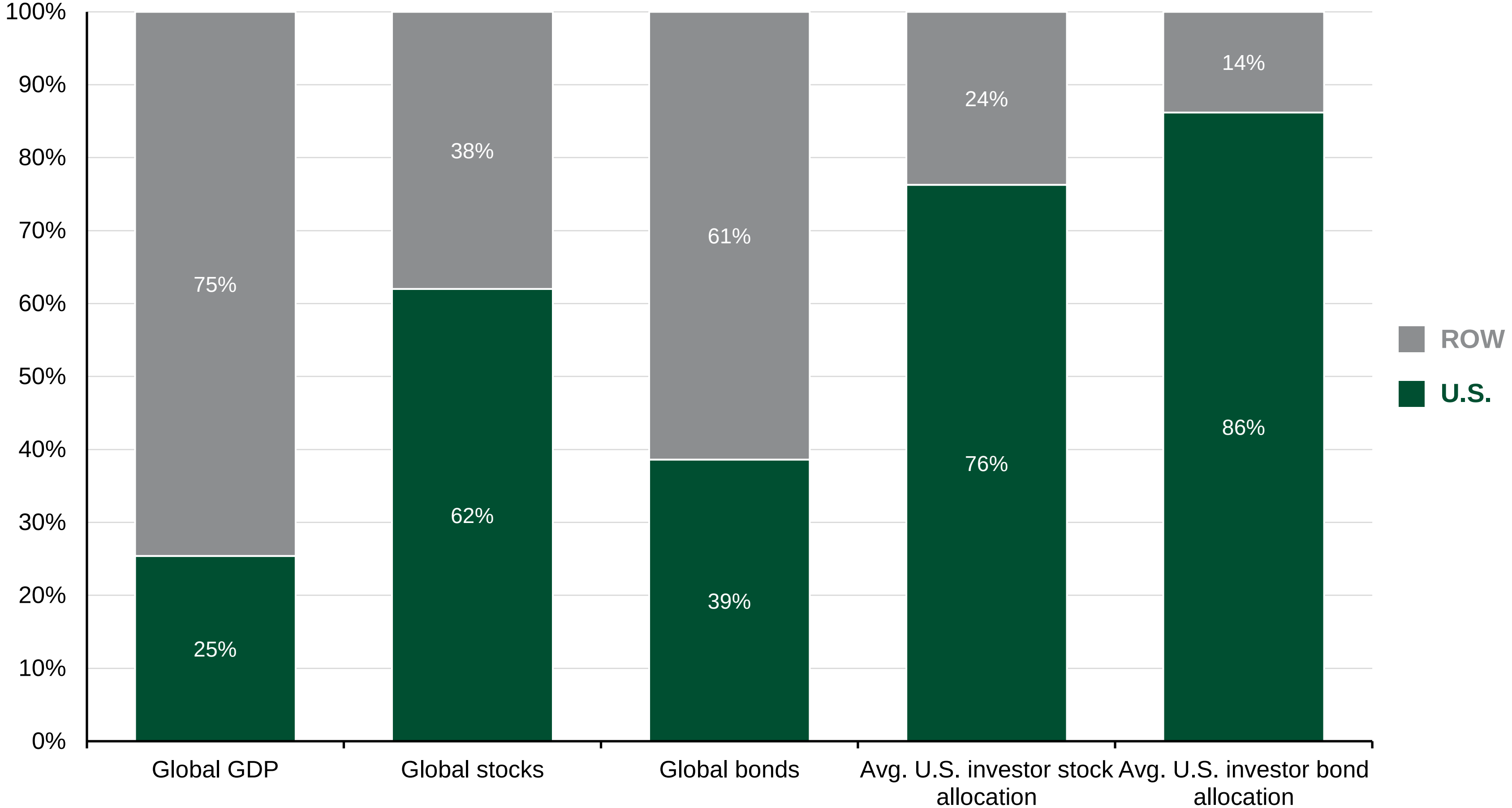
Investment universe and average U.S. investor positioning

Percent of market capitalization, 2022



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 (USD) using 2022 GDP estimates as of April 2023. Global stock market and global bond market data are as of December 2022. Average U.S. investor allocation Is based on proprietary portfolio screenings of advisor portfolios and are aggregated.
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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 24 of the last 43 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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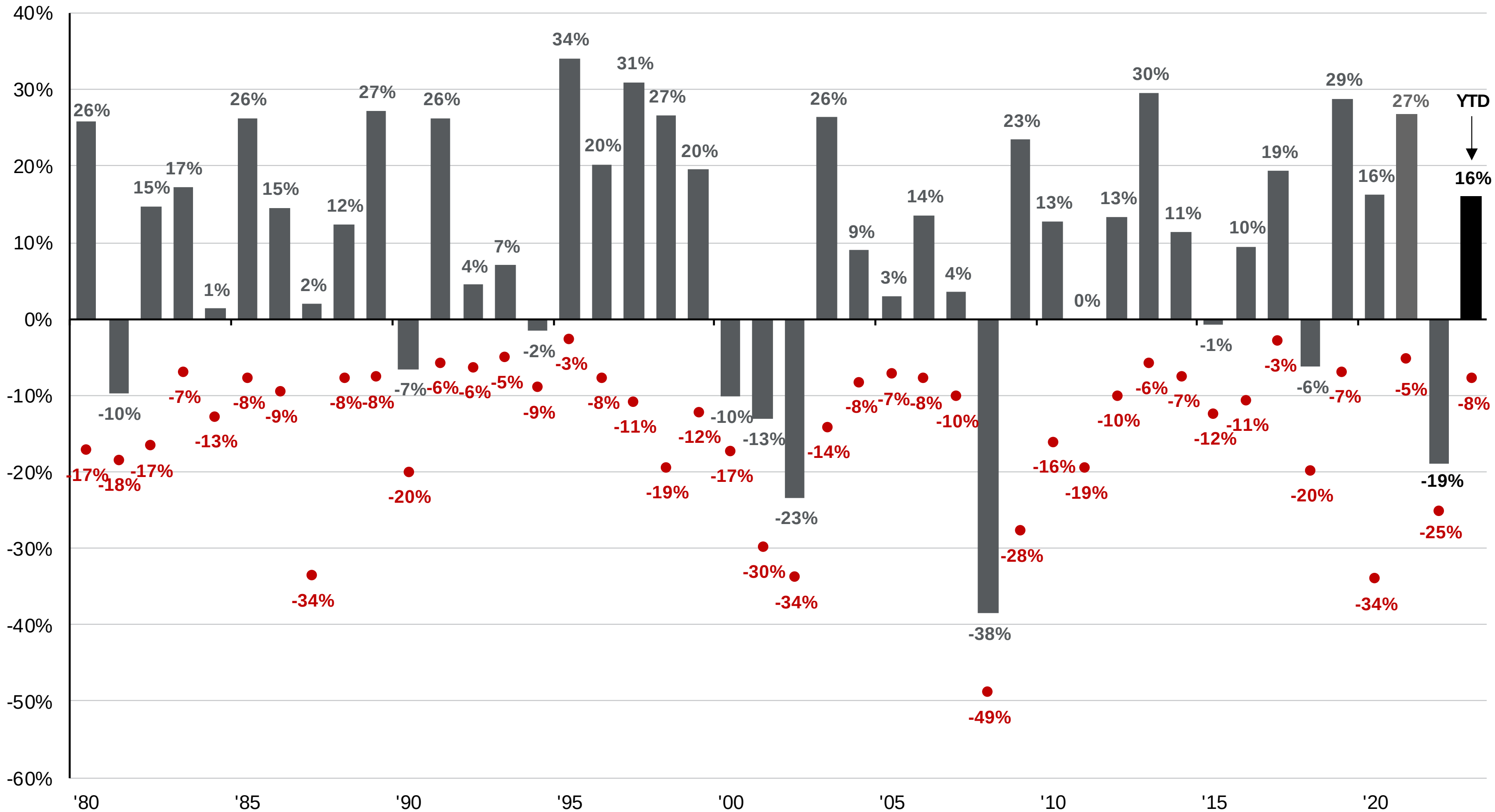
Equities

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 14.3%, annual returns were positive in 32 of 43 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 2022, over which time period the average annual return was 8.7%.

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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

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	2008 - 2022 Ann.	2008 - 2022 Vol.
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%	Comdty. 16.1%	Large Cap 16.9%	Large Cap 8.8%	REITs 23.4%
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%	Cash 1.5%	DM Equity 12.1%	Small Cap 7.2%	Small Cap 23.2%
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%	High Yield -12.7%	Small Cap 8.1%	REITs 6.6%	EM Equity 23.0%
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%	Fixed Income -13.0%	Asset Alloc. 7.8%	Asset Alloc. 6.1%	Comdty. 20.2%
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. 13.5%	Asset Alloc. -13.9%	High Yield 5.2%	High Yield 5.4%	DM Equity 20.0%
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%	DM Equity -14.0%	EM Equity 5.1%	Fixed Income 2.7%	Large Cap 17.7%
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%	Large Cap -18.1%	REITs 3.0%	DM Equity 2.3%	High Yield 13.0%
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%	EM Equity -19.7%	Cash 2.3%	EM Equity 1.0%	Asset Alloc. 12.4%
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%	Small Cap -20.4%	Fixed Income 2.1%	Cash 0.6%	Fixed Income 4.2%
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%	REITs -24.9%	Comdty. -7.8%	Comdty. -2.6%	Cash 0.4%

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 12/31/2007 to 12/31/2022. 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.
Guide to the Markets – U.S. Data are as of June 30, 2023.

7 STAYING INVESTED MATTERS

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

It's always darkest just before dawn

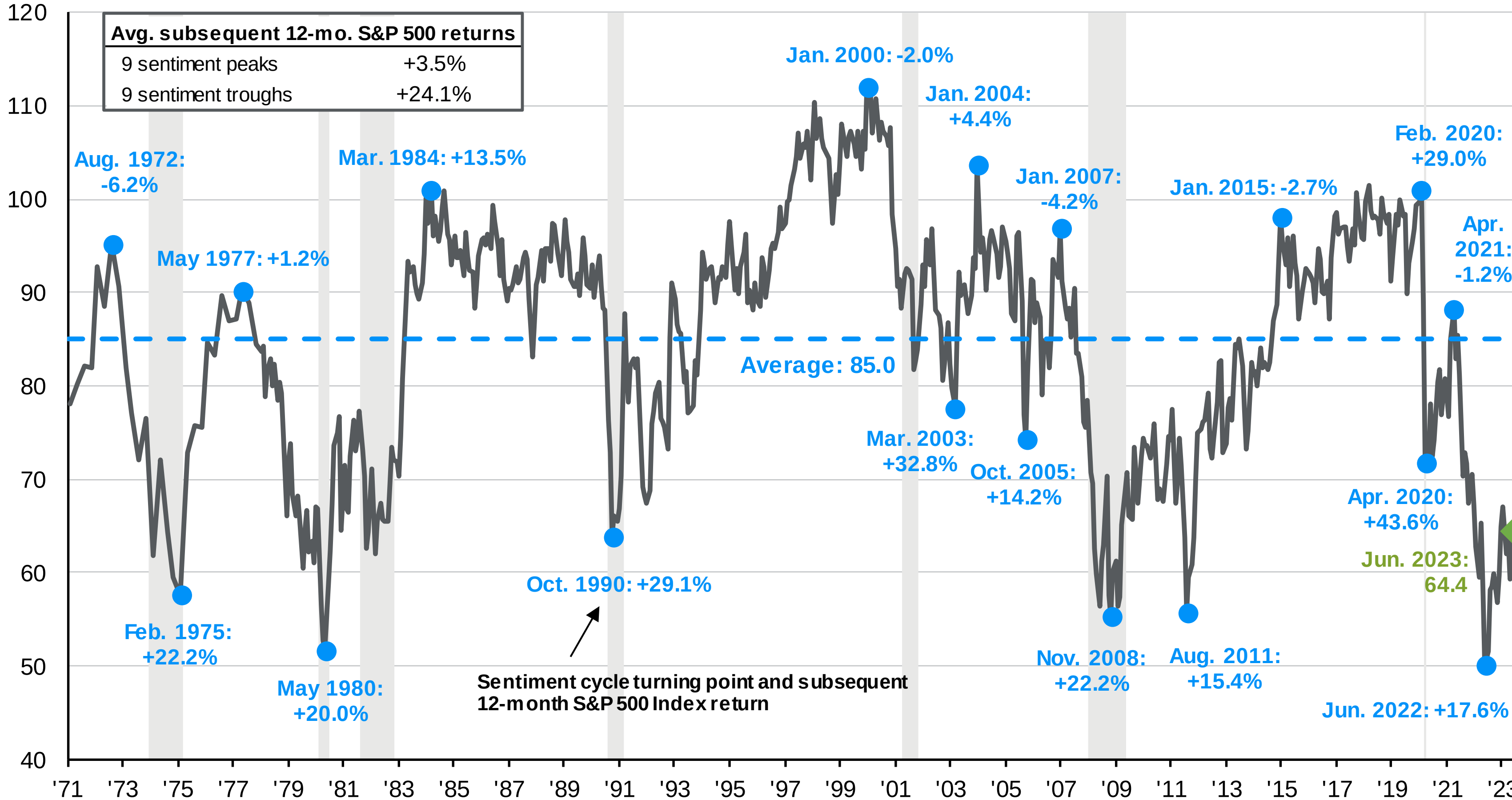
Market timing can be a dangerous habit. Sometimes, investors think they can outsmart the market; other times, fear and greed push them to make emotional, rather than logical, decisions.

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 3.5% while buying at a trough returned 24.1%.

7 – Staying invested matters (Part 1)

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

Avg. subsequent 12-mo. S&P 500 returns	
9 sentiment peaks	+3.5%
9 sentiment troughs	+24.1%



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 starting from the end of the month and excluding 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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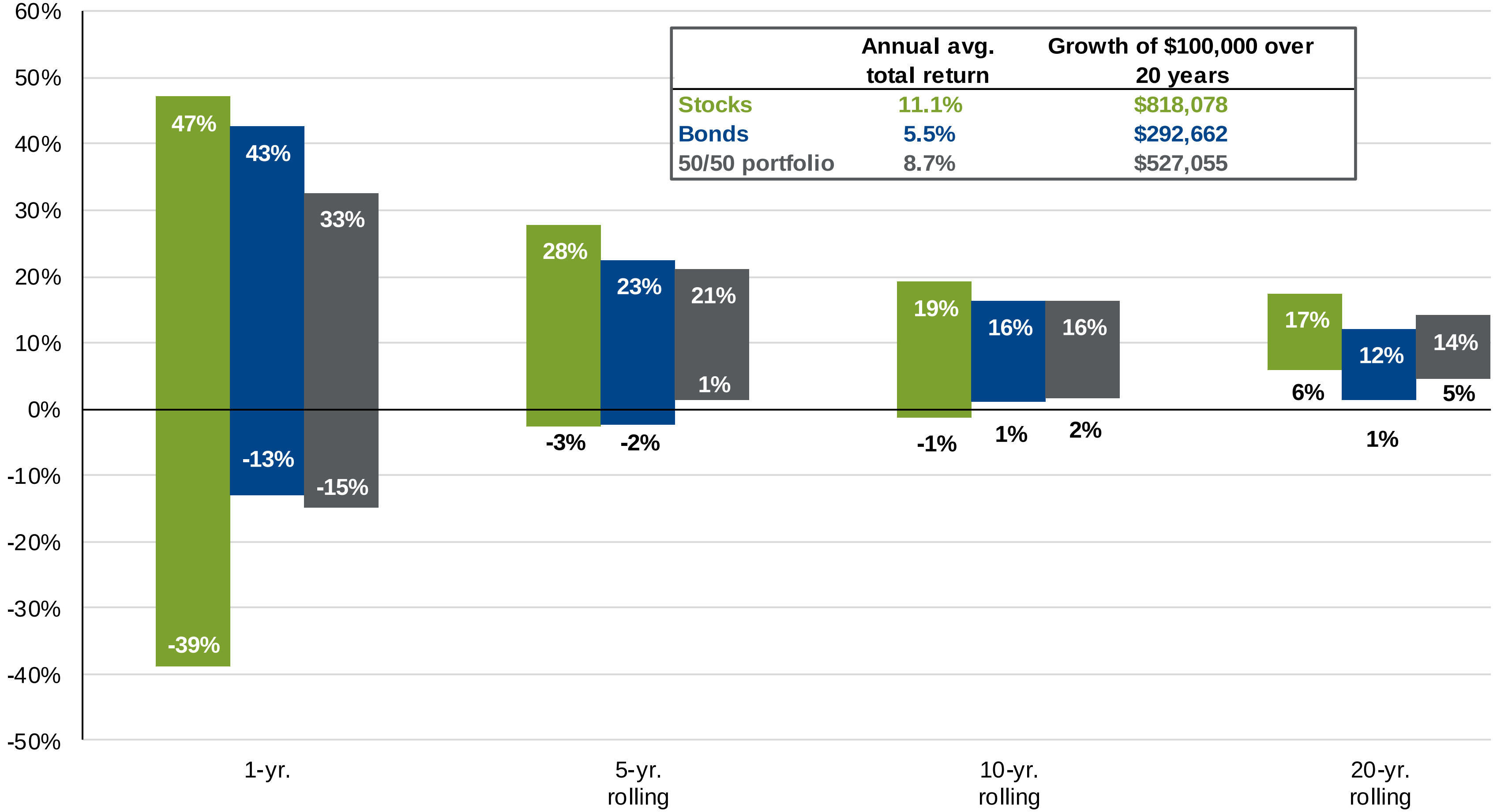
7 – Staying invested matters (Part 2)

Range of stock, bond and blended total returns
Annual total returns, 1950-2022



	Annual avg. total return	Growth of $100,000 over 20 years
Stocks	11.1%	$818,078
Bonds	5.5%	$292,662
50/50 portfolio	8.7%	$527,055

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 2022.
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Investing Principles

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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Guide to the Markets – U.S.

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