RETIREMENT
& INVESTMENT GROUP

Presents:

RETIREMENT WELL-PLANNED

www.retirementandinvestmentgroup.com

307 Frederick Road | Catonsville, MD 21228 | Phone: 410-744-8707 |
Fax: 410-744-8709 | Toll-Free: 888-744-8707

Tom Quirk, CFP®, CRPC®, CRC®

Retirement & Investment Group, LLC, President

LPL Financial Advisor

Education:
- McDaniel College, B.A. Economics, Business Administration and Political Science
- Boston University – Center for Professional Education, Financial Planning

Professional Certification:
- Certified Financial Planner Practitioner®
- Chartered Retirement Planning Counselor®
- Certified Retirement Counselor®

*The Forbes Best-In-State Wealth Advisor ranking, developed by SHOOK Research, is based on in-person and telephone due diligence meetings and a ranking algorithm that includes: client retention, industry experience, review of compliance records, firm nominations; and quantitative criteria, including: assets under management and revenue generated for their firms. Portfolio performance is not a criterion due to varying client objectives and lack of audited data. Neither Forbes nor SHOOK Research receives a fee in exchange for rankings.

CRPC conferred by College for Financial Planning. CRC conferred by InFRE®

RETIREMENT
& INVESTMENT GROUP

Retirement Well-Planned

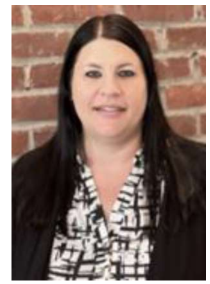
Thomas E. Quirk, CFP®, CRPC®, CRC®
President
LPL Financial Advisor, retirement planning, investment management
tomquirk@retirementandinvestment.com

David Weaver, CFA®
Director of Strategic Planning & Analytics
Investment management, investment and account inquiries, trading
davidweaver@retirementandinvestment.com

Serena Ortega
Director of Operations
Operations, contribution/distribution requests, general inquiries
serenaortega@retirementandinvestment.com

Tracy McCartin
Client Relationship Manager
Client communications, scheduling, general inquiries
tracymccartin@retirementandinvestment.com

Britni Sparks
Operations Assistant
Operational support, distribution confirmation, general inquiries
britnisparks@retirementandinvestment.com



Heather Philliber
Client Services Assistant
Client communications, general inquiries
heatherphilliber@retirementandinvestment.com

Kyle Cotoia
Client Services Specialist
Operational support, trading, general inquiries
kylecotoia@retirementandinvestment.com

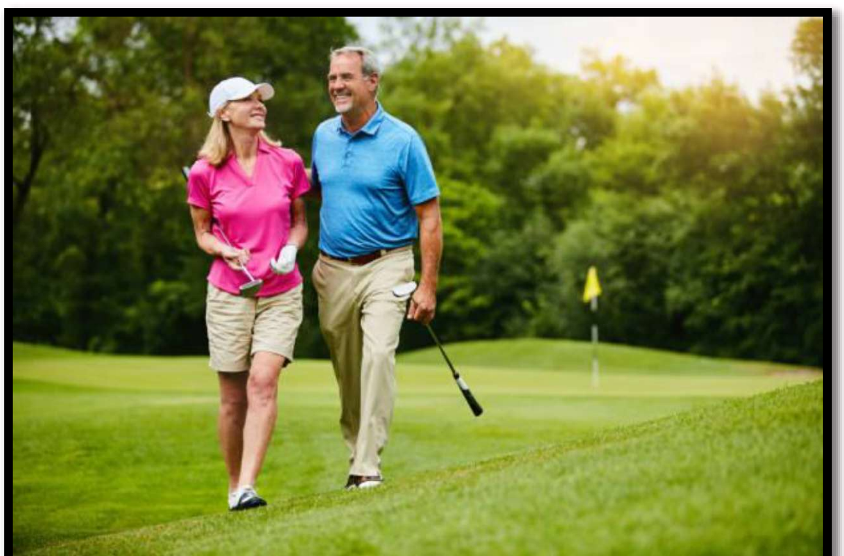
Ben Capka
Client Services Specialist
Operational support, general inquiries
bencapka@retirementandinvestment.com

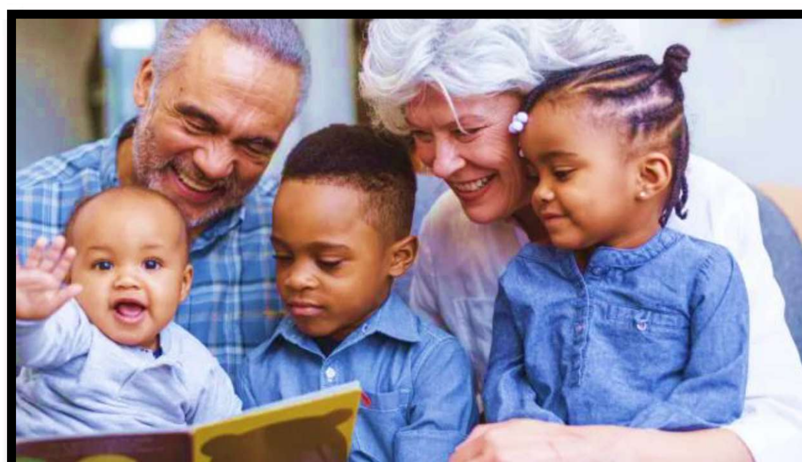
Pete Kriscumas
Business Development Specialist
Business Development
petekriscumas@retirementandinvestment.com

RetirementandInvestmentGroup.com

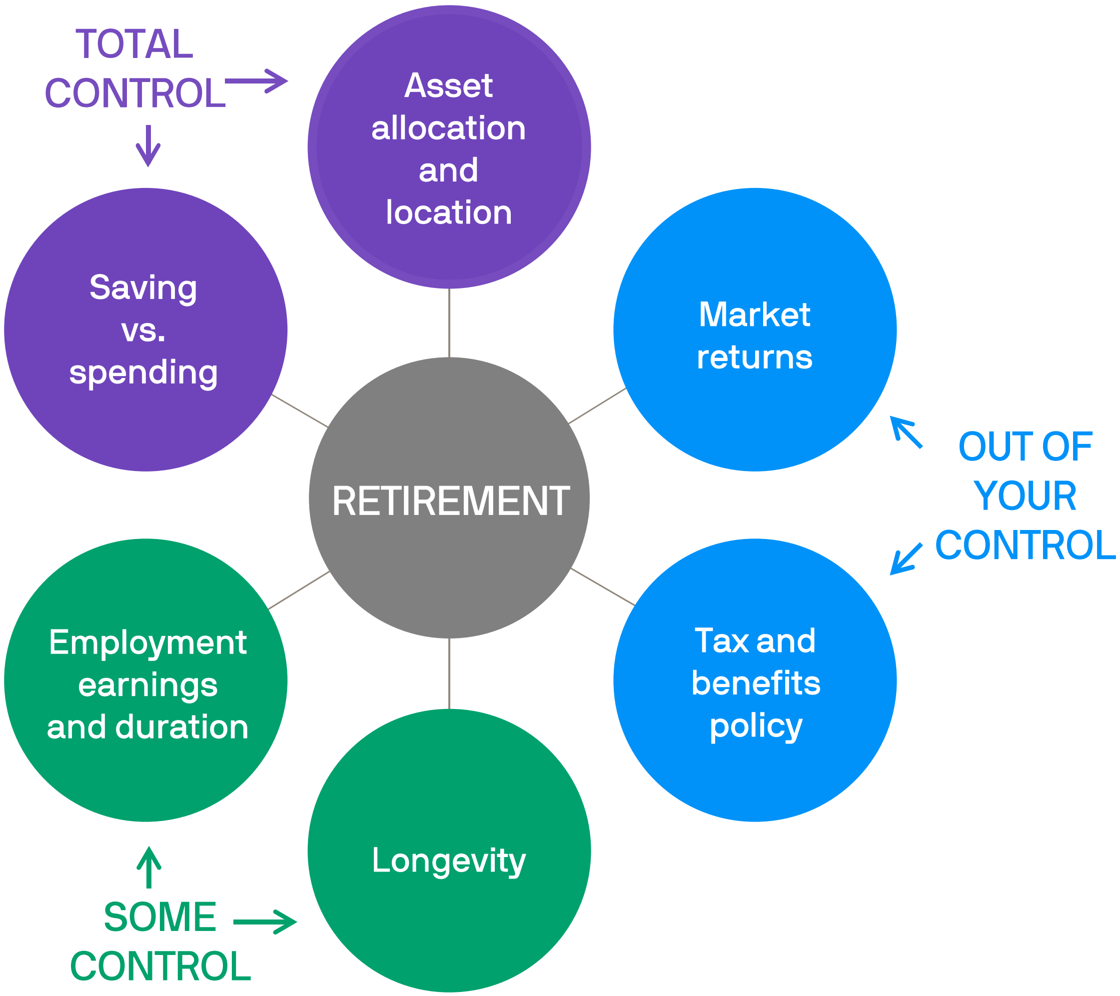
307 Frederick Road | Catonsville, MD 21228 | Phone: 410.744.8707 | Toll Free: 888.744.8707 | Fax: 410.744.8709

What does retirement look like for you?





The retirement equation



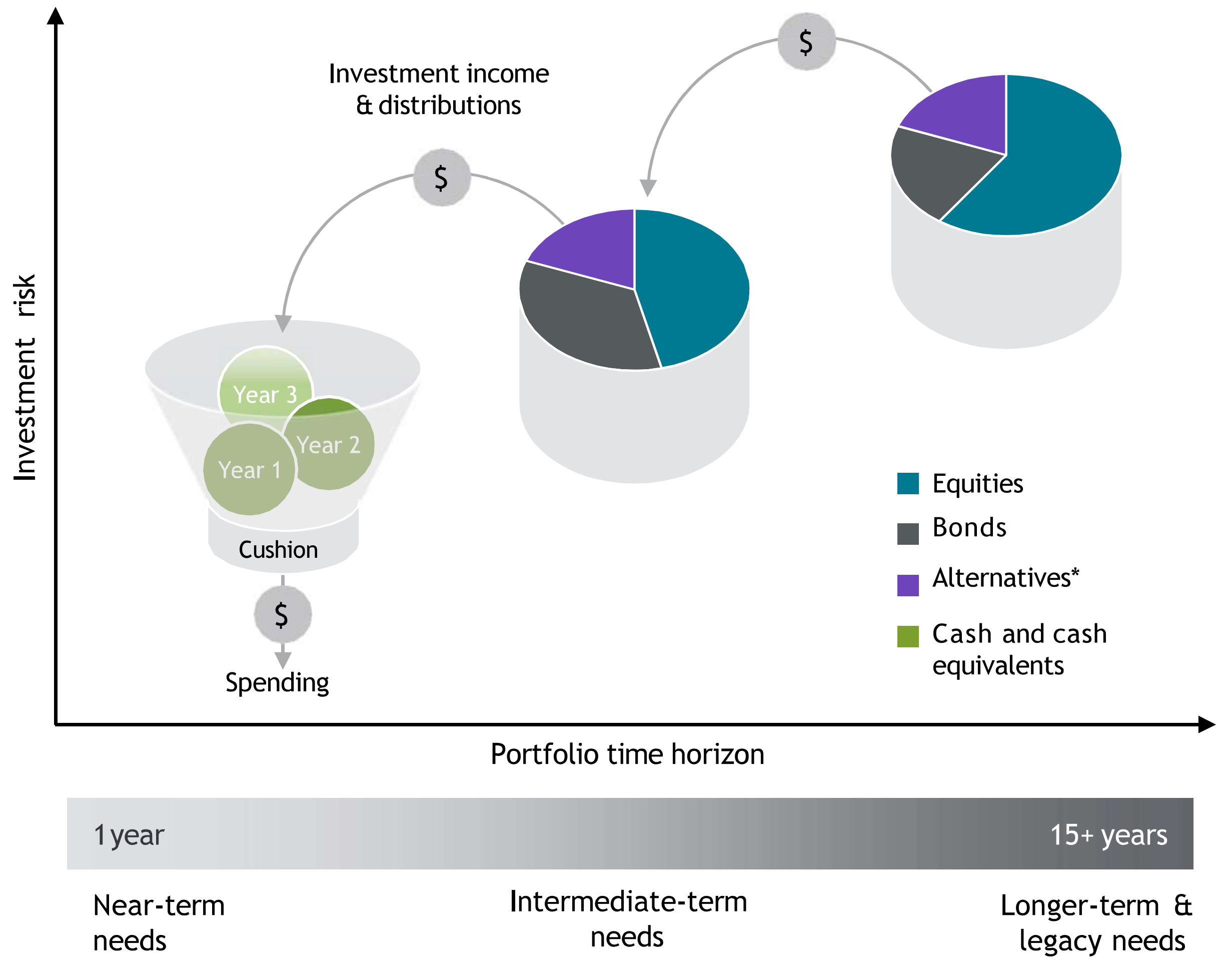
A sound retirement plan

Make the most of the things that you can control but be sure to evaluate factors that are somewhat or completely out of your control within your comprehensive retirement plan.

Source: J.P. Morgan Asset Management

Structuring a portfolio in retirement: the bucket strategy

GTR



Time-based segmentation

Aligning your time horizon with an investment approach may help you to be more comfortable with maintaining diversified portfolio allocations in retirement.

For the near-term portfolio, consider maintaining:

- Funds to cover 1-3 years worth of the gap between your income and spending needs
- A cushion for unexpected expenses

For illustrative purposes only. Source: J.P. Morgan Asset Management. Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise. The price of equity securities may rise or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. Equity securities are subject to stock market risk, meaning that stock prices in general may decline over short or extended periods of time. Investing in alternative assets involves higher risks than traditional investments and is suitable only for the long term. They are not tax efficient and have higher fees than traditional investments. They may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain.
*Equity, fixed income and cash are considered traditional asset classes. The term "alternative" describes all non-traditional asset classes. They include private and public equity, venture capital, hedge funds, real estate, commodities, distressed debt and more.

Investing

Effects of withdrawal rates and portfolio allocations

Likelihood of success after 35 years in retirement

Various initial withdrawal rates and diversified asset allocations

Initial withdrawal rate	Cash	20/80	40/60	50/50	60/40	80/20
1%	95-100	95-100	95-100	95-100	95-100	95-100
2%	95-100	95-100	95-100	95-100	95-100	95-100
3%	95-100	95-100	95-100	95-100	95-100	95-100
4%	0-5	90-95	90-95	90-95	90-95	90-95
5%	0-5	50-55	70-75	70-75	75-80	75-80
6%	0-5	10-15	35-40	45-50	50-55	55-60
7%	0-5	0-5	15-20	20-25	30-35	40-45
8%	0-5	0-5	0-5	5-10	15-20	25-30
9%	0-5	0-5	0-5	0-5	5-10	15-20
10%	0-5	0-5	0-5	0-5	0-5	5-10

Equities

Bonds

High Confidence

Med Confidence

Low Confidence

Find your balance

At both the highest and the lowest confidence levels, you may want to consider adjusting your spending and/or asset allocation.

An overly conservative withdrawal rate may require unnecessary lifestyle sacrifices. While a more equity-heavy portfolio may lead to higher likelihoods of success, the magnitude of the failures may be greater due to increased volatility.

A well-diversified portfolio with a dynamic withdrawal strategy is typically optimal.

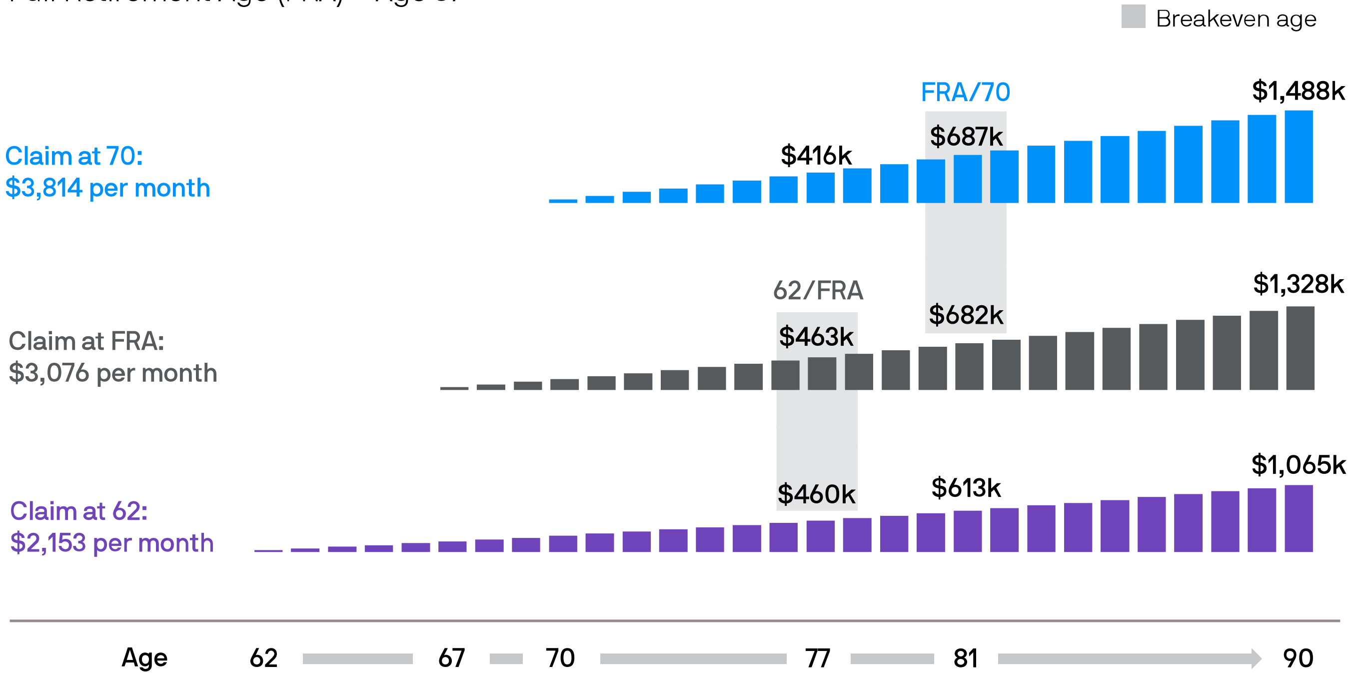
This chart is for illustrative purposes only and must not be used, or relied upon, to make investment decisions. Portfolios are described using equity/bonds. For asset allocation details, see "Model Portfolio Details" on the Disclosure page. J.P. Morgan Asset Management's (JPMAM) model is based on proprietary Long-Term Capital Market Assumptions equilibrium returns. The resulting projections include only the benchmark return associated with the portfolio and do not include alpha from the underlying product strategies within each asset class. The yearly withdrawal amount (1% to 10%) is set as a fixed percentage of the initial amount of $1,000,000 and is then inflation adjusted over the period (2.5%). The percentile outcomes represent the percentage of simulated results with an account balance greater than $0 after 35 years (e.g., "95-100" means that 95-100% of simulations had account balances greater than $0 after 35 years). Overlap percentiles are included in the lower bracket (e.g., 80 is included in "75-80"; 85 is included in "80-85"). Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve.

Maximizing Social Security benefits: average earner

GTR-OTB

Cumulative individual maximum benefit by claim age

Full Retirement Age (FRA) = Age 67



At age 62, probability of living to at least age:	62	67	70	77	81	90
Man	100%	91%	85%	67%	53%	18%
Woman	100%	95%	91%	77%	66%	29%
Couple[1]	100%	99%	99%	92%	84%	42%

Planning opportunity

Delaying benefits means increased Social Security income later in life, but your portfolio may need to bridge the gap and provide income until delayed benefits are received.

[1]Couple assumes at least one lives to the specified age or beyond. Breakeven assumes the same individual, born in 1962, earns $86k in the year before retirement, retires at the end of age 61 and claims at 62 & 1 month, 67 and 70, respectively. Benefits are assumed to increase each year based on the Social Security Administration 2023 OASDI Trustee's Report intermediate estimates (annual benefit increase of 2.4% in 2025 and thereafter). Monthly amounts with the cost-of-living adjustments (not shown on the chart) are: $3,463 at FRA and $4,610 at age 70. Exact breakeven ages are 76 years & 10 months and 80 years & 9 months.
Source: Social Security Administration; J.P. Morgan Asset Management.

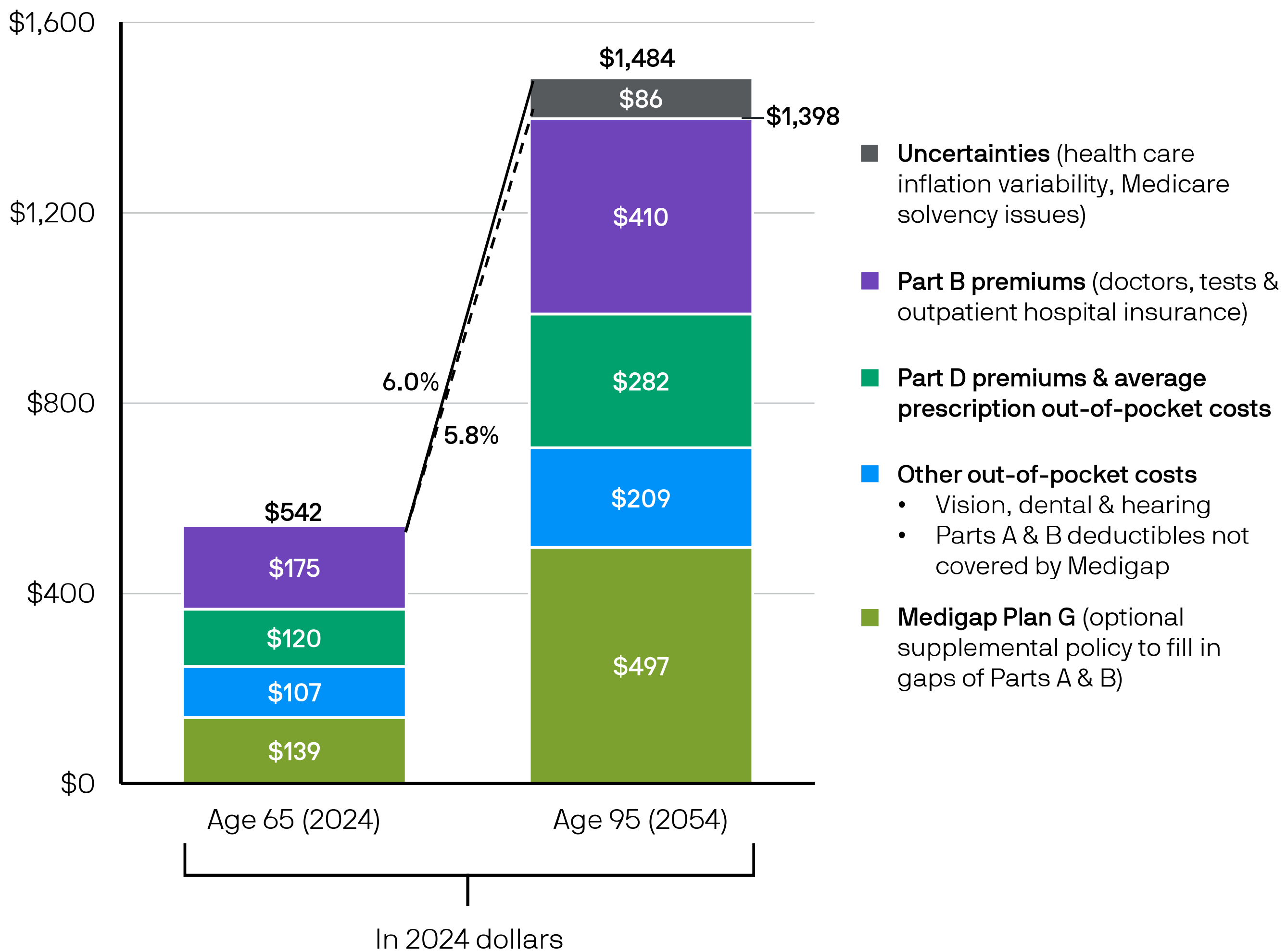
Rising health care costs in retirement

GTR

Spending

Original Medicare costs in retirement (in 2024 dollars)

Monthly amount per person



A growing concern

Annual expenses per person in 2024 are $6,503.

Given variation in health care cost inflation from year to year, it may be prudent to assume an annual health care inflation rate of 6.0%, which may require growth as well as current income from your portfolio in retirement.

Estimated future value total average monthly cost at age 95 is $3,112. Today's dollar calculation used a 2.5% discount rate to account for overall inflation. Medigap premiums typically increase with age, in addition to inflation, except for the following states: AR, CT, MA, ME, MN, NY, VT, WA. For local information, contact the State Health Insurance Assistance Program (SHIP) https://www.shiptacenter.org/. Plan G premium is nationwide average for non-smokers. If Plan G is not available, analysis includes the most comprehensive plan available.
Source: HealthView Services proprietary data file received January 2024 used by permission.

J.P.Morgan ASSET MANAGEMENT

2024 monthly Medicare surcharges

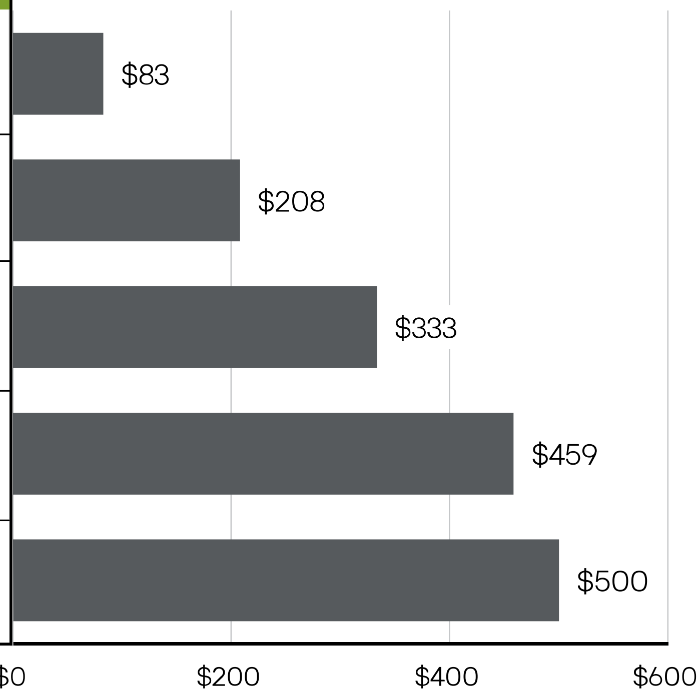
The surcharge amount is the same for all income levels within a band

If you go over a threshold, you pay the additional premium for that band

Modified Adjusted Gross Income based on 2022 tax year filing[1]	
Filing single	**Filing jointly**
$103,000-$129,000	$206,000-$258,000
$129,000-$161,000	$258,000-$322,000
$161,000-$193,000	$322,000-$386,000
$193,000-$500,000	$386,000-$750,000
$500,000 or more	$750,000 or more

Additional monthly premium amount per person

Parts B & D in 2024



Surcharge details

There may be a bigger impact for singles and surviving spouses: Medicare surcharge thresholds for singles are half of the thresholds for couples.

Filing an appeal?

If you have stopped work or you have lower income due to circumstances outside of your control, you might be eligible for an appeal. See form SSA-44 for details: https://www.ssa.gov/forms/ssa-44-ext.pdf

[1]The Social Security Administration uses the most recent federal return supplied by the IRS. If you amended your return in a way that changes your surcharge amount, you may need to contact your Social Security office.

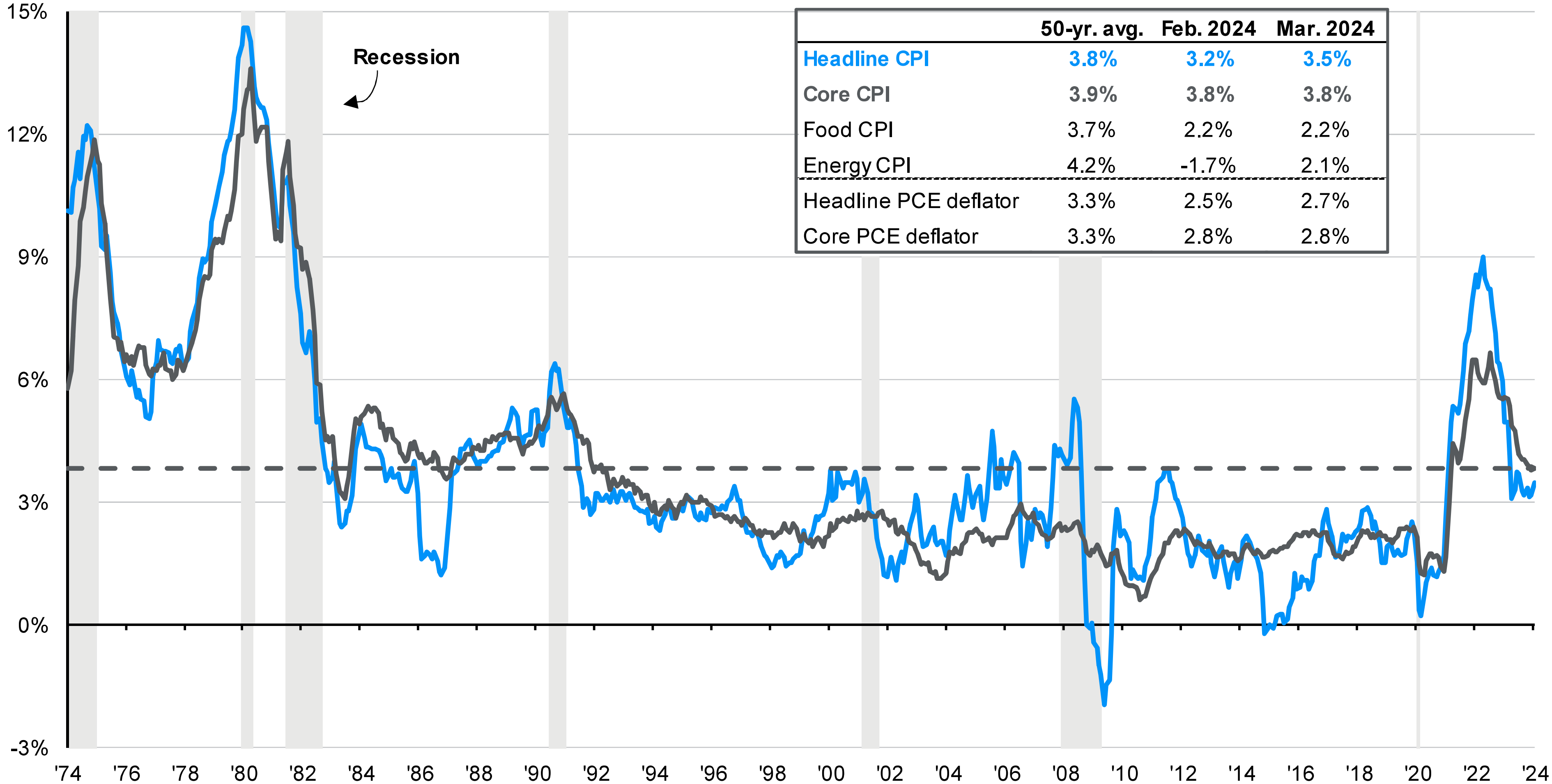
Source: Medicare.gov as of January 2024.

This is not meant to be personal tax advice. Please consult your tax professional for specifics for your situation. Modified Adjusted Gross Income (MAGI) for purposes of calculating Medicare surcharges is Adjusted Gross Income (AGI) plus tax-exempt interest income. Thresholds increase each year with inflation, except the top threshold, which was added in 2019; this top threshold is set to annually inflate starting in 2028.

Inflation

CPI and core CPI

% change vs. prior year, seasonally adjusted



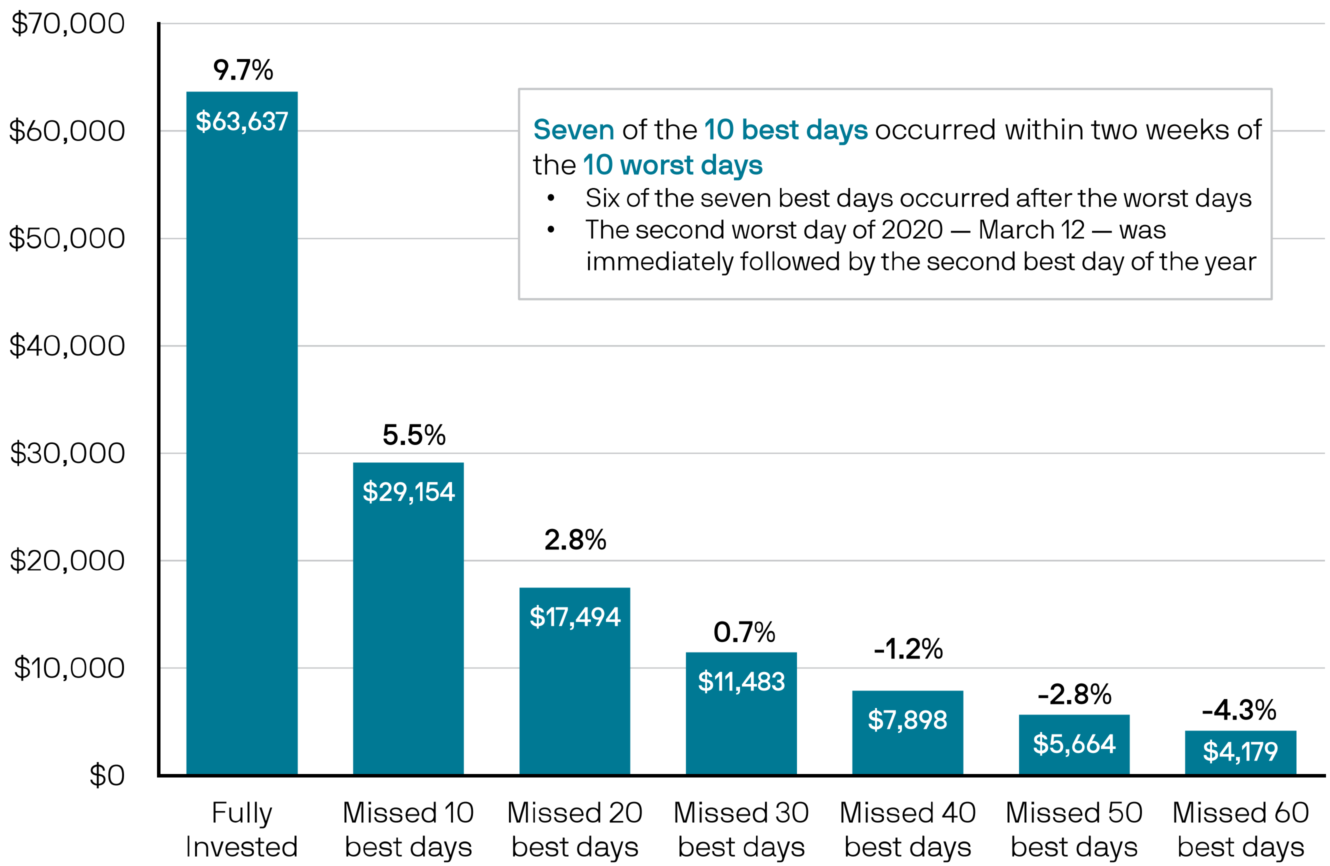
	50-yr. avg.	Feb. 2024	Mar. 2024
Headline CPI	3.8%	3.2%	3.5%
Core CPI	3.9%	3.8%	3.8%
Food CPI	3.7%	2.2%	2.2%
Energy CPI	4.2%	-1.7%	2.1%
Headline PCE deflator	3.3%	2.5%	2.7%
Core PCE deflator	3.3%	2.8%	2.8%

Source: BLS, FactSet, J.P. Morgan Asset Management.
CPI used is CPI-U and values shown are % change vs. one year ago. Core CPI is defined as CPI excluding food and energy prices. The Personal Consumption Expenditure (PCE) deflator employs an evolving chain-weighted basket of consumer expenditures instead of the fixed-weight basket used in CPI calculations.
Guide to the Markets – U.S. Data are as of April 30, 2024.

Impact of being out of the market

Returns of the S&P 500

Performance of a $10,000 investment between January 1, 2004 and December 29, 2023

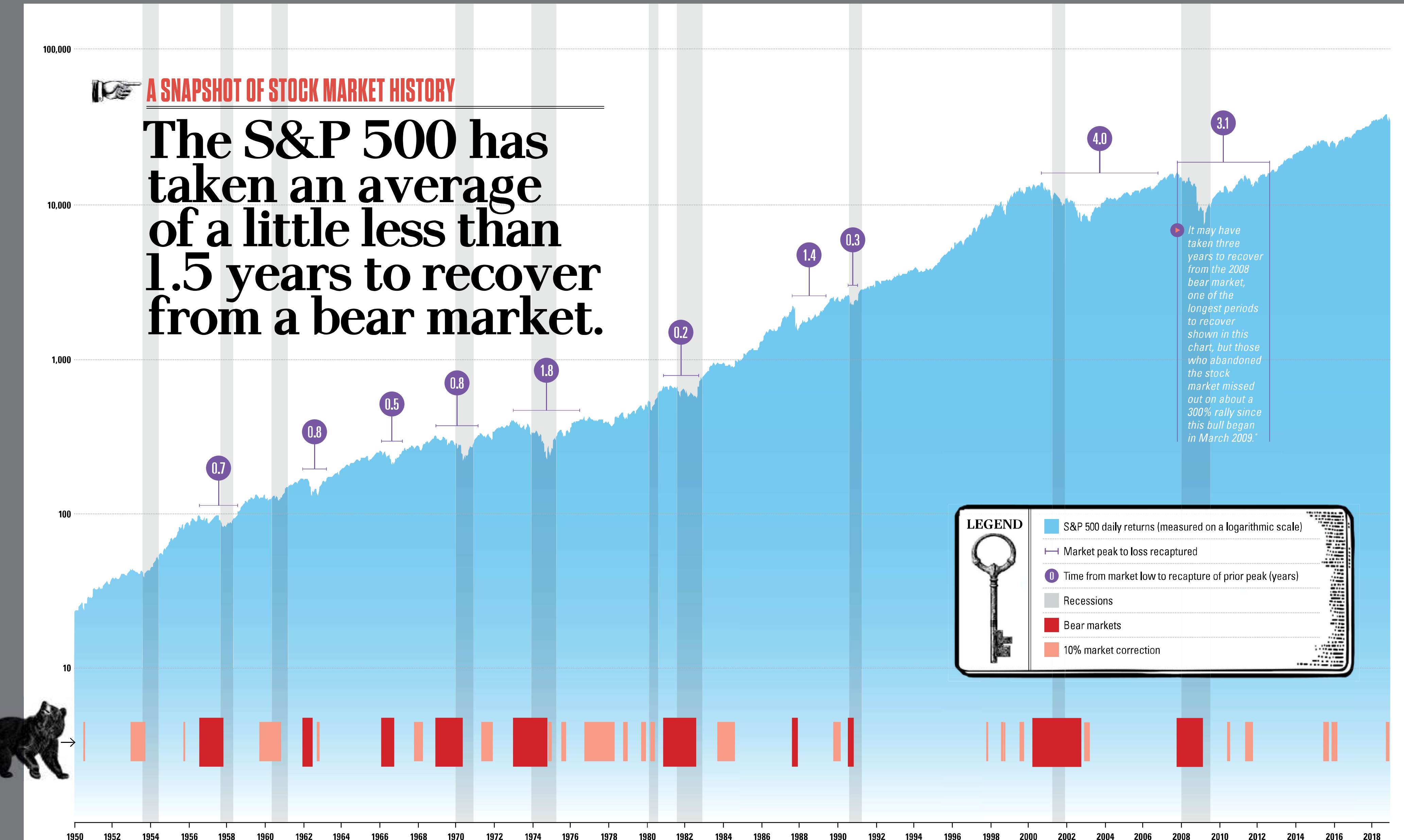


Plan to stay invested

Losses hurt more than gains feel good. Market lows can result in emotional decision making.

Taking "control" by selling out of the market after the worst days is likely to result in missing the best days that follow. Investing for the long term in a well-diversified portfolio can result in a better retirement outcome.

Source: J.P. Morgan Asset Management analysis using data from Bloomberg. Returns are based on the S&P 500 Total Return Index, an unmanaged, capitalization-weighted index that measures the performance of 500 large capitalization domestic stocks representing all major industries. Indices do not include fees or operating expenses and are not available for actual investment. The hypothetical performance calculations are shown for illustrative purposes only and are not meant to be representative of actual results while investing over the time periods shown. The hypothetical performance calculations are shown gross of fees. If fees were included, returns would be lower. Hypothetical performance returns reflect the reinvestment of all dividends. The hypothetical performance results have certain inherent limitations. Unlike an actual performance record, they do not reflect actual trading, liquidity constraints, fees and other costs. Also, since the trades have not actually been executed, the results may have under- or overcompensated for the impact of certain market factors such as lack of liquidity. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. Returns will fluctuate and an investment upon redemption may be worth more or less than its original value. Past performance is not indicative of future returns. An individual cannot invest directly in an index. Data as of December 31, 2023.



https://www.lpl.com/content/dam/lpl-www/documents/outlook-2019.pdf

*As of November 30, 2018, the S&P 500 is up 308% cumulatively since March 9, 2009.

Feast or Famine

S&P 500® Index Stats Since 1926	
Total Years (1926-2021):	96
Positive Years	71 yrs (74%)
Negative Years	25 yrs (26%)
# of Years Gains >20%:	36 yrs
# of Years Losses <20%:	6 yrs

S&P 500® Average Annual Return: 10.5%

The S&P 500® Index has grown at its average annual rate in only 6 years since 1926

Worse than -20%

2008	-37.0%
2002	-22.1%
1974	-26.5%
1937	-35.0%
1931	-43.3%
1930	-24.9%

-20% to -12%

1973	-14.7%

-12% to -8%

2001	-11.9%
2000	-9.1%
1969	-8.5%
1966	-10.1%
1962	-8.7%
1957	-10.8%
1946	-8.1%
1941	-11.6%
1940	-9.8%
1932	-8.2%
1929	-8.4%

-8% to 0%

2018	-4.4%
1990	-3.2%
1981	-4.9%
1977	-7.2%
1953	-1.0%
1939	-0.4%
1934	-1.4%

0% to 8%

2015	1.4%
2011	2.1%
2007	5.5%
2005	4.9%
1994	1.3%
1992	7.7%
1987	5.2%
1984	6.3%
1978	6.6%
1970	4.0%
1960	0.5%
1956	6.6%
1948	5.5%
1947	5.7%

8% to 12%

2016	**12.0%**
2004	**10.9%**
1993	**10.0%**
1968	**11.1%**
1959	**12.0%**
1926	**11.6%**

12% to 20%

2020	18.4%
2014	13.7%
2012	16.0%
2010	15.1%
2006	15.8%
1988	16.8%
1986	18.5%
1979	18.4%
1972	19.0%
1971	14.3%
1965	12.5%
1964	16.5%
1952	18.4%
1949	18.8%
1944	19.8%

More than 20%

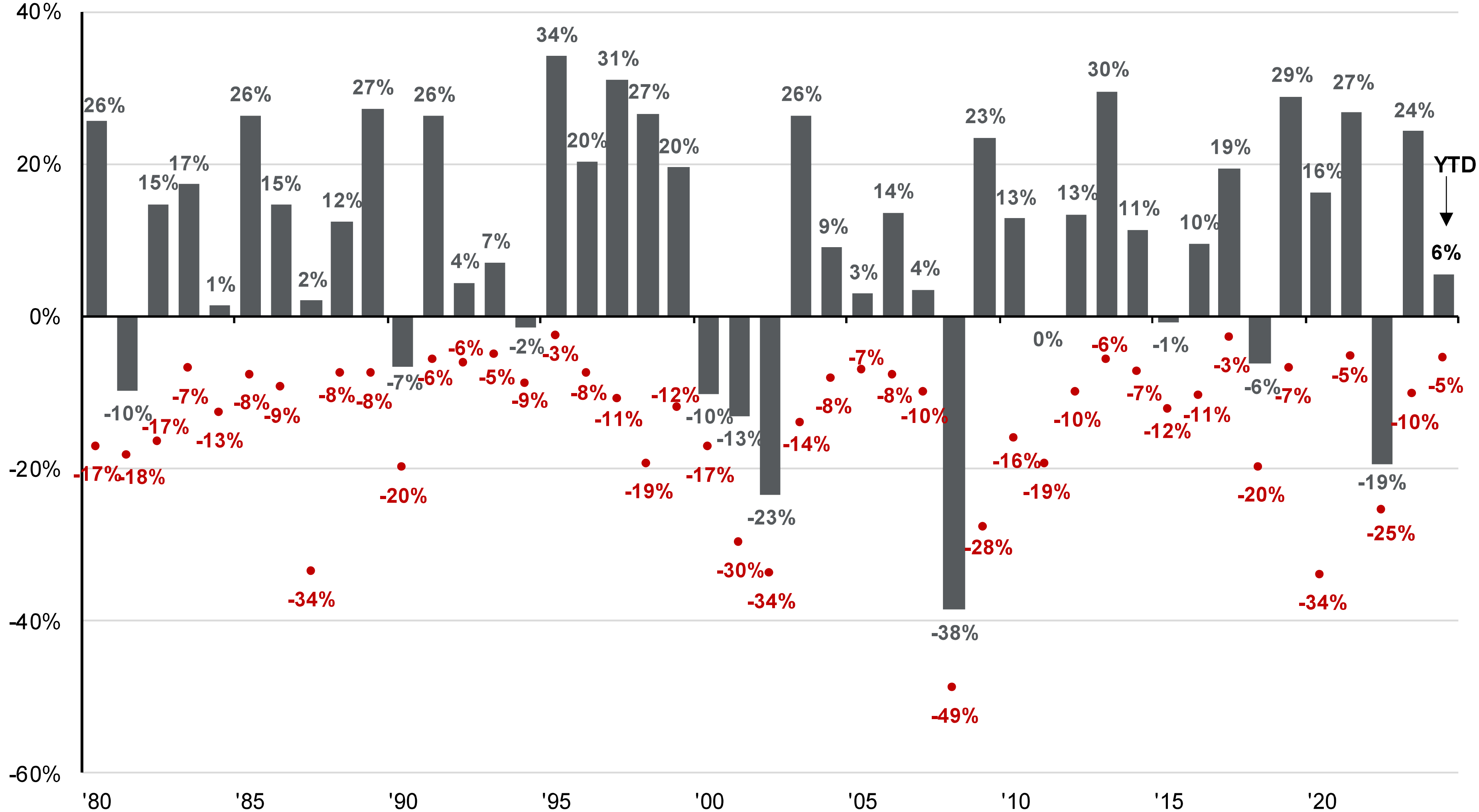
2021	28.7%
2019	31.5%
2017	21.8%
2013	32.4%
2009	26.5%
2003	28.7%
1999	21.0%
1998	28.6%
1997	33.4%
1996	23.1%
1995	37.4%
1991	30.5%
1989	31.5%
1985	32.2%
1983	22.5%
1982	21.4%
1980	32.4%
1976	23.8%
1975	37.2%
1967	24.0%
1963	22.8%
1961	26.9%
1958	43.4%
1955	31.6%
1954	52.6%
1951	24.0%
1950	31.7%
1945	36.4%
1943	25.9%
1942	20.3%
1938	31.1%
1936	33.9%
1935	47.7%
1933	54.0%
1928	43.6%
1927	37.5%

Source: FactSet, S&P Dow Jones Indices. Data calculated from 1926-2021 using total return.
Past performance is no guarantee of future results.

Annual returns and intra-year declines

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

Despite average intra-year drops of 14.2%, annual returns were positive in 33 of 44 years



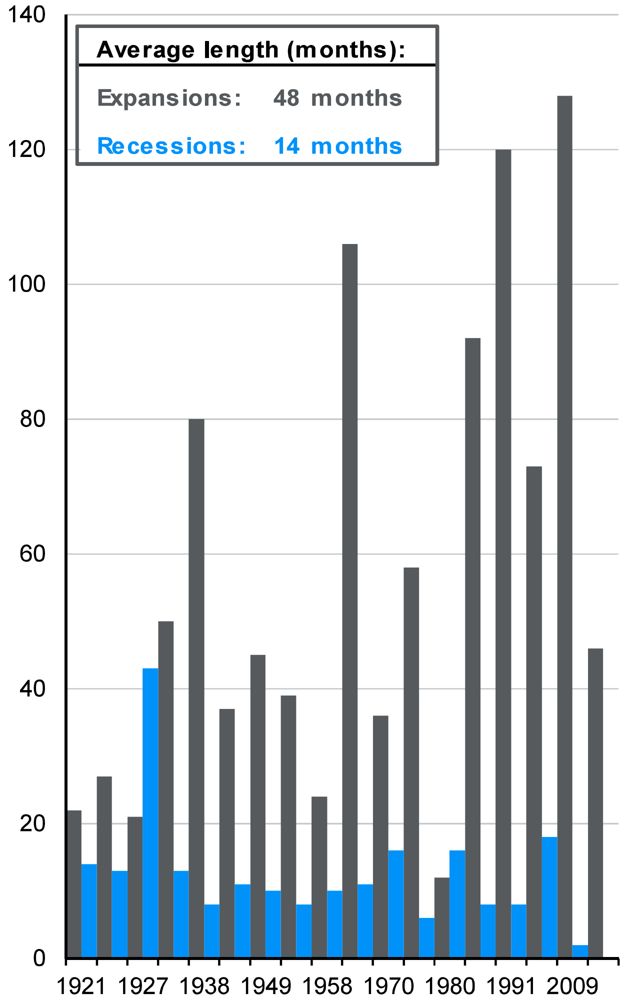
Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2023, over which time period the average annual return was 10.3%.
Guide to the Markets – U.S. Data are as of April 30, 2024.

Economy

U.S. expansions and recessions

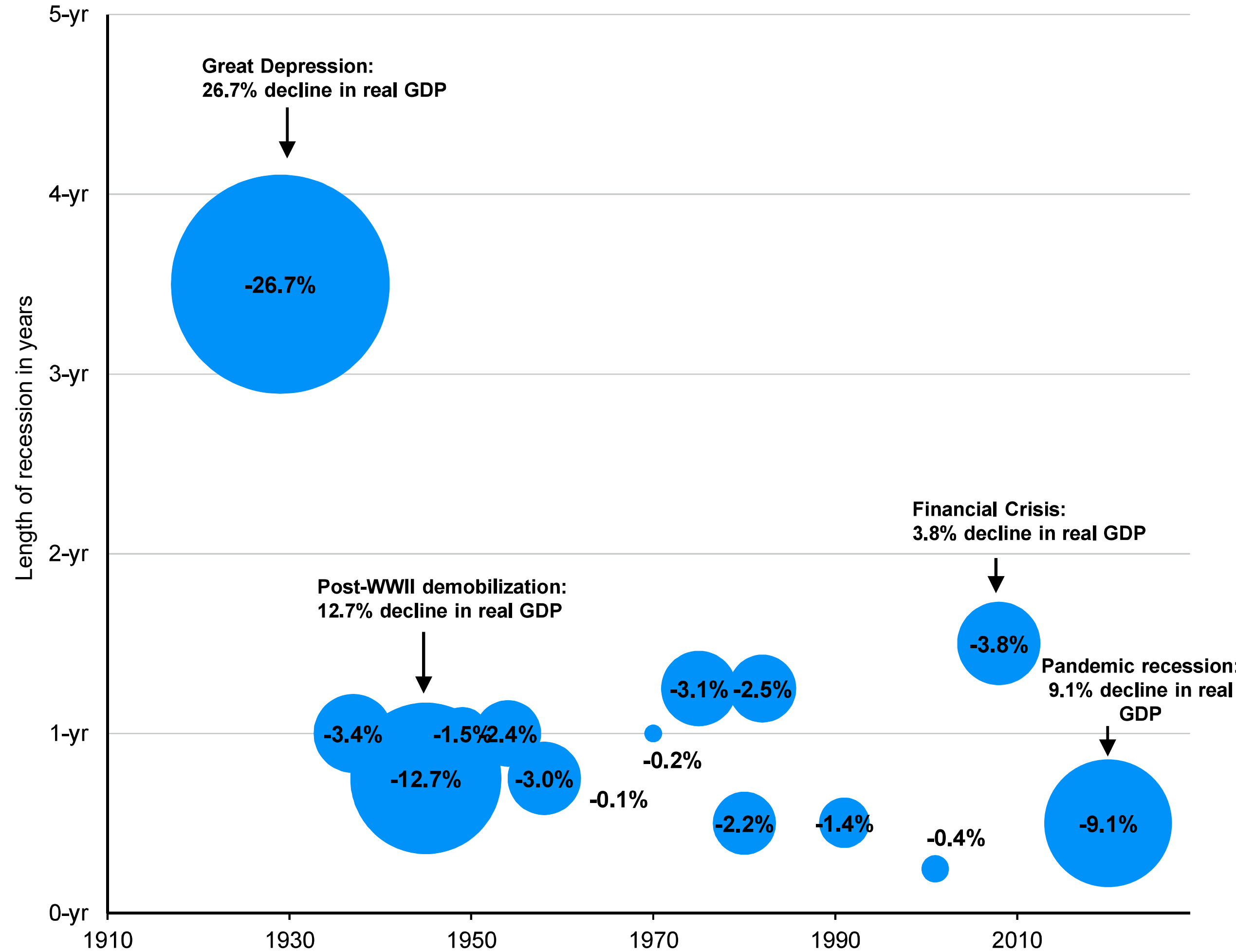
Length of expansions and recessions

Months



The Great Depression and post-war recessions

Length and severity of recession

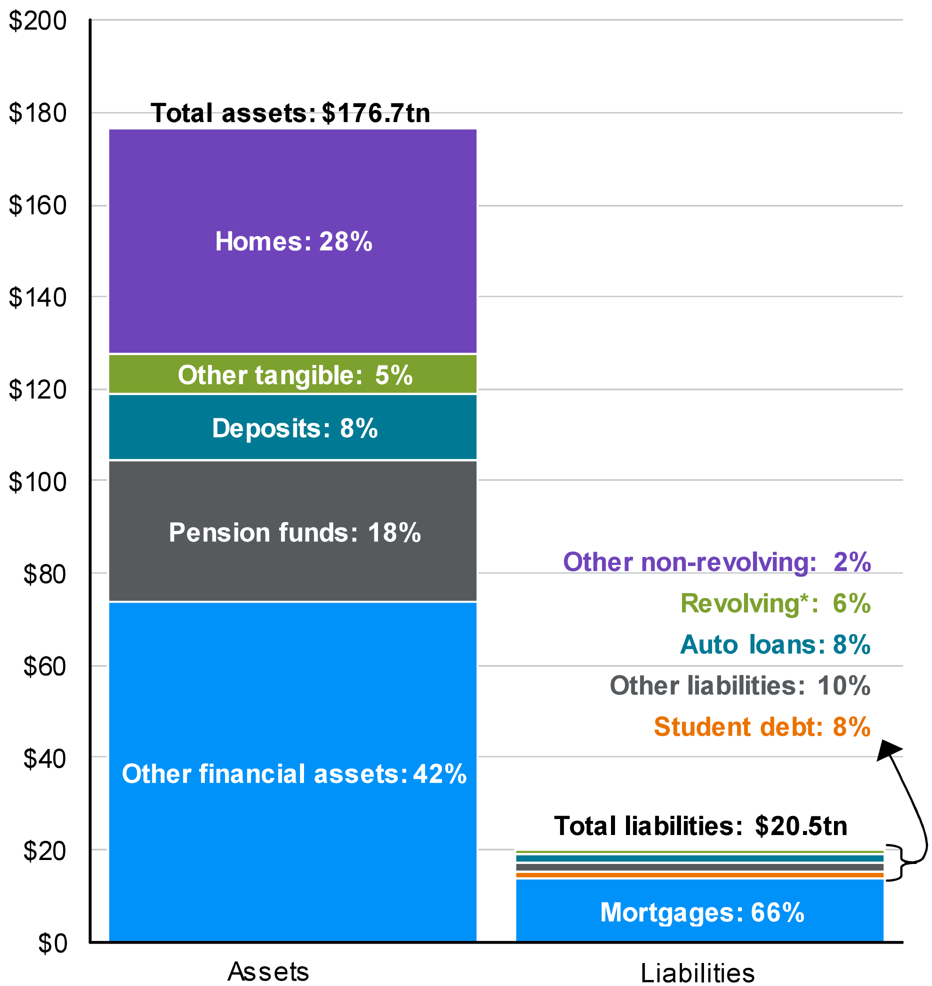


Source: BEA, NBER, J.P. Morgan Asset Management.
(Left) Chart assumes the current expansion lasted until at least March 2024. (Right) Bubble size reflects the severity of the recession, which is calculated as the decline in real GDP from the peak quarter to the trough quarter except in the case of the Great Depression, where it is calculated from the peak year (1929) to the trough year (1933), due to a lack of available quarterly data. Data for length of economic expansions and recessions obtained from the National Bureau of Economic Research (NBER). Past performance is not a reliable indicator of current and future results.
Guide to the Markets – U.S. Data are as of March 31, 2024.

Consumer finances

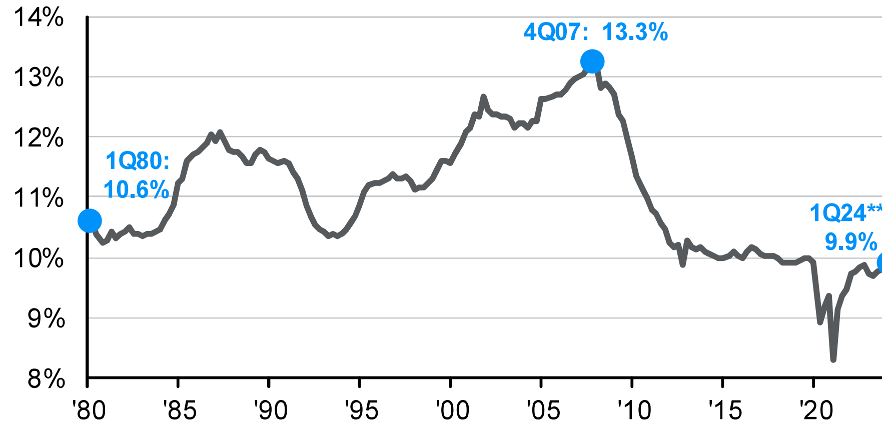
Consumer balance sheet

4Q23, USD trillions, not seasonally adjusted



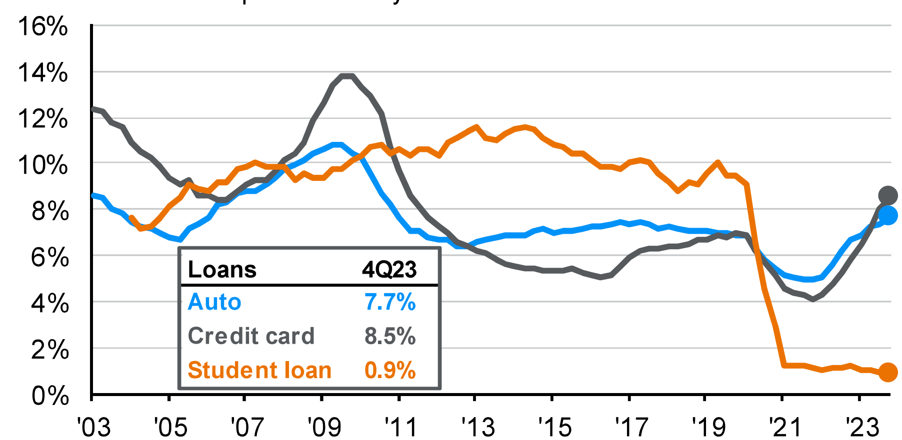
Household debt service ratio

Debt payments as % of disposable personal income, SA



Flows into early delinquencies

% of balance delinquent 30+ days



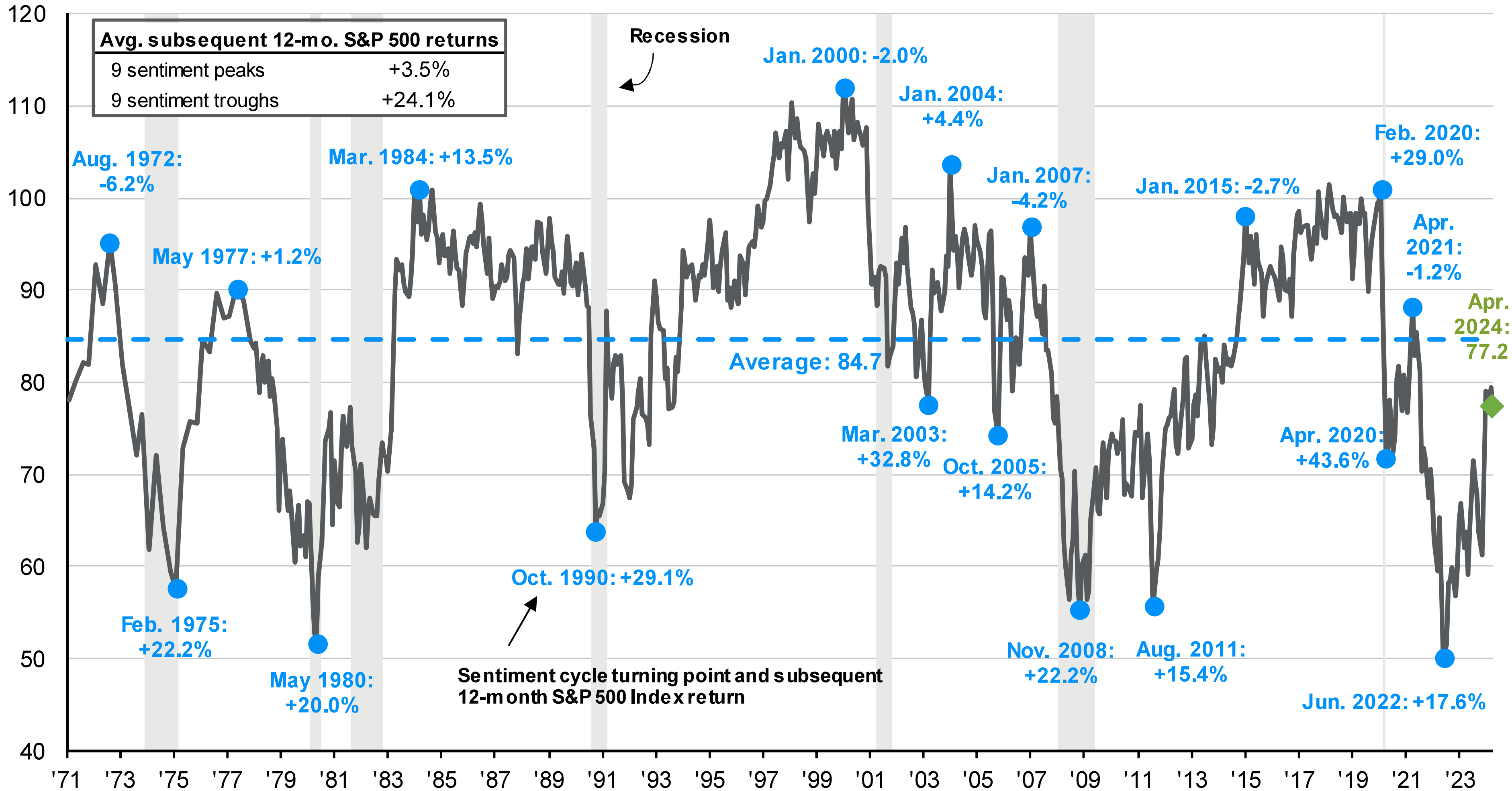
Source: FactSet, FRB, J.P. Morgan Asset Management; (Top and bottom right) BEA.
Data include households and nonprofit organizations. SA – seasonally adjusted. *Revolving includes credit cards. Values may not sum to 100% due to rounding. **1Q24 figures for debt service ratio are J.P. Morgan Asset Management estimates.
Guide to the Markets – U.S. Data are as of April 30, 2024.

Consumer confidence and the stock market

GTM | U.S.

Economy

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

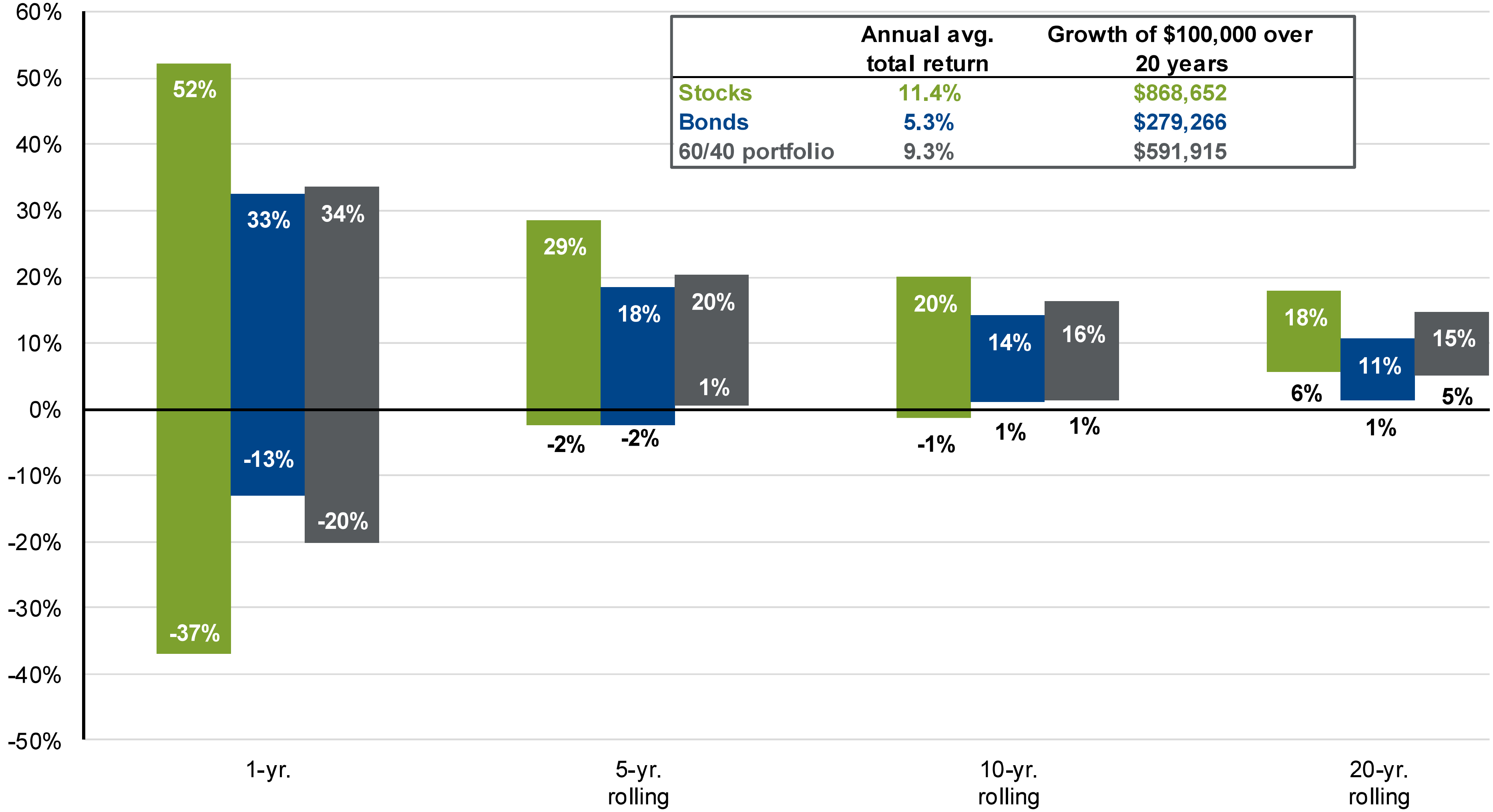


Source: FactSet, Standard & Poor's, University of Michigan, J.P. Morgan Asset Management.
Peak is defined as the highest index value before a series of lower lows, while a trough is defined as the lowest index value before a series of higher highs. Subsequent 12-month S&P 500 returns are price returns only starting from the end of the month and excluding dividends. Past performance is not a reliable indicator of current and future results.
Guide to the Markets – U.S. Data are as of April 30, 2024.

J.P.Morgan
ASSET MANAGEMENT

Time, diversification and the volatility of returns

Range of stock, bond and blended total returns
Annual total returns, 1950-2023



	Annual avg. total return	Growth of $100,000 over 20 years
Stocks	11.4%	$868,652
Bonds	5.3%	$279,266
60/40 portfolio	9.3%	$591,915

Source: Bloomberg, FactSet, Federal Reserve, Robert Shiller, Standard and Poor's, Strategas/Ibbotson, J.P. Morgan Asset Management.
Returns shown are based on calendar year returns from 1950 to 2023. Stocks represent the S&P 500 Shiller Composite for periods prior to 1936 and the S&P 500 thereafter. Bonds represent Strategas/Ibbotson for periods prior to 1976 and the Bloomberg Aggregate thereafter. Growth of $100,000 is based on annual average total returns from 1950 to 2023.
Guide to the Markets – U.S. Data are as of April 30, 2024.

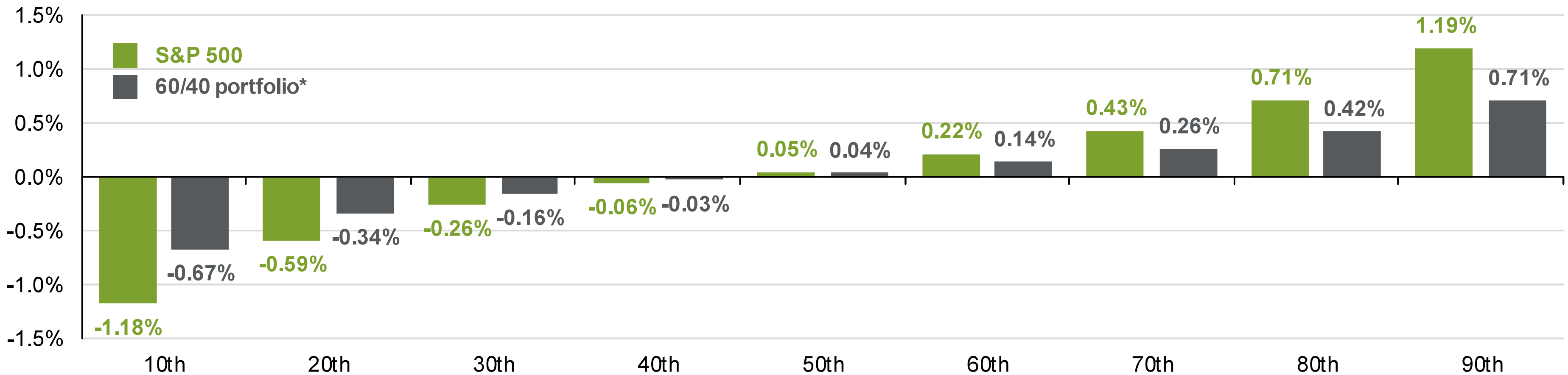
J.P.Morgan
ASSET MANAGEMENT

Diversification and the average investor

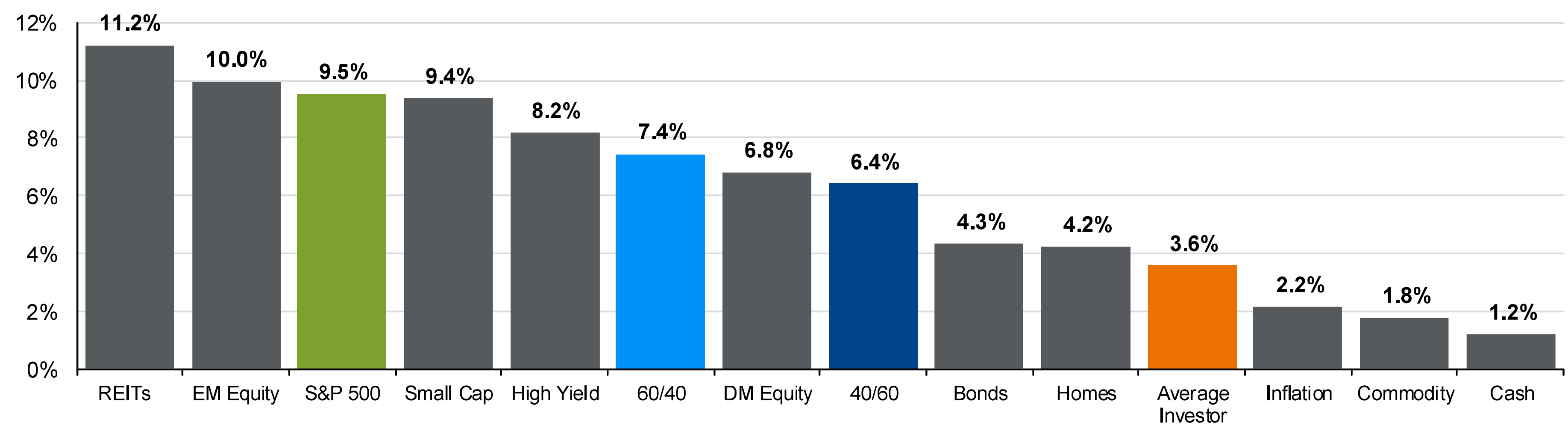
GTM | U.S.

Investing Principles

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.
Guide to the Markets – U.S. Data are as of June 30, 2022.

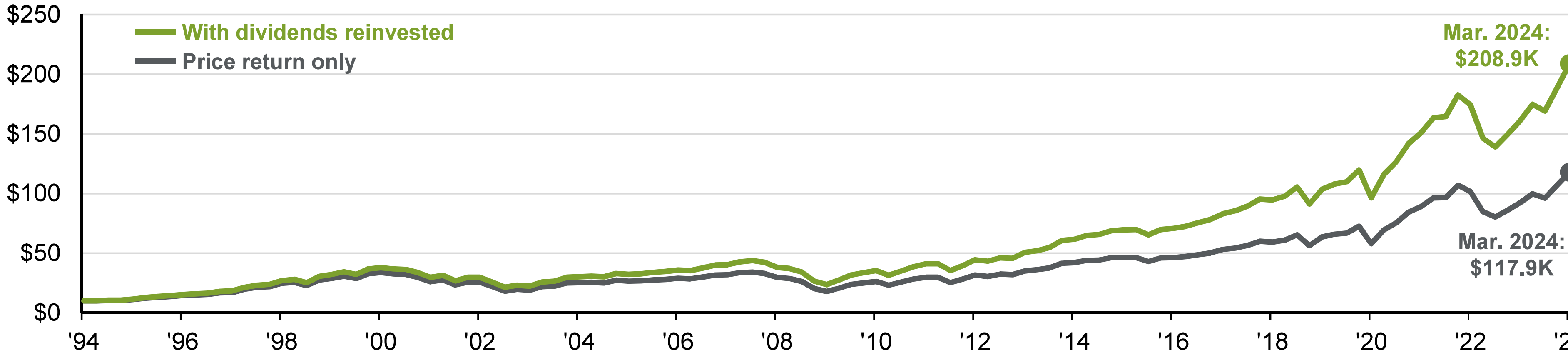
J.P.Morgan
ASSET MANAGEMENT

The power of compounding

GTM | U.S.

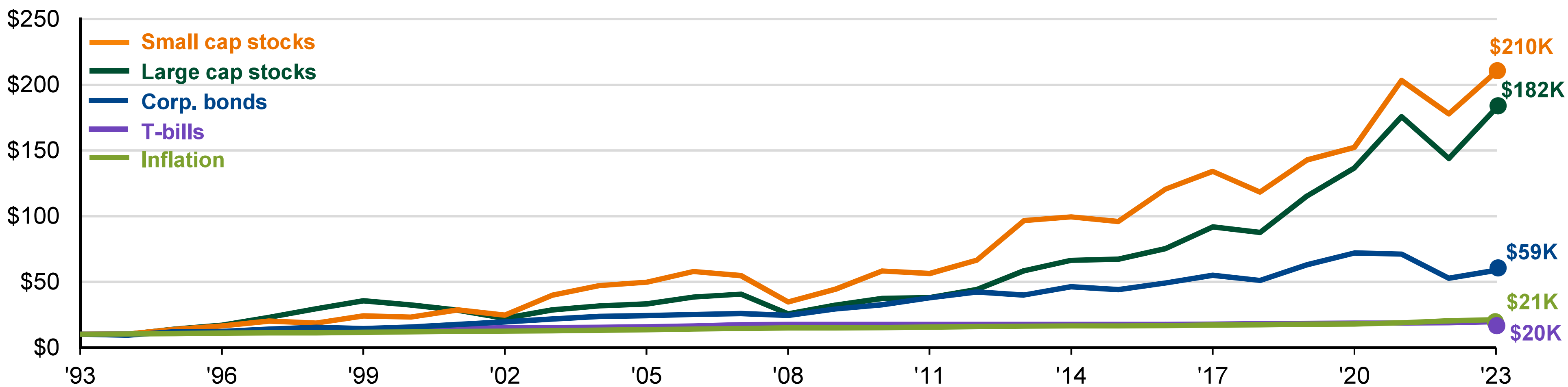
The power of compounding

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



Major asset classes versus inflation

Growth of $10,000 from 1993 – 2023, annual returns, USD thousands



Source: Bloomberg, Ibbotson, Standard & Poor's, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of March 31, 2024.

J.P.Morgan ASSET MANAGEMENT

Traditional IRAs vs. Roth IRAs: 2023/2024

GTR-OTB

	Traditional IRA	Roth IRA
Maximum contribution 2024	• $7,000 (earned income) • $8,000 (age 50 and over)[1] • Reduced by Roth IRA contributions	• $7,000 (earned income) • $8,000 (age 50 and over)[1] • Reduced by Traditional IRA contributions
Tax-deductibility income limits (Traditional IRA) and contribution income limits (Roth IRA)	If you or your spouse is covered by a retirement plan at work, tax deductibility of contributions phases out at these income levels: **2023** Single: $73,000-$83,000[2] Married: $116,000-$136,000[2] **2024** Single: $77,000-$87,000[2] Married: $123,000-$143,000[2]	Contributions are non-deductible; employer plan coverage does not change the contribution phase-out limits: **2023** Single: $138,000-153,000[2] Married: $218,000-$,228,000[2] **2024** Single: $146,000-$161,00[2] Married: $230,000-$240,000[2]
Federal tax treatment	• Investment growth is tax deferred and contributions may be tax deductible. Deductible contributions and investment gains are taxed as ordinary income upon withdrawal. • If non-deductible contributions have been made, each withdrawal is taxed proportionately on a pro-rata basis, taking into consideration all contributions made to all Traditional IRAs owned.	• Taxes are due upon conversion of account balances not yet taxed. • Qualified withdrawals of contributions at any time are tax free and IRS penalty free; converted amounts may be withdrawn tax free.[3] • Qualified withdrawals of earnings are tax free and IRS penalty free if taken after five years have passed since the account was initially funded and the account owner is age 59½ or older (other exceptions may be applicable). • Multiple Roth IRAs are considered one Roth IRA for withdrawal purposes and distributions MUST be withdrawn in a specific order deemed by the IRS that applies regardless of which Roth IRA is used to take that distribution.
Early withdrawals	Early withdrawals before age 59½ are generally subject to a 10% IRS penalty unless certain exceptions apply.	
Mandatory withdrawals	By April 1 of the year after one's RMD age: 70½ for those born prior to July 1, 1949; 72-75 for those born on or after July 1, 1949.	None for account owner
Deadline to contribute	**2023 contribution:** April 15, 2024 **2024 contribution:** April 15, 2025	**2023 contribution:** April 15, 2024 **2024 contribution:** April 15, 2025

[1]Must be age 50 or older by December 31 of the contribution year. IRS Publication 590.
[2]Assumes participation in an employer's retirement plan. No income limits apply when investors and spouses are not covered by a retirement plan at work. Income limits based on Modified AGI (Adjusted Gross Income less certain deductions). Use Worksheet 1-1 in IRS Publication 590-A or consult your tax professional.
[3]Distributions from a conversion amount must satisfy a five-year investment period to avoid the 10% penalty. This pertains only to the conversion amount that was treated as income for tax purposes. The presenter of this slide is not a tax or legal professional. Clients should consult a personal tax or legal professional prior to making any tax- or legal-related investment decisions. IRS Publication 590.
Source: IRS.gov; IRS Notice 2023-203.

J.P.Morgan ASSET MANAGEMENT

Retirement plan contribution and deferral limits: 2023/2024

GTR

Type of Retirement Account	Specifics	2023	2024
401(k), 403(b), 457(b)	401(k) elective deferral limit/with catch-up contribution (age 50 and over)	$22,500/$30,000	$23,000/$30,500
	Annual defined contribution limit	$66,000	$69,000
	Annual compensation limit	$330,000	$345,000
	Highly compensated employee threshold	$150,000	$155,000
	403(b)/457 elective deferrals/with catch-up contribution (age 50 and over)	$22,500/$30,000	$23,000/$30,500
SIMPLE IRA	SIMPLE employee deferrals/with catch-up deferral (age 50 and over)[1]	$15,500/$19,000	$16,000/$19,500
SEP IRA	Maximum contribution[2]	$66,000	$69,000
	SEP minimum compensation	$750	$750
	SEP annual compensation limit	$330,000	$345,000
Health Savings Account (HSA)	Maximum contribution amount/with catch-up contribution (age 55 and over)	**Single:** $3,850/$4,850 **Family:** $7,750/$8,750	**Single:** $4,150/$5,150 **Family:** $8,300/$9,300
	Minimum deductible	**Single:** $1,500 **Family:** $3,000	**Single:** $1,600 **Family:** $3,200
	Maximum out-of-pocket expenses	**Single:** $7,500 **Family:** $15,000	**Single:** $8,050 **Family:** $16,100
Social Security	Wage base	$160,200	$168,600
	Maximum earnings test exempt amounts[3]	$21,240/year (before FRA*) $56,520/year (in year of FRA*)	$22,320/year (before FRA*) $59,520/year (in year of FRA*)
	Maximum Social Security benefit at FRA*	$3,808/month	$3,911/month
Defined benefit – Maximum annual benefit at retirement		$265,000	$275,000

*FRA is Full Retirement Age for Social Security. Assumes FRA at age 67. Maximum benefit if FRA is age 66: $3,618/month in 2023 and $3,652/month in 2024.

[1]Employer may either match employee's salary reduction contributions dollar for dollar up to 3% of employee's compensation or make non-elective contributions equal to 2% of compensation up to the annual compensation limit. IRS Publication 560.

[2]Employer contributions may not exceed the annual defined contribution limit or 25% of compensation. Other rules apply for self-employed individuals. IRS Publication 560.

[3]In calendar years before FRA, benefit reduced $1 for every $2 of earned income above the limit; during year of FRA, benefit reduced $1 for every $3 of earned income in months prior to FRA.

Source: IRS.gov; SSA.gov

Reference

J.P.Morgan
ASSET MANAGEMENT

A closer look at tax rates: 2024

Federal income tax rates applicable to taxable income

Tax rate	Single filers	Married filing jointly	Capital gains & dividends	Medicare tax on earned income	Medicare tax on net investment income	Limits to itemized deductions
10%	Up to $11,600	Up to $23,200	0% up to $47,025 (single) / $94,050 (married)	1.45% (employee portion, employers also pay 1.45%)	0%	-Medical expenses greater than 7.5% of Adjusted Gross Income (AGI) -SALT (state and local taxes) deduction capped at $10,000 -Mortgage interest deduction limited to primary/secondary homes with up to $750,000 new debt. Interest deduction is allowed on new home equity debt that is used to buy, build or substantially improve the home -Cash charitable contributions deductible up to 60% of AGI
12%	$11,600-$47,150	$23,200-$94,300				
22%	$47,150-$100,525	$94,300-$201,050	15% up to $518,900 (single) / $583,750 (married)			
24%	$100,525-$191,150	$201,050-$383,900				
32%	$191,150-$243,725	$383,900-$487,450				
35%	$243,725-$609,350	$487,450-$731,200	20% $518,901 or more (single) / $583,751 or more (married)	2.35% (includes 1.45% employee tax referenced above plus additional 0.90% tax for earned income above MAGI[1] $200,000/$250,000 threshold)	3.80% (additional tax will be levied on lesser of: 1) net investment income or 2) excess MAGI above $200,000/$250,000 threshold)	
37%	$609,350 or more	$731,200 or more				

The personal exemption has been repealed and individual tax rates and personal deductions sunset after 2025 as per the TCJA 2017.
Standard deduction: Single $14,600; Married filing jointly $29,200.
[1]Modified Adjusted Gross Income (MAGI) is AGI plus amount excluded from income as foreign earned income, tax-exempt interest and Social Security benefit.

Top/tax rates for ordinary income, capital gains and dividend income

Type of gain	Maximum rate
Top rate for ordinary income & non-qualified dividends	37%/40.8%[2]
Short-term capital gains (assets held 12 months or less)	37%/40.8%[2]
Long-term capital gains (assets held more than 12 months) & qualified dividends	20%/23.8%[2]

Alternative Minimum Tax (AMT) exemption[3]

Filing status	Exemption	Exemption phase-out range
Single/Head of Household	$85,700	$609,350-$952,150
Married filing jointly	$133,300	$1,218,700-1,751,900

[2]Includes top tax rate plus 3.8% Medicare tax on the lessor of net investment income or excess of MAGI over threshold (single threshold $200,000; married filing jointly $250,000).
[3]The exemption amount is reduced 0.25 for every $1 of AMTI (income) above the threshold amount for the taxpayer's filing status. For AMTI above the top range the exemption will be $0.

Federal estate, generation-skipping transfer (GST) tax & gift tax exemption

Top federal estate tax rate	40%
Federal estate, GST & gift tax exemption	$13.61 million per individual/$27.22 million per couple[4]
Annual gift tax exclusion	$18,000 per donor, per donee ($36,000 per couple)

[4]Increased levels expire after 2025.
Source: IRS.gov. The presenter of this slide is not a tax or legal professional. This slide is for informational purposes only and should not be relied on as tax or legal advice. Clients should consult their tax or legal professional before making any tax- or legal-related investment decisions.

J.P. Morgan Asset Management – Risks & disclosures

The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

For the purposes of MiFID II, the JPM Market Insights and Portfolio Insights programs are marketing communications and are not in scope for any MiFID II / MiFIR requirements specifically related to investment research. Furthermore, the J.P. Morgan Asset Management Market Insights and Portfolio Insights programs, as non-independent research, have not been prepared in accordance with legal requirements designed to promote the independence of investment research, nor are they subject to any prohibition on dealing ahead of the dissemination of investment research.

This document is a general communication being provided for informational purposes only. It is educational in nature and not designed to be taken as advice or a recommendation for any specific investment product, strategy, plan feature or other purpose in any jurisdiction, nor is it a commitment from J.P. Morgan Asset Management or any of its subsidiaries to participate in any of the transactions mentioned herein. Any examples used are generic, hypothetical and for illustration purposes only. This material does not contain sufficient information to support an investment decision and it should not be relied upon by you in evaluating the merits of investing in any securities or products. In addition, users should make an independent assessment of the legal, regulatory, tax, credit, and accounting implications and determine, together with their own financial professional, if any investment mentioned herein is believed to be appropriate to their personal goals. Investors should ensure that they obtain all available relevant information before making any investment. Any forecasts, figures, opinions or investment techniques and strategies set out are for information purposes only, based on certain assumptions and current market conditions and are subject to change without prior notice. All information presented herein is considered to be accurate at the time of production, but no warranty of accuracy is given and no liability in respect of any error or omission is accepted. It should be noted that investment involves risks, the value of investments and the income from them may fluctuate in accordance with market conditions and taxation agreements and investors may not get back the full amount invested. Both past performance and yields are not reliable indicators of current and future results.

J.P. Morgan Asset Management is the brand for the asset management business of JPMorgan Chase & Co. and its affiliates worldwide.

To the extent permitted by applicable law, we may record telephone calls and monitor electronic communications to comply with our legal and regulatory obligations and internal policies. Personal data will be collected, stored and processed by J.P. Morgan Asset Management in accordance with our privacy policies at https://am.jpmorgan.com/global/privacy.

This communication is issued by the following entities:

In the United States, by J.P. Morgan Investment Management Inc. or J.P. Morgan Alternative Asset Management, Inc., both regulated by the Securities and Exchange Commission; in Latin America, for intended recipients' use only, by local J.P. Morgan entities, as the case may be. In Canada, for institutional clients' use only, by JPMorgan Asset Management (Canada) Inc., which is a registered Portfolio Manager and Exempt Market Dealer in all Canadian provinces and territories except the Yukon and is also registered as an Investment Fund Manager in British Columbia, Ontario, Quebec and Newfoundland and Labrador. In the United Kingdom, by JPMorgan Asset Management (UK) Limited, which is authorized and regulated by the Financial Conduct Authority; in other European jurisdictions, by JPMorgan Asset Management (Europe) S.à r.l. In Asia Pacific ("APAC"), by the following issuing entities and in the respective jurisdictions in which they are primarily regulated: JPMorgan Asset Management (Asia Pacific) Limited, or JPMorgan Funds (Asia) Limited, or JPMorgan Asset Management Real Assets (Asia) Limited, each of which is regulated by the Securities and Futures Commission of Hong Kong; JPMorgan Asset Management (Singapore) Limited (Co. Reg. No. 197601586K), this advertisement or publication has not been reviewed by the Monetary Authority of Singapore; JPMorgan Asset Management (Taiwan) Limited; JPMorgan Asset Management (Japan) Limited, which is a member of the Investment Trusts Association, Japan, the Japan Investment Advisers Association, Type II Financial Instruments Firms Association and the Japan Securities Dealers Association and is regulated by the Financial Services Agency (registration number "Kanto Local Finance Bureau (Financial Instruments Firm) No. 330"); in Australia, to wholesale clients only as defined in section 761A and 761G of the Corporations Act 2001 (Commonwealth), by JPMorgan Asset Management (Australia) Limited (ABN 55143832080) (AFSL 376919). For all other markets in APAC, to intended recipients only.

For U.S. only: If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-343-1113 for assistance.

Prepared by: David P. Kelly, Jordan K. Jackson, David M. Lebovitz, John C. Manley, Meera Pandit, Gabriela D. Santos, Stephanie Aliaga, Sahil Gauba, Olivia C. Schubert and Nimish Vyas.

Unless otherwise stated, all data are as of December 31, 2022 or most recently available.

Guide to the Markets – U.S.

JP-LITTLEBOOK | 0903c02a82565a44

J.P.Morgan
ASSET MANAGEMENT

Disclosures

GTR

Unless otherwise indicated, all illustrations are shown in U.S. dollars.

Past performance is no guarantee of comparable future results.

Diversification does not guarantee investment returns and does not eliminate the risk of loss.

Indices are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. This world-renowned index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 Index focuses on the large cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market. An investor cannot invest directly in an index.

The **Bloomberg Capital U.S. Aggregate Index** represents securities that are SEC-registered, taxable and dollar denominated. The index covers the U.S. investment-grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

The price of **equity** securities may rise or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk," meaning that stock prices in general may decline over short or extended periods of time.

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax professional prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Opinions and estimates offered constitute our judgment and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve.

Asset class	20/80	40/60	50/50	60/40	80/20
U.S. large cap growth	4.5%	8.8%	11.0%	13.3%	17.5%
U.S. large cap value	4.5%	8.8%	11.0%	13.3%	17.5%
U.S. mid/small cap	2.3%	4.5%	5.5%	6.5%	9.0%
U.S. REITs	1.0%	2.0%	2.5%	3.0%	4.0%
Developed market equities	5.5%	11.3%	14.0%	16.8%	22.5%
Emerging market equities	2.3%	4.8%	6.0%	7.3%	9.5%
U.S. investment-grade bonds	61.8%	45.8%	38.0%	30.0%	14.0%
U.S. high yield bonds	12.3%	9.3%	7.5%	6.0%	3.0%
Emerging market debt	4.0%	3.0%	2.5%	2.0%	1.0%
U.S. cash	2.0%	2.0%	2.0%	2.0%	2.0%

Model portfolios can only be distributed by Intermediaries where Advisory Portfolios are available.
This document is a general communication being provided for informational purposes only. It is educational in nature and not designed to be a recommendation for any specific investment product, strategy, plan feature or other purposes. By receiving this communication you agree with the intended purpose described above. Any examples used in this material are generic, hypothetical and for illustration purposes only. None of J.P. Morgan Asset Management, its affiliates or representatives is suggesting that the recipient or any other person take a specific course of action or any action at all. Communications such as this are not impartial and are provided in connection with the advertising and marketing of products and services. Prior to making any investment or financial decisions, you should seek individualized advice from your personal financial, legal, tax and other professionals that take into account all of the particular facts and circumstances of your own situation.

Telephone calls and electronic communications may be monitored and/or recorded. Personal data will be collected, stored and processed by J.P. Morgan Asset Management in accordance with our privacy policies at https://www.jpmorgan.com/privacy.

JPMorgan Distribution Services, Inc., member FINRA.

J.P. Morgan Asset Management is the marketing name for the asset management businesses of JPMorgan Chase & Co. and its affiliates worldwide.
If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-343-1113 for assistance.

JP-GTR | 0903c02a81c9c127

J.P.Morgan
ASSET MANAGEMENT


RETIREMENT
& INVESTMENT GROUP
THANK YOU
www.retirementandinvestmentgroup.com
307 Frederick Road | Catonsville, MD 21228 | Phone: 410-744-8707 |
Fax: 410-744-8709 | Toll-Free: 888-744-8707