

## 1Q 2026 | Investment Report

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# Where We Are

## December 2025

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**2025 looks to deliver another outstanding year of equity returns, entering the fourth year of the bull market with the S&P 500 up more than 16.5% and near all-time highs. While the market narrative continued to be singularly dominated by two pillars - the gen AI capex spending boom and the pace of the Fed easing cycle - market action was characterized by material surprises:**

- The immateriality of Liberation Day tariffs and one of the strongest six-month rallies from April through October in the last 80 years
- The 10% depreciation of the US dollar, which helped ROW markets outperform US by more than 1000 bp
- The acceleration in GenAI capex spending and the resilience of the US consumer, despite awful sentiment
- Leadership by the Mag 7, but large dispersion within the cohort, with only 2-3 mega-caps outperforming
- Gold outperformance versus Bitcoin performance dispersion substantial
- Relative resilience of the highest beta and “junky” parts of the market

**2026 should deliver roughly 10% potential upside for the S&P 500 based on the embedded earnings strength, but we are NOT as bullish as others at MS & Co.**

- Earnings expectations are already robust, up 14-15%, and embed significant productivity gains, operating margin expansion, and operating leverage into new all-time highs
- We think stimulus impact of OBBBA on the consumer is overestimated versus overall sentiment, secular headwinds, and residual “affordability” factors
- We see enterprise-wide adoption of GenAI proceeding more slowly than many forecast
- We think “fiscal dominance” will characterize the backdrop and that a weaker dollar, higher inflation and a steeper yield curve, including a rise in long rates are risks; interest rate sensitivity of the economy has changed
- The implication is the need for diversification from the 60/40; equity valuation multiples stall out, and long rates face rising inflation and term premiums
- Mid-term elections sustain market volatility

**We don’t think that we are emerging from recession, nor do we think 2026 will mark a broad-based economic re-acceleration. Consequently, we are cautious about the pure passive index trade and small-cap beta. Instead, we think selectivity will matter. Within the context of being 300 bp overweight US equities, we position GIC portfolios to be up in quality/larger capitalization.**

- Within US equities, we balance active/passive at 50/50
- Within global equities, we are overweight US, Japan, and EM
- Fixed income is a source of funds and moving toward underweight by mid-year with a focus on owning the belly of the curve; warming to high yield versus private credit

**Bull markets are meant to be ridden NOT timed, but exuberance should be tempered; GIC continues to recommend maximum portfolio diversification and risk management; focus on real assets including real estate and commodities, and infrastructure; we like hedge funds and are warming to 2026 new vintages in VC and growth private equity alongside select secondaries. In credit, focus on distressed and asset backed. It’s a risk manager’s market, not a passive investor’s market.**

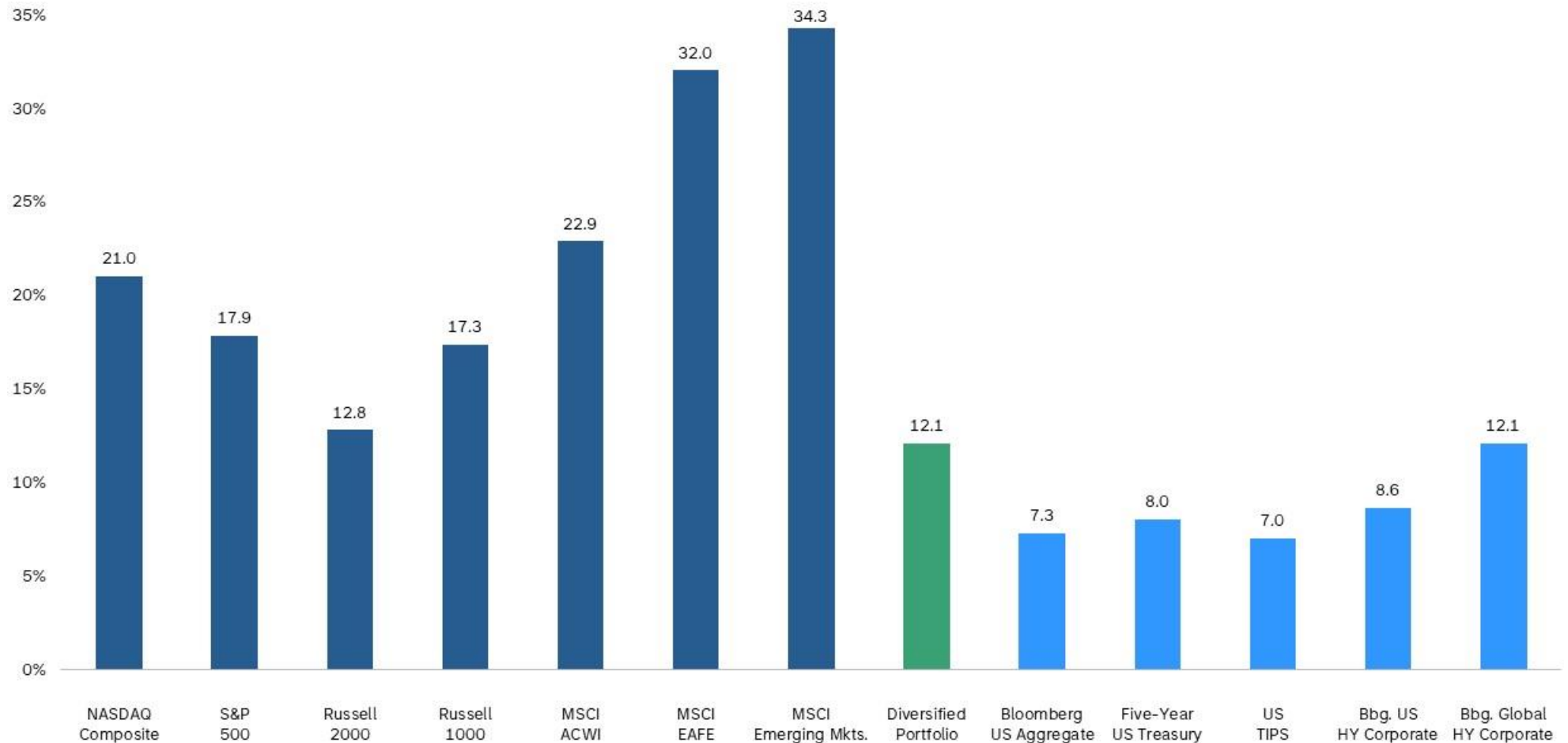
Source: Morgan Stanley Wealth Management Global Investment Office (GIO). Term premium is the excess yield that investors require to commit to holding a long-term bond instead of a series of shorter-term bonds.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

# Multi-Asset Class Overview: 2025 (YTD)

## TOTAL RETURN

AS OF DECEMBER 31, 2025



Source: Morgan Stanley Wealth Management GIO, Bloomberg, FactSet. We define the Diversified Portfolio as 40% MSCI All-Country World Index (ACWI, USD), 40% Bloomberg US Aggregate Index, 5% FTSE Three-Month US T-Bill Index, 3% Bloomberg Commodity Index, 3% FTSE EPRA/NAREIT Global Index (USD), and 9% HFRX Global Index.

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# What We Forecast

December 2025

2026E US GDP Growth		2026E US Inflation		Federal Funds Rate		Two-Year/10-Year US Treasury Yield	
<b>Real</b>	1.8%	<b>2.8-3.0%</b>		<b>3-3.25%</b> <i>July vs. October Consensus</i>		<b>2.60%/4.05%</b> <i>2s10s slope to 145 bp</i>	
<b>Nominal</b>	4.5%						
2026E Rest of World		2026E US Dollar		2026E/2027E S&P 500 Earnings		Price/Earnings Multiples	
<b>GDP</b>	3.2%	<b>1H</b>	-6%	<b>MS &amp; Co.</b>	\$317/\$356	<b>Current</b>	22.3x
		<b>2H</b>	+6%	<b>Consensus</b>	\$307/\$340	<b>Forecast</b>	22x
<b>Inflation</b>	2.0%	<i>DXY @ 100</i>		<i>MS &amp; Co. Growth: 17%</i> <i>Consensus: 14%</i>		<b>Fair Value</b>	17.8x

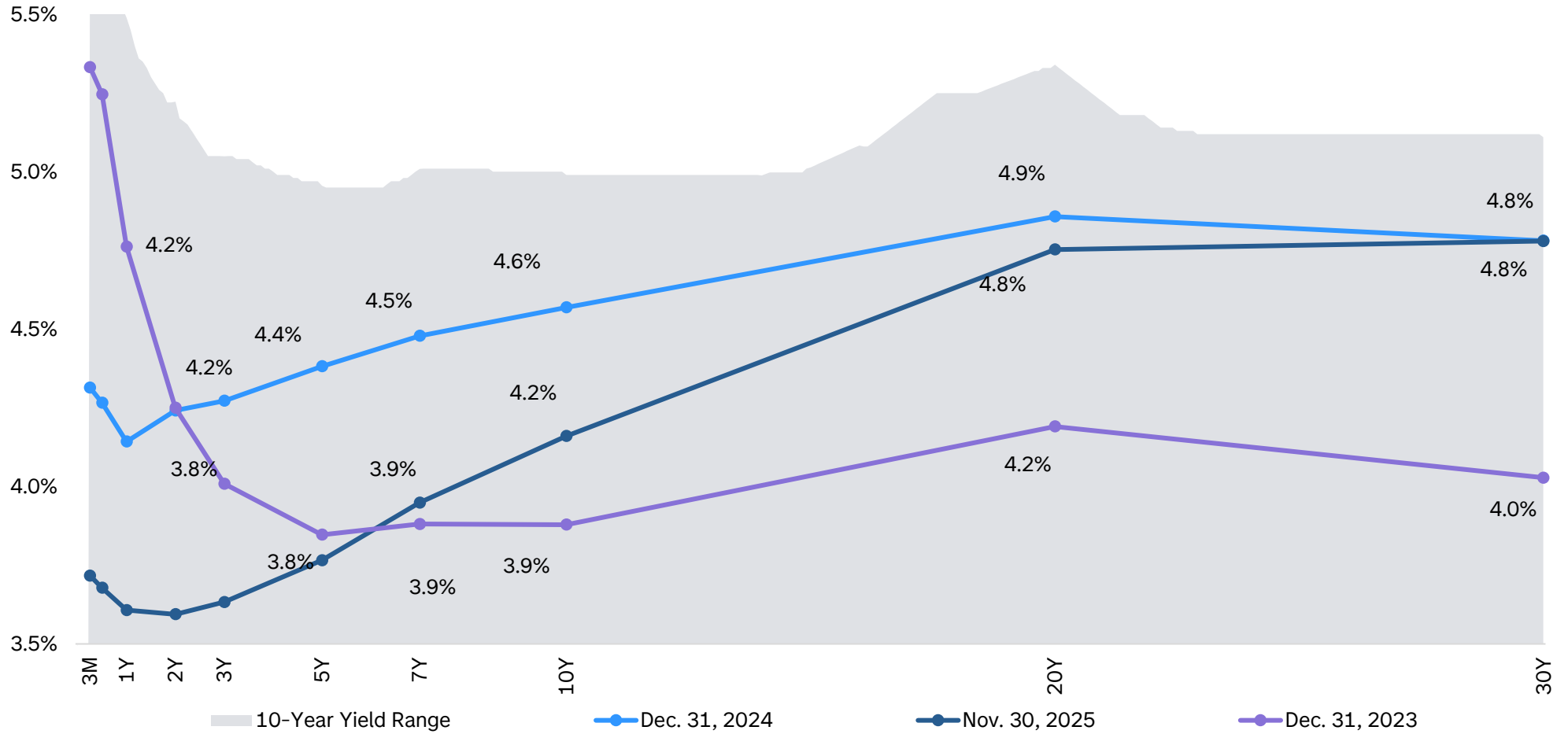
**S&P 500 trades toward 7,500-7,800 MS & Co. base case annual target price.**

Source: Morgan Stanley Wealth Management GIO. Estimates are Morgan Stanley Global Investment Committee

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# US Yield Curve

AS OF NOVEMBER 30, 2025



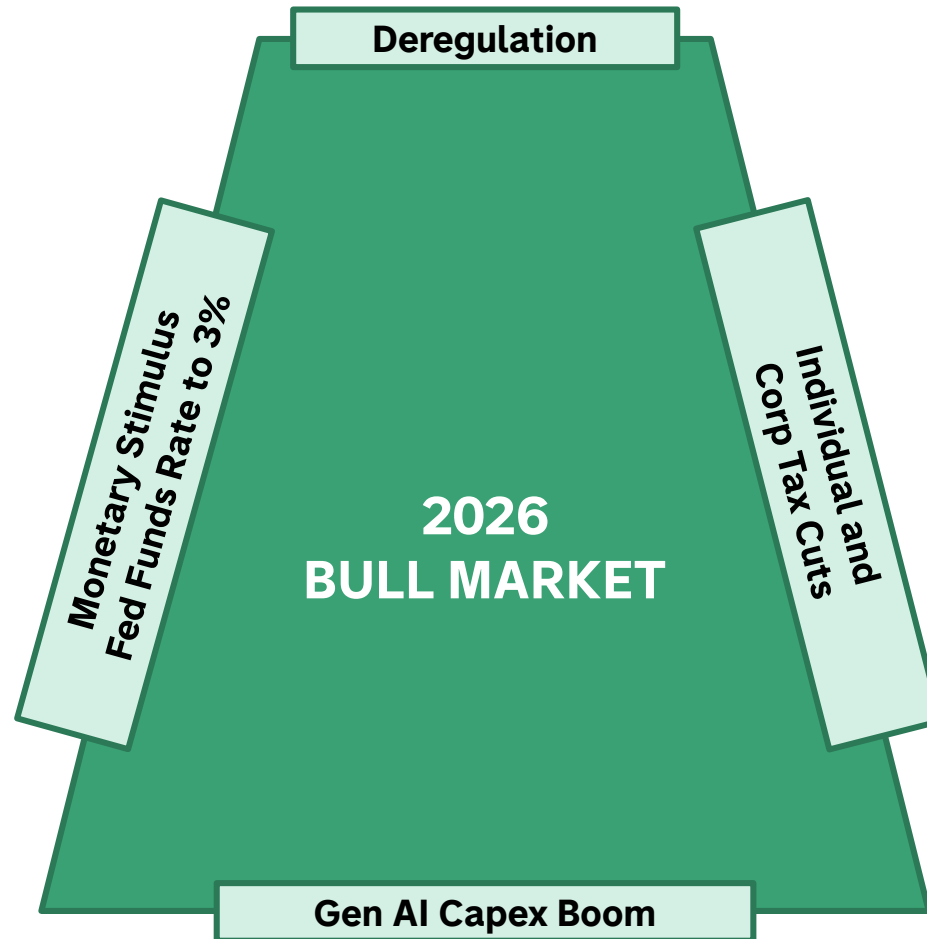
Source: Morgan Stanley Wealth Management GIO, Bloomberg.

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# But the Bull Case in 2026 Is Formidable...and Scope for Upside Surprise Limited

## DRIVERS OF THE 2026 BULL MARKET

AS OF DECEMBER 10, 2025



Source: Morgan Stanley Wealth Management GIO

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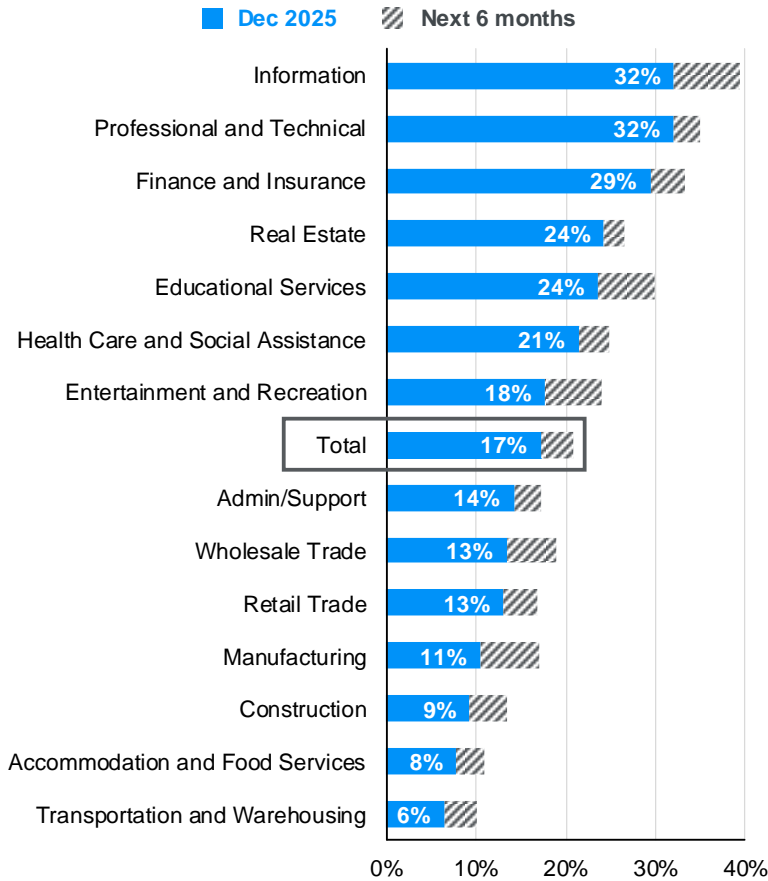


# Artificial intelligence: Implementation

Economy

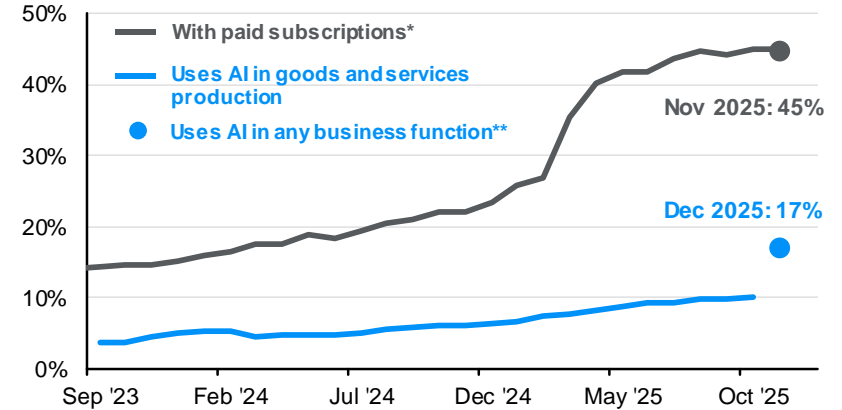
## Businesses using AI in any business function

% of all firms reporting use of AI applications



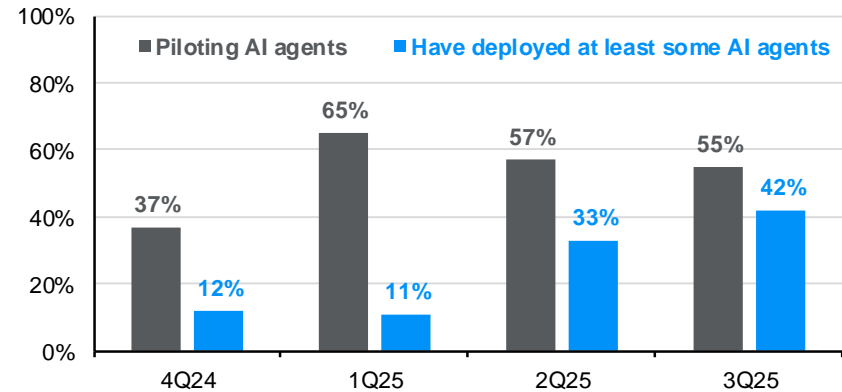
## Companies spending on AI models, platforms and tools

% of businesses



## AI agent deployment

% of organizations with revenues above \$1bn, KPMG Quarterly AI Pulse survey



Source: J.P. Morgan Asset Management; (Left) Census Business Trends and Outlook Survey; (Top right) RAMP AI Index; (Bottom right) KPMG Quarterly AI Pulse Survey.  
 \*Ramp data is based on anonymized corporate card and bill-pay transactions with AI vendors across over 50,000 U.S. businesses on Ramp's spend platform to provide a spend-based measure of AI adoption that complements the self-reported AI use (which includes free and internal tools) in the Census survey series. The two measures differ in firm coverage and methodology, with Ramp data skewed towards digitally enabled firms. \*\*Starting Dec. 2025, the Census changed the wording of their survey question to capture usage of AI in "any business function", broader language compared to their prior "in producing goods and services" question. Total adoption jumped from 10% to 17% of businesses because of this switch. AI agents refer to AI systems designed to autonomously execute specific tasks or workflows with minimal human intervention.

Guide to the Markets – U.S. Data are as of December 31, 2025.

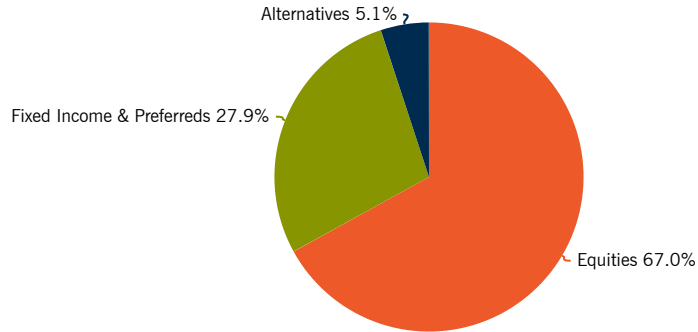
# Asset Allocation: Actual vs. Target

Portfolio (Hoover Investments)

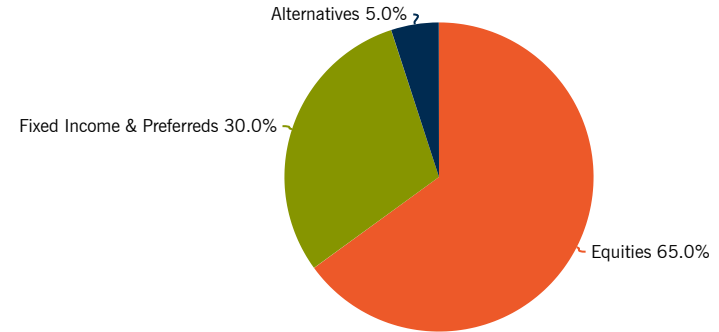
Data as of December 31, 2025

## ACTUAL VS. TARGET

Actual



Target



## ASSET ALLOCATION: ACTUAL VS. TARGET WITH MIN-MAX RANGE

Asset Class	Actual 12/31/2025		Target		Difference		Min-Max Range (%)	Actual	Min - Max Range
	(\$)	(%)	(\$)	(%)	(\$)	(%)			
Equities	7,956,521.10	67.00	7,718,960.56	65.00	237,560.55	2.00	25 - 75		
Fixed Income & Preferreds	3,319,449.73	27.95	3,562,597.18	30.00	-243,147.45	-2.05	10 - 50		
Alternatives	599,353.10	5.05	593,766.20	5.00	5,586.90	0.05	0 - 15		
Other	0.00	0.00	0.00	0.00	0.00	0.00	-		
<b>Total Assets</b>	<b>11,875,323.93</b>	<b>100.00</b>	<b>11,875,323.93</b>	<b>100.00</b>					

Target Allocation as determined by you and your Financial Advisor for this account only. Total Value and % of Portfolio are based on US Dollar values.

# Asset Allocation

Portfolio (Hoover Investments)

Data as of December 31, 2025

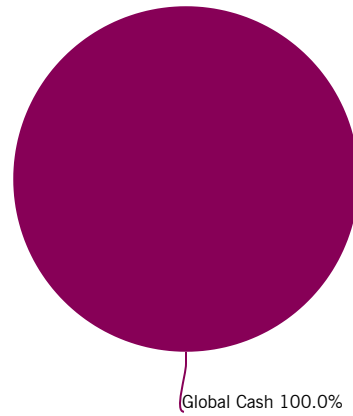
## ASSET ALLOCATION

	Total Value (\$) 12/31/2025	% of Portfolio 12/31/2025
<b>Equities</b>	<b>7,956,521.10</b>	<b>67.0</b>
US Equities	5,553,595.23	46.8
US Large Cap Growth	2,687,550.00	22.6
US Large Cap Value	2,143,131.98	18.0
US Mid Cap Growth	475,017.61	4.0
US Mid Cap Value	247,895.63	2.1
International Equities	1,525,176.91	12.8
Emerging & Frontier Mkt	877,748.96	7.4
<b>Fixed Income &amp; Preferreds</b>	<b>3,319,449.73</b>	<b>28.0</b>
Short Term Fixed Income	396,940.27	3.3
US Fixed Income Taxable	2,922,509.46	24.6
<b>Alternatives</b>	<b>599,353.10</b>	<b>5.0</b>
Real Assets	599,353.10	5.0
Real Estate/REITs	321,247.04	2.7
Commodities	163,710.59	1.4
MLP/Energy Infrastructure	114,395.47	1.0
<b>Other</b>	-	-
<b>TOTAL PORTFOLIO</b>	<b>11,875,323.93</b>	<b>100.0</b>

Total Value and % of Portfolio are based on US Dollar values.

# Asset Allocation

## ASSET ALLOCATION - ASSET CLASS



## ASSET ALLOCATION

	Total Value (\$)	% of Portfolio
	12/31/2025	12/31/2025
<b>Cash</b>	<b>9,196.39</b>	<b>100.0</b>
Global Cash	9,196.39	100.0
<b>TOTAL PORTFOLIO</b>	<b>9,196.39</b>	<b>100.0</b>

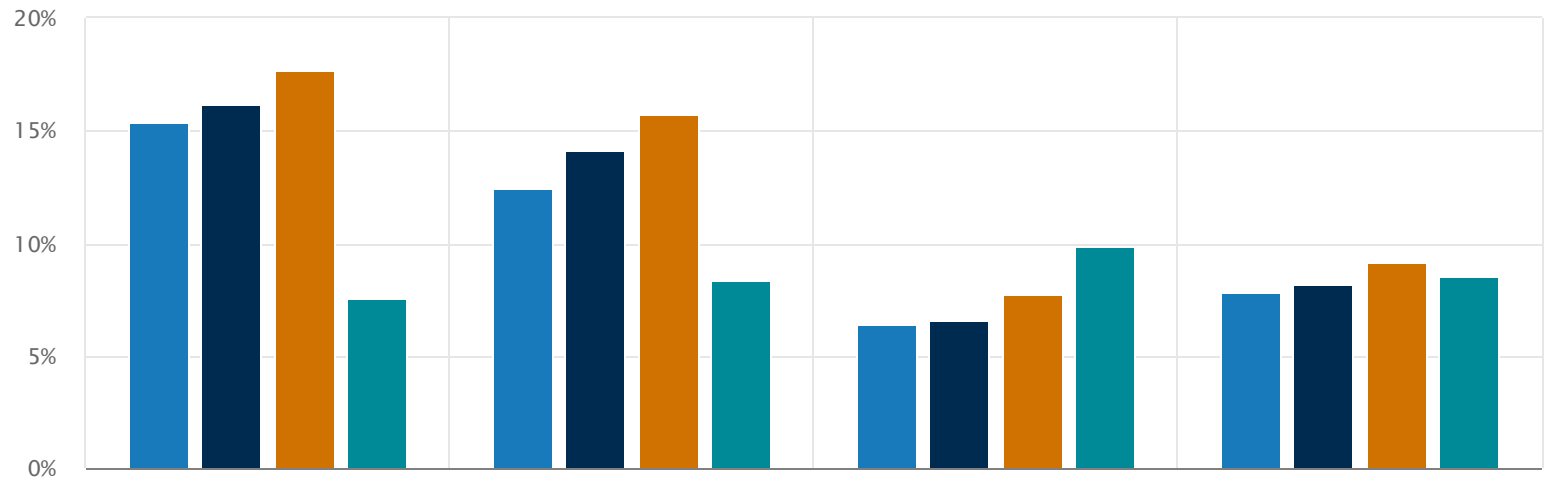
Total Value and % of Portfolio are based on US Dollar values.

# Time Weighted Performance Summary - Advisory Assets

Portfolio (Hoover Investments)

Data as of December 31, 2025

## RETURN % (NET OF FEES) VS. BENCHMARKS (ANNUALIZED)



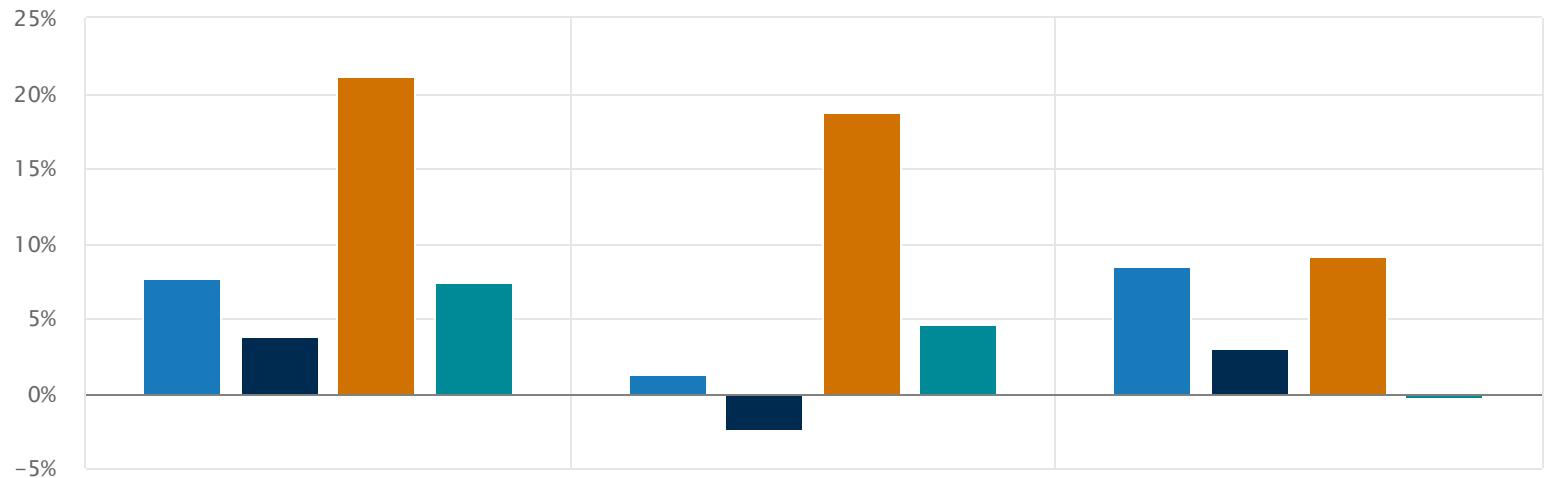
	Year to Date 12/31/24 - 12/31/25	Last 3 Years 12/31/22 - 12/31/25	Last 5 Years 12/31/20 - 12/31/25	Performance Inception Month End 12/31/16 - 12/31/25
Beginning Total Value (\$)	11,734,215.05	10,763,145.72	12,292,861.87	7,130,391.65
Net Contributions/Withdrawals (\$)	-1,546,550.39	-2,957,661.38	-4,026,605.09	-2,822,987.70
Investment Earnings (\$)	1,697,712.61	4,079,892.93	3,619,120.49	7,577,973.32
Ending Total Value (\$)	11,885,377.27	11,885,377.27	11,885,377.27	11,885,377.27
Return % (Net of Fees)	15.35	12.43	6.36	7.86
60 MSCI AC World NT 40 BC Agg (%)	16.22	14.11	6.57	8.19
70 MSCI AC World Net / 30 BC AGG (%)	17.73	15.73	7.73	9.20
CPI (w/est) + 5% (%)	7.55	8.33	9.85	8.51

Inception dates for advisory account(s) reflect the most recent advisory program or discretion change.

The investment returns shown on this page are time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals.

# Time Weighted Performance Summary - Advisory Assets

## RETURN % (NET OF FEES) VS. BENCHMARKS (ANNUALIZED)



	Year to Date 12/31/24 - 11/30/25	Last 3 Years 11/30/22 - 11/30/25	Performance Inception Month End 08/31/21 - 11/30/25
Beginning Total Value (\$)	301,592.76	648,716.70	500,868.47
Net Contributions/Withdrawals (\$)	-3,273.05	-335,621.46	-363,482.21
Investment Earnings (\$)	22,927.33	8,151.81	183,860.78
Ending Total Value (\$)	321,247.04	321,247.04	321,247.04
Return % (Net of Fees)	7.68	1.30	8.42
NCREIF Property Idx (%)	3.77	-2.52	2.95
MSCI AC World (%)	21.07	18.68	9.17
Bloomberg US Aggregate (%)	7.46	4.56	-0.23

Inception dates for advisory account(s) reflect the most recent advisory program or discretion change.

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# Time Weighted Performance Detail

Hoover Endowment - Tied to 3rd Party • 316-XXX306 • Select UMA

Data as of December 31, 2025

## RETURN % (GROSS OF FEES) VS. BENCHMARKS

Investment Description/ Benchmark	Performance Inception Date	Total Value (\$) 12/31/25	% Of Portfolio 12/31/25	Quarter to Date (%) 09/30/25 - 12/31/25	Year to Date (%) 12/31/24 - 12/31/25	Performance Inception (%) to 12/31/25
<b>US Large Cap Growth</b>		<b>923,987.98</b>	<b>23.26</b>			
Vanguard Growth ETF <i>CRSP Lg Cap Gr</i>	12/29/16	689,874.18	17.37	1.54 1.78	18.71 19.48	18.75 18.72
Pioneer Fundamental Growth <i>Russell 1000 Growth</i>	04/20/23	234,113.80	5.89	1.38 1.12	13.85 18.56	20.81 28.46
<b>US Large Cap Value</b>		<b>735,922.36</b>	<b>18.52</b>			
Columbia Dividend Income SMA <i>Russell 1000 Value</i>	07/30/25	551,316.32	13.88	2.64 3.81	6.90 7.26	6.90 7.26
Vanguard Value ETF <i>CRSP Lg VL</i>	12/29/16	184,606.04	4.65	2.95 2.96	14.99 15.31	10.83 11.06
<b>US Mid Cap Growth</b>		<b>162,332.75</b>	<b>4.09</b>			
MFS Mid Cap Growth <i>Russell Midcap Growth</i>	09/20/24	162,332.75	4.09	-5.39 -3.70	5.45 8.66	7.49 13.95
<b>US Mid Cap Value</b>		<b>84,723.10</b>	<b>2.13</b>			
Boston Partners MC Val Eqty <i>Russell Midcap Value</i>	09/20/24	84,723.10	2.13	-0.52 1.42	13.02 11.05	9.73 7.61
<b>International Equities</b>		<b>527,106.66</b>	<b>13.27</b>			
Mondrian Intl Equity Value ADR <i>MSCI EAFE Net</i>	04/15/24	264,761.05	6.66	7.48 4.86	36.81 31.22	23.22 17.58
WisdomTree Intl Quality Div Gr <i>MSCI EAFE Net</i>	01/18/22	262,345.61	6.60	4.60 4.86	23.99 31.22	4.36 8.48
<b>Emerging Market Equities</b>		<b>301,532.73</b>	<b>7.59</b>			
GQG Emerging Markets Equity Fd <i>MSCI EM Net</i>	04/23/21	180,276.58	4.54	3.57 4.73	9.84 33.57	3.22 3.54
Avantis Emerging Mk Equity ETF <i>MSCI EM Net</i>	02/05/24	121,256.15	3.05	4.07 4.73	33.84 33.57	21.37 23.16
<b>Short Term Fixed Income</b>		<b>137,371.17</b>	<b>3.46</b>			
PIMCO Low Duration Inc Fd <i>Bloomberg US Aggregate 1-3 Y</i>	04/22/25	137,371.17	3.46	2.69 1.18	7.80 3.38	7.80 3.38
<b>US Taxable Core</b>		<b>1,004,327.10</b>	<b>25.28</b>			
John Hancock Core Bond <i>Bloomberg US Aggregate</i>	04/16/24	504,426.60	12.70	1.35 1.10	8.53 7.30	7.94 6.91

The investment returns shown on this page are time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals. Year to Date(YTD), Quarter to Date(QTD) and Month to Date(MTD): Returns are for the period in which position or account was open.

# Time Weighted Performance Detail

Hoover Endowment - Tied to 3rd Party • 316-XXX306 • Select UMA

Data as of December 31, 2025

## RETURN % (GROSS OF FEES) VS. BENCHMARKS (Continued)

Investment Description/ Benchmark	Performance Inception Date	Total Value (\$) 12/31/25	% Of Portfolio 12/31/25	Quarter to Date (%) 09/30/25 - 12/31/25	Year to Date (%) 12/31/24 - 12/31/25	Performance Inception (%) to 12/31/25
Allspring Core Bond Fd <i>Bloomberg US Aggregate</i>	04/15/24	499,900.50	12.58	0.89 1.10	7.29 7.30	6.78 6.52
<b>Commodities</b>		<b>56,485.03</b>	<b>1.42</b>			
PIMCO Commod Real Return Fd <i>Bloomberg Commodity Index TR</i>	04/16/20	38,866.62	0.98	4.32 5.85	18.22 15.77	15.45 13.78
DWS Enhanced Comm Strategy Fd <i>Bloomberg Commodity Index TR</i>	04/16/20	17,618.41	0.44	3.32 5.85	10.96 15.77	11.49 13.78
<b>MLP/Energy Infrastructure</b>		<b>38,914.56</b>	<b>0.98</b>			
Global X MLP & Energy Infr ETF <i>Alerian MLP TR</i>	05/07/24	38,914.56	0.98	-1.92 3.79	5.24 9.76	19.05 11.48

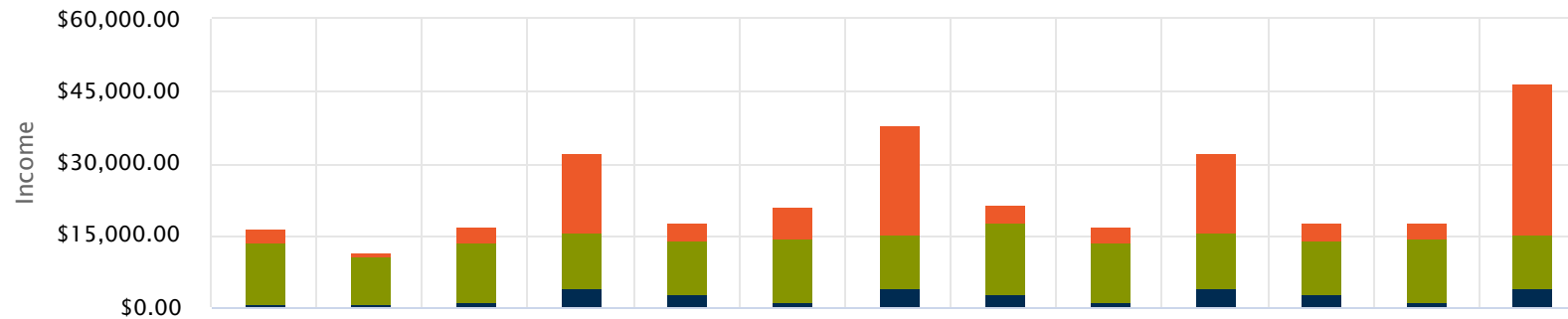
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# Projected 12 Month Income Summary

HOOVER PRESIDENTIAL FOUNDATION

Data as of December 31, 2025

## 12 MONTH INCOME SUMMARY



Asset Class	Total Value (\$)	Income and Distributions (\$)	01/09/26 to 01/31/26 (\$)	Projected Income (\$) (02/01/26 - 12/31/26)												% Yield	
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Total
Cash	186,243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equities	7,814,780	986	2,867	3,328	16,333	3,826	6,678	22,959	3,824	3,328	16,333	3,826	3,269	31,759	<b>119,315</b>	1.53	
Fixed Income & Preferreds	3,235,122	9,596	12,876	12,109	11,575	11,292	13,028	10,925	14,856	12,109	11,575	11,292	13,028	10,925	<b>155,186</b>	4.81	
Alternatives	648,375	966	653	1,351	4,281	2,860	1,351	4,281	2,860	1,351	4,281	2,860	1,351	4,281	<b>32,727</b>	5.05	
<b>Total</b>	<b>11,884,520</b>	<b>11,548</b>	<b>16,396</b>	<b>16,788</b>	<b>32,188</b>	<b>17,978</b>	<b>21,058</b>	<b>38,164</b>	<b>21,540</b>	<b>16,788</b>	<b>32,188</b>	<b>17,978</b>	<b>17,649</b>	<b>46,965</b>	<b>307,228</b>	<b>2.59</b>	

Income projected prior to today's date is indicative of actual income received on the security. Projections are based on quantities held on the "As Of" date. Projected Income is calculated only for holdings where data is available. In instances whereby payment frequency and/or last payment date is not available, income is based on the current dividend or coupon rate, and will be displayed in the Total column only. Projected income is not available for Alternative Investment funds that do not have a share quantity.

# The 801 Group at Morgan Stanley

Morgan Stanley

Named to Forbes Magazine's List of America's  
Best-in-State Wealth Advisor Teams

Forbes Best-In-State Wealth Advisor Teams

Source: Forbes.com (Awarded January 2025) Data compiled by SHOOK Research

LLC. Data as of 3/31/2024 [Awards Disclosures](#)

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Source: Forbes.com (Jan 2025) 2025 Forbes Best-In-State Wealth Management Teams ranking awarded in 2025. This ranking was determined based on an evaluation process conducted by SHOOK Research LLC (the research company) in partnership with Forbes (the publisher) during the period from 3/31/23 – 3/31/24. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors or Private Wealth Advisors paid a fee to SHOOK Research LLC for placement on its rankings. This ranking is based on in-person and telephone due diligence meetings to evaluate each advisor qualitatively, a major component of 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. Investment performance is not a criterion. Rankings are based on the opinions of SHOOK Research LLC and this ranking may not be representative of any one client's experience; investors must carefully choose the right Financial Advisor or team for their own situation and perform their own due diligence. This ranking is not indicative of the Financial Advisor's future performance. Morgan Stanley Smith Barney LLC is not affiliated with SHOOK Research LLC or Forbes. For more information, see [www.SHOOKresearch.com](http://www.SHOOKresearch.com).<sup>1</sup> Disclaimer: This role cannot solicit or provide investment advice. Investments and services offered through Morgan Stanley Smith Barney LLC. Member SIPC. CRC 4944390 10/2025



# Guide to the Markets<sup>®</sup>

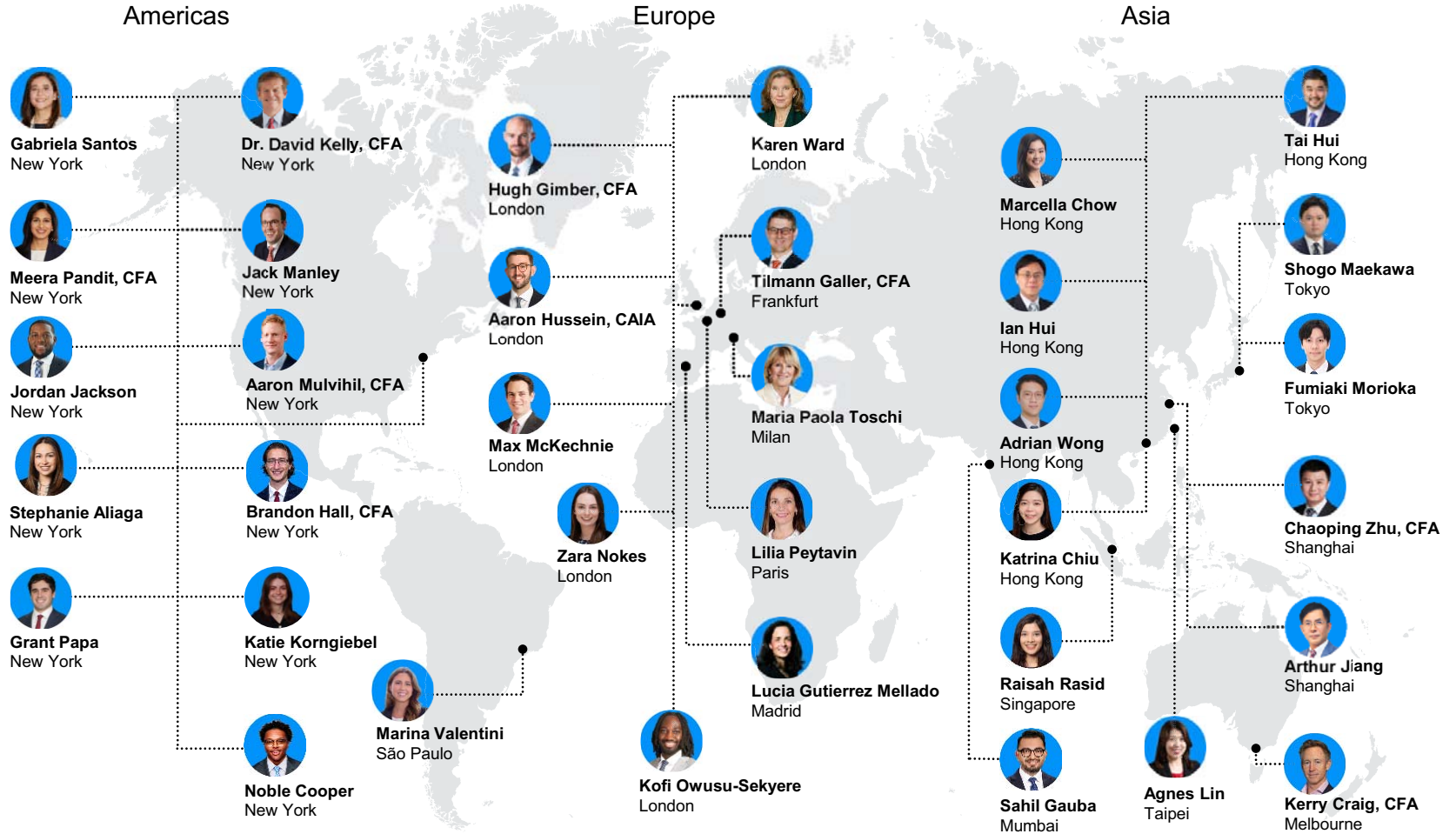
U.S. | 1Q 2026

As of December 31, 2025





# Global Market Insights Strategy team





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## Investing Principles

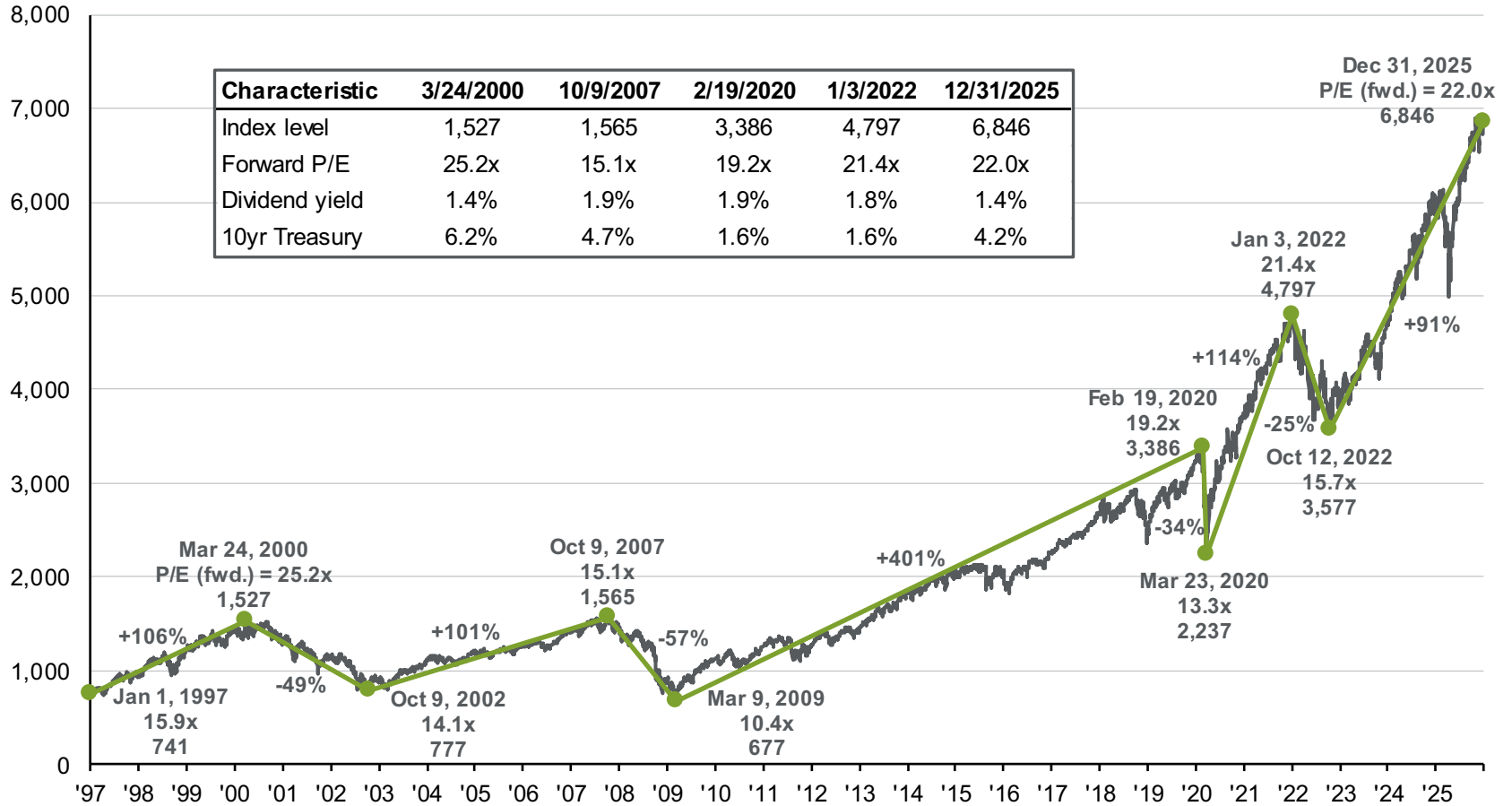
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# S&P 500 index at inflection points

Equities

## S&P 500 Price Index



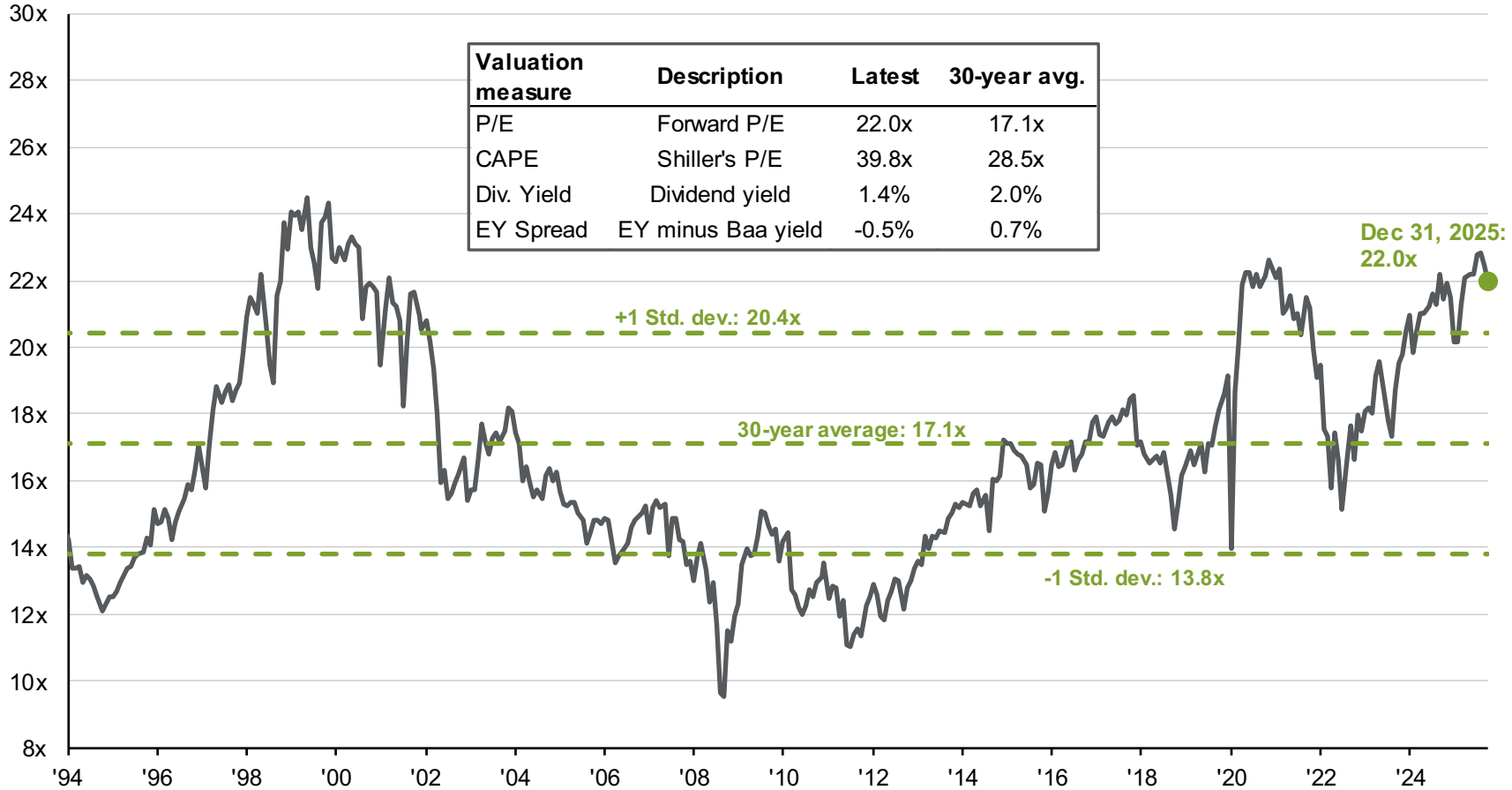
Source: FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. Dividend yield is calculated as consensus analyst estimates of dividends in the next 12 months, provided by FactSet, divided by the most recent S&P 500 index price. Forward P/E ratio is the most recent S&P 500 index price divided by consensus estimates for earnings in the next 12 months, provided by IBES since January '997 and FactSet since January 2022. Returns are cumulative and do not include the reinvestment of dividends. Past performance is no guarantee of future results. Guide to the Markets – U.S. Data are as of December 31, 2025.



# S&P 500 valuation measures

Equities

## S&P 500 index: Forward P/E ratio



Source: Bloomberg, FactSet, Moody's, Refinitiv Datastream, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management. Forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by IBES since March 1994 and FactSet since January 2022. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as consensus estimates of dividends in the next 12 months, provided by FactSet, divided by the most recent S&P 500 index price. EY minus Baa yield is the forward earnings yield (the inverse of the forward P/E ratio) minus the Bloomberg U.S. corporate Baa yield since December 2008 and interpolated using the Moody's Baa seasoned corporate bond yield for values beforehand. *Guide to the Markets - U.S.* Data as of December 31, 2025.

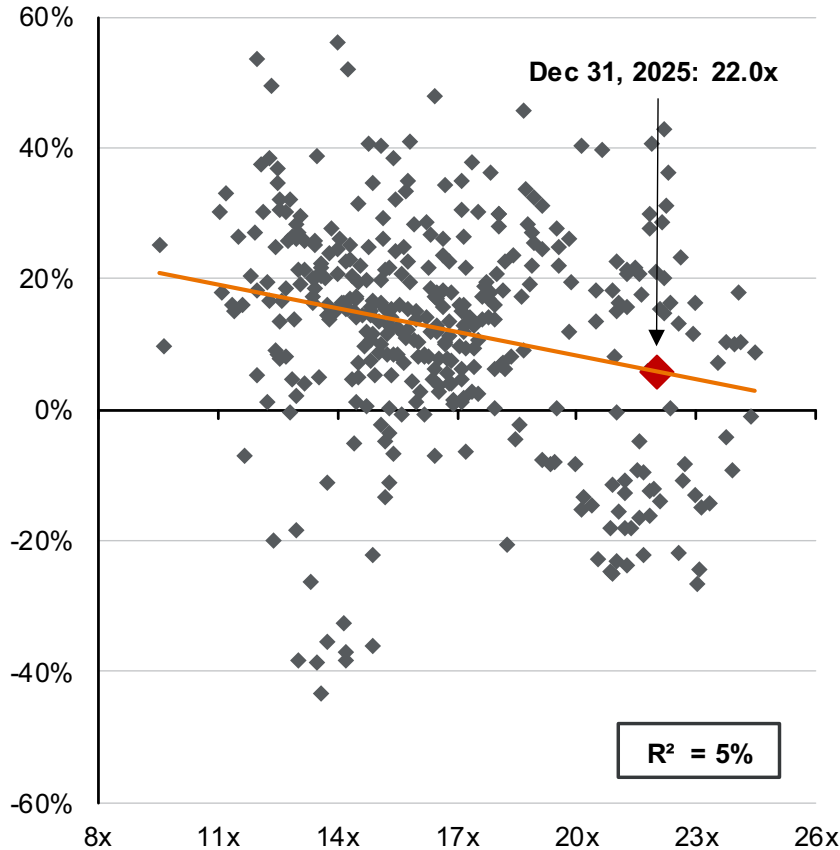


# P/E ratios and equity returns

Equities

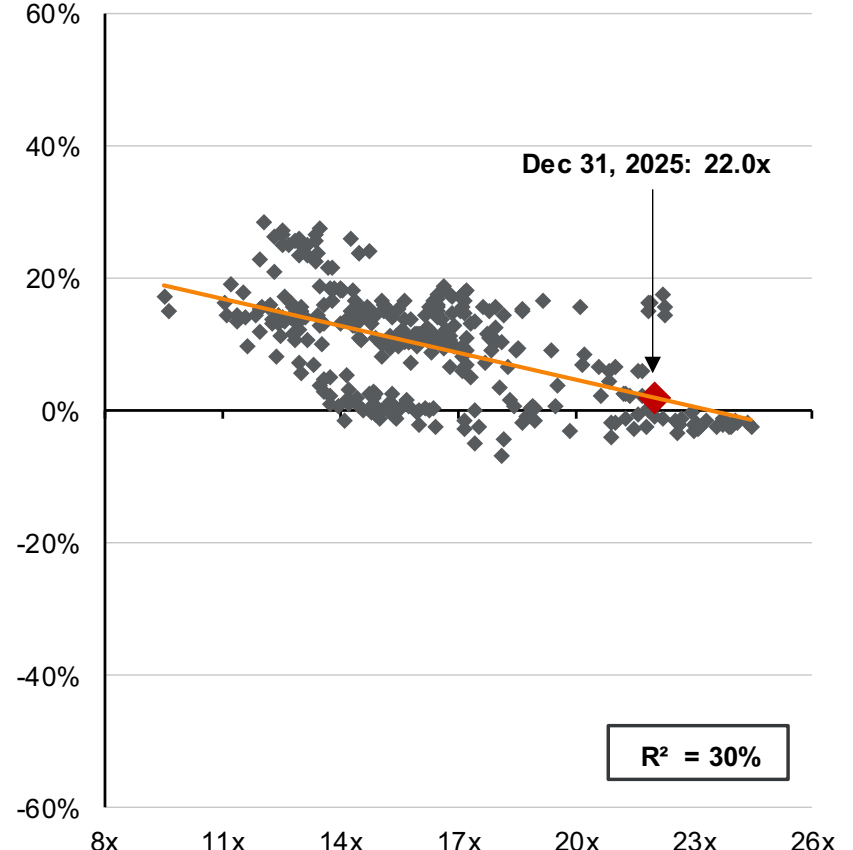
## Forward P/E and subsequent 1-year returns

S&P 500 Total Return Index



## Forward P/E and subsequent 5-year annualized returns

S&P 500 Total Return Index



Source: FactSet, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. Returns are 12-month and 60-month annualized total returns, measured monthly, beginning 12/31/1993.  $R^2$  represents the percent of variation in total return that can be explained by forward P/E ratios. The forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by IBES since December 1993 and FactSet since January 2022. Past performance is no guarantee of future results. *Guide to the Markets* – U.S. Data are as of December 31, 2025.

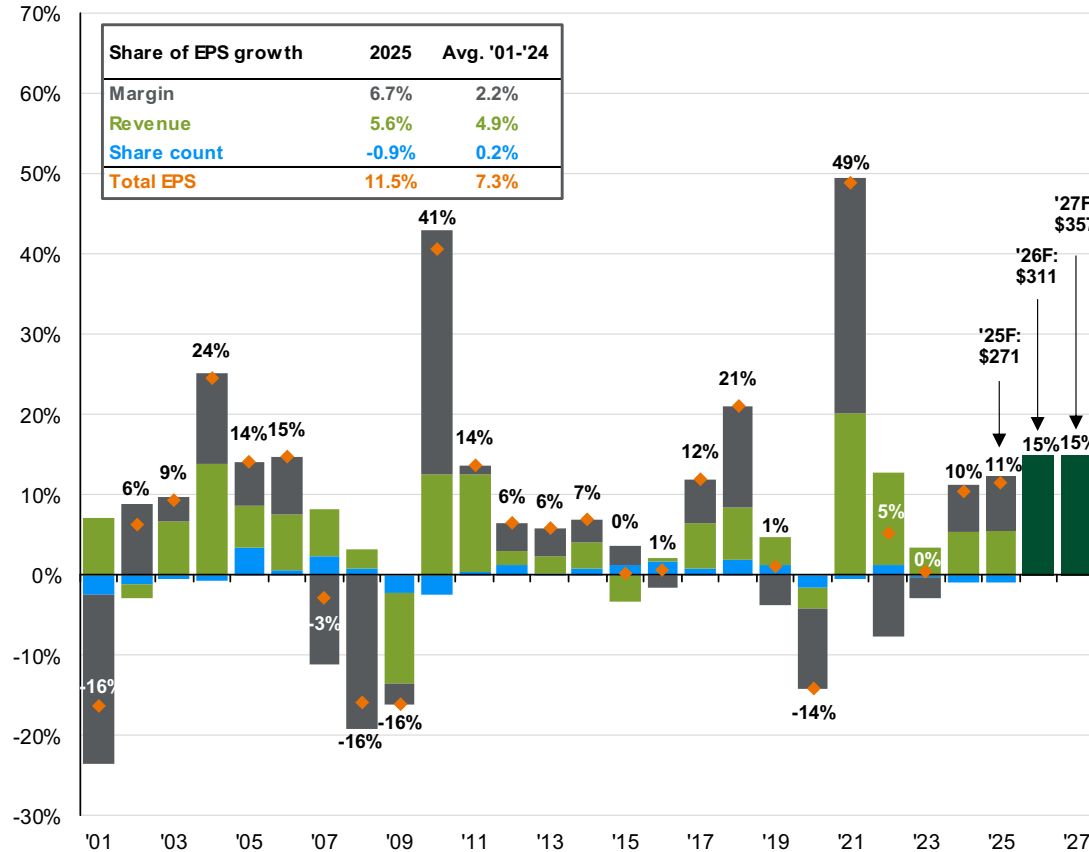


# Sources of earnings growth and profit margins

Equities

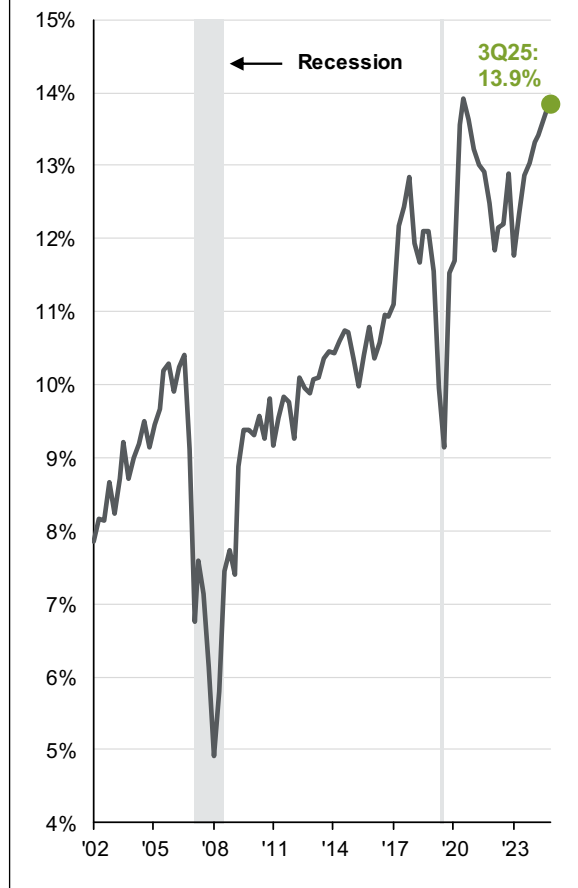
## S&P 500 EPS growth

Year-over-year growth broken into changes in revenue, profit margin and share count



## S&P 500 profit margins

Quarterly earnings/sales



Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.  
 Historical EPS values are based on annual earnings per share. Forecasts for 2025, 2026 and 2027 reflect consensus analyst expectations, provided by FactSet. Past performance is no guarantee of future results.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

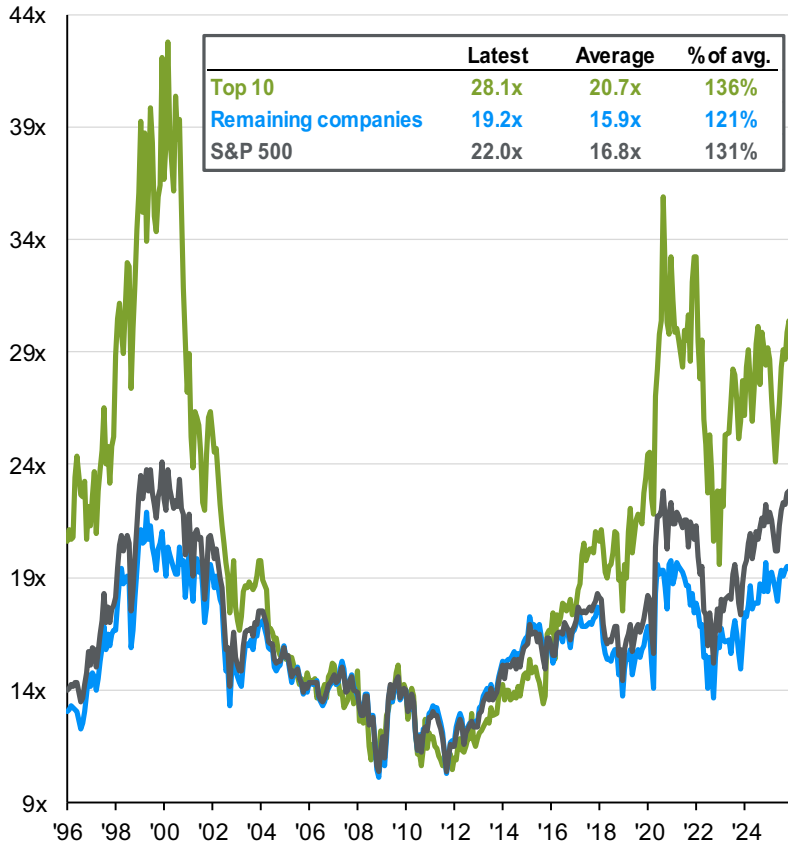


# S&P 500: Index concentration

Equities

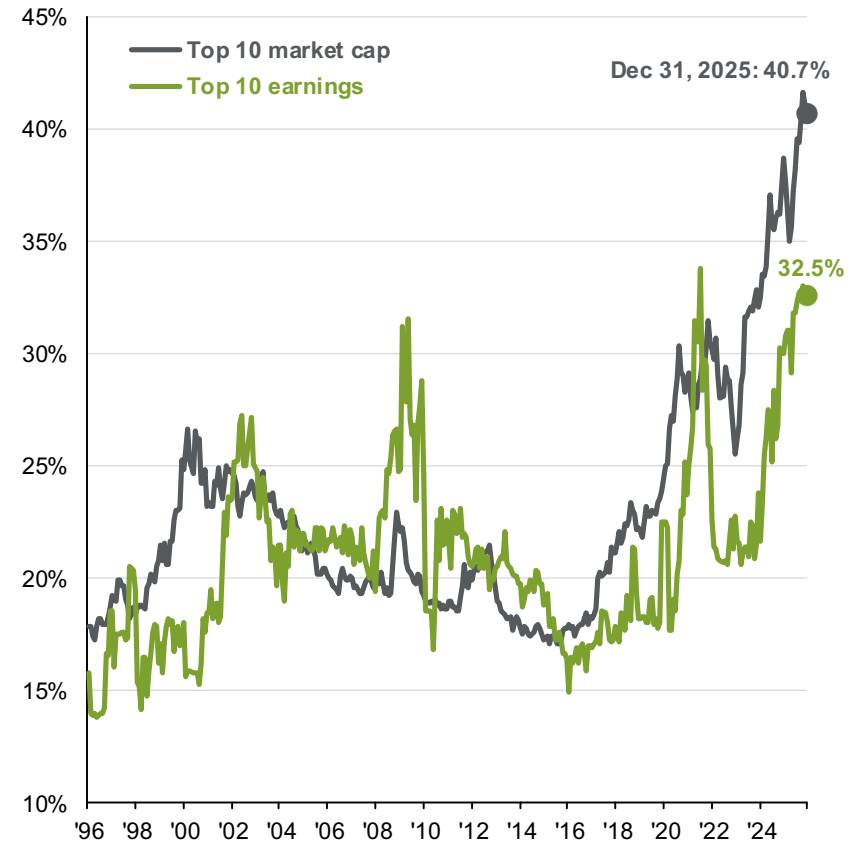
## P/E of top 10 and remaining companies in S&P 500

Next 12 months



## Weight of the top 10 companies in the S&P 500

% of market capitalization, % of last 12 months' earnings



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. Forward P/E ratio is the most recent price divided by consensus estimates for earnings in the next 12 months, provided by IBES since January 1996 and FactSet since January 2022. The remaining stocks represent the rest of the 490 companies in the S&P 500, and their P/E ratio is calculated by backing out the nominal earnings and market cap of the top 10 from that of the S&P 500. *Guide to the Markets* – U.S. Data areas of December 31, 2025.

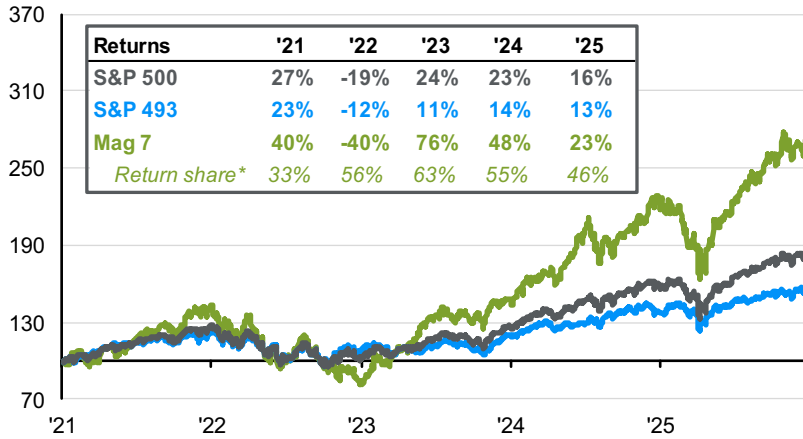


# Magnificent 7: Performance, earnings and dispersion

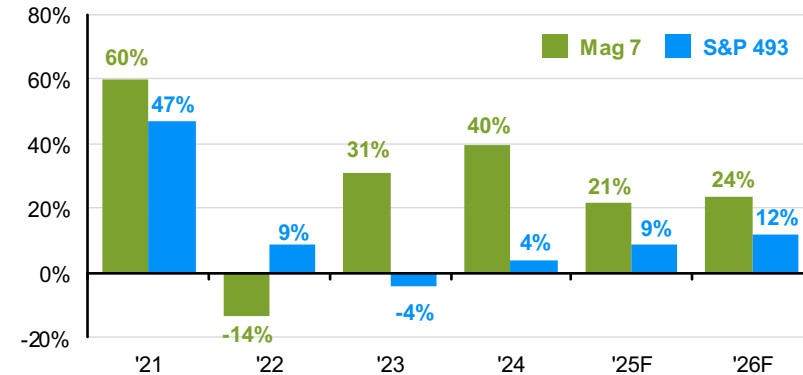
Equities

## Magnificent 7 performance in the S&P 500

Indexed to 100 on 1/1/2021, price return

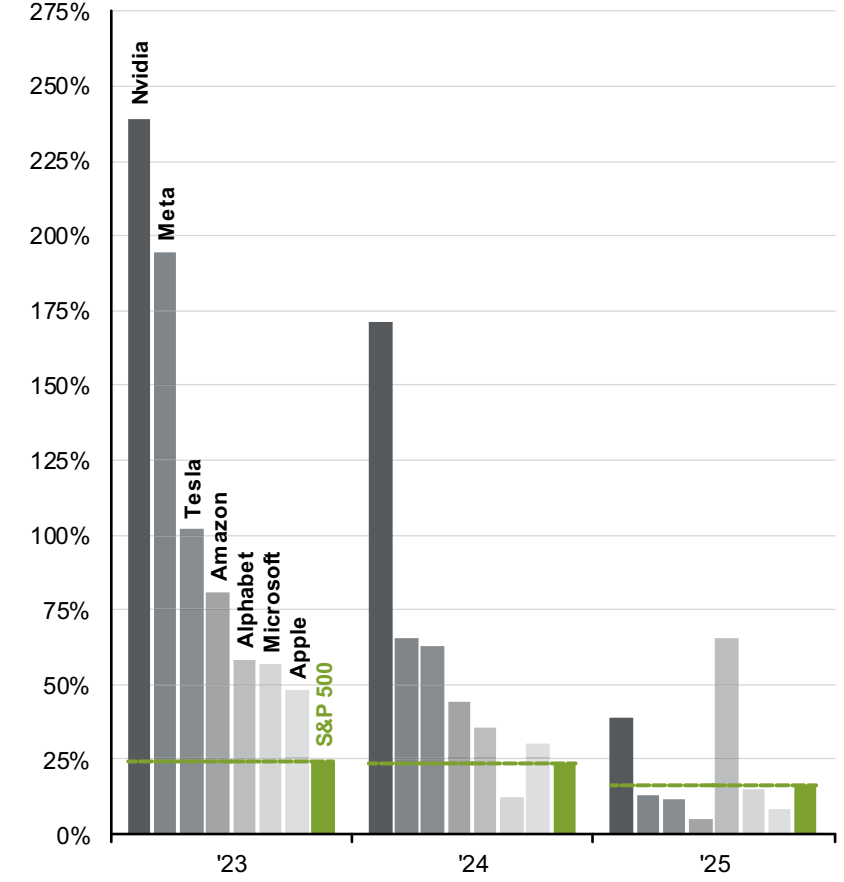


## Year-over-year earnings growth



## Magnificent 7 performance dispersion

Price return



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. Magnificent 7 (Mag 7) includes AAPL, AMZN, GOOGL/GOOG, META, MSFT, NVDA and TSLA. The S&P 500 ex-Mag 7 (S&P 493) is calculated by backing out a weighted average Mag 7 price return from the S&P 500 price return. \*Share of returns represents the Mag 7's contribution to the index return. Past performance is no guarantee of future results. *GuidetotheMarkets* - U.S. Data as of December 31, 2025.



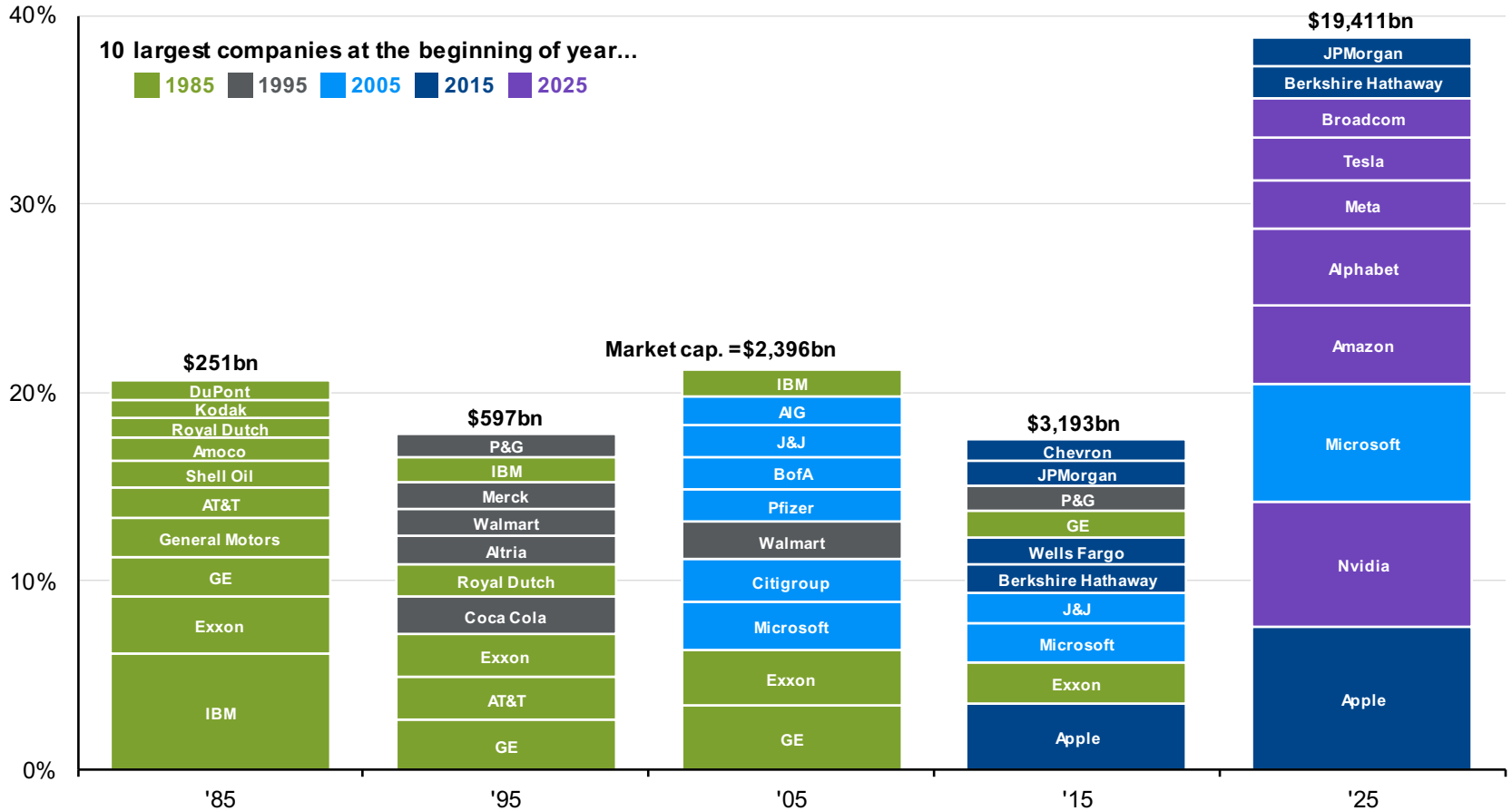
# Top 10 companies by decade

GTM U.S. 10

Equities

## Top 10 S&P 500 companies by market capitalization

Percent of S&P 500 market capitalization as of the first day of the indicated year



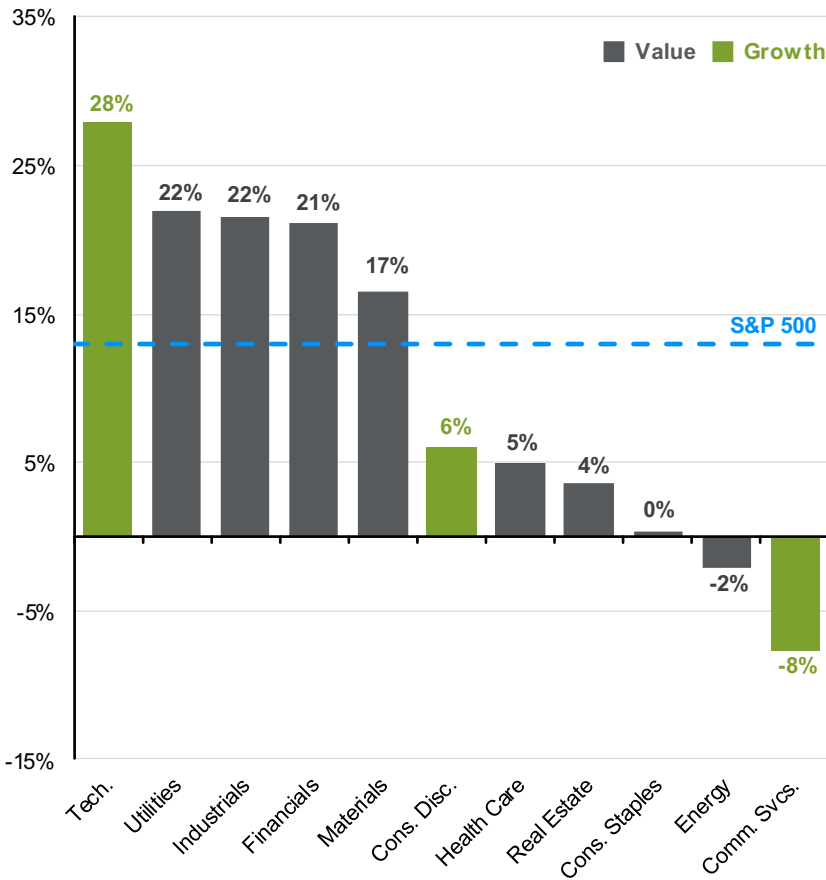
Source: Bloomberg, Standard & Poor's, J.P. Morgan Asset Management. Companies are organized from highest weight at the bottom to lowest weight at the top. Past performance is no guarantee of future results. Guide to the Markets - U.S. Data are as of December 31, 2025.



# Value vs. growth: Earnings, performance and valuations

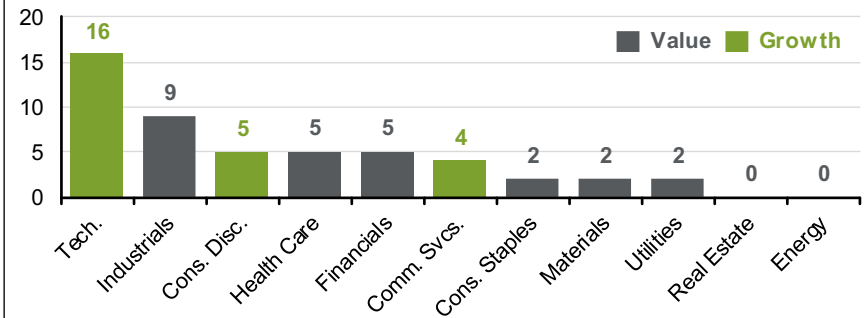
## S&P 500 earnings growth by sector

3Q25, year-over-year



## Top 50 performing S&P 500 companies by sector

2025, number of companies



## Value vs. growth P/E discount

Russell 1000 Value vs. Growth, next 12 months



Source: FactSet, FTSE Russell, Standard & Poor's, J.P. Morgan Asset Management.

Growth is represented by the Russell 1000 Growth Index and value is represented by the Russell 1000 Value Index. (Top right) Graph was made by ranking the S&P 500 constituents by total return. (Bottom right) Long-term averages are calculated monthly since December 1997. Past performance is no guarantee of future results.

GuidetotheMarkets - U.S. Data areas of December 31, 2025.

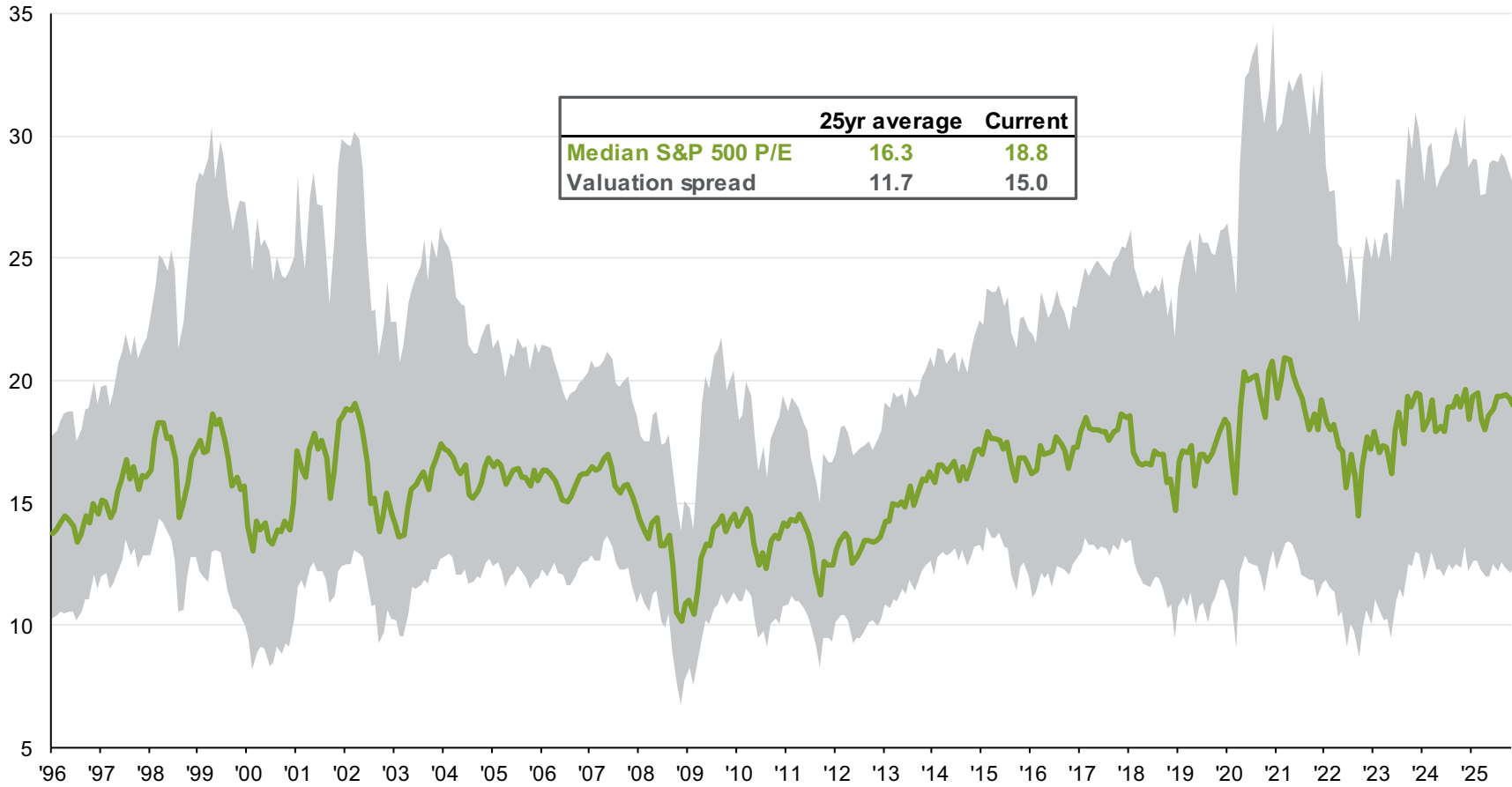


# Valuation dispersion

Equities

## Valuation dispersion

Dispersion between the forward P/E of S&P 500 stocks in the 20th and 80th percentile



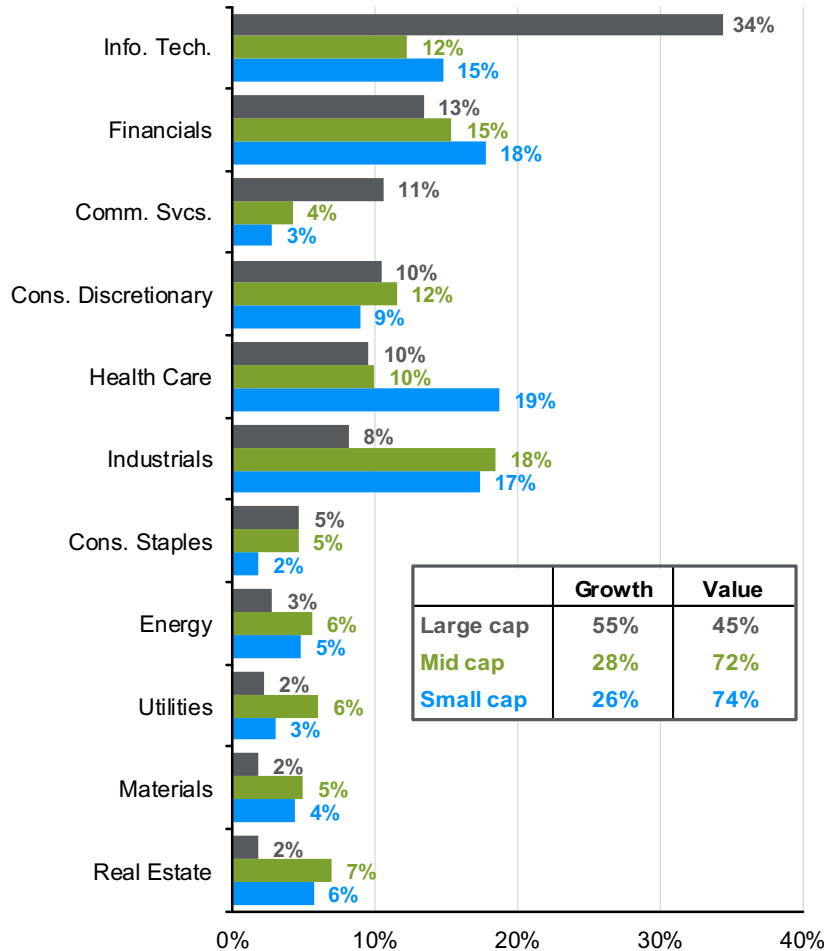
Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management. *Guide to the Markets*—U.S. Data areas of December 31, 2025.



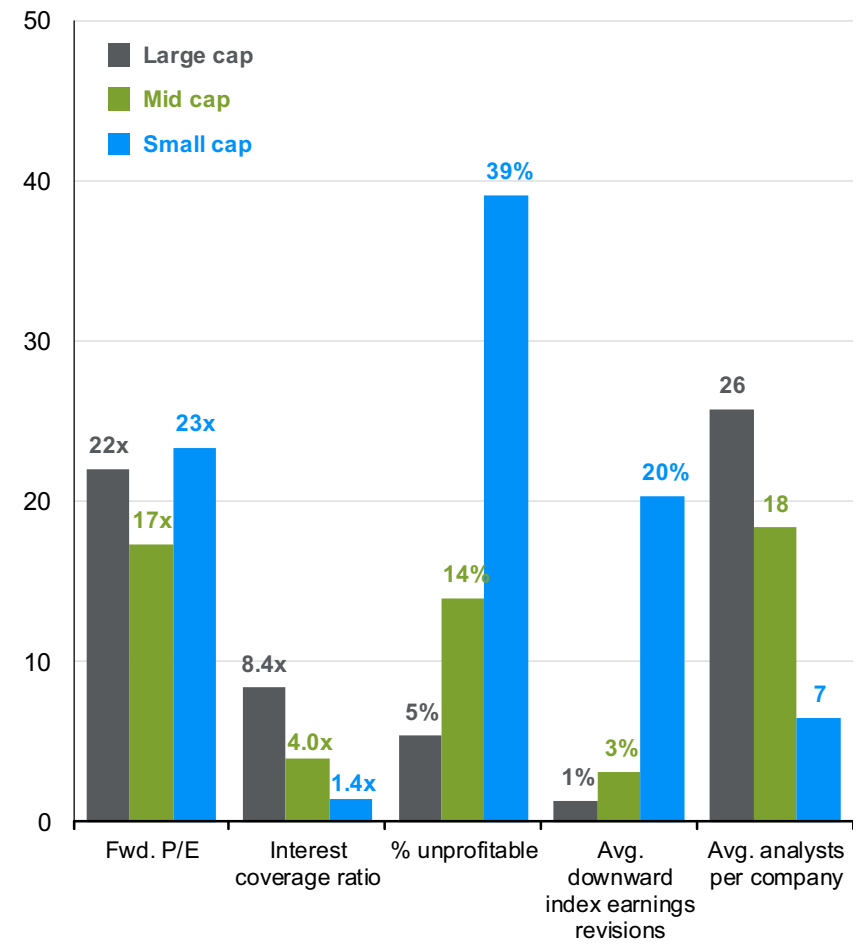
# Small caps, mid caps and large caps

Equities

### Percent of market capitalization by sector



### Valuations, interest coverage and earnings



Source: Compustat, FactSet, FTSE Russell, Standard & Poor's, J.P. Morgan Asset Management. The S&P 500 is used for large cap, the Russell Mid Cap is used for mid cap and the Russell 2000 is used for small cap. (Right) Interest coverage ratio is calculated by dividing the last 12 months earnings by the interest expense, provided by FactSet. Data for the percent of unprofitable companies are quarterly and as of the most recently available quarter. Downward earnings index revisions are calculated as the percent change in EPS from the January 1 consensus analyst estimate, provided by FactSet, to the actual value and are averaged over the years from 2010 through 2024. *Guide to the Markets* – U.S. Data are as of December 31, 2025.



## Returns and valuations by style

GTM

U.S.

14

		10-year annualized		
		Value	Blend	Growth
Style	Large	10.5%	14.8%	18.1%
	Mid	9.8%	11.0%	12.5%
	Small	9.3%	9.6%	9.6%

## Since market peak (January 2022)

		Value	Blend	Growth
Style	Large	36.1%	51.4%	58.7%
	Mid	24.4%	24.0%	23.6%
	Small	17.8%	15.7%	12.4%

		2025		
		Value	Blend	Growth
Style	Large	15.9%	17.9%	18.6%
	Mid	11.0%	10.6%	8.7%
	Small	12.6%	12.8%	13.0%

## Since market low (October 2022)

		Value	Blend	Growth
Style	Large	64.9%	100.6%	132.7%
	Mid	55.0%	62.4%	78.4%
	Small	48.2%	54.1%	59.5%

## Forward P/E vs. 20-year avg. P/E

		Value	Blend	Growth
Style	Large	17.1 / 14.0	22.0 / 16.2	28.8 / 19.8
	Mid	15.6 / 14.6	17.3 / 16.5	26.8 / 21.3
	Small	17.2 / 16.9	23.4 / 23.0	34.5 / 31.3

## Forward P/E as % of 20-year avg. P/E

		Value	Blend	Growth
Style	Large	122.5%	135.8%	144.9%
	Mid	107.1%	105.2%	125.9%
	Small	102.1%	101.6%	110.1%

Source: FactSet, FTSE Russell, Standard & Poor's, J.P. Morgan Asset Management.

All calculations are cumulative total return, including dividends reinvested for the stated period. Returns are not annualized. Since market peak represents the period from 1/3/2022 to the present. Since market low represents the period from 10/12/2022 to the present. For all time periods, total return is based on Russell style indices except for the large blend category, which is based on the S&P 500 index. Forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by FactSet. Past performance is no guarantee of future results. *Guide to the Markets* – U.S. Data are as of December 31, 2025.



# Returns and valuations by sector

GTM U.S. 15

Equities

	Energy	Materials	Financials	Industrials	Cons. Disc.	Tech.	Comm. Services*	Real Estate	Health Care	Cons. Staples	Utilities	S&P 500 Index
<b>S&amp;P weight</b>	2.8%	1.8%	13.4%	8.2%	10.4%	34.4%	10.6%	1.8%	9.6%	4.7%	2.2%	100.0%
Russell Growth weight	0.3%	0.3%	6.4%	6.0%	13.4%	50.3%	12.1%	0.4%	8.1%	2.4%	0.3%	100.0%
Russell Value weight	5.7%	4.0%	22.3%	13.0%	7.4%	11.3%	8.5%	4.0%	12.2%	7.2%	4.4%	100.0%
<b>4Q25 return</b>	1.5	1.1	2.0	0.9	0.7	1.4	7.3	-2.5	11.7	0.0	-1.4	2.7
<b>2025 return</b>	8.7	10.5	15.0	19.4	6.0	24.0	33.6	2.7	14.6	3.9	16.0	17.9
<b>Beta to S&amp;P 500</b>	1.1	1.1	1.1	1.1	1.2	1.2	1.1	0.9	0.7	0.6	0.5	1.0
<b>Correl. to Treas. yields</b>	-0.2	-0.4	-0.3	-0.3	0.0	-0.1	0.1	-0.8	-0.6	-0.5	-0.4	-0.3
<b>Foreign % of sales</b>	37.5	51.8	28.2	34.6	35.1	56.0	49.3	16.7	33.1	39.3	1.9	42.1
NTM earnings growth	7.0%	21.0%	9.3%	15.1%	11.0%	28.5%	11.5%	4.5%	9.0%	7.1%	9.6%	14.9%
<b>20yr med.</b>	7.3%	11.3%	11.9%	11.9%	13.9%	12.0%	13.1%	6.6%	8.3%	6.9%	4.7%	10.4%
Forward P/E ratio	15.8x	19.0x	16.4x	23.9x	28.8x	26.7x	22.2x	16.6x	18.3x	20.8x	17.9x	22.0x
<b>20yr avg.</b>	13.7x	15.6x	12.9x	16.8x	20.5x	18.6x	18.7x	17.3x	15.1x	17.9x	16.0x	16.2x
Dividend yield	3.5%	1.8%	1.8%	1.5%	1.9%	0.6%	0.8%	3.9%	2.0%	2.8%	3.0%	1.4%
<b>20yr avg.</b>	2.9%	2.3%	2.3%	2.2%	1.7%	1.2%	1.8%	3.7%	2.0%	2.9%	3.8%	2.1%

Source: FactSet, FTSE Russell, Standard & Poor's, J.P. Morgan Asset Management.

All calculations are cumulative total return, not annualized, including dividends for the stated period. Correlation to Treasury yields are trailing 2-year monthly correlations between S&P 500 sector price returns and 10-year Treasury yield movements. Next 12 months (NTM) earnings growth is the percent change in next 12 months consensus analyst earnings estimates compared to last 12 months earnings, provided by FactSet. Forward P/E ratio is the most recent S&P 500 index price divided by consensus estimates for earnings in the next 12 months, provided by FactSet. Dividend yield is calculated as the next 12 months consensus dividend, provided by FactSet, divided by most recent price. Beta calculations are based on 10-years of monthly price returns for the S&P 500 and its sub-indices. \*Communication Services (formerly Telecom) averages and beta are based on 5-years of data. Past performance is no guarantee of future results.

Guide to the Markets – U.S. Data as of December 31, 2025.

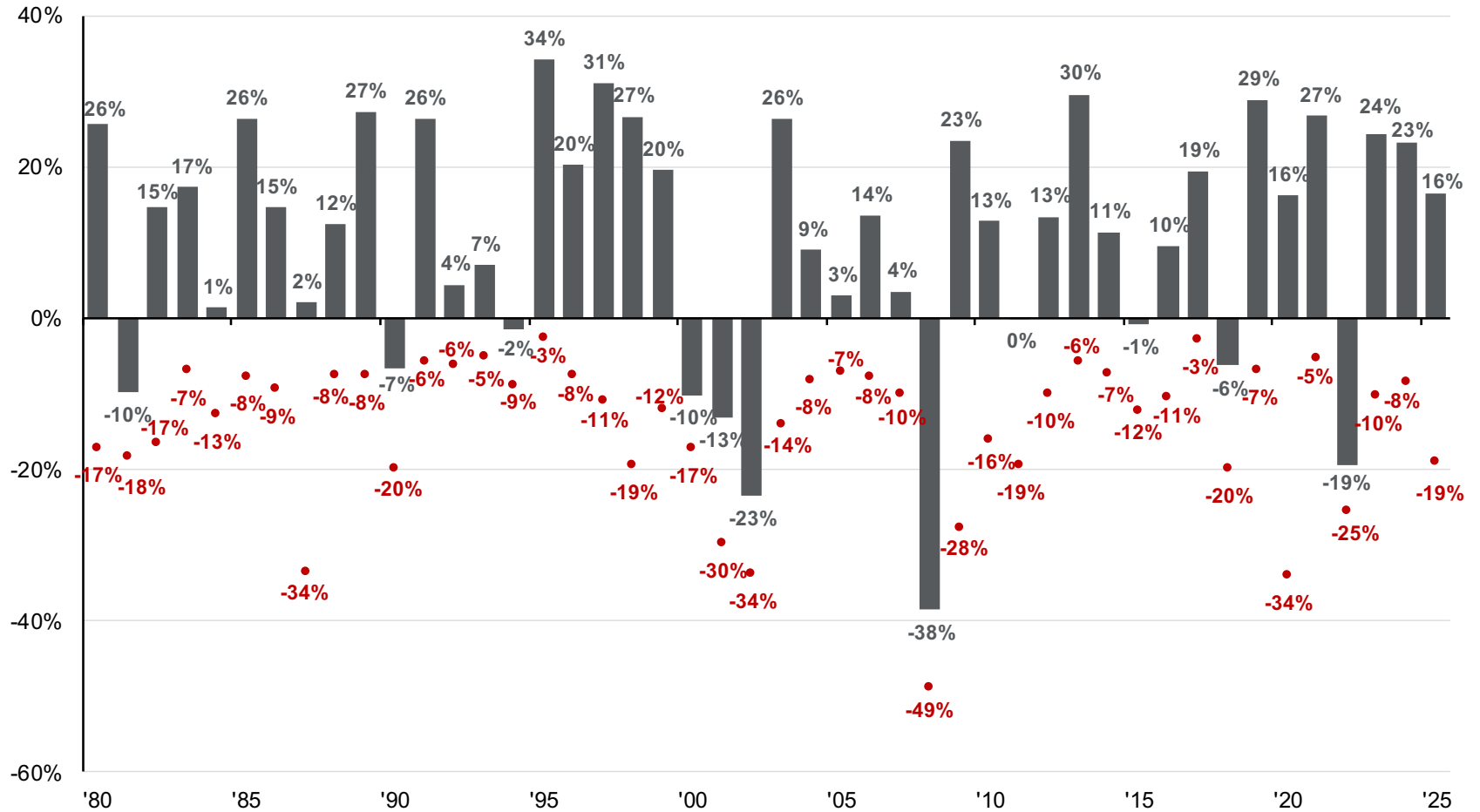


# Annual returns and intra-year declines

Equities

## S&P 500 intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.2%, annual returns were positive in 35 of 46 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 peak-to-trough decline during the year. Returns shown are calendar year returns from 1980 to 2025, over which the average annual return was 10.7%. Past performance is no guarantee of future results.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

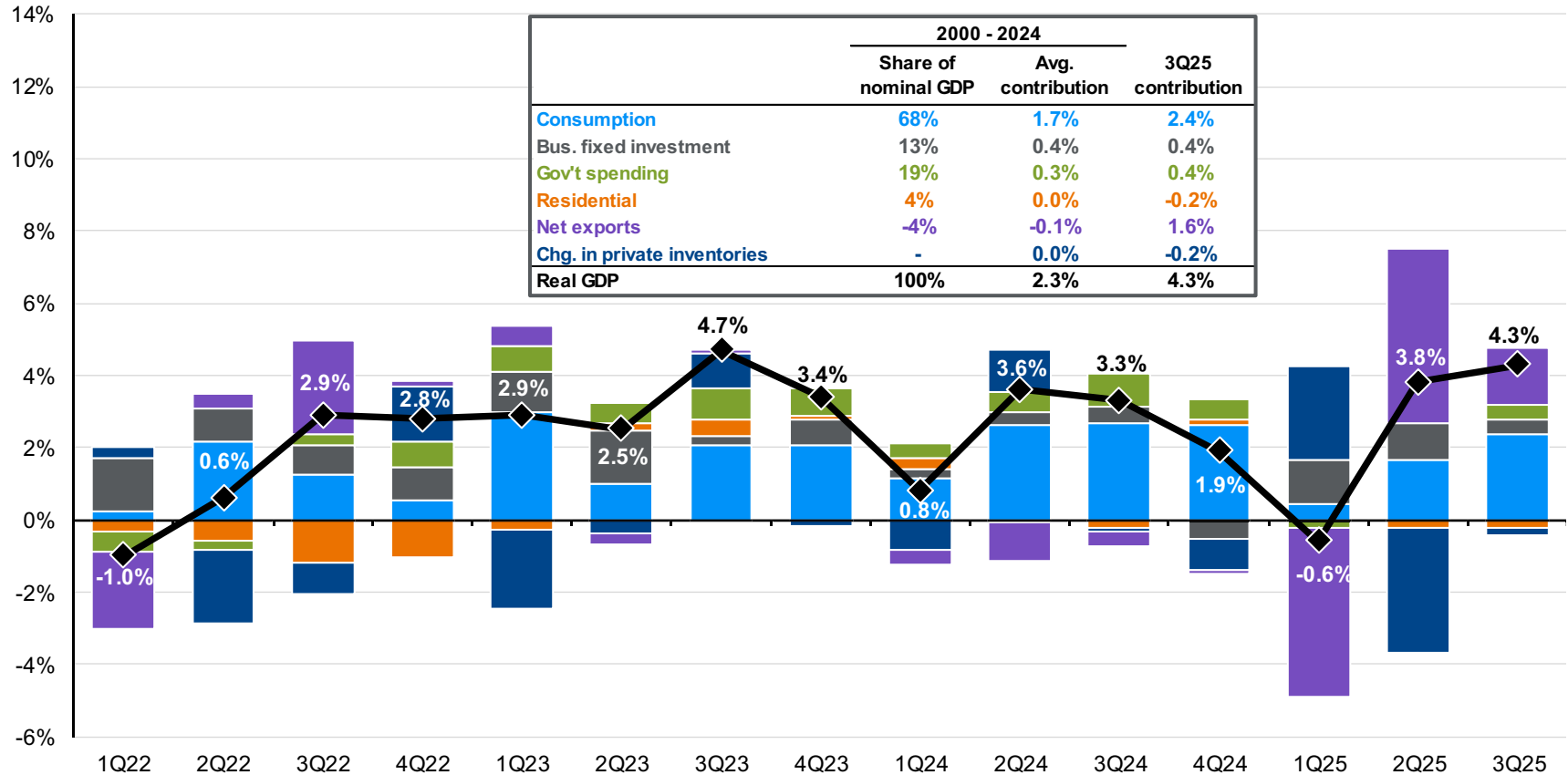


# Components of GDP growth

Economy

## Contributors to real GDP growth

Quarter-over-quarter, seasonally adjusted annualized rate



Source: BEA, FactSet, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of December 31, 2025.

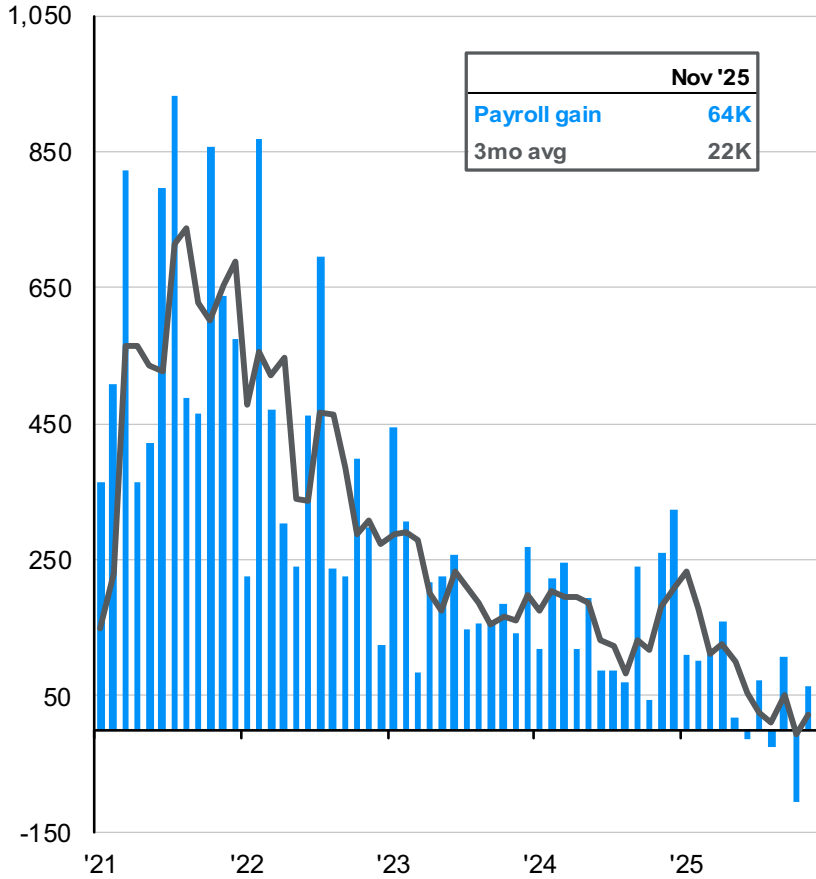


# Labor market dynamics

Economy

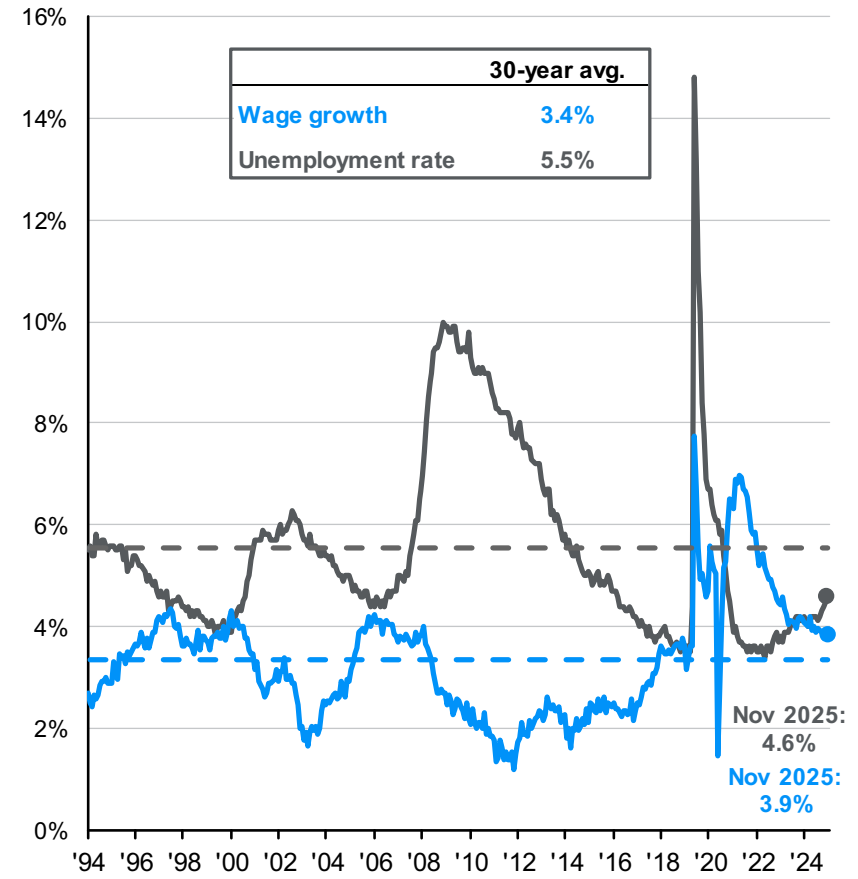
## Nonfarm payroll gains

Month-over-month change and 3-month moving average, thousands, SA



## Civilian unemployment rate and annual wage growth

Private production and non-supervisory workers, seasonally adjusted, %



Source: BLS, FactSet, J.P. Morgan Asset Management. Private production and non-supervisory jobs represent just over 80% of total private nonfarm jobs. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Labor demand

Economy

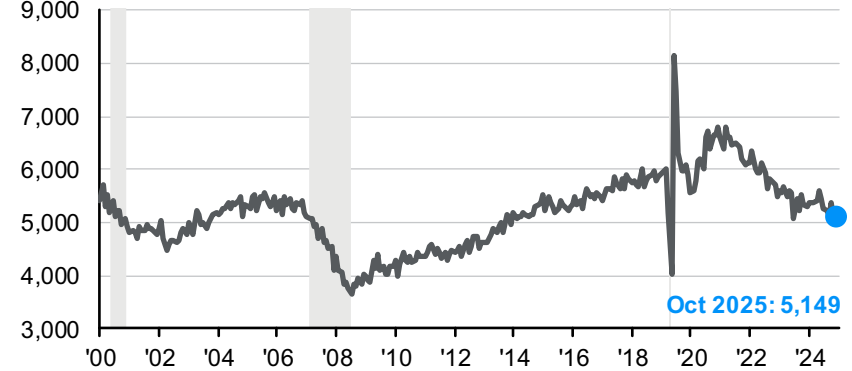
## JOLTS job openings\*

Total job openings, thousands, seasonally adjusted



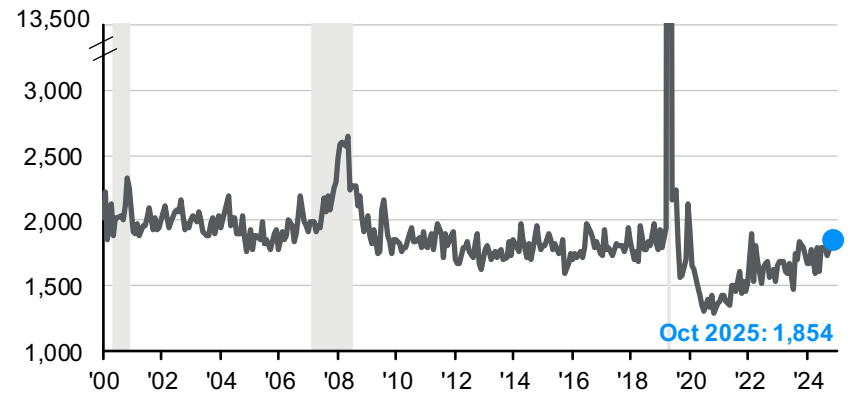
## JOLTS hires

Total nonfarm hires, thousands, seasonally adjusted



## JOLTS layoffs

Total nonfarm layoffs, thousands, seasonally adjusted



Source: U.S. Department of Labor, J.P. Morgan Asset Management.  
 \*JOLTS job openings from February 1974 to November 2000 are J.P. Morgan Asset Management estimates.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

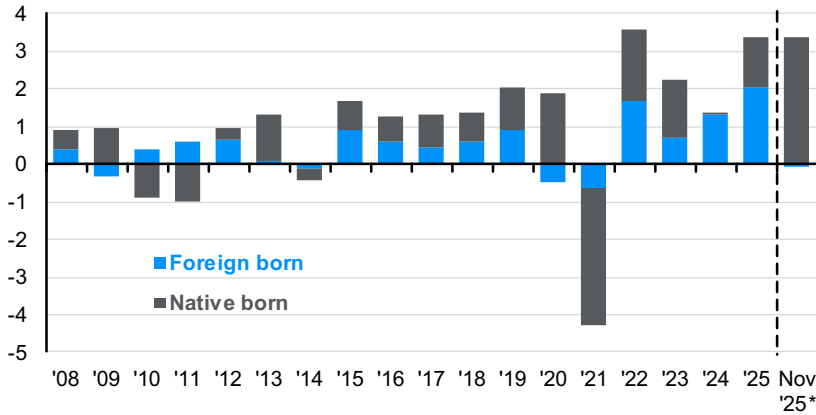


# Labor supply

Economy

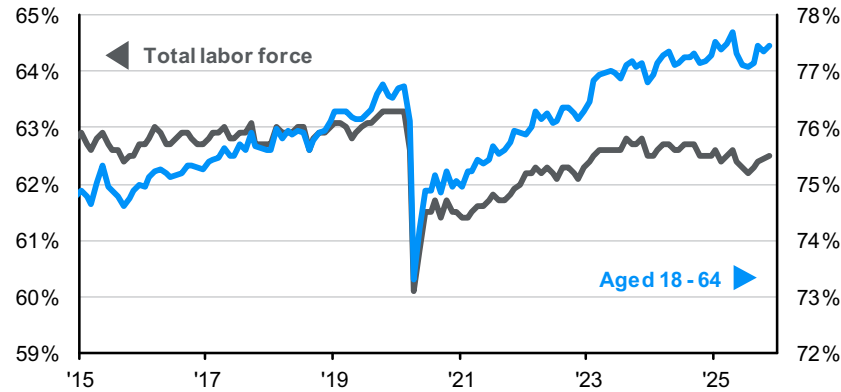
## Labor force growth, native and immigrant contribution

Year-over-year change as of January, aged 16+, millions



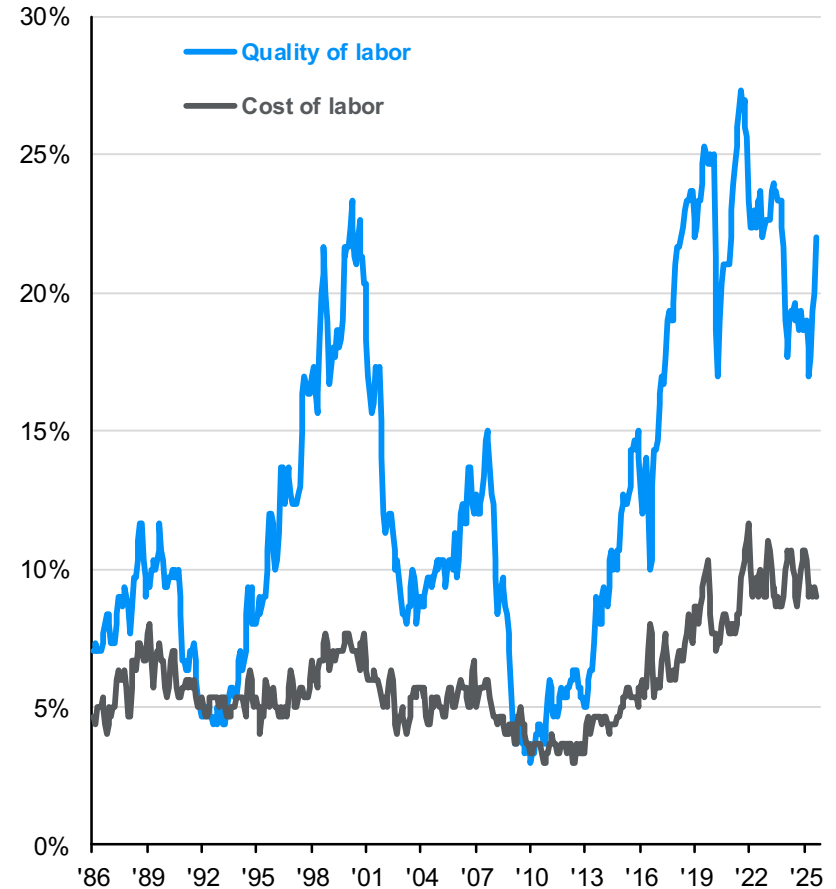
## Labor force participation

% of civilian noninstitutional population, seasonally adjusted (SA)



## Single most important problem facing small businesses

% of firms, 3-month moving average



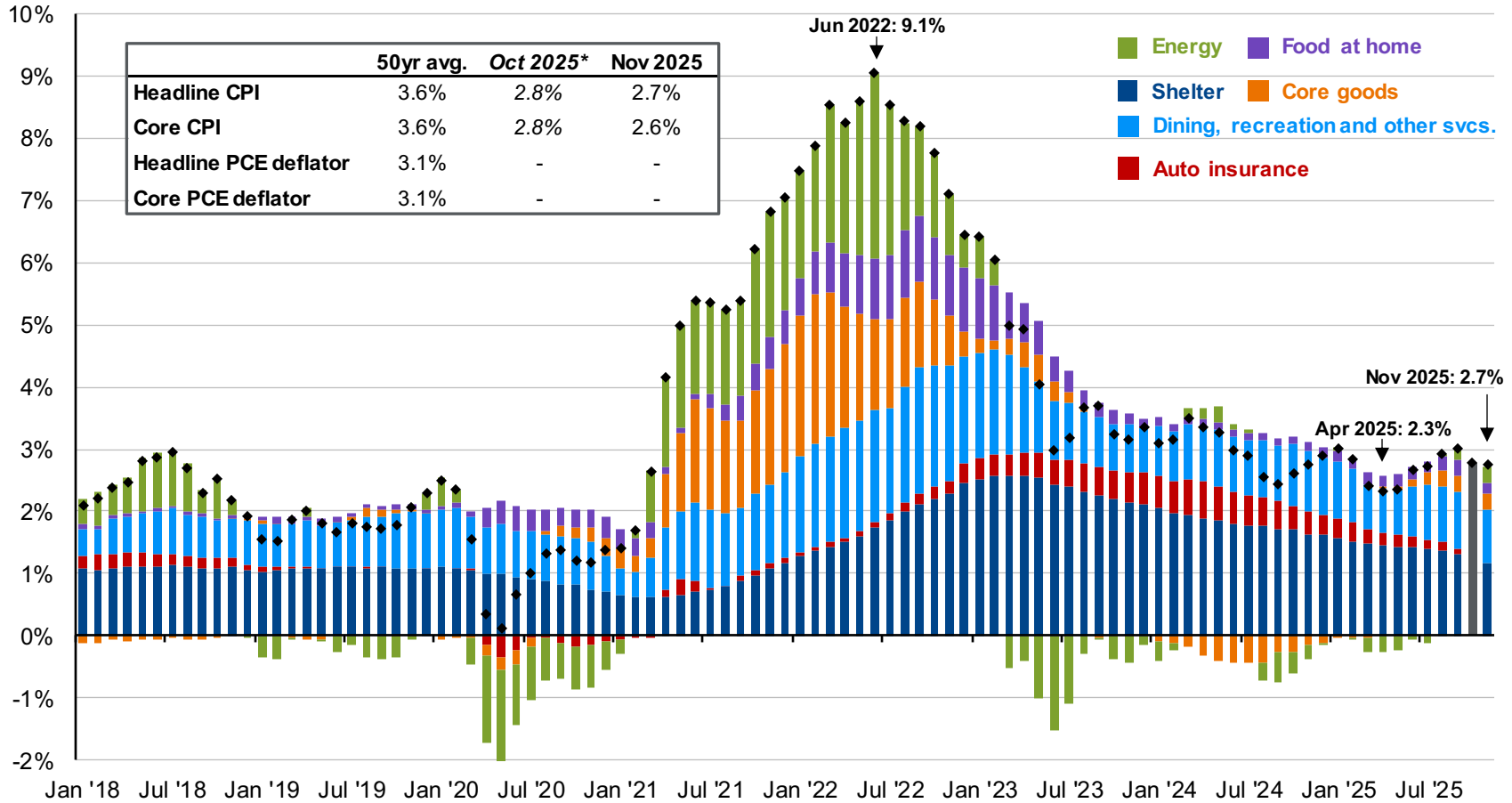
Source: FactSet, J.P. Morgan Asset Management; (Left) BLS; (Right) NFIB. Labor force data are sourced from the Current Population Survey, also known as the household survey, conducted by the BLS. \*Latest figure reflects the y/y change as of the latest month. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Inflation components

## Contributors to headline CPI inflation

Contribution to year-over-year % change in CPI, non-seasonally adjusted



Source: BLS, FactSet, J.P. Morgan Asset Management.

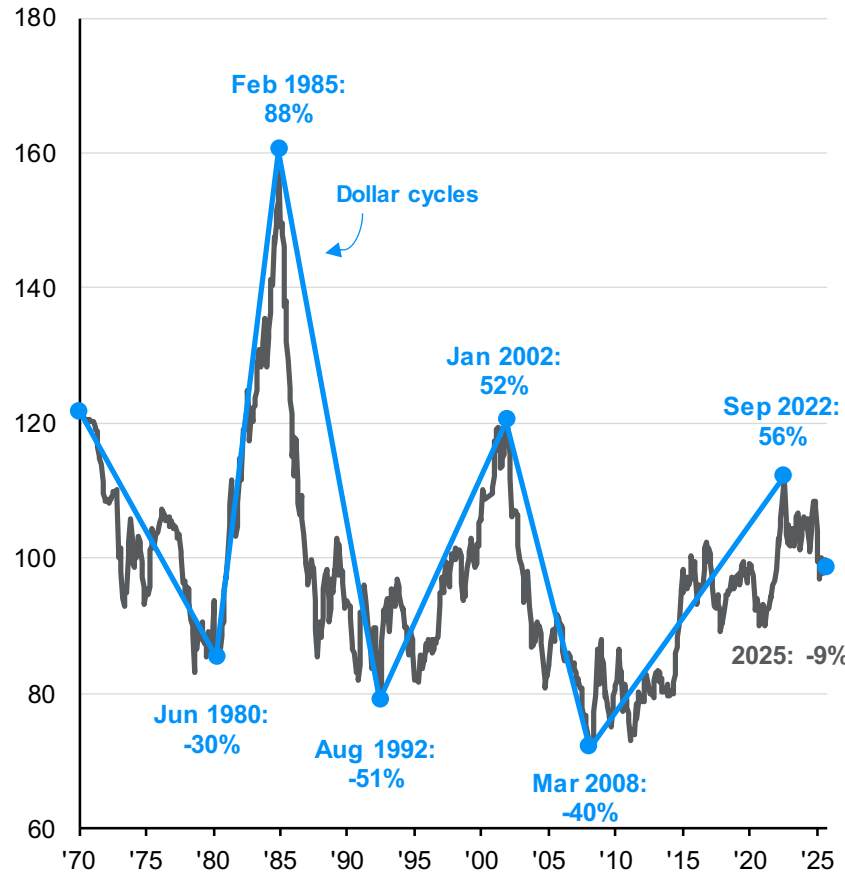
Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owners' equivalent rent, rent of primary residence and home insurance. "Food at home" includes alcoholic beverages. Headline and core PCE deflator inflation shown are based on seasonally adjusted data due to data availability. \*Official October 2025 data unavailable due to government shutdown and data shown are J.P. Morgan Asset Management estimates. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Dollar drivers

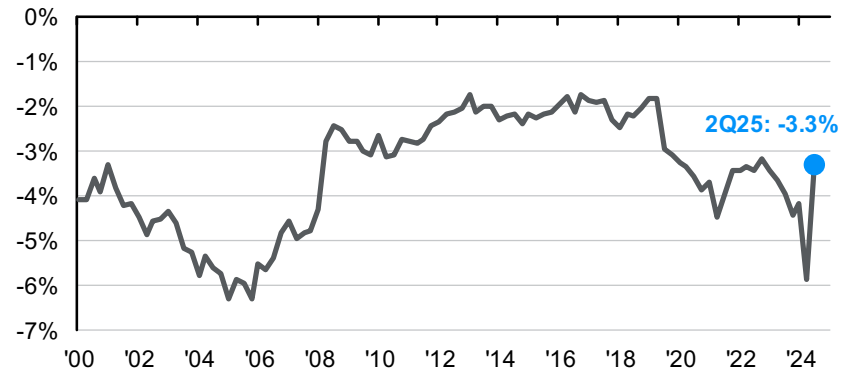
## The U.S. dollar

DXY Index, level



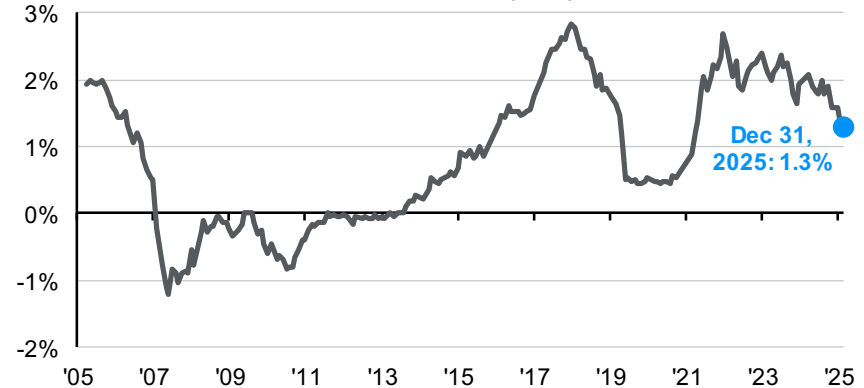
## The U.S. trade balance

Current account balance, % of GDP



## Developed markets interest rate differentials

Difference between U.S. and international 2-year yields\*



Source: Bloomberg, FactSet, J.P. Morgan Asset Management; (Left) ICE; (Top right) BEA; (Bottom right) BIS.

Currencies in the DXY Index are: British pound, Canadian dollar, euro, Japanese yen, Swedish krona and Swiss franc. \*Interest rate differential is the difference between the 2-year U.S. Treasury yield and a basket of the 2-year yields of each major trading partner (Australia, Canada, eurozone, Japan, Sweden, Switzerland and UK). Weights in the basket are calculated using the 2-year average of total government bonds outstanding in each region.

Guide to the Markets – U.S. Data are as of December 31, 2025.

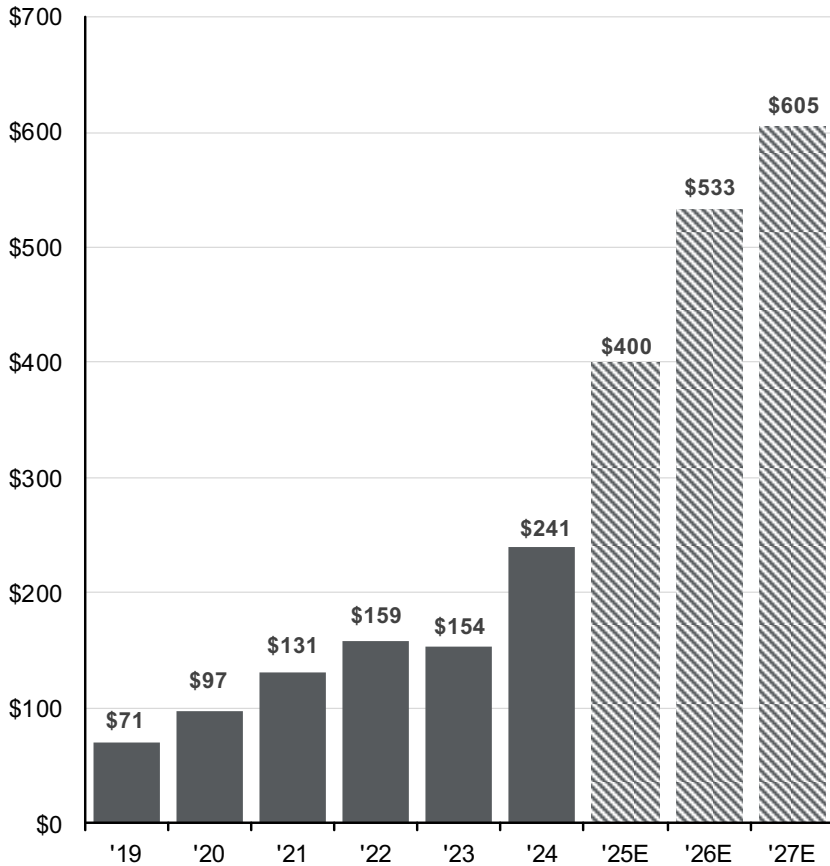


# Artificial intelligence: Hyperscaler investment

Economy

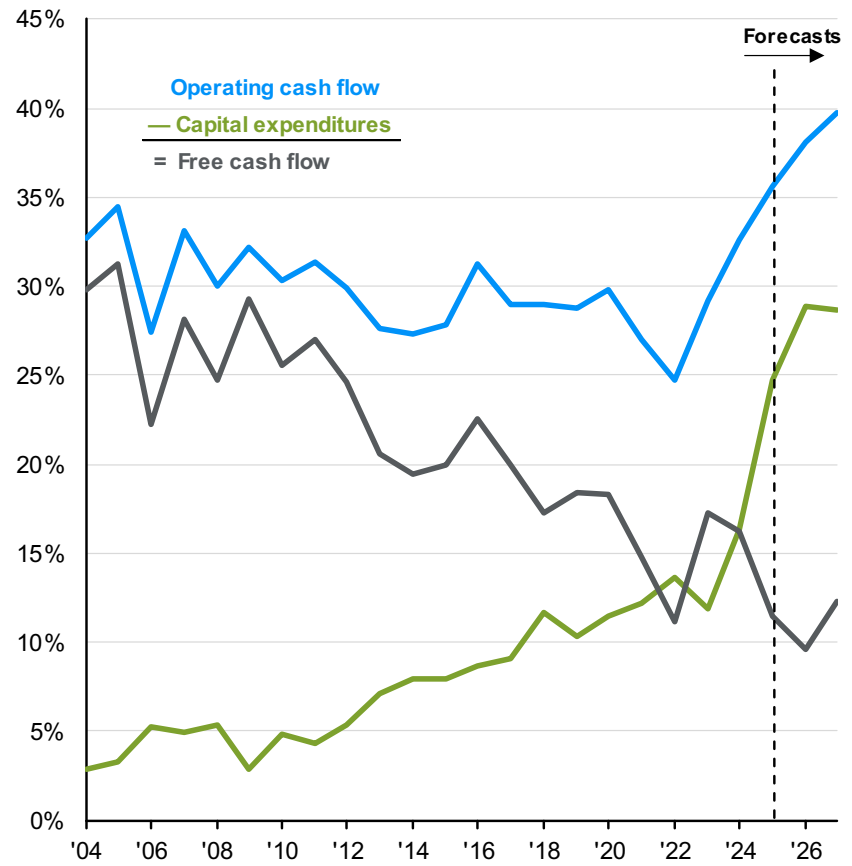
## Capex from the major AI hyperscalers\*

USD billions; Alphabet, Amazon, Meta, Microsoft, Oracle



## Hyperscalers' cash flow and capex

% of sales



Source: Bloomberg, J.P. Morgan Asset Management.  
 Data for 2025, 2026 and 2027 reflect consensus estimates. Capex shown is company total. \*Hyperscalers are the large cloud computing companies that own and operate data centers with horizontally linked servers that, along with cooling and data storage capabilities, enable them to house and operate AI workloads.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

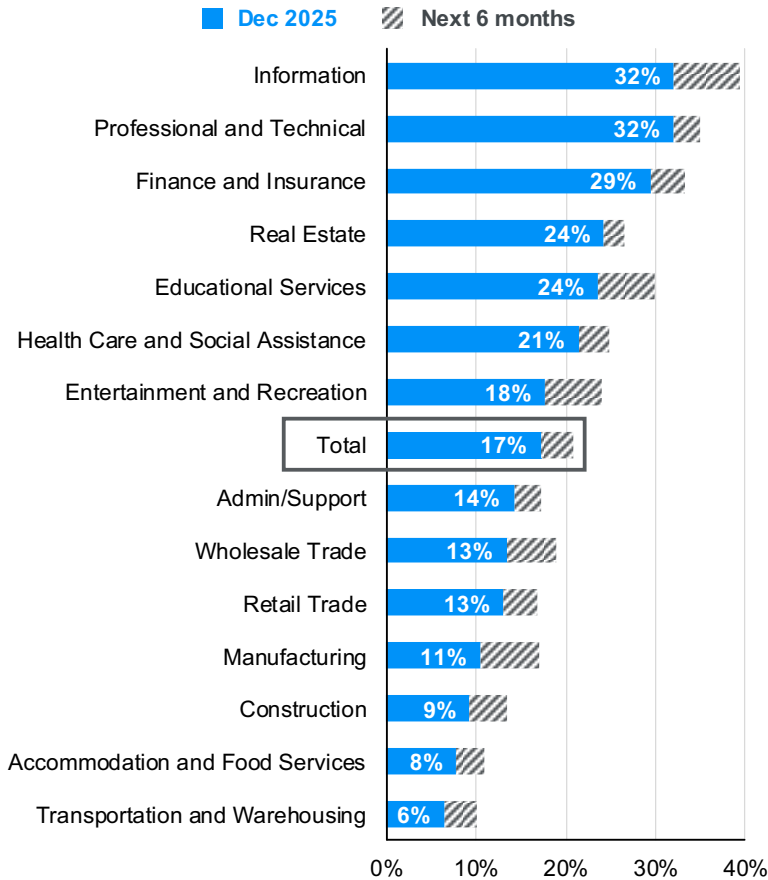


# Artificial intelligence: Implementation

Economy

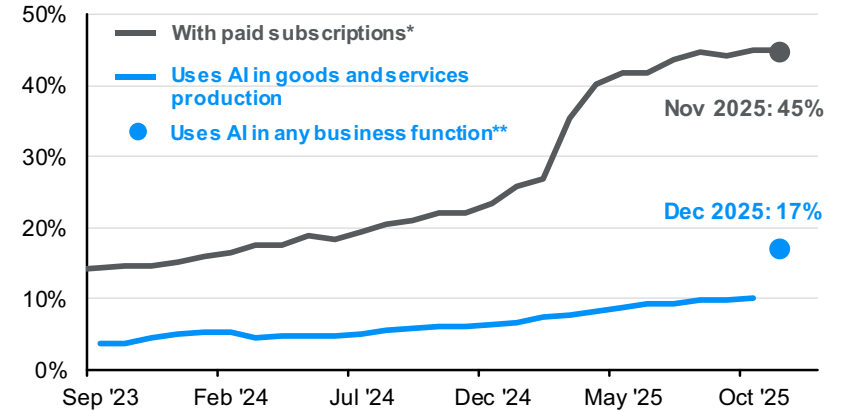
## Businesses using AI in any business function

% of all firms reporting use of AI applications



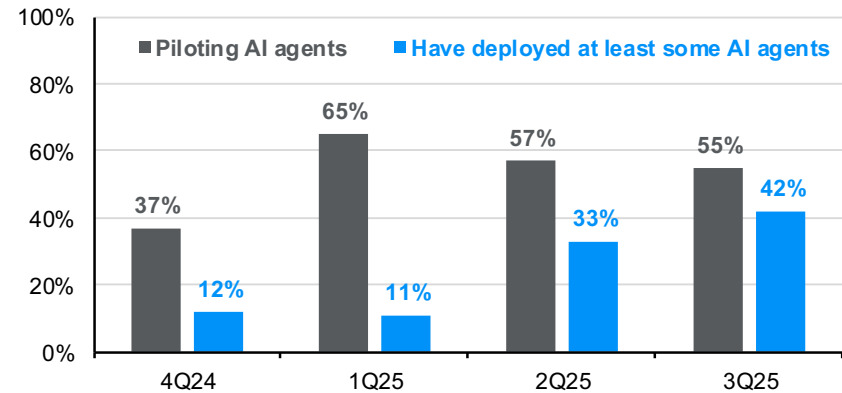
## Companies spending on AI models, platforms and tools

% of businesses



## AI agent deployment

% of organizations with revenues above \$1bn, KPMG Quarterly AI Pulse survey



Source: J.P. Morgan Asset Management; (Left) Census Business Trends and Outlook Survey; (Top right) RAMP AI Index; (Bottom right) KPMG Quarterly AI Pulse Survey. \*Ramp data is based on anonymized corporate card and bill-pay transactions with AI vendors across over 50,000 U.S. businesses on Ramp's spend platform to provide a spend-based measure of AI adoption that complements the self-reported AI use (which includes free and internal tools) in the Census survey series. The two measures differ in firm coverage and methodology, with Ramp data skewed towards digitally enabled firms. \*\*Starting Dec. 2025, the Census changed the wording of their survey question to capture usage of AI in "any business function", broader language compared to their prior "in producing goods and services" question. Total adoption jumped from 10% to 17% of businesses because of this switch. AI agents refer to AI systems designed to autonomously execute specific tasks or workflows with minimal human intervention.

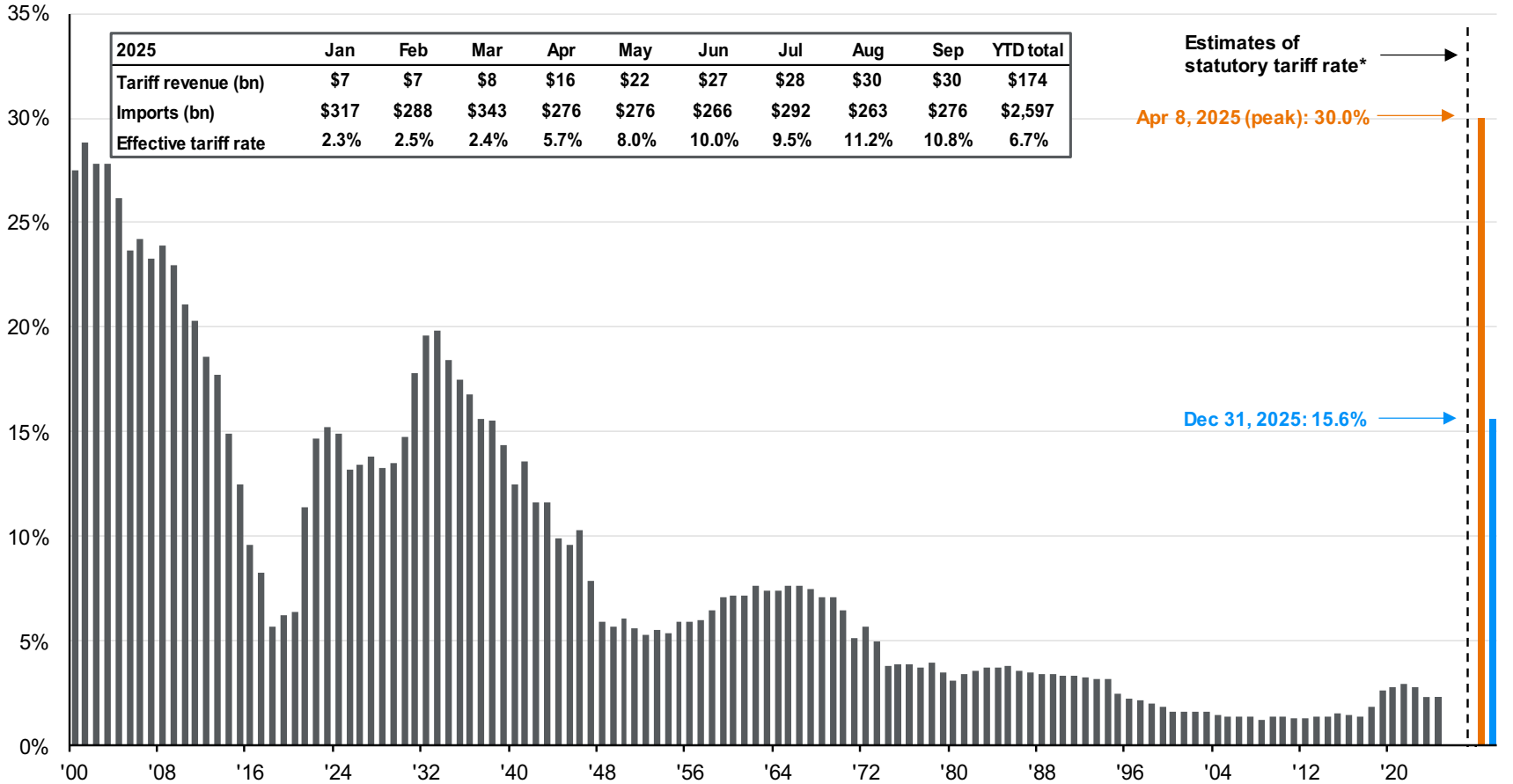
Guide to the Markets – U.S. Data are as of December 31, 2025.



# Tariffs on U.S. imports

## Average tariff rate on U.S. goods imports for consumption

Duties collected / value of total goods imports for consumption, 1900 - 2024



Source: U.S. Census Bureau, U.S. Department of Treasury, U.S. International Trade Commission, J.P. Morgan Asset Management.  
 For illustrative purposes only. The estimated weighted average statutory U.S. tariff rate includes all tariffs that are currently in effect, not announced. Imports for consumption: goods brought into a country for direct use or sale in the domestic market. \*Figures are based on 2024 import levels and assume no change in demand due to tariff increases. Tariff revenue shown are figures from the Monthly Treasury Statement. Import figures included in the table are from the U.S. Census Bureau. Estimates, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

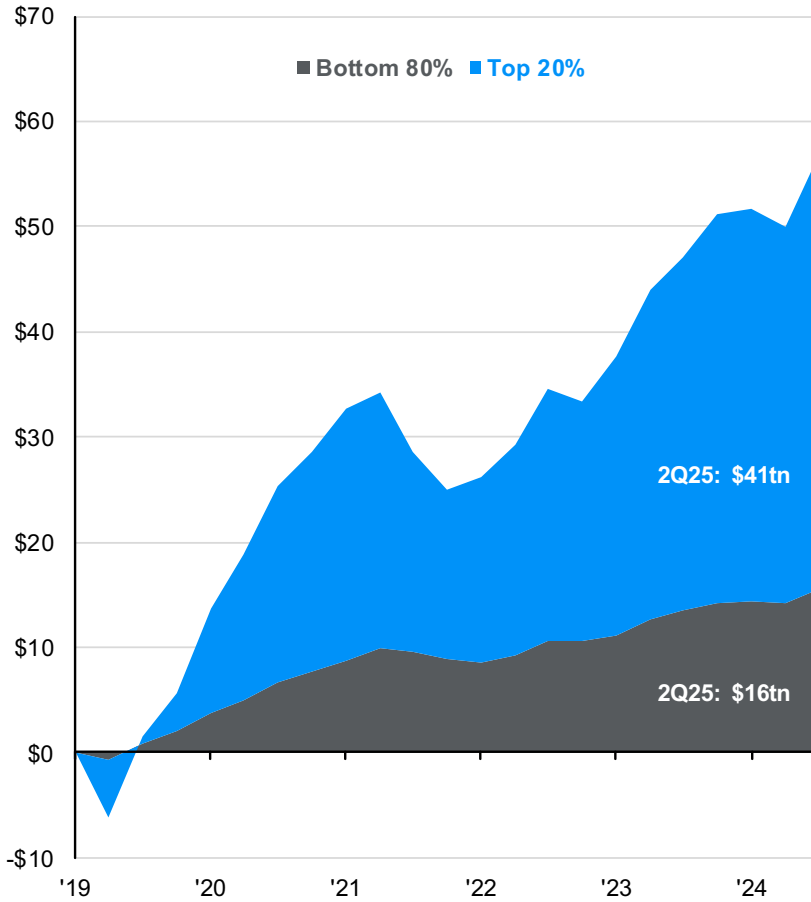


# Drivers of consumer spending

Economy

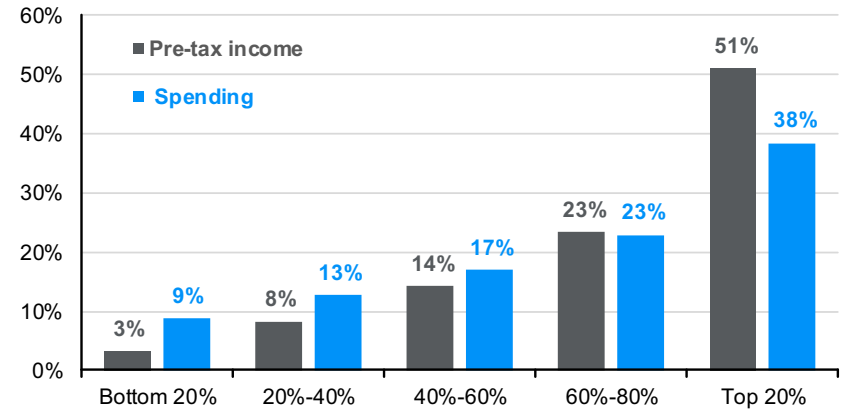
## Net worth growth by income cohort

Cumulative growth from 4Q19, by pre-tax income cohort, USD trillions



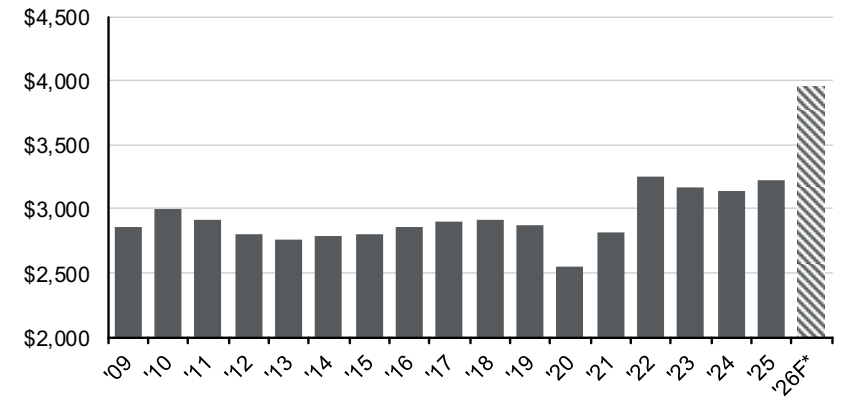
## Consumer share of total pre-tax income and spending

By pre-tax income cohort, 2024



## Average income tax refund by filing year

2009 - 2026F\*



Source: J.P. Morgan Asset Management; (Left) Federal Reserve; (Top right) BLS; (Bottom right) IRS.  
 (Left) Data sourced from the 2024 Consumer Expenditure Survey. (Top right) Data sourced from the Federal Reserve's Distributional Financial Accounts report. (Bottom right) \*2026 figure is a J.P. Morgan Asset Management forecast.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

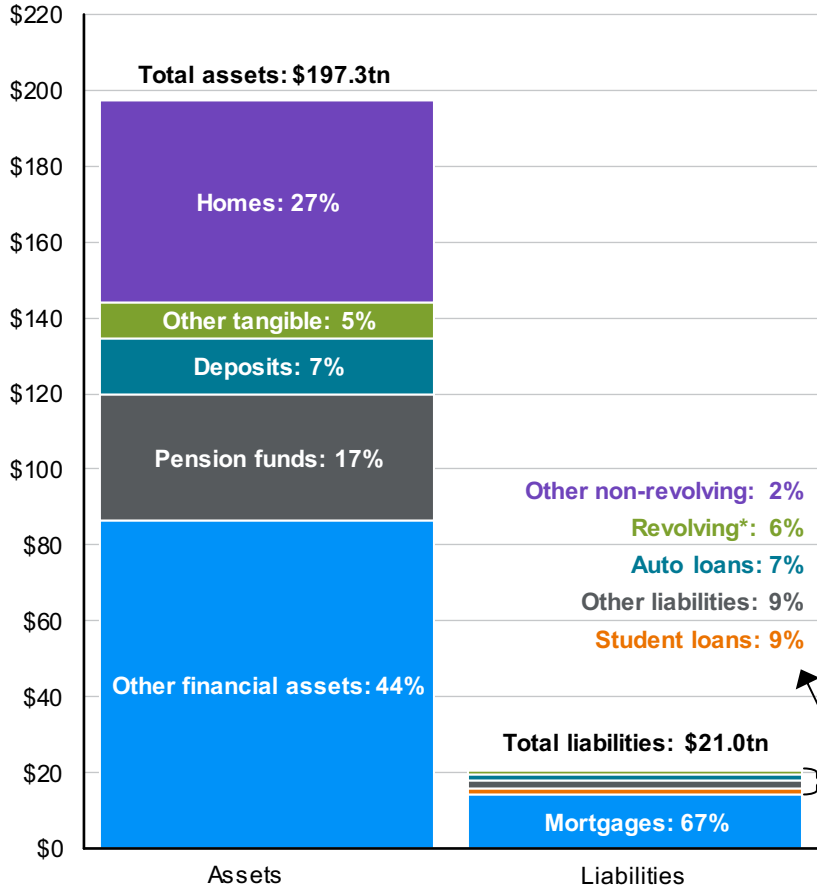


# Consumer finances

Economy

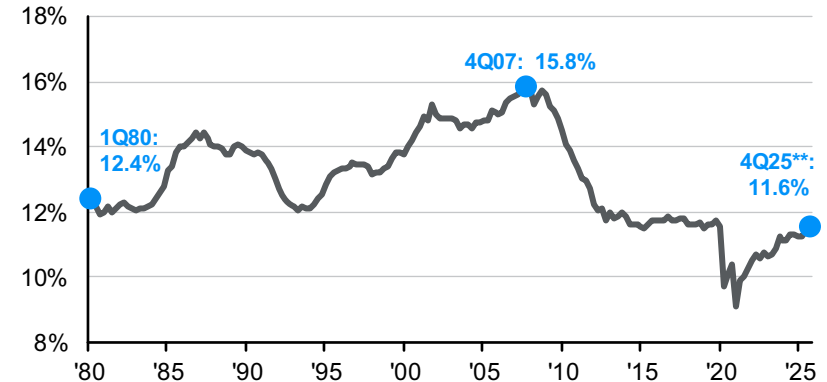
## Consumer balance sheet

2Q25, USD trillions, not seasonally adjusted



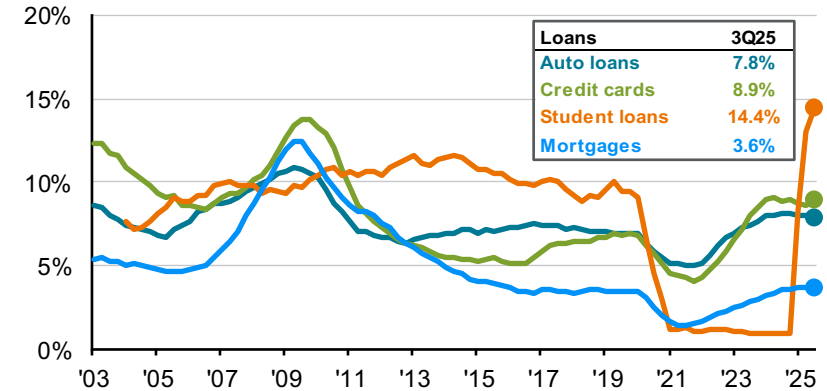
## Household debt service ratio

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. \*Revolving includes credit cards. Values may not sum to 100% due to rounding. \*\*Periods for which official data are unavailable are J.P. Morgan Asset Management estimates. Household debt service ratio data from 1Q80 to 4Q04 are J.P. Morgan Asset Management estimates. Due to the moratorium on delinquent student loan payments being reported to credit bureaus, missed federal student loan payments were not reported until 4Q24. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Federal finances

GTM

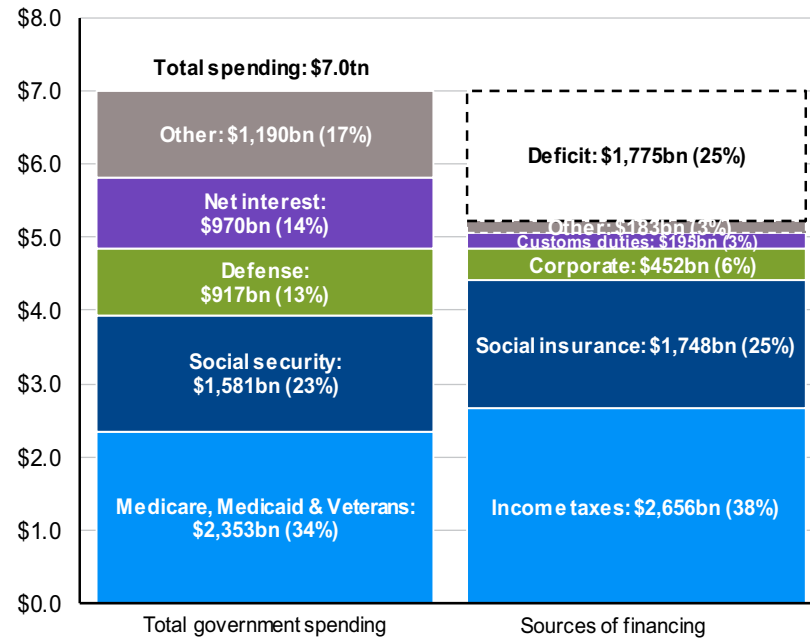
U.S.

28

Economy

## The 2025 federal budget

USD trillions

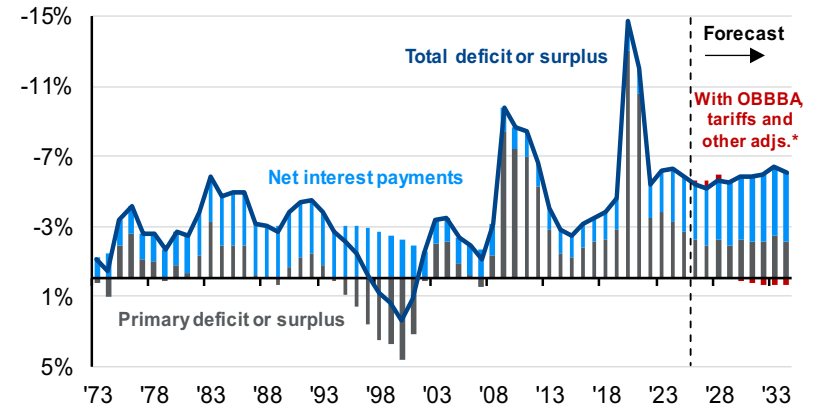


### CBO's Baseline economic assumptions

	2025	'26-'27	'28-'29	'30-'35
Real GDP growth	2.2%	1.8%	1.8%	1.8%
10-year Treasury	4.1%	3.9%	3.9%	3.8%
Headline inflation (CPI)	2.3%	2.4%	2.3%	2.2%
Unemployment	4.2%	4.4%	4.4%	4.4%

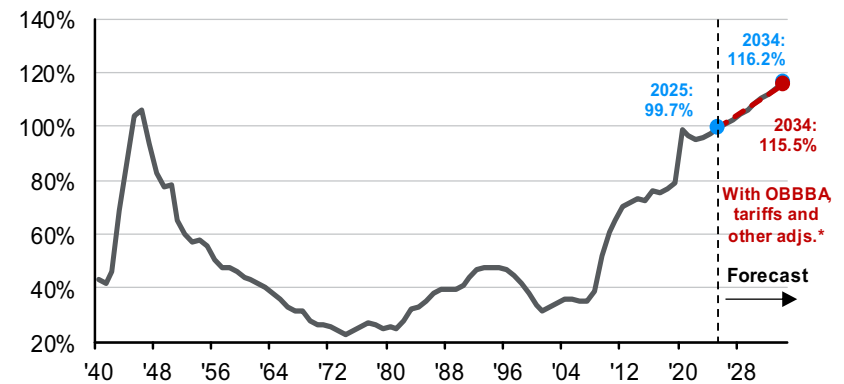
## Federal deficit and net interest payments

% of GDP, 1973 - 2034, CBO Baseline Forecast



## Federal net debt (accumulated deficits)

% of GDP, 1940 - 2034, CBO Baseline Forecast, end of fiscal year

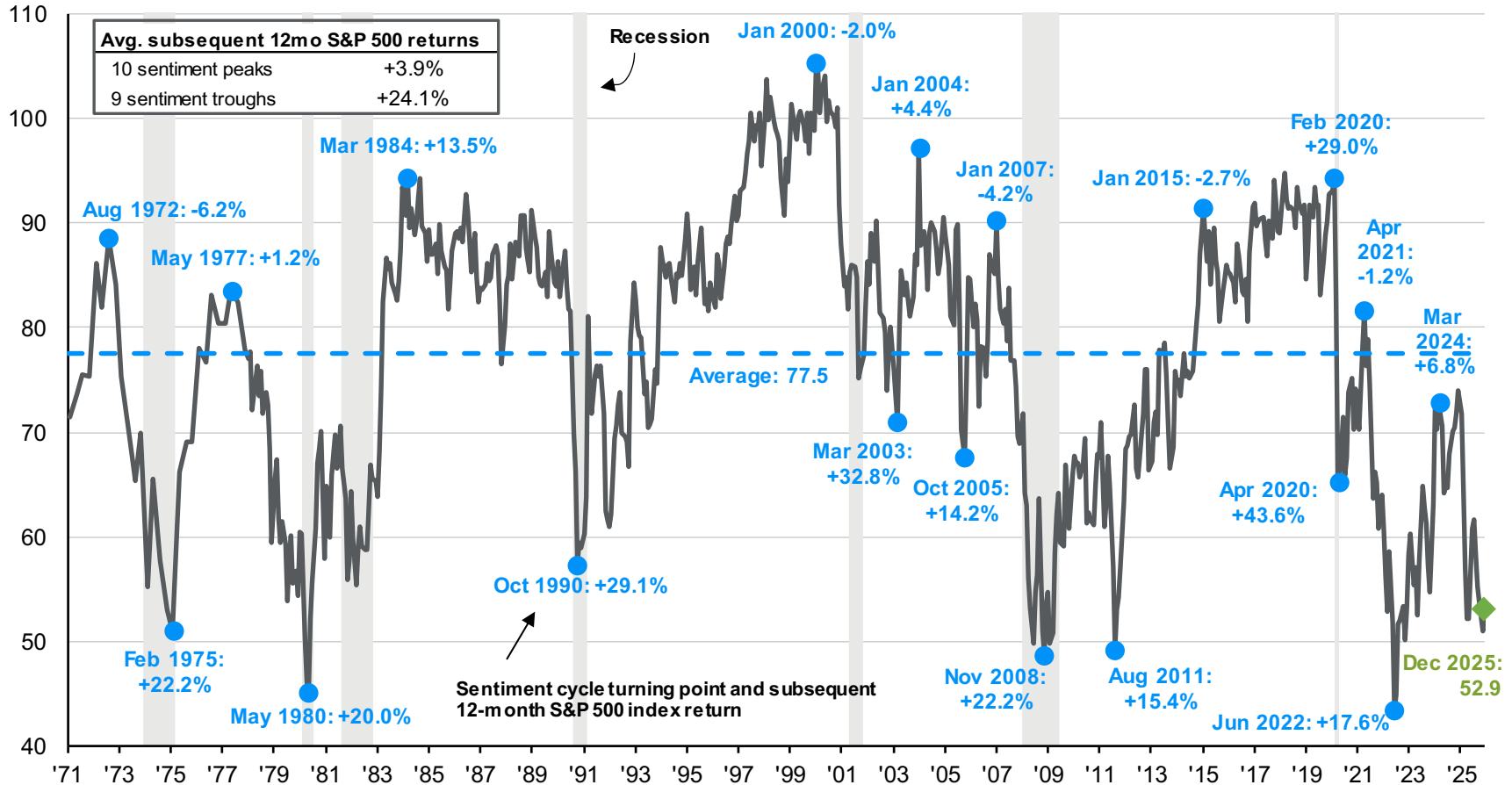


Source: BEA, CBO, Treasury Department, J.P. Morgan Asset Management: (Left) Reflects actual FY 2025 government receipts and outlays based on data sourced from the Treasury Department. Numbers may not sum to 100% due to rounding; (Top and bottom right) BEA. Estimates are from the Congressional Budget Office (CBO) January 2025 An Update to the Budget Outlook: 2025 to 2035. "Other" spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement. Years shown are fiscal years. OBBBA refers to the "One Big Beautiful Bill Act." 2025 figure for net debt as a % of GDP based on preliminary data from the Treasury Department and BEA. \*Adjusted by JPMAM to include estimates from the CBO July 2025 report "Estimated Budgetary Effects of Public Law 119-21, to Provide for Reconciliation Pursuant to Title II of H. Con. Res. 14, Relative to CBO's January 2025 Baseline." Figures are also adjusted to include JPMAM estimates of tariff revenues and the estimated cost of extending expiring tax cuts beyond 2028, based on CBO August 2025 report "Effects on Deficits and the Debt of Public Law 119-21 and of Making Certain Tax Policies in the Act Permanent." Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated. *Guide to the Markets - U.S.* Data are as of December 31, 2025.



# Consumer confidence and the stock market

## 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 no guarantee of future results. \*Data prior to August 2024 adjusted by J.P. Morgan Asset Management to account for methodological changes by the University of Michigan. Guide to the Markets – U.S. Data are as of December 31, 2025.

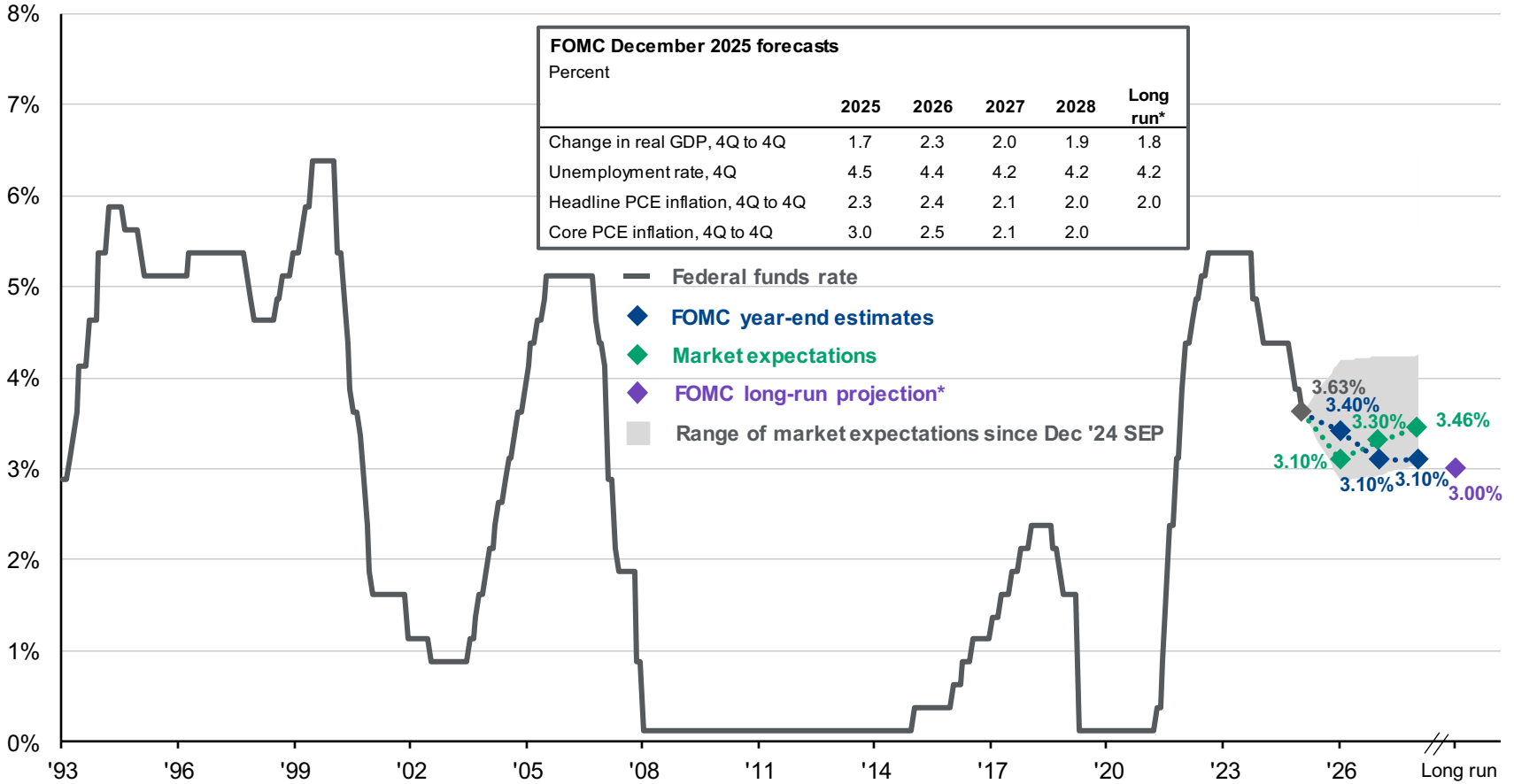


# The Fed and interest rates

Fixed Income

## Federal funds rate expectations

FOMC and market expectations for the federal funds rate



Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.

Market expectations are based off of USD Overnight Index Swaps. \*Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

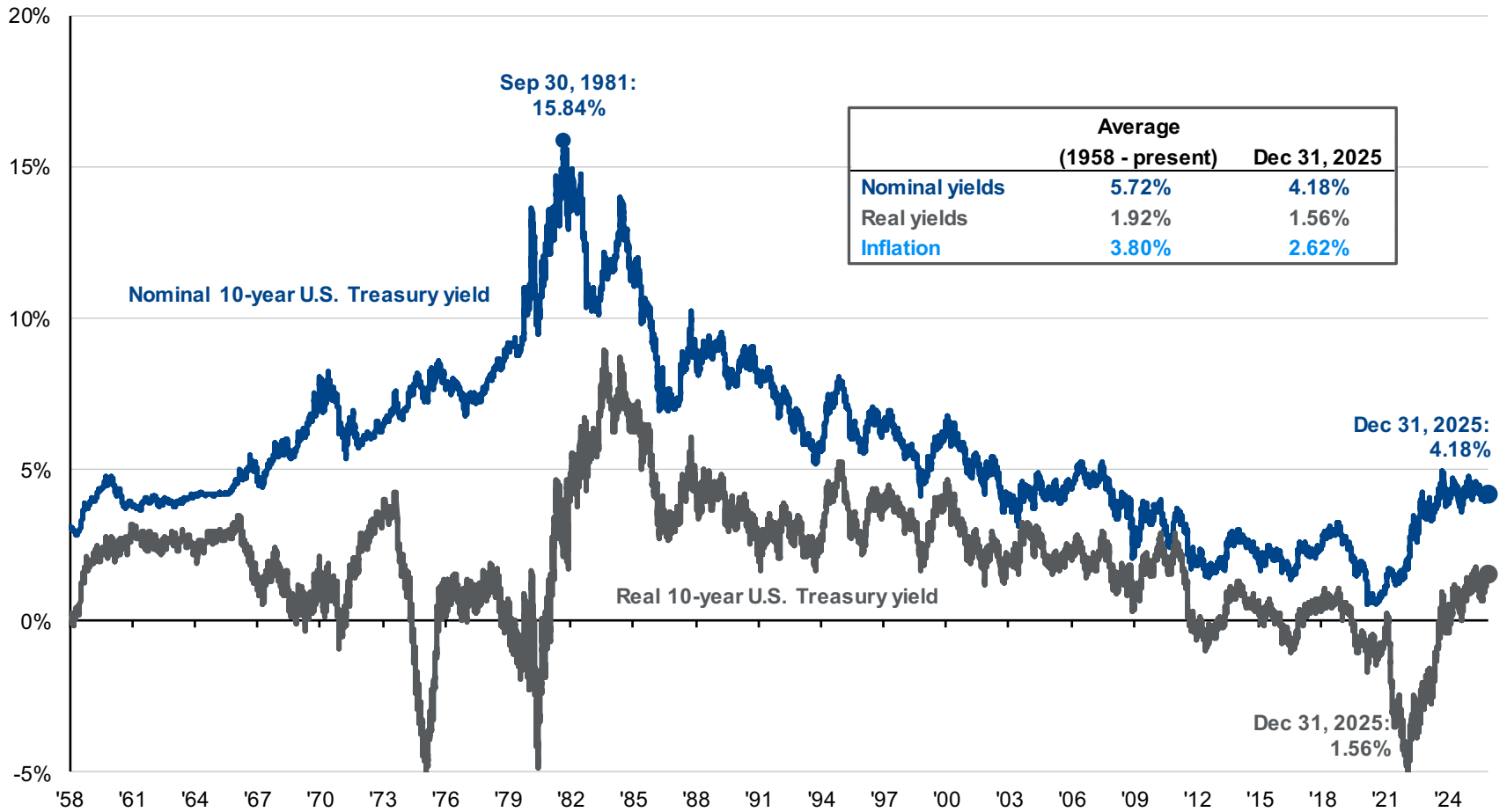
GuidetotheMarkets – U.S. Data areas of December 31, 2025.



# Interest rates and inflation

Fixed Income

## Nominal and real U.S. 10-year Treasury yields



Source: BLS, FactSet, Federal Reserve, J.P. Morgan Asset Management.  
 Real 10-year Treasury yields are calculated as the daily Treasury yield less y/y core CPI inflation for that month. For the current month, we use the prior month's core CPI figures until the latest data are available.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.



# Fixed income market dynamics

GTM

U.S.

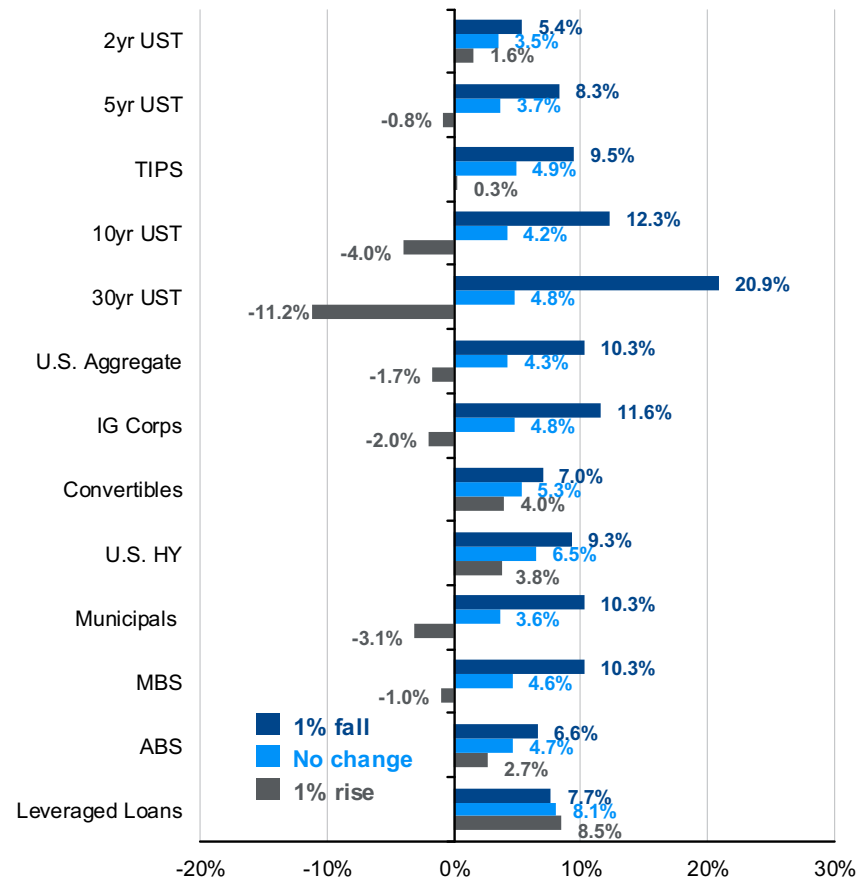
32

Fixed Income

U.S. Treasuries	Yield		Return	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
	12/31/2025	12/31/2024	2025			
<b>2-Year</b>	3.47%	4.25%	4.95%	2 years	0.74	0.02
<b>5-Year</b>	3.73%	4.38%	7.15%	5	0.94	0.02
<b>TIPS</b>	1.69%	2.13%	7.01%	7.1	0.75	0.37
<b>10-Year</b>	4.18%	4.58%	8.19%	10	1.00	-0.01
<b>30-Year</b>	4.84%	4.78%	3.73%	30	0.93	-0.05
<b>Sector</b>						
<b>U.S. Aggregate</b>	4.32%	4.91%	7.30%	8.2	0.91	0.29
<b>IG Corps</b>	4.81%	5.33%	7.77%	10.4	0.70	0.51
<b>Convertibles</b>	5.27%	6.13%	17.78%	-	0.01	0.86
<b>U.S. HY</b>	6.53%	7.49%	8.62%	4.8	0.12	0.79
<b>Municipals</b>	3.60%	3.74%	4.25%	13.5	0.73	0.32
<b>MBS</b>	4.63%	5.27%	8.58%	7.3	0.83	0.30
<b>ABS</b>	4.69%	5.38%	6.02%	2.2	0.39	0.29
<b>Leveraged Loans</b>	8.13%	8.68%	5.99%	4.7	-0.20	0.61

## Fixed income returns in different interest rate scenarios

Total return, assumes a parallel shift in the yield curve



Source: Bloomberg, FactSet, Federal Reserve Bank of Cleveland, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management.

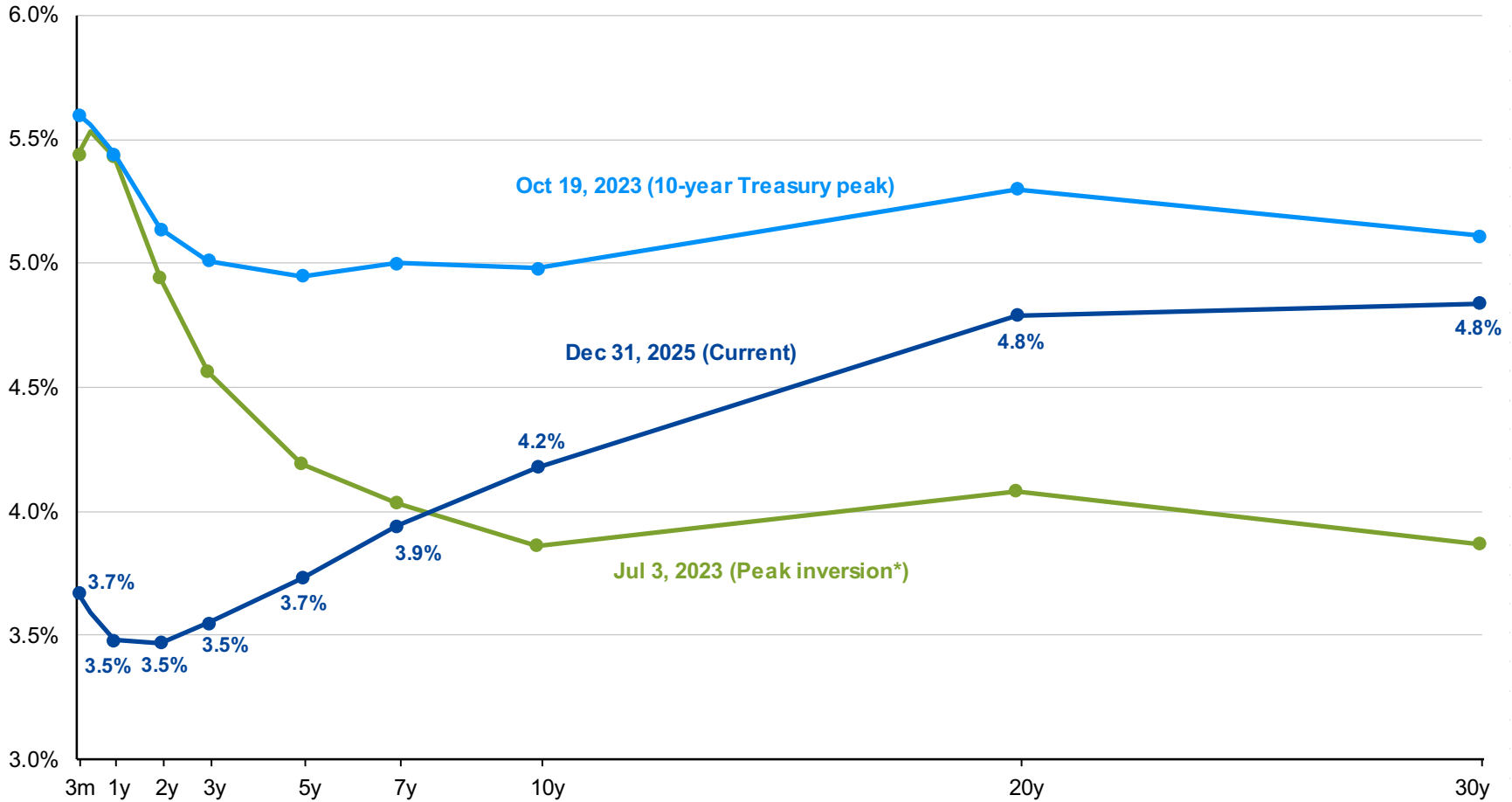
Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by – U.S. Aggregate; MBS: U.S. Aggregate Securitized – MBS; ABS: J.P. Morgan ABS Index; IG Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; Leveraged Loans: J.P. Morgan Leveraged Loan Index; TIPS: Treasury Inflation-Protected Securities; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of most recent month-end and is based on U.S. portion of Bloomberg Global Convertibles Index. Yield and return information based on bellwethers for Treasury securities. Yields shown for TIPS are real yields. TIPS returns consider the impact that inflation could have on returns by assuming the Cleveland Fed's 1-year inflation expectation forecasts are realized. Sector yields reflect yield to worst. Leveraged loan yields reflect the yield to 3-year takeout. Correlations are based on 15 years of monthly returns for all sectors. ABS returns prior to June 2012 are sourced from Bloomberg. Past performance is no guarantee of future results. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Yield curve

Fixed Income

## U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management.  
 Analysis references data back to 2020. \*Peak inversion is measured by the spread between the yield on a 10-year Treasury and 2-year Treasury.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

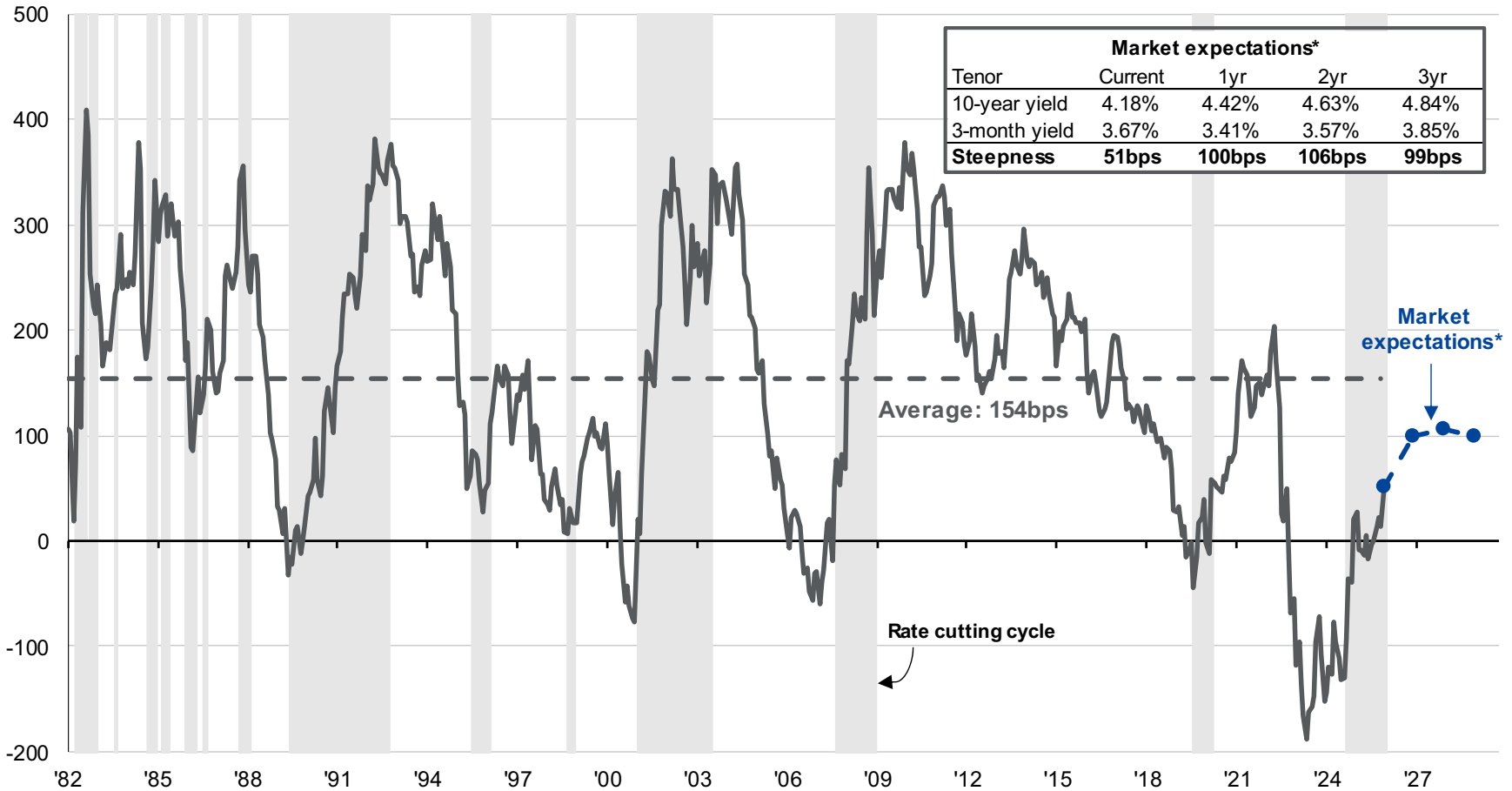


# The shape of the yield curve

Fixed Income

## U.S. yield curve steepness

Difference between 10-year and 3-month U.S. Treasury yields, basis points



Source: Bloomberg, U.S. Treasury, J.P. Morgan Asset Management.  
 The 10-year Treasury and 3-month Treasury yield spread is commonly referenced as a forward-looking indicator that reflects the market's judgment of future economic prospects. \*Market expectations are derived from forward rates and reflect expectations for rates one year (1yr), two years (2yr) and three years (3yr) from today.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.

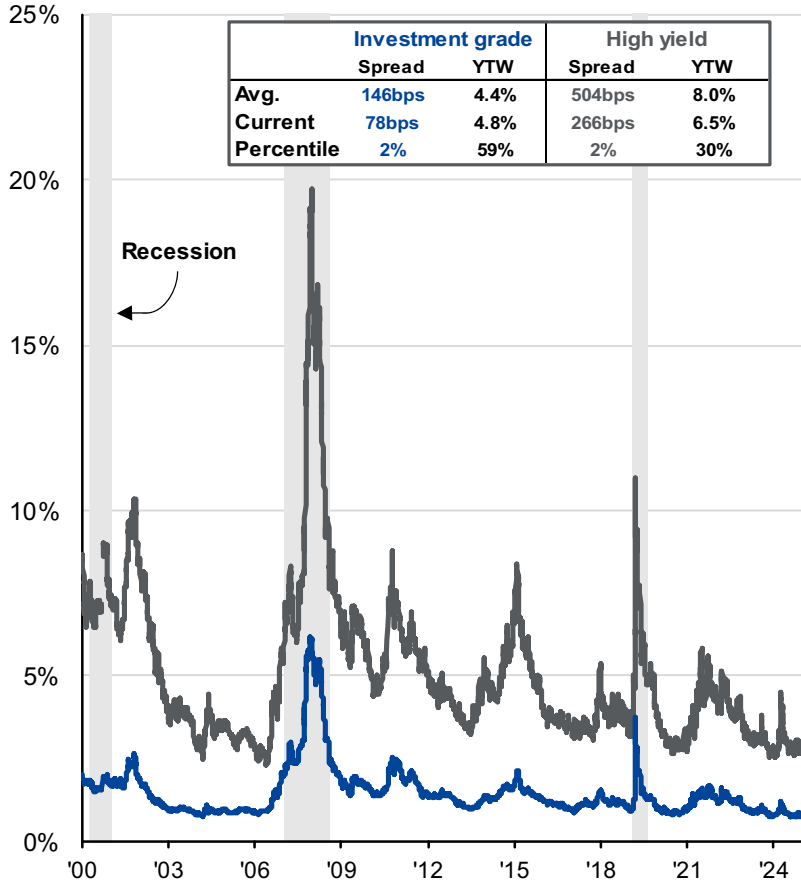


# Credit market dynamics

Fixed Income

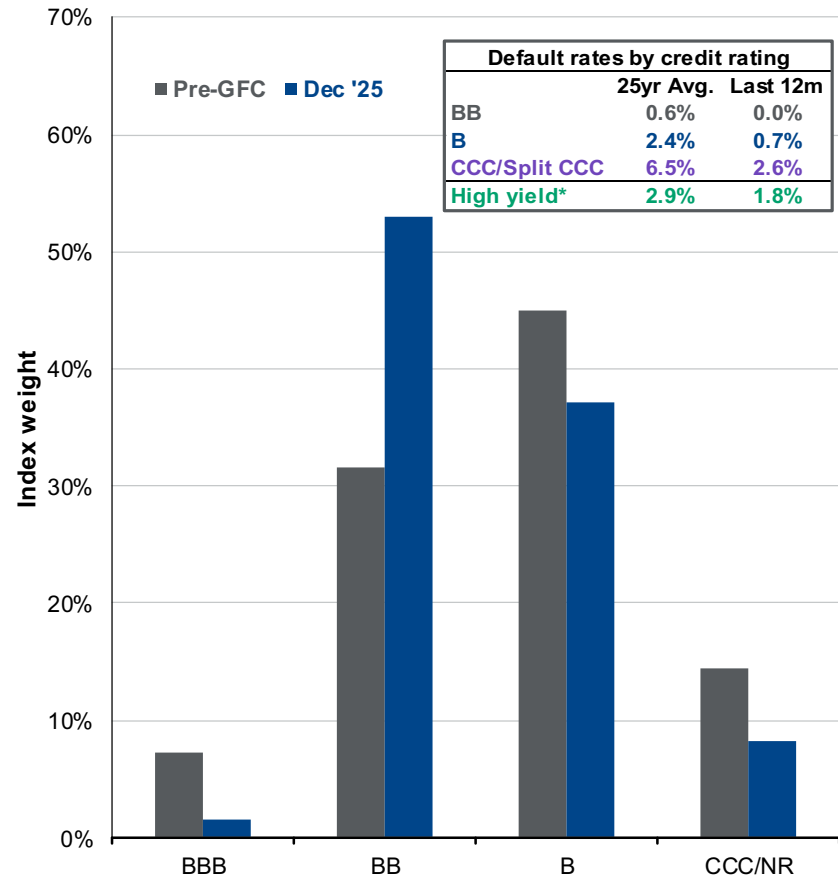
## Corporate credit spreads

Option adjusted spread, 2001 - present



## Credit rating and default rates in U.S. high yield

%, J.P. Morgan Domestic High Yield Index



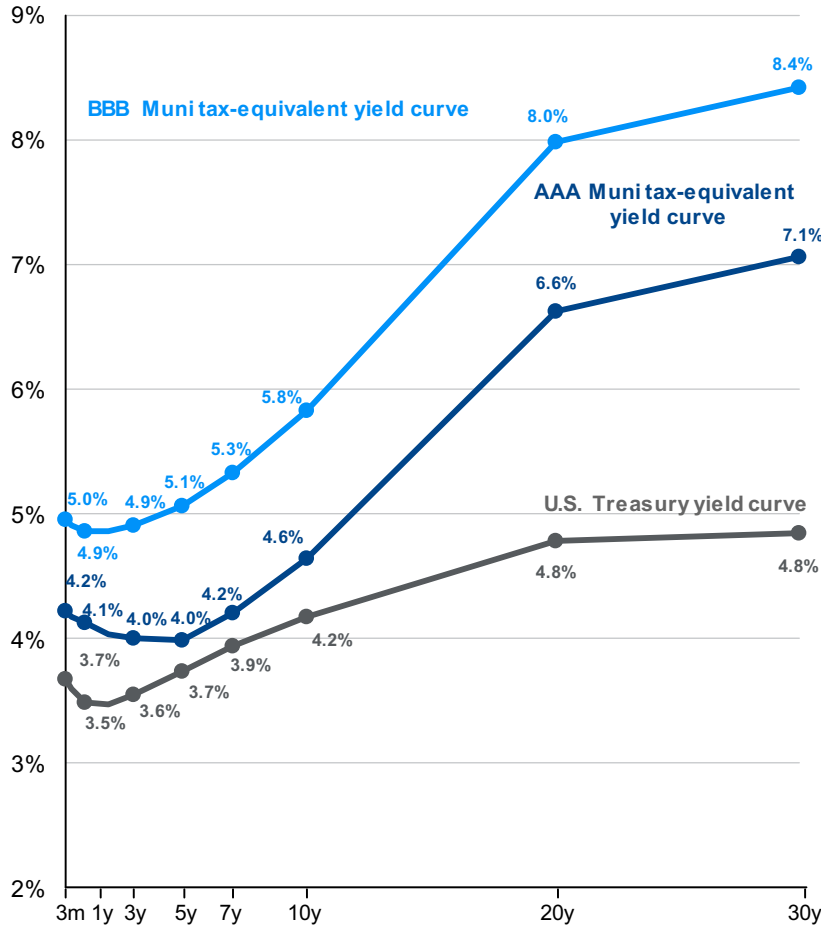
Source: Bloomberg, J.P. Morgan Research, J.P. Morgan Asset Management.

(Left) U.S. Investment Grade: Bloomberg U.S. Corporate Investment Grade Index; U.S. High Yield: Bloomberg U.S. Aggregate Corporate High Yield Index. (Right) Last 12-month default rates are as of most recent month for which data are available. Default rates shown by credit rating do not include distressed exchanges and are grouped by rating 12 months prior to default. Bond ratings include split ratings. "NR" stands for not rated. Pre-GFC reflects data as of December 2007. \*Aggregate high yield default rate data do include distressed exchanges.

Guide to the Markets – U.S. Data are as of December 31, 2025.

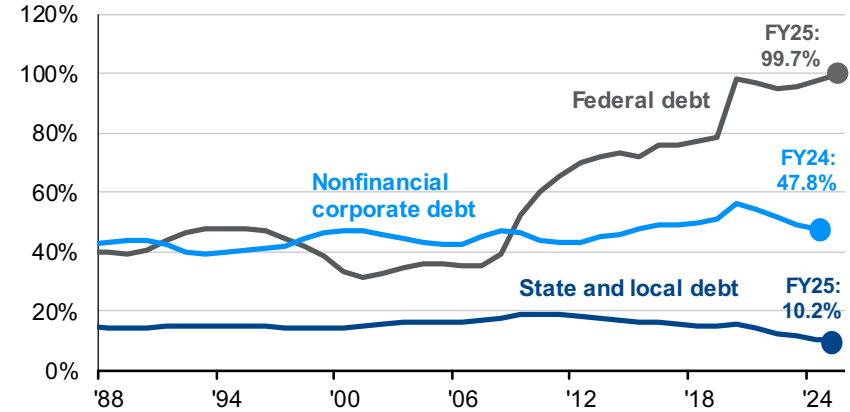


## Muni tax-equivalent and Treasury yield curves



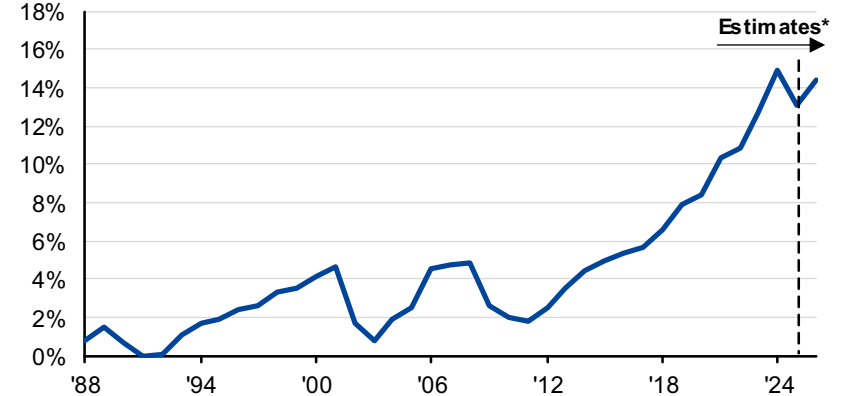
## State and local, federal and corporate debt

% of GDP, 1988 - 2025, end of fiscal year



## State Rainy Day Fund balances

Median savings balances as a % of total spending, 1988 - 2026, fiscal year



Source: J.P. Morgan Asset Management; (Left) Bloomberg, FactSet, Federal Reserve, S&P Global; (Top right) BEA, Census Bureau, Congressional Budget Office (CBO), Federal Reserve, Treasury Department; (Bottom right) NASBO Fiscal Survey of States. Municipal tax-equivalent yields are calculated based on municipal bond curves for each credit rating according to S&P Global and assume a top income tax bracket rate of 37% plus a Medicare tax rate of 3.8% for a total tax rate of 40.8%. (Top right) State and local debt are based on the Census Bureau's Annual Survey of State and Local Government Finances. FY2025 federal debt as a % of GDP figure based on preliminary data from the Treasury Department and BEA. (Bottom right) A rainy day fund, also known as a budget stabilization fund or reserve fund, is a collection of funds that local governments use to prepare for financial emergencies and future stability. \*Estimates are sourced from NASBO's Fiscal Survey of States. Figures for FY25 are preliminary while figures for FY26 are based on enacted budgets. Guide to the Markets - U.S. Data are as of December 31, 2025.

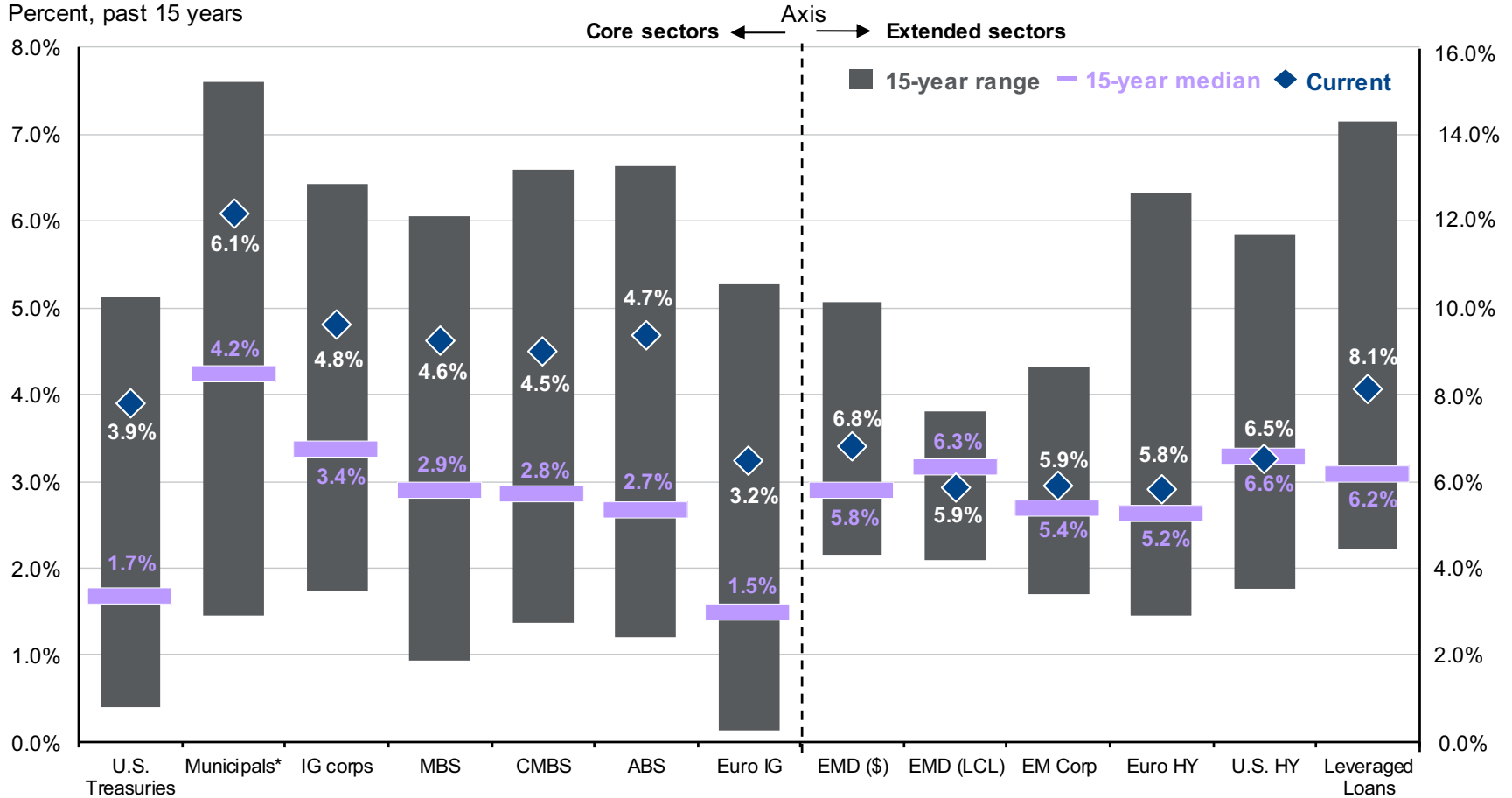


# Fixed income yields

Fixed Income

## Yield to worst across fixed income sectors

Percent, past 15 years



Source: Bloomberg, FactSet, J.P. Morgan Credit Research, J.P. Morgan Asset Management.

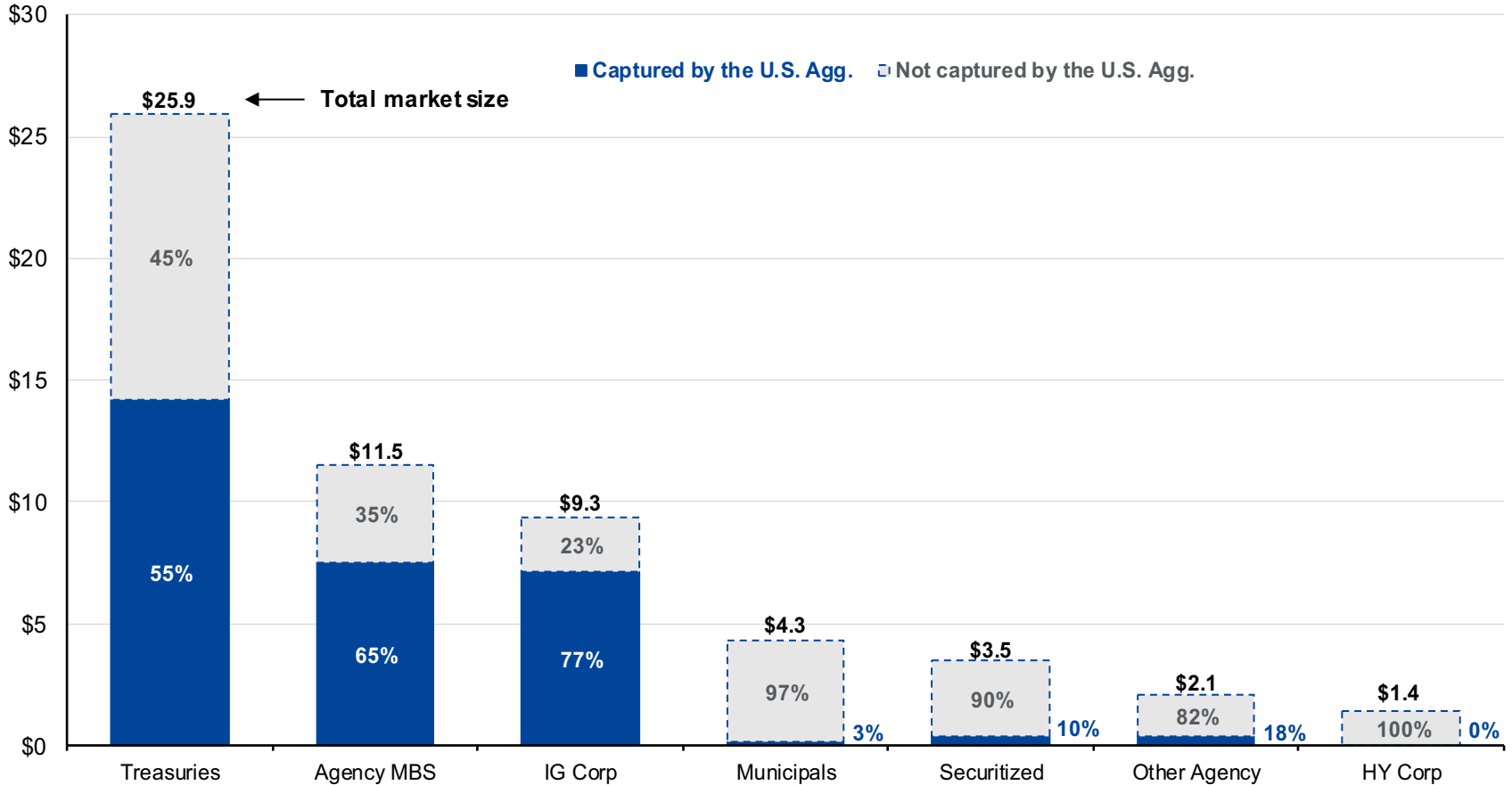
Indices used are Bloomberg except for ABS, emerging market debt and leveraged loans: ABS: J.P. Morgan ABS Index; CMBS: Bloomberg Investment Grade CMBS Index; EMD (USD): J.P. Morgan EMIGLOBAL Diversified Index; EMD (LCL): J.P. Morgan GBI-EM Global Diversified Index; EM Corp.: J.P. Morgan CEMBI Broad Diversified; Leveraged Loans: JPM Leveraged Loan Index; Euro IG: Bloomberg Euro Aggregate Corporate Index; Euro HY: Bloomberg Pan-European High Yield Index. Yield to worst is the lowest possible yield that can be received on a bond apart from the company defaulting and considers factors like call provisions, prepayments and other features that may affect the bonds' cash flows. ABS data begins in 2012. \*All sectors shown are yield to worst except for Municipals, which is based on the tax-equivalent yield to worst assuming a top income tax bracket rate of 37% plus a Medicare tax rate of 3.8%. *Guide to the Markets* - U.S. Data areas of December 31, 2025.



# Fixed income investment universe

## Fixed income investable market vs. the Bloomberg U.S. Aggregate Index

USD trillions, 2Q25



Fixed Income

Source: Bank of America, Bloomberg, SIFMA, J.P. Morgan Asset Management.

The investable universe for Treasuries, municipals and other agency securities are sourced from SIFMA and reflect par value outstanding. The investable universe for agency MBS, CMBS, CMOs, CLOs, CDOs, ABS, investment grade corporates and high yield corporates are sourced from Bank of America and reflect market value outstanding. Treasuries include outstanding bills, bonds and notes. Agency MBS includes MBS, CMBS and CMOs. Securitized includes ABS, CLOs, CDOs, non-agency CMBS and non-agency RMBS. Sector classifications for constituents in the Bloomberg U.S. Aggregate are based on classifications provided by Bloomberg. Guide to the Markets – U.S. Data are as of December 31, 2025.

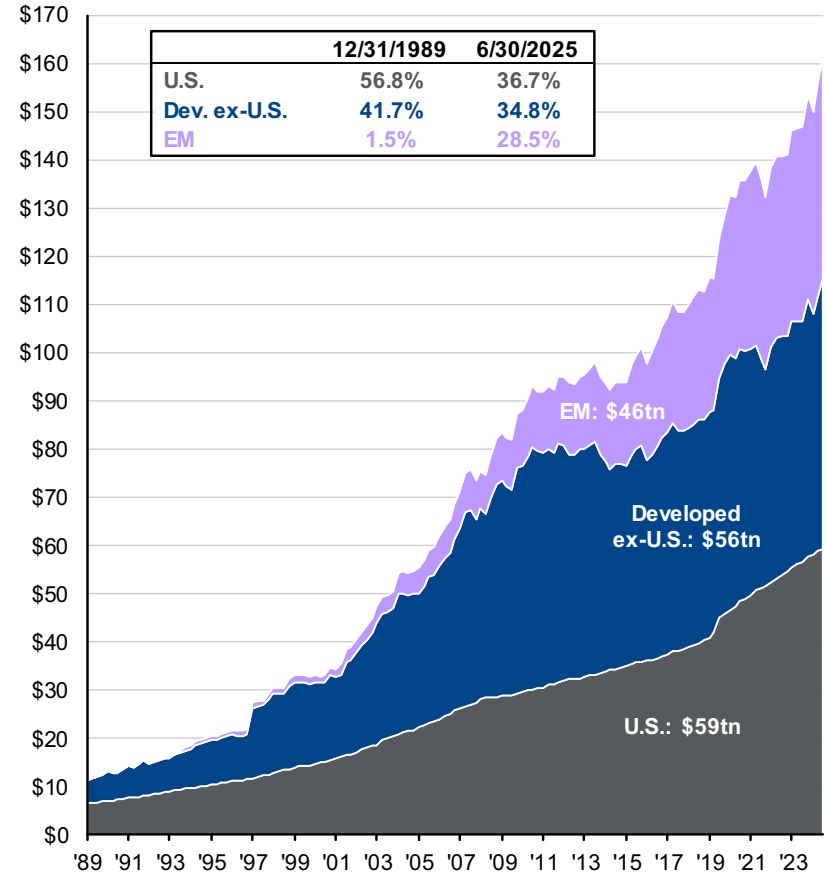


# Global fixed income

Aggregates	Local yield		USD yield		2025 Return		Duration	Correlation to U.S. 10yr
	12/31/2025	12/31/2024	12/31/2025	Local	USD			
<b>U.S.</b>	4.32%	4.91%	-	7.30%	7.30%	6.0 years	0.93	
<b>Gbl. ex-U.S.</b>	2.99%	2.85%	-	-	8.66%	6.6	0.71	
<b>Canada</b>	3.62%	3.75%	5.07%	2.93%	7.99%	6.6	0.57	
<b>Japan</b>	2.04%	1.26%	4.68%	-5.40%	-5.15%	8.3	0.70	
<b>Germany</b>	2.84%	2.70%	4.52%	-0.45%	12.90%	5.9	0.66	
<b>UK</b>	4.38%	4.66%	4.14%	5.02%	12.79%	7.4	0.60	
<b>Italy</b>	3.09%	3.11%	4.77%	3.10%	16.94%	6.1	0.53	
<b>China</b>	1.79%	1.64%	3.90%	0.47%	4.94%	5.9 years	0.50	
<b>Sector</b>								
<b>Euro Corp.</b>	3.23%	3.18%	4.91%	3.03%	16.86%	4.4	0.46	
<b>Euro HY</b>	5.83%	6.03%	7.51%	4.86%	18.93%	3.4	0.06	
<b>EMD (USD)</b>	6.80%	7.86%	-	-	14.30%	6.2	0.41	
<b>EMD (LCL)</b>	5.87%	6.39%	-	10.12%	19.26%	5.4	0.33	
<b>EM Corp.</b>	5.90%	6.56%	-	-	8.73%	5.2	0.32	

## Global bond market

USD trillions



Source: J.P. Morgan Asset Management; (Left) Bloomberg, FactSet; (Right) BIS.

Fixed income sectors shown above are provided by Bloomberg and are represented by the global aggregate for each country except where noted. EMD sectors are represented by the J.P. Morgan EMBIG Diversified Index (USD), the J.P. Morgan GBI EM Global Diversified Index (LCL) and the J.P. Morgan CEMBI Broad Diversified Index (Corp). European Corporates are represented by the Bloomberg Euro Aggregate Corporate Index and the Bloomberg Pan-European High Yield Index. Sector yields reflect yield to worst. Correlations are based on 10-years of monthly returns for all sectors. Countries included in the emerging market debt calculation are those represented in the J.P. Morgan EMB Index suite for which the BIS has data. Global bond market regional breakdown may not sum to 100% due to rounding. USD yield shows the total effective yield a U.S.-based investor could expect after accounting for the hedging premium. Hedging premiums are calculated taking the spread between the 3-month SOFR rate and the 3-month short-term lending rates in local market referenced (e.g. 3-month Euribor is used for European economies) and do not include transactional fees that can reduce effective yield. Past performance is no guarantee of future results.

Guide to the Markets – U.S. Data are as of December 31, 2025.



# Fixed income yields and forward returns

GTM

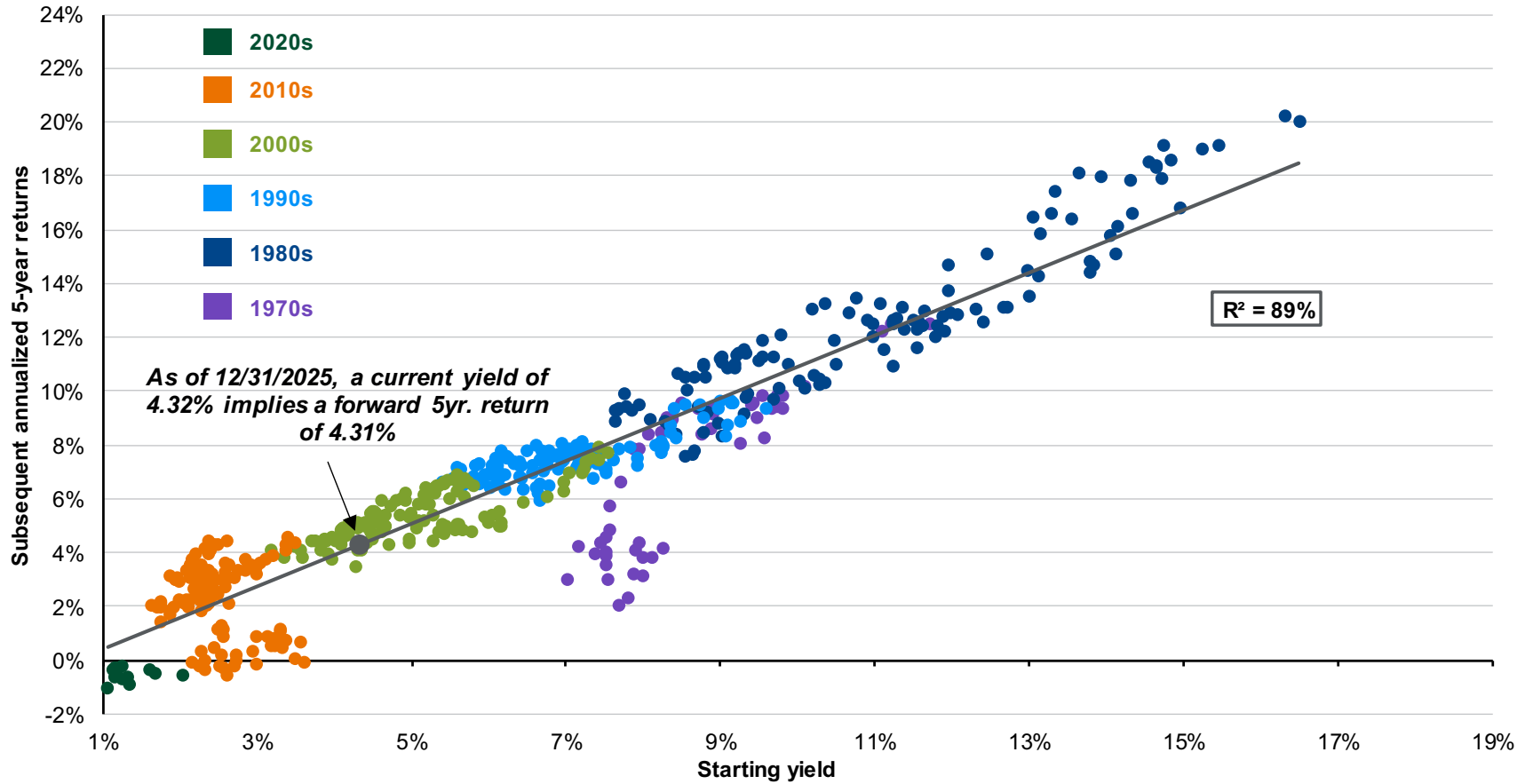
U.S.

40

Fixed Income

## Yield to worst and subsequent 5-year annualized returns

Bloomberg U.S. Aggregate Total Return Index



Source: Bloomberg, FactSet, J.P. Morgan Asset Management.

Returns are 60-month annualized total returns, measured monthly, beginning 1/31/1976.  $R^2$  represents the percent of total variation in total returns that can be explained by yields at the start of each period. Past performance is no guarantee of future results.

Guide to the Markets – U.S. Data are as of December 31, 2025.

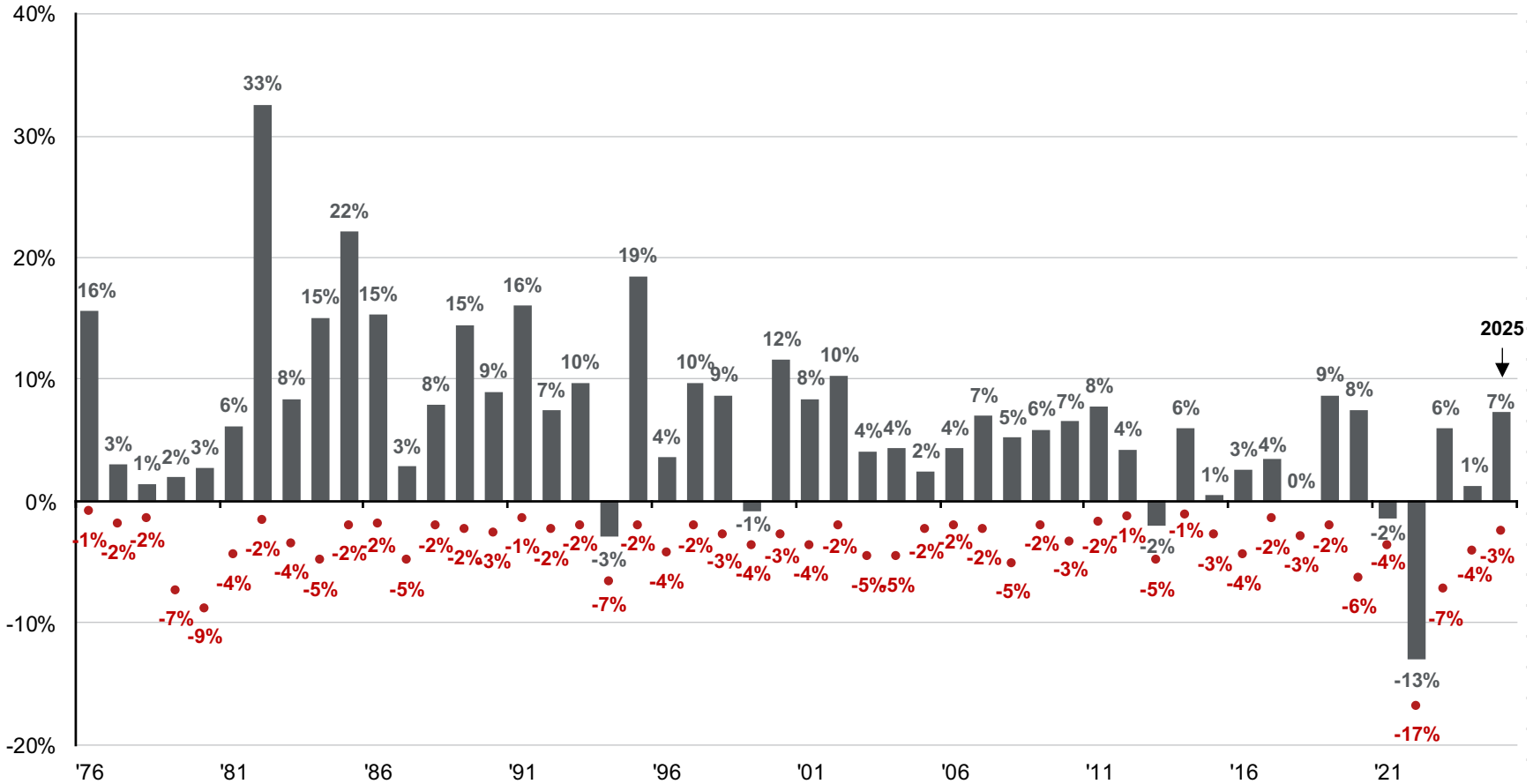


# Bloomberg U.S. Agg. annual returns and intra-year declines

Fixed Income

## Bloomberg U.S. Aggregate intra-year declines vs. calendar year returns

Despite average intra-year drops of 3.5%, annual returns were positive in 45 of 50 years



Source: Bloomberg, FactSet, J.P. Morgan Asset Management. Returns are based on total return. Intra-year drops refers to the largest market drops from a peak to a trough during the year. Returns shown are calendar year returns from 1976 to 2025, over which time period the average annual return was 6.5%. Returns from 1976 to 1989 are calculated on a monthly basis; daily data are used afterward. For illustrative purposes only. Past performance is no guarantee of future results. Guide to the Markets – U.S. Data are as of December 31, 2025.



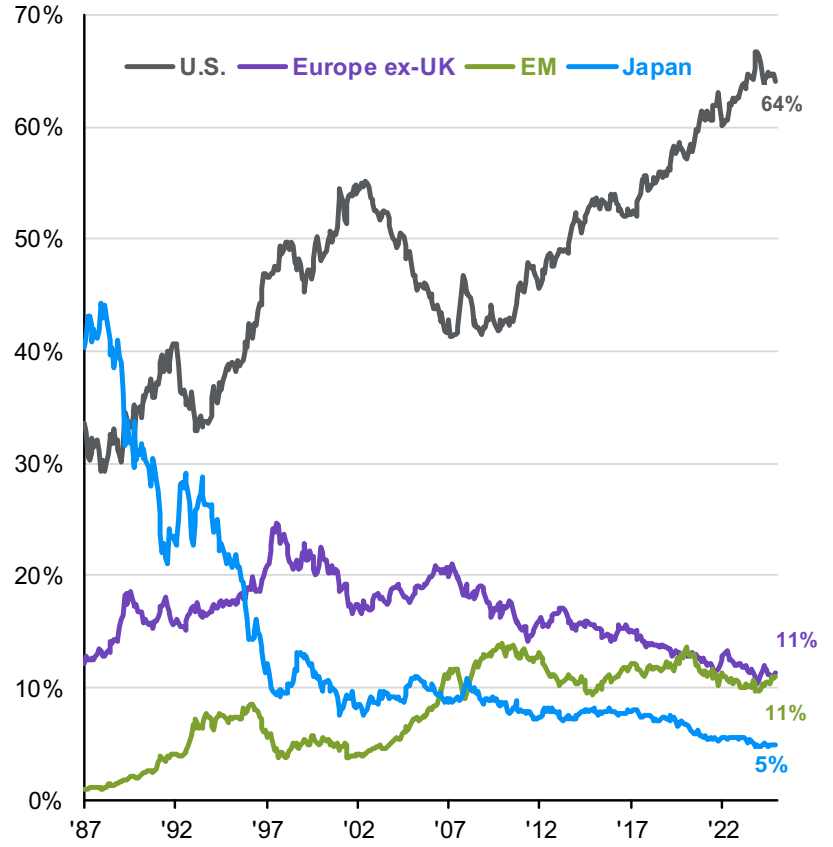
# Global equity markets

International

Returns	2025		2024		15-years Ann.
	Local	USD	Local	USD	
<b>Regions</b>					
U.S. (S&P 500)	-	17.9%	-	25.0%	14.1%
AC World ex-U.S.	25.1%	33.1%	13.2%	6.1%	6.4%
EAFE	21.2%	31.9%	11.8%	4.3%	7.1%
Eurozone	24.7%	41.3%	10.3%	3.4%	7.8%
Emerging markets	32.1%	34.4%	13.7%	8.1%	4.2%
<b>Selected Countries</b>					
Japan	24.7%	25.1%	21.2%	8.7%	6.9%
UK	25.8%	35.1%	9.5%	7.5%	6.4%
France	14.2%	29.5%	1.8%	-4.6%	7.8%
Canada	30.9%	37.4%	23.0%	12.7%	6.8%
Germany	20.9%	37.1%	18.4%	11.0%	7.3%
China	30.7%	31.4%	19.8%	19.7%	4.1%
Taiwan	34.0%	39.8%	44.3%	35.1%	13.0%
India	9.5%	4.3%	15.7%	12.4%	5.8%
Brazil	35.6%	50.4%	-11.4%	-29.5%	-0.3%

## Share of global market capitalization

% weight in MSCI All Country World, USD, monthly



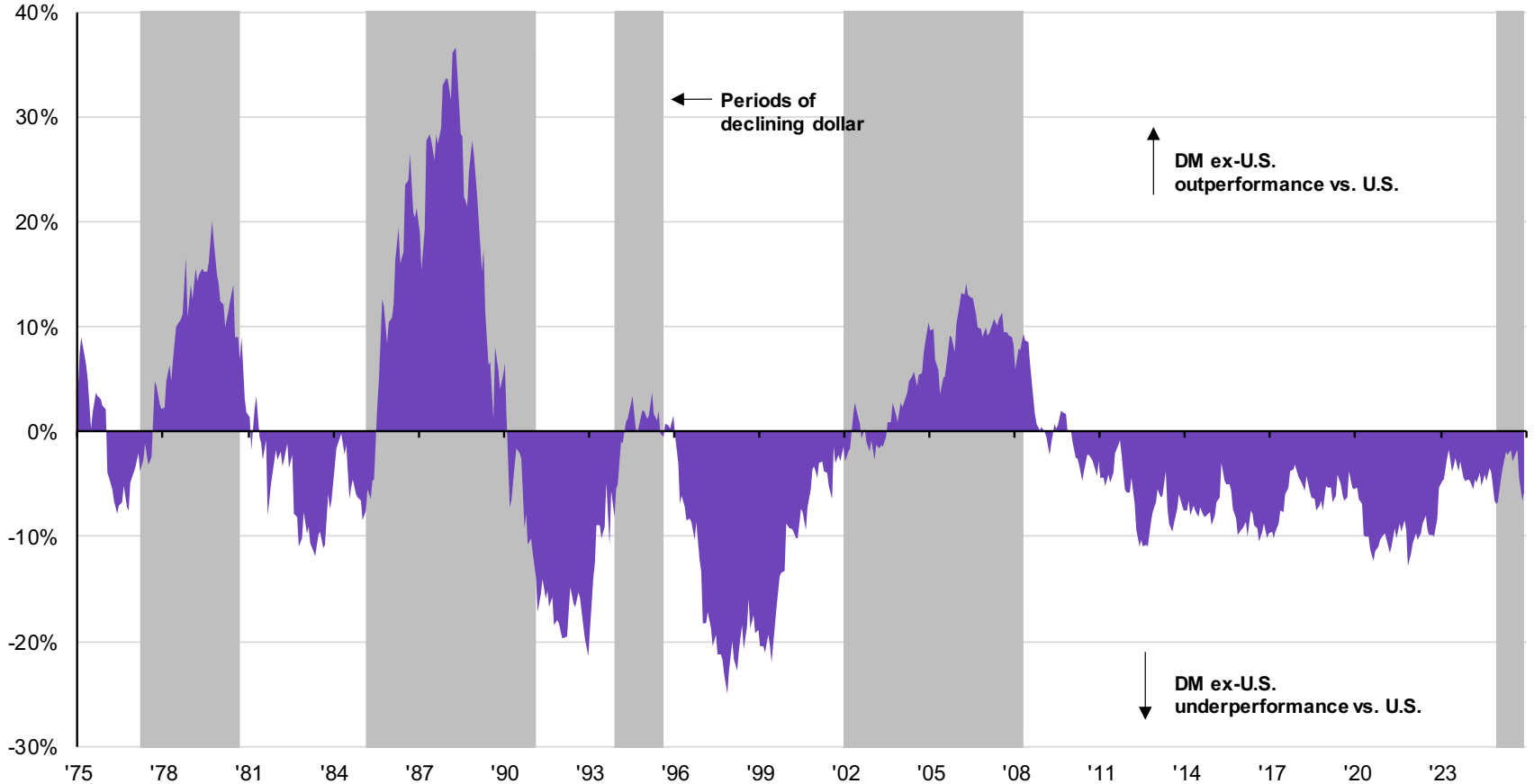
Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.  
 (Left) All return values are MSCI Total Return Index (Gross) data. 15-year history based on USD returns. 15-year annualized return figures are calculated using a rolling 12-month period ending with the previous month-end. Please see disclosure page for index definitions. Past performance is no guarantee of future results.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.



# International developed equities and the U.S. dollar

## Cycles of DM ex-U.S. outperformance and USD

International developed out/underperformance vs. U.S., MSCI EAFE, MSCI USA, DXY Index, total return, rolling 3-year ann.



International

Source: FactSet, MSCI, J.P. Morgan Asset Management. MSCI EAFE Index: A benchmark tracking large- and mid-cap stocks in developed markets across Europe, Australasia and the Far East, excluding the U.S. and Canada. Past performance is no guarantee of future results. Guide to the Markets – U.S. Data are as of December 31, 2025.

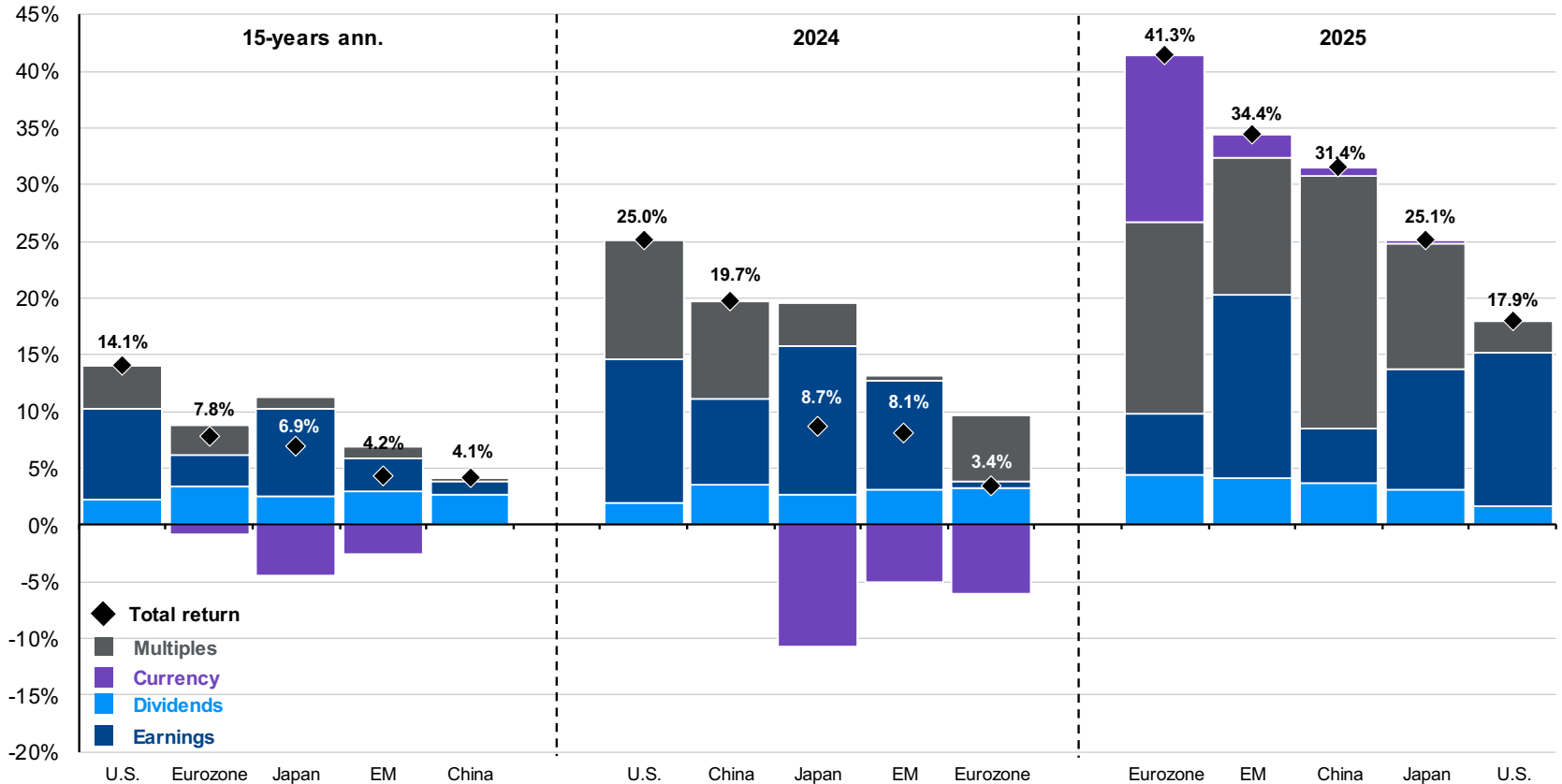


# Global equity return composition

International

## Sources of global equity returns\*

Total return, USD



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.

15-years ann. is a rolling 15-year period ending with the previous month-end. All return values are MSCI Gross Index data, except the U.S., which is the S&P 500. \*Multiple expansion is based on the forward P/E ratio, and EPS growth outlook is based on next 12 months earnings estimates. Chart is for illustrative purposes only. Past performance is no guarantee of future results. Guide to the Markets – U.S. Data are as of December 31, 2025.

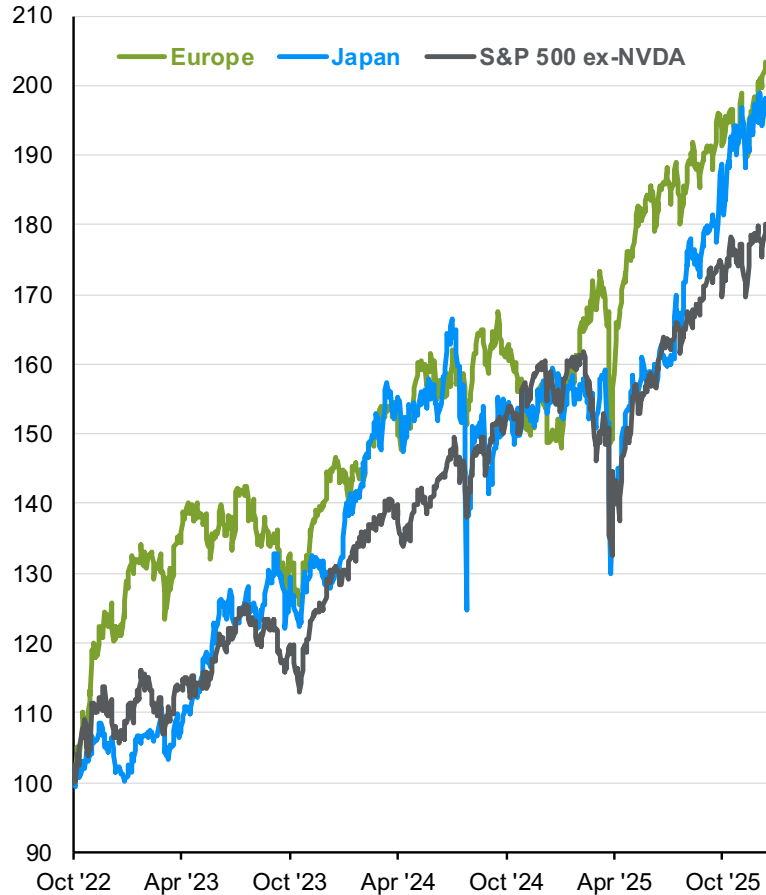


# Global equity return themes

International

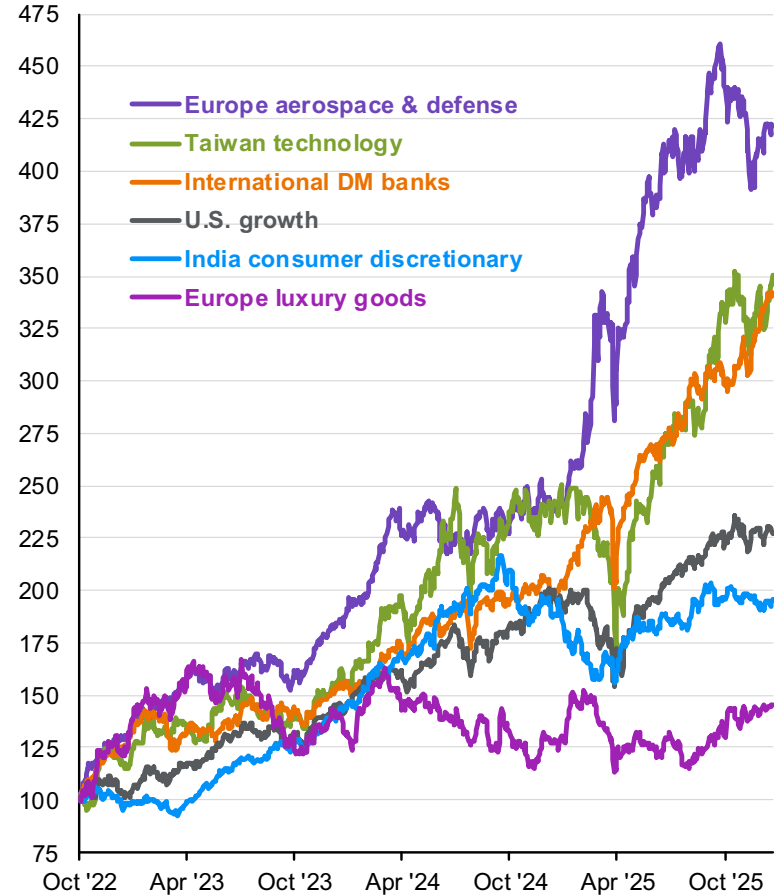
## Regional performance since 2022

Oct 12, 2022 = 100, total return, USD



## Major global investment themes

Oct 12, 2022 = 100, total return, USD



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.

10/12/2022 was the market bottom for U.S. equities. (Right) Europe aerospace & defense = MSCI Europe / Aerospace & Defense Index, International DM banks = MSCI EAFE / Banks Index, Taiwan technology = MSCI Taiwan / Information Technology Index, U.S. Growth = Russell 1000 Growth Index, India consumer discretionary = MSCI India / Consumer Discretionary Index, Europe luxury goods = MSCI Europe / Textiles & Apparel & Luxury Goods Index. Past performance is no guarantee of future results.  
Guide to the Markets – U.S. Data are as of December 31, 2025.

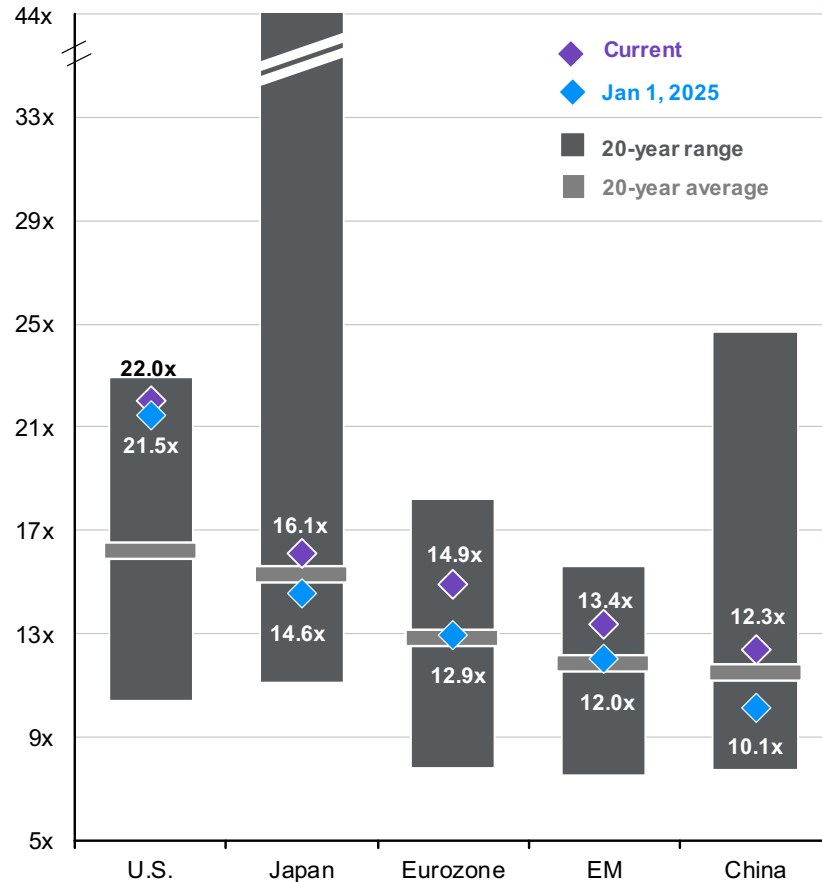


# Global equity valuations

International

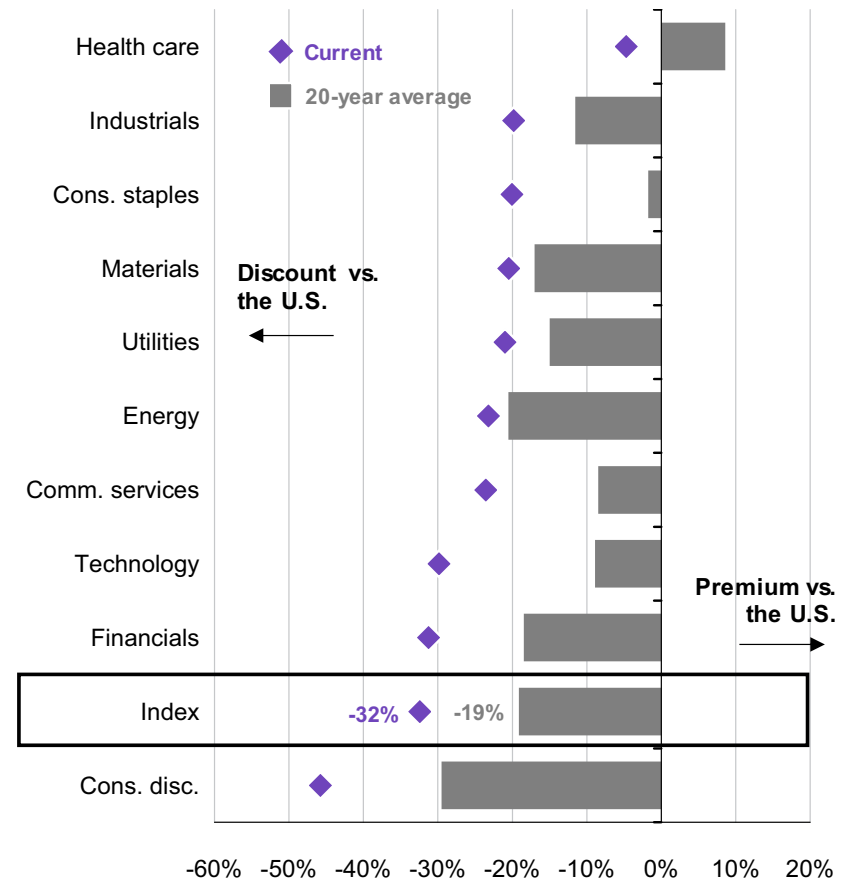
## Valuations by region/country

Forward P/E ratio



## Relative valuations by sector

Forward P/E ratio, MSCI ACWI ex-U.S. divided by S&P 500



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Countries are represented by their respective MSCI country index except for the U.S., which is represented by the S&P500. Guide to the Markets – U.S. Data are as of December 31, 2025.

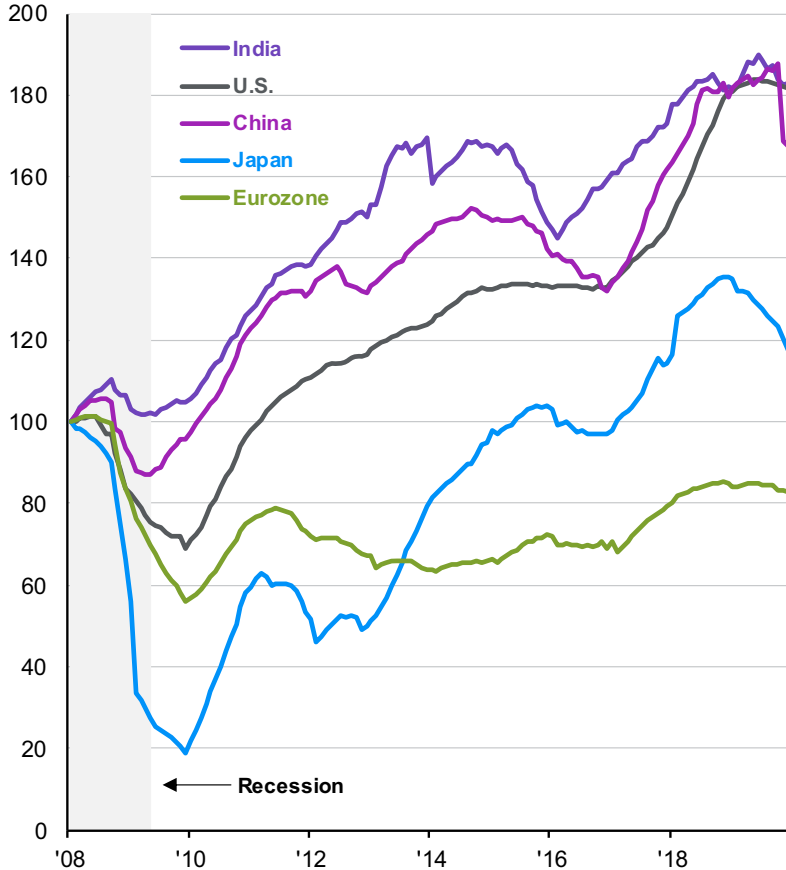


# Global equity earnings

International

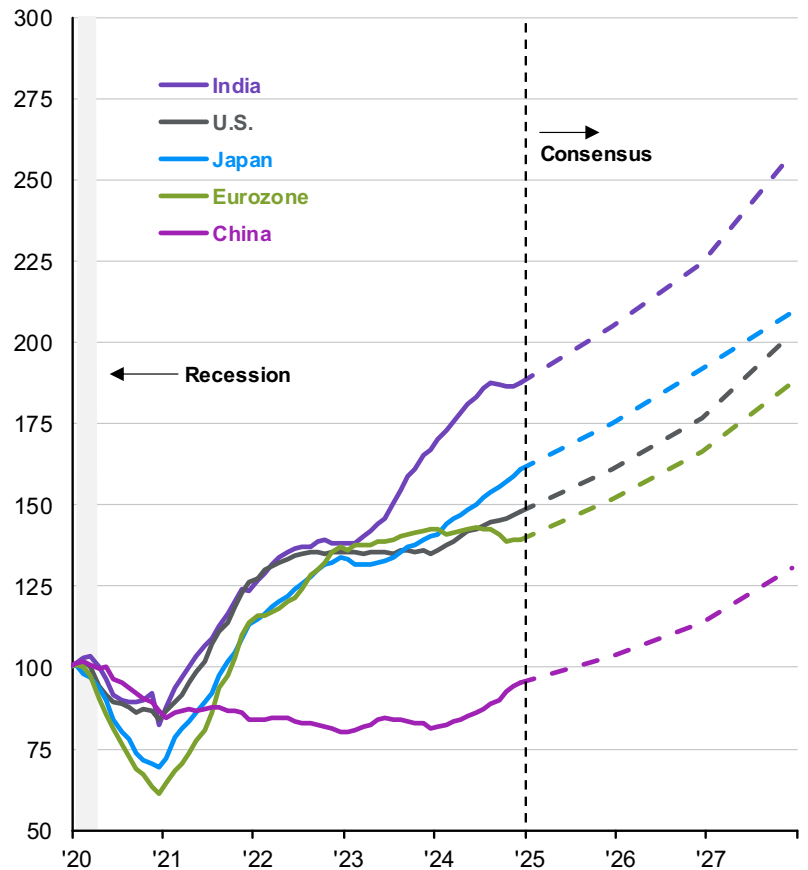
## Earnings growth: GFC to pre-pandemic

Jan 2008 = 100, last 12 months, local currency, monthly



## Earnings growth: Pandemic to present/consensus estimates

Jan 2020 = 100, last 12 months, local currency, monthly

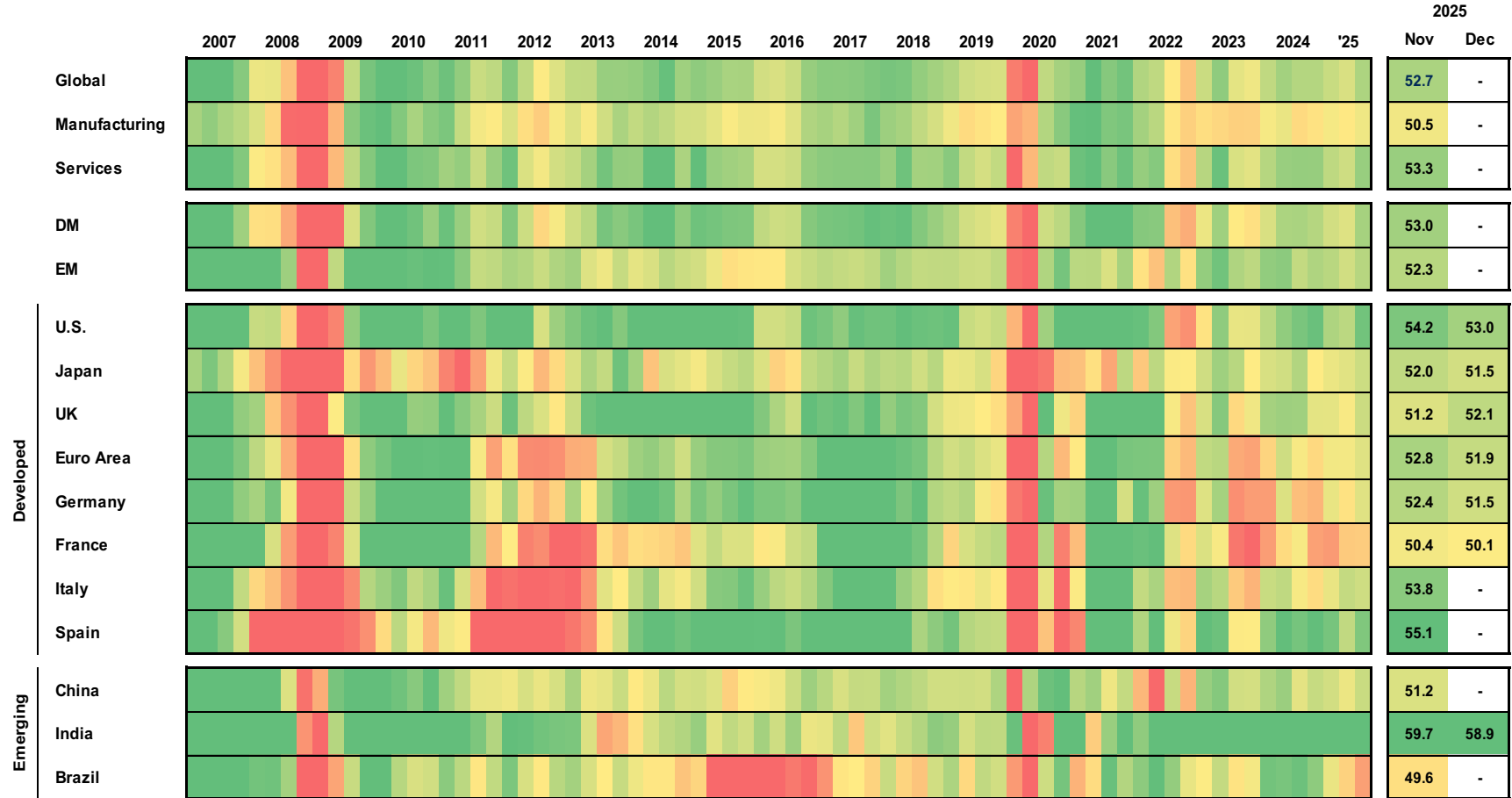


Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Countries are represented by their respective MSCI country index except for the U.S., which is represented by the S&P 500. GFC = Global Financial Crisis. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Global economic activity momentum

### Global Composite (manufacturing & services combined) Purchasing Managers' Index, quarterly



International

Developed

Emerging

Source: J.P. Morgan Economic Research, Standard & Poor's, J.P. Morgan Asset Management. Any italicized figures represent estimates by J.P. Morgan Asset Management. The Composite PMI includes both manufacturing and services sub-indices. Heatmap colors are based on PMI relative to the 50 level, which indicates acceleration or deceleration of the sector, for the period shown. Heatmap is based on quarterly averages, except for the two most recent figures, which are single month readings. Data for the U.S. are back-tested and filled in for 2007 to 2009. Data for Japan are back-tested and filled in for the first two quarters of 2007. DM and EM represent developed markets and emerging markets, respectively. Guide to the Markets – U.S. Data are as of December 31, 2025.

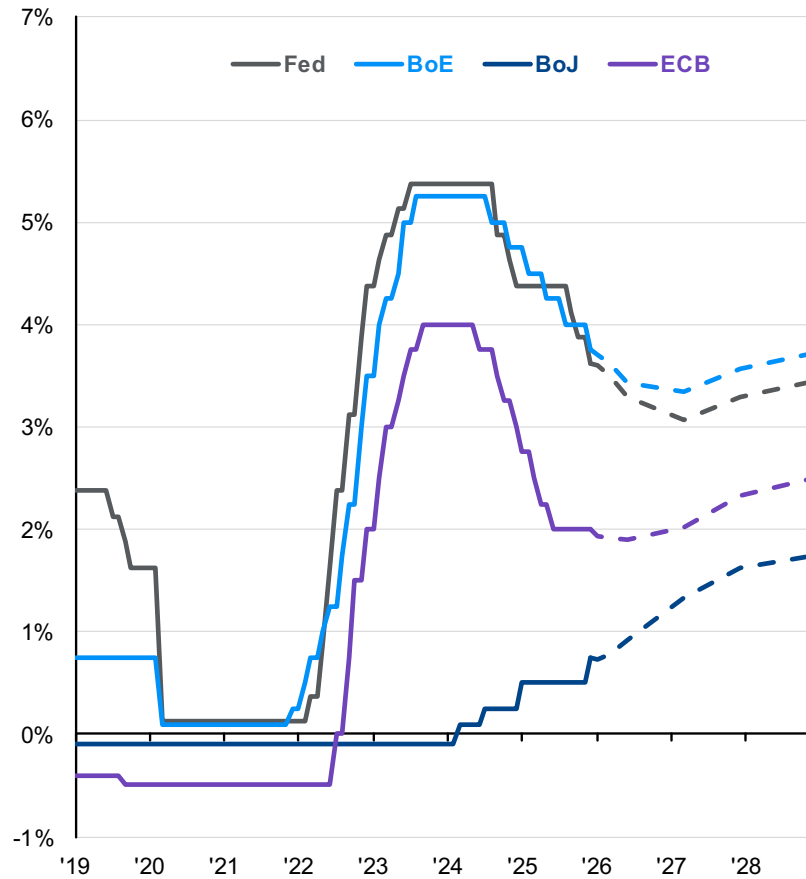


# Developed market monetary and fiscal policy

International

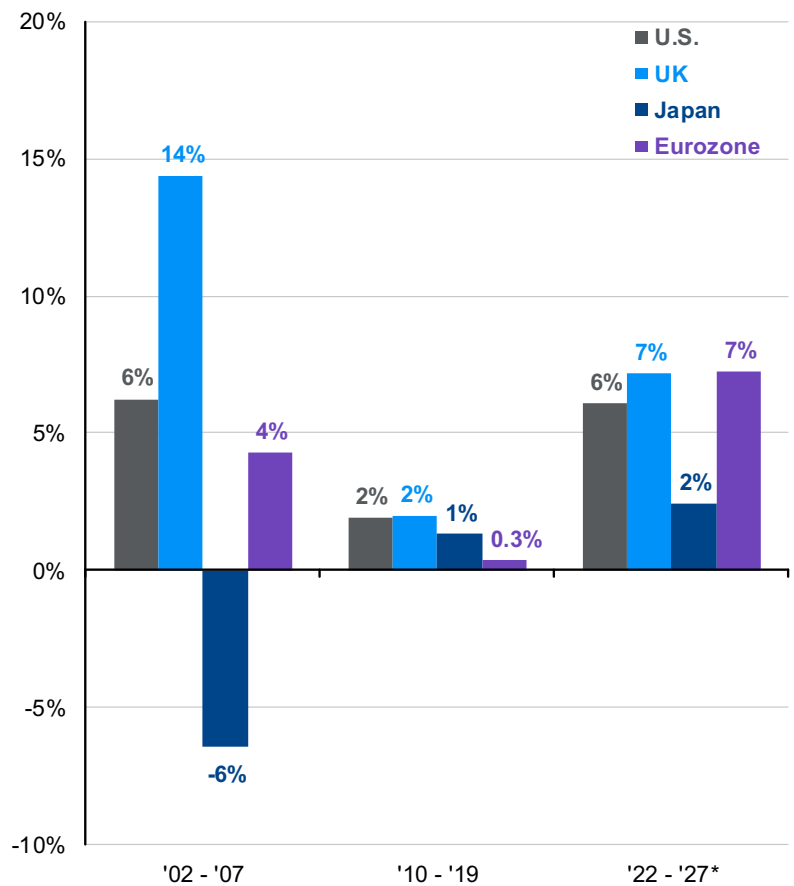
## Historical and expected policy rates

Target policy rates and market implied forward rates



## Government fixed investment

Average annual growth rate, general government fixed capital formation



Source: Bank of England (BoE), Bank of Japan (BoJ), Bloomberg, European Central Bank (ECB), Federal Reserve (Fed), OECD, J.P. Morgan Asset Management.

\*2022 to 2027 includes OECD forecasts. Eurozone is a GDP-weighted average of France, Germany, Italy and Spain. General government fixed capital formation is investment by government entities in long-term assets such as infrastructure, buildings, machinery and equipment, intended to support public services and economic development.

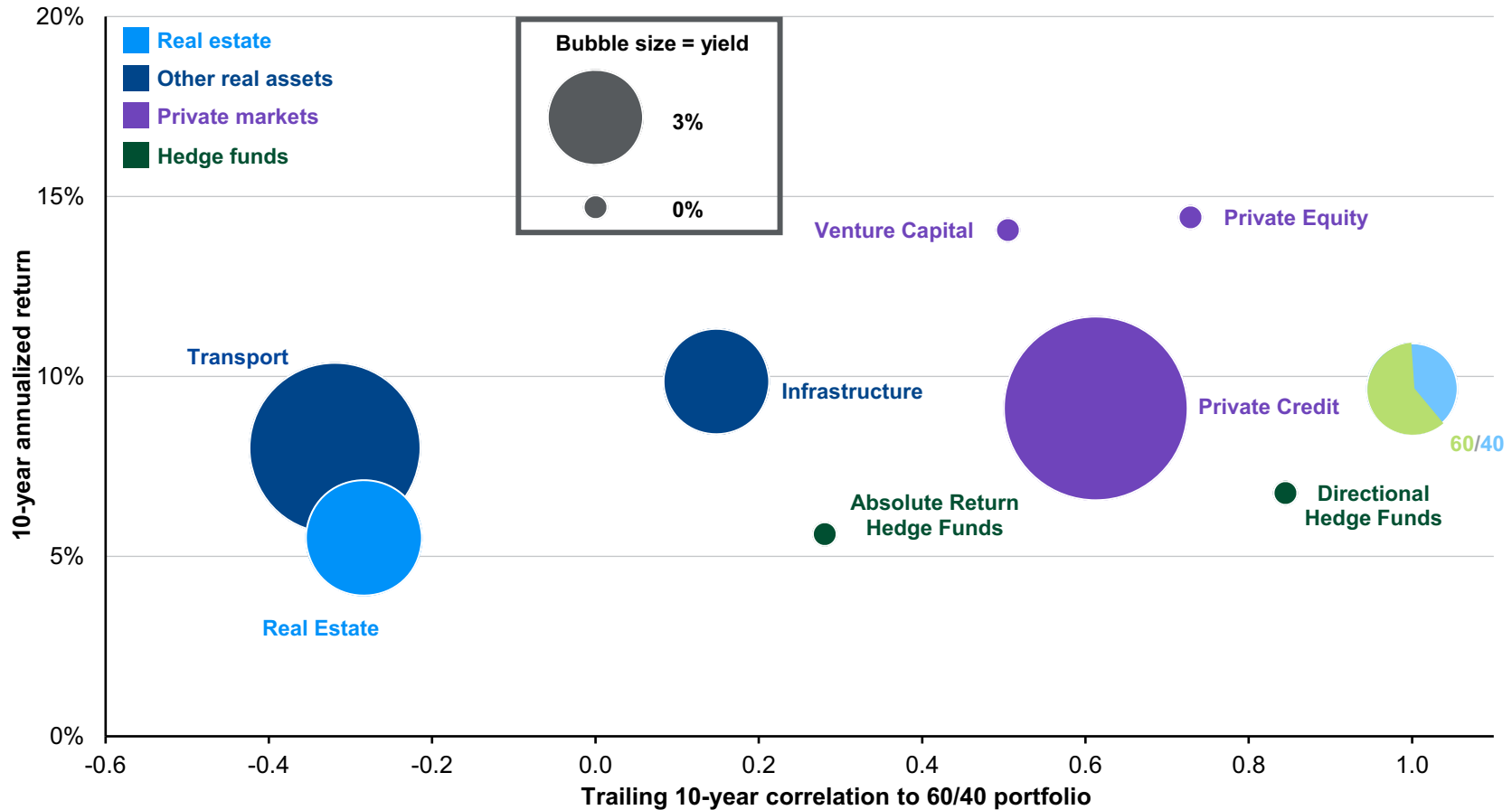
Guide to the Markets – U.S. Data are as of December 31, 2025.



# Alternatives: Correlations, returns and yields

## Correlations, returns and yields

10-year correlations and 10-year annualized total returns, 3Q15 - 2Q25



Alternatives

Source: Burgiss, Cliffwater, FactSet, MSCI, PivotalPath, J.P. Morgan Asset Management.  
 All categories are global, except for private credit, which is U.S. Correlations are based on quarterly returns over the time period indicated. A 60/40 portfolio is comprised of 60% stocks and 40% bonds. Stocks are represented by the S&P 500 Total Return Index. Bonds are represented by the Bloomberg U.S. Aggregate Total Return Index. 10-year annualized returns are calculated based on the time period indicated. "Absolute Return Hedge Funds" represent asset-weighted returns from the PivotalPath Global Macro and Relative Value indices. "Directional Hedge Funds" represent asset-weighted returns from the PivotalPath Credit, Equity Diversified and Event Driven indices. Private credit represents direct lending returns and yields from the Cliffwater Direct Lending Index. All other indices and data used for alternative asset class returns and yields are as described on pages 12 and 16 of the *Guide to Alternatives* based on latest data available. Transportation returns are shown on an unlevered basis and returns can be enhanced by adding leverage. Past performance is no guarantee of future results.

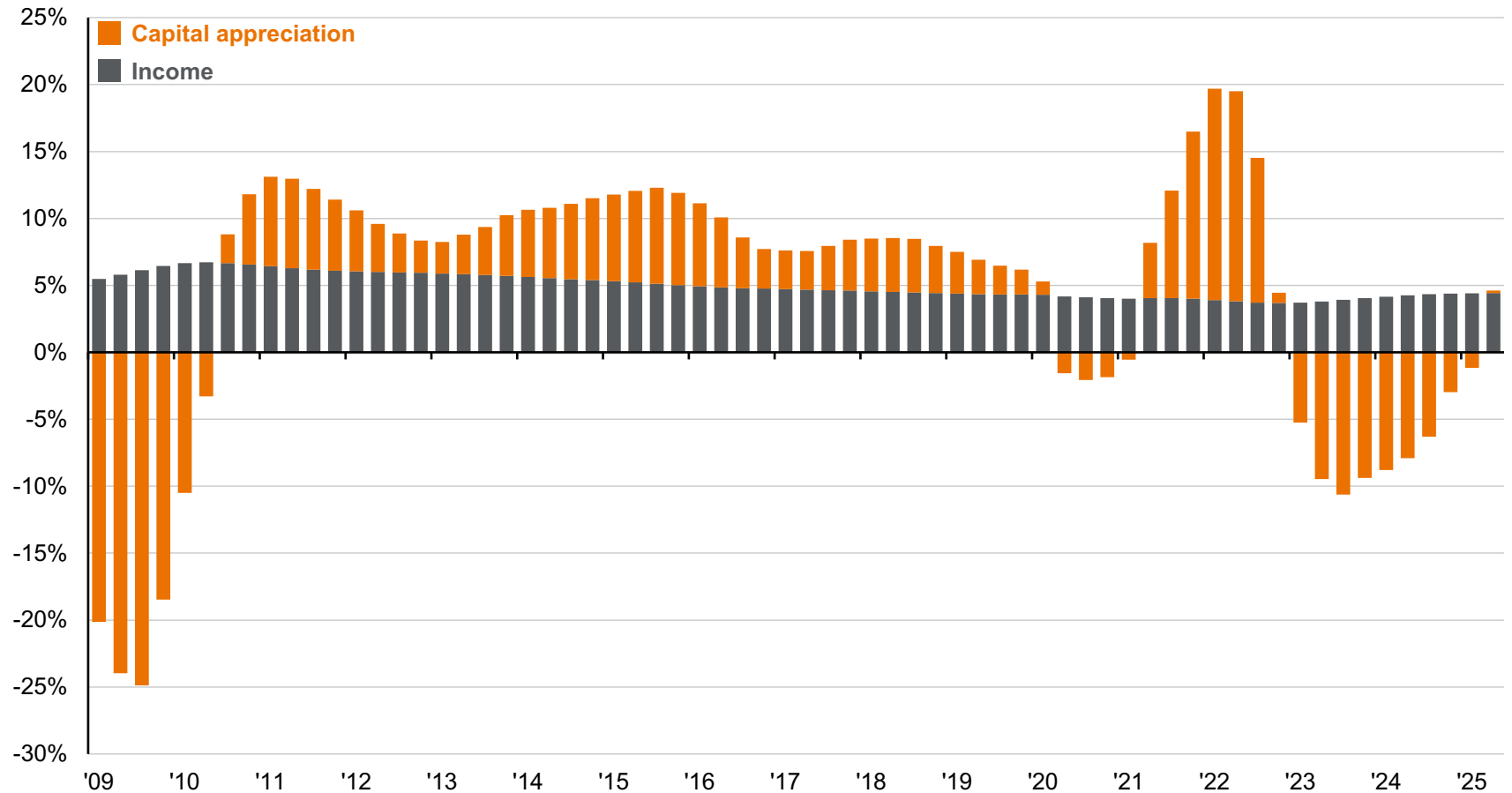
This slide comes from our *Guide to Alternatives*, *Guide to the Markets* - U.S. Data are as of December 31, 2025.



# Sources of global private real estate returns

## Global private real estate returns

Rolling 4-quarter returns from income and capital appreciation



Alternatives

Source: MSCI, J.P. Morgan Asset Management.

Real estate returns represented by the MSCI Global Property Fund Index. Data show rolling four-quarter returns from income and capital appreciation. The chart shows the full index history, beginning in 1Q09. Past performance is no guarantee of future results.

This slide comes from our *Guide to Alternatives*.

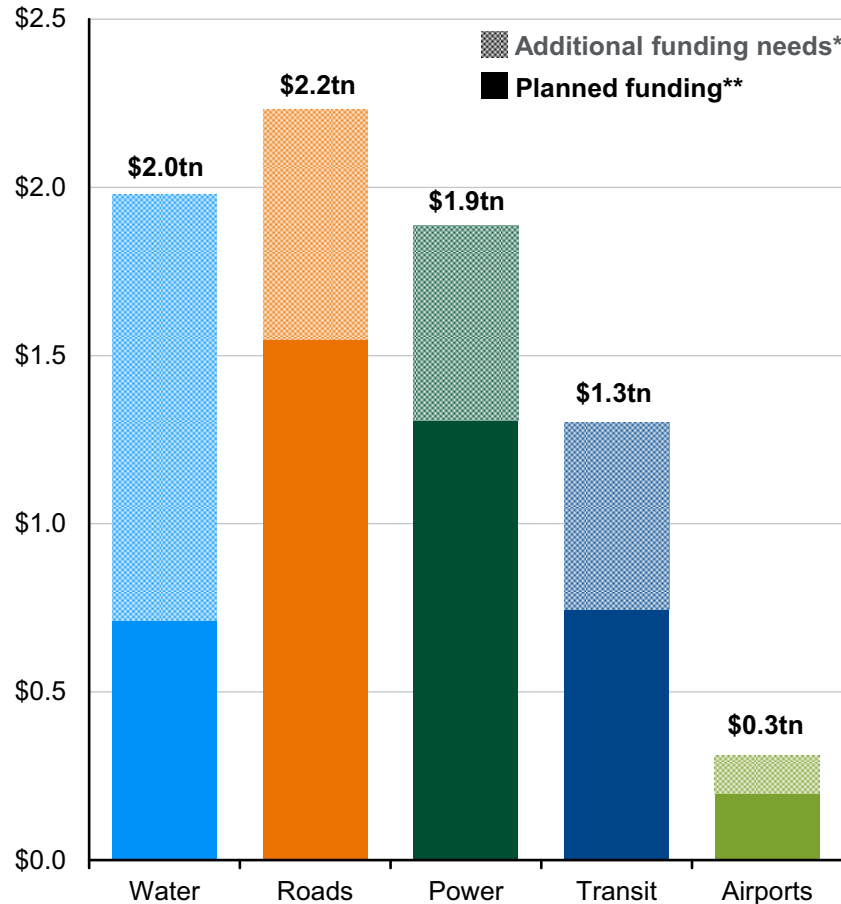
*Guide to the Markets* – U.S. Data areas of December 31, 2025.



# Infrastructure investment needs

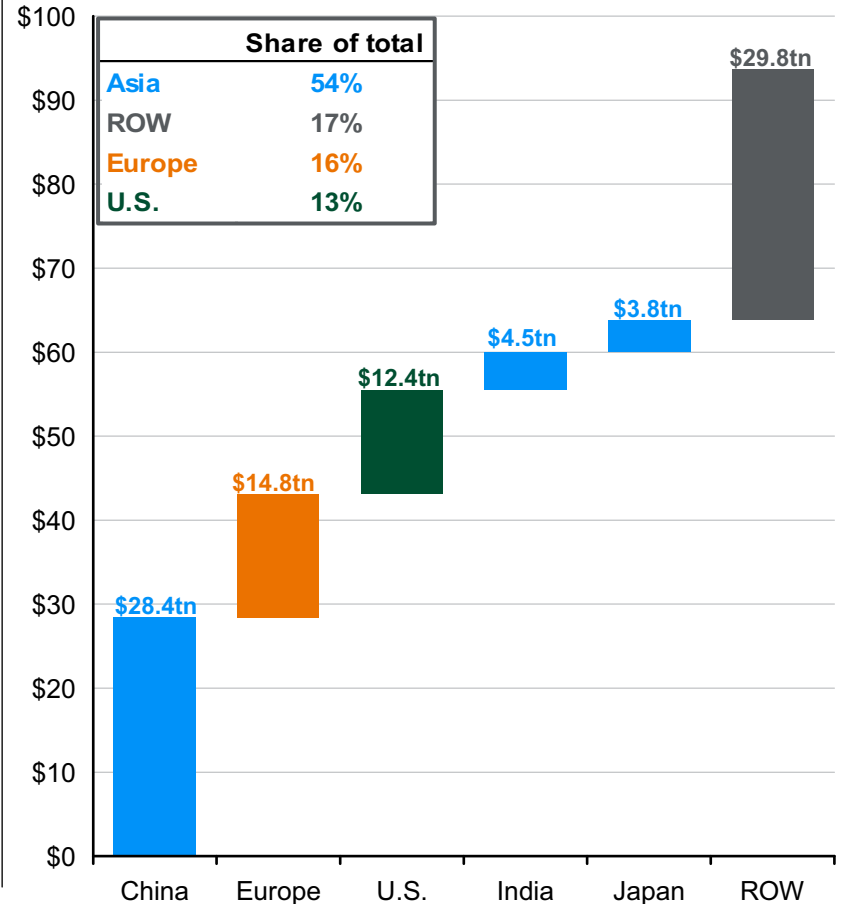
## U.S. infrastructure funding & funding gaps

USD trillions, 2024 - 2033, as of 2024



## Infrastructure investment needs by region

USD trillions, 2016 - 2040, constant 2016 prices



Alternatives

Source: American Society of Civil Engineers (ASCE), Global Infrastructure Hub by G20, J.P. Morgan Asset Management. (Left) Categories defined by the ASCE in the March 2025 "A Comprehensive Assessment of America's Infrastructure: 2025 Report Card for America's Infrastructure" report. \*Additional funding is the amount of funding needed to get each category to a "B" rating, or a state of "Good" repair, as defined by the ASCE. \*\*Planned public funding is the amount of investment from 2024 to 2033 that is currently in place by U.S. law. (Right) ROW = rest of world.

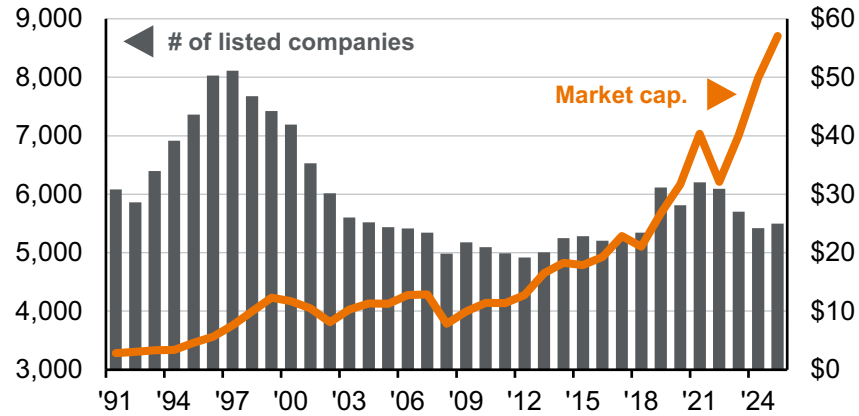
This slide comes from our *Guide to Alternatives*.  
*Guide to the Markets* – U.S. Data are as of December 31, 2025.



# U.S. public vs. private equity

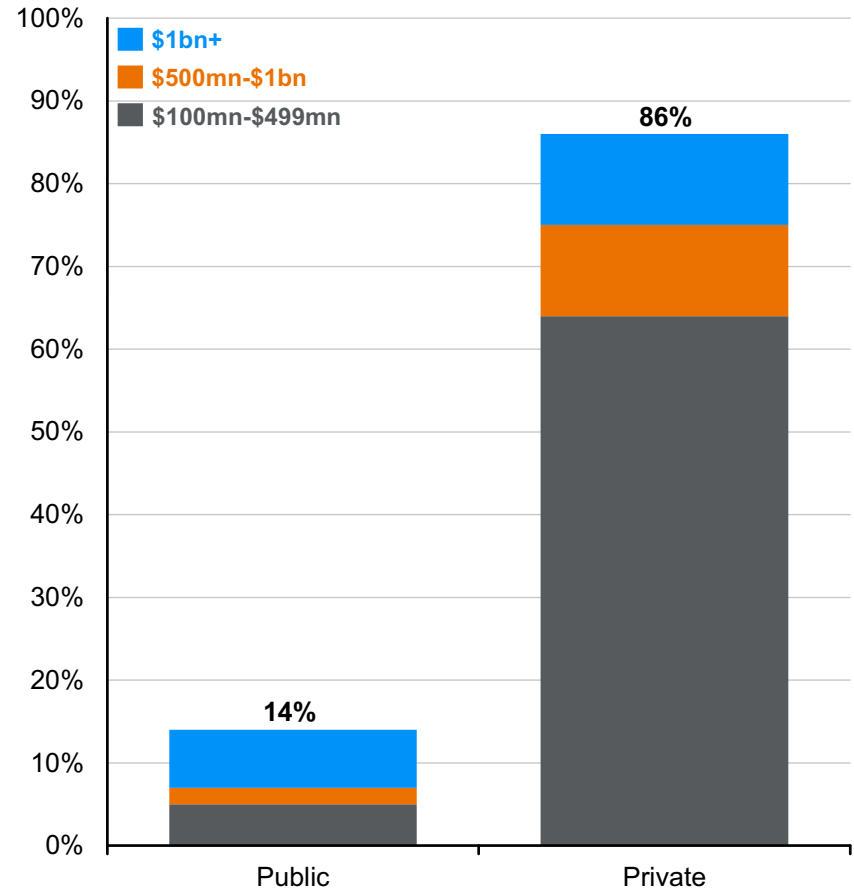
## Number of listed U.S. companies\* and market cap.

Count, S&P 500 market capitalization in USD trillions



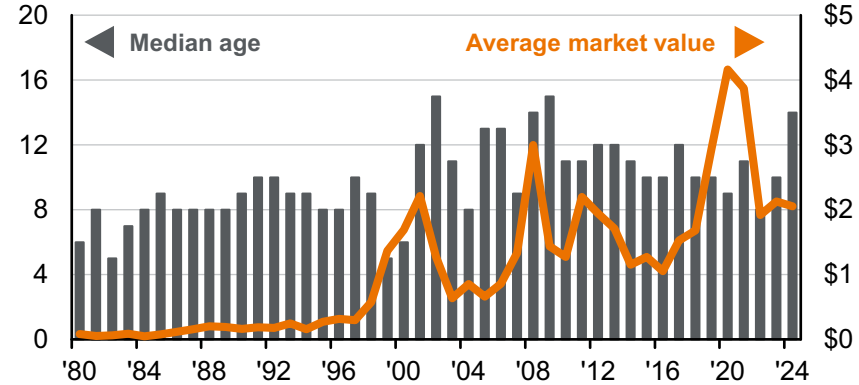
## U.S. companies split public vs. private

Companies with revenue greater than \$100mn, share public vs. private



## Median age and average market value at IPO

Years, USD billions



Alternatives

Source: Bain and Company, FactSet, Jay Ritter – University of Florida, S&P Capital IQ, World Federation of Exchanges, J.P. Morgan Asset Management.  
 (Top left) \*Number of listed U.S. companies is represented by the sum of the number of companies listed on the NYSE and the NASDAQ. (Bottom left) Average market value is calculated by dividing the total market value at first closing price by the total number of IPOs for each period. The sample is IPOs with an offer price of at least \$5, excluding ADRs, unit offers, closed-end funds, REITs, natural resource limited partnerships, small best efforts offers, banks and S&Ls and stocks not listed on CRSP (CRSP includes Amex, NYSE and NASDAQ stocks).  
 This slide comes from our *Guide to Alternatives*.  
*Guide to the Markets* – U.S. Data are as of December 31, 2025.

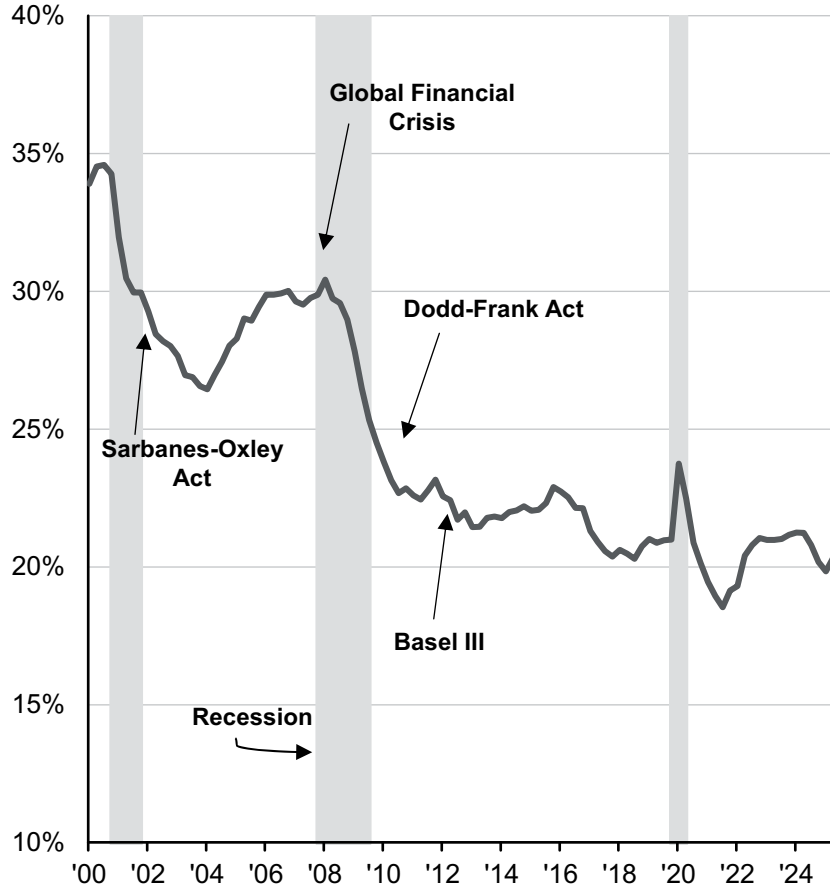


# Private credit industry growth

Alternatives

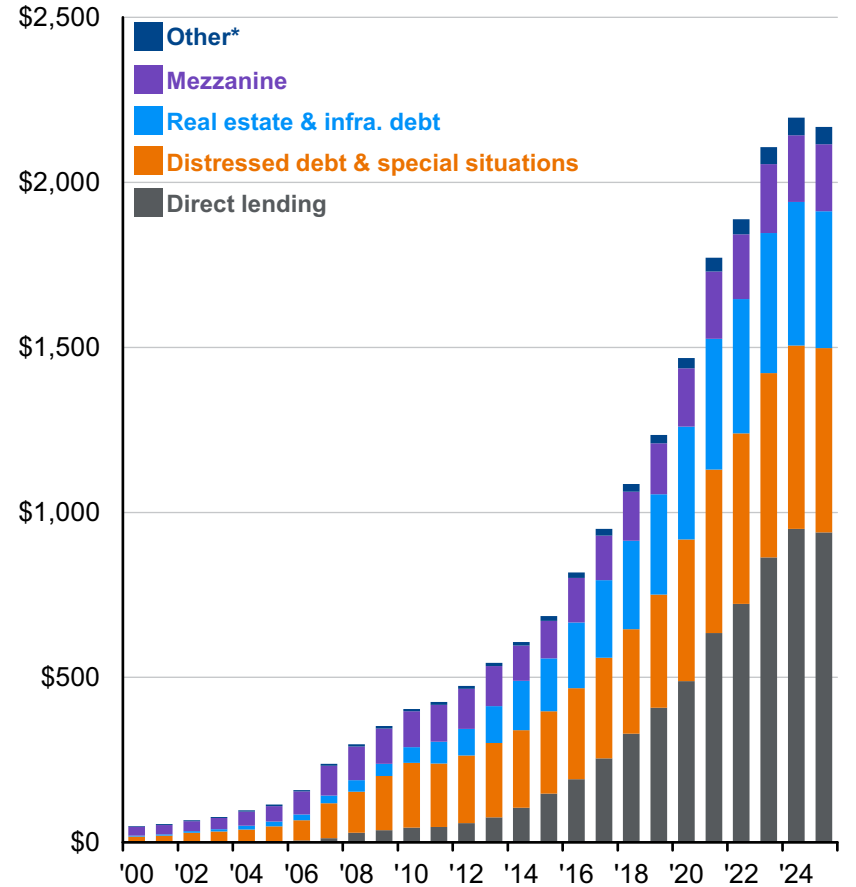
## U.S. bank lending

% of total nonfinancial corporate debt, 1Q00 - 2Q25



## Global private credit AUM by type

USD billions, end of period



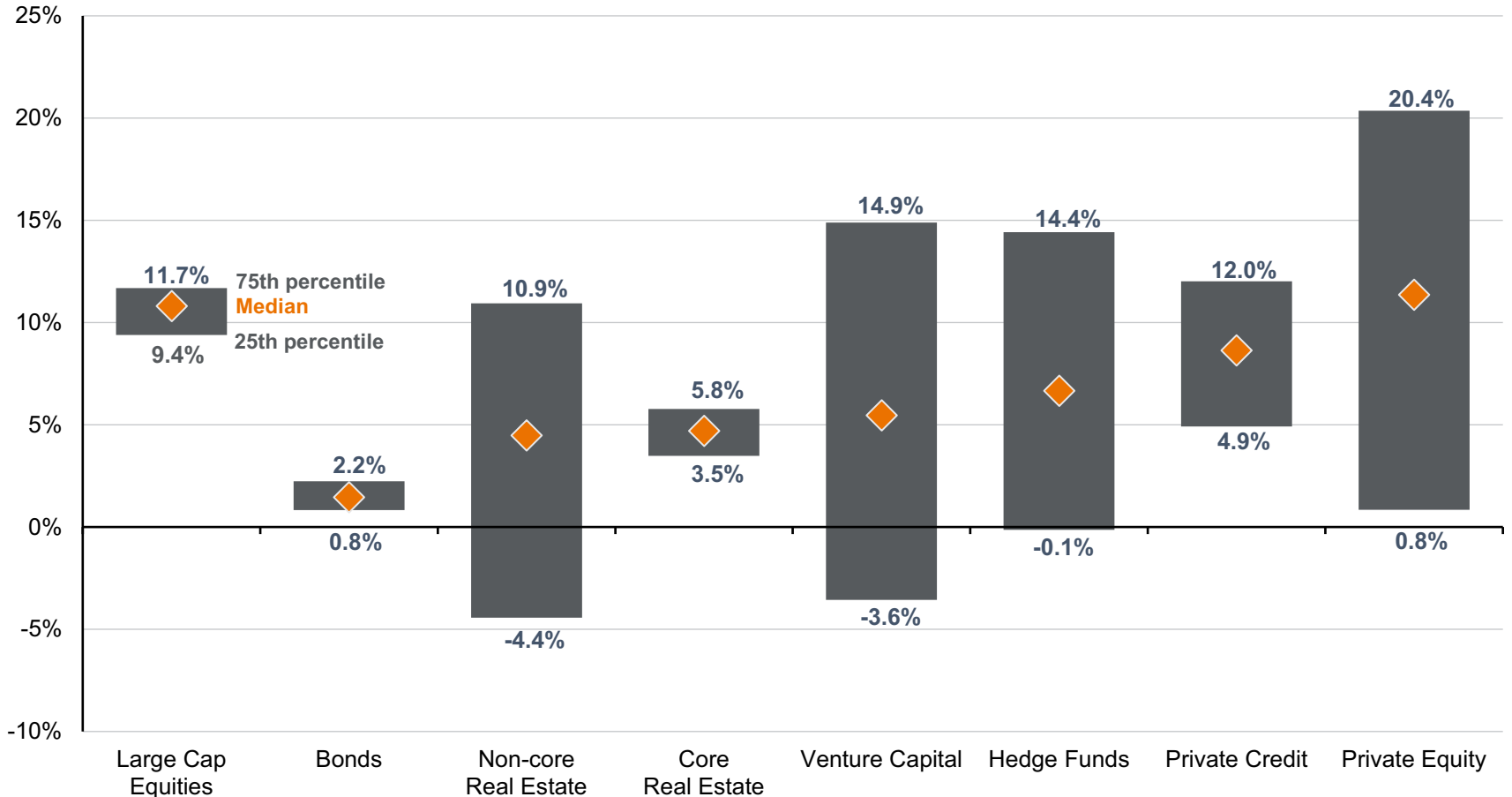
Source: Federal Reserve, Preqin, J.P. Morgan Asset Management.  
 (Right) 2025 data are as of 1Q25. \*Other includes venture debt and fund of funds.  
 This slide comes from our *Guide to Alternatives*.  
*Guide to the Markets – U.S.* Data are as of December 31, 2025.



# Alternatives and manager selection

## Public and private manager dispersion

Based on returns from 3Q15 - 3Q25\*



Alternatives

Source: Burgiss, Morningstar, MSCI, PivotalPath, J.P. Morgan Asset Management.

All categories are global. Large Cap Equities and Bonds are based on the Morningstar Global Large Stock Blend and Global Bond (not hedged) categories, respectively. Core Real Estate is based on the MSCI Global Property Fund Index. Private Credit, Non-core Real Estate, Private Equity and Venture Capital are based on indices from the MSCI Private Capital Universe. Hedge Funds are based on the PivotalPath index. Manager dispersion is based on annual returns over the 10-year period indicated for: Large Cap Equities, Bonds and Hedge Funds. \*Manager dispersion is based on annual returns over the 10-year period ending 2Q25 for Core Real Estate. Manager dispersion is based on the 10-year internal rate of return (IRR) ending 2Q25 for: Private Credit, Non-core Real Estate, Private Equity and Venture Capital. Past performance is no guarantee of future results.

This slide comes from our *Guide to Alternatives*.

*Guide to the Markets* – U.S. Data are as of December 31, 2025.



# Asset class returns

2011 - 2025		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Ann.	Vol.															
Large Cap 14.1%	Small Cap 20.3%	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 26.3%	Large Cap 25.0%	EM Equity 34.4%
Small Cap 9.5%	EM Equity 17.5%	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 18.9%	Small Cap 11.5%	DM Equity 31.9%
REITs 7.8%	REITs 16.4%	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 16.9%	Asset Alloc. 10.0%	Large Cap 17.9%
Asset Alloc. 7.3%	DM Equity 15.7%	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. 14.1%	High Yield 9.2%	Asset Alloc. 15.8%
DM Equity 7.1%	Comdty. 15.4%	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 14.0%	EM Equity 8.1%	Comdty. 15.8%
High Yield 5.7%	Large Cap 14.7%	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%	REITs 11.4%	Comdty. 5.4%	Small Cap 12.8%
EM Equity 4.2%	Asset Alloc. 10.1%	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%	EM Equity 10.3%	Cash 5.3%	High Yield 12.1%
Fixed Income 2.4%	High Yield 9.1%	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%	Fixed Income 5.5%	REITs 4.9%	Fixed Income 7.3%
Cash 1.5%	Fixed Income 4.6%	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%	Cash 5.1%	DM Equity 4.3%	Cash 4.3%
Comdty. -1.1%	Cash 0.9%	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. -7.9%	Fixed Income 1.3%	REITs 2.3%

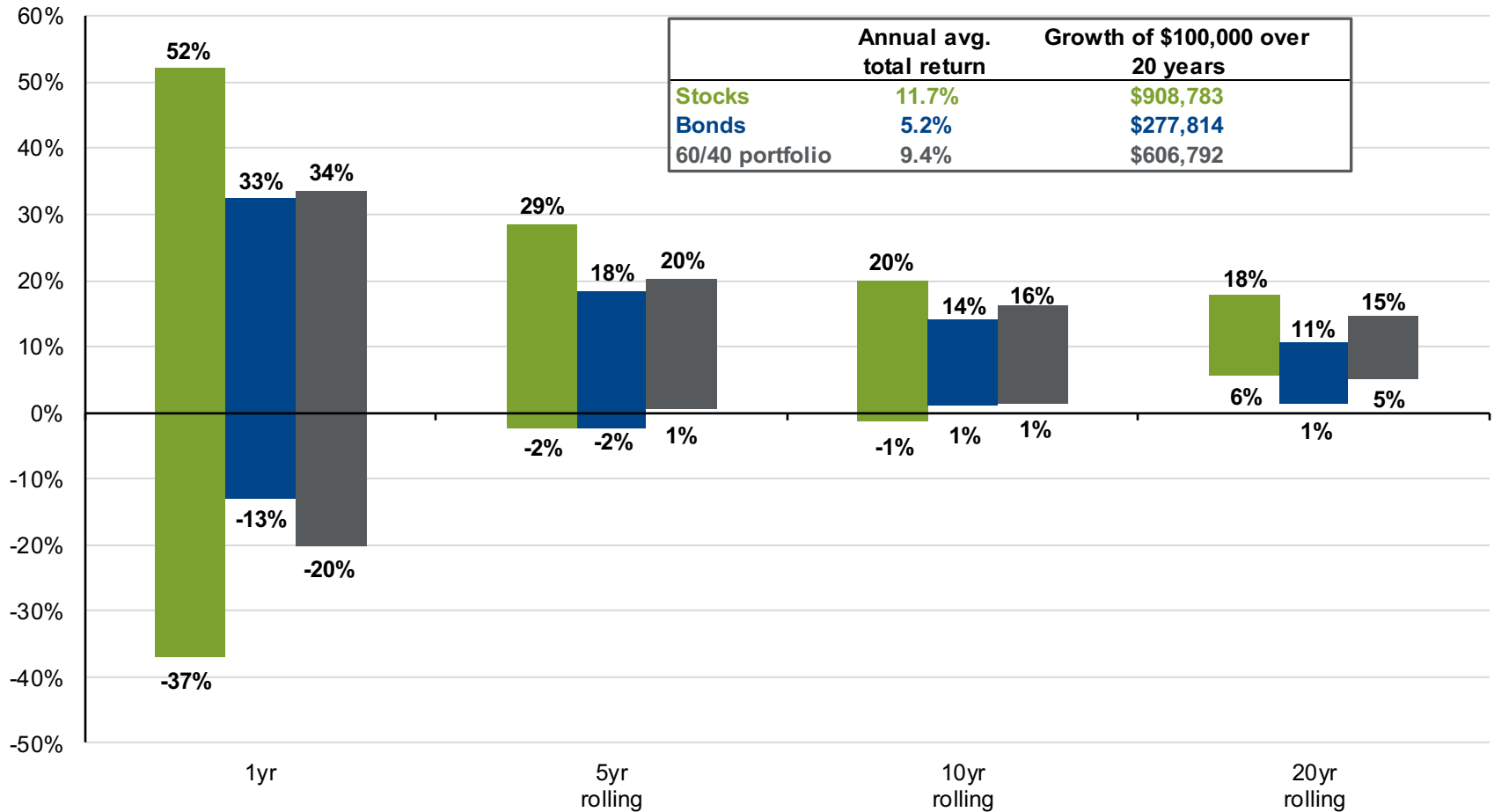
Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.  
 Large Cap: S&P 500, Small Cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg U.S. Aggregate, REIT: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio is for illustrative purposes only and assumes annual rebalancing with 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 U.S. 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. Annualized (Ann.) return and volatility (Vol.) represents the period from 12/31/2010 to 12/31/2025. Please see the disclosure page at the end for index definitions. All data represent total return for stated period. Past performance is no guarantee of future results.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.



# Time, diversification and the volatility of returns

## Range of stock, bond and blended total returns

Annual total returns, 1950 - 2025



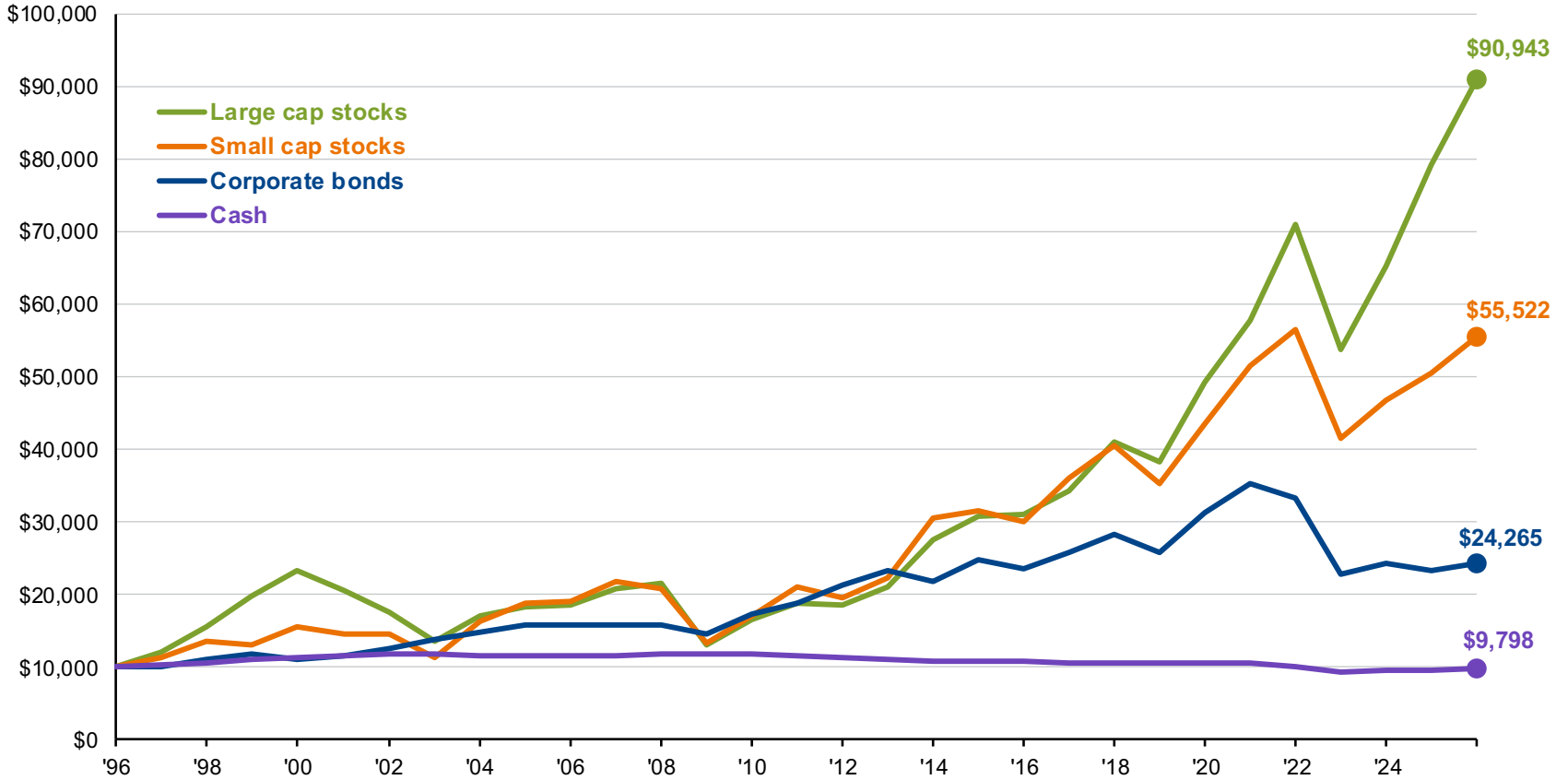
Source: Bloomberg, FactSet, Federal Reserve, Standard & Poor's, Strategas/Ibbotson, J.P. Morgan Asset Management. Returns shown are based on calendar year returns from 1950 to 2025. Stocks: S&P 500; Bonds: Strategas/Ibbotson for periods prior to 1976 and the Bloomberg U.S. Aggregate thereafter. Growth of \$100,000 is based on annual average total returns from 1950 to 2025. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Risk investing and the power of compounding

## Change in purchasing power by investment in major asset class

Growth of \$10,000, adjusted for inflation, 1996 - 2025, annual returns



Investing Principles

Source: Bloomberg, Bureau of Labor Statistics, Ibbotson, J.P. Morgan Asset Management.

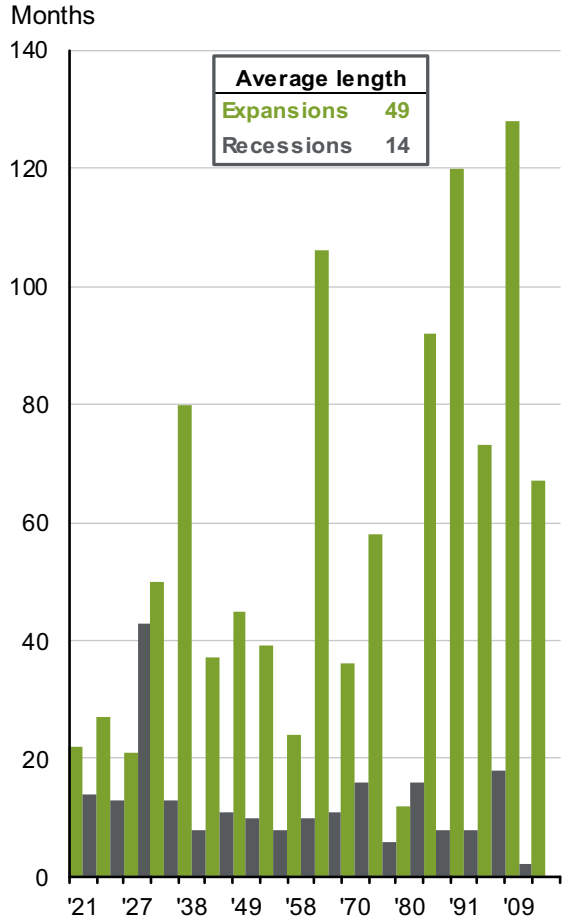
Large cap stocks: S&P 500 TR Index; Small cap stocks: Russell 2000 TR Index; Corporate bonds: Bloomberg Long U.S. Corporate Index; Cash: Bloomberg U.S. Treasury Bills Index. All returns are inflation-adjusted total returns, using annual average headline CPI inflation.

Guide to the Markets – U.S. Data are as of December 31, 2025.

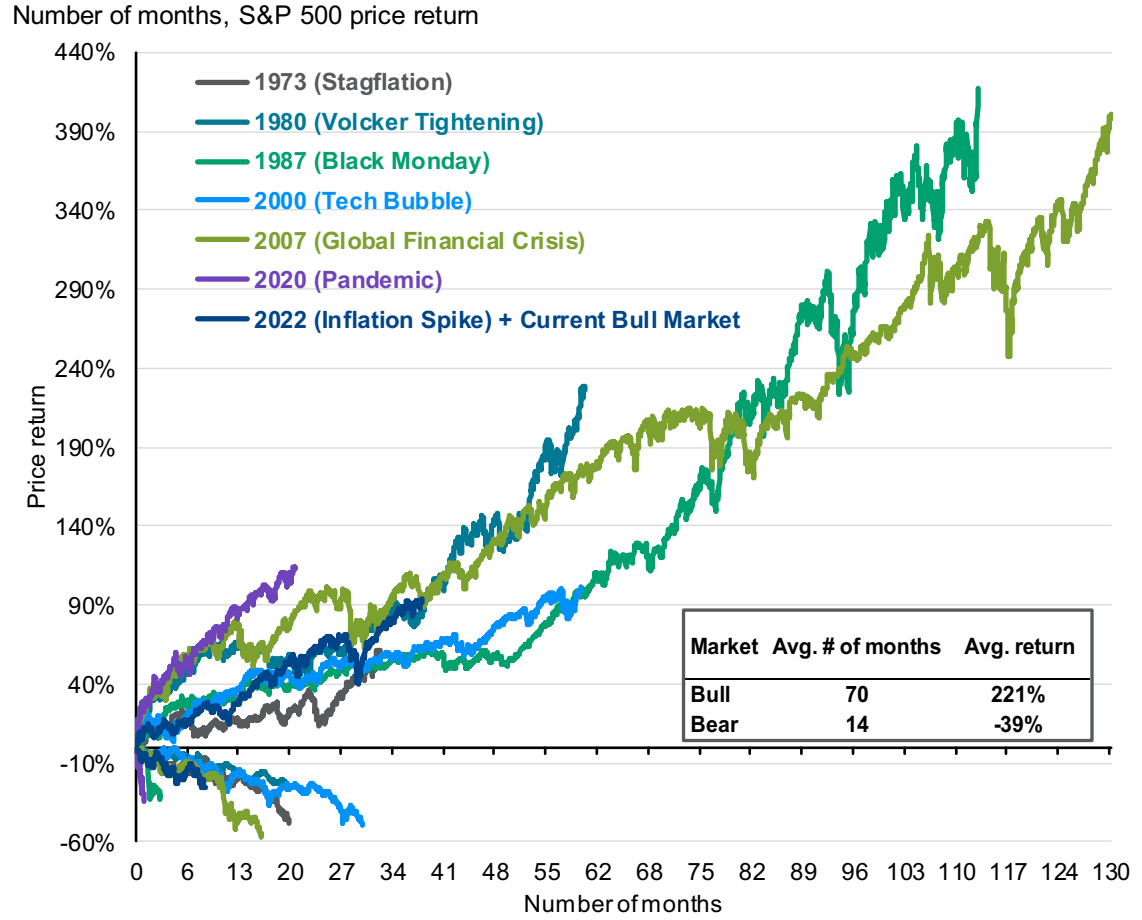


# Economic and market cycles

## Length of expansions and recessions



## Length and severity of bear and subsequent bull markets



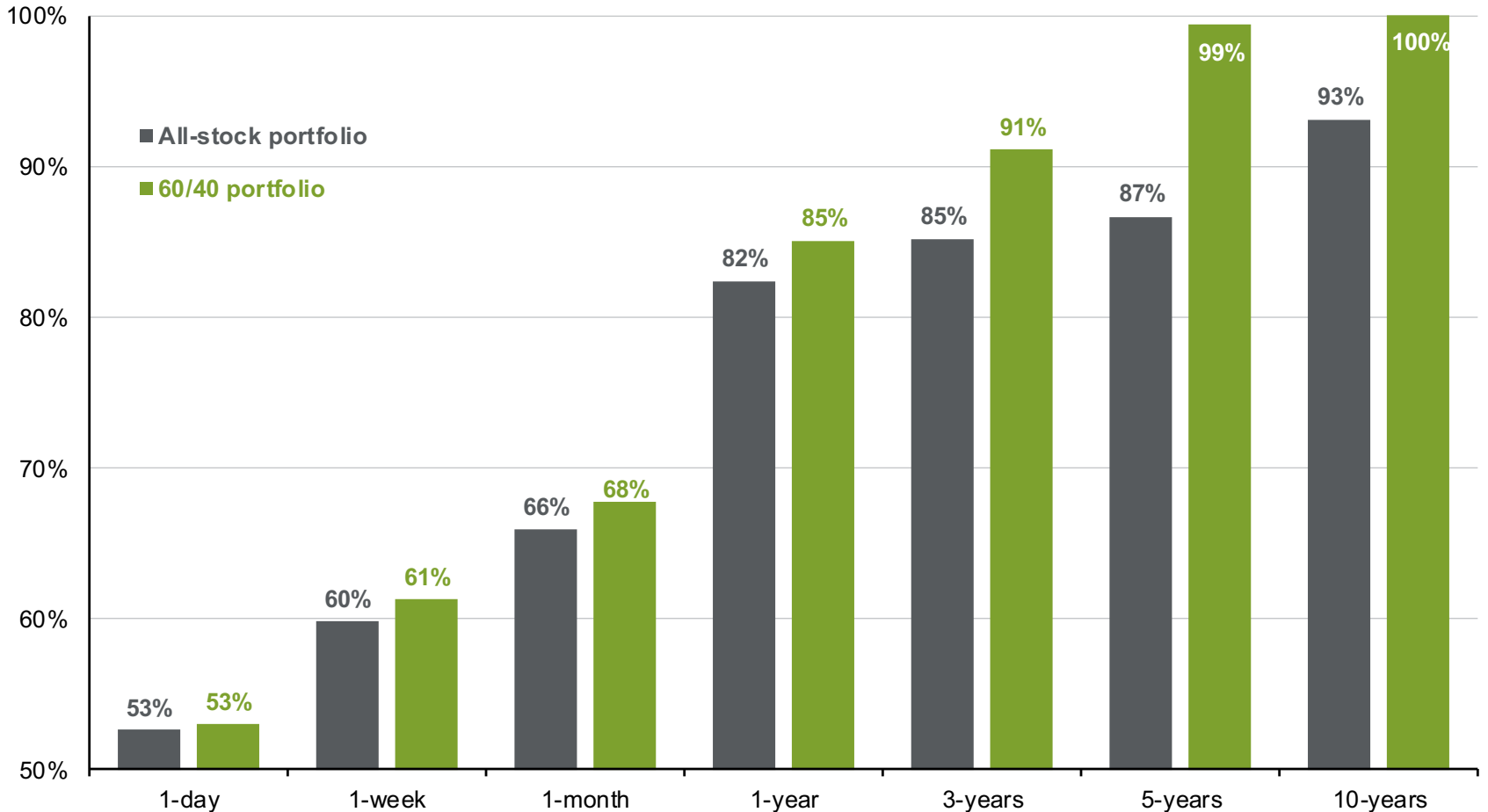
Source: BEA, FactSet, NBER, Standard & Poor's, J.P. Morgan Asset Management.  
 (Left) Chart assumes the current expansion lasted until at least the end of last month. (Right) Bear markets are defined as a 20% drawdown from the prior peak and measured from peak to bottom. Bull markets are measured from the bottom of the prior bear market to the peak.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.



# Diversification and the frequency of positive returns

## Frequency of positive returns across timeframes

Rolling total daily returns, Jan 1, 1989 - Dec 31, 2025



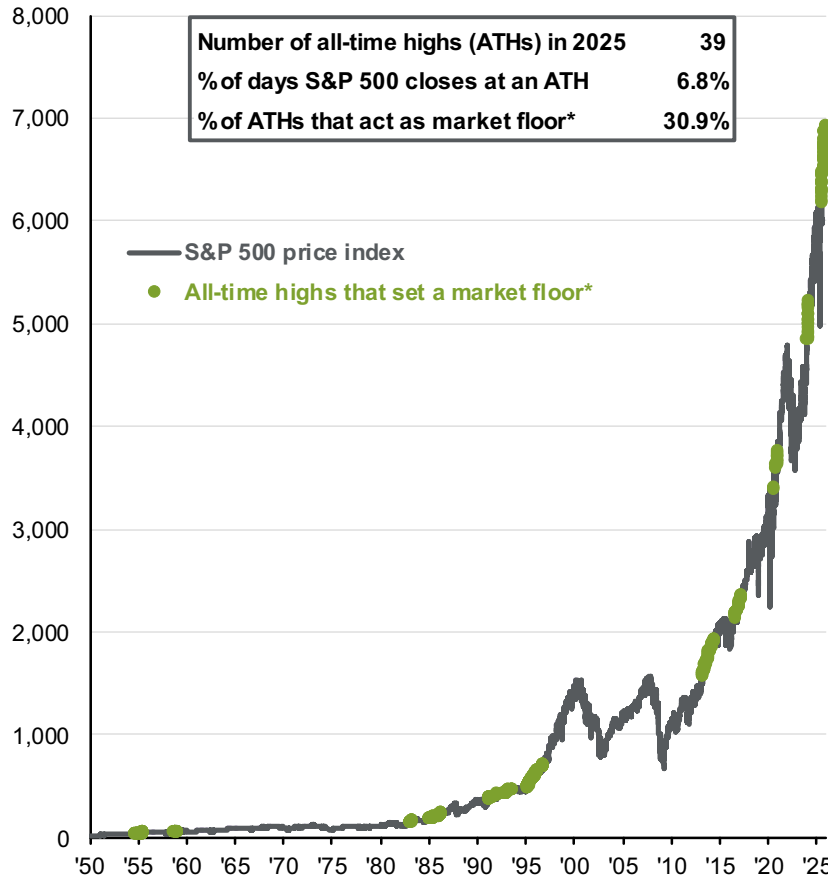
Source: Bloomberg, FactSet, Standard & Poor's, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Investing at all-time highs

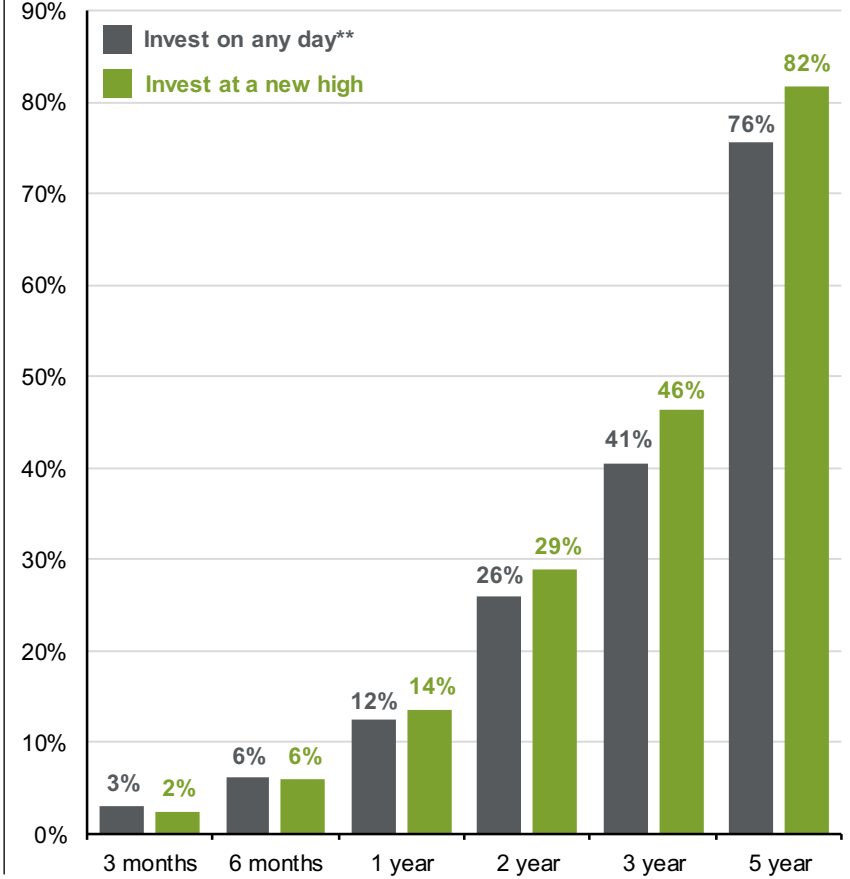
## All-time highs and market floors

S&P 500 price index, daily, 1950 - present



## Average cumulative S&P 500 total returns

Jan 1, 1988 - Dec 31, 2025



Investing Principles

Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.

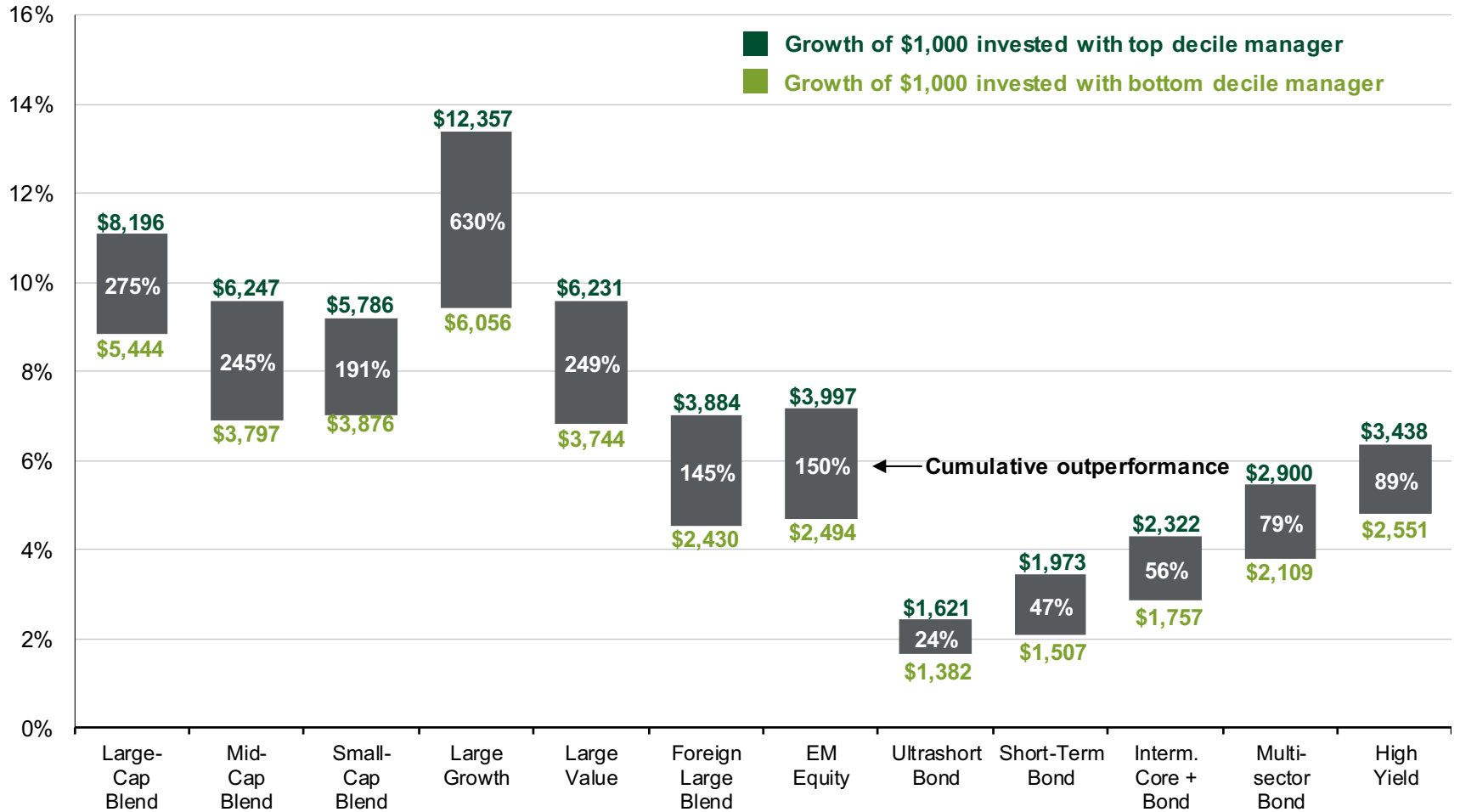
(Left) \*Market floor is defined as an all-time high from which the market never fell more than 5%. (Right) \*\*"Invest on any day" represents average of forward returns for the entire time period whereas "Invest at a new high" represents average of rolling forward returns calculated from each new S&P500 high for the subsequent 3-month, 6-month, 1-year, 2-year, 3-year and 5-year intervals, with data starting 1/1/1988 through 12/31/2025. Guide to the Markets – U.S. Data are as of December 31, 2025.



# Manager dispersion

## 20-year manager return dispersion and growth of capital

By asset type, annualized total returns, growth of \$1,000 invested 20 years ago\*



Investing Principles

Source: Morningstar, J.P. Morgan Asset Management.

\*Represents average annual portfolio return dispersion between the 10<sup>th</sup> and 90<sup>th</sup> percentile over a 20-year period for each Morningstar category, including mutual funds and ETFs. Returns are updated monthly and reflect data as of the latest available month, typically with a one-month lag. This information is for illustrative purposes only, does not reflect actual investment results, is not a guarantee of future results and is not a recommendation.

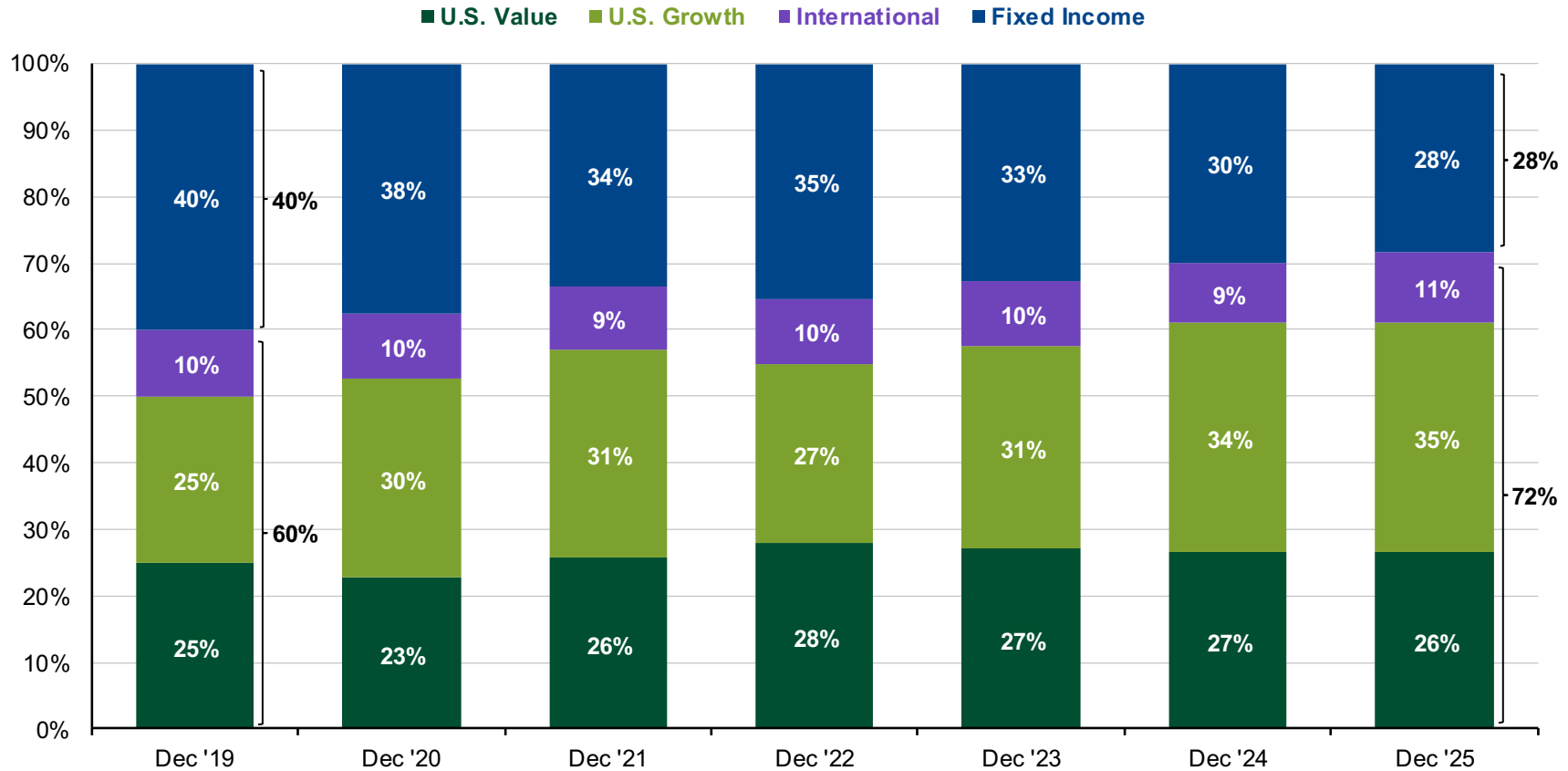
GuidetotheMarkets– U.S. Data are as of December 31, 2025.



# 60/40 portfolio drift

## 60/40 portfolio composition by asset class

December 31, 2019 - present, no rebalancing



Investing Principles

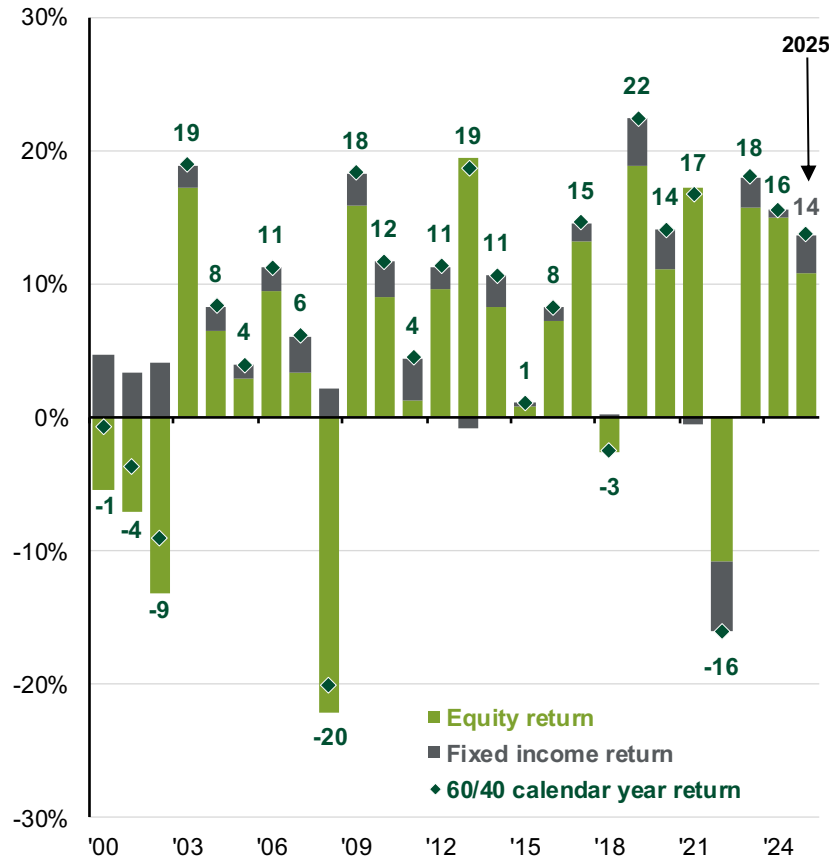
Source: Bloomberg, FactSet, MSCI, Russell, Standard & Poor's, J.P. Morgan Asset Management. Standard asset allocation at the end of 2019 assumes 60% weight to global equities and 40% to U.S. fixed income. U.S. Value: Equal-weighted Russell 1000 Value and Russell 2000 Value, U.S. Growth: Equal-weighted Russell 1000 Growth and Russell 2000 Growth, International: MSCI ACWI ex-US, Fixed Income: 10% Bloomberg Global HY Index and 30% Bloomberg U.S. Aggregate. Past performance is no guarantee of future results. Guide to the Markets – U.S. Data are as of December 31, 2025.



# 60/40 returns and stock-bond correlation

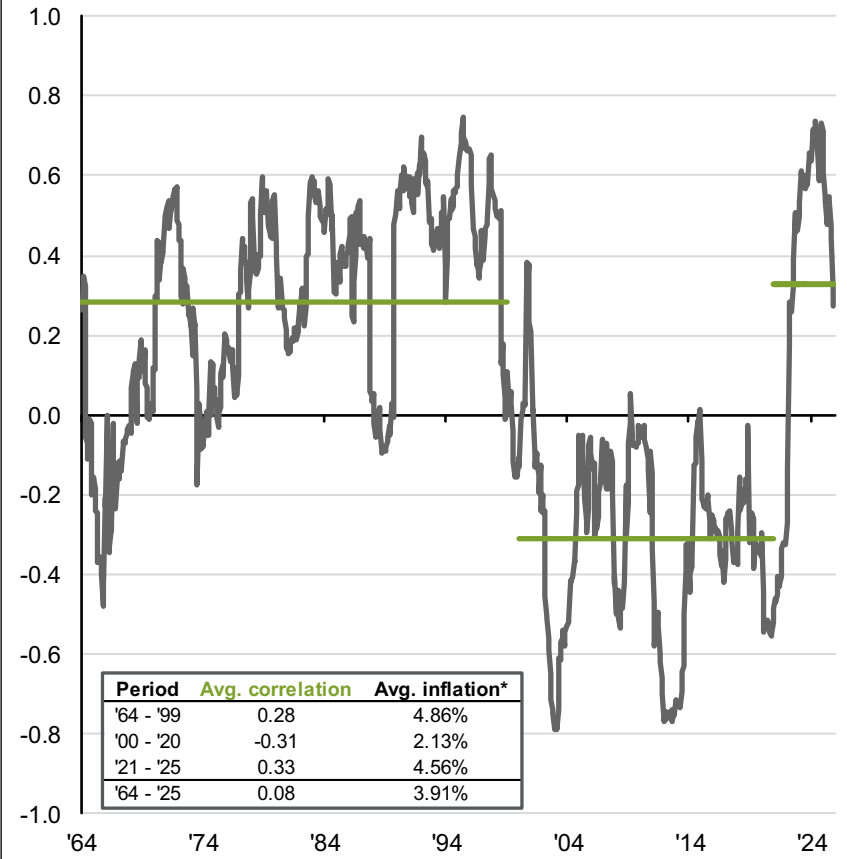
## 60/40 annual return decomposition

Total return, %



## S&P 500 / U.S. 10-year Treasury correlation

Rolling 24-month corr. based on monthly total returns, 1964 - present



Source: Bloomberg, FactSet, Haver Analytics, LSEG, Standard & Poor's, J.P. Morgan Asset Management.

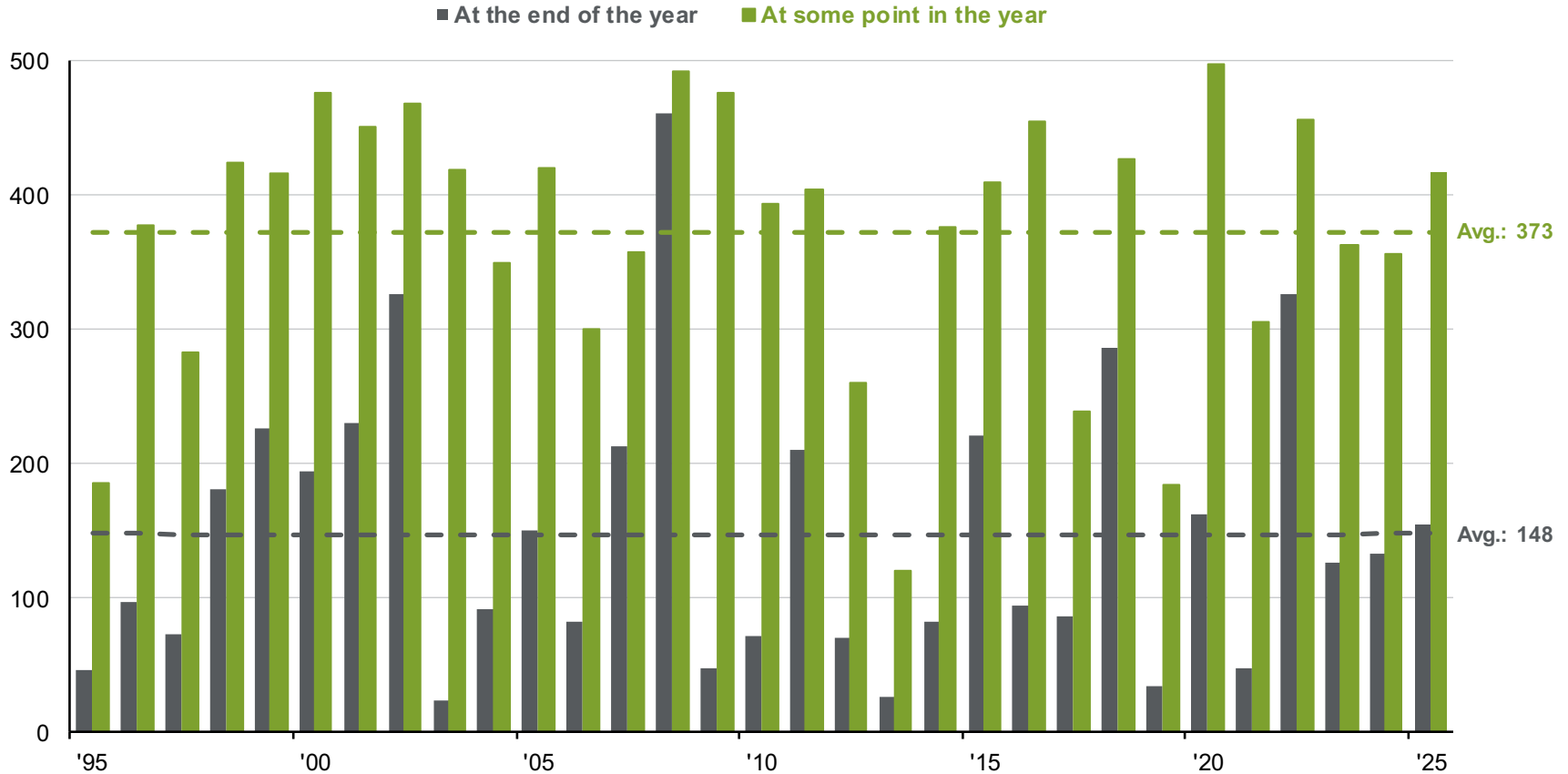
(Left) The 60/40 portfolio is 60% invested in the S&P 500 Total Return Index and 40% invested in the Bloomberg U.S. Aggregate Total Return Index. (Right) Correlations are calculated using monthly returns of S&P 500 TR Index and U.S. 10-year Constant Maturity TR Index. For the U.S. 10-year Constant Maturity TR Index, data until 2006 are sourced from Haver Analytics and from FactSet thereafter. \*Simple average of the y/y percent change in headline CPI during each period. For the year 2025, October CPI data is missing due to the U.S. federal government shutdown. *Guide to the Markets – U.S.* Data are as of December 31, 2025.



# Single-stock volatility and equity market returns

## Number of S&P 500 stocks with a drawdown of 5% or more

Despite positive index returns in 22 of 30 years, roughly 75% of stocks experienced a drawdown of 5% or more in any given year



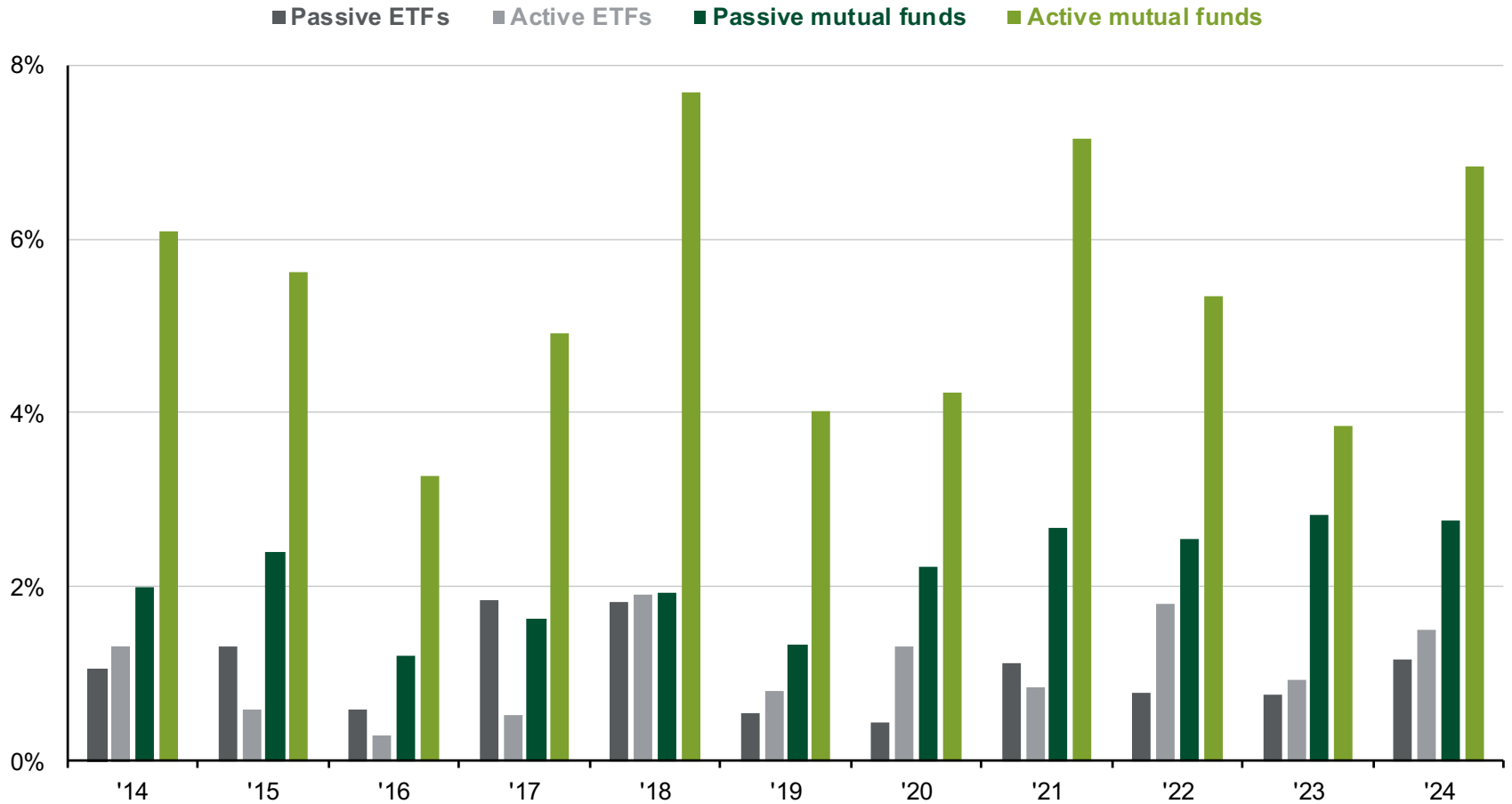
Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. A 5% drawdown is calculated from each stock's start-of-year price. If a stock declines by 5% or more at any point during the year, it is counted exactly once - even if it later recovers and declines by 5% again. Guide to the Markets - U.S. Data are as of December 31, 2025.



# Capital gains by investment vehicle

## Capital gains paid by investment vehicle

Weighted capital gains/assets under management



Investing Principles

Source: Morningstar, J.P. Morgan Asset Management.

Capital gains are the taxable profits made when an asset is sold for more than its initial purchase cost. "Weighted" capital gains are the capital gains paid by an investment vehicle divided by its net asset value (NAV). NAV is the per-share value of a fund, calculated by subtracting the fund's liabilities from its total assets and dividing the result by the number of outstanding shares.

This slide comes from our *Guide to ETFs*.

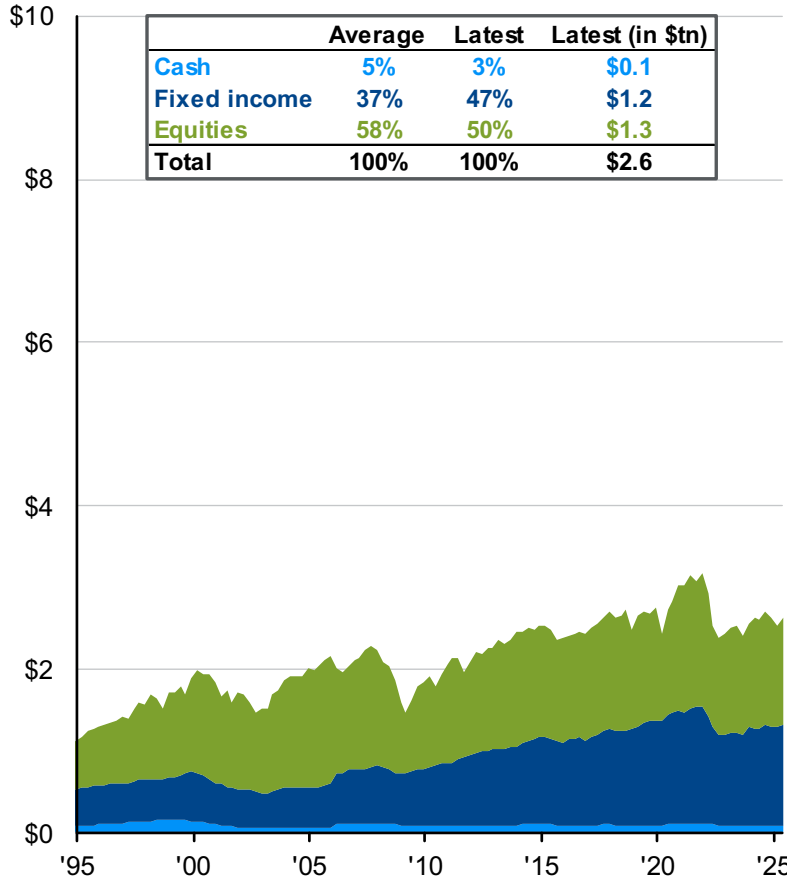
*Guide to the Markets* – U.S. Data are as of December 31, 2025.



# Asset allocation in retirement funds

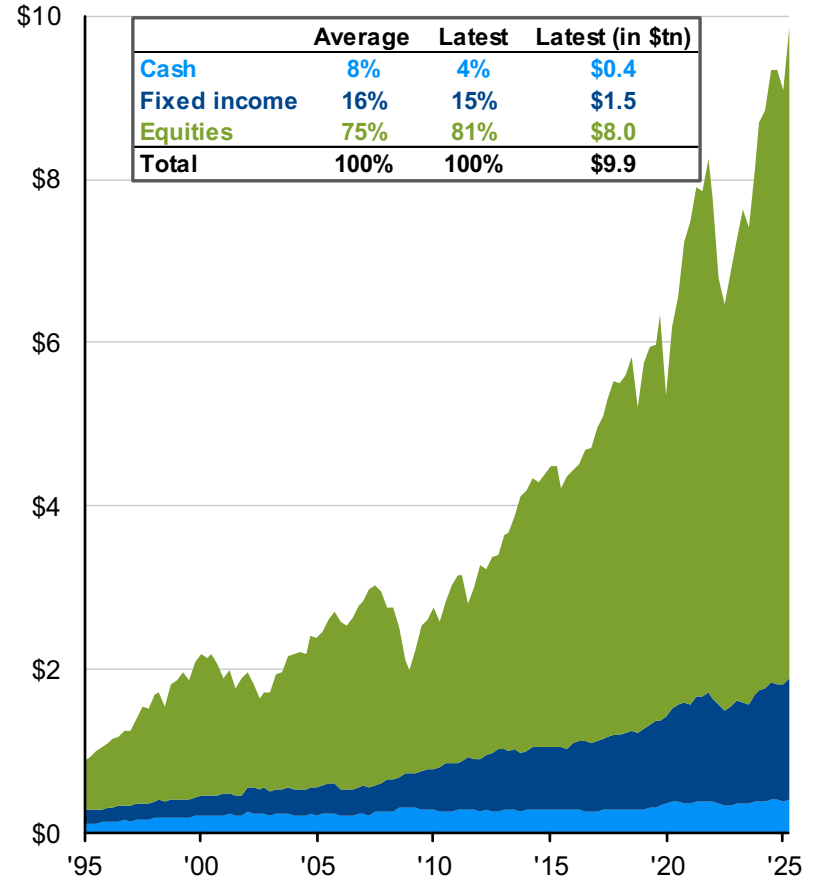
## Private defined benefit plans

Portfolio weights and values (USD trillions), 1Q95 - 2Q25



## Private defined contribution plans

Portfolio weights and values (USD trillions), 1Q95 - 2Q25



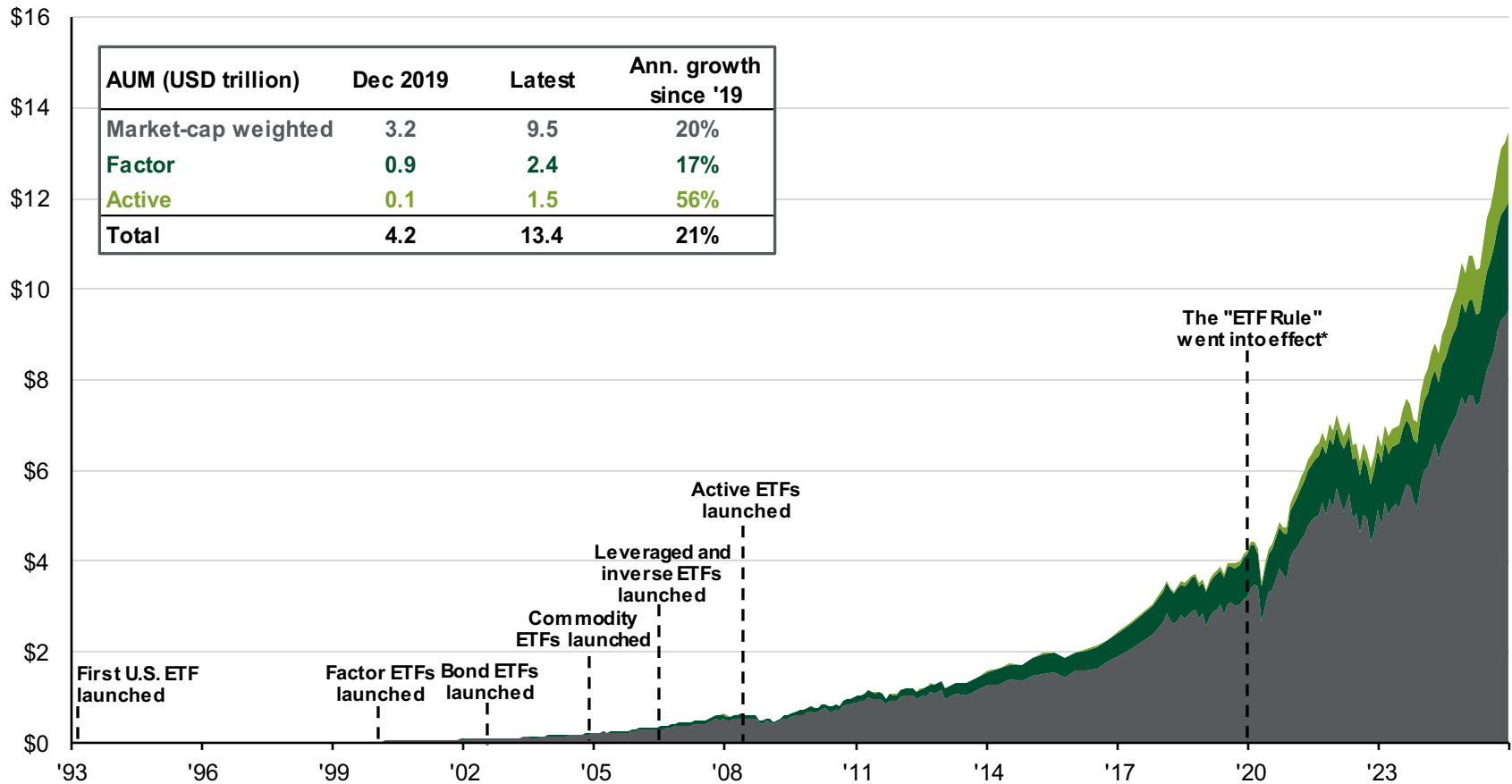
Source: Federal Reserve, Investment Company Institute, J.P. Morgan Asset Management.  
 Data represent only investible assets sourced from the L.118 table of the Z.1 Financial Accounts of the United States. Miscellaneous assets are excluded, as they primarily represent accounting entries for unfunded liabilities and contributions receivable rather than investible holdings. For private defined benefit (DB) plans, mutual fund assets have limited allocation data and are a relatively small share of total assets. As a result, these mutual fund assets are assumed to have the same allocation as the broader portfolios. For private defined contribution (DC) plans, where mutual fund shares constitute a majority of total assets, allocation across broad asset classes is based on data tracked by the Investment Company Institute.  
 Guide to the Markets – U.S. Data are as of December 31, 2025.



# Growth and evolution of the ETF market

## Growth in AUM of U.S. ETFs

By ETF investment process, USD trillions



Investing Principles

Source: Bloomberg, J.P. Morgan Asset Management.

"Market-cap weighted" ETFs are index-linked passive investment vehicles. "Factor" ETFs are ETFs that focus on specific factors or characteristics and are passively linked to a custom index. "The "ETF Rule," officially SEC Rule 6c-11, went into effect in December 2019 and modernized regulation of ETFs as open-ended funds by establishing a clear and consistent framework for most ETFs across both index and actively managed strategies, enabling ETF issuers to bring new strategies to market, and permitting "custom in-kind" creation and redemption baskets to be available for all types of covered ETFs under the new regulation. Data are as of the latest available month, typically with a one-month lag.

This slide comes from our *Guide to ETFs*.

*Guide to the Markets* – U.S. Data are as of December 31, 2025.



# J.P. Morgan Asset Management – Index definitions

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

## Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index**® measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index**® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index**® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index**® measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index**® measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index**® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index**® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index**® measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index**® measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index**® measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

## Fixed income:

The **Bloomberg 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Bloomberg Municipal Index**: consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Bloomberg US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Bloomberg US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Bloomberg US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**. The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.



# J.P. Morgan Asset Management – Definitions

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## *Other asset classes:*

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex-U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index -Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

## *Definitions:*

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 advisor 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.

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

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

**Distressed Restructuring Strategies** employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

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.

**Equity market neutral strategies** employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Global macro strategies** trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

**International** investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

**Merger arbitrage strategies** which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

**Mid-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**Relative Value Strategies** maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

**Small-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.



# J.P. Morgan Asset Management – Risks & disclosures

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Unless otherwise stated, all data are as of December 31, 2025 or most recently available.

**Guide to the Markets – U.S.**

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# Account(s) Included in this Report

HOOVER PRESIDENTIAL FOUNDATION

## MORGAN STANLEY WEALTH MANAGEMENT

Account Name	Account Number	Advisory/ Brokerage	Date Opened	Groups Included in	Perf Inception Date Perf (%) Incept - 12/31/25
Hoover - Alternative Investments	316-XXX963	Advisory	07/22/21	Portfolio	08/20/2021 8.14
Hoover - Capital Campaign	316-XXX561	Brokerage	11/03/21	Brokerage	11/05/2021 -
Hoover - Cash Account	316-XXX265	Brokerage	11/30/16	Brokerage	12/08/2016 -
Hoover - Endowment	316-XXX629	Advisory	09/14/20	Portfolio	09/23/2020 7.98
Hoover Endowment - Tied to 3rd Party	316-XXX306	Advisory	12/15/16	Portfolio	12/21/2016 7.78

The investment returns shown on this page are Net of Fees, time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals. Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY. All content within this Document applies to the accounts listed above or a subset thereof, unless otherwise indicated.

# Disclosures

HOOVER PRESIDENTIAL FOUNDATION

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Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY

**Money Market Fund:** You could lose money in Money Market Funds (MMFs). Although MMFs classified as government funds (i.e., MMFs that invest 99.5% of total assets in cash and/or securities backed by the U.S government) and retail funds (i.e., MMFs open to natural person investors only) seek to preserve value at \$1.00 per share, they cannot guarantee they will do so. The price of other MMFs will fluctuate and when you sell shares they may be worth more or less than originally paid. MMFs may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits. A MMF investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency.

**AAA Accounts:** The Active Assets Account is a brokerage account offered through Morgan Stanley Smith Barney LLC.

**Consulting Group Advisory Accounts:** Consulting Group is a business of Morgan Stanley Smith Barney LLC.

**Tailored Lending or Liquidity Access Line:** Tailored Lending and Liquidity Access Line information is excluded from this report. Please refer to your accounts statements.

**Securities Based Lending accounts (LAL, TL, Margin):** Borrowing against securities may not be appropriate for everyone. You should be aware that there are risks associated with a securities based loan, including possible maintenance calls on short notice, and that market conditions can magnify any potential for loss. For details please see the important disclosures in this document.

**Securities Based Lending accounts (LAL, TL, Margin): Important Risk Information for Securities Based Lending:** You need to understand that: (1) Sufficient collateral must be maintained to support your loan(s) and to take future advances; (2) You may have to deposit additional cash or eligible securities on short notice; (3) Some or all of your securities may be sold without prior notice in order to maintain account equity at required maintenance levels. You will not be entitled to choose the securities that will be sold. These actions may interrupt your long-term investment strategy and may result in adverse tax consequences or in additional fees being assessed; (4) Morgan Stanley Bank, N.A., Morgan Stanley Private Bank, National Association or Morgan Stanley Smith Barney LLC (collectively referred to as "Morgan Stanley") reserves the right not to fund any advance request due to insufficient collateral or for any other reason except for any portion of a securities based loan that is identified as a committed facility; (5) Morgan Stanley reserves the right to increase your collateral maintenance requirements at any time without notice; and (6) Morgan Stanley reserves the right to call securities based loans at any time and for any reason.

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**Important Regulation Best Interest Information:** This report is being provided as a courtesy. By providing this report, we do not represent or agree that we will monitor the investments in your brokerage account(s) or deliver future reports.

Residential Mortgage loan information is excluded from this report. Please contact your Morgan Stanley team for more information.

**Additional information about your Floating Rate Notes:** For floating rate securities, the estimated accrued interest and estimated annual income are based on the current floating coupon rate and may not reflect historic rates within the accrual period.

**Important Information About Auction Rate Securities:** For certain Auction Rate Securities there is no or limited liquidity. Therefore, the price(s) for these Auction Rate Securities are indicated as not available by a dash "-". There can be no assurance that a successful auction will occur or that a secondary market exists or will develop for a particular security.

**Important Pricing Information:** Prices of securities not actively traded may not be available, and are indicated by a dash "-". Account values are based on the most recent security pricing available and may be prior to the date of this material.

**Asset Classification:** We classify assets based on general characteristics such as: income generation, underlying capital structure, or exposure to certain market sectors. As many assets contain characteristics of more than one asset class, allocations may be under or over inclusive. These classifications do not constitute a recommendation and may differ from the classification of instruments for regulatory or tax purposes. In addition, the Other asset class contains securities that are not included in the various asset class classifications. This can include, but is not limited to, non-traditional investments such as some Equity Unit Trusts, Index Options and Structured Investments issued outside of Morgan Stanley. Additionally, investments for which we are unable to procure market data to properly classify them will appear in the Other category.

**Morgan Stanley Wealth Management:** Morgan Stanley Wealth Management (custodian type "Morgan Stanley Wealth Management") is a registered trade name of Morgan Stanley Smith Barney LLC.

**Additional information about your Structured Products:** Structured Investments are complex products and may be subject to special risks, which may include, but are not limited to: loss of initial investment; issuer credit risk and price volatility resulting from any actual or anticipated changes to issuer's and/or guarantor's credit ratings or credit spreads; limited or no appreciation and limits on participation in any appreciation of underlying asset(s); risks associated with the underlying reference asset(s); no periodic payments; call prior to maturity; early redemption fees for market linked deposits; lower interest rates and/or yield compared to conventional debt with comparable maturity; unique tax implications; limited or no secondary market; and conflicts of interest due to affiliation, compensation or other factors which could adversely affect market value or payout to investors. Investors also should consider the concentration risk of owning the related security and their total exposure to any underlying asset.

**Morgan Stanley & Co.:** Morgan Stanley & Co. LLC ("Morgan Stanley & Co.") is an affiliate of Morgan Stanley Smith Barney LLC ("Morgan Stanley Wealth Management") and both are subsidiaries of Morgan Stanley, the financial holding company. Morgan Stanley & Co. values shown on your Morgan Stanley Wealth Management statement may differ from the values shown in your official Morgan Stanley & Co. statement due to, among other things, different reporting methods, delays, market conditions and interruptions. The information shown is approximate and subject to updating, correction and other changes. Information being reported by Morgan Stanley Wealth Management on assets held by other custodians, which are related to Income, Performance, Tax Lots, Total Cost, Target Asset Allocation, Asset Classification and Gain/Loss may differ from that information provided by the custodian. In performance calculations, the inception date will align with the first date on which Morgan Stanley Wealth Management received account information from the custodian. If there are discrepancies between your official Morgan Stanley & Co. account statement and your Morgan Stanley Wealth Management supplemental client report, rely on the official Morgan Stanley & Co. account statement.

**External Accounts:** "External" generally refers to accounts, assets, pricing, and/or liabilities that you hold with other financial institutions and/or which may be custodied outside of Morgan Stanley (whose subsidiaries include Morgan Stanley Smith Barney LLC and Morgan Stanley & Co.) ("External Accounts"). External Accounts are not under administration or management at Morgan Stanley and are not reflected in your Morgan Stanley account statements. Information related to External Accounts is provided solely as a service to you and your Financial Advisor/Private Wealth Advisor. The information reference is based upon information provided by external sources which we believe to be reliable. However, we do not independently verify this information. As such, we do not warrant or guarantee that such information is accurate or timely, and any such information may be incomplete or condensed.

Information related to Income, Performance, Tax Lots, Total Cost, Target Asset Allocation, Asset Classification, Risk Analysis and Gain/Loss may differ from the information provided by your custodian. External information presented herein is subject to, and does not supersede, the confirmations and account statements provided by your custodian. Values shown in an account statement from your custodian may differ from the values shown here due to, among other things, different reporting methods, delays, market conditions and interruptions. If there are discrepancies between your custodian's official account statement and this material, rely on the custodian's official account statement. We are not obligated to notify you or your Financial Advisor/Private Wealth Advisor if information changes. In performance calculations, the inception date referenced will reflect the first date on which Morgan Stanley received account information from the custodian. If information on an External Account cannot be reported, it will be noted.

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Assets not custodied with Morgan Stanley are not covered by SIPC protection at Morgan Stanley or by additional protection under Morgan Stanley's excess insurance coverage plans. However, these assets may be subject to SIPC coverage at the entity at which they are custodied.

**Timing of Feeds:** Account and Position data for Morgan Stanley & Co. and External Accounts is obtained from sources that we believe to be reliable. However, Morgan Stanley Wealth management does not guarantee its accuracy or timeliness as such information may be incomplete, condensed, or based on differing points of time. Please refer to the "Last Update Date" for information regarding when the data was last refreshed. You should not take any action relying upon this information without confirming its accuracy and completeness.

**Timing of Feeds - FX Market:** The FX market rate used to convert non-US Dollar values to US Dollars is as of the previous business day's close. For the current FX rates, please contact your Financial Advisor.

**Performance:** Performance results are annualized for time periods greater than one year and include all cash and cash equivalents, realized and unrealized capital gains and losses, dividends, interest and income. Depending on the opening or closing date of the account or position, the performance referenced may be for a portion of the time period identified. The investment results depicted herein represent historical performance. As a result of recent market activity, current performance may vary from the figures shown. Please contact your Financial Advisor for up-to-date performance information. Past performance is not a guarantee of future results. Quotations of performance appearing in this report may include performance experienced in legacy accounts which have been closed and purged, and as such are not included on the Accounts Included in This Report page.

Market values used for performance calculation do not include Performance Ineligible Assets and thus may differ from asset allocation market values. Common examples of Performance Ineligible Assets include liabilities, life insurance and annuities as well as Manually Added and External accounts for which Morgan Stanley does not receive data necessary to calculate performance.

Unless otherwise indicated, performance is an aggregated composite calculation of the entire portfolio and may include brokerage and investment advisory accounts as well as assets for different accounts included in this report. The accounts included in the composite may have (or have had) different investment objectives and strategies, been subject to different restrictions, and incurred different types of fees, markups, commissions and other charges. Accordingly, performance results may blend the performance of assets and strategies that may not have been available in all of the accounts at all times during the reporting period. In addition, accounts in the composite may have changed from brokerage to advisory or vice versa. Accounts may also have moved from one advisory program to another (including from a discretionary program to a non-discretionary program).

For Morgan Stanley Smith Barney LLC accounts, performance information may cover the full history of the account(s) or just the performance of an account(s) since the inception of the current program(s). Performance results on individual accounts will vary and may differ from the composite returns. Your Financial Advisor can provide you with individual account portfolio composition and performance information. For investment advisory accounts, please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 or applicable disclosure brochure. For brokerage accounts, please speak to your Financial Advisor for more information on commissions and other account fees and expenses. Performance inception date does not necessarily correspond to the account opening date. Where multiple accounts are included in performance calculations, the inception date is the oldest performance inception. Performance data may not be available for all periods as some accounts included in performance may have more recent performance inception dates. Consequently, the actual performance for a group of accounts may differ from reported performance. Please ask your Financial Advisor for the performance inception date for each account.

**Gross of Fees:** The impact of program fees can be material. These program fees are deducted based on your billing cycle and may have a compounding effect on performance. As fees are deducted periodically throughout the year, the compounding effect may increase the impact of the fees by an amount directly related to the gross account performance.

**Indices:** Benchmark indices and blends included in this material are for informational purposes only, are provided solely as a comparison tool and may not reflect the underlying composition and/or investment objective(s) associated with the account(s). In some circumstances, the benchmark index may not be an appropriate benchmark for use with the specific composite portfolio. For instance, an index may not take into consideration certain changes that may have occurred in the portfolio since the inception of the account(s), (e.g., changes from a brokerage to an advisory account or from one advisory program to another, asset class changes, or index changes for individual managers). The volatility of the index used for comparison may be materially different from that of the performance shown. Indices are unmanaged and not available for direct investment. Index returns do not take into account fees or other charges. Such fees and charges would reduce performance. Please see the Benchmark Definitions section of this material for additional information on the indices used for comparison.

**Performance Inception Month End:** Performance Inception Month End refers to performance calculated from the end of the month in which the accounts became eligible for performance. Calculating performance from the Performance Inception Month End allows for a comparison to be made to appropriate benchmarks. Performance Inception Month End does not necessarily correspond to the account opening date.

**Projected 12 Month:** Projected 12 Month Income is based upon cash income from interest, cash dividends, and partnership distributions. It is a hypothetical projection calculated using current yields. The projected income referenced is based upon certain market projections effective as at today's date only and can change at any time. Such projected income is hypothetical, do not reflect actual

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The projected income referenced may include income from Morgan Stanley & Co. and External Accounts, where data is available. Such information was obtained from third party sources which Morgan Stanley believes to be reliable. However, we make no representation or guarantee that the information is accurate or complete. You should not rely upon this information to make any investment decision. Please refer to the official account statements and performance reports you received from your custodian and/or financial institution for information about projected income in your External Accounts. The projected income referenced does not include income from assets in Manually Added External Accounts.

**Additional information about your Alternative Investments:** Your interests in Alternative Investments, which may have been purchased through us, are generally not held here, and are generally not covered by SIPC. The information provided to you: 1) is included as a service to you, and certain transactions may not be reported; 2) is derived from you or another external source for which we are not responsible, and may have been modified to take into consideration capital calls or distributions to the extent applicable; 3) may not reflect actual shares, share prices, or values; 4) may include invested or distributed amounts in addition to a fair value estimate; and 5) should not be relied upon for tax reporting purposes. Notwithstanding the foregoing, 1) to the extent this report displays Alternative Investment positions within a Morgan Stanley Individual Retirement Account ("IRA"), such positions are held by Morgan Stanley Smith Barney LLC as the custodian of your Morgan Stanley IRA; and 2) if your Alternative Investment position(s) is held by us and is registered pursuant to the Securities Act of 1933, as amended, your Alternative Investment position(s) is covered by SIPC.

Alternatives may be either traditional alternative investment vehicles or non-traditional alternative strategy vehicles. Traditional alternative investment vehicles may include, but are not limited to, Hedge Funds, Fund of Funds (both registered and unregistered), Exchange Funds, Private Equity Funds, Private Credit Funds, Real Estate Funds, and Managed Futures Funds. Non-traditional alternative strategy vehicles may include, but are not limited to, Open or Closed End Mutual Funds, Exchange-Traded and Closed-End Funds, Unit Investment Trusts, exchange listed Real Estate Investment Trusts (REITs), and Master Limited Partnerships (MLPs). These non-traditional alternative strategy vehicles also seek alternative-like exposure but have significant differences from traditional alternative investment vehicles. Non-traditional alternative strategy vehicles may behave like, have characteristics of, or employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives, and options, which can increase volatility and the risk of investment loss. Characteristics such as correlation to traditional markets, investment strategy, and market sector exposure can play a role in the classification of a traditional security being classified as alternative.

Traditional alternative investment vehicles are illiquid and usually are not valued daily. The estimated valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding. Morgan Stanley does not engage in an independent valuation of your alternative investment assets. Morgan Stanley provides periodic information to you including the market value of an alternative investment vehicle based on information received from the management entity of the alternative investment vehicle or another service provider.

It is important to note in this report that Morgan Stanley makes a distinction between Alternative Investment products, and products classified as Alternatives by their asset class. Morgan Stanley categorizes traditional and non-traditional alternative investment vehicles under the category "Alternatives" in asset classification based view. For product based views, traditional alternative investments vehicles are classified under the category "Other"; this differs from your official Morgan Stanley account statement, which categorizes traditional alternative investment vehicles such as Hedge Funds under the category "Alternative Investments". Non-traditional alternative strategy vehicles are classified based on their investment type, such as Mutual Fund or Exchange-Traded Funds within both this report and your Morgan Stanley account statement.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

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## **General Disclosures**

Morgan Stanley Wealth Management ("MSWM", "Morgan Stanley" or "MSSB") is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer and investment adviser in the United States. This material is for educational purposes only and is not an offer or solicitation to buy, sell, or participate in any security or trading strategy. Past performance is not a guarantee of future results.

Morgan Stanley offers a range of brokerage and advisory services, which create different types of client relationships and obligations. Please consult with your Financial Advisor to understand these differences, or review our "**Understanding Your Brokerage and Investment Advisory Relationships**" brochure available at [www.morganstanley.com/wealth-relationshipwithms/pdfs/understandingyourrelationship.pdf](http://www.morganstanley.com/wealth-relationshipwithms/pdfs/understandingyourrelationship.pdf).

**Asset allocation, diversification, rebalancing and dollar cost averaging** do not guarantee a profit or protect against loss in declining markets. Past performance is no guarantee of future results and actual results may vary. Rebalancing strategies may also have tax consequences; investors should consult a qualified tax advisor before implementing such strategies.

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**Indices** are unmanaged and cannot be invested in directly. For index, indicator and survey definitions referenced in this report, please visit: [www.morganstanley.com/wealth-investmentsolutions/wmir-definitions](http://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions)

For more information, please refer to additional General Disclosures here: [www.morganstanley.com/wealthbooks#general-disclosures](http://www.morganstanley.com/wealthbooks#general-disclosures).

## **Risks Associated With Investing**

Investing in the markets entails the risk of market volatility. The value of all types of investments, **including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts**, may increase or decrease over varying time periods. **Please carefully consider the investment objectives, risks, charges and expenses of investment fund(s) before investing. The fund prospectus contains this and other information about the fund(s). To obtain a prospectus, contact your financial advisor. Please read the prospectus carefully before investing.** There is no assurance that investment funds will achieve their investment objectives. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets and frontier markets. Some funds also invest in foreign securities, which may involve currency risk. **Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. Companies paying dividends can reduce or cut payouts at any time. Small- and mid-capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of **small- and mid-capitalization** companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. **Growth investing** does not guarantee a profit or eliminate risk. Growth stocks can trade at relatively high valuations which may increase risk compared with an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies deemed value stocks are able to turn around their business or successfully execute corrective strategies, and their stock prices may not rise as initially expected.

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The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or value at maturity. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. Yields may change with economic conditions and should be considered alongside other factors when making investment decisions. Credit ratings are subject to change. **High yield bonds** carry additional risks, including increased risk of default and greater volatility due to lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes, though some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities (TIPS)** adjust coupon payments and underlying principal to compensate for inflation in line with the consumer price index (CPI). While the real rate of return is guaranteed, TIPS typically offer lower returns and may significantly underperform conventional U.S. Treasuries during periods of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The **Ultrashort-term fixed income** asset class consists of high-quality securities with very short maturities and is therefore still subject to the risks associated with debt securities such as credit and interest rate risk.

**Money Market Funds:** You could lose money in money market funds. Although government money market funds (defined as investing 99.5% of total assets in cash and/or securities backed by the U.S. government) and retail funds (defined as money market funds open to natural person investors only) seek to preserve value at \$1.00 per share, they cannot guarantee doing so. The price of other money market funds will fluctuate, and when you sell shares they may be worth more or less than originally paid. Money market funds may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits. A money market fund investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund and investors should not expect that the sponsor will provide financial support to the Fund at any time.

Investing in **Commodities:** Commodity prices may be affected by factors such as supply and demand, government policies, domestic or international political and economic events (including war or terrorism), changes in interest and exchange rates, trading activity in commodities and related contracts, pestilence, technological developments, weather, price volatility, and liquidity constraints. Physical precious metals are speculative, non-regulated products that may experience short- and long-term price volatility. Precious metals do not make interest or dividend payments and therefore may not be appropriate for investors who require current income. Precious metals must be stored, which may impose additional costs on investors.

**Master Limited Partnerships (MLPs):** Investments in MLPs are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity price fluctuations, supply and demand imbalances, resource depletion and exploration risk. MLPs also carry interest rate risk and may underperform in rising interest rate environments. In addition, MLP funds accrue deferred income taxes on net operating gains and capital appreciation; as a result their after-tax performance could differ significantly from that of its underlying assets.

**Exchange Funds** are private placement vehicles that enable holders of concentrated single-stock positions to exchange those stocks for a diversified portfolio. Investors may benefit from greater diversification.

**Alternative investments** are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They are appropriate only for eligible, long-term investors willing to forgo liquidity and put capital at risk for an indefinite period. They are often illiquid, may employ leverage, short-selling, or other speculative practices that increase volatility and risk of loss, and may require large minimum investments and initial lock-ups. Alternative investments may also involve complex tax structures, tax-inefficient investing, and delays in distributing important tax documents. Clients should consult their own tax and legal advisors, as Morgan Stanley Wealth Management does not provide tax or legal advice. They also typically carry higher fees and expenses than traditional investments, which can reduce overall returns.

**Sector investments**, due to their narrow focus, tend to be more volatile than broadly diversified investments. **Non-diversified portfolios:** Portfolios that hold a concentrated number of securities may experience greater overall declines when those securities lose value compared with more diversified portfolios. Portfolios that invest heavily in one or a few industry sectors are more vulnerable to price fluctuations than those diversified across a wider range of sectors.

**Environmental, Social and Governance (ESG)** investments in a portfolio may experience performance that is lower or higher than a portfolio not employing such practices. Portfolios with ESG restrictions and strategies as well as ESG investments may not be able to take advantage of the same opportunities or market trends as portfolios where ESG criteria is not applied. There are inconsistent ESG definitions and criteria within the industry, as well as multiple ESG ratings providers that provide ESG ratings of the same subject companies and/or securities that vary among the

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**Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets ("Digital Assets"),** and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to: Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and investors could lose their entire investment. Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and inaccessibility, there is nonetheless a risk that some or all of a product's Digital Asset could be permanently lost, stolen, destroyed or inaccessible by virtue of, among other things, the loss or theft of the "private keys" necessary to access a product's Digital Asset. Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset products may not be verifiable as pricing models are not uniform.

**For more information, please refer to additional Risks Associated With Investing here:** [www.morganstanley.com/wealthbooks#risks-associated-with-investing](http://www.morganstanley.com/wealthbooks#risks-associated-with-investing).

## Investment Advisory Programs

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be appropriate for all clients. MSWM offers investment program services through a variety of investment programs, which are opened pursuant to written client agreements. Each program offers investment managers, funds and features that are not available in other programs; conversely, some investment managers, funds or investment strategies may be available in more than one program. For more information, please see the Morgan Stanley Smith Barney LLC MSWM program disclosure brochure (the "Morgan Stanley ADV"). The Morgan Stanley ADV is available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV).

**The Morgan Stanley Pathway Funds, Firm Discretionary UMA Model Portfolios, and other asset allocation or any other model portfolios** that are discussed in this material are available only to investors participating in Morgan Stanley Consulting Group advisory programs. For additional information on the Morgan Stanley Consulting Group advisory programs, see the applicable ADV brochure, available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV) or request from your Morgan Stanley Financial Advisor or Private Wealth Advisor. To learn more about the Morgan Stanley Pathway Funds, visit the Funds' website at [www.morganstanley.com/wealth-investmentsolutions/cgcm](http://www.morganstanley.com/wealth-investmentsolutions/cgcm).

Generally, investment advisory accounts are subject to an **annual asset-based fee** (the "Fee") which is payable monthly in advance (some account types may be billed differently). In general, the Fee covers Morgan Stanley investment advisory services, custody of securities with Morgan Stanley, trade execution with or through Morgan Stanley or its affiliates, as well as compensation to any Morgan Stanley Financial Advisor.

In addition, each account that is invested in a program that is eligible to purchase certain investment products, such as mutual funds, will also pay a **Platform Fee** (which is subject to a Platform Fee offset) as described in the Morgan Stanley ADV. Accounts invested in the Select UMA program may also pay a separate Sub-Manager fee, if applicable.

If your account is invested in mutual funds or exchange traded funds (collectively "funds"), you will pay the fees and expenses of any funds in which your account is invested. **Fees and expenses are charged directly to the pool of assets** the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and would not be included in the Fee amount in your account statements. The advisory program you choose is described in the Morgan Stanley ADV.

Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's SMA programs may effect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instances, you may be assessed additional costs by the other firm in addition to the Morgan Stanley and Sub-Manager fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain Sub-Managers have historically directed most, if not all, of their trades to outside firms. Information provided by Sub-

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Managers concerning trade execution away from Morgan Stanley is summarized at: [www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf](http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf). For more information on trading and costs, please refer to the **Morgan Stanley ADV** or contact your Financial Advisor / Private Wealth Advisor.

**GIMA Conflicts of Interest:** Our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by Global Investment Manager Analysis (GIMA) come from a variety of sources, including our MSWM Financial Advisors and their direct or indirect managers, and other business persons within MSWM or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, MSWM or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds or for which a portion of their clients' assets are already invested. Separately, certain strategies managed or sub-advised by us or our affiliates, including but not limited to MSIM and Eaton Vance Management ("EVM") and its investment affiliates, may be included in your account. See the conflicts of interest section in the applicable Morgan Stanley ADV brochure for a discussion of other types of conflicts that may be relevant to GIMA's evaluation of managers and funds. In addition, MSWM, Morgan Stanley & Co. LLC ("MS & Co."), managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs.

MSWM, managers, MS & Co., and their affiliates receive compensation and fees in connection with these services. MSWM believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all these companies from an account.

Morgan Stanley charges each fund family we offer a **mutual fund support fee**, also called a "revenue-sharing payment," on client account holdings in fund families according to a tiered rate that increases along with the management fee of the fund so that lower management fee funds pay lower rates than those with higher management fees.

For more information, please refer to additional **Investment Advisory Programs disclosures here:** [www.morganstanley.com/wealthbooks#investment-advisory-programs](http://www.morganstanley.com/wealthbooks#investment-advisory-programs).

## Products and Services

**Annuities and insurance products** are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates. Not all products and services discussed herein are available through Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates. Since life and long-term care insurance are medically underwritten, you should not cancel your current policy until your new policy is in force. A change to your current policy may incur charges, fees and costs. A new policy will require a medical exam. Surrender charges may be imposed and the period of time for which the surrender charges apply may increase with a new policy. You should consult with your own tax advisors regarding your potential tax liability on surrenders. Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY.

**Lending products, including securities-based loans**, are offered by Morgan Stanley Smith Barney LLC (MSSB), Morgan Stanley Private Bank, National Association (MSPBNA), and Morgan Stanley Bank, N.A. (MSBNA), collectively referred to as "the Firm" as applicable. Borrowing against securities involves risk and may not be appropriate for all clients. Risks include maintenance calls, forced liquidation of securities, and potential tax consequences. The Firm reserves the right to change collateral requirements, decline funding requests, or call loans at any time. Products are distinct and subject to independent underwriting and approval. Rates, terms, and availability may vary.

**Residential mortgage loans and home equity lines of credit** are offered by MSPBNA, Member FDIC an Equal Housing Lender. Nationwide Mortgage Licensing System Unique Identifier #663185. **The proceeds from a residential mortgage loan (including draws and advances from a home equity line of credit) are not permitted to be used to purchase, trade, or carry eligible margin stock; repay margin debt that was used to purchase, trade, or carry margin stock; or to make payments on any amounts owed under the note, loan agreement, or loan security agreement; and cannot be deposited into a MSSB or other brokerage account.** The pledged-asset feature allows eligible securities to be used as a substitute for a cash down payment. The pledged-asset feature allows eligible securities to be used as an alternative to a cash down payment. Clients must maintain collateral levels and may be subject to liquidation if requirements are not met. Interest-only and adjustable-rate mortgages (ARMs) carry specific risks, including payment increases and higher total interest costs. ARMs are based on the SOFR 30-Day Average. Relationship-based pricing is available based on eligible household assets held at the Firm.

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**Cards and Cash Management:** Debit Cards offered through the Firm are issued by MSPBNA under license from Mastercard. American Express Cards offered through the Firm include the Platinum Card®, Blue Cash Preferred®, and the Morgan Stanley Credit Card. Eligibility requires an "Eligible Account" at the Firm. Cards are issued by American Express National Bank. Terms, conditions, and restrictions apply. The Greenlight App and Debit Card is provided by Greenlight Financial Technologies, not the Firm or any of its affiliates. The Morgan Stanley CashPlus is a brokerage account offered through MSSB. Conditions and restrictions apply. For more information, see the CashPlus Disclosure Statement.

**Deposit Products and FDIC:** Under the Bank Deposit Program, free credit balances held in an account(s) at Morgan Stanley Smith Barney LLC are automatically deposited into an interest-bearing deposit account(s) at FDIC-insured banks. Certain conditions must be met. For more information, view the Bank Deposit Program Disclosure Statement. The Savings and Preferred Savings Programs offer FDIC-insured deposit accounts at Morgan Stanley Private Bank, National Association, Member FDIC or Morgan Stanley Bank, N.A., Member FDIC. The Savings programs are not intended for clients who need to have frequent access to funds and those funds will not be automatically accessed to reduce a debit or margin loan in your brokerage account. Withdrawals are limited to 10 per calendar month, and excess withdrawals may incur fees. Promotional rates may be offered from time to time and are subject to change at any time.

Morgan Stanley Smith Barney LLC is a registered Broker/Dealer and not a bank. Where appropriate, Morgan Stanley Smith Barney LLC has entered into arrangements with banks and other third parties to assist in offering certain banking-related products and services.

**Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY**

For more information, please refer to additional Products and Services disclosures here: [www.morganstanley.com/wealthbooks#products-and-services](http://www.morganstanley.com/wealthbooks#products-and-services).

## Other General Disclosures

When MSWM, its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors (collectively, "MS") provide "investment advice" regarding a retirement or welfare benefit plan account, an individual retirement account or a Coverdell education savings account ("Retirement Account"), MS is a "fiduciary" as those terms are defined under the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and/or the Internal Revenue Code of 1986 (the "Code"), as applicable. When MS provides investment education, takes orders on an unsolicited basis or otherwise does not provide "investment advice", MS will not be considered a "fiduciary" under ERISA and/or the Code. For more information regarding MS's role with respect to a Retirement Account, please visit [www.morganstanley.com/disclosures/dol](http://www.morganstanley.com/disclosures/dol). Tax laws are complex and subject to change. MS does not provide tax or legal advice. Individuals are encouraged to consult their tax and legal advisors (a) before establishing a Retirement Account, and (b) regarding any potential tax, ERISA and related consequences of any investments or other transactions made with respect to a Retirement Account. Individuals should consult their tax advisor for matters involving taxation and tax planning and their attorney for matters involving trust and estate planning, charitable giving, philanthropic planning and other legal matters. This material is not a financial plan and does not establish an investment advisory relationship. MS will only prepare a financial plan at your specific request using MS approved financial planning software.

**No obligation to notify:** MSWM has no obligation to notify you when the model portfolios, strategies, or any other information in this material changes. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results.

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For more information, please refer to additional Other General Disclosures here: [www.morganstanley.com/wealthbooks#other-general-disclosures](http://www.morganstanley.com/wealthbooks#other-general-disclosures).

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**Closed or Purged Accounts:** Data from accounts which have been closed and/or purged may be included in this report, for example in performance, asset allocation, or other attributes for periods when these accounts were open. If this report does contain data from any closed or purged accounts not identified earlier in the report, those accounts are identified below.

**Closed Accounts:** 316-XXX613

**SMA/WRAP Fee:** Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's Separately Managed Account ("SMA") programs may affect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instance, you may be assessed additional costs by the other firm in addition to the Morgan Stanley and Sub-Manager fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain Sub-Managers have historically directed most, if not all, of their trades to outside firms. Information provided by managers concerning trade execution away from Morgan Stanley is summarized at: [www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf](http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf). For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV), or contact your Financial Advisor/Private Wealth Advisor.

**Taxes, Fees, and Expenses:** Except where net of fees performance (which reflects your actual advisory fees) is included, this material does not include the effect of taxes, account fees, advisory fees, performance fees, and commissions that could materially affect the illustration provided and the decisions that you may make. The inclusion of these factors will reduce any values referenced herein. Generally, investment advisory accounts are subject to an annual asset-based fee (the "Fee") which is payable monthly in advance (some account types may be billed differently). In general, the Fee covers Morgan Stanley investment advisory services, custody of securities with Morgan Stanley, trade execution with or through Morgan Stanley or its affiliates, as well as compensation to any Morgan Stanley Financial Advisor.

In addition, each account that is invested in a program that is eligible to purchase certain investment products, such as mutual funds, will also pay a Platform Fee (which is subject to a Platform Fee offset) as described in the applicable ADV brochure. Accounts invested in the Select UMA program may also pay a separate Sub-Manager fee, if applicable.

If your account is invested in mutual funds or exchange traded funds (collectively "funds"), you will pay the fees and expenses of any funds in which your account is invested. Fees and expenses are charged directly to the pool of assets the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and would not be included in the Fee amount in your account statements. The advisory program you choose is described in the applicable Morgan Stanley Smith Barney LLC ADV Brochure, available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV).

Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's Separately Managed Account ("SMA") programs may affect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instance, you may be assessed additional costs by the other firm in addition to the Morgan Stanley and Sub-Manager fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain Sub-Managers have historically directed most, if not all, of their trades to outside firms. Information provided by Sub-Managers concerning trade execution away from Morgan Stanley is summarized at: [www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf](http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf). For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV), or contact your Financial Advisor / Private Wealth Advisor.

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## GENERAL DEFINITIONS

**Asset Allocation:** Asset Allocation refers to how your investments are diversified across different asset classes, such as Stocks, Bonds, Cash and Alternative Investments. Either a Morgan Stanley Wealth Management Global Investment Committee ("GIC") Strategic Asset Allocation Model or a customized asset allocation is presented. The asset allocation used in this illustration may be more aggressive or conservative than your investment risk profile. Morgan Stanley's Global Investment Committee uses a proprietary process to arrive at its asset allocation models. These models are subject to change and some time may be required to implement any such changes.

**Suggested Target Asset Allocation:** The asset allocation proposed for your indicated account.

**CCY:** Represents the currency of the underlying instrument. Currency is a medium of exchange for goods and services.

**Dollar-Weighted Return (Internal Rate of Return):** A return calculation that measures the actual performance of a portfolio over the reporting period. Since dollar weighted returns include the impact of client contributions and withdrawals, they should not be compared to market indices or used to evaluate the performance of a manager, but can be used to evaluate progress toward investment goals. The investment returns shown within this report are dollar-weighted measurements where indicated.

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**Gross of Fees:** Performance results depicted as "gross" of fees do not reflect the deduction of any wrap fee, investment management fee, trade commissions, and/or other account fees. Your actual returns are lower after deducting these expenses. Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

**Investment Earnings:** A combination of the income received and total portfolio value increase or decrease, excluding net contributions and withdrawals, over the reporting period.

**Net Contributions/Withdrawals:** The net value of cash and securities contributed to or withdrawn from the account(s) during the reporting period. Net contributions and withdrawals may include advisory fees for advisory accounts.

**Net of Fees:** Performance results depicted as "net" of fees shall mean that any wrap fee, investment management fees, trade commissions, and/or other account fees have been deducted. Any other fees or expenses associated with the account, such as third party custodian fees, may not have been deducted. Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

**Performance ineligible assets:** Performance returns are not calculated for certain assets because accurate valuations and transactions for these assets are not processed or maintained by Morgan Stanley Smith Barney LLC. Common examples of Performance Ineligible Assets include liabilities, life insurance and annuities as well as Manually Added and External accounts for which Morgan Stanley does not receive data necessary to calculate performance.

**Tax-Qualified Account(s):** Accounts that qualify for favorable tax treatment under US federal tax law and may benefit from favorable tax treatment under applicable state tax law. Typically, these accounts benefit from tax deferred growth potential, meaning investment earnings (such as capital gains, dividends, and interest) are generally not subject to federal income tax while the earnings remain in the account. Capital gains rates generally do not apply. Distributions of taxable amounts are generally subject to ordinary income tax and, if made before age 59 1/2, may be subject to a 10% (25% for certain SIMPLE IRA distributions) penalty tax. Some tax-qualified accounts, such as traditional Individual Retirement Accounts ("IRA") and employer sponsored retirement plan accounts, may allow tax deductible and/or pre-tax contributions (subject to certain limitations and restrictions). Other tax-qualified accounts, such as Roth IRAs and Coverdell Education Savings Accounts, may allow income tax free distributions, but only if certain conditions are satisfied.

**Taxable Account(s):** Accounts that are not Tax-Qualified Account(s), meaning investment earnings (such as capital gains, dividends, and interest) are generally subject to current US federal income taxation when held by US taxable investors. Note, however, that this category may include specific assets that are generally not subject to US federal income tax such as municipal bonds.

**Time-Weighted Return:** A return calculation that measures the investment performance of a portfolio over the reporting period. Time weighted returns do not include the impact of client contributions and withdrawals and therefore, may not reflect the actual rate of return the client received. Time weighted returns isolate investment actions and can be compared to benchmarks and used to evaluate the performance of a manager.

**Total Cost:** Total Cost (also known as Cost Basis) represents the amount paid for the security, including commissions and fees if applicable, and excluding accrued interest on Fixed Income purchases.

**Total Value:** "Total Value" represents the Market Value of the portfolio or Asset Class referenced and includes the accrual of interest and dividends. Total Value in the Asset Allocation view prior to January 2014 does not reflect the accrual of interest and dividends. Total Value for Morgan Stanley & Co. and External accounts also does not include accrued interest and dividends.

## BENCHMARK DEFINITIONS

**60 MSCI AC World NT 40 BC Agg:** The current allocation is comprised of 60.00% MSCI AC World Net, 40.00% Bloomberg US Aggregate.

**MSCI AC World :** The current allocation is comprised of 100.00% MSCI AC World Net.

**70 MSCI AC World Net / 30 BC AGG:** The current allocation is comprised of 70.00% MSCI AC World Net, 30.00% Bloomberg US Aggregate.

**MSCI AC World Net:** The MSCI ACWI captures large and mid-cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries\*. With 2,687 constituents, the index covers approximately 85% of the global investable equity opportunity set. \* DM countries include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US. EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkiye and United Arab Emirates.

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**CPI (w/est) + 5%:** CPI w/estimates Plus 5 - this is the monthly CPI index with an estimate for prior month (based off of the avg return for the prior 2 months) until the published return is available around the 17th of the current month. The Plus 5 represent the monthly breakdown of a 5% annual rate.

**NCREIF Property Idx:** The NCREIF Index is an index of the quarterly total returns to the commercial real estate properties held for tax-exempt institutional investors by the members of NCREIF. The index has reported returns every quarter since the first quarter of 1978, including separate reporting of the "total return" and the two components which make up the total return: "income return" and "capital return". As such, the NCREIF Index is intended to convey information relevant to quantifying the quarterly investment performance of the population of properties held by NCREIF members for institutional investors such as pension funds.

**Bloomberg US Aggregate:** The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, fixed rate agency MBS, ABS and CMBS (agency and non-agency). Provided the necessary inclusion rules are met, US Aggregate-eligible securities also contribute to the multi-currency Global Aggregate Index and the US Universal Index.

**CRSP Lg Cap Gr:** The CRSP US Growth Style Indexes are part of CRSP's new investable index family. Once securities are assigned to a sized-based market cap index, they are made eligible for assignment to a growth or value index using CRSP's multifactor model. CRSP classifies growth securities using the following factors: future long-term growth in earnings per share (EPS), future short-term growth in EPS, 3-year historical growth in EPS, 3-year historical growth in sales per share, current investment-to-assets ratio, and return on assets.

**CRSP Lg VL:** The CRSP US Value Style Indexes are part of CRSP's new investable index family. Once securities are assigned to a size-based market cap index, they are made eligible for assignment to a value or growth index using CRSP's multifactor model. CRSP classifies value securities using value securities using the following factors: book to price, forward earnings to price, historical earnings to price, dividend-to-price ratio and sales-to-price ratio.

**Bloomberg Commodity Index TR:** The Bloomberg Commodity Total Return Index (BCOMTR) is a benchmark that tracks the performance of a diversified basket of commodity futures contracts. It's designed to represent the broad commodity market while also incorporating returns from investing in US Treasury bills, effectively fully collateralizing the futures positions.

**Russell Midcap Value:** The Russell Midcap Value Index measures the performance of the midcap value segment of the US equity universe. It includes those Russell Midcap Index companies with relatively lower price-to-book ratios, lower I/B/E/S forecast medium term (2 year) growth and lower sales per share historical growth (5 years). The Russell Midcap Value Index is constructed to provide a comprehensive and unbiased barometer of the mid-cap value market. The index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true midcap value market.

**Bloomberg US Aggregate 1-3 Y:** The Bloomberg U.S. Aggregate 1-3 Years Index is a subset of the Bloomberg US Aggregate Index, and tracks investment grade, fixed-rate bonds, including treasuries, government-related, corporate and securitized issues. It only includes securities with a maturity between one and up to, but not including three years.

**Russell Midcap Growth:** The Russell Midcap Growth Index measures the performance of the midcap growth segment of the US equity universe. It includes those Russell Midcap Index companies with relatively higher price-to-book ratios, higher I/B/E/S forecast medium term (2 year) growth and higher sales per share historical growth (5 years). The Russell Midcap Growth Index is constructed to provide a comprehensive and unbiased barometer of the mid-cap growth market. The index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true mid-cap growth market.

**Russell 1000 Growth:** The Russell 1000 Growth Index measures the performance of the large cap growth segment of the US equity universe. It includes those Russell 1000 companies with relatively higher price-to-book ratios, higher I/B/E/S forecast medium term (2 year) growth and higher sales per share historical growth (5 years). The Russell 1000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the large-cap growth segment. The index is completely reconstituted annually to ensure new and growing equities are included and that the represented companies continue to reflect growth characteristics.

**Russell 1000 Value:** The Russell 1000 Value Index measures the performance of the large cap value segment of the US equity universe. It includes those Russell 1000 companies with relatively lower price-to-book ratios, lower I/B/E/S forecast medium term (2 year) growth and lower sales per share historical growth (5 years). The Russell 1000 Value Index is constructed to provide a comprehensive and unbiased barometer for the large-cap value segment. The index is completely reconstituted annually to ensure new and growing equities are included and that the represented companies continue to reflect value characteristics.

**MSCI EAFE Net:** The MSCI EAFE Index is an equity index which captures large and mid-cap representation across 21 Developed Markets countries\* around the world, excluding the US and Canada. With 732 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.\* Developed Markets countries in the MSCI EAFE Index include: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the UK.

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**MSCI EM Net:** The MSCI Emerging Markets Index captures large and mid-cap representation across 24 Emerging Markets (EM) countries\*. With 1,277 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. \*EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkiye and United Arab Emirates.

**Alerian MLP TR:** The Alerian MLP Index is the leading gauge of energy infrastructure Master Limited Partnerships (MLPs). The capped, float-adjusted, capitalization-weighted index, whose constituents earn the majority of their cash flow from midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX).