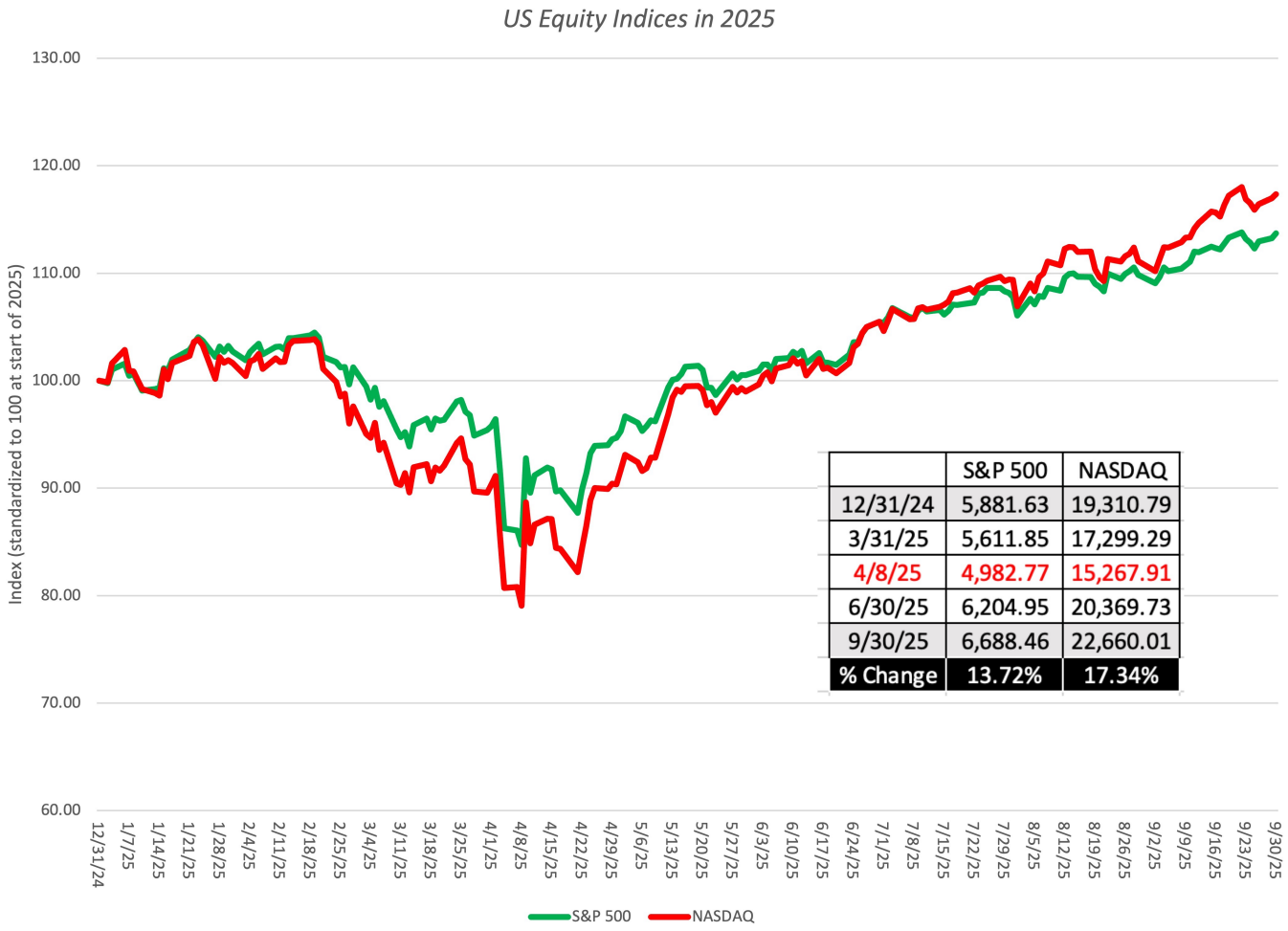
A "FAIRLY HIGHLY VALUED" MARKET: THE FED AND MARKET TIMING!

The Impossible Dream!

THE FED CHAIR SPEAKS.. SHOULD WE LISTEN?

- In 1996, Alan Greenspan use the words "irrational exuberance" to describe the stock market, and those words not only became the title of Robert Shiller's cautionary book on market bubbles, but also the beginnings of the belief that central bankers had the wisdom to be market timers and the power to bend the economy to their views.
  - I was reminded of Greenspan's words when I read that Jerome Powell, the current Fed chair, had described the market as "fairly highly valued".
  - For much of this year, and especially since April, the question that market observers and investors have is whether stocks, especially in the United States, are pushing into "bubble" territory and headed for a correction.
- I think that Powell is right in his assessment that stocks are richly priced, but that said, I will try to explain why making the leap into concluding that stocks are in a bubble, and acting on that conclusion are much more difficult to do.

A MOST INTERESTING YEAR: US EQUITY INDICES IN 2025 (THROUGH SEPTEMBER)



	S&P 500	NASDAQ
12/31/24	5,881.63	19,310.79
3/31/25	5,611.85	17,299.29
4/8/25	4,982.77	15,267.91
6/30/25	6,204.95	20,369.73
9/30/25	6,688.46	22,660.01
% Change	13.72%	17.34%

Aswath Damodaran

A MORE DETAILED LOOK AT US STOCKS

			Change in $ value (millions)				*Change in percent*			
Primary Sector	Number of firms	Start of 2025	1st Qtr	2nd Qtr	3rd Qtr	1st 3 qtrs: 2025	1st Qtr	2nd Qtr	3rd Qtr	1st 3 qtrs: 2025
Communication Services	303	$5,785,889	-$383,336	$901,980	$771,011	$1,289,655	-6.63%	16.70%	12.23%	22.29%
Consumer Discretionary	561	$7,123,648	-$994,067	$737,180	$664,909	$408,021	-13.95%	12.03%	9.68%	5.73%
Consumer Staples	289	$3,491,289	$98,042	$45,169	-$76,755	$66,456	2.81%	1.26%	-2.11%	1.90%
Energy	282	$2,205,370	$136,089	-$183,655	$130,000	$82,433	6.17%	-7.84%	6.02%	3.74%
Financials	1,081	$8,649,002	$154,166	$587,886	$374,523	$1,116,575	1.78%	6.68%	3.99%	12.91%
Health Care	1,200	$6,022,428	$211,607	-$367,722	$287,975	$131,860	3.51%	-5.90%	4.91%	2.19%
Industrials	753	$5,317,660	-$156,902	$614,010	$331,275	$788,383	-2.95%	11.90%	5.74%	14.83%
Information Technology	701	$17,669,880	-$2,358,710	$3,707,759	$2,613,749	$3,962,798	-13.35%	24.22%	13.74%	22.43%
Materials	266	$1,088,222	$2,028	$44,865	$89,704	$136,597	0.19%	4.12%	7.90%	12.55%
Real Estate	247	$1,504,539	$34,707	-$22,093	$50,580	$63,194	2.31%	-1.44%	3.33%	4.20%
Utilities	99	$1,298,935	$66,245	$53,876	$111,757	$231,878	5.10%	3.95%	7.88%	17.85%
All US firms	5,786	$60,156,861	-$3,190,133	$6,119,256	$5,348,728	$8,277,851	-5.30%	10.74%	8.48%	13.76%

	Outperformed market
	Underperformed market
	Matched market

THE MAG SEVEN: ASCENDANT AGAIN?

Total Market Capitalization							
	# firms	12/31/22	12/31/23	12/31/24	3/31/25	6/30/25	9/30/25
Apple		$2,066,942	$2,994,371	$3,785,304	$3,336,853	$3,064,383	$3,778,809
Nvidia		$359,651	$1,223,193	$3,288,762	$2,644,472	$3,854,956	$4,533,894
Microsoft		$1,788,218	$2,794,828	$3,133,802	$2,790,643	$3,697,022	$3,850,009
Alphabet		$1,145,004	$1,755,459	$2,323,530	$1,893,802	$2,144,840	$2,942,495
Amazon		$856,939	$1,570,153	$2,306,888	$2,016,324	$2,329,122	$2,341,695
Meta		$315,555	$910,122	$1,478,113	$1,460,300	$1,855,800	$1,844,867
Tesla		$388,972	$789,898	$1,296,351	$833,593	$1,023,169	$1,478,761
Mag Seven	7	$6,921,281	$12,038,024	$17,612,751	$14,975,986	$17,969,291	$20,770,528
All US Equities	5,786	$39,511,277	$48,878,502	$60,157,011	$56,966,776	$63,086,012	$68,434,736
As % of total Market	0.12%	17.52%	24.63%	29.28%	26.29%	28.48%	30.35%

Change in Market Cap			
	2023	2024	2025 YTD
Mag Seven	$5,116,744	$5,574,727	$2,801,237
All US Equities	$9,367,225	$11,278,509	$5,348,724
As % of total Market	54.62%	49.43%	52.37%

THE SIZE, VALUE AND MOMENTUM EFFECTS

Based on market cap at the start of 2025

Market Cap on 12/31/24	*Number of firms*	*Start of 2025*	*1st Qtr*	*2nd Qtr*	*3rd Qtr*	*1st 3 qtrs: 2025*	*1st Qtr*	*2nd Qtr*	*3rd Qtr*	*1st 3 qtrs: 2025*
Bottom 50%	2,235	$341,819	-$47,799	$39,376	$75,935	$67,512	-13.98%	11.52%	22.21%	19.75%
Top 50%	2,235	$59,811,629	-$3,153,099	$6,088,397	$5,260,842	$8,196,140	-5.27%	10.18%	8.80%	13.70%

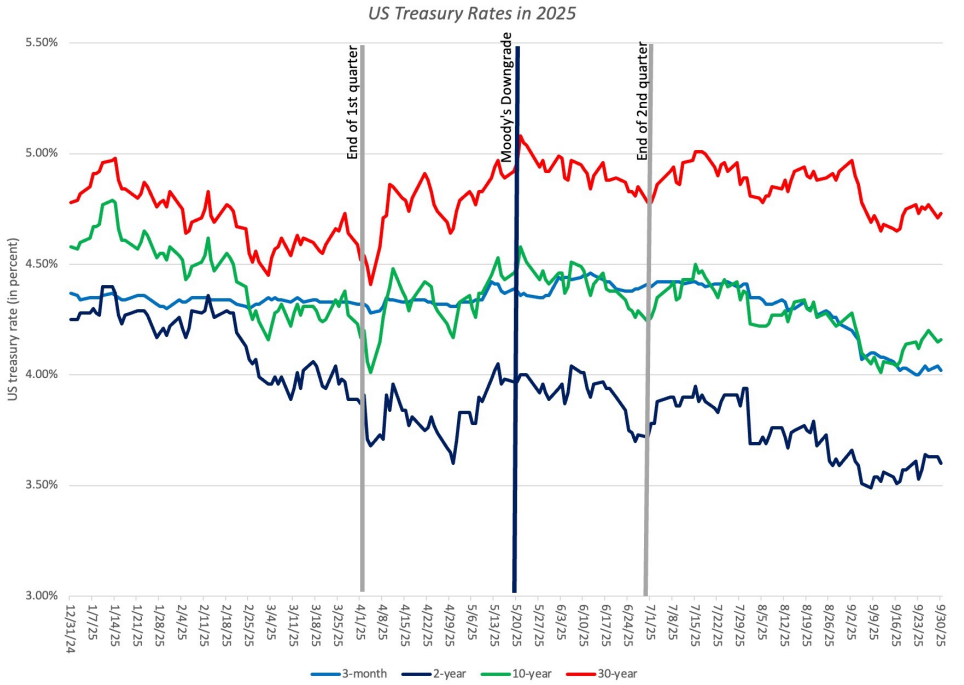
Based on Price to Book at start of 2025

Price to Book	*Number of firms*	*Start of 2025*	*1st Qtr*	*2nd Qtr*	*3rd Qtr*	*1st 3 qtrs: 2025*	*1st Qtr*	*2nd Qtr*	*3rd Qtr*	*1st 3 qtrs: 2025*
Bottom 50%	2,893	$3,794,477	$76,832	$220,678	$335,944	$633,454	2.02%	5.82%	8.85%	16.69%
Top 50%	2,893	$56,358,971	-$3,263,505	$5,898,558	$5,012,780	$7,647,834	-5.79%	10.47%	8.89%	13.57%

Based on % Price Change in 2024

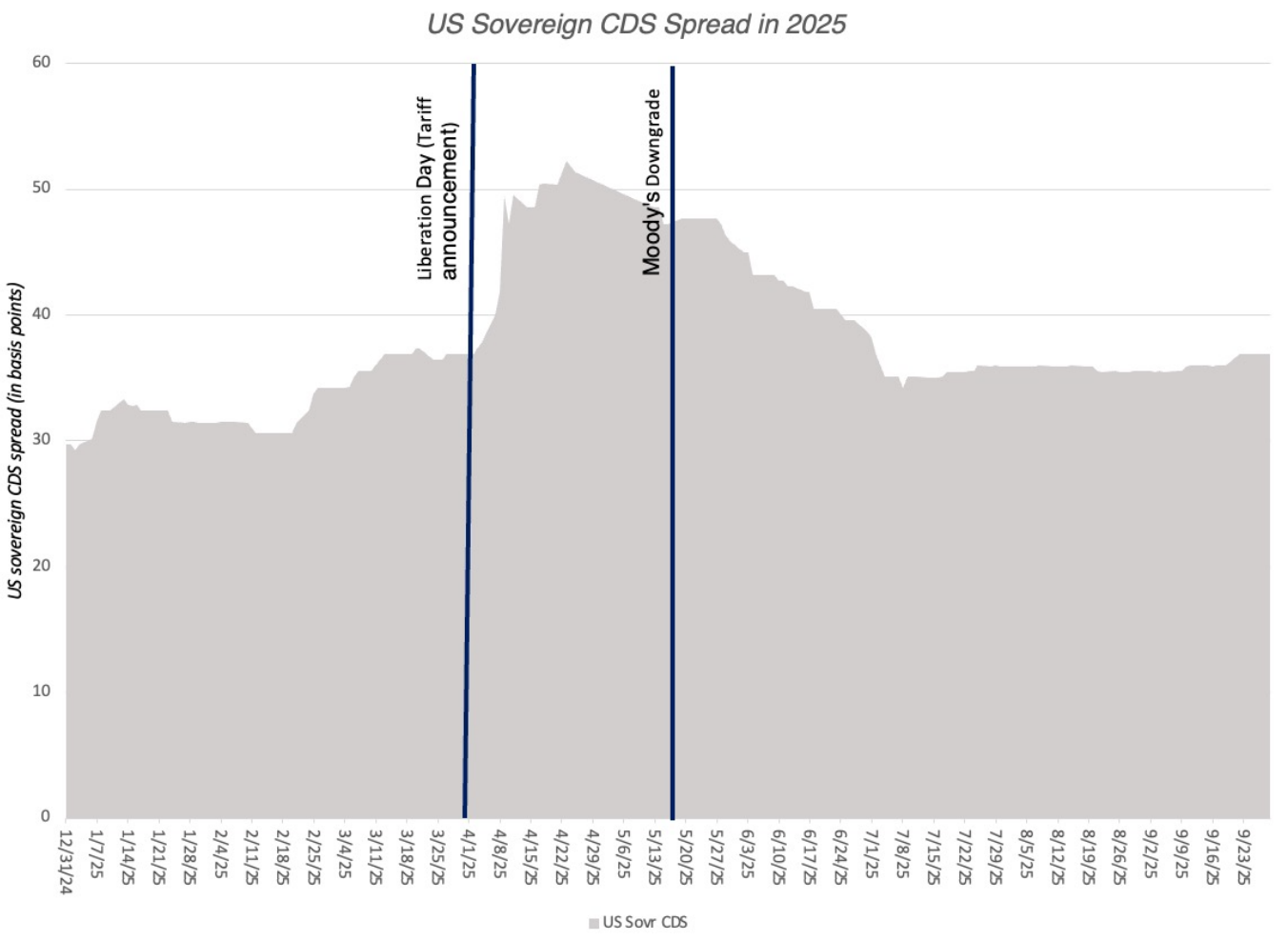
% Price Change in 2024	*Number of firms*	*Start of 2025*	*1st Qtr*	*2nd Qtr*	*3rd Qtr*	*1st 3 qtrs: 2025*	*1st Qtr*	*2nd Qtr*	*3rd Qtr*	*1st 3 qtrs: 2025*
Bottom 50%	2,614	$10,873,569	-$207,994	-$145,400	$708,687	$355,292	-1.91%	-1.34%	6.52%	3.27%
Top 50%	3,172	$49,279,879	-$2,978,678	$6,264,636	$4,640,038	$7,925,996	-6.04%	12.71%	9.42%	16.08%

US TREASURY RATES IN 2025

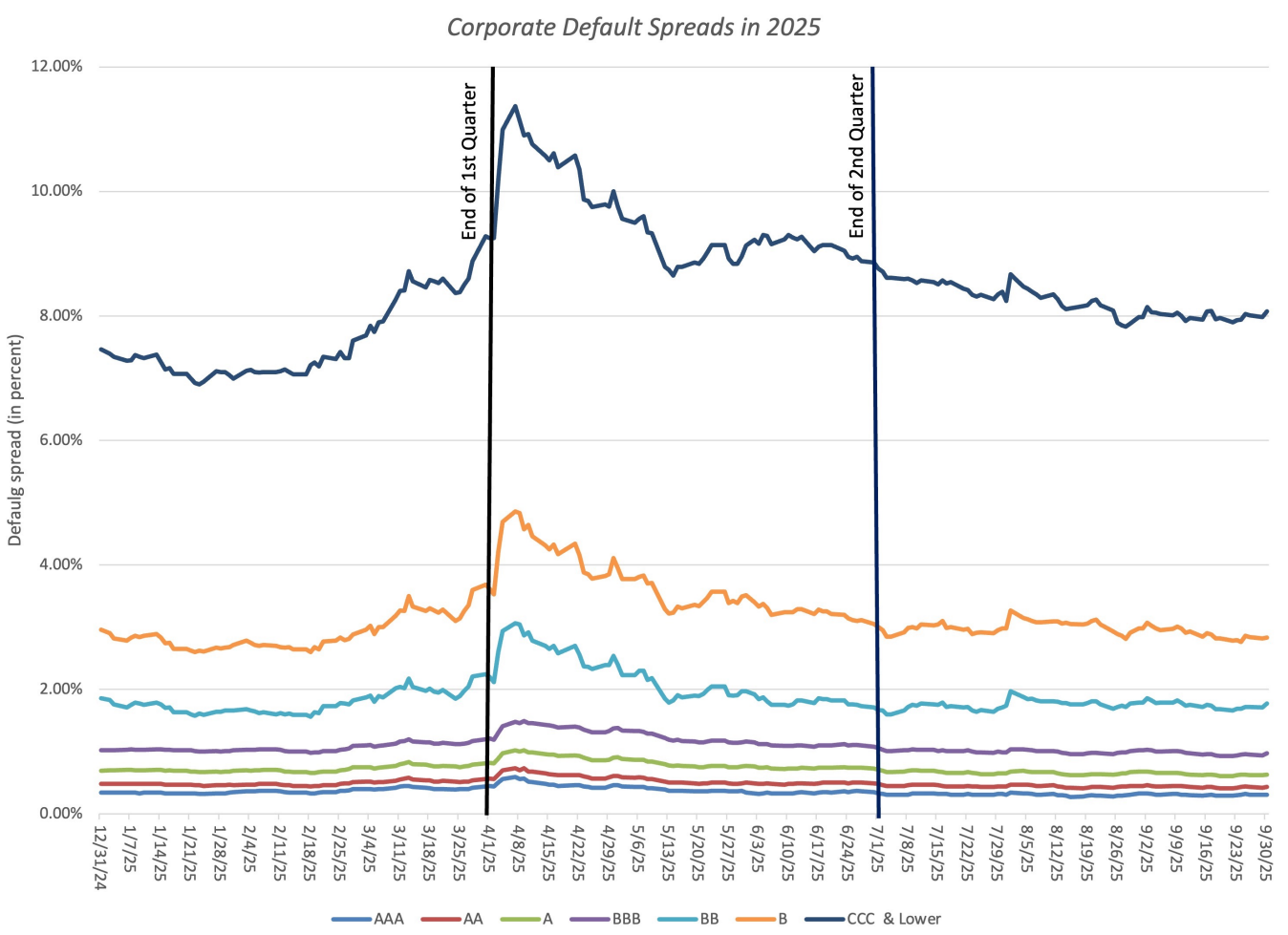


	3 month	2-year	10-year	30-year
12/31/24	4.37%	4.25%	4.58%	4.78%
3/31/25	4.32%	3.89%	4.23%	4.59%
6/30/25	4.41%	3.72%	4.24%	4.78%
9/30/25	4.02%	3.60%	4.16%	4.73%
Change	-0.35%	-0.65%	-0.42%	-0.05%

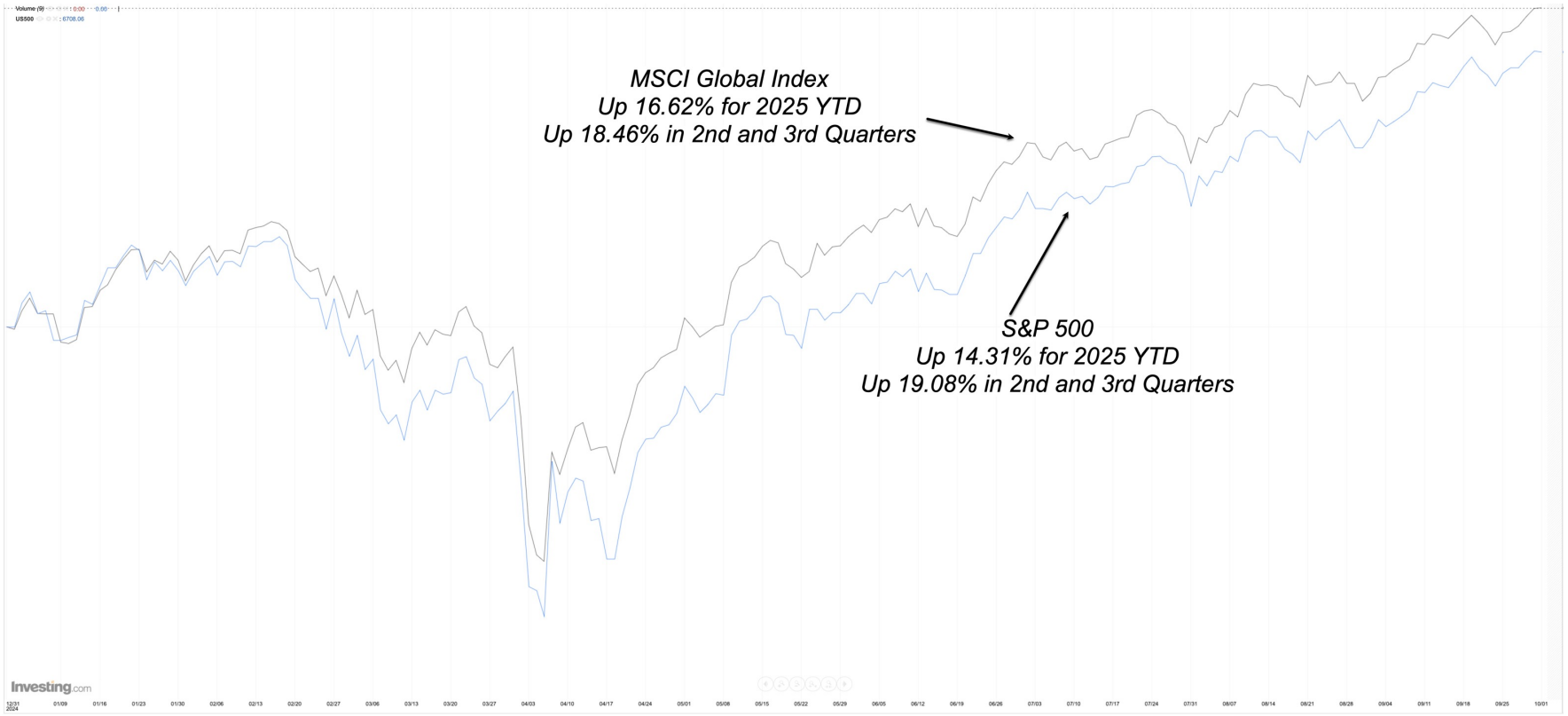
THE MOODY'S DOWNGRADE



CORPORATE DEFAULT SPREADS



THE REST OF THE STORY: INTERNATIONAL EQUITIES VS US EQUITIES?

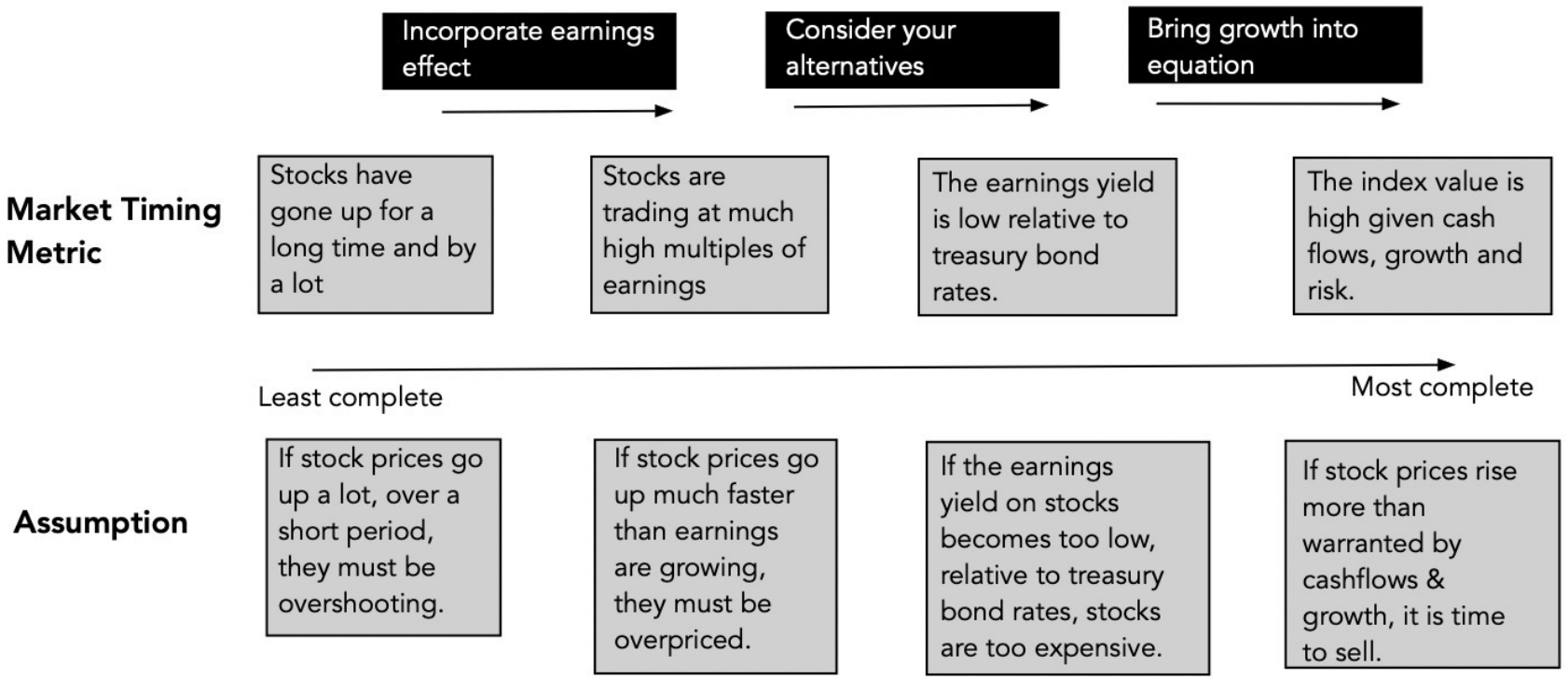


AND A REGIONAL BREAKDOWN?

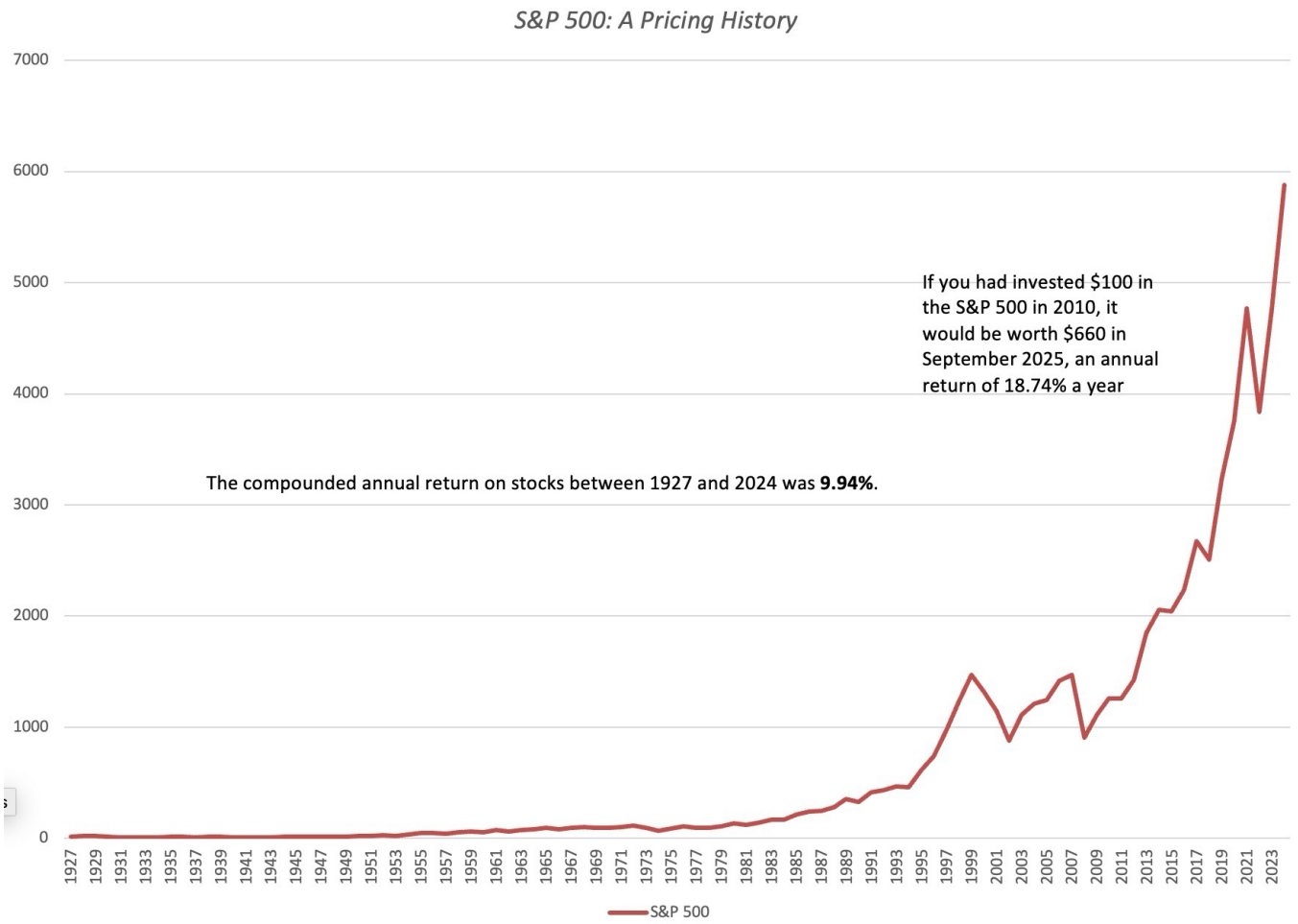
			Change in $ value (millions)				*Change in percent*			
Region	Number of firms	Start of 2025	1st Qtr	2nd Qtr	3rd Qtr	1st 3 qtrs: 2025	1st Qtr	2nd Qtr	3rd Qtr	1st 3 qtrs: 2025
Africa and Middle East	2,526	$5,335,083	-$100,153	$16,413	$197,527	$113,786	-1.88%	0.31%	3.76%	2.13%
Australia & NZ	1,635	$1,803,126	-$76,725	$248,405	$108,780	$280,460	-4.26%	14.39%	5.51%	15.55%
Canada	2,486	$2,927,601	-$7,575	$398,589	$304,849	$695,863	-0.26%	13.65%	9.19%	23.77%
China	7,767	$16,124,590	$744,024	$968,072	$2,888,146	$4,600,241	4.61%	5.74%	16.19%	28.53%
EU & Environs	5,856	$15,312,287	$1,193,208	$1,633,202	$521,554	$3,347,963	7.79%	9.89%	2.88%	21.86%
Eastern Europe & Russia	370	$147,223	$8,212	$14,277	$14,992	$37,482	5.58%	9.19%	8.83%	25.46%
India	4,730	$5,187,698	-$358,207	$527,048	-$332,041	-$163,201	-6.90%	10.91%	-6.20%	-3.15%
Japan	3,919	$6,136,766	-$7,020	$688,844	$422,275	$1,104,099	-0.11%	11.24%	6.19%	17.99%
Latin America & Caribbean	1,191	$2,035,092	$140,875	$259,255	$152,961	$553,091	6.92%	11.91%	6.28%	27.18%
Small Asia	10,065	$6,885,589	-$421,495	$1,159,817	$815,686	$1,554,008	-6.12%	17.94%	10.70%	22.57%
UK	1,072	$3,358,688	$192,212	$330,941	$124,618	$647,770	5.72%	9.32%	3.21%	19.29%
United States	5,786	$65,253,744	$1,307,355	$6,244,861	$5,219,346	$12,771,561	-5.30%	10.74%	8.48%	13.76%
Global	47,403	$125,172,405	$2,714,863	$12,473,309	$10,241,164	$25,429,336	-1.50%	10.01%	7.78%	16.78%

	Outperformed global equities
	Underperformed global equities
	Matched global equities

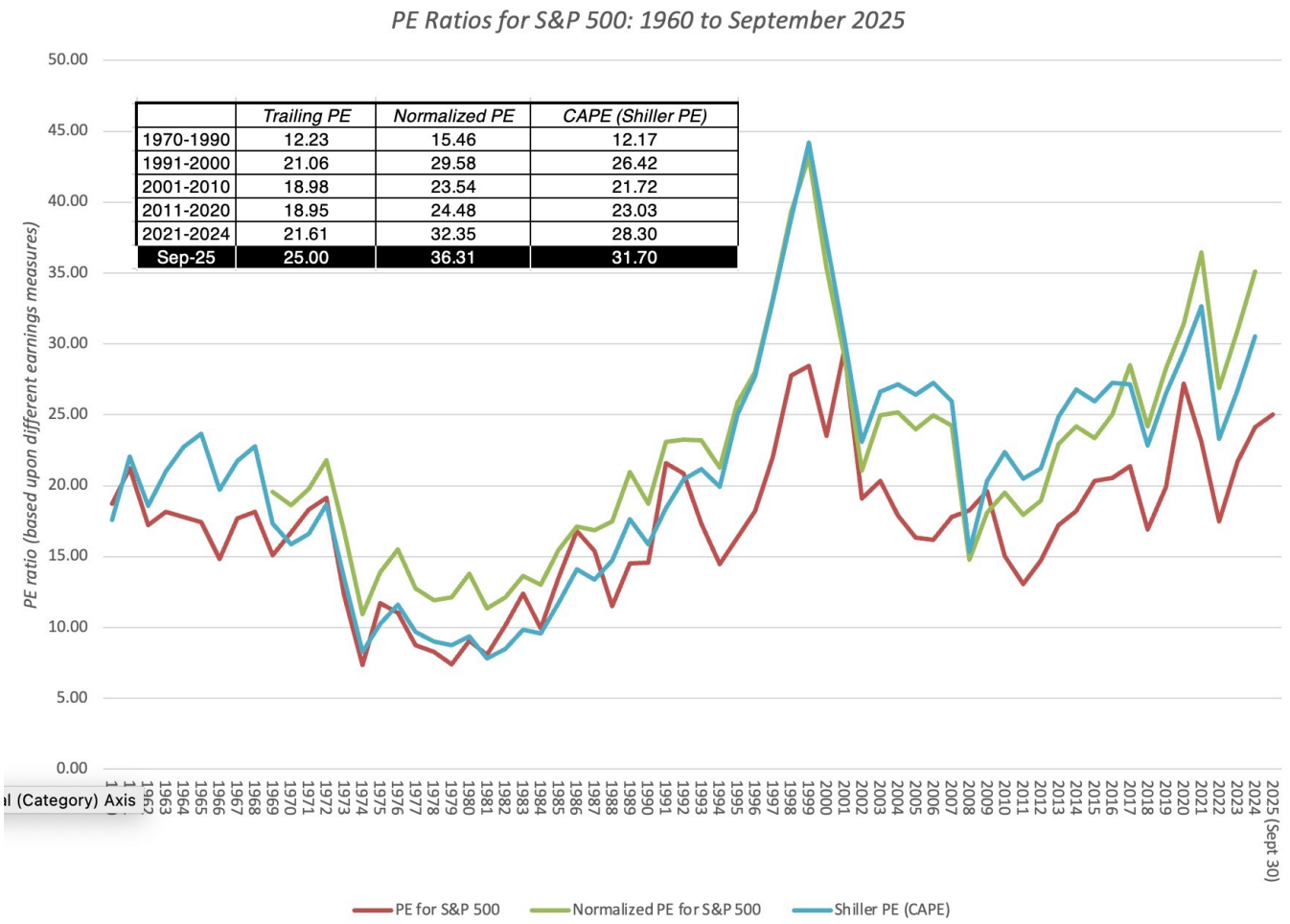
US EQUITIES: OVER OR UNDERPRICED?



1. RISING STOCK PRICES

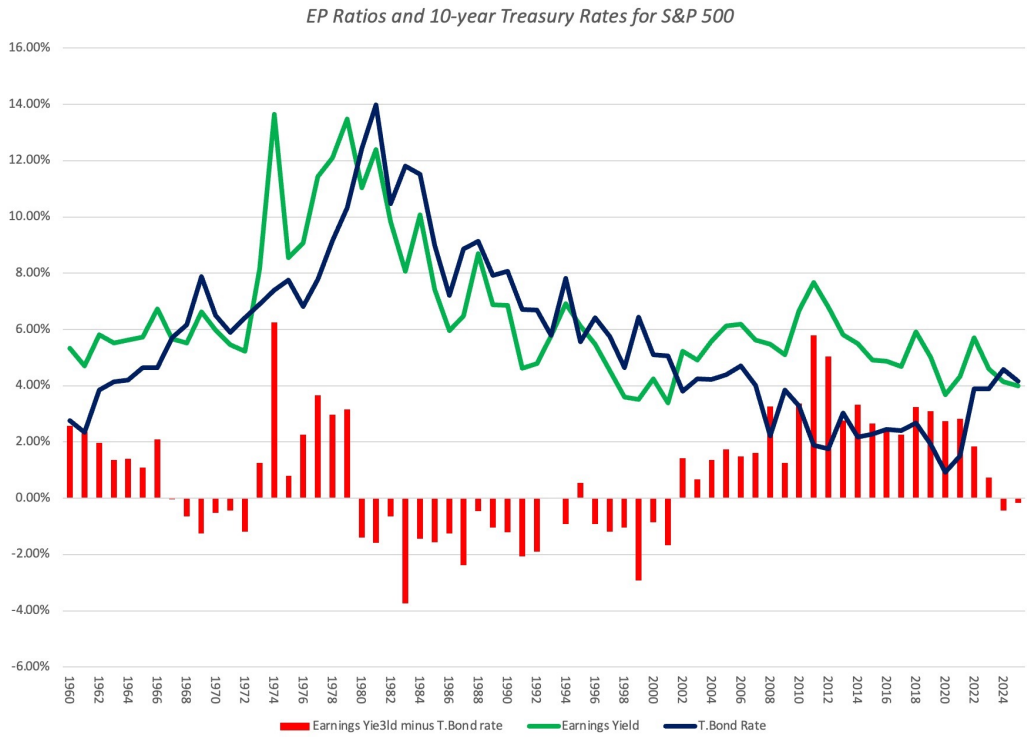


2. THE EARNINGS EFFECT



	Trailing PE	Normalized PE	CAPE (Shiller PE)
1970-1990	12.23	15.46	12.17
1991-2000	21.06	29.58	26.42
2001-2010	18.98	23.54	21.72
2011-2020	18.95	24.48	23.03
2021-2024	21.61	32.35	28.30
Sep-25	25.00	36.31	31.70

3. WHAT'S THE ALTERNATIVE?



	Earnings Yield (EP)	Ten-year T. Bond Rate	EP - T.Bond Rate	Shiller PE	T.Bond PE	Shiller PE/T.Bond PE
1970-1990	8.90%	8.83%	0.07%	12.13	11.96	1.02
1991-2000	4.96%	6.09%	-1.13%	28.61	16.75	1.70
2001-2010	5.46%	3.06%	2.39%	24.88	38.81	0.77
2011-2020	5.48%	2.15%	3.33%	25.25	51.23	0.54
2021	4.33%	1.51%	2.82%	32.68	66.23	0.49
2022	5.72%	3.88%	1.84%	23.28	25.77	0.90
2023	4.61%	3.88%	0.73%	26.73	25.77	1.04
2024	4.14%	4.58%	-0.44%	30.50	21.83	1.40
Sep-25	4.00%	4.16%	-0.16%	31.70	24.04	1.32

4. THE FULL STORY

The expected cash flows are the cash flows left over for equity investors after firms invest a portion of their earnings to deliver future growth.

$$\text{Intrinsic Value of Market} = \frac{E(CF_1)}{(1+r)^1} + \frac{E(CF_2)}{(1+r)^2} + \cdots + \frac{E(CF_{n+1})}{(r-g_n)(1+r)^n}$$

Required return (r) = Riskfree rate + Equity Risk Premium
The equity risk premium will be a function of investor risk aversion and perceived equity risk

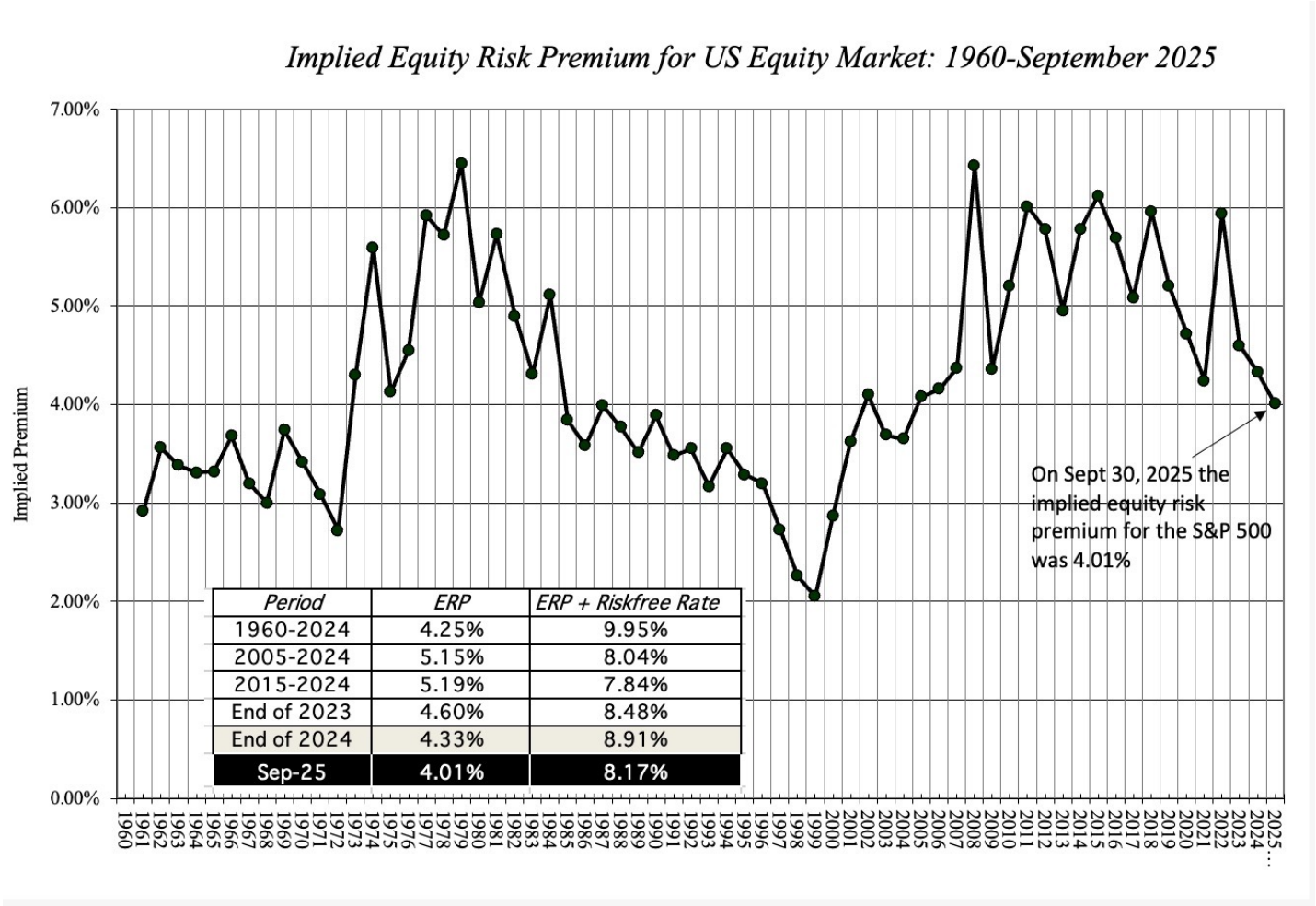
An IRR (and implied ERP)
Solve for the discount rate that makes the PV of cash flows = Level of the index today

Is the implied equity risk premium too low (market overpriced) or too high (market underpriced)?

An Intrinsic value for the Index
Make an estimate of a reasonable equity risk premium and solve for the value of the index today

Is the intrinsic value of the index lower (overpriced) or higher (underpriced) than the current level?

4A. THE IMPLIED EQUITY RISK PREMIUM



4B. THE INTRINSIC VALUE OF THE INDEX

An Intrinsic Value of the S&P 500

At Current Interest Rates and With Market Consensus Earnings Estimates

Earnings estimates: Analyst estimates of earnings for 2025 & 2026, with growth scaling down to steady state growth (set equal to the riskfree rate)

	2024	2025	2026	2027	2028	2029	*2030 (TY)*
Expected earnings growth rate		8.94%	8.94%	8.94%	8.94%	8.94%	*4.16%*
Expected Earnings	246.19	268.19	292.15	318.26	346.70	377.68	393.39
Expected cash payout %	81.99%	80.97%	79.96%	78.94%	77.92%	76.90%	76.90%
Expected Dividends + Buybacks =	195.03	217.17	233.59	251.22	270.14	290.43	**302.51**
Expected Terminal Value =						7117.95	
Time to cashflow		0.2500	1.2500	2.2500	3.2500	4.2500	
US 10-year treasury rate		4.16%	4.16%	4.16%	4.16%	4.16%	
ERP		4.25%	4.25%	4.25%	4.25%	4.25%	
Present Value =		53.21	211.17	209.49	207.78	5256.28	
	My estimate	The market	% under of over				
Intrinsic Value of Index =	5937.92	6688.46	12.64%				
Intrinsic Trailing PE =	22.14	24.94					

Riskfree rate: The treasury bond rate of 4.16% will remain as the steady state.

ERP: The equity risk premium converges on 4.25%, the average premium between 1960 and 2024.

Terminal value = 302.51/ (.0841-.0416) = 7117.95

Cash Payout as % of Earnings: Starts at 2024 levels, but changes over time to reflect sustainable payout, given growth and ROE. Using the average ROE of 18%, this yields a payout ratio of 76.9% (= 1 -.0416/.18) in 2030.

AN OVERPRICED MARKET?

- It is undeniable that this market is richly priced on every metric, from PE ratios to the earnings yield, net of treasuries, to intrinsic value measures like the equity risk premium, thus providing backing for Powell's "fairly highly valued" market.
- If you trust in mean reversion to historical averages, it seems reasonable to conclude that stocks are in fact overpriced, and due for a correction.
- In this section, we will examine why, even if you come to this conclusion, it is difficult to convert it into action and more importantly actions that generate profits.

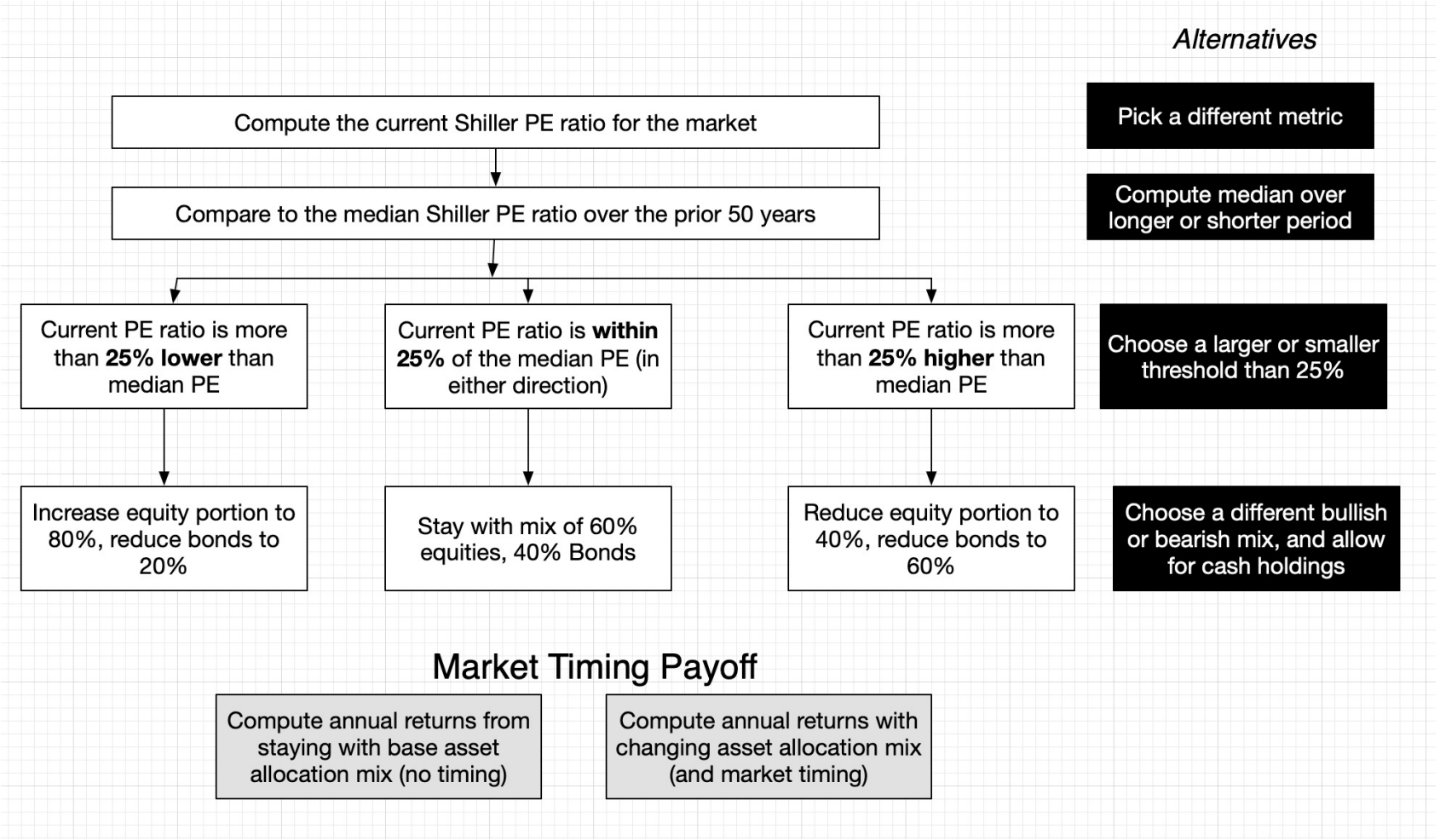
THE CHOICES

1. Do nothing: The essence of being a non-market timer is that you do not alter any aspect of your portfolio to reflect your market views.
2. Hold on to/ build cash holdings: For the most part, you match what you would have done in the do nothing response in terms of overall asset allocation mix and holdings, but you not only put your portfolio hold-ins into cash (treasury bills, money market funds) but when you act, it will be more likely to be selling and existing holding (that you view as over valued) than buying a new one.
3. Change asset allocation mix: In this response, you revisit your preferred asset allocation mix, which was set based on your age, cash needs and risk aversion, and alter it to reflect your market timing views. Thus, if you believe that stocks are overpriced, but you view bonds as fairly or even under priced, you will decrease your allocation to the former and increase your allocation to the latter.
4. Buy protection: You can buy puts on the index or sell index futures, if you think equities are overpriced, and benefit from the fact that these derivatives will make you money, if there is a correction.
5. Make leveraged bets of market correction: The most aggressive way to take advantage of market timing is to make leveraged bets on market correction, using either derivatives markets (puts or futures) or selling short on either all of the stocks in an index, or a subset of the most overpriced.

AN ACTION STRATEGY FOR TIMING

1. Choose the pricing metric: As noted in the last section, this can be the percentage increase in stock prices over a recent period, the current or normalized pricing ratio (PE, PBV, EV to EBITDA) or the equity risk premium/intrinsic value for the index.
2. Create your action rule: The action rule specifies the threshold for the metric, where you will act on your market timing. You could, for instance, decide that you will increase your equity exposure if the PE ratio is more than 25% below the median value for the market's PE ratios over the previous 25, 50 or 100 years, and reduce your equity exposure if the PE ratio is more than 25% higher than the median value over the period. Note that the trade off on setting the threshold is that setting it to a larger value (say 50%) will create a more conservative timing strategy, but one where there is less timing action response.
3. Choose your market timing response: You specify how much your will increase or decrease your equity exposure in response to the market timing signal. Thus, if you have base asset allocation mix of 60% equities, 40% bonds, you can decide that if your threshold (from step 2) is breached, and the PE ratio drops by more than 25% below the median, your equity exposure will increase (decrease) to 80% (40%) and your bond exposure reduced (increased) to 20% (60

ONE EXAMPLE WITH CAPE



THE PAYOFF!

Market Timing Results								
	With robot blend			With market timing			Market Timing Payoff	
Period	*Average Return*	*Std Deviaton*	*Value of $100 invested at start of period*	*Annual Return*	*Std Deviaton*	*Value of $100 invested at start of period*	*% Return*	*$ Payoff*
1924-2024	9.10%	11.61%	$336,759	9.06%	11.29%	$340,166	-0.04%	$3,407
1925-1974	7.84%	12.84%	$3,024	8.17%	12.99%	$4,868	0.33%	$1,844
1975-2024	10.36%	10.20%	$11,135	9.95%	9.33%	$9,602	-0.41%	-$1,533

WITH VARIANTS..

This is the action that is triggered when the threshold is crested

This is the change in annual return over the period, from acting on market timing

This is the threshold above or below the median CAPE over the last 50 years, where action is triggered.

Percent below (above) median PE to trigger timing action			Market Timing Payoff (change in annual return)		
Threshold	Under priced	Over priced	1924-1974	1974-2024	1924-2024
10%	100/0	0/100	1.42%	-1.03%	0.20%
10%	80/20	40/60	0.82%	-0.22%	0.30%
25%	100/0	0/100	1.66%	-2.00%	-0.17%
25%	80/20	40/60	0.33%	-0.41%	-0.04%
50%	100/0	0/100	-0.42%	-0.68%	-0.55%
50%	80/20	40/60	-0.14%	-0.23%	-0.18%

MARKET TIMING: THE IMPOSSIBLE DREAM!

- I describe myself as someone who does not time markets, and while that is not quite true, the reason is not that markets cannot be valued or that I don't have a point of view on whether stocks collectively are more likely overpriced or underpriced.
- It is because acting on that belief of market overpricing or underpricing does not seem to provide the promised payoff, charts and correlations notwithstanding.
- While I do not alter asset allocations or my stock picks significantly because of my market view, I do adjust my behavior at the margin, holding more of the inflows in my portfolio in cash and not being in as much of a hurry to reinvest cash that I get from selling stocks that I believe have hit their past due dates.