

Market Outlook: Rate Cuts and Deficits and Elections, Oh My!

Q4, 2024



While inflation is slowing and the U.S. economy remains resilient, several critical issues remain, including large fiscal deficits, infrastructure needs, restructuring of trade and remilitarization of the world. While we hope for the best, these events and the prevailing uncertainty demonstrate why we must be prepared for any environment.

Jamie Dimon, JPMorgan CEO



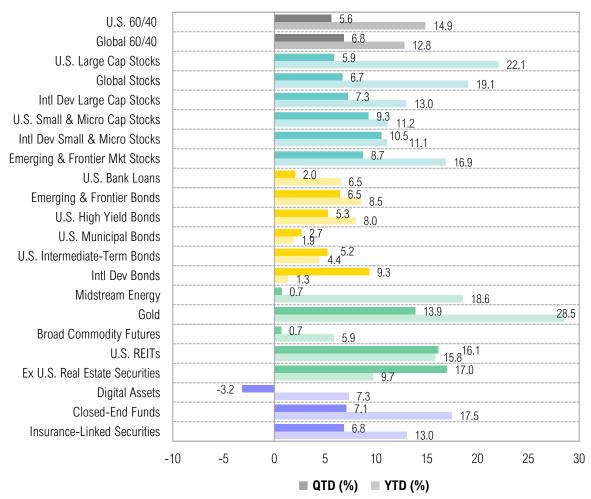




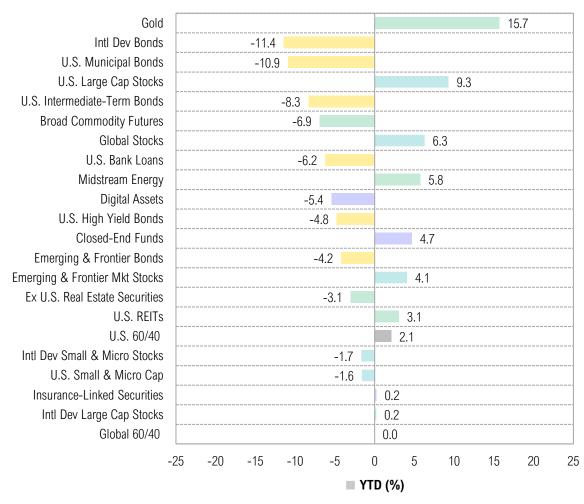


Major winners over the third quarter include ex-U.S. real estate (+17.0%) and U.S. REITs (+16.1%) while digital assets (-3.2%) and broad commodities (+0.7%) lagged

Total Returns, %

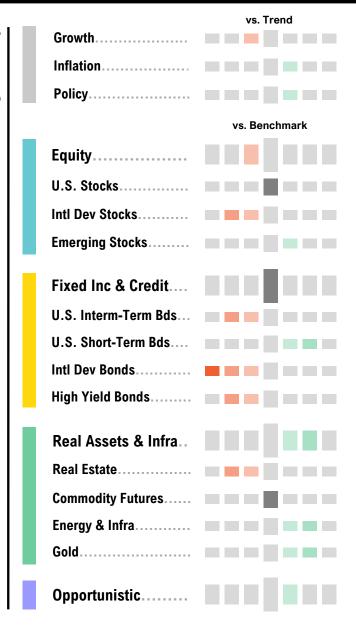


Relative Total Returns vs. Global 60/40, %



Source: Bloomberg. Returns for periods greater than 1 year are annualized.





- The U.S. remains a positive outlier amid slow growth in developed economies and China, underpinned by high debt loads, high deficits, and poor demographics.
- U.S. consumer spending becoming more discerning on higher credit costs and depleting savings, but pain limited to low-end cons.; high-end has room to lever up.
- The Fed pivot last year likely marks a watershed moment for policy and markets.
- While the U.S. policy mix remains unusually supportive, U.S. equity valuations are approaching peak levels; be thoughtful with equity risks
- Tilt towards quality and higher free cash flows in large caps, but maintain some exposure
 to high-quality growth managers. Active small cap and emerging markets are excellent
 opportunities; Europe remains a value trap.
- The recent broadening of the bull market is healthy with tailwinds as long as policy is loose and bond yields stay contained
- Uncompensated risks in longer-duration bonds, especially if the Fed's preemptive rate cuts turn out to be a mistake and inflation picks up again.
- Public credit is very tight; minimize risks there, but opportunities exist in securities and other areas for high-quality active fixed income and credit managers.
- Select private credit is still poised to outperform, but avoid legacy portfolios.
- Watch 10-year yields (>5%) for inflation concerns returning and credit spreads (>400bps) for signs of economic stress.
- Policy, geopolitics and AI power needs all argue for a healthy allocation to real assets.
- Al power demand is leading to opportunities in energy infrastructure, including utilities, natural gas and nuclear.
- · Look for emerging opportunities in private real estate, but avoid legacy portfolios.
- Bonds, gold, and bitcoin will continue to compete for incremental safe-haven flows as the rate-cutting cycle begins. Given fiscal issues, we favor a diversified approach.
- Volatility creates opportunity: consider tactical multi-asset and long/short equity. Stick to first principles: stay diversified, avoid unnecessary risks, and fade extremes.

1

U.S. growth continues to be driven by past stimulus & deficit spending, with both presidential candidates likely to continue this trend.

2

Higher rates and Al have created historic divergences, with room for repricing in profitable small caps, among other areas.



Policy, geopolitics and Al power needs all argue for a healthy allocation to real assets.



Stick to first principles: Stay diversified, avoid unnecessary risks, and fade extremes.





There is thinking that the time to support the labor market is when it's strong and not when you begin to see the layoffs... We don't think we need to see further loosening in labor market conditions to get inflation down to 2 percent."

Jerome Powell. Federal Reserve Chairman



So, I think what there is to say about consumer spend is a little bit boring in a sense, because what's happened is that it's become normal. Overall, we see the spending patterns as being sort of solid and consistent with the narrative that the consumer is on solid footing and consistent with the strong labor market."

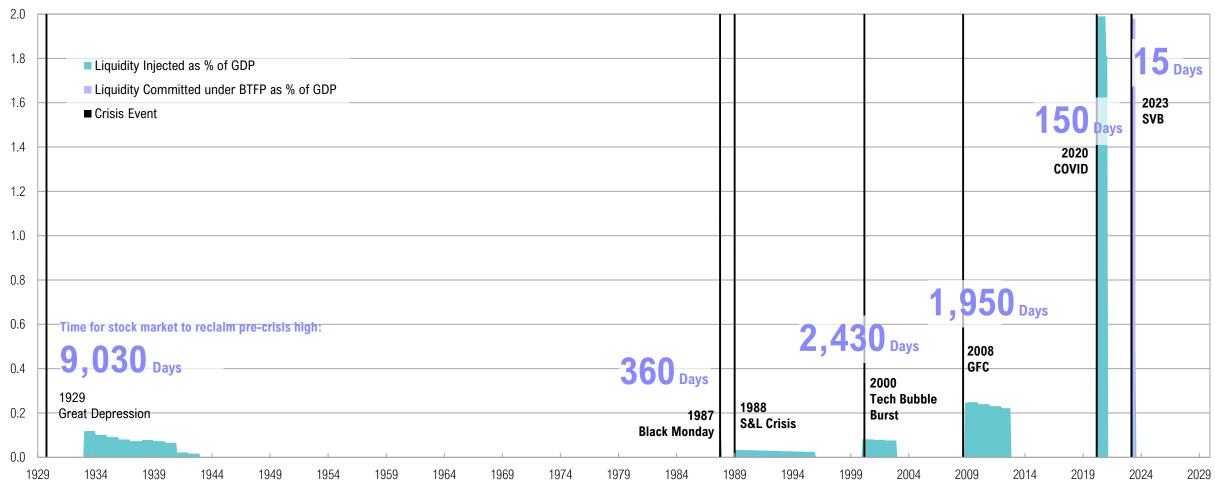
Jeremy Barnum, JPMorgan Chase CFO





Liquidity injections are becoming larger and faster, with faster transmission to markets

Estimated Monthly Liquidity Injected as a % of GDP*

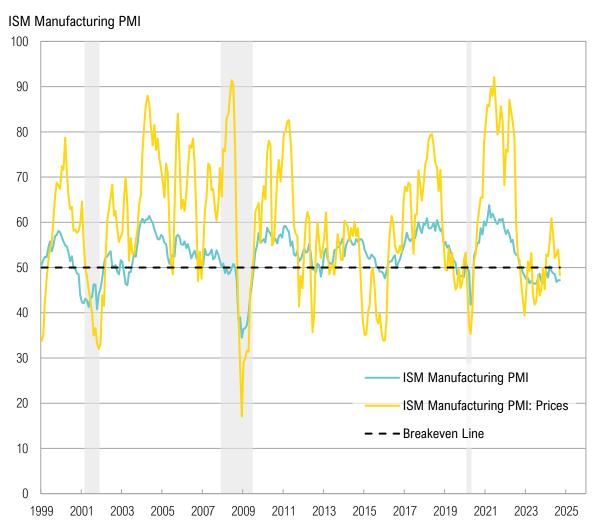


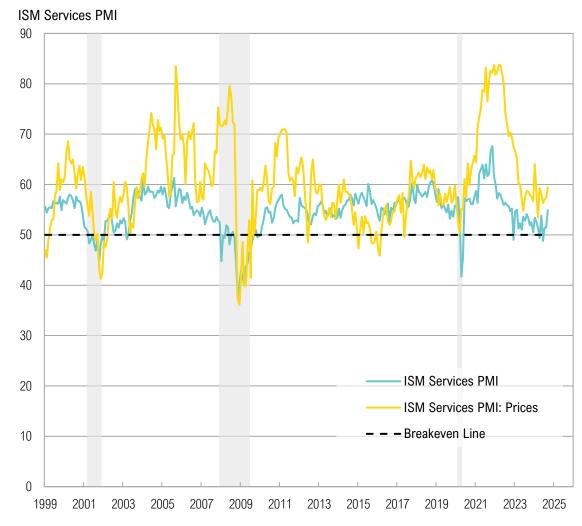
Source: Bloomberg, SpringTide, various. Bloomberg. *Liquidity injection.





While the manufacturing sector remains in contractionary territory, the services sector remains strong; services prices paid in September rose to the highest level since January



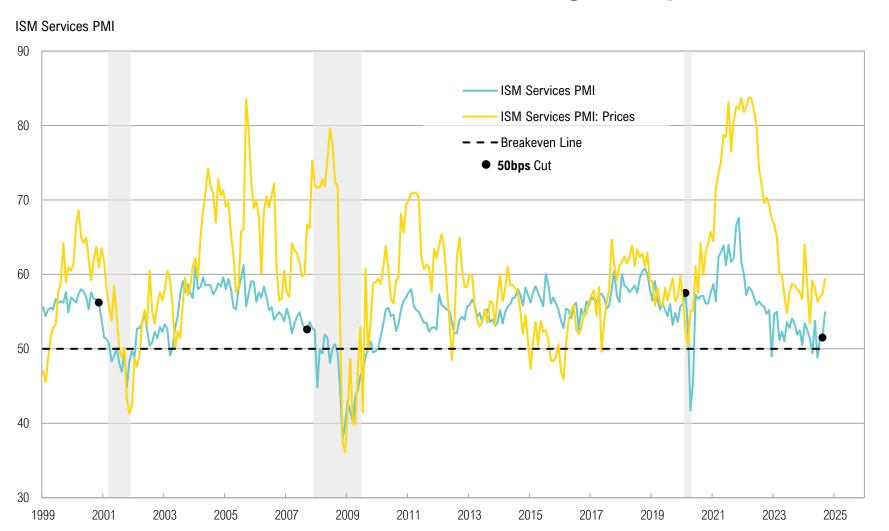


Source: Bloomberg. As of 9/30/2024.





The Fed risks fueling a growing economy; this is the first time ISM Services PMI has increased in the month following a 50bps rate cut



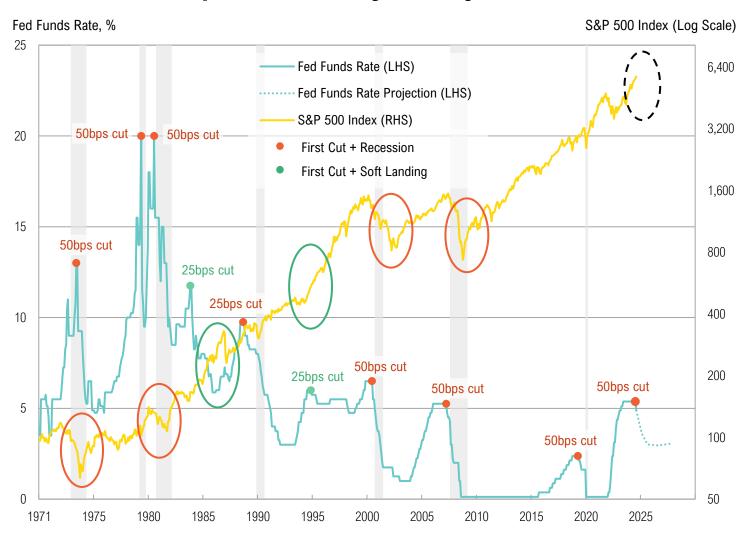
ISM Services PMI									
Date of First Cut*	Month Prior	Month After	Change						
1/3/2001	54.0	51.6	-2.4						
9/18/2007	52.7	52.6	-0.1						
3/3/2020	57.5	52.9	-4.6						
9/18/2024	51.5	54.9	3.4						

Source: Bloomberg. As of 9/30/2024. *First 50 basis point cut of the rate cutting cycle.





A 50bps cut usually only happens during times of crisis; history shows us if the first cut is 50bps, it's usually been justified



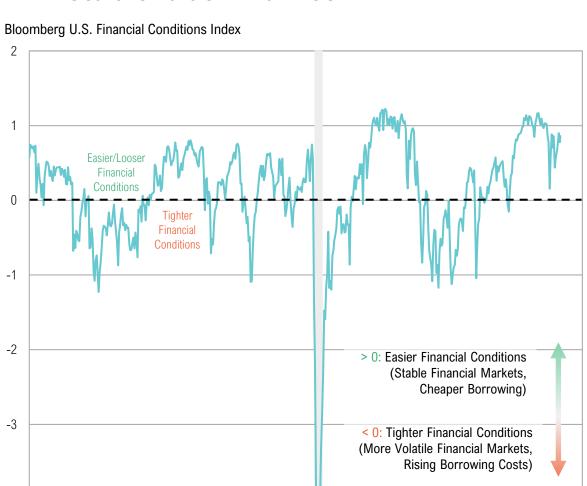
Key Economic Data at Time of First 50 Bps Rate Cut (Except 1999*)									
Metric	12/21/1999	1/3/2001	9/18/2007	9/18/2024					
Real Fed Funds Rate	2.6%	2.3%	2.1%	2.7%					
Unemployment Rate	4.0%	4.2%	4.7%	4.2%					
Initial Jobless Claims	287,000	318,000	302,000	219,000					
Cont. Jobless Claims	2.12mn	2.37mn	2.53mn	1.83mn					
Credit Spreads	4.8%	7.9%	4.2%	3.2%					
Headline CPI (Y/Y)	2.7%	3.7%	2.8%	2.6%					
Core CPI (Y/Y)	1.9%	2.6%	2.1%	3.2%					
S&P 500 PE Ratio	30.5x	30.1x	19.4x	27.5x					
10-Year Treasury Yield	6.3%	4.9%	4.5%	3.6%					

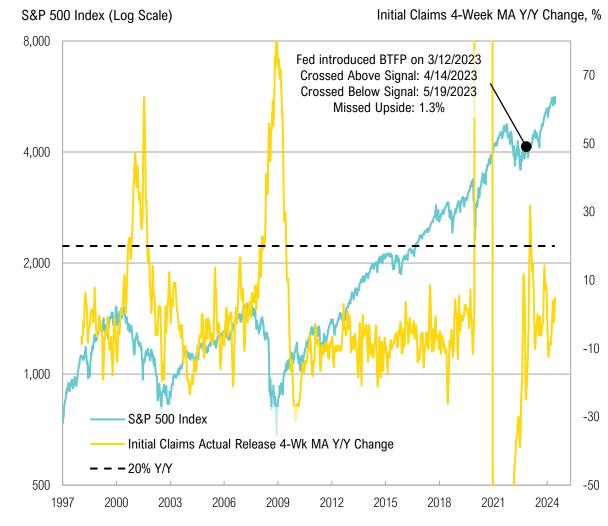
Source: Bloomberg. *At the December 1999 FOMC meeting, the Fed kept interest rates unchanged, citing uncertainties around the century date change.





Financial conditions remain loose; initial jobless claims continue to indicate a stable labor market





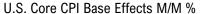
Source: Bloomberg

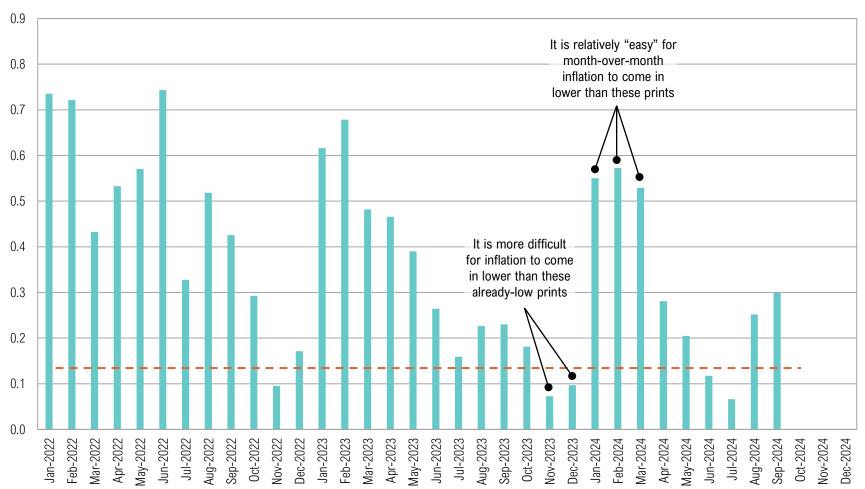
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Further, core inflation may remain sticky: base effects show the challenge to beat "easy" larger month-over-month prints becomes more challenging through year-end





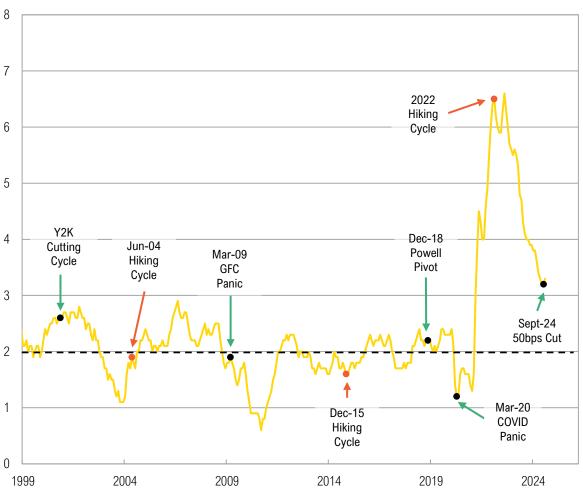
- Base effects impact how an inflation print appears
- For example, if the 12-monthsago print had unusually high inflation, this year's inflation rate might seem lower, even if prices are still rising. This is because prices are being compared to already elevated levels from the previous year
- It will be tougher to beat the particularly low November and December 2023 prints
- The red line is what each monthly print needs to be over a 12-month period (0.15) to get core inflation back to 2%, something that has occurred only a handful of times over the past two years

Source: Bloomberg

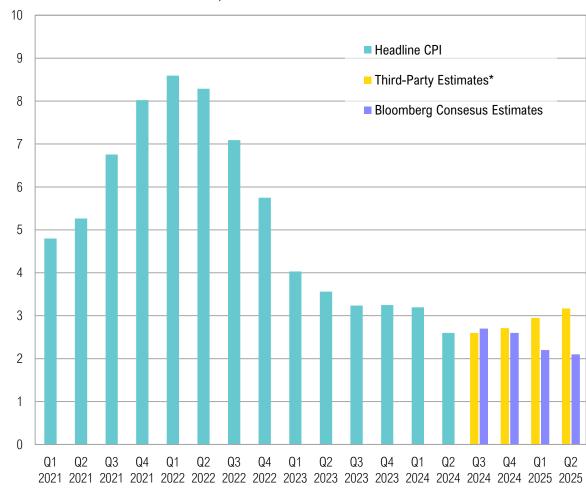


Inflation's last mile: At 3.3%, core inflation remains well above target; estimates show that headline inflation is likely to remain above 2% through the first half of 2025





U.S. Headline CPI & Future Estimates, Y/Y %



Source: Bloomberg. *Third party estimates: Hedgeye.





Globally, inflation has eased, but manufacturing activity has slowed; country divergences continue with Japan, Canada and select emerging markets faring better than the Euro area

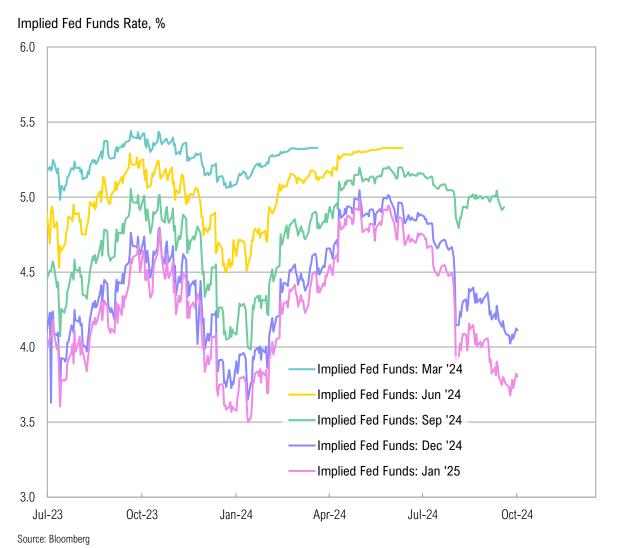
Manufactu	ring P	MIs b	y Cou	ntry*	& Reg	gion																				Count	try & (GDP-V	/eight	ed Re	giona	al Infl	ation			
		20)22							202	23										2024						20	22			20	23			2024	
	S	0	N	D	J	F	М	Α	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Global	49.8	49.4	48.8	48.7	49.1	49.9	49.6	49.6	49.5	48.7	48.6	49.0	49.2	48.8	49.3	49.0	50.0	50.3	50.6	50.3	51.0	50.8	49.7	49.6	48.8	5.9	6.8	6.7	5.8	4.3	3.1	3.2	2.7	2.6	2.5	2.1
Developed	50.1	48.8	47.8	47.3	48.0	48.1	48.4	48.5	47.6	46.3	47.1	46.8	47.4	47.5	47.7	47.0	48.9	49.3	49.3	48.6	50.0	49.7	48.8	48.3	47.5	7.1	8.0	7.9	7.0	5.5	4.0	4.0	3.3	3.1	2.8	2.2
Emerging	49.4	49.8	49.7	49.8	49.9	51.6	50.7	50.5	51.4	51.1	50.2	51.3	50.9	50.1	50.9	50.9	51.1	51.5	52.0	52.0	51.9	52.1	50.7	50.8	49.8	4.1	4.9	4.8	3.7	2.4	1.5	1.8	1.8	1.9	2.0	2.0
Developed																																				
U.S.	52.0	50.4	47.7	46.2	46.9	47.3	49.2	50.2	48.4	46.3	49.0	47.9	49.8	50.0	49.4	47.9	50.7	52.2	51.9	50.0	51.3	51.6	49.6	47.9	47.3	8.5	9.1	8.2	6.5	5.0	3.0	3.7	3.4	3.5	3.0	2.5
Canada	49.8	48.8	49.6	49.2	51.0	52.4	48.6	50.2	49.0	48.8	49.6	48.0	47.5	48.6	47.7	45.4	48.3	49.7	49.8	49.4	49.3	49.3	47.8	49.5	50.4	6.7	8.1	6.9	6.3	4.3	2.8	3.8	3.4	2.9	2.7	2.0
Japan	50.8	50.7	49.0	48.9	48.9	47.7	49.2	49.5	50.6	49.8	49.6	49.6	48.5	48.7	48.3	47.9	48.0	47.2	48.2	49.6	50.4	50.0	49.1	49.8	49.7	1.2	2.4	3.0	4.0	3.2	3.3	3.0	2.6	2.7	2.8	3.0
UK	48.4	46.2	46.5	45.3	47.0	49.3	47.9	47.8	47.1	46.5	45.3	43.0	44.3	44.8	47.2	46.2	47.0	47.5	50.3	49.1	51.2	50.9	52.1		51.5	6.2	9.2	10.0	10.7	10.2	8.4	6.7	4.2	3.5	2.1	2.2
Eurozone	48.4	1011	47.1	47.8	48.8	48.5	47.3	45.8	44.8	43.4	42.7	43.5	43.4	43.1	44.2	44.4	46.6	46.5	46.1	45.7	47.3	45.8	45.8		45.0	7.4	8.6	9.9	9.2	6.9	5.5	4.3	2.9	2.4	2.5	1.8
Germany	47.8	45.1	46.2	47.1	47.3	46.3	44.7	44.5	43.2	40.6	38.8	39.1	39.6	40.8	42.6	43.3	45.5	42.5	41.9	42.5	45.4	43.5	43.2		40.6	5.9	6.7	8.6	8.1	7.4	6.4	4.5	3.7	2.2	2.2	1.6
France	47.7	47.2	48.3	49.2	50.5	47.4	47.3	45.6	45.7	46.0	45.1	46.0	44.2	42.8	42.9	42.1	43.1	47.1	46.2	45.3	46.4	45.4	44.0		44.6	4.5	5.8	5.6	5.9	5.7	4.5	4.9	3.7	2.3	2.2	1.2
Italy Spain	48.3		48.4	48.5	50.4	52.0	51.1	46.8	45.9	43.8	44.5	45.4	46.8	44.9	44.4	45.3		48.7	50.4	47.3	45.6 54.0	45.7	47.4		48.3	6.8	8.5	9.4	12.3	8.1	6.7	5.6	0.5	1.2		0.8
Netherlands	49.0	44.7 47.9	45.7 46.0	46.4	48.4 49.6	50.7	51.3	49.0	48.4	48.0	47.8 45.3	46.5	47.7	45.1 43.8	46.3	46.2 44.8		51.5 49.3	49.7	52.2 51.3	52.5	52.3 50.7	51.0 49.2	50.5	53.0	9.8 9.7	10.2	8.9	5.7 9.6	3.3 4.4	1.9 5.7	3.5 0.2	3.1	3.2	3.4	1.5 3.5
Australia	53.5		51.3		50.0	50.5	40.4	44.9	44.2	48.2	49.6	49.6	48.7			44.6						47.2	49.2		46.7	5.1	6.1	7.3	7.8	7.0	6.0		4.1	3.6		
Greece						51.7	1011			51.8																8.0	11.6	12.1					3.7		2.5	n/a
	70.1	70.1	то.т	71.2	70.2	01.7	02.0	UZ.T	01.0	01.0	00.0	02.0	00.0	30.0	00.0	01.0	07.7	00.1	00.0	00.2	07.0	07.0	00.2	02.0	30.0	0.0	11.0	12.1	1.0	J. 4	2.0	2.4	0.1	0.4	2.0	0.2
Emerging																																				
China	48.1		49.4	49.0	49.2	51.6	50.0	49.5	50.9	50.5	49.2	51.0	50.6	49.5	50.7	50.8	50.8	50.9	51.1	51.4	51.7	51.8	49.8	50.4	49.3	1.5	2.5	2.8	1.8	0.7	0.0	0.0	-0.3	0.1	0.2	0.6
Indonesia Korea	53.7			50.9	51.3	51.2	51.9	52.7	50.3	52.5	53.3	53.9	52.3		51.7	52.2	52.9	52.7	54.2	52.9	52.1	50.7	49.3	48.9	49.2	2.6	4.4	6.0	5.5	5.0	3.5	2.3	2.8	3.1		1.8
Taiwan	47.3		49.0	48.2	48.5	48.5	47.6 48.6	48.1	48.4	47.8 44.8	49.4	48.9	49.9	49.8 47.6	50.0	49.9	51.2 48.8	50.7	49.8	49.4	51.6	52.0 53.2	51.4		48.3	4.2	6.0	5.5	5.0	4.2	2.7	3.7	3.2	3.1		1.6
Brazil	51.1			44.0	47.5	49.0	47.0	44.3	44.5	44.0	47.8	50.1	49.0	48.6	40.3	48.4	52.8	54.1	53.6	50.2 55.9	50.9 52.1	52.5	52.9 54.0	50.4	50.8 53.2	3.3	3.6	2.8 7.2	2.7 5.8	2.4	1.8	2.9 5.2	2.7 4.6	2.2 3.9	2.4	2.4 4.2
Mexico	50.3		50.6	51.3	48.9	51.0	51.0	51.1	50.5	50.9	53.2	51.2	49.0	52.1	52.5	52.0	50.2	52.3	52.2	51.0	51.2	51.1	49.6		47.3	7.5	8.0	8.7	7.8	6.9	5.1	4.5	4.0	4.4	5.0	5.0
Russia	52.0		53.2	53.0	52.6	53.6	53.2	52.6	53.5	52.6	52.1	52.7	54.5	53.8	53.8	54.6		54.7	55.7	54.3	54.4	54.9	53.6		49.5	16.7	15.9	13.7	11.9	3.5	3.3	6.0	7.4	7.7	8.6	9.1
South Africa	49.2		50.6	50.2	48.7	50.5	49.7	49.6	47.9	48.7	48.2	51.0	49.9	48.9	50.0	49.0	49.2	50.8	48.4	50.3	50.4	49.2	49.3		51.0	5.9	7.4	7.5	7.2	7.1	5.4	5.4	5.1	5.3	5.1	4.4
India	55.1	55.3		57.8		55.3	56.4	57.2	58.7	57.8	57.7	58.6		55.5	56.0	54.9	56.5	56.9	59.1	58.8	57.5	58.3	58.1	57.5		7.0	7.0	7.4	5.7	5.7	4.9	5.0	5.7	4.9	5.1	
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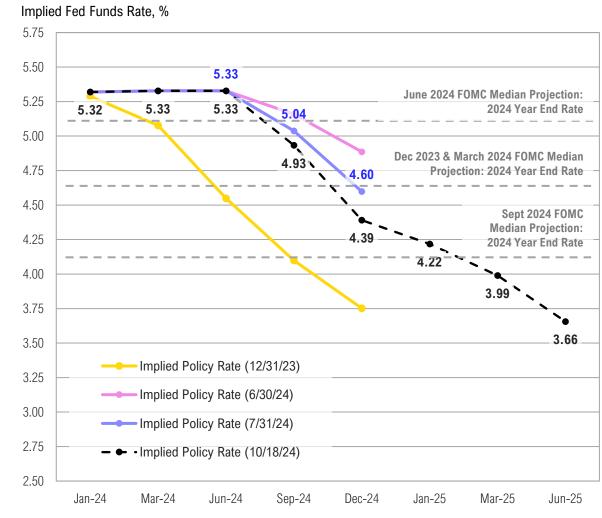
Source: Bloomberg, Markit. *Some countries might have delayed reporting.

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After last month's 50bps rate cut, both markets and the Fed expect the equivalent of another 50bps in rate cuts before year end (a 25bps cut at each remaining FOMC meeting)

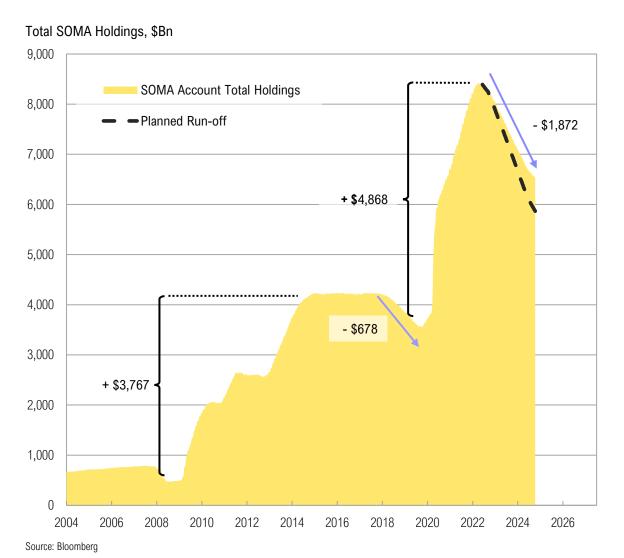


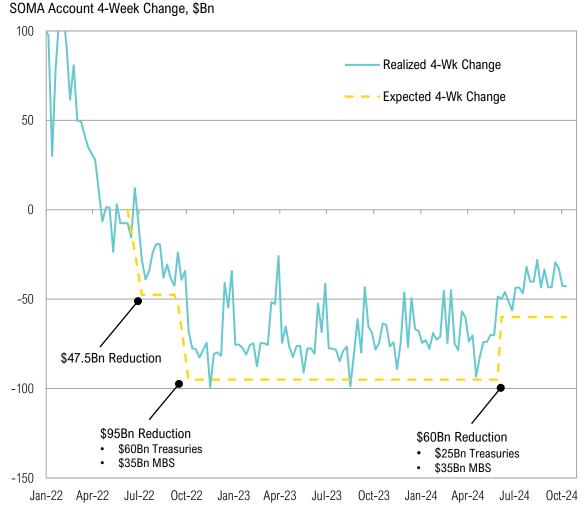






The Fed slowed the pace of QT on June 1, despite inflation remaining above target for >3 years, having reduced the balance sheet by only <40% of what was added during COVID and lagging its planned runoff by >\$500bn



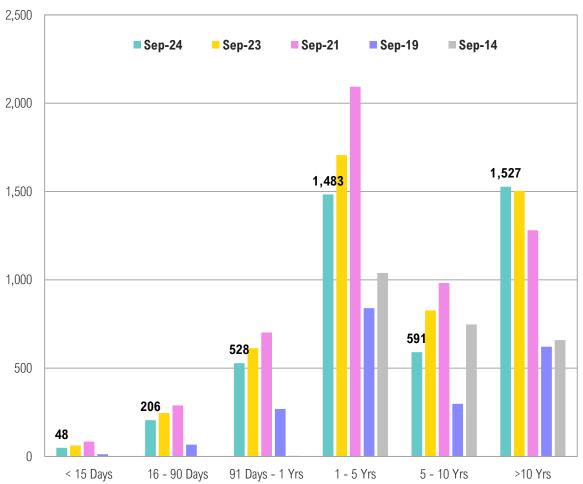




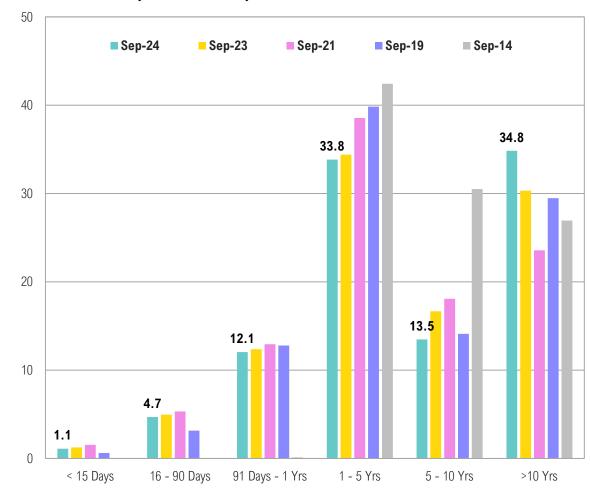


~18% (\$780bn) of the Fed's balance sheet assets are maturing within the next year—enough to hit the \$25bn monthly roll-off target; this implies the Fed will purchase ~\$500bn in Treasuries

Value of Fed Treasury Assets vs Maturity, \$Bn



% of Total Fed Treasury Assets vs Maturity

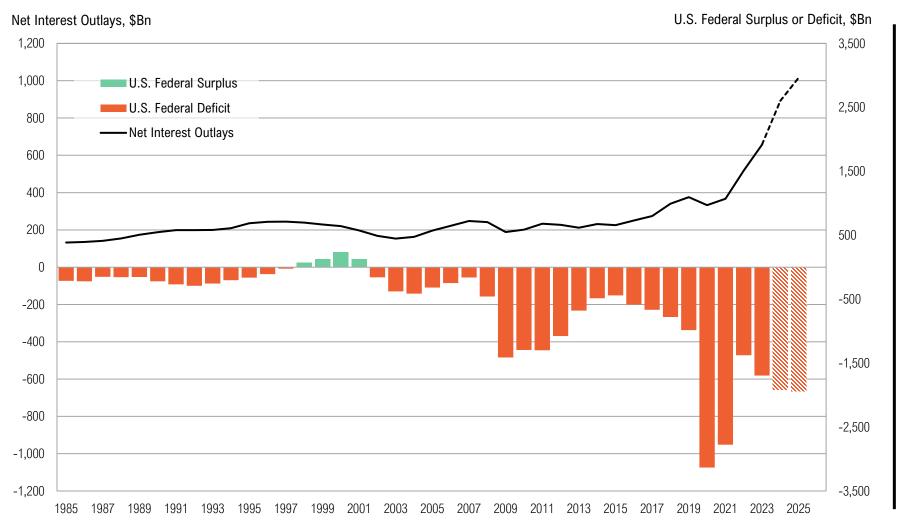


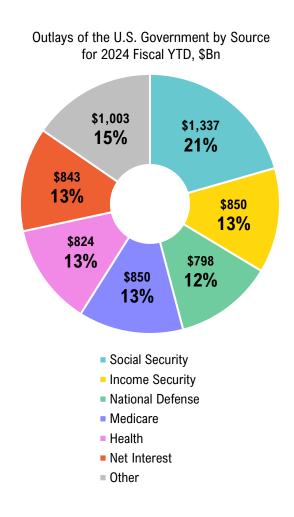
Source: Bloomberg. As of 9/30/2024.

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Government spending continues unchecked: through August, the fiscal budget deficit for 2024 was already at \$1.9Tn; net interest outlays now exceed defense and health spending





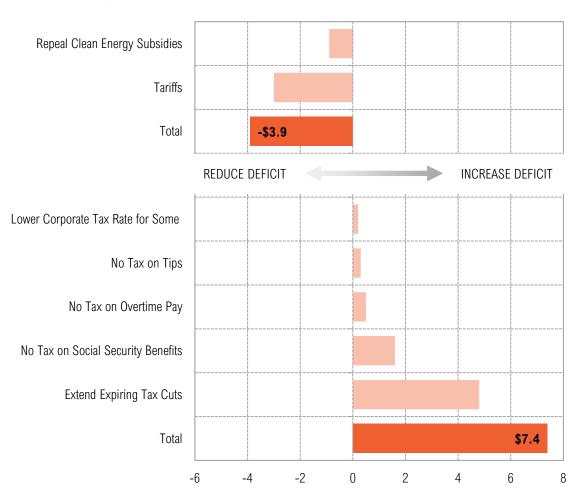
Source: Bloomberg, Congressional Budget Office, U.S. Department of Treasury. *Fiscal year 2024 started on 10/1/2023. As of 8/31/2024.

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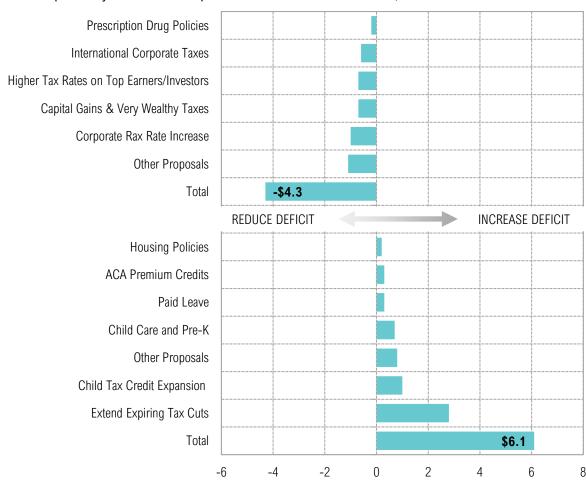


Both Trump's and Harris's fiscal policies would, on balance, increase the deficit over the next 10 years

How Proposals By Trump Could Impact the U.S. Deficit Over 10 Years, \$Tn



How Proposals By Harris Could Impact the U.S. Deficit Over 10 Years, \$Tn



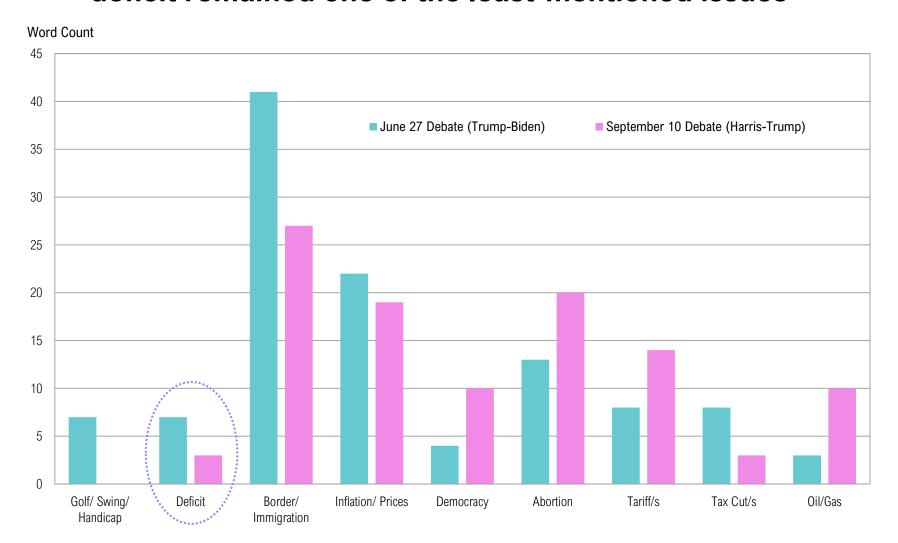
Source: Piper Sandler, Wall Street Journal. Selected proposals shown. Trump analysis does not include missile defense and mass deportation programs, and lower end of range shown for overtime proposal. Harris analysis uses some Biden budget numbers for policies where Harris hasn't provided details.



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Word counts from the two presidential debates show a shift in focus—but the deficit remained one of the least-mentioned issues



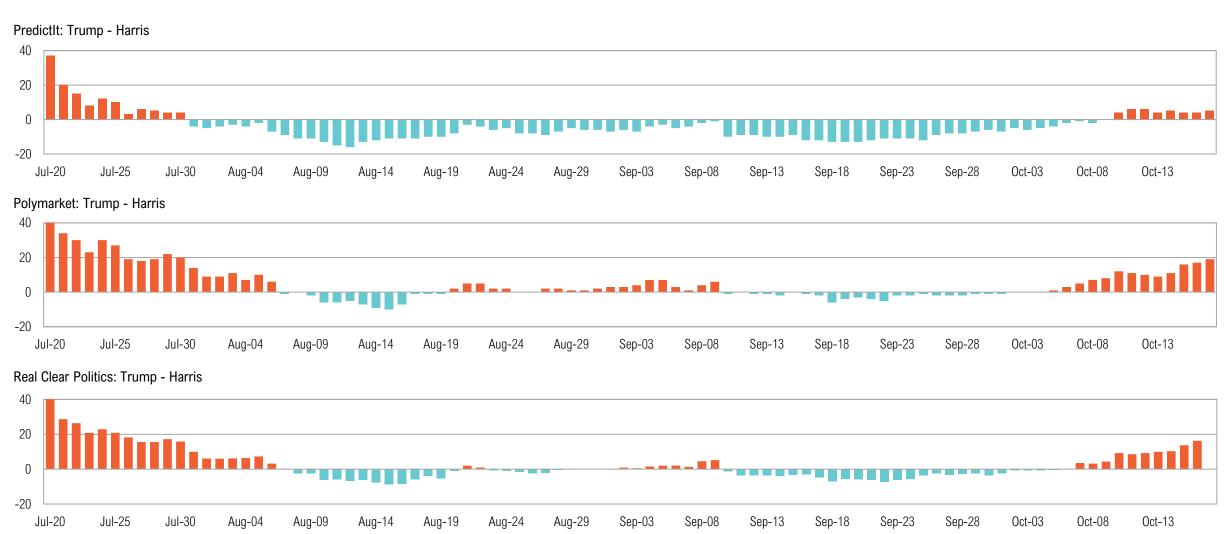
- The shifting focal points of the two presidential debates reflect the changing tone of discourse and the perceived importance of certain issues
- While earlier debates emphasized topics like border security, immigration, inflation, and tax cuts, recent discussions have moved towards issues such as abortion, tariffs, and democracy
- Notably, the growing U.S. fiscal deficit remained one of the leastdiscussed topics in both debates, with the term 'deficit' mentioned as often as golf-related phrases in the first debate

Source: The American Presidency Project





Betting markets have shifted to a Republican Presidential win next month



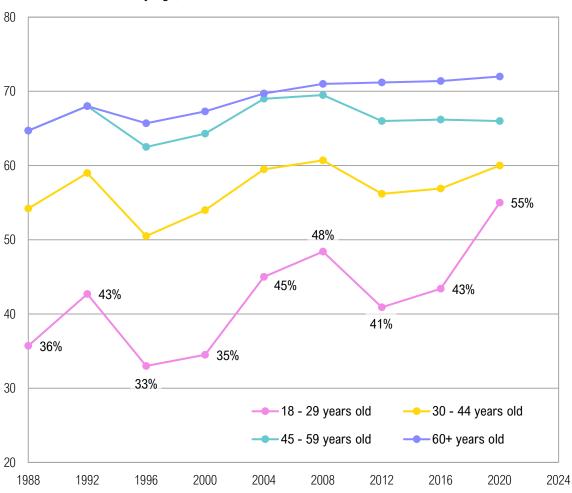
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Source: Predictlt, Polymarket, Real Clear Politics. As of 10/17/2024.

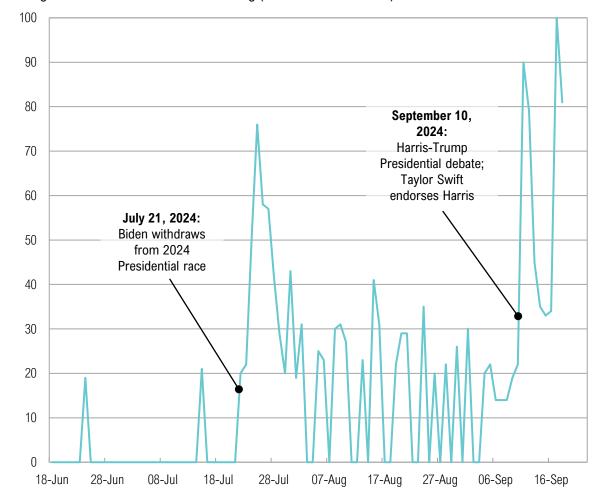


Young voters historically have had the lowest turnout, but increased participation may impact the election outcome; Taylor Swift's Harris endorsement spiked Vote.org searches

U.S. Voter Rate Turnout by Age, %



Google Search Trend Nationwide: Vote.org (6/18/2024 – 9/18/2024)



Source: Statista, Our World in Data, U.S. Census Bureau, Google Search Trends.

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Votes

10

3 17

State Alabama Alaska Arkansas

Idaho Indiana Iowa Kansas Kentucky Louisiana Mississippi

Missouri

Montana Nebraska Nebraska (01) Nebraska (03) North Dakota



State

The road to 270 electoral votes is looking unlikely for either candidate without Pennsylvania

	California	54
	Colorado	10
	Connecticut	7
	Delaware	3
מר	Dist. of Columbia	3
5	Hawaii	4
2	Illinois	19
ו ל	Maine (01)	1
	Maryland	10
g	Massachusetts	11
,	New Jersey	14
	New York	28
	Oregon	8
	Rhode Island	4
	Vermont	3
	Washington	12

Likely Democrat							
State	Votes						
Maine	2						
Minnesota	10						
New Hampshire	4						
New Mexico	5						
Virginia	13						
Nebraska (02)	1						
Total	35						

Democrats

Toss Up/Dem Tilt						
State	Votes					
Wisconsin	10					
Michigan	15					
Nevada	6					
Total	31					
Estimated Total 257						

	Votes	
nsin	10	Donneylyani
jan	15	Pennsylvani 19
a	6	10
	31	

Toes	lln	Ran	Tilt
Toss	υþ/	rep	HILL

State	Votes
Georgia	16
Arizona	11
North Carolina	16
Total	43

Estimated 1	Fotal 262
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اماا	W	2an	uhl	Cal

Likely Kep	ubiican
State	Votes
Florida	30
Maine (02)	1
Texas	40
Total	71

Estimat	T bol	otal	262
LStillia	.eu i	Otai	202

Ohio	
Oklahoma	
South Carolina	
South Dakota	
Tennessee	
Utah	
West Virginia	
Wyoming	
Total	

			▼			
101	226		93		219	148
191	35	31	19	43	71	140

Republicans

Source: FiveThirtyEight, 270ToWin. As of 10/18/2024.

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Scenario analysis of possible policy outcomes with betting market odds¹

Trump & Republican Congress - 44%¹





- Reversal of many Biden administration regulatory actions and rollback of certain Inflation Reduction Act (IRA) provisions
- Expansive tax package reauthorizing most of the Tax Cuts and Jobs Act (TCJA) provisions (lower corporate tax rates)
- Renewed effort to repeal/replace Affordable Care Act with same hurdles present
- Immigration and border security focus administratively and legislatively
- Tariffs and hardline trade negotiations
- Funding for Israel/Taiwan continues, but Ukraine aid would face headwinds

Trump & Divided Congress – 15%¹





- Reversal of many Biden administration regulatory actions
- Key provisions of the Tax Cuts and Jobs Act are extended, but ultimately a narrower package
- Political risk around funding deadlines and debt ceiling extension date
- Expansive use of executive orders
- Focus on investigations/oversight if House flips to Democratic control
- Funding for Israel/Taiwan continues, but Ukraine would face headwinds

Harris & Democrat Congress – 14%¹





- Expansive tax package reauthorizing most of the TCJA provisions for those earning less than \$400k and materially increasing the tax burden for higher earners
- Childcare, housing, health and climate proposals excluded from the Inflation Reduction Act via reconciliation
- Expand Medicare drug price negotiation
- Infrastructure/CHIPS 2.0 Act
- Student loan cancellation
- Funding for Israel, Taiwan and Ukraine continues

Harris & Divided Congress - 23%1





- White House defense against efforts to reverse Biden-era regulatory actions
- Limited extension of certain Tax Cuts and Jobs Act provisions with pronounced focus on middle- and lower-income families
- Political risk around funding deadlines and debt ceiling extension date
- Expansive use of executive orders
- Focus on investigations/oversight if House flips to Republican control
- Funding for Israel/Taiwan continues, but Ukraine funding would be more difficult to secure

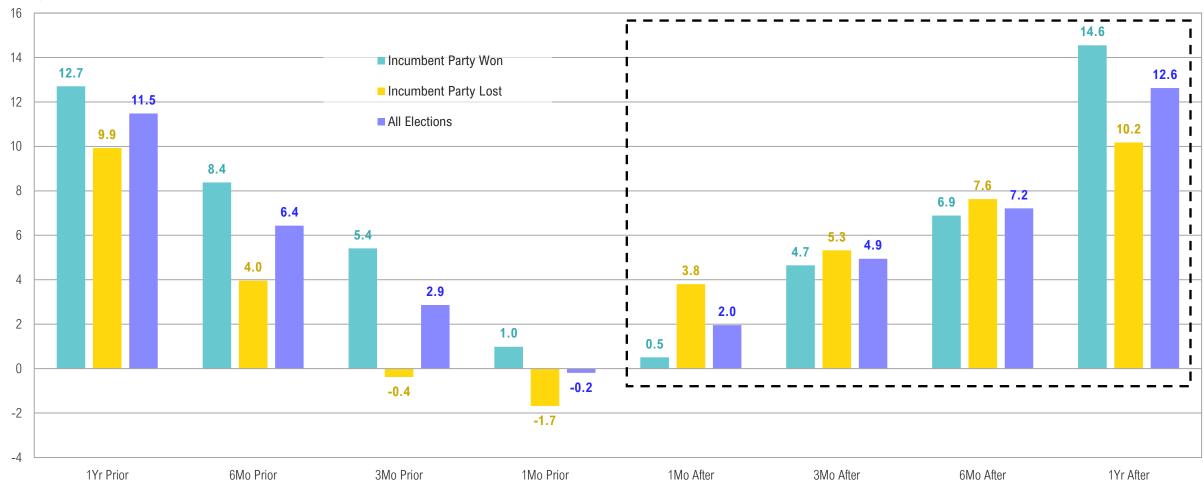
Sources: RealClearPolitics, BTIG, American Century, SpringTide. ¹Outcome odds via Polymarket. As of 10/18/2024.

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Short-term volatility aside, markets generally perform relatively well once election uncertainty clears

Average S&P 500 Total Returns vs. Presidential Election Results, 1924 – 2020



Source: Bloomberg. SpringTide.





...there is nothing new in Wall Street. There can't be because speculation is as old as the hills. Whatever happens in the stock market today has happened before and will happen again."

Edwin LeFevre, American writer & journalist



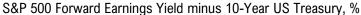
I've been quite clear that I think the future could be quite turbulent and asset prices in my view... are inflated. I don't know if they're extremely inflated or a little bit, but I prefer to wait."

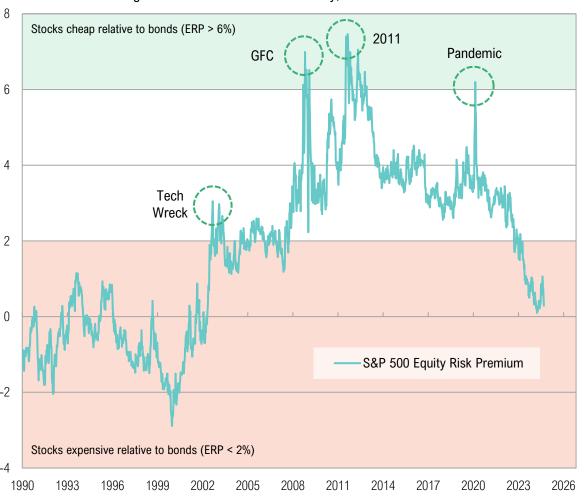
Jamie Dimon, JPMorgan Chase Chairman & CEO

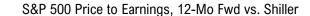


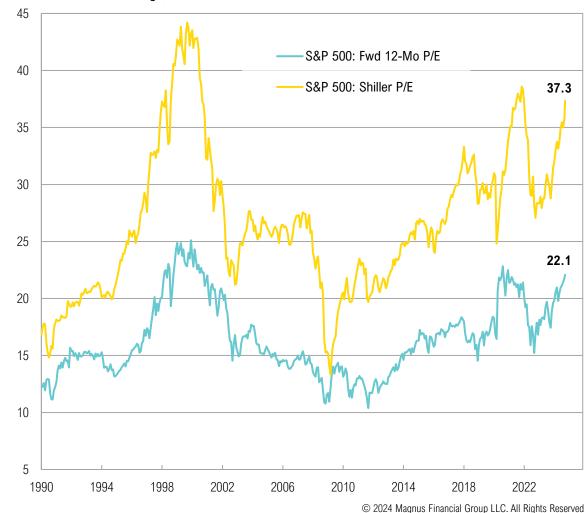


Using a yield-to-earnings yield comparison (ERP), U.S. stocks are less attractively priced vis-à-vis bonds than at any point since the 1990s; valuations appear rich from both a Shiller and forward P/E perspective









Source: Bloomberg. Equity risk premium calculated as S&P 500 earnings yield minus 10-year Treasury yield.

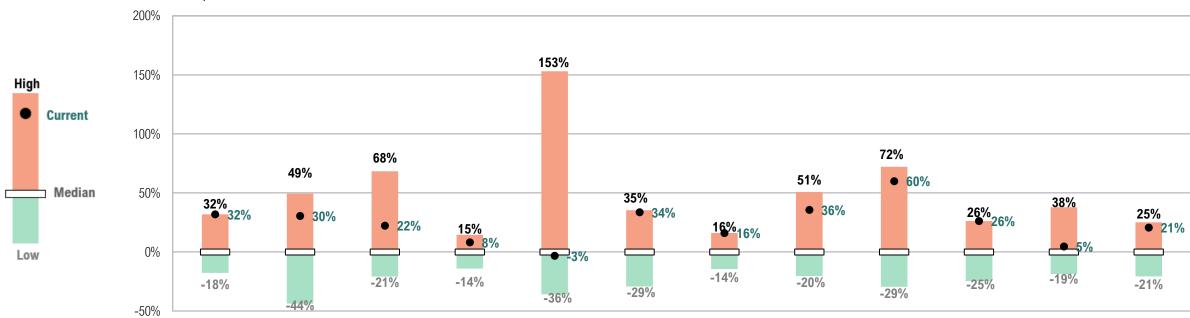
Q4, 2024 Market Outlook, Page 27





S&P 500 composite valuations are at 10-year highs; most sectors are trading at premiums relative to their internal median valuations, with Tech, Financials, Materials, and Health Care at or near 10-year highs

Current Composite Valuation Premium/Discount vs. 10-Year Median*



		Communication	Consumer	Consumer					Information			
	S&P 500	Services	Discretionary	Staples	Energy	Financials	Health Care	Industrials	Technology	Materials	Real Estate	Utilities
High Valuation Date	4/30/2021	8/31/2021	4/30/2021	4/29/2022	4/29/2016	1/31/2024	7/30/2021	4/30/2021	1/31/2024	4/30/2021	12/31/2021	8/31/2022
Low Valuation Date	1/31/2014	5/31/2018	9/30/2014	1/31/2014	9/30/2022	3/31/2020	3/31/2020	9/30/2015	1/31/2014	9/30/2015	10/31/2023	1/31/2014
Valuation Premium on 12/31/2023	19%	22%	19%	-4%	-16%	26%	6%	17%	59%	18%	-2%	-1%
Valuation Premium on 12/31/2022	0%	-4%	-7%	7%	-23%	1%	3%	6%	14%	-2%	-12%	16%
Valuation Premium on 12/31/2021	33%	54%	61%	15%	-23%	16%	8%	30%	66%	13%	35%	26%
Valuation Premium on 12/31/2020	32%	54%	64%	10%	44%	4%	3%	41%	56%	28%	15%	17%
Valuation Premium on 12/31/2019	8%	28%	8%	6%	0%	5%	5%	2%	19%	8%	10%	20%

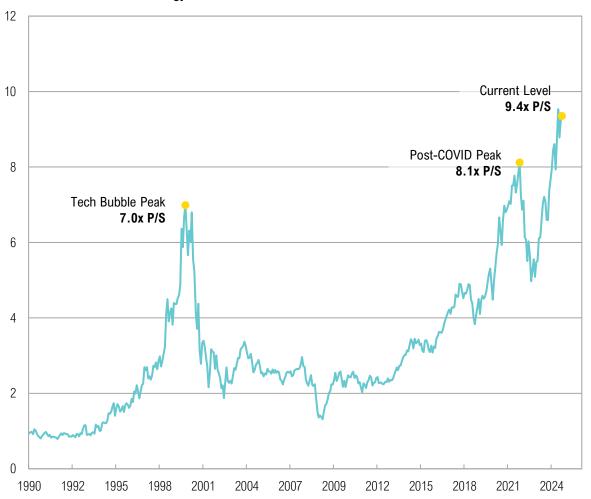
Source: Bloomberg. *The composite valuation equal weights four valuation metrics (Fwd P/E, Fwd P/CF, TTM P/S and TTM EV/EBITDA) relative to each respective sector's 10-year medium valuation. The Financials composite replaces EV/EBITDA with TTM P/B.





The tech sector P/S ratio is currently over 30% higher than peak Tech Bubble levels: NVDA (30.1x), and MSFT (13.3x) account for ~40% of the sector; the median tech stock trades at 6.5x P/S

S&P 500 Information Technology Sector, Price to Sales Ratio



S&P 500 Information Technology Sector: Top 20 Holdings

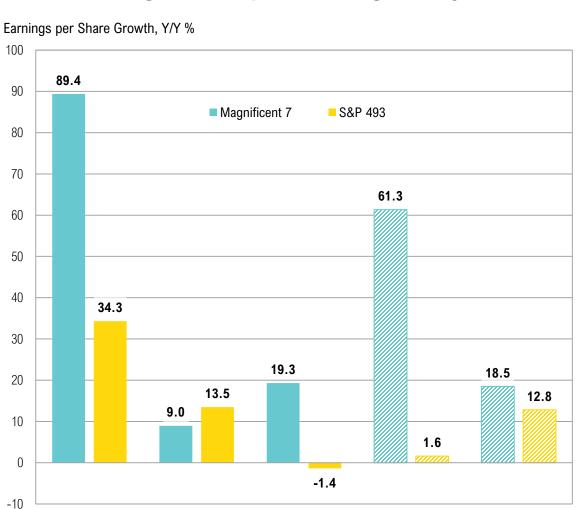
Name	Weight	P/S	P/E	Fwd P/S	Fwd P/E
Apple Inc	21.9%	9.2	34.8	8.3	30.8
NVIDIA Corp	19.5%	30.1	55.2	18.0	32.7
Microsoft Corp	19.1%	13.3	37.1	11.2	32.1
Broadcom Inc	5.2%	16.1	65.9	13.1	27.6
Oracle Corp	1.9%	8.6	41.4	7.7	25.9
Salesforce Inc	1.8%	7.1	43.8	6.4	24.7
Advanced Micro Devices	1.8%	10.9	176.8	8.2	32.3
Adobe Inc	1.7%	11.3	38.1	10.0	26.2
Accenture PLC	1.6%	3.3	28.3	3.1	25.9
Cisco Systems Inc	1.5%	3.9	18.3	3.7	14.3
International Business Machines	1.5%	3.1	22.9	3.0	20.4
QUALCOMM Inc	1.4%	5.2	21.6	4.6	15.7
Texas Instruments Inc	1.4%	11.7	37.9	10.9	34.0
ServiceNow Inc	1.4%	19.0	158.6	15.1	58.4
Intuit Inc	1.3%	11.3	59.4	9.9	33.2
Applied Materials Inc	1.1%	6.1	23.1	5.4	20.4
Analog Devices Inc	0.8%	12.0	34.7	11.3	31.3
Palo Alto Networks Inc	0.8%	13.3	128.8	11.6	52.0
Lam Research Corp	0.7%	7.0	26.2	5.7	20.9
KLA Corp	0.7%	10.7	32.4	8.8	25.1
Other	12.9%	n/a	n/a	n/a	n/a
Total S&P 500 Tech Index	100%	9.4	40.7	7.8	28.4
Median S&P 500 Tech Constituent		6.5	37.1	5.4	24.8

Source: Bloomberg. As of 9/30/2024.





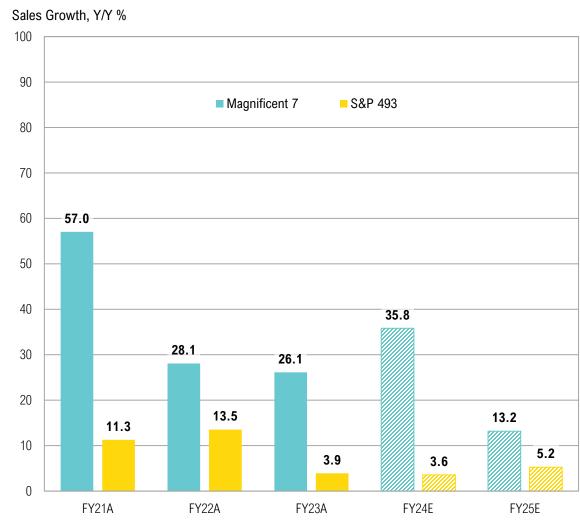
Are high valuations at least partially being driven by strong earnings growth? FY 2024 Mag 7 earnings are expected to grow by 61.3%, while S&P 493 earnings are expected to grow by 1.6%



FY23A

FY24E

FY25E



Source: Bloomberg

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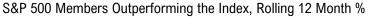


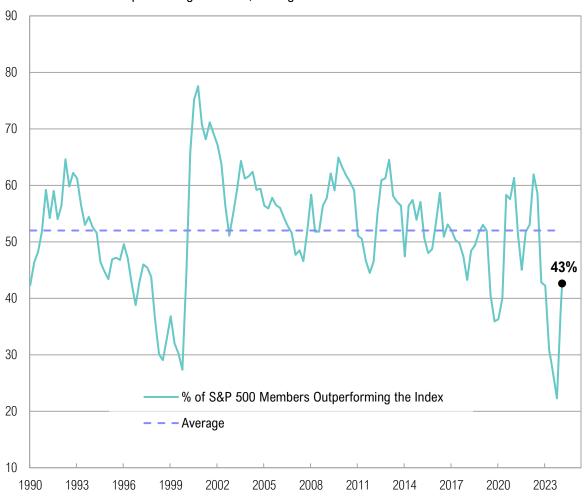
FY21A

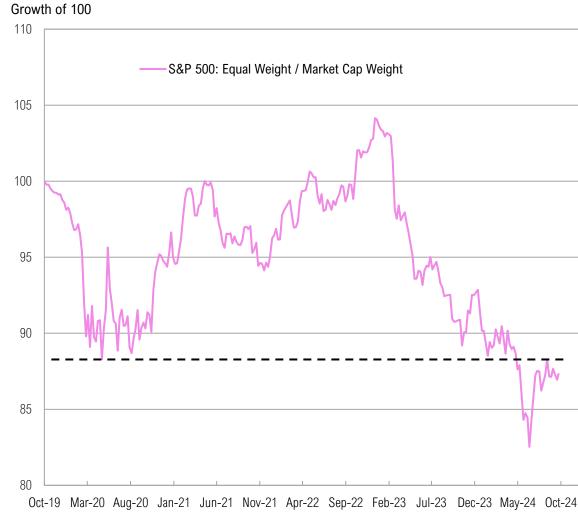
FY22A



Market breadth continues to improve, with 43% of S&P 500 members outperforming the broader index and the equal weighted index outperforming since early July





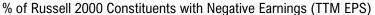


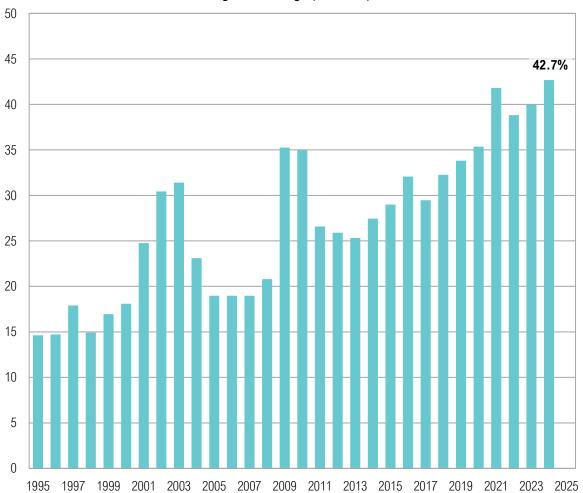
Source: Bloomberg © 2024 Magnus Financial Group LLC. All Rights Reserved



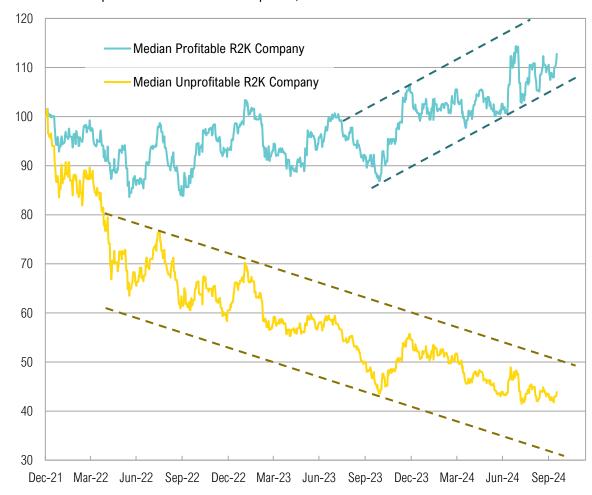


The market remains selective with U.S. small cap stocks: profitable companies are faring well, while unprofitable companies (~43% of the Russell 2000) continue to trend lower





Profitable vs Unprofitable Russell 2000 Companies, Growth of 100

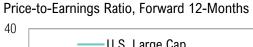


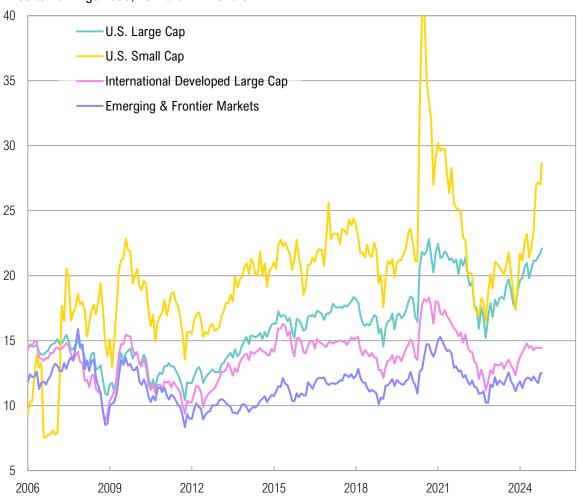
Source: Bloomberg, Apollo. Unprofitable constituent data as of 3/31/2024. Profitability is based on most recent earnings. Relative performance as of 10/16/2024.

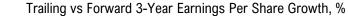


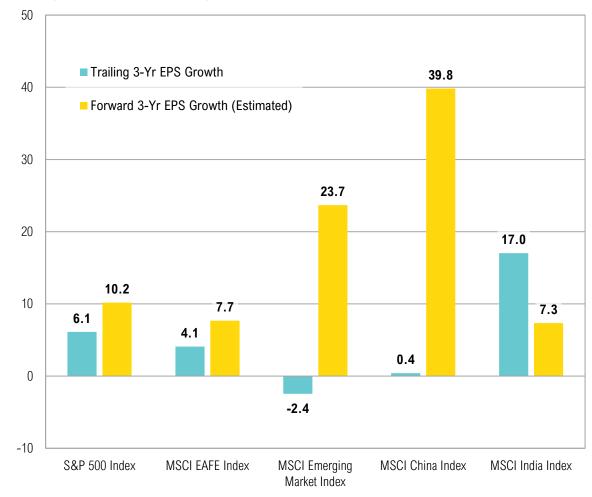


Emerging market stocks remain relatively cheap vs. developed markets; looking ahead, earnings growth for broader emerging markets and China look promising









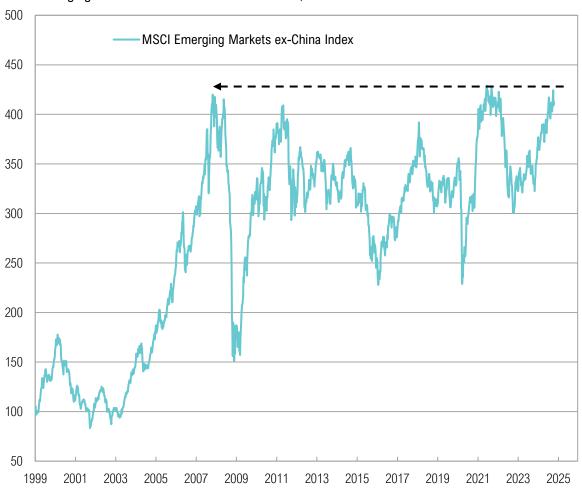
Source: Bloomberg. As of 10/16/2024.

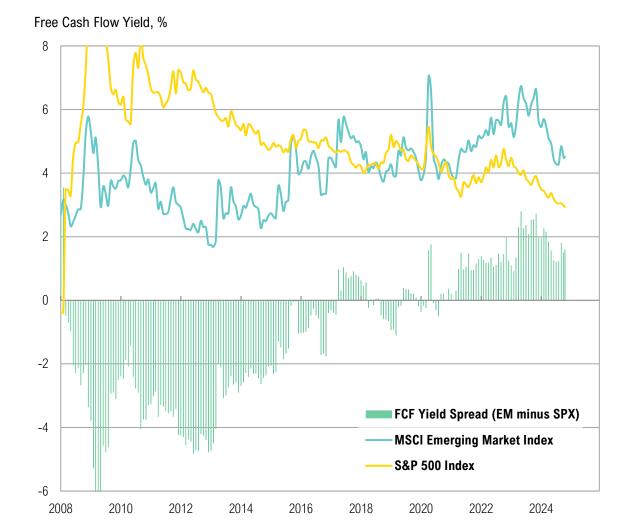




EM ex-China stocks are nearing a 16-year breakout; EM stocks look cheap compared to U.S. large-cap stocks, with free cash flow yields 1.6% higher than those of the S&P 500





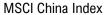


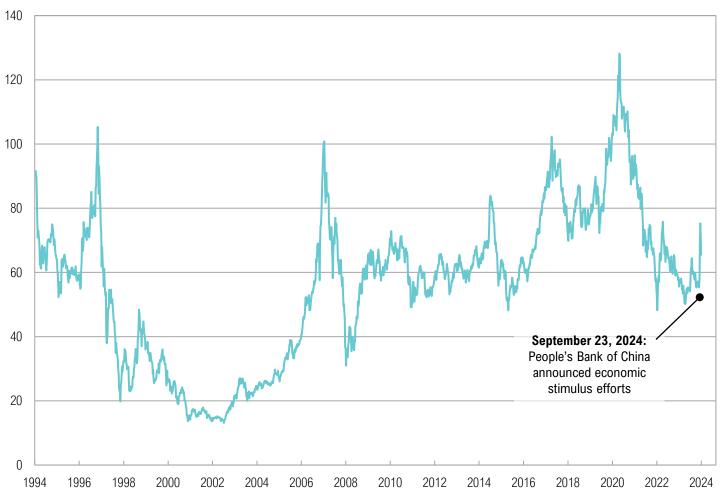
Source: Bloomberg. MSCI Emerging Markets ex-China Price Return Index in U.S. dollar. As of 10/17/2024.





On September 23, the Chinese central bank announced a series of economic stimulus efforts; despite the recent rally, Chinese stocks remain nearly 50% below 2021 peak





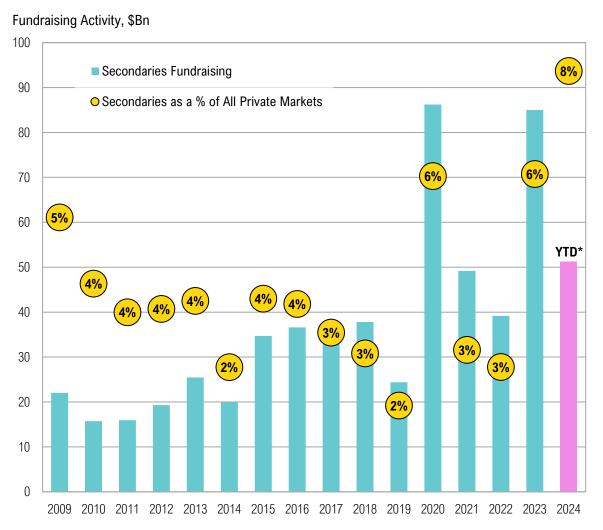
	China's Stimulus Measures
Policy Areas	Key Stimulus Measures
Monetary	 7-day repo rate cuts Loan prime rate cuts Medium-term lending rate cuts Reserve requirement ratio cuts
Banking & Property	 Existing home loan rate cuts & lower min mortgage downpayment Expanding PBOC relending programs on housing, inventory, home delivery Potential capital injection into 6 state banks
Real Estate	 Tier-1 cities scrapping curbs for non-local buyers Leveling rules for first time and multiple home purchases Special government bonds for buying unsold homes
Equity Markets	 PBOC swap facility for equity purchase & relending facility for equity purchase Stock stabilization fund Measures promoting M&As
Fiscal	 Issuance of special government bonds Possibility of raising debt & fiscal deficit Central government helping local authorities finance 'hidden debt' off-balance-sheet borrowing

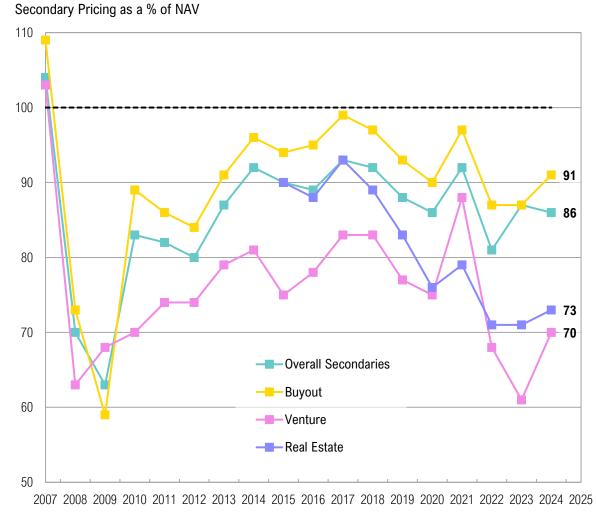
Source: Bloomberg, Bloomberg Intelligence. As of 10/17/2024.





Secondary fundraising is on pace for its largest year ever, both in terms of \$ amount and as a % of total private markets, but remains only a fraction of overall private markets





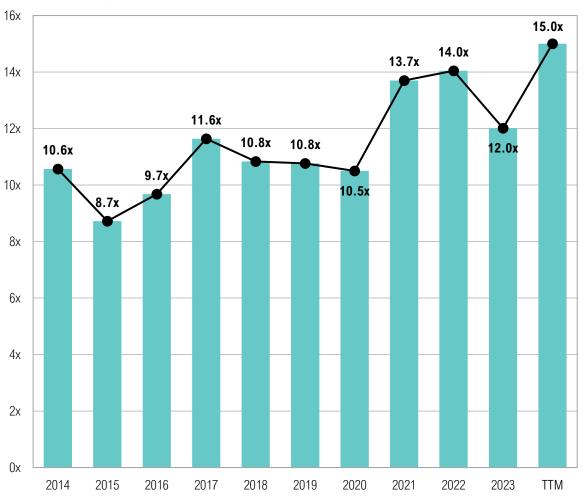
Source: Pitchbook, StepStone, Tap, Greenhill, Lazard, Evercore, Various. *YTD as of 6/30/2024.



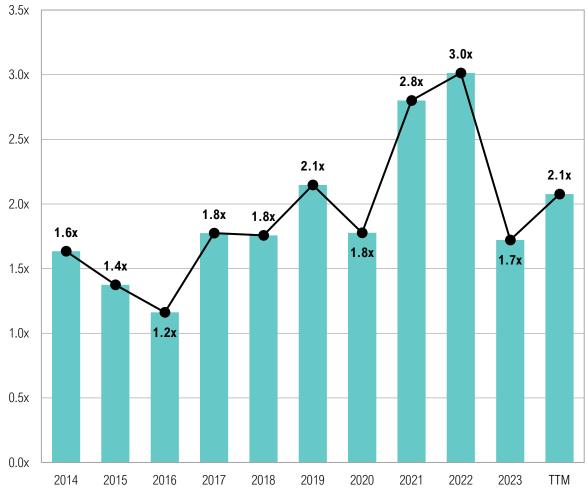


Buyout EV/EBITDA multiples are elevated, while EV/Revenue multiples suggest these companies are struggling with profitability

Median U.S. PE Buyout EV/EBITDA Multiple



Median U.S. PE Buyout EV/Revenue Multiple



Source: Pitchbook, As of 9/30/2024.



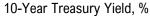


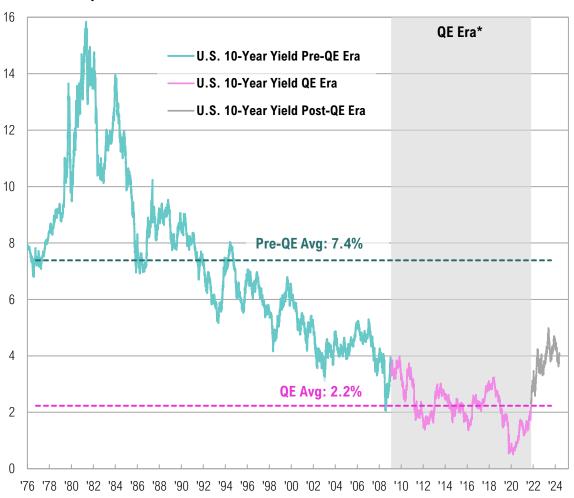
The U.S. acts as if it has a credit card with no limit on the balance and no requirement to pay it down. It does so because it's been able to get away with it thus far, and our governing officials lack the will to spend less than they can."

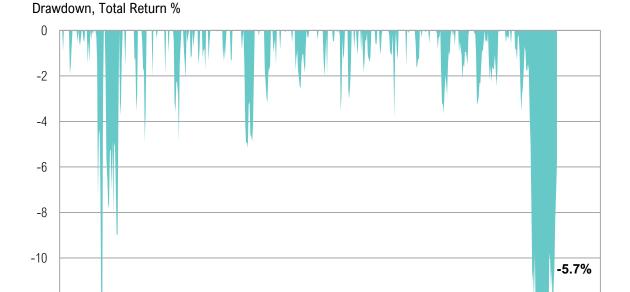
Howard Marks, Oaktree Capital Co-founder & Co-chairman

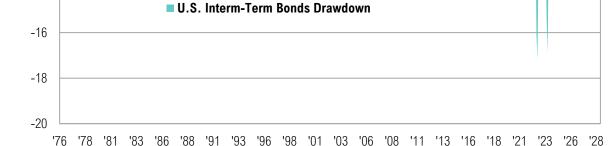


We are in the biggest bond bear market of all time; bonds peaked in August 2020 and have yet to recover









Source: Bloomberg. *QE Era defined as per Bianco Research from 6/30/2009 – 3/16/2022.

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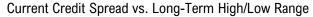


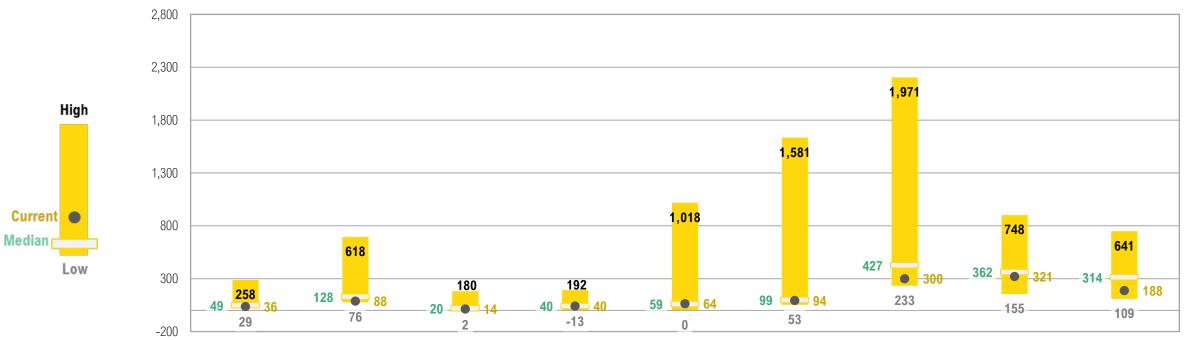
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Credit spreads are near or below median across most sectors; high-yield bond spreads at current levels suggest that the economy may achieve a 'soft landing'





	Aggregate	Corporate	Agency	MBS	ABS	CMBS	High Yield	Emerging Markets	High Yield Muni Spread*
Max Spread Date	12/3/2008	12/3/2008	11/20/2008	12/3/2008	1/6/2009	11/21/2008	12/16/2008	11/28/2008	1/12/2009
Min Spread Date	4/14/2021	3/8/2005	4/19/2021	7/27/2010	10/1/2009	12/8/2004	5/22/2007	5/31/2007	6/11/2007
Spread on 12/31/23	42	99	17	47	68	126	323	319	235
Spread on 12/31/22	51	130	26	51	76	120	469	374	228
Spread on 12/31/21	36	92	8	31	38	68	283	330	200
Spread on 12/31/20	42	96	10	39	33	81	360	323	275

Source: Bloomberg. High Yield Muni Spread data is relative to Bloomberg Municipal Bond Index. Yield spread data is from 2004 - current.

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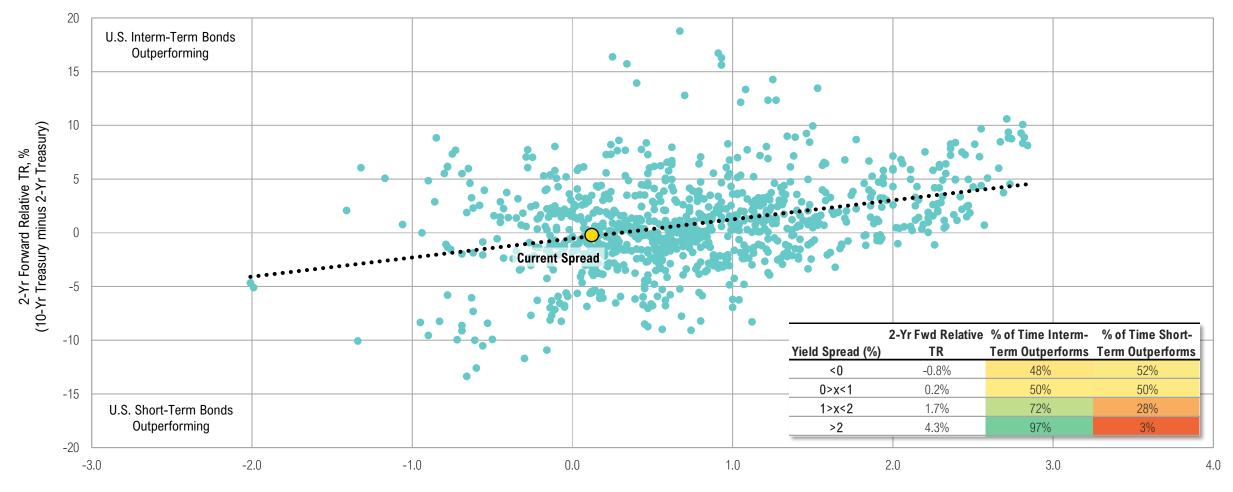


One of these cycles does not look like the others: credit spreads are at new cycle lows, while the yield curve is steepening





When the 2s10s spread is above 2%, investors should generally hold longer duration bonds; when it is between 1% and 2%, it is not a home run; and below 1% is a coin toss



10-Yr minus 2-Yr Treasury Yield Spread, %

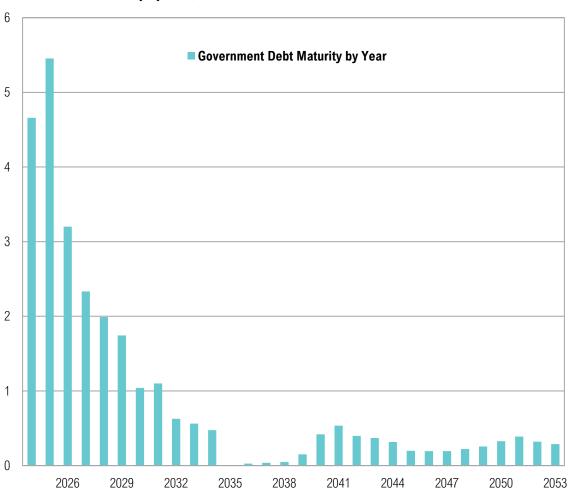
Source: Bloomberg, GFD, SpringTide calculations. Period of analysis from 12/31/1940 through 1/31/2023.



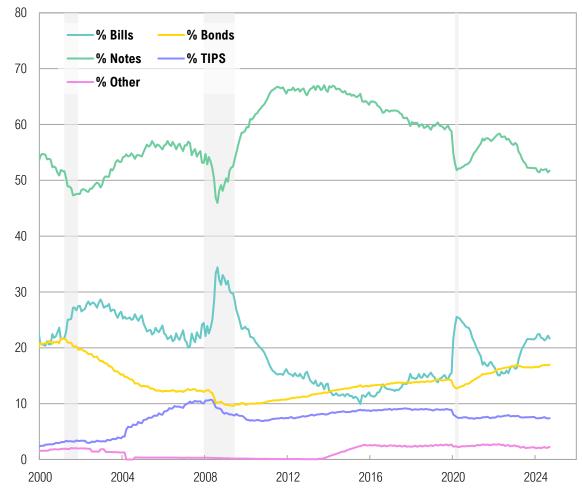


Over \$10Tn in government debt will mature by the end of 2025 and be rolled at higher rates; bill issuance has plateaued with Treasury starting to increase bond issuance again





Debt Distribution, % of Total U.S. Marketable Debt Outstanding

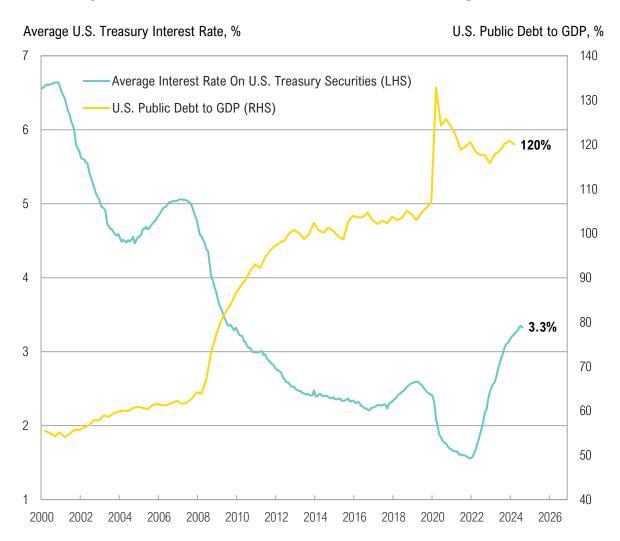


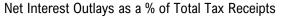
Source: Bloomberg

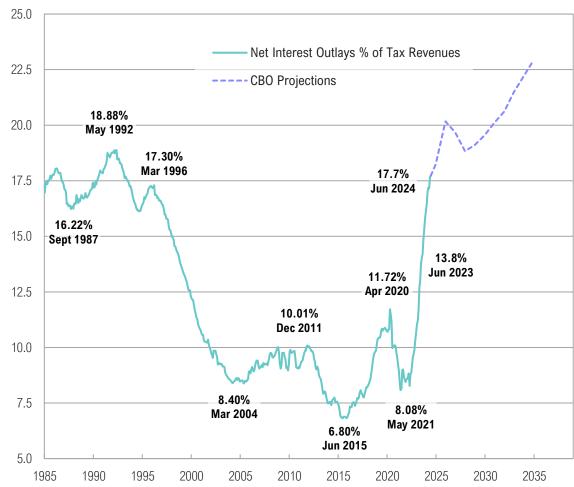




The average cost of Treasury debt outstanding has climbed to 3.32%, a level last seen when debt to GDP was 'just' 80%; tax receipts aren't keeping pace, with nearly 18% of taxes going only to net interest payments







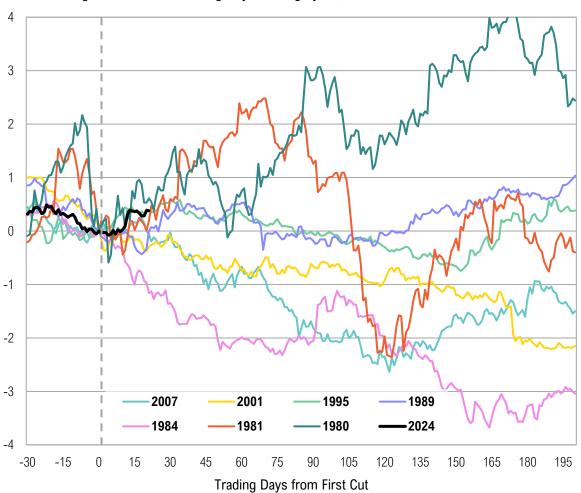
Source: U.S. Treasury, CBO. LHS as of 9/30/2024. RHS as of 6/30/2024.

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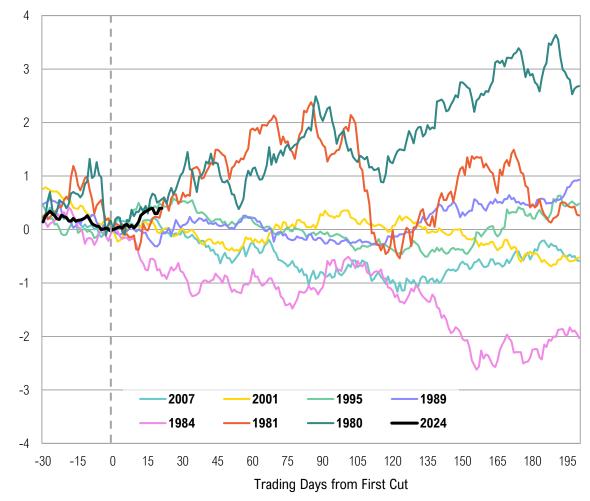


Yields rising following the first rate cut (as they are now) is reminiscent of what happened during the early 1980s (albeit when inflation was much higher at >10%)







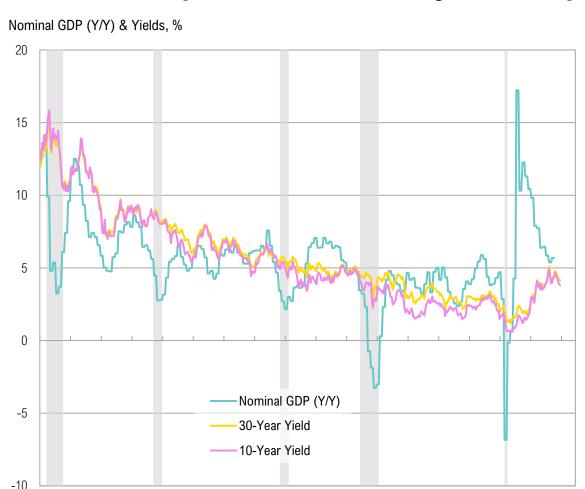


Source: Bloomberg. As of 10/18/2024.

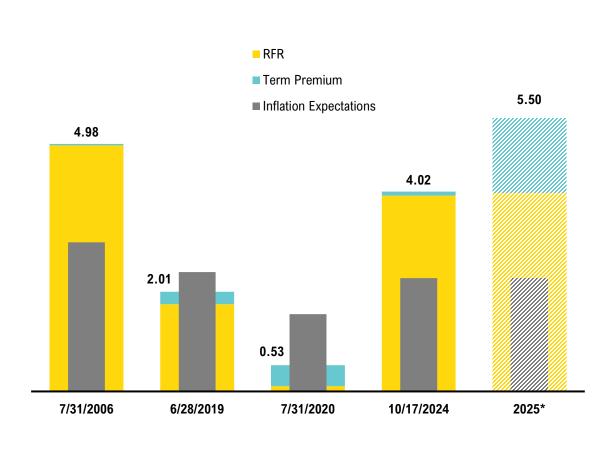
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Historically, long-term yields tend to follow nominal GDP; pro-growth policy that drives up nominal GDP may have implications for bond yields







Source: Bloomberg, SpringTide calculations. RFR = risk free rate, proxied by 2-year Treasury yield; Term Premium = 2s10s Treasury spread; Credit Risk = hypothetical; Inflation Expectations = 10-year TIPS breakeven. *2025 10-year yield breakdown is hypothetical. Assumptions are: RFR = 4%; Term Premium = 1.5% (historic full market cycle average is 86bps).





The 2–4-year part of yield curve has an attractive risk-reward profile—yields could rise 1.0% in the next year and total returns would still be positive

	Estimated 1-Year Total Return for Given Change in Yields											
_	Tenor											
	3-Mnth	6-Mnth	1-Yr	2-Yr	3-Yr	4-Yr	5-Yr	7-Yr	10-Yr	15-Yr	20-Yr	30-Yr
3.0%	3.9%	2.9%	1.1%	-2.0%	-4.7%	-7.2%	-9.9%	-14.6%	-20.4%	-28.4%	-35.6%	-46.0%
2.5%	4.0%	3.2%	1.6%	-1.0%	-3.3%	-5.4%	-7.7%	-11.5%	-16.3%	-23.0%	-29.0%	-37.7%
2.0%	4.1%	3.4%	2.1%	-0.1%	-1.9%	-3.6%	-5.4%	-8.5%	-12.3%	-17.6%	-22.4%	-29.3%
1.5%	4.2%	3.7%	2.6%	0.9%	-0.5%	-1.8%	-3.2%	-5.4%	-8.3%	-12.2%	-15.7%	-21.0%
1.0%	4.4%	3.9%	3.0%	1.8%	0.9%	0.0%	-0.9%	-2.4%	-4.2%	-6.8%	-9.1%	-12.6%
0.5%	4.5%	4.1%	3.5%	2.8%	2.2%	1.8%	1.4%	0.7%	-0.2%	-1.4%	-2.4%	-4.2%
0.0%	4.6%	4.4%	4.0%	3.7%	3.6%	3.6%	3.6%	3.7%	3.9%	4.0%	4.2%	4.2%
-0.5%	4.7%	4.6%	4.5%	4.7%	5.0%	5.5%	5.9%	6.8%	7.9%	9.4%	10.9%	12.6%
-1.0%	4.8%	4.8%	5.0%	5.6%	6.4%	7.3%	8.2%	9.8%	11.9%	14.8%	17.6%	21.0%
-1.5%	4.9%	5.1%	5.5%	6.6%	7.8%	9.1%	10.4%	12.9%	16.0%	20.3%	24.3%	29.4%
-2.0%	5.1%	5.3%	5.9%	7.5%	9.2%	10.9%	12.7%	15.9%	20.0%	25.7%	30.9%	37.9%
-2.5%	5.2%	5.6%	6.4%	8.5%	10.5%	12.7%	15.0%	19.0%	24.1%	31.1%	37.6%	46.3%
-3.0%	5.3%	5.8%	6.9%	9.4%	11.9%	14.5%	17.2%	22.1%	28.1%	36.6%	44.3%	54.8%
	0.2	0.5	1.0							10.8	13.3	16.8
Yield YTM	4.6	4.4	4.0	3.7	3.6	3.6	3.6	3.7	3.9	4.0	4.2	4.2
Convexity	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.8	1.5	2.3	4.0
	2.5% 2.0% 1.5% 1.0% 0.5% 0.0% -0.5% -1.0% -1.5% -2.0% -2.5% -3.0% uration (Yrs)	3.0% 3.9% 4.0% 2.5% 4.0% 4.1% 1.5% 4.2% 1.0% 4.4% 0.5% 4.5% 0.0% 4.6% -0.5% 4.7% -1.0% 4.8% -1.5% 4.9% -2.0% 5.1% -2.5% 5.2% -3.0% 5.3% uration (Yrs) Vield YTM 4.6	3.0% 3.9% 2.9% 2.5% 4.0% 3.2% 2.0% 4.1% 3.4% 1.5% 4.2% 3.7% 1.0% 4.4% 3.9% 0.5% 4.5% 4.1% 0.0% 4.6% 4.4% -0.5% 4.7% 4.6% -1.0% 4.8% 4.8% -1.5% 4.9% 5.1% -2.0% 5.1% 5.3% 5.8% 1.0% 5.3% 5.8% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0	3.0% 3.9% 2.9% 1.1% 2.5% 4.0% 3.2% 1.6% 2.0% 4.1% 3.4% 2.1% 1.5% 4.2% 3.7% 2.6% 1.0% 4.4% 3.9% 3.0% 0.5% 4.5% 4.1% 3.5% 0.0% 4.6% 4.4% 4.0% -0.5% 4.7% 4.6% 4.5% -1.0% 4.8% 4.8% 5.0% -1.5% 4.9% 5.1% 5.5% -2.0% 5.1% 5.3% 5.9% -2.5% 5.2% 5.6% 6.4% -3.0% 5.3% 5.8% 6.9% uration (Yrs) 0.2 0.5 1.0 Yield YTM 4.6 4.4 4.0	3-Mnth 6-Mnth 1-Yr 2-Yr 3.0% 3.9% 2.9% 1.1% -2.0% 2.5% 4.0% 3.2% 1.6% -1.0% 2.0% 4.1% 3.4% 2.1% -0.1% 1.5% 4.2% 3.7% 2.6% 0.9% 1.0% 4.4% 3.9% 3.0% 1.8% 0.5% 4.5% 4.1% 3.5% 2.8% 0.0% 4.6% 4.4% 4.0% 3.7% -0.5% 4.7% 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-1.5% 4.9% 5.1% 5.5% 6.6% 7.8% 9.1% -2.0% 5.1% 5.3% 5.9%<</th><th>Tenor 3-Mnth 6-Mnth 1-Yr 2-Yr 3-Yr 4-Yr 5-Yr 3.0% 3.9% 2.9% 1.1% -2.0% -4.7% -7.2% -9.9% 2.5% 4.0% 3.2% 1.6% -1.0% -3.3% -5.4% -7.7% 2.0% 4.1% 3.4% 2.1% -0.1% -1.9% -3.6% -5.4% 1.5% 4.2% 3.7% 2.6% 0.9% -0.5% -1.8% -3.2% 1.0% 4.4% 3.9% 3.0% 1.8% 0.9% 0.0% -0.9% 0.5% 4.5% 4.1% 3.5% 2.8% 2.2% 1.8% 1.4% 0.0% 4.6% 4.4% 4.0% 3.7% 3.6% 3.6% 3.6% -0.5% 4.7% 4.6% 4.5% 4.7% 5.0% 5.5% 5.9% -1.0% 4.8% 4.8% 5.0% 5.6% 6.4% 7.3% 8.2% -1.5%</th><th> 3-Mnth 6-Mnth 1-Yr 2-Yr 3-Yr 4-Yr 5-Yr 7-Yr 3.0% 3.9% 2.9% 1.1% -2.0% -4.7% -7.2% -9.9% -14.6% 2.5% 4.0% 3.2% 1.6% -1.0% -3.3% -5.4% -7.7% -11.5% 2.0% 4.1% 3.4% 2.1% -0.1% -1.9% -3.6% -5.4% -8.5% 1.5% 4.2% 3.7% 2.6% 0.9% -0.5% -1.8% -3.2% -5.4% 1.0% 4.4% 3.9% 3.0% 1.8% 0.9% 0.0% -0.9% -2.4% 0.5% 4.5% 4.1% 3.5% 2.8% 2.2% 1.8% 1.4% 0.7% 0.0% 4.6% 4.4% 4.0% 3.7% 3.6% 3.6% 3.6% 3.7% 0.5% 4.7% 4.6% 4.5% 4.7% 5.0% 5.5% 5.9% 6.8% -1.0% 4.8% 4.8% 5.0% 5.6% 6.4% 7.3% 8.2% 9.8% -1.5% 4.9% 5.1% 5.5% 6.6% 7.8% 9.1% 10.4% 12.9% -2.0% 5.1% 5.3% 5.9% 7.5% 9.2% 10.9% 12.7% 15.9% -2.5% 5.2% 5.6% 6.4% 8.5% 10.5% 12.7% 15.0% 19.0% -3.0% 5.3% 5.8% 6.9% 9.4% 11.9% 14.5% 17.2% 22.1% vield YTM 4.6 4.4 4.0 3.7 3.6 3.6 3.6 3.6 3.7</th><th> Tenor Teno</th><th> Tenor S-Mnth 6-Mnth 1-Yr 2-Yr 3-Yr 4-Yr 5-Yr 7-Yr 10-Yr 15-Yr 3.0% 3.9% 2.9% 1.1% -2.0% -4.7% -7.2% -9.9% -14.6% -20.4% -28.4% 2.5% 4.0% 3.2% 1.6% -1.0% -3.3% -5.4% -7.7% -11.5% -16.3% -23.0% 2.0% 4.1% 3.4% 2.1% -0.1% -1.9% -3.6% -5.4% -8.5% -12.3% -17.6% 1.5% 4.2% 3.7% 2.6% 0.9% -0.5% -1.8% -3.2% -5.4% -8.3% -12.2% 1.0% 4.4% 3.9% 3.0% 1.8% 0.9% 0.0% -0.9% -2.4% -4.2% -6.8% 0.5% 4.5% 4.1% 3.5% 2.8% 2.2% 1.8% 1.4% 0.7% -0.2% -1.4% 0.0% 4.6% 4.4% 4.0% 3.7% 3.6% 3.6% 3.6% 3.7% 3.9% 4.0% -0.5% 4.7% 4.6% 4.5% 4.7% 5.0% 5.5% 5.9% 6.8% 7.9% 9.4% -1.0% 4.8% 4.8% 5.0% 5.6% 6.4% 7.3% 8.2% 9.8% 11.9% 14.8% -1.5% 4.9% 5.1% 5.5% 6.6% 7.8% 9.1% 10.4% 12.9% 16.0% 20.3% -2.0% 5.1% 5.3% 5.9% 7.5% 9.2% 10.9% 12.7% 15.9% 20.0% 25.7% -2.5% 5.2% 5.6% 6.4% 8.5% 10.5% 12.7% 15.0% 19.0% 24.1% 31.1% -3.0% 5.3% 5.8% 6.9% 9.4% 11.9% 14.5% 17.2% 22.1% 28.1% 36.6% 3.6% 3.6 % 3.7% 3.9 % 4.0 % -3.0% 5.3% 5.8% 6.9% 9.4% 11.9% 14.5% 17.2% 22.1% 28.1% 36.6% 3.6% 3.6 % 3.6 % 3.6 % 3.7 % 3.9 % 4.0 % -3.0% 5.3% 5.8% 6.9% 9.4% 11.9% 14.5% 17.2% 22.1% 28.1% 36.6% 3.6% 3.6 % 3.6 % 3.6 % 3.7 % 3.9 % 4.0 % 3.7 % 3.6 % 3.6 % 3.6 % 3.6 % 3.7 % 3.9 % 4.0 % 3.7 % 3.6 % 3.6 % 3.6 % 3.6 % 3.7 % 3.9 % 4.0 % 3.7 % 3.6 % 3.6 % 3.6 % 3.6 % 3.7 % 3.9 % 4.0 % 3.7 % 3.6 % 3.6 % 3.6 % 3.6 % 3.7 % 3.9 % 4.0 % 3.7 % 3.6</th><th> Section Sect</th></td<>	Ter 3-Mnth 6-Mnth 1-Yr 2-Yr 3-Yr 4-Yr 3.0% 3.9% 2.9% 1.1% -2.0% -4.7% -7.2% 2.5% 4.0% 3.2% 1.6% -1.0% -3.3% -5.4% 2.0% 4.1% 3.4% 2.1% -0.1% -1.9% -3.6% 1.5% 4.2% 3.7% 2.6% 0.9% -0.5% -1.8% 1.0% 4.4% 3.9% 3.0% 1.8% 0.9% 0.0% 0.5% 4.5% 4.1% 3.5% 2.8% 2.2% 1.8% 0.0% 4.6% 4.4% 4.0% 3.7% 3.6% 3.6% -0.5% 4.7% 4.6% 4.5% 4.7% 5.0% 5.5% -1.0% 4.8% 4.8% 5.0% 5.6% 6.4% 7.3% -1.5% 4.9% 5.1% 5.5% 6.6% 7.8% 9.1% -2.0% 5.1% 5.3% 5.9%<	Tenor 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Yield Increase Insulation by Tenor:

2-Year: +1.5% (rise in yields)

3-Year: +1.0%4-Year: +1.0%5-Year: +0.5%

Total Returns by Tenor (for a 1% decline in yields):

15-Year: +14.8%20-Year: +17.6%30-Year: +21.0%

Total Returns by Tenor (for a 1% increase in yields):

15-Year: -6.8%20-Year: -9.1%30-Year: -12.6%

MAGNUS TIMANCIAL GROUP



Not attractive: at ~298bps, credit spreads are in line with pre-COVID lows; low credit spreads continue to suggest runway for the economy (i.e., a 'soft landing')

Annualized Forward Return, %



Average Forward Return									
Spread Buckets	3M	6M	1Y	2Y	3Y				
≤4	0.7%	1.9%	4.8%	3.0%	3.9%				
4 < Spread ≤ 6	1.6%	3.2%	5.6%	6.5%	6.3%				
6 < Spread ≤ 8	1.4%	2.2%	7.7%	9.8%	10.2%				
>8	7.4%	16.4%	30.2%	22.1%	17.1%				
All Spreads	1.7%	3.7%	8.1%	7.7%	7.9%				

60% 6-Month 1-Year 2-Year 40% **Current HY Spread** 0% -20% 12 16 Credit Spread, %

Source: SpringTide, Bloomberg. Forward return analysis from 2/4/1994 through 12/31/2023.

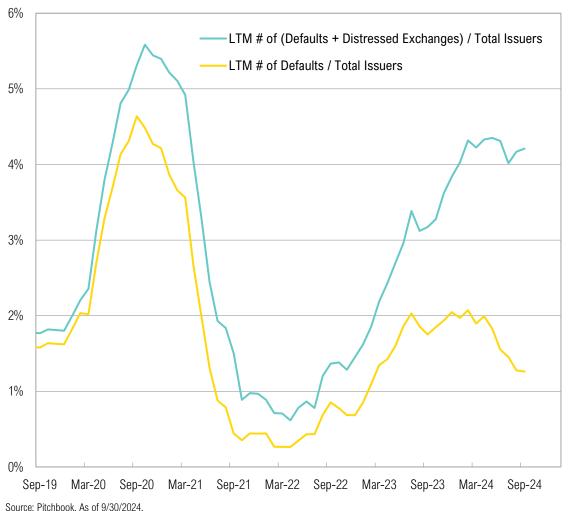


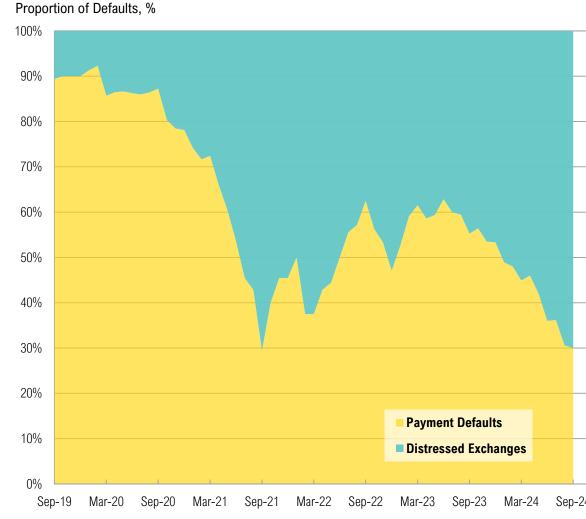




Distressed exchanges are replacing traditional defaults, masking issues











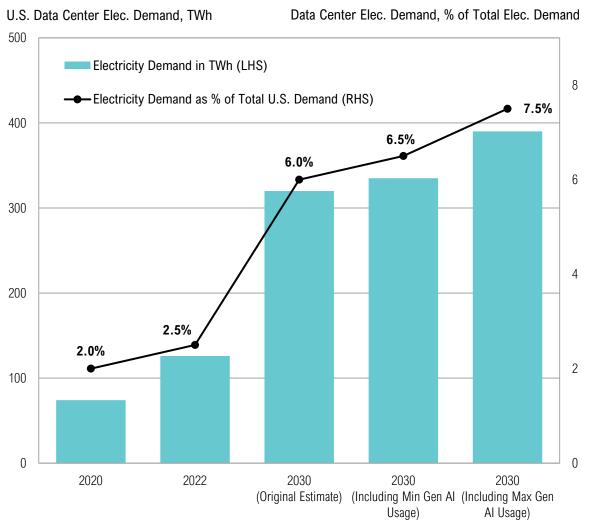
We believe that nuclear energy has a critical role to play in supporting our clean growth and helping to deliver on the progress of Al... We feel like nuclear can play an important role in helping to meet our demand, and helping meet our demand cleanly, in a way that's more around the clock."

Michael Terrell, Google Senior Director for Energy & Climate

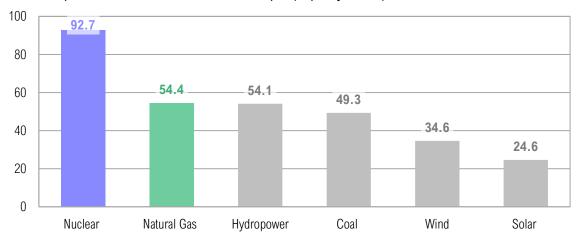




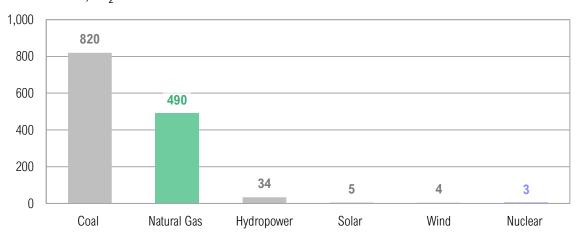
Al and data centers are expected to be key drivers of future U.S. power demand; given consistent output requirements for data centers, natural gas and nuclear are the best energy sources to meet demand



Actual Output as a % of Maximum Possible Output (Capacity Factor)



CO₂ Emissions, CO₂/GWh



Source: Bloomberg, BCG, EIA.





Big tech is going big on nuclear:

October 16, 2024 | Updated: October 16, 2024

Google and Kairos Power Unveil Groundbreaking 550 MW Nuclear Energy Initiative

Amazon goes nuclear, to invest more than \$500 million to develop small modular reactors

PUBLISHED WED, OCT 16 2024-8:45 AM EDT | UPDATED WED, OCT 16 2024-10:49 AM EDT

NATIONAL

Three Mile Island nuclear plant will reopen to power Microsoft data centers

SEPTEMBER 20, 2024 · 1:40 PM ET

US / Amazon Buys Stake In Nuclear Reactor Developer In Bid To Power Data Centres

By David Dalton 17 October 2024

\$500m investment in X-energy will help finance new generation of SMRs

Hungry for Energy, Amazon, Google and Microsoft Turn to Nuclear Power

Large technology companies are investing billions of dollars in nuclear energy as an emissions-free source of electricity for artificial intelligence and other businesses.

Constellation to restart Three Mile Island unit, powering Microsoft

Friday, 20 September 2024

Energy | Grid & Infrastructure | Nuclear Constellation orders \$100 million transformer for Three Mile Island restart □ Aa < Amazon invests \$500M in X-energy's 4th gen nuclear tech

The company is developing advanced small modular nuclear reactors for carbon-free

Davide Sher October 17, 2024

Amazon Invests in X-energy to Support Advanced Small **Modular Nuclear Reactors and Expand Carbon-Free Power**

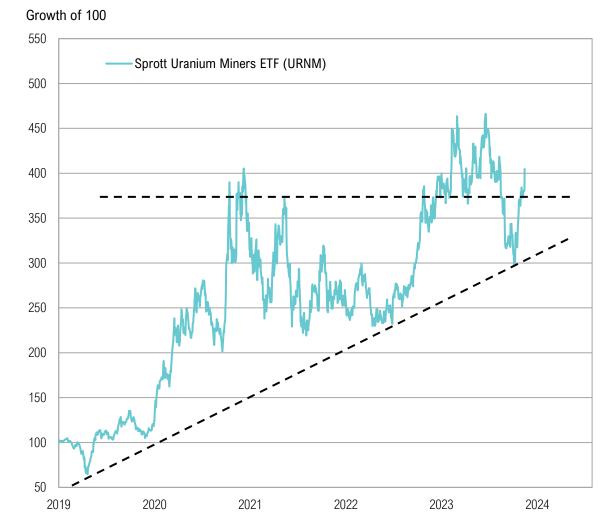
Source: Various

October 16, 2024 11:10 PM GMT+2 · Updated 16 hours ago



Uranium prices have been recovering, while long-term contracting prices (the prices negotiated between utilities and miners) continue to move higher; uranium miners recently broke through key technical resistance levels



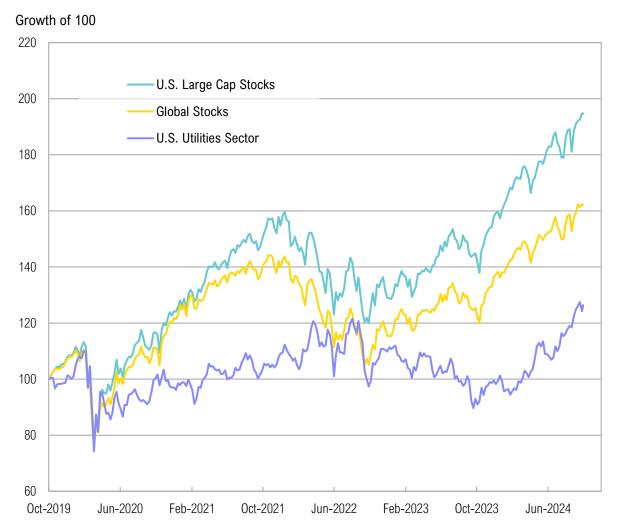


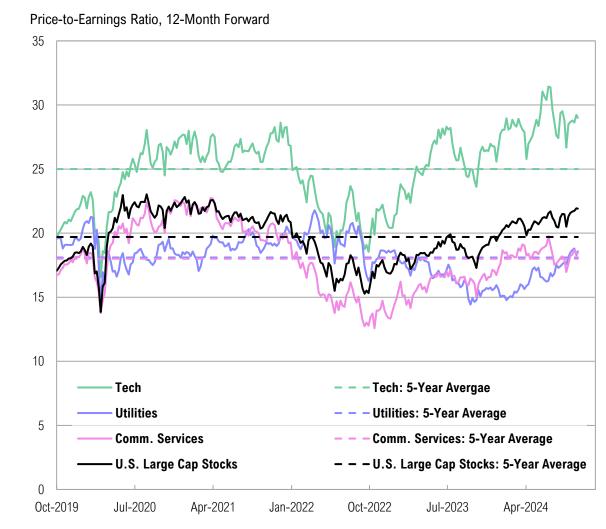
Source: Bloomberg





Despite the recent rally, U.S. utilities have notably lagged U.S. large-cap stocks and global stocks over the past five years; utility valuations are on par with their 5-year averages



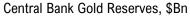


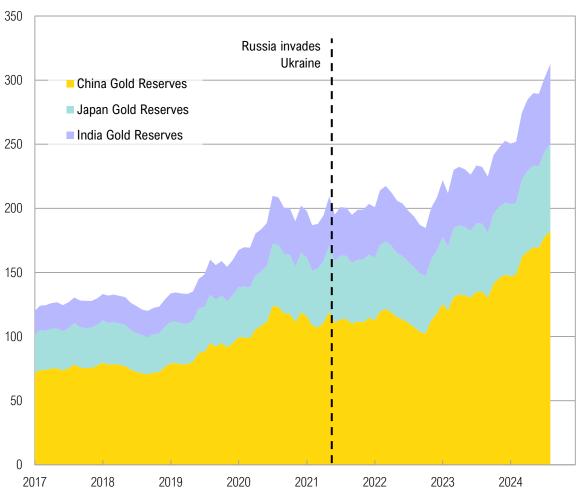
Source: Bloomberg. As of 10/15/2024.



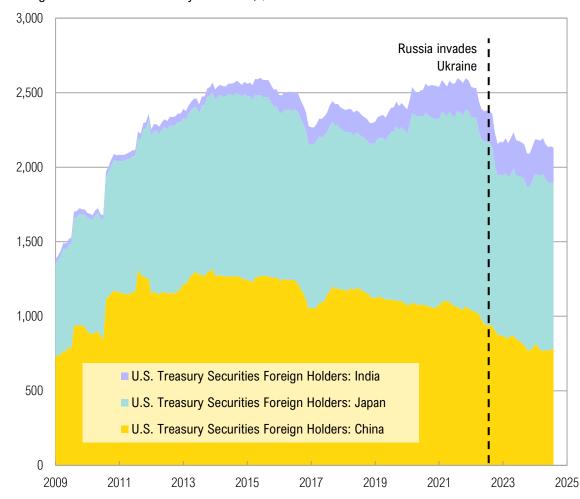


Accompanied by 'flight to safety' (geopolitics, U.S. fiscal situation), gold's resilience despite higher real rates is likely due to sovereigns favoring gold; whatever the reason, higher real rates remain a risk





Foreign Holders of U.S. Treasury Securities, \$Bn

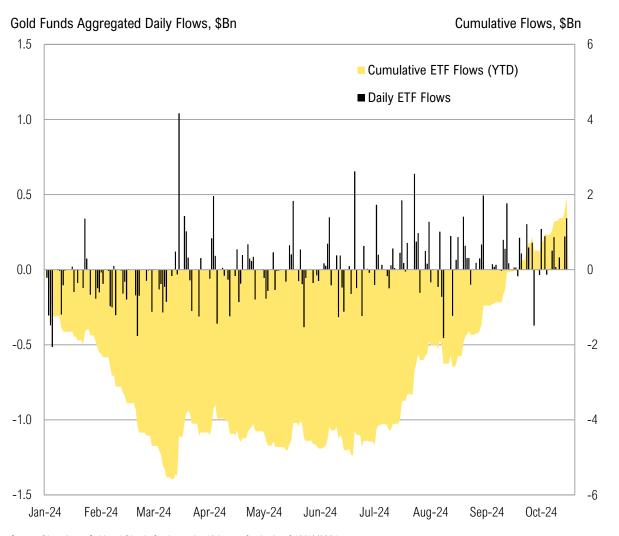


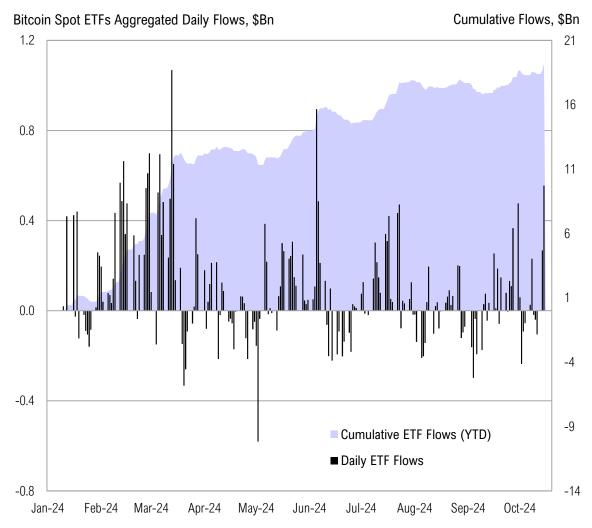
Source: Bloomberg. Gold reserve data as of 8/31/2024. Foreign Treasury holdings as of 7/31/2024.





Gold fund flows have only recently begun to pick up; bitcoin flows have been more consistent and have recently accelerated



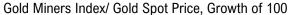


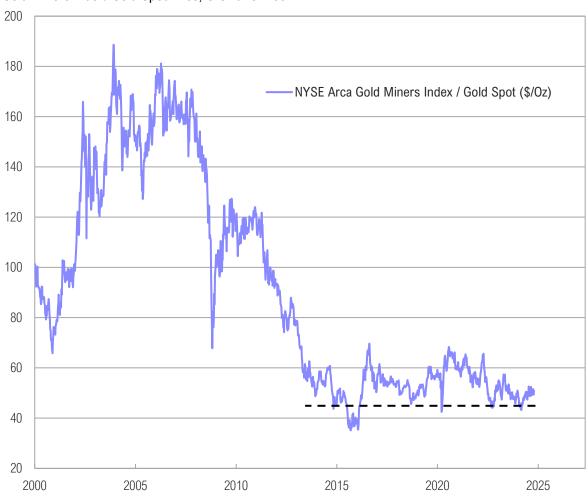
Source: Bloomberg. Gold and Bitcoin funds are the 10 largest funds. As of 10/16/2024.

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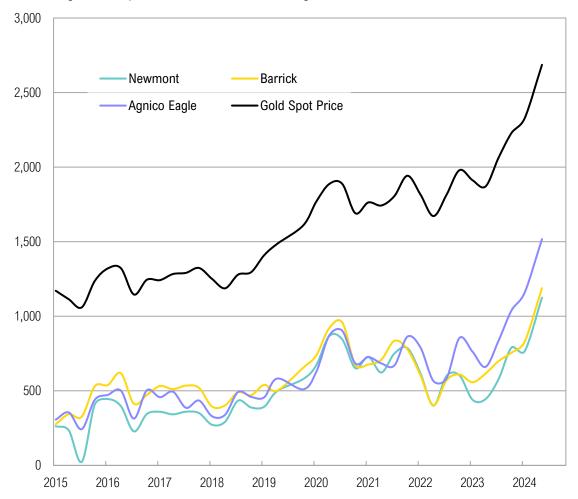


Gold miners continue to look attractive vs. physical, but miners have been plagued by rising costs, country-specific issues, and labor challenges, among other things





Profit Margin: Gold Spot Price minus All In Sustaining Costs, \$/Oz



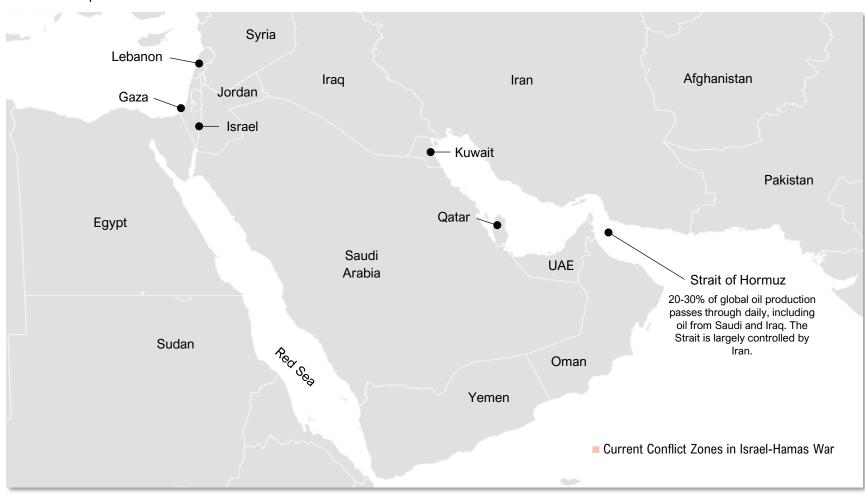
Source: Bloomberg, RHS assumes stable 24Q3 costs vs gold spot price. As of 10/16/2024.





Geopolitical tensions in the Middle East continue

Middle East Map



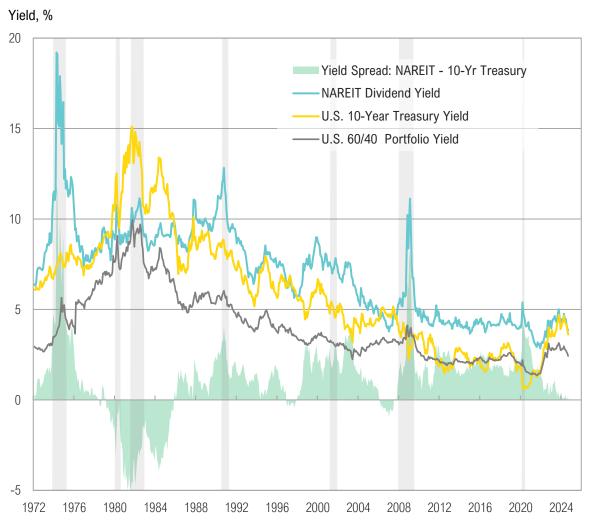
- The oil market remains well-supplied, despite OPEC+ production cuts over the past two years, as weak demand from China limits their return to the market.
- The Gulf's geopolitical climate shifted with a 2023 China-brokered Iran-Saudi deal aimed at easing tensions. Arab Gulf states are advocating deescalation, reducing the likelihood of Iranian retaliation or a Strait of Hormuz closure.
- The Gaza and Lebanon conflicts do not directly threaten global oil supplies, as neither are major producers.
- Despite Iran-linked groups like Hezbollah being involved, Iran has focused on self-preservation and avoidance of direct confrontation with Israel.
- However, trust in the region remains fragile, and Iran could still cause disruption through proxies and acts of sabotage.

Source: Center for Strategic & International Studies, Hedgeye, Academy Securities.

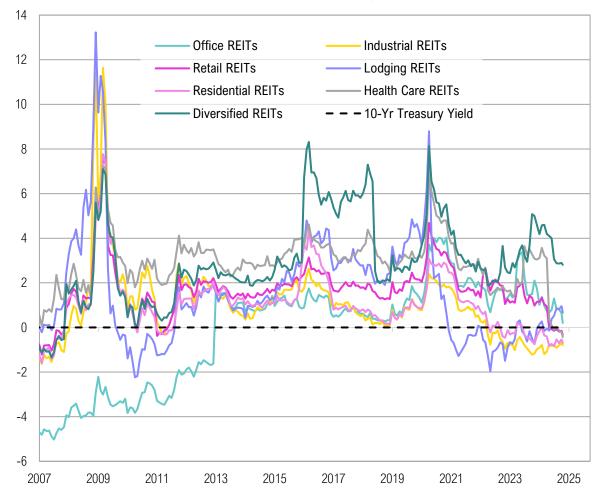




U.S. REITs have rebounded 26% from their April lows, as lower yields provided a reprieve for the asset class; despite the rebound, most REIT sectors still look wholly unattractive on a relative yield basis





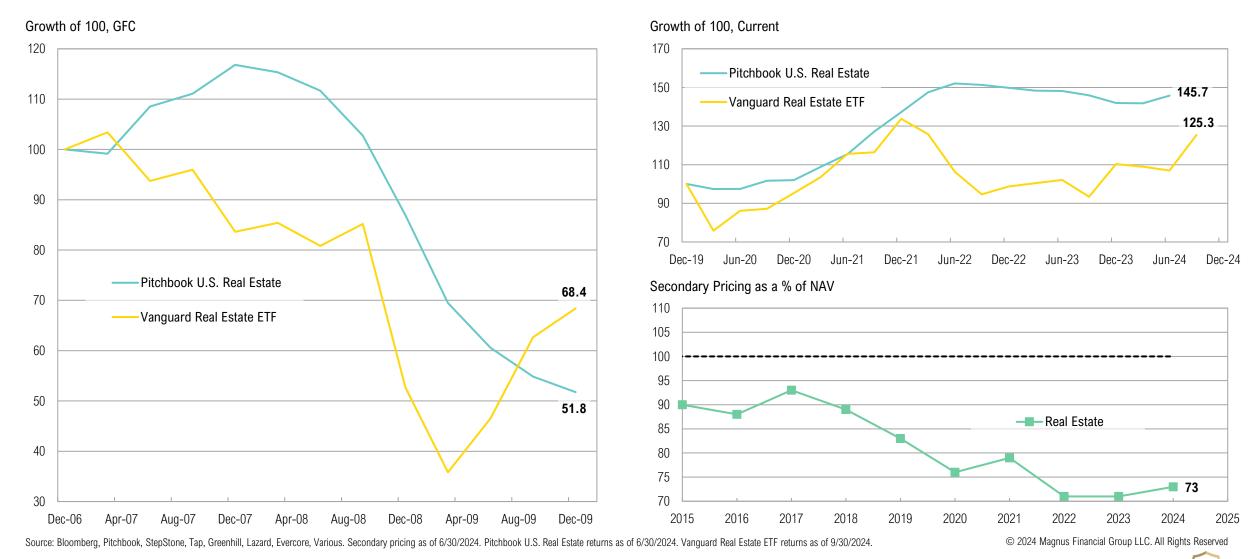


Source: Bloomberg, NAREIT.





Private real estate funds have not marked down properties - while gap has closed with public markets, secondary transactions remain at deep discounts





My judgement is [Al demand] is real. We talk to our customers all the time, including our hyperscaler customers, and almost every Al innovator is working with TSMC, so we probably get the deepest and widest look of anyone in this industry.

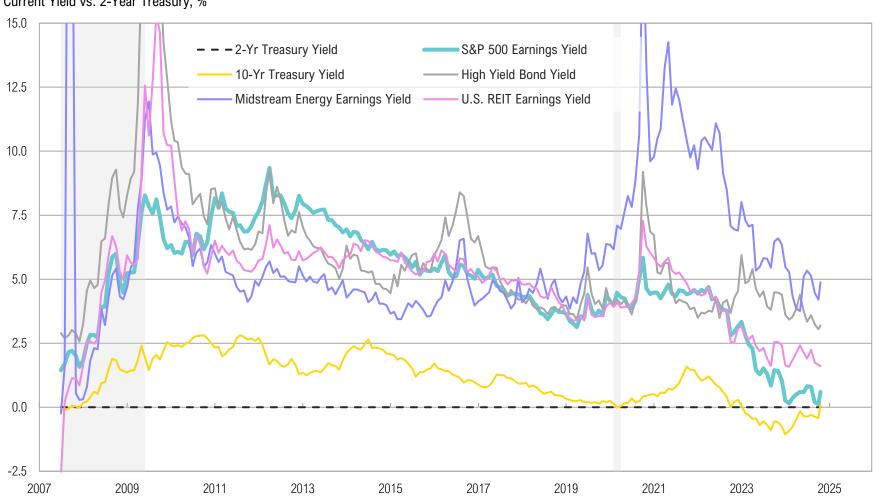
C.C. Wei, TSMC CEO





The relative yield case for high-yield bonds and REITs has been eroded by recent spread tightening/ price strength

Current Yield vs. 2-Year Treasury, %



Current Yield:

2-Year Treasury: 3.95%

10-Year Treasury: 4.02%

U.S. High Yield Bonds: 7.14%

S&P 500: 4.54%

Midstream Energy: 8.82%

U.S. REITs: 5.55% earnings

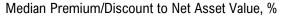
yield (3.86% dividend yield)

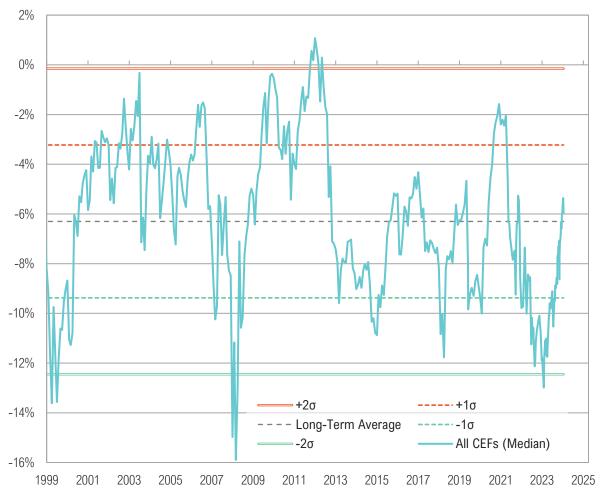
Source: Bloomberg. S&P 500, Midstream Energy and U.S. REIT yields proxied by forward 12-month estimated earnings yields. As of 10/17/2024.



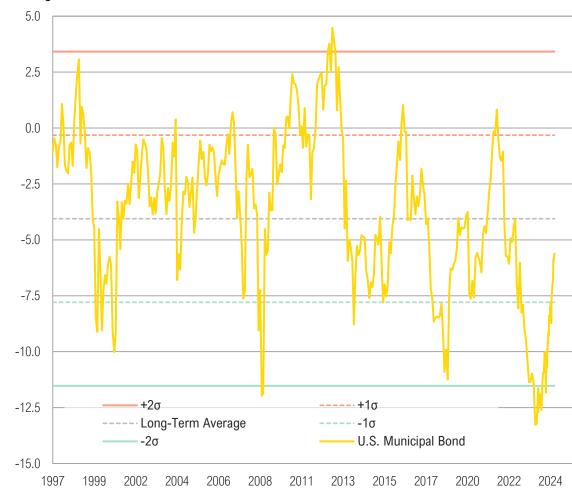


Median CEF discounts have been narrowing since last October and are at the tightest discount since 2022; U.S. Muni CEF discounts are also less enticing, having narrowed from -13.7% to -5.6%





Average Premium/Discount to Net Asset Value

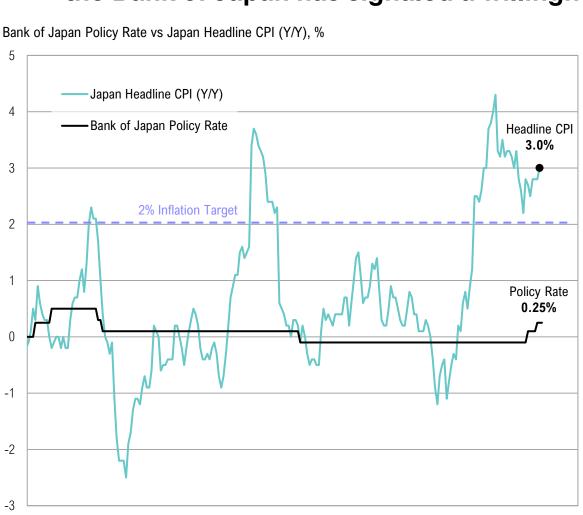


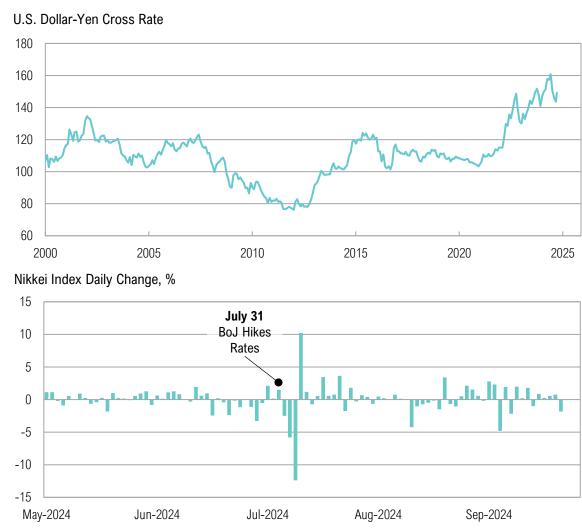
Source: Bloomberg. As of 10/15/2024.





Japanese stocks have recovered from the early August yen carry trade unwind meltdown; the Bank of Japan has signaled a willingness to hike rates further if economic data allows





2008 Source: Bloomberg. CPI as of 8/31/2024.

2006

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2012

2010

2014

2018

2016

2020

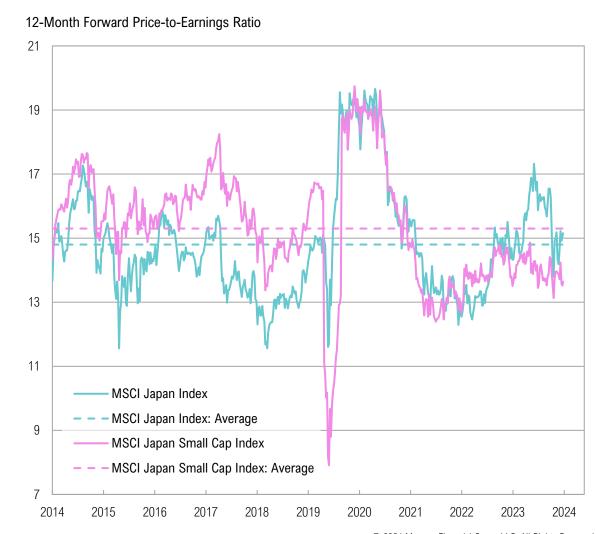
2022

2024



Japanese small cap stocks have lagged the broader index over the past 5 years; small cap P/Es have recently been trending lower, despite incentives from the TSE



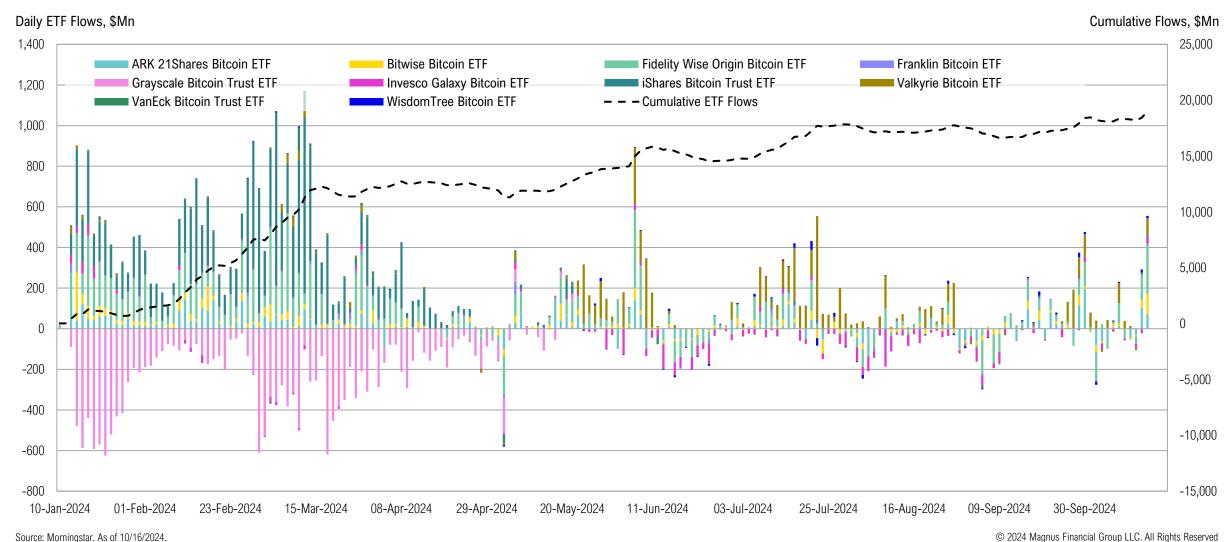


Source: Bloomberg. As of 10/15/2024.





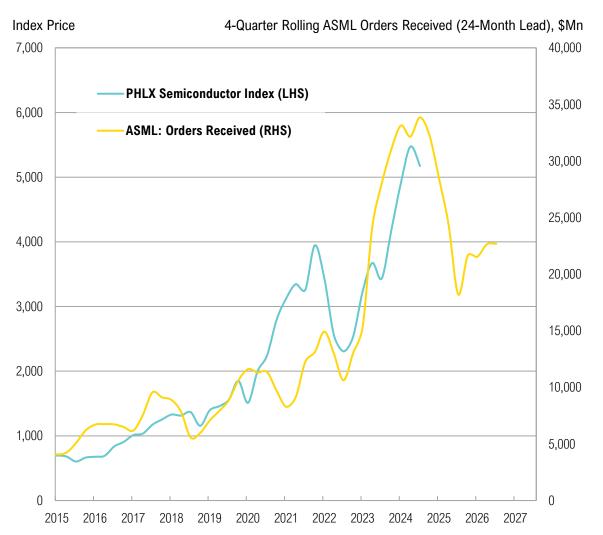
After accumulating nearly \$19bn, flows into (and out of) bitcoin spot ETFs have stabilized somewhat

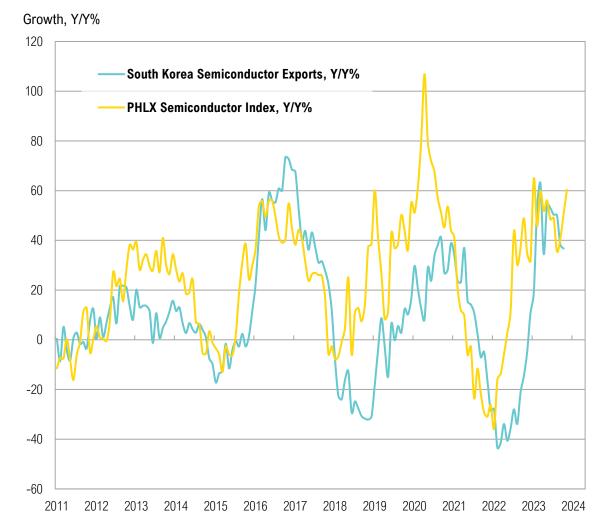






ASML's new orders have been a leading indicator of semiconductor demand and are signaling a potential industry slowdown; South Korean semiconductor exports also appear to be rolling over





Source: Bloomberg. The PHLX Semiconductor Index is a cap-weighted index of the 30 largest U.S.-traded companies primarily involved in the design, distribution, manufacture and sale of semiconductors. As of 10/16/2024.





Diversification is a safety factor that is essential because we should be humble enough to admit we can be wrong.

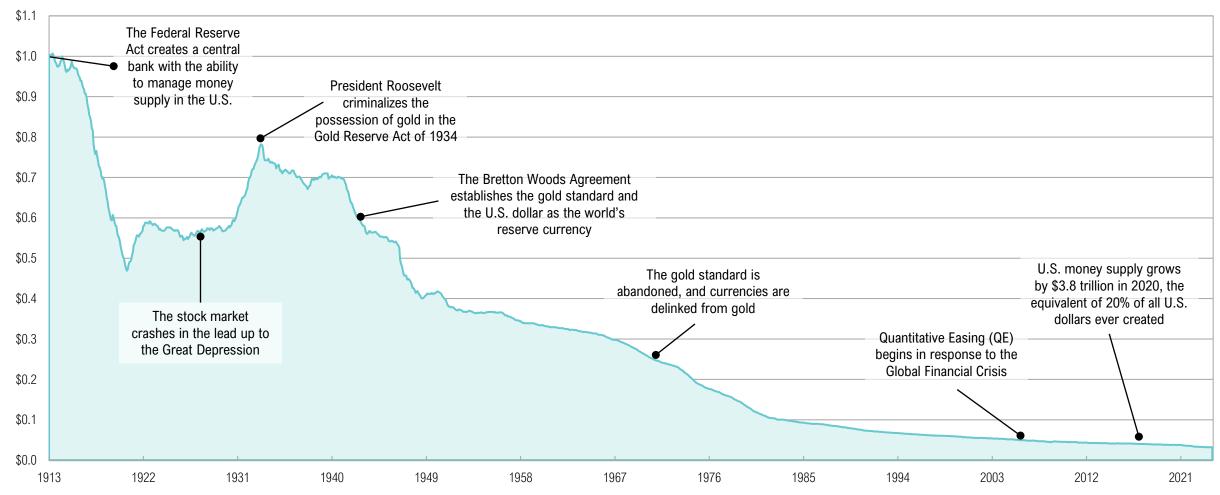
John Templeton, Investor & Banker





Over the last century, the purchasing power of the U.S. dollar has steadily eroded as a result of ongoing inflation

Purchasing Power of \$1

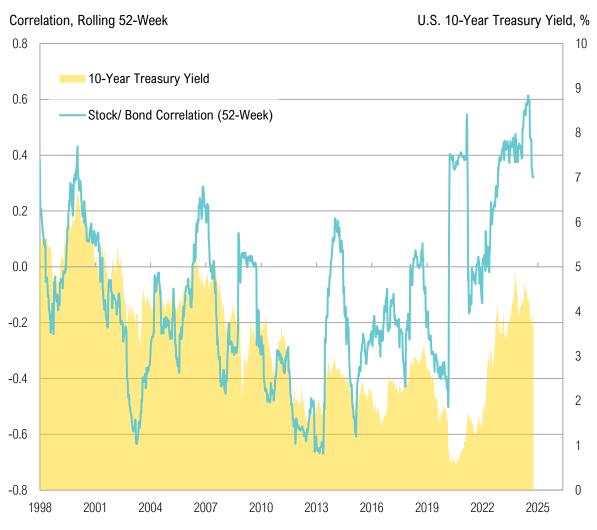


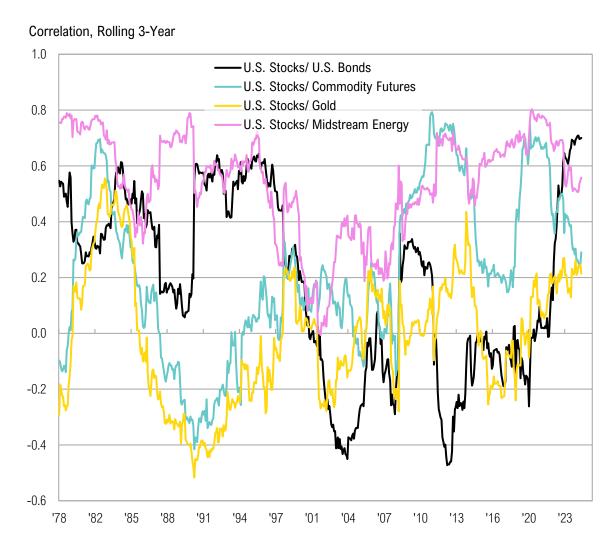
Source: Bloomberg, Visual Capitalist.





Bonds have recently provided less diversification benefits to stocks than other asset classes





Source: Bloomberg. See appendix for asset class & index definitions. LHS as of 10/11/2024; RHS as of 9/30/2024.



Even if not base case, returns during periods of stress (stagflation, bubble unwinds, banking crisis) contrast so starkly with the last 15 years that they should be

considered

	1970s Stagflation				Tech Bubble				GFC				**	50bps Cut
1972	1973	1974	1975	1999	2000	2001	2002	2003	2007	2008	2009	2010	Average	9/18/24
Gold	Gold	Gold	U.S. Small Cap	EM Stocks	Midstrm Energy	Midstrm Energy	Commodities 25.9%	EM Stocks	EM Stocks	U.S. Interm Bds	EM Stocks	Midstrm Energy	Gold	EM Stocks
48.3%	73.5%	67.0%	52.8%	57.6%	45.7%	43.7%		55.8%	39.4%	5.2%	78.5%	35.9%	19.7%	5.0%
Commodities 37.0%	Commodities 58.4%	Commodities 9.8%	U.S. Large Cap 37.2%	Intl Dev Stocks 27.0%	Commodities 31.8%	U.S. REITs 12.8%	Gold 24.0%	U.S. Small Cap 47.3%	Gold 31.6%	Intl Dev Bonds 4.4%	Midstrm Energy 76.4%	U.S. REITs 28.5%	Midstrm Energy 14.6%	Gold 4.0%
Intl Dev Stocks 30.1%	U.S. REITs 20.2%	Cash 8.0%	Intl Dev Stocks 32.3%	Commodities 24.3%	U.S. REITs 26.8%	U.S. Interm Bds 8.4%	Intl Dev Bonds 22.4%	Midstrm Energy 44.5%	Commodities 16.2%	U.S. Muni Bds 4.2%	U.S. HY Bonds 58.2%	Gold 27.7%	Commodities 13.3%	U.S. Large Cap 3.8%
Midstrm Energy	Cash	EM Stocks	Midstrm Energy	U.S. Small Cap	U.S. Interm Bds	U.S. Muni Bds	U.S. Interm Bds	Intl Dev Stocks	Midstrm Energy	Gold	Intl Dev Stocks	U.S. Small Cap	U.S. REITs	U.S. Small Cap
20.3%	7.3%	6.0%	27.1%	21.3%	11.6%	5.5%	10.3%	38.6%	12.7%	3.4%	31.8%	26.9%	8.2%	3.8%
U.S. Large Cap	Intl Dev Bonds	U.S. REITs	U.S. 60/40	U.S. Large Cap	U.S. Muni Bds	U.S. HY Bonds	U.S. Muni Bds	U.S. REITs	Intl Dev Stocks	Cash	U.S. REITs	EM Stocks	EM Stocks	Commodities 1.7%
19.0%	6.9%	4.8%	24.7%	21.0%	8.2%	5.3%	8.7%	36.7%	11.2%	1.8%	28.6%	18.9%	5.9%	
U.S. REITs	U.S. HY Bonds	U.S. Interm Bds	U.S. HY Bonds	U.S. 60/40	Cash	Cash	U.S. REITs	U.S. HY Bonds	Intl Dev Bonds	U.S. 60/40	Gold	Commodities 16.8%	Intl Dev Bonds	U.S. 60/40
17.4%	6.8%	4.1%	16.4%	12.2%	6.1%	4.1%	3.6%	29.0%	11.0%	-21.6%	27.6%		5.9%	1.6%
U.S. 60/40	Midstrm Energy	Intl Dev Bonds	U.S. REITs	Cash	U.S. 60/40	U.S. Small Cap	Cash	U.S. Large Cap	U.S. Interm Bds	U.S. HY Bonds	U.S. Small Cap	U.S. HY Bonds	U.S. Interm Bds	U.S. HY Bonds
12.2%	5.8%	2.9%	14.1%	4.8%	-1.1%	2.5%	1.7%	28.7%	7.0%	-26.2%	27.2%	15.1%	5.6%	0.4%
Intl Dev Bonds	U.S. Muni Bds	U.S. Muni Bds	Intl Dev Bonds	U.S. HY Bonds	EM Stocks	Gold	U.S. HY Bonds	Commodities 24.0%	U.S. 60/40	U.S. Small Cap	U.S. Large Cap	U.S. Large Cap	U.S. HY Bonds	Cash
9.4%	4.8%	-5.6%	8.7%	2.4%	-1.6%	1.4%	-1.4%		6.2%	-33.8%	26.5%	15.1%	5.0%	0.4%
U.S. Small Cap 4.4%	U.S. Interm Bds 3.3%	U.S. 60/40 -14.6%	Cash 5.9%	Gold 1.2%	U.S. Small Cap -3.0%	EM Stocks -2.6%	Midstrm Energy -3.4%	Gold 21.7%	U.S. Large Cap 5.5%	Commodities -35.6%	Commodities 18.9%	U.S. 60/40 12.2%	U.S. Muni Bds 4.1%	U.S. REITs 0.4%
Cash	EM Stocks	U.S. HY Bonds	U.S. Interm Bds	U.S. Muni Bds	Intl Dev Bonds	U.S. 60/40	EM Stocks	Intl Dev Bonds	U.S. Muni Bds	Midstrm Energy	U.S. 60/40	Intl Dev Stocks	Cash	U.S. Muni Bds
4.2%	3.3%	-17.2%	5.6%	0.6%	-3.9%	-3.3%	-6.2%	19.4%	4.8%	-36.9%	18.5%	7.8%	3.8%	-0.1%
U.S. HY Bonds	U.S. 60/40	U.S. Small Cap	U.S. Muni Bds	U.S. Interm Bds	U.S. HY Bonds	Intl Dev Bonds	U.S. 60/40	U.S. 60/40	Cash	U.S. Large Cap	Intl Dev Bonds	U.S. Interm Bds	U.S. 60/40	Midstrm Energy
3.5%	-7.7%	-19.9%	4.6%	-0.8%	-5.9%	-3.7%	-9.5%	18.6%	4.8%	-37.0%	7.5%	6.6%	2.7%	-0.4%
U.S. Muni Bds	Intl Dev Stocks	Midstrm Energy	Commodities -0.8%	U.S. REITs	Gold	U.S. Large Cap	Intl Dev Stocks	U.S. Muni Bds	U.S. HY Bonds	U.S. REITs	U.S. Muni Bds	Intl Dev Bonds	U.S. Small Cap	Intl Dev Stocks
3.2%	-10.7%	-20.8%		-4.6%	-6.3%	-11.9%	-15.9%	4.4%	1.9%	-38.0%	7.2%	4.9%	2.1%	-0.5%
U.S. Interm Bds	U.S. Large Cap	Intl Dev Stocks	EM Stocks	Midstrm Energy	U.S. Large Cap	Commodities -19.5%	U.S. Small Cap	U.S. Interm Bds	U.S. Small Cap	Intl Dev Stocks	U.S. Interm Bds	U.S. Muni Bds	Intl Dev Stocks	U.S. Interm Bds
2.4%	-14.7%	-25.4%	-12.9%	-7.8%	-9.1%		-20.5%	4.1%	-1.6%	-43.4%	5.9%	3.1%	0.2%	-1.6%
EM Stocks	U.S. Small Cap	U.S. Large Cap	Gold	Intl Dev Bonds	Intl Dev Stocks	Intl Dev Stocks	U.S. Large Cap	Cash	U.S. REITs	EM Stocks	Cash	Cash	U.S. Large Cap	Intl Dev Bonds
-27.2%	-30.9%	-26.5%	-25.2%	-8.8%	-14.2%	-21.4%	-22.1%	1.0%	-16.8%	-53.3%	0.1%	0.1%	-0.3%	-2.5%

■ U.S. 60/40

U.S. Large CapU.S. Small Cap

Intl Dev Stocks

Emerging Stocks

U.S. Municipal Bonds

U.S Int-Term Bonds

U.S. High Yield Bds

Intl Dev Bonds

U.S. REITs

Commodities

Gold

Midstream Energy

Cash

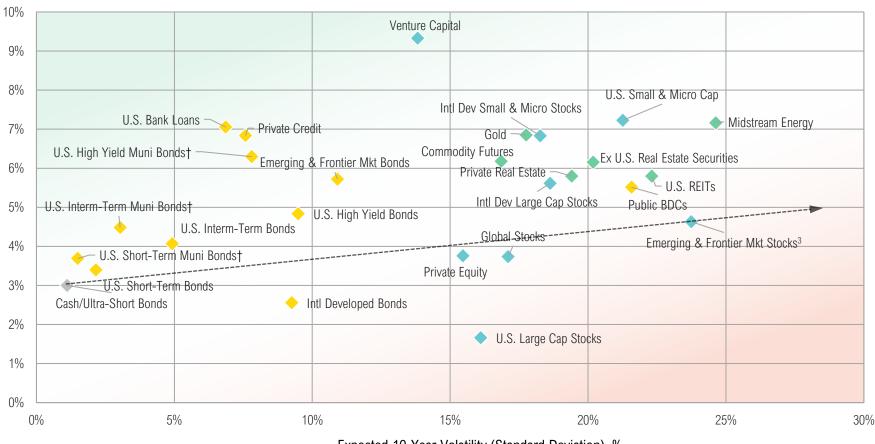
Source: Bloomberg, SpringTide. See disclosures for asset class, index and portfolio definitions. Returns are gross of fees. It is not possible to invest directly in an index. **Geometric average calculated on the years included to the left. Returns for periods longer than 1 year are annualized. 50bps cut returns as of 10/16/2024.





Expected returns for large cap stocks continue to decline, while small cap stocks look more attractive due to better fundamentals





Expected 10-Year Volatility (Standard Deviation), %

Source: Bloomberg, CA, Pitchbook, Morningstar, NAREIT, SpringTide calculations. Returns are gross of fees unless stated otherwise.

Asset Class	Expected Returns (%)	Expected Volatility (%)
Venture Capital	9.3	13.8
U.S. Small & Micro Cap	7.2	21.3
Closed-End Funds	7.2	13.0
Midstream Energy	7.2	24.6
U.S. Bank Loans	7.1	6.9
Insurance-Linked Securities	6.9	4.3
Gold	6.9	17.8
Private Credit	6.8	7.6
■ Intl Dev Small & Micro Stocks	6.8	18.3
Relative Value	6.6	4.7
■ Digital Assets	6.5	20.5
U.S. High Yield Muni Bonds	6.3	7.8
Commodity Futures	6.2	16.8
■ Ex U.S. Real Estate Securities	6.2	20.2
■ Private Real Estate	5.8	19.4
U.S. REITs	5.8	22.3
Emerging & Frontier Mkt Bonds	5.7	10.9
■ Intl Dev Large Cap Stocks	5.6	18.6
Public BDCs	5.5	21.6
Global Macro	5.5	6.4
Long-Short Equity	5.0	7.9
U.S. High Yield Bonds	4.8	9.5
■ Emerging & Frontier Mkt Stocks	4.6	23.7
U.S. Interm-Term Muni Bonds	4.5	3.0
U.S. Interm-Term Bonds	4.1	4.9
Private Equity	3.8	15.5
■ Global Stocks	3.7	17.1
U.S. Short-Term Muni Bonds	3.7	1.5
U.S. Short-Term Bonds	3.4	2.2
■ Cash/Ultra-Short Bonds	3.0	1.1
Intl Developed Bonds	2.6	9.3
U.S. Large Cap Stocks	1.7	16.1



³ Estimated returns include impact of currency adjustment

[†] Reported on a taxable-equivalent basis assuming 35% marginal tax rate.

Asset Class	Benchmark	Index	Start Date	End Date	Data Source	
		S&P 500 TR Index	01/31/1970	n/a	Bloomberg, Ibbotson Associates,	
U.S. Large Cap Stocks	S&P 500 Index	IA SBBI US Large Stock TR Index	01/31/1926	12/31/1969	NYU/Stern	
		NYU/Stern S&P 500 TR	01/31/1920	12/31/1925	NTU/Sterri	
		Russell 2000 TR Index	01/31/1979	n/a	Plaambara Ibbataan Assasiataa	
U.S. Small & Micro Cap	Russell 2000 TR Index	IA SBBI US Small Stock TR Index	01/31/1926	12/31/1978	Bloomberg, Ibbotson Associates, SpringTide	
		SpringTide U.S. Small & Micro Cap Premium-Based Extension	01/31/1920	12/31/1925	Springride	
Intl Dev Stocks	MSCI EAFE NR Index	MSCI EAFE NR Index	01/31/1970	n/a	MSCI, NYU/Stern	
IIIII DEV SIOCKS	MSGI EAFE NIT IIIUEX	NYU/Stern Developed World Indices	01/31/1920	12/31/1969	MSGI, NTO/Sterri	
EM & Frontier Stocks	MSCI Emerging Markets NR Index	MSCI Emerging Markets NR Index	01/31/2001	n/a	MSCI, NYU/Stern	
EIVI & FIUIILIEI SLUCKS	MSGI EIIIerging Markets NN IIIuex	NYU/Stern Emerging World Index (Price)	01/31/1920	12/31/2000	WISCI, INTU/SIEITI	
Global Stocks	MSCI ACWI NR Index	MSCI ACWI NR Index	01/31/2001	n/a	MSCI, NYU/Stern	
GIODAI SIOCKS	MSCI ACWI NK IIIUex	NYU/Stern All World Index (Price)	01/31/1920	12/31/2000	MSCI, NYU/Sterri	
Vantura Canital	Cambridge Venture Capital	Cambridge Venture Capital	01/01/1981	n/a	Combridge SpringTide	
Venture Capital	Cambridge Venture Capital	SpringTide Venture Capital Premium-Based Extension	01/31/1920	12/31/1980	Cambridge, SpringTide	
II C. Muni Dondo	Bloomberg Municipal 1-10Y Blend 1-12Y TR Index	Bloomberg Municipal 1-10Y Blend 1-12Y TR Index	07/31/1993	n/a	Dloomhora	
U.S. Muni Bonds		USA Municipal AAA Bonds Total Return Index (TRUSAMUM)	01/31/1920	06/30/1993	Bloomberg	
II.C. Long Torm Dondo	Bloomberg US Long Gov/Corp TR Index	Bloomberg US Long Gov/Corp TR Index	02/28/1999	n/a	Plaambara NVII/Storn	
U.S. Long-Term Bonds		NYU/Stern US 30Yr Government Bond TR Index	01/31/1920	01/31/1999	Bloomberg, NYU/Stern	
II C Interm Term Dande	Bloomberg US Aggregate Bond TR Index	Bloomberg US Aggregate Bond TR Index	01/31/1976	n/a	Plaambara NVII/Storn	
U.S. Interm-Term Bonds		NYU/Stern US Total Return AAA Corporate Bond Index	01/31/1920	12/31/1975	Bloomberg, NYU/Stern	
	Bloomberg US Corporate High Yield TR Index	Bloomberg US Corporate High Yield TR Index	07/31/1983	n/a	Diagraphaya Ibbataan Associates	
U.S. High Yield Bonds		IA Bloomberg US HY Corporate Bonds	02/28/1926	06/30/1983	Bloomberg, Ibbotson Associates,	
-		SpringTide U.S. High Yield Bonds Premium-Based Extension	01/31/1920	01/31/1926	SpringTide	
Intl Dev Bonds	Plaambara Clabal Aggregate ov UCD TD Indov	Bloomberg Global Aggregate ex-USD TR Index	01/31/1990	n/a	Plaambara NVII/Storn	
THU DEV BOTIOS	Bloomberg Global Aggregate ex-USD TR Index	NYU/Stern All World ex-USA Government Bond Index	01/31/1920	12/31/1989	Bloomberg, NYU/Stern	
U.S. REITs	MSCI US REIT GR Index	MSCI US REIT GR Index	01/01/1995	n/a	Diagraham Winana	
U.S. KEIIS	M2CL 02 KELL RK ILIGEX	Winans US Real Estate Index (WIREI)	01/01/1920	12/31/1994	Bloomberg, Winans	
Commodity Futures	Pleamhara Commodity TD Indov	Bloomberg Commodity TR Index	01/31/1991	n/a	Dicambara	
Commodity Futures	Bloomberg Commodity TR Index	Thompson Jefferies CRB Core Commodity Total Return Index	01/31/1920	12/31/1990	Bloomberg	
Midstream Energy		Alerian MLP TR Index	01/31/1996	n/a		
	Alerian MLP TR Index	S&P 500 Energy Index	01/31/1946	12/31/1995	Alerian, Bloomberg	
		ExxonMobil Corp (XOM)	01/31/1920	12/31/1945	•	
0.11	LDMA Cold Price	LBMA Gold Price	02/29/1968	n/a	I DMA Plaambare	
Gold	LBMA Gold Price	New York Spot Bullion	01/31/1920	01/31/1968	LBMA, Bloomberg	
Cook/Illing Chart Daniel	Disambara HC T Bill 4 2 Marsh TD India.	Bloomberg US T-Bill 1-3 Month TR Index	12/31/1991	n/a	Disambare MVII/Ot	
Cash/Ultra-Short Bonds	Bloomberg US T-Bill 1-3 Month TR Index	NYU/Stern USA Total Return T-Bill Index	01/31/1920	11/30/1991	Bloomberg, NYU/Stern	



Asset Class Benchmarks

Asset class performance was measured using the following benchmarks:

U.S. Large Cap Stocks: S&P 500 TR Index

U.S. Small & Micro Cap Stocks: Russell 2000 TR Index

Intl Dev Large Cap Stocks: MSCI EAFE GR Index

Intl Dev Small & Micro Stocks: MSCI EAFE GR Index

Emerging & Frontier Market Stocks: MSCI Emerging Markets GR Index

Global Stocks: MSCI ACWI GR Index

Private Equity: Cambridge Associates U.S. Private Equity

Venture Capital: Cambridge Associates U.S. Venture Capital

U.S. Interm-Term Muni Bonds: Bloomberg Barclays 1-10 (1-12 Yr) Muni Bond TR

Index

U.S. High Yield Muni Bonds: Bloomberg Barclays High Yield Muni TR Index

U.S. Interm-Term Bonds: Bloomberg Barclays U.S. Aggregate Bond TR Index

U.S. High Yield Bonds: Bloomberg Barclays U.S. Corporate High Yield TR Index

U.S. Bank Loans: S&P/LSTA U.S. Leveraged Loan Index

Intl Developed Bonds: Bloomberg Barclays Global Aggregate ex-U.S. Index

Emerging & Frontier Market Bonds: JPMorgan EMBI Global Diversified TR Index

Public BDCs: S&P BDC Index

U.S. REITs: MSCI U.S. REIT GR Index

Ex U.S. Real Estate Securities: S&P Global Ex-U.S. Property TR Index

Private Real Estate: Cambridge Associates Real Estate

Commodity Futures: Bloomberg Commodity TR Index

Midstream Energy: Alerian MLP TR Index

Gold: LBMA Gold Price

Long-Short Equity: HFRI Equity Hedge Index

Global Macro: HFRI Macro-CTA Index

Relative Value: HFRI Relative Value Index

Closed-End Funds: S-Network Composite Closed-End TR Index

Insurance-Linked Securities: SwissRe Global Cat Bond TR Index

Digital Assets: MVIS CryptoCompare Digital Assets 25 Index

Cash & Cash Equivalents: Bloomberg Barclays U.S. T-Bill 1-3 Month TR Index

U.S. Short-Term Muni Bonds: Bloomberg Barclays Municipal 1-3 Yr TR Index

U.S. Short-Term Bonds: Bloomberg Barclays U.S. Agg 1-3 Yr TR Index

U.S. 60/40: 60% S&P 500 TR Index 40% Bloomberg Barclays U.S. Aggregate Bond TR

Index

Global 60/40: 60% MSCI ACWI GR Index 40% Bloomberg Barclays Global Aggregate

Bond TR Index



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