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US Equity Outlook: time to get picky

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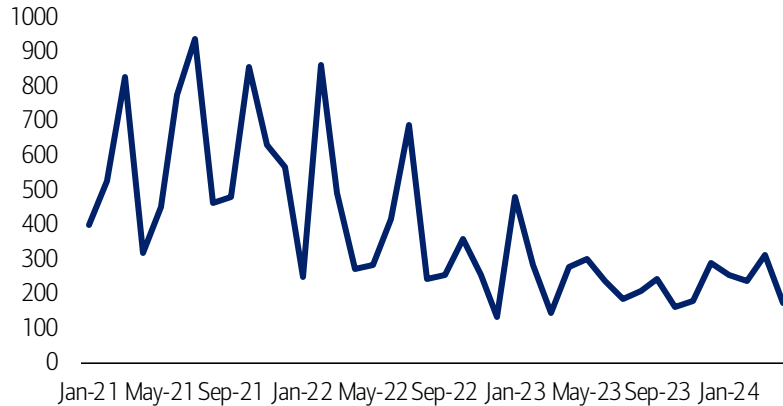
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Shortsighted view: things are weakening

“Labor market getting softer”

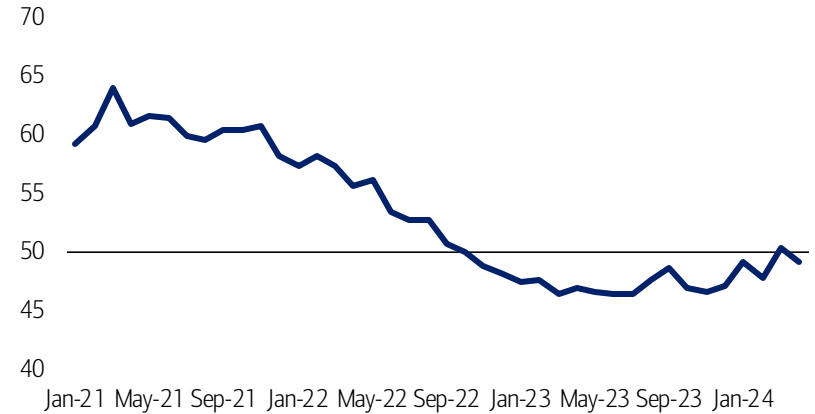
Monthly non-farm payroll gains (2021-4/24)



Source: Bloomberg

Manufacturing in a recession and hasn't recovered

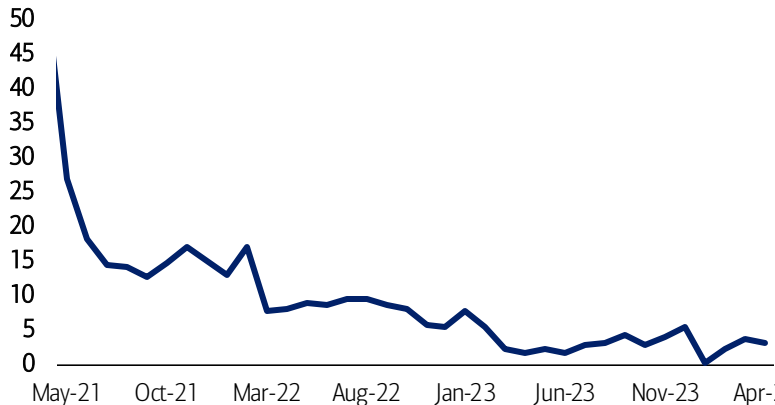
ISM Manufacturing PMI (2021-5/24)



Source: Bloomberg

The consumer is weakening

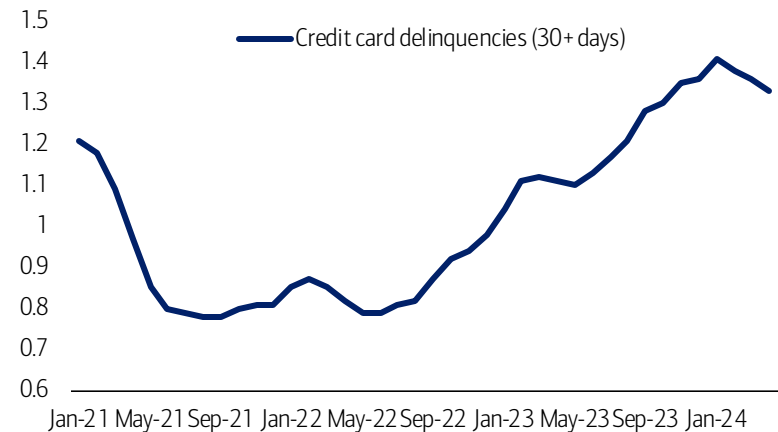
Retail sales YoY (2021-5/24)



Source: Bloomberg

Credit card delinquencies have risen

US credit card delinquencies 30+ days composite (2021-4/24)



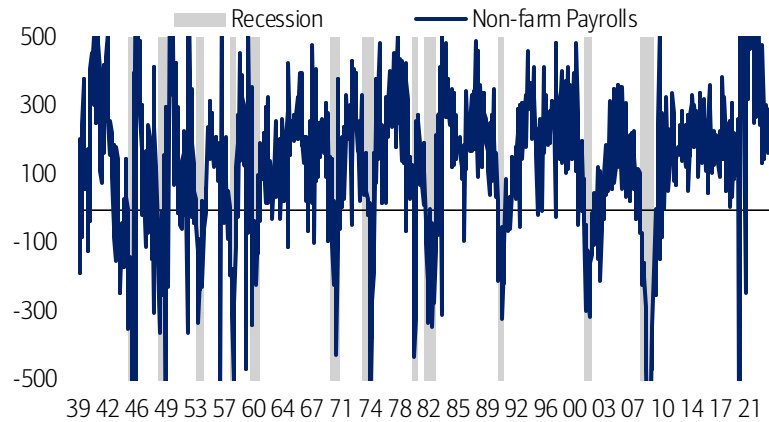
Source: Bloomberg



Zooming out: macro normalizing

The labor market is normalizing

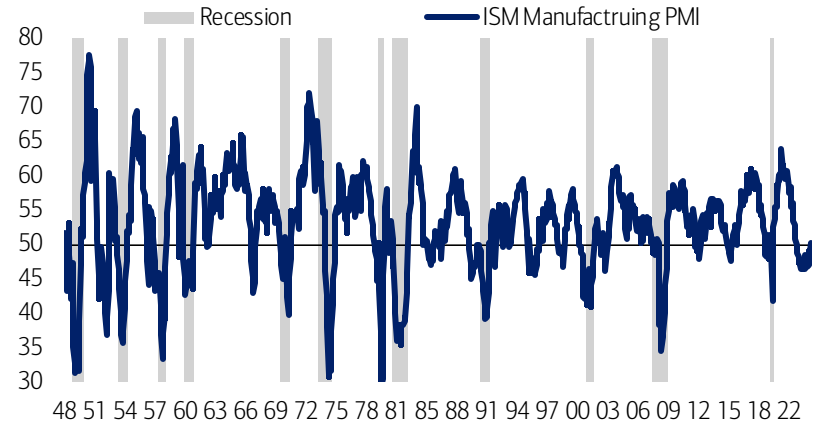
Monthly non-farm payroll gains (1939-4/24)



Source: Bloomberg

Manufacturing had a minor recession and is troughing

ISM Manufacturing PMI (1948-5/24)



Source: Bloomberg

Consumption is consistent with levels

Retail sales YoY (1993-5/24)

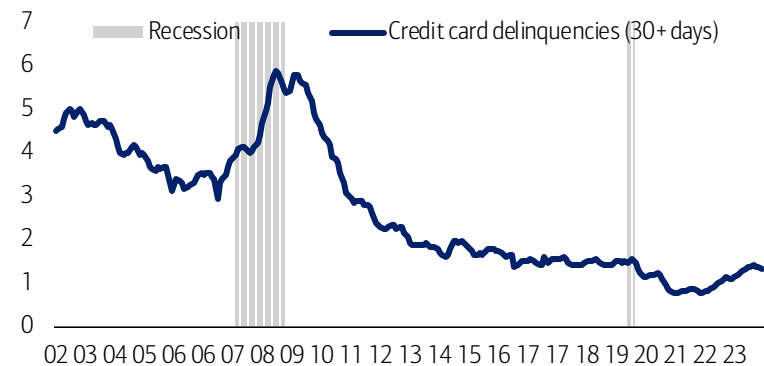


Source: Bloomberg

Source: Bloomberg

Delinquencies remain low

US credit card delinquencies 30+ days composite (2002-4/24)



We are closing in on our year-end target



Three bull cases for equities:

1. Lower equity risk premium
2. Higher normalized earnings
3. Inflows

S&P 500 2024 Target Models

Model	Category	Time Horizon	2024 Target	Expected Return (Annualized)	Current Weight in Forecast
BofA Fair Value Model	Fundamental/Valuation	Medium Term	5,053	-2.0%	30%
Sell Side Indicator	Sentiment	Medium Term	5,706	13.4%	30%
Earnings Surprise Indicator	Fundamental/Sentiment	Short-term	5,523	9.1%	20%
Long-term Valuation Model	Valuation	Long-term	5,247	2.6%	10%
12-Month Price Momentum	Technical	Medium Term	5,543	9.6%	10%
Official S&P 500 Target			5,400	+6.2%	

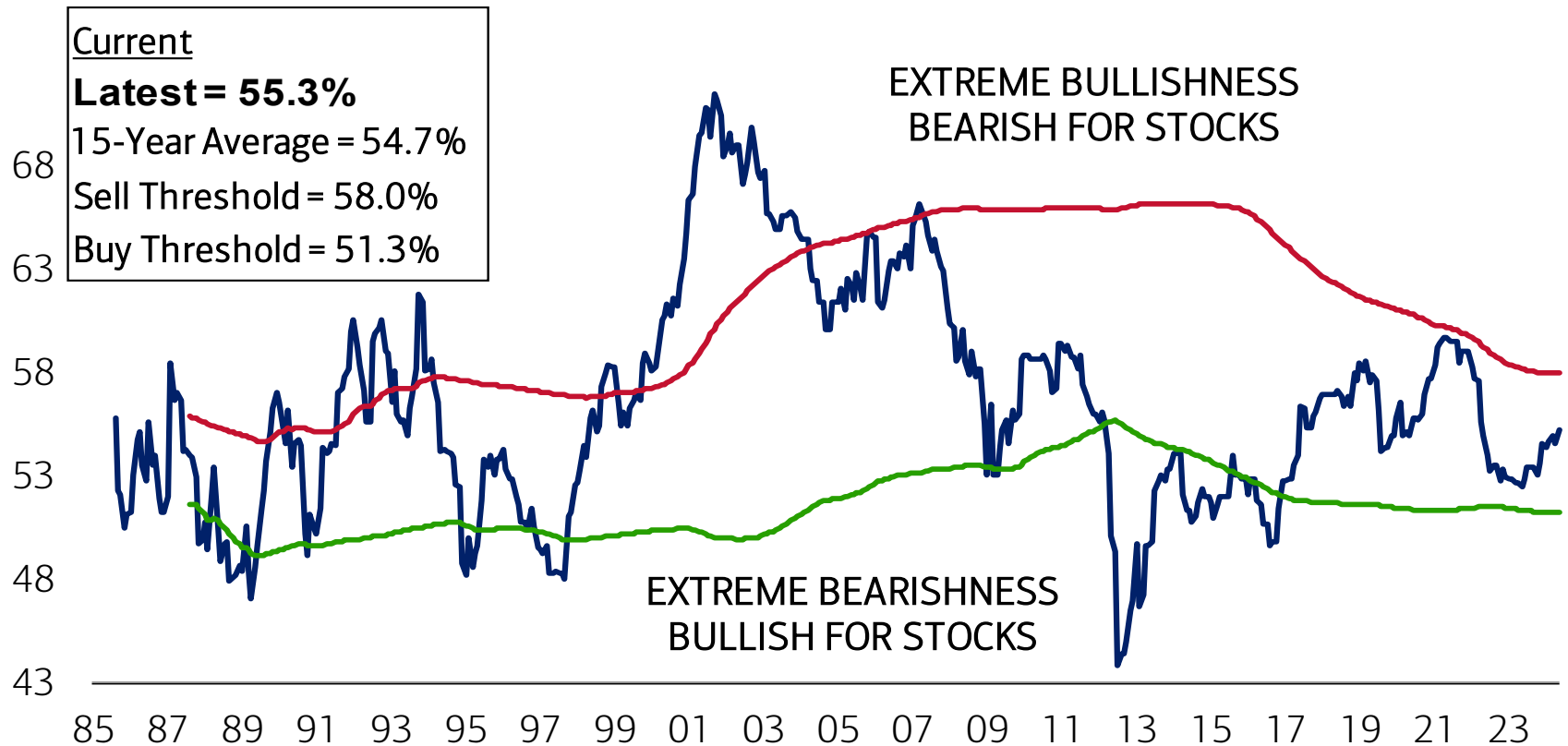
Source: BofA US Equity & US Quant Strategy; Short-term = 1-3 months, medium-term = 1 year, and long-term = 5+ years. We calculate our price target based on S&P 500 price as of 3/1/24, and round to closest 50.



Wall Street sentiment is now neutral, a frustrating phase

SSI is “Neutral”, slightly closer to contrarian “Sell” signal than a “Buy”

Sell Side Indicator, 8/1985-5/2024



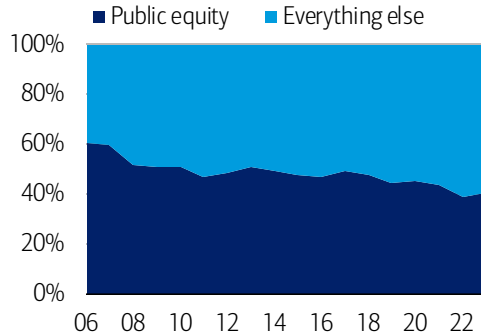
Source: BofA US Equity & Quant Strategy Note: Buy and Sell signals are based on rolling 15-year +/- 1 standard deviation from the rolling 15-year mean. A reading above the red line indicates a Sell signal and a reading below the green line indicates a Buy signal. Disclaimer: The indicator identified as the Sell Side Consensus Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.



Buyside positioning show no bid for positive tail risk. Buy beta.

Pension public equity weights at 20yr low

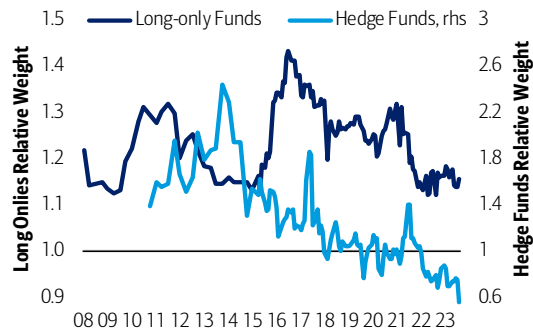
US Pension allocations to stocks vs. everything else



Source: Pensions & Investments Research Center (as of 9/2023), BofA US Equity & Quant Strategy

Positioning is defensive vs. history

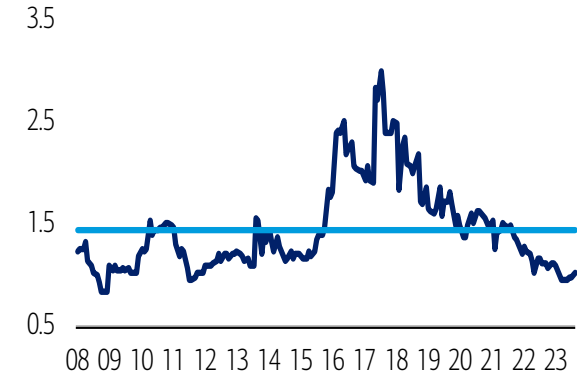
Active LO and HF relative exposure to cyclical vs. defensive* sectors within S&P 500



Source: FactSet Ownership, BofA US Equity & Quant Strategy
*Cyclicals = Discretionary, Materials, Energy, Tech, Industrials; defensives = Staples, Health Care, Utilities

Beta exposure near all-time lows

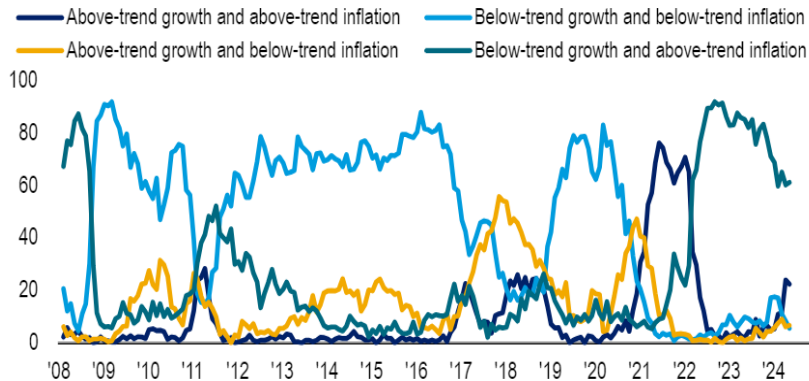
LO relative wt in High/Low Beta by SP500 decile



Source: BofA US Equity & Quant Strategy, FactSet

Fear: From Stagnation to Stagflation (no pause for Goldilocks)

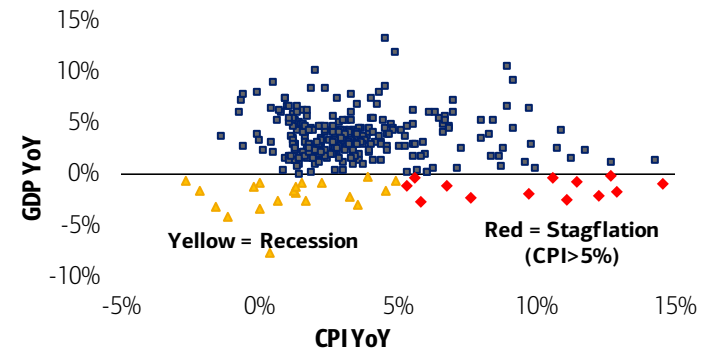
BofA Global Fund Manager Survey: Which of the following best describes the global economy as you see it over the next 12 months?



Source: BofA Global Fund Manager Survey

Reality: 90% of the time, we avoid recessions and stagflations

Quarterly US real GDP growth YoY vs. CPI YoY, 1948-present



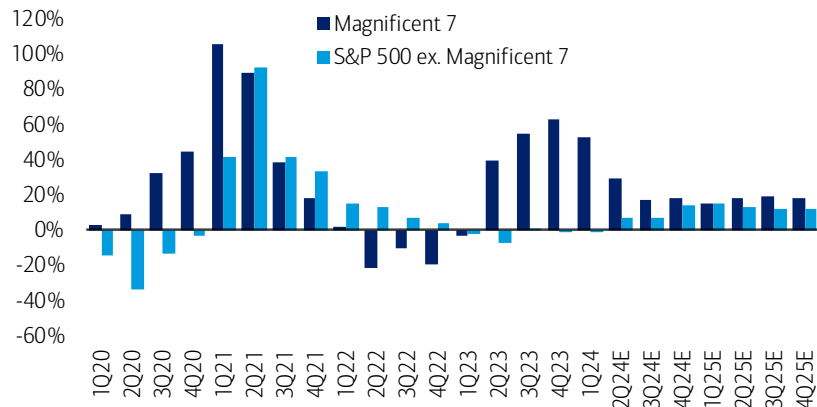
Source: Haver Analytics, BofA US Equity & US Quant Strategy

Earnings are broadening, investor price sensitivity should follow



Mag 7 EPS growth outpaced 493 in 2023, but gap is narrowing

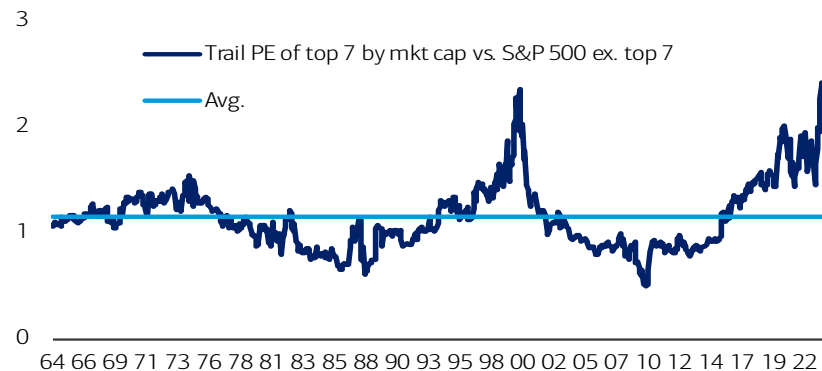
YoY qrtly earnings growth of Mag 7 vs. Other 493 (1Q20-4Q25E)



Source: BofA US Equity & Quant Strategy, FactSet. Current constituents, consensus estimates

Mag 7 still expensive vs. rest of index

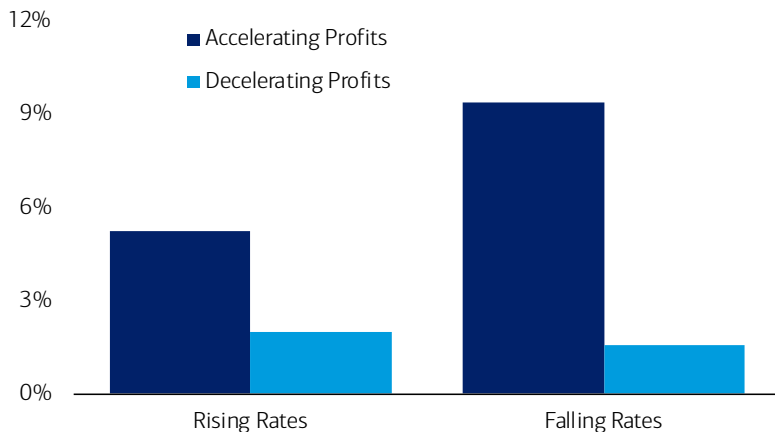
Trail. PE of largest 7 S&P 500 companies vs. trail. PE of S&P 500 ex. largest 7 (as of 5/2024)



Source: BofA US Equity & Quant Strategy

As profits accelerate, investors become price sensitive

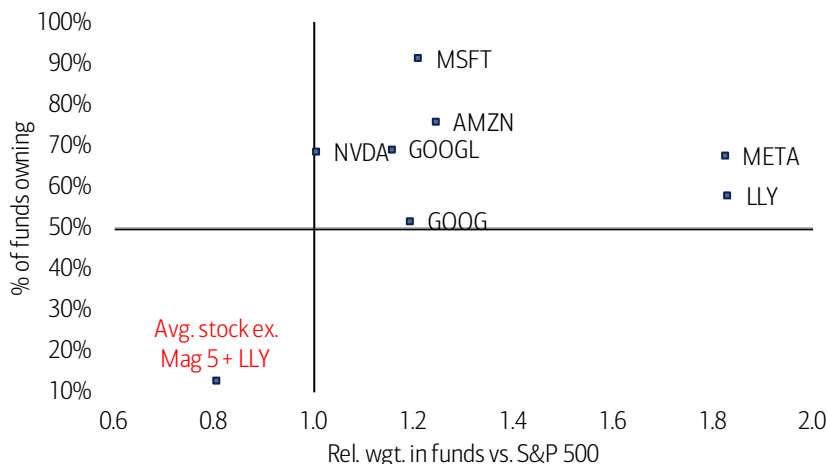
Value vs. Growth ann. perf during profits/rates cycles since 1926



Source: FactSet, BofA US Equity & US Quant Strategy

Themes are crowded, average stock is neglected

LO fundholdings in "Magnificent 5" + Eli Lilly (GLP-1) (as of 4/24)



Source: FactSet, BofA US Equity & US Quant Strategy



The S&P 500 is statistically expensive, but does that matter?

S&P 500 Valuations – shading indicates that metric is statistically expensive relative to history (as of 5/24)

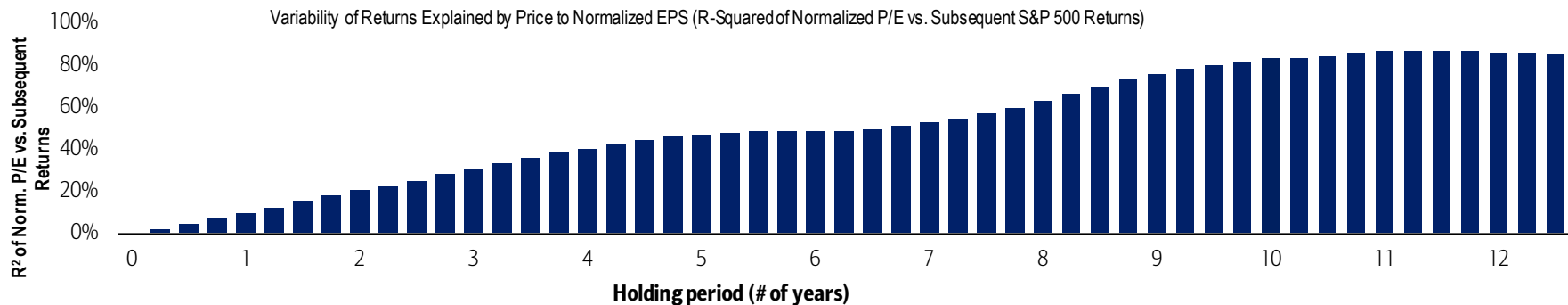
S&P 500 valuation metrics

Metric	Current	Average	Avg. ex. Tech Bubble	Min	Max	% Above (below) avg	Z-Score	History
Trailing PE	23.7	14.9	14.5	5.2	30.5	59.3%	1.8	1900-present
Trailing GAAP PE	27.5	15.1	14.8	4.2	122.4	81.8%	1.4	1832-present
Forward Consensus PE	20.8	15.8	15.1	9.8	25.1	31.3%	1.4	1986-present
Trailing Normalized PE	25.2	19.0	17.8	9.2	34.5	32.3%	1.3	9/1987-present
Median Forward P/E	16.9	15.5	15.3	10.0	21.9	9.0%	0.6	1986-present
Shiller PE	33.0	17.5	16.9	4.8	44.2	88.8%	2.1	1881-present
P/BV	4.85	2.69	2.52	0.98	5.34	80.5%	2.1	1978-present
EV/EBITDA	15.0	10.6	10.3	6.0	17.1	41.7%	1.8	1986-present
Trailing PEG	2.00	1.68	1.65	1.05	3.24	19.1%	0.9	1986-present
Forward PEG	1.75	1.44	1.42	0.93	3.50	21.7%	0.9	1986-present
P/OCF	18.0	11.4	10.8	5.4	19.3	58.1%	2.0	1986-present
P/FCF	30.3	27.9	25.0	12.9	65.7	8.8%	0.2	1986-present
EV/Sales	3.10	1.99	1.93	0.86	3.40	55.5%	1.9	1986-present
ERP (Market-Based)	605	505	522	136	880	19.7%	-0.5	11/1980-present
Normalized ERP	209	383	429	-120	929	-45.4%	0.8	1987-present
S&P 500 Div. Yld. vs. 10yr Tsy. Yld.	0.29	1.23	1.25	0.17	4.20	-76.4%	1.5	1792-present
S&P 500 in WTI terms	66.5	27.1	24.9	2.7	175.3	145.4%	2.0	1960-present
S&P 500 in Gold terms	2.25	1.65	1.43	0.17	5.48	36.2%	0.5	1968-present
S&P 500 vs. R2000 Fwd. P/E	1.39	1.04	1.00	0.76	1.70	33.1%	1.7	1986-present
S&P 500 Market Cap/GDP	1.57	0.67	0.64	0.22	1.64	135.2%	2.6	1964-present

Source: S&P, Compustat, Bloomberg, FactSet/First Call, BofA US Equity & Quant Strategy

Valuation matters little in near term, but is almost all that matters for price return over long-term

Price to normalized earnings predictive power on subsequent holding period returns (since 1987)



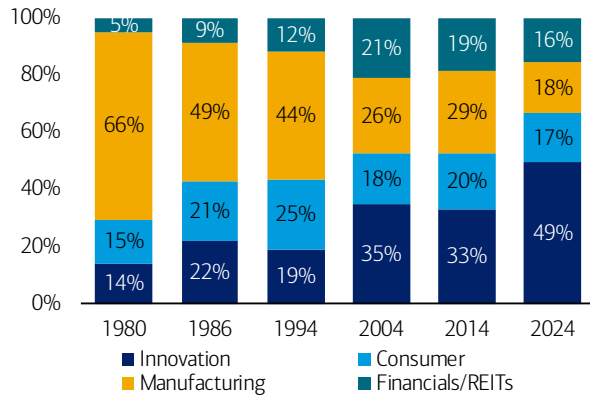
Source: BofA US Equity & US Quant Strategy, Haver Analytics, FactSet



Bull case: S&P 500 is higher quality, asset-light, less levered

S&P 500 = 50% asset-light sectors today vs. 70% manufacturing in 1980

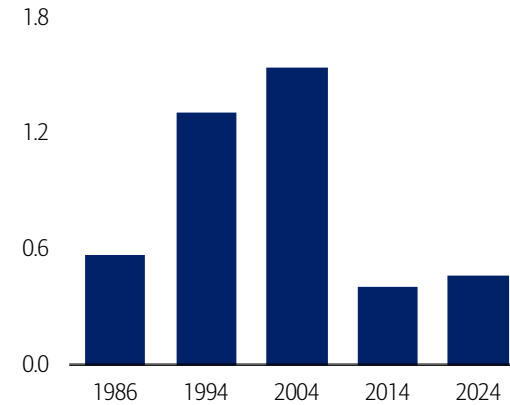
% of S&P 500 market cap by sector, 1980-present



Source: Haver Analytics/S&P Analyst Handbook, FactSet, BofA US Equity & Quant Strategy. (Asset light / Innovation = Tech, Comm. Services ex-Telecom & Health Care, Consumer =Staples/ Discretionary, Manufacturing/Asset Intensive/Capex = Industrials, Materials, Energy, Utilities, Telecom)

Leverage lower than 1990s-early 2000s

S&P 500 non-Fins net debt/Equity, 1986-present



Source: FactSet, BofA US Equity & Quant Strategy

Higher quality composition

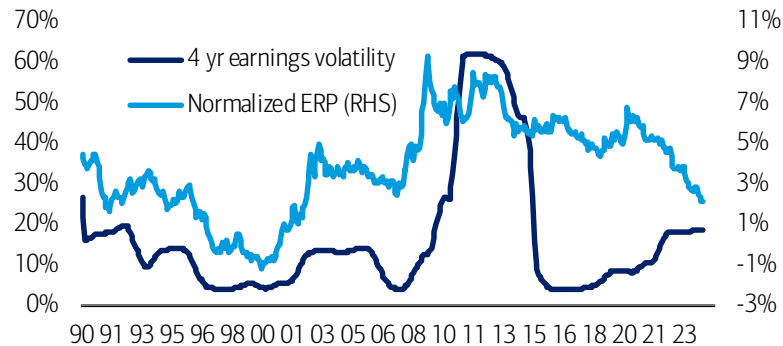
S&P 500: % of B+ or better quality-rated stocks, 1990-5/24



Source: FactSet, BofA US Equity & Quant Strategy

Lower EPS volatility should translate to lower ERP

S&P 500 4yr rolling earnings volatility (LHS) vs. Normalized ERP (RHS) (1990-5/2024)



Source: Bloomberg, FactSet, Haver Analytics, BofA US Equity & Quant Strategy

Prior cycles of lower earnings risk saw lower ERP

Average Normalized Equity Risk Premium and real rates at different levels of earnings volatility (since 1990)

4yr earnings vol (since '90)...		Avg. ERP	Avg. Real Rates
Greater than...	Less than...		
0%	5%	2.5%	2.4%
5%	10%	3.3%	1.8%
10%	15%	3.8%	2.3%
15%	20%	3.4%	2.7%
20%	65%	6.8%	0.5%

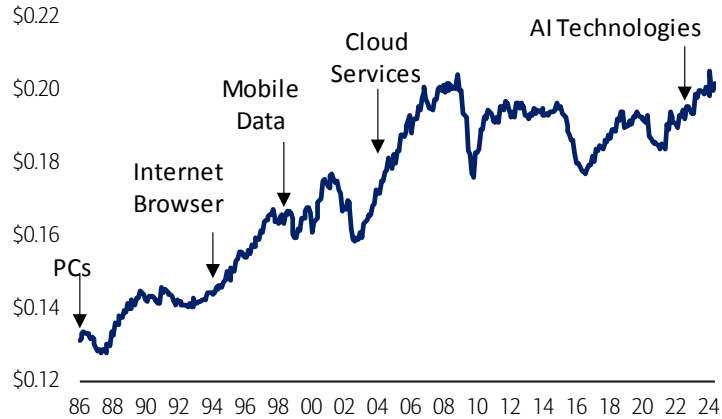
Source: Bloomberg, FactSet, Haver Analytics, BofA US Equity & Quant Strategy. Border indicates current eps volatility range.



US corporates are exiting an era of low quality EPS growth

Equity measure of productivity has stalled since early 2000s

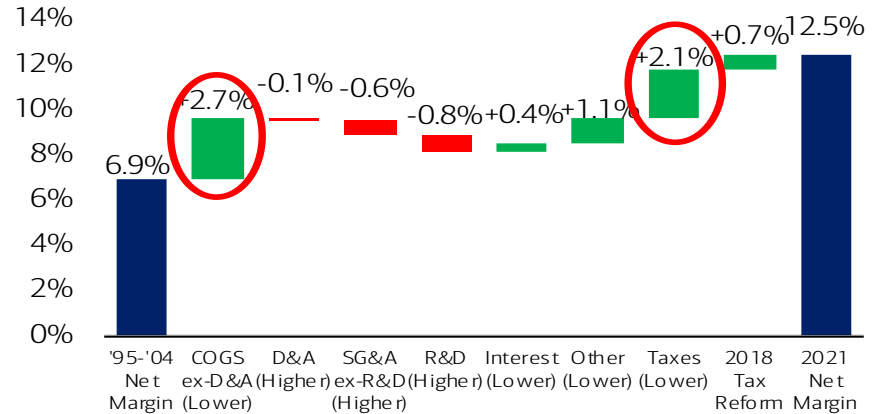
S&P 500 companies' revenue per worker (\$M 1986 dollar)



Source: BofA US Equity & Quant Strategy, FactSet

Global cost / tax arbitrage fueled margins; cost of capital impact weak

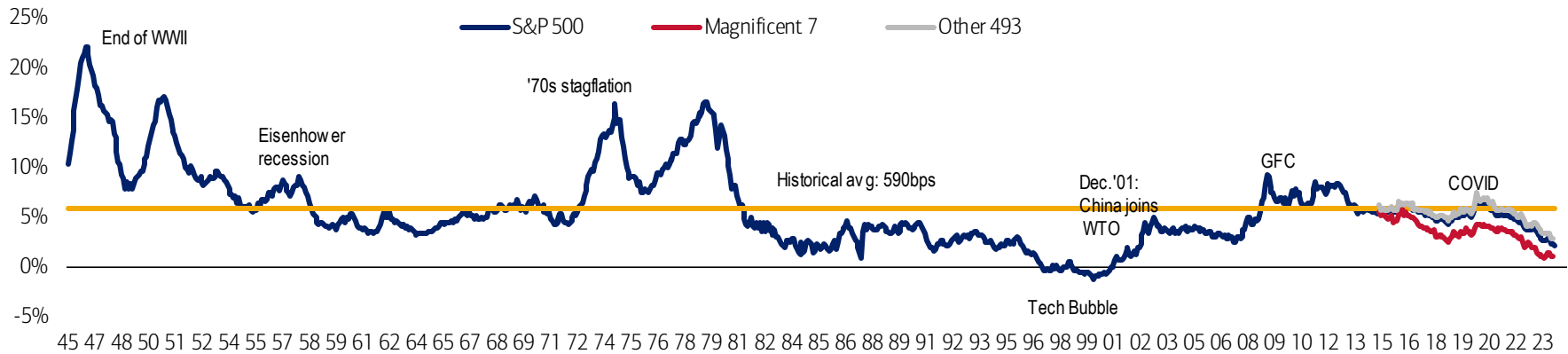
S&P 500 ex-Fins change in net margin contribution from 1990s to 2021



Source: BofA US Equity & Quant Strategy, FactSet

ERP lower than 2000 - 2020, but visibility and quality are better (foreign relations and ZIRP are arbitrary, efficiency is replicable)

S&P 500 normalized equity risk premium 1950-present; ERP for magnificent 7 vs. rest of index from 2015-present



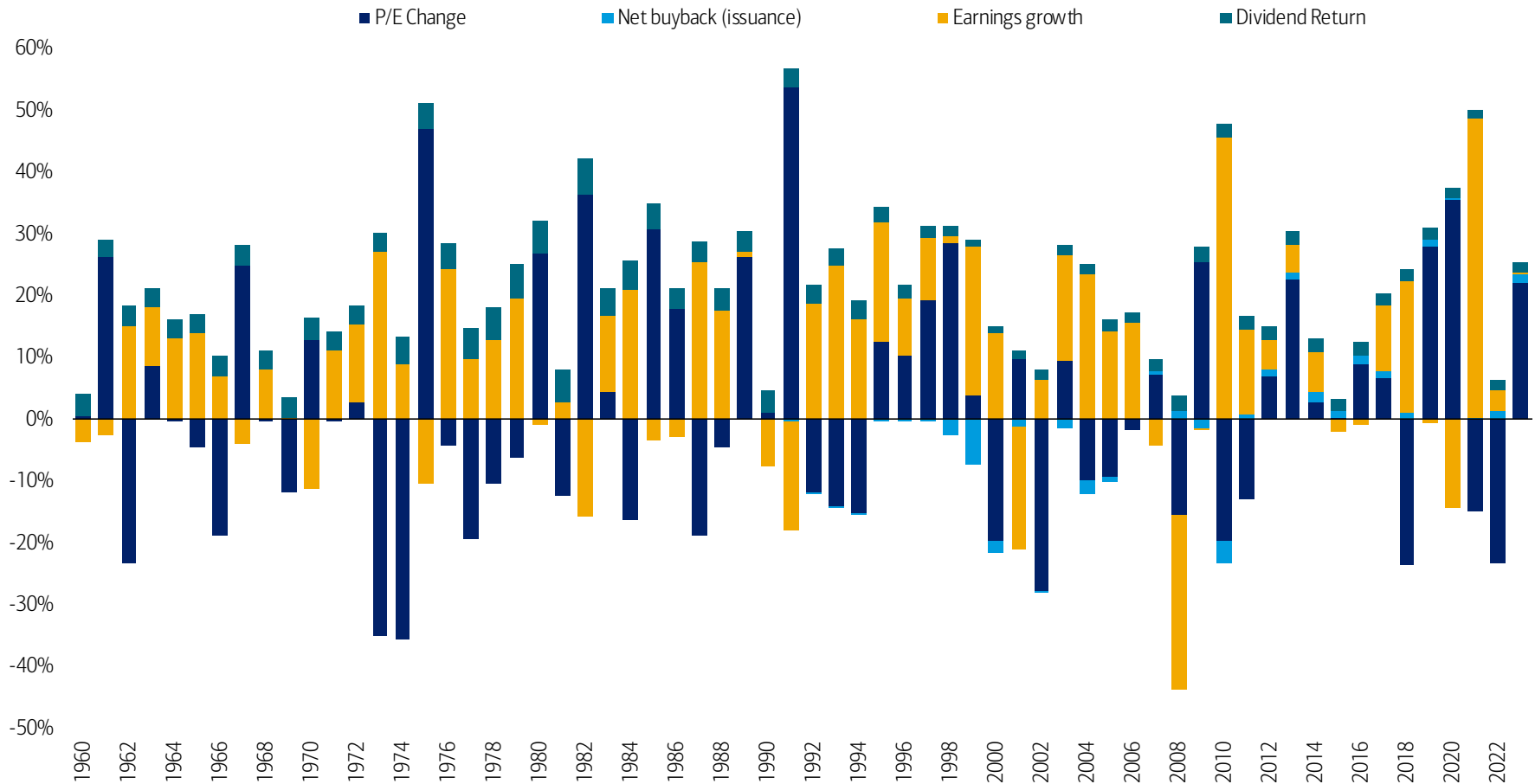
Source: Bloomberg, FactSet, Haver Analytics, BofA US Equity & Quant Strategy. Normalized ERP is calculated as the spread between the normalized earnings yield and real risk-free rate, where normalized EPS is based on a log linear regression of a blend of S&P 500 pro-forma EPS and operating EPS. The real rate is the difference between 1) 10-yr Tsy yield and 2) 10-yr breakeven, where prior to 1998, fwd 1-yr CPI was used as a proxy, which showed the strongest correlation to the 10-yr breakeven. ERP for the "Magnificent 7" and "Other 493" was calculated using the forward PE premium/discount of the two groups vs. the overall index.



Buyback-driven per share growth = post-ZIRP phenomenon

Buybacks have added 1ppt/yr of EPS over the past decade

S&P 500 total return decomposition, 1960-2023



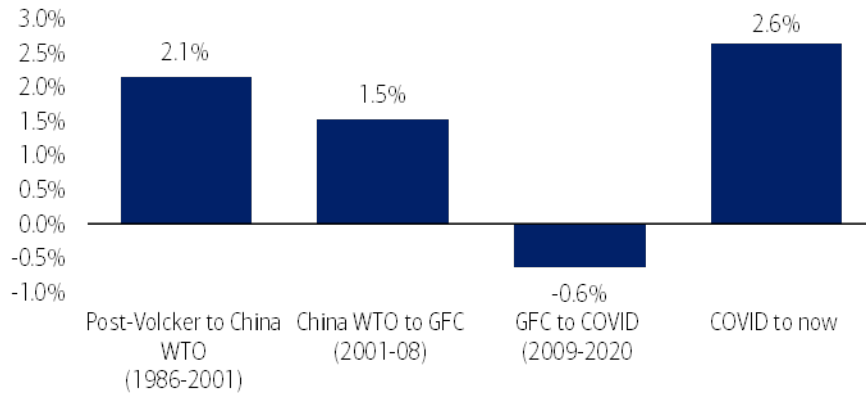
Source: FactSet, Bloomberg, BofA US Equity & Quant Strategy



Next bull case for margins & multiples: productivity & efficiency

Productivity gains accelerating again

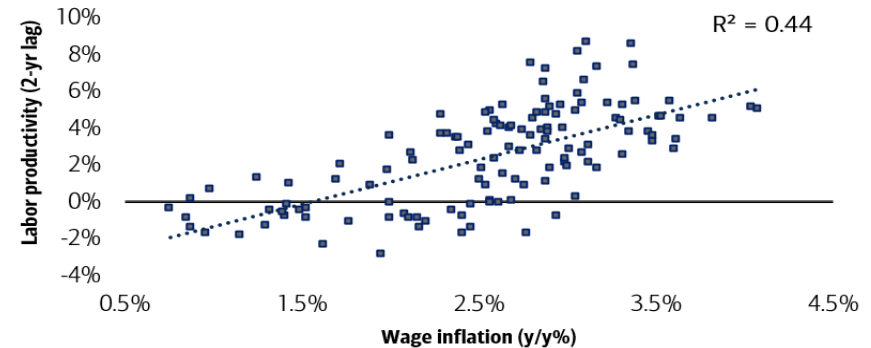
S&P 500 inflation-adjusted revenue per worker CAGR (1986-5/24)



Source: BofA US Equity & Quant Strategy, FactSet

Wage inflation has driven labor productivity growth with a multi-year lag

US manufacturing wage inflation and labor productivity y/y

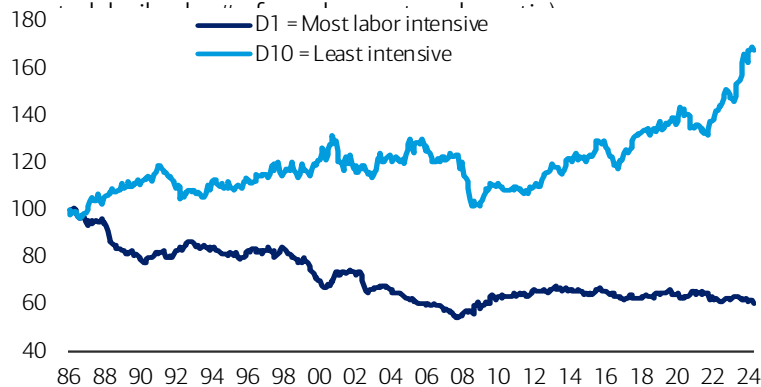


Source: Bureau of Labor Statistics, BofA Global Research

Note: Quarterly data of US manufacturing labor productivity versus average hourly earnings of production & nonsupervisory employees

The S&P becoming labor light is bullish: efficient companies almost always outperform inefficient peers

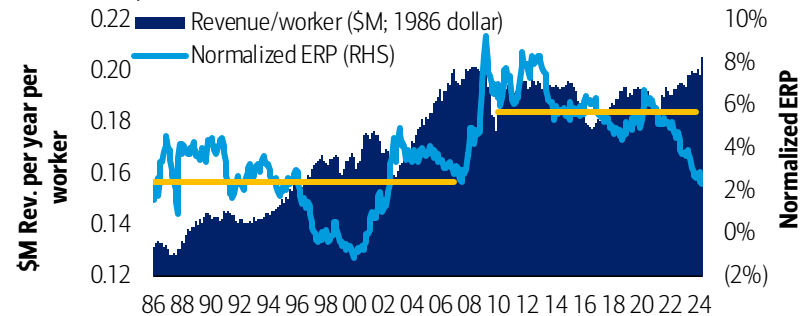
Cum. Rel. perf vs. eq-wtd S&P 500 (top and bottom sector)



Source: BofA US Equity & Quant Strategy, FactSet

Equity Risk Premium has risen as productivity gains stalled

S&P 500 \$M revenue per year per worker (CPI adjusted) vs. Normalized ERP (1986-present)



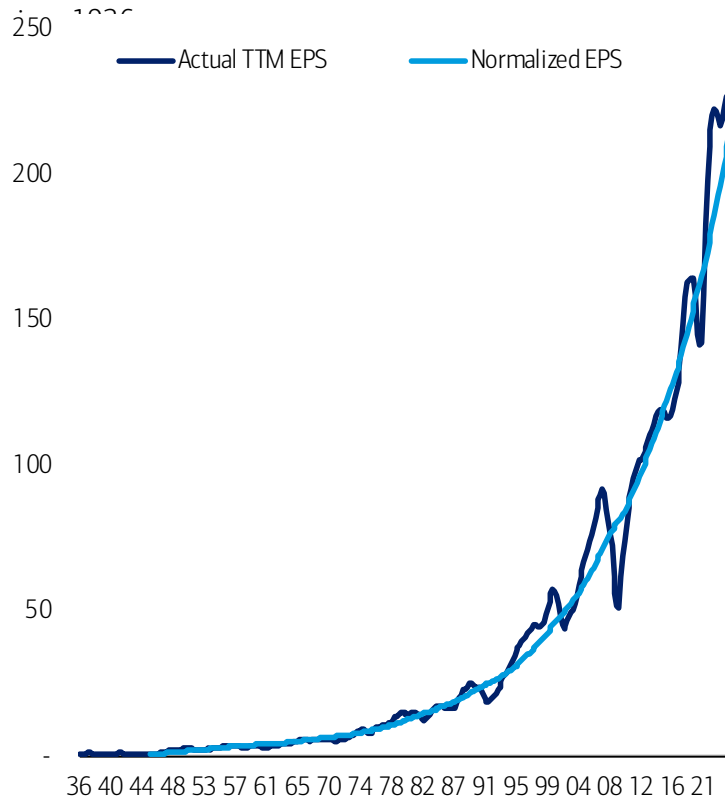
Source: BofA US Equity & Quant Strategy, Bloomberg, Haver Analytics, FactSet. Norm. ERP = norm. earnings yield – real risk-free rate, where norm. EPS is based on a log linear regression of a blend of S&P 500 pro-forma EPS and operating EPS. The real rate is the difference between 1) 10-yr Tsy yield and 2) 10-yr breakeven, where prior to 1998, fwd 1-yr CPI was used as a proxy, which showed the strongest correlation to the 10-yr breakeven



Bear case: actual vs. normalized earnings gap

Actual earnings look extremely elevated vs. full trend on log-linear approach

S&P 500 EPS vs. normalized EPS based on log-linear regression



Source: BofA US Equity & Quant Strategy, Bloomberg, FactSet

But normalized earnings level is very sensitive to start date based on log linear trend

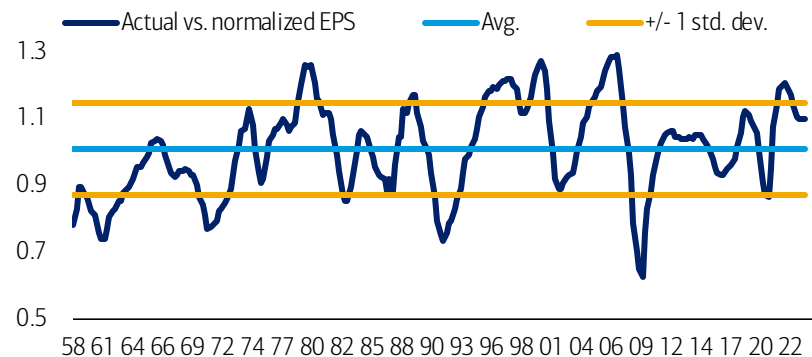
Normalized EPS estimates based on log-linear regression of actual earnings

Regression begins in...	2024 Norm EPS	2025 Norm EPS
1936	\$216	\$230
1950	\$213	\$227
1960	\$226	\$241
1970	\$227	\$242
1980	\$224	\$239
1990	\$228	\$244
2000	\$220	\$234

Source: BofA US Equity & Quant Strategy, Bloomberg, FactSet

Log-linear normalized EPS have wildly deviated from actual EPS over time, and gap has little information content

Ratio of actual vs. normalized EPS (1958-1Q24)



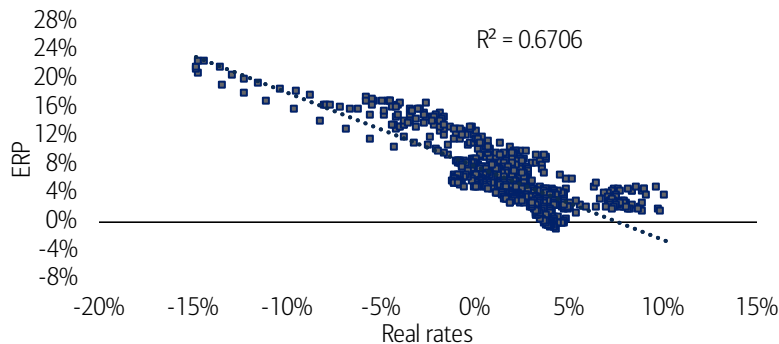
Source: FactSet, Haver, BofA US Equity & US Quant Strategy

The dark art of normalized earnings and cost of capital



Historically, higher real rates = higher growth = lower ERP

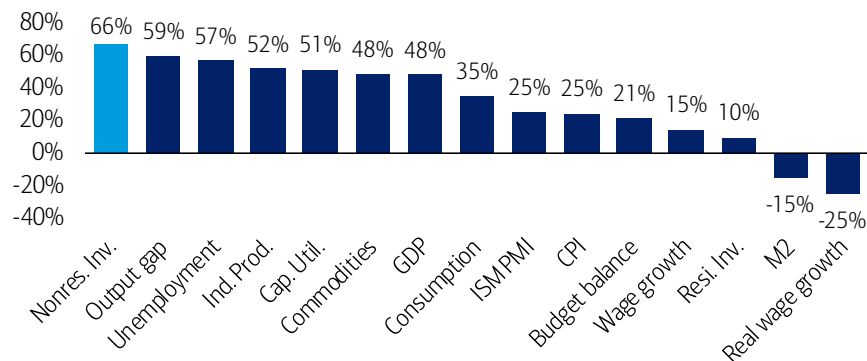
Relationship between our normalized ERP vs. real rates since 1945



Source: BofA US Equity & Quant Strategy, Bloomberg, FactSet, Haver Analytics

The gap between actual and normalized EPS most explained by non-res investment YoY

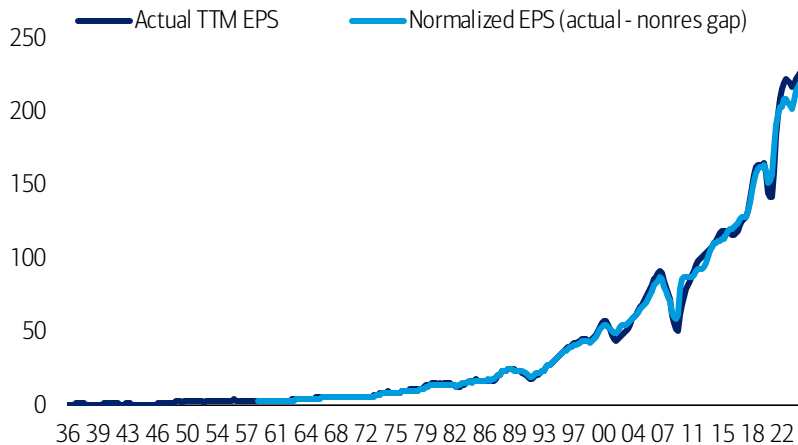
Correlation between actual vs. norm. EPS and macro variables (1970-4Q23)



Source: FactSet, Haver, Bloomberg, BofA US Equity & US Quant Strategy

Adjusting EPS by non-res investment removes excess cyclicality....

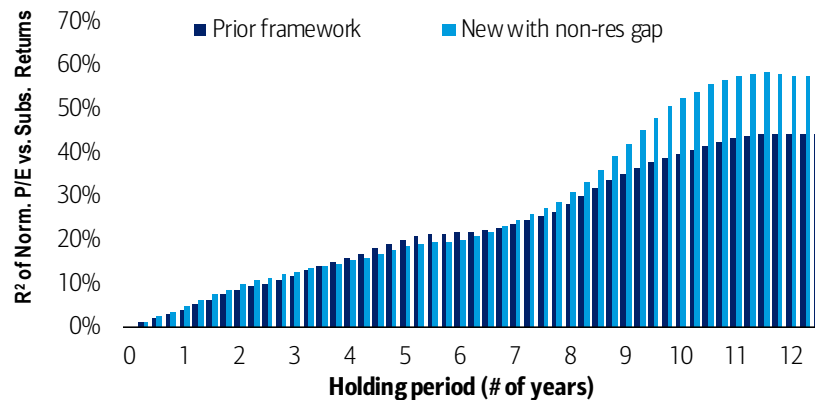
Normalized EPS incorporating output gap vs. actual EPS (1936-1Q24)



Source: FactSet, Haver, Bloomberg, BofA US Equity & US Quant Strategy

...and is more predictive than log-linear based method

R-sq of normalized P/E vs. subsequent S&P 500 returns by holding period (1960-4/24)



Source: FactSet, Haver, Bloomberg, BofA US Equity & US Quant Strategy



Bottom line: fair value is very sensitive to rates, ERP and EPS

S&P 500 fair value given cost of equity and EPS

Fair value = (1/cost of equity)*2025 EPS

	2025 Normalized EPS								
	\$225	\$230	\$235	\$240	\$245	\$250	\$255	\$260	\$265
4.00%	5625	5750	5875	6000	6125	6250	6375	6500	6625
4.25%	5294	5412	5529	5647	5765	5882	6000	6118	6235
4.50%	5000	5111	5222	5333	5444	5556	5667	5778	5889
4.75%	4737	4842	4947	5053	5158	5263	5368	5474	5579
5.00%	4500	4600	4700	4800	4900	5000	5100	5200	5300
5.25%	4286	4381	4476	4571	4667	4762	4857	4952	5048
5.50%	4091	4182	4273	4364	4455	4545	4636	4727	4818
5.75%	3913	4000	4087	4174	4261	4348	4435	4522	4609
6.00%	3750	3833	3917	4000	4083	4167	4250	4333	4417
6.25%	3600	3680	3760	3840	3920	4000	4080	4160	4240
6.50%	3462	3538	3615	3692	3769	3846	3923	4000	4077
6.75%	3333	3407	3481	3556	3630	3704	3778	3852	3926
7.00%	3214	3286	3357	3429	3500	3571	3643	3714	3786
7.25%	3103	3172	3241	3310	3379	3448	3517	3586	3655
7.50%	3000	3067	3133	3200	3267	3333	3400	3467	3533
7.75%	2903	2968	3032	3097	3161	3226	3290	3355	3419
8.00%	2813	2875	2938	3000	3063	3125	3188	3250	3313

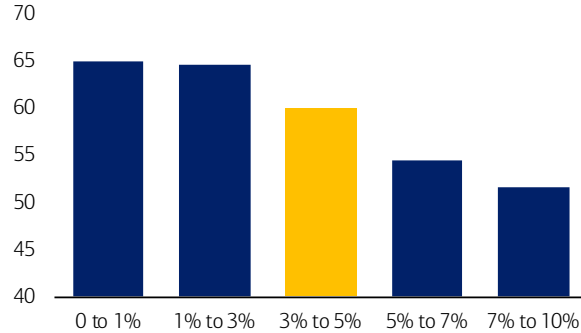
Source: BofA US Equity & Quant Strategy



Technical bull case: next rotation from bills to equity income

Lower cash yields = higher equity allocations

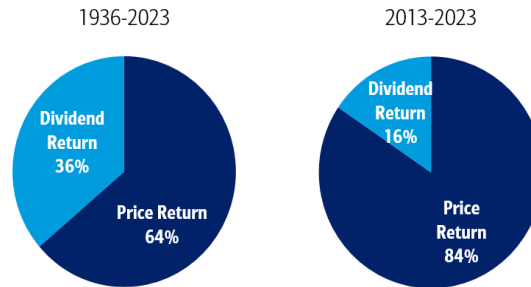
Sell Side Indicator equity allocations binned by 3m US Tsy yield



Source: BofA US Equity & Quant Strategy, Bloomberg

Dividends likely to contribute more than during the last decade

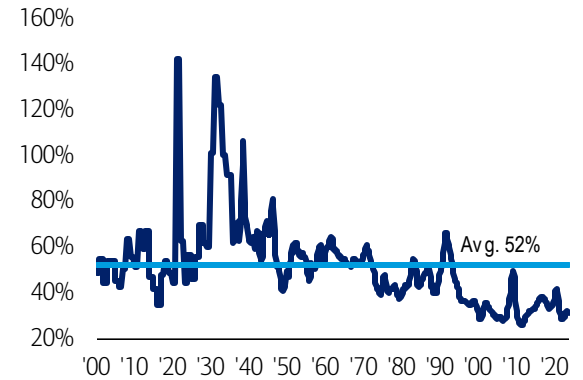
S&P 500 total returns decomposition



Source: BofA US Equity & Quant Strategy, Bloomberg

Room to raise dividends

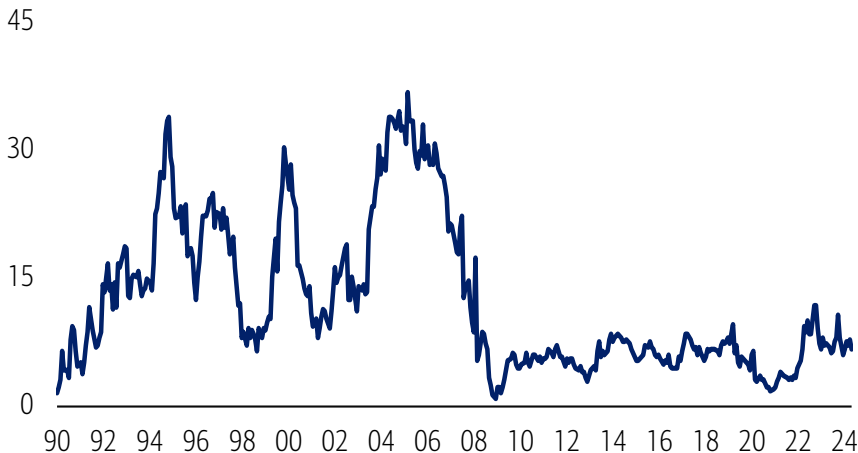
S&P 500 dividend payout ratio, 1900-4Q23



Source: BofA US Equity & Quant Strategy, Haver Analytics

90%+ of mortgage applications are fixed rate

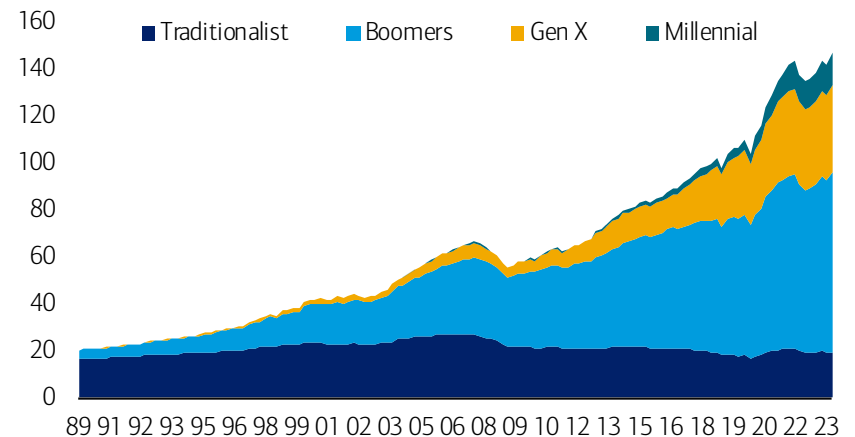
Adjustable rate mortgages: share of dollar volume of loan applications



Source: MBA, Haver Analytics, BofA Global Research

Narrowing retiree cash income (5%) vs. mortgage payment (3%) pushes trillions of USD to equity income

Household net worth (\$tn; 1989-4Q23)



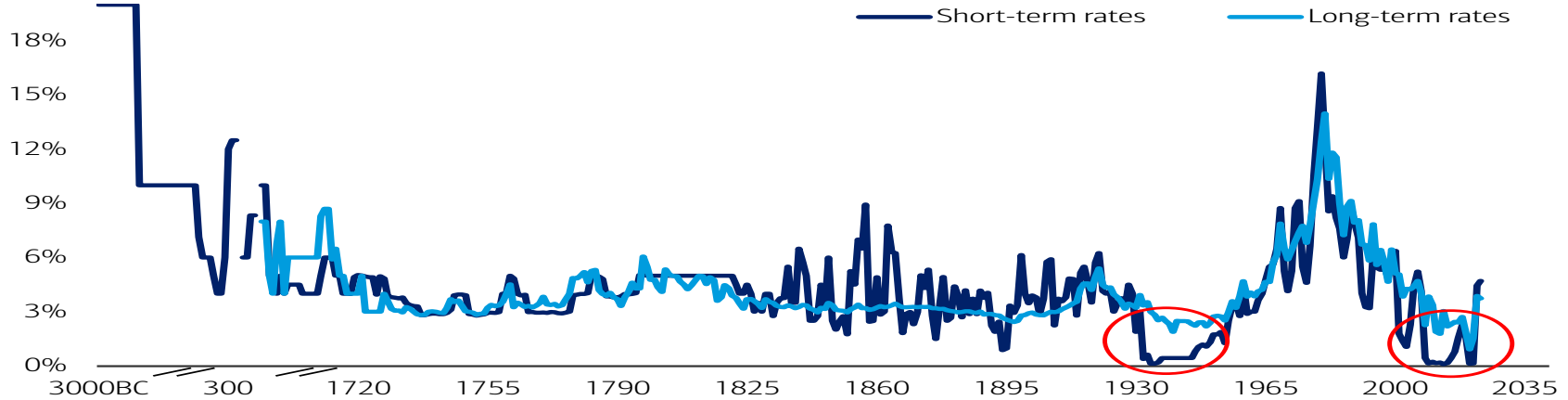
Source: BofA US Equity & Quant Strategy, Haver Analytics



Long duration bonds look riskiest, not stocks

Just coming off 5000-yr lows, and rate cycles last for years

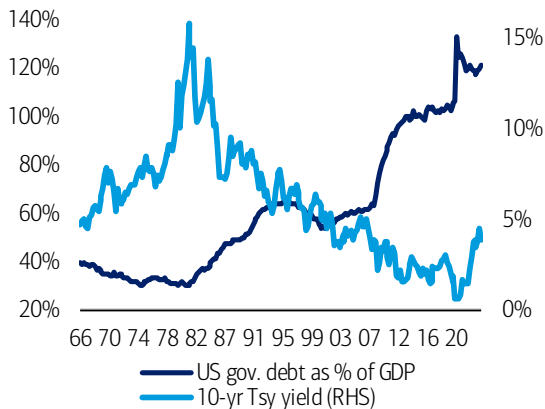
Interest rates since 3000 BC



Source: BofA Global Investment Strategy, Bank of England, Global Financial Data, Homer and Sylla "A History of Interest Rates" (2005)

US sovereign bonds: high risk, low return

US public debt to GDP vs. 10 year US Tsy yield



Source: Haver, BofA US Equity & Quant Strategy

US gov't debt is not anathema for equities

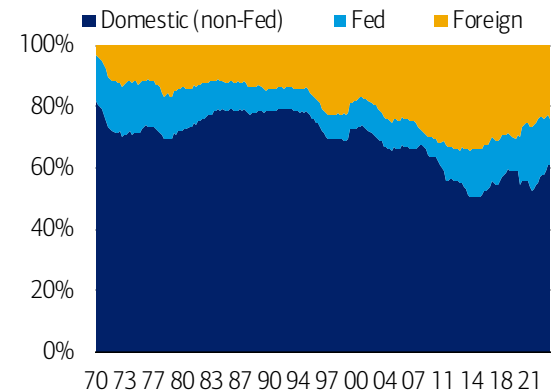
S&P 500 returns based on US debt/GDP scenarios, 1930-present

	S&P 500 returns			
	Coincident	Next year	Next 5yr	Next 10yr
Above avg. (51)	10%	9%	56%	127%
Below avg.	4%	4%	31%	89%
Above 1SD (81)	9%	10%	69%	198%
Rest of time	7%	6%	39%	95%
Following 1946 peak (118)	-7%	1%	55%	203%
Following 1995 peak (66)	26%	18%	146%	110%
Control: Avg all years	7%	7%	45%	109%

Source: Federal Reserve, S&P, BofA US Equity & Quant Strategy

Good news: foreign debt ownership is off its peak

% of total federal debt held by foreign vs. domestic (as of 4Q 2023)



Source: FRED, BofA US Equity & Quant Strategy



Fed on hold? Not a problem for large cap value

Duration risk by index

Russell style & size indices and their current metrics as of 5/24

	Value	Core	Growth
Large	Shortest duration: LTG: 9% Div. payout: 36% FCF/EV: 4% % of non-earners: 5%	LTG: 12% Div. payout: 31% FCF/EV: 3% % of non-earners: 6%	LTG: 14% Div. payout: 24% FCF/EV: 3% % of non-earners: 7%
Mid	LTG: 11% Div. payout: 30% FCF/EV: 3% % of non-earners: 6%	LTG: 11% Div. payout: 29% FCF/EV: 3% % of non-earners: 7%	LTG: 11% Div. payout: 22% FCF/EV: 3% % of non-earners: 9%
Small	LTG: 10% Div. payout: 47% FCF/EV: 3% % of non-earners: 32%	LTG: 12% Div. payout: 42% FCF/EV: 2% % of non-earners: 32%	Longest duration: LTG: 17% Div. payout: 33% FCF/EV: 1% % of non-earners: 36%

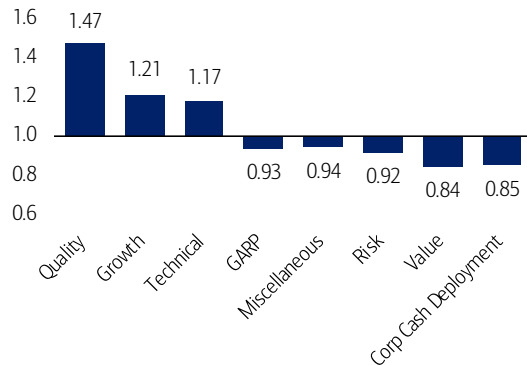
Highest Duration Risk →

↑ Highest Duration Risk

Source: BofA Equity & Quant Strategy, FactSet

Value is cheaper than usual, quality, momentum, and growth are expensive

Average Relative Price/Book vs. equal-weighted S&P 500 index



Source: BofA Equity & Quant Strategy, FactSet

S&P 500 duration risk manageable ... can shorten duration by cutting costs and returning cash (e.g., META dividend)

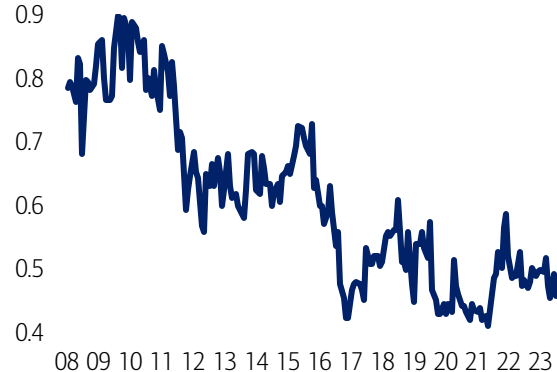
S&P 500 duration based on bottom-up DDM (as of 5/24)



Source: BofA US Equity & US Quant Strategy

Dividend Yield is neglected by active managers

LO relative weight in High Dividend Yield (2008-4/2024)



Source: BofA Equity & Quant Strategy, FactSet

No growth expectations outside of the "Magnificent 7"

Sell-side consensus bottom-up long-term growth expectations for S&P 500 (2006-5/2024)



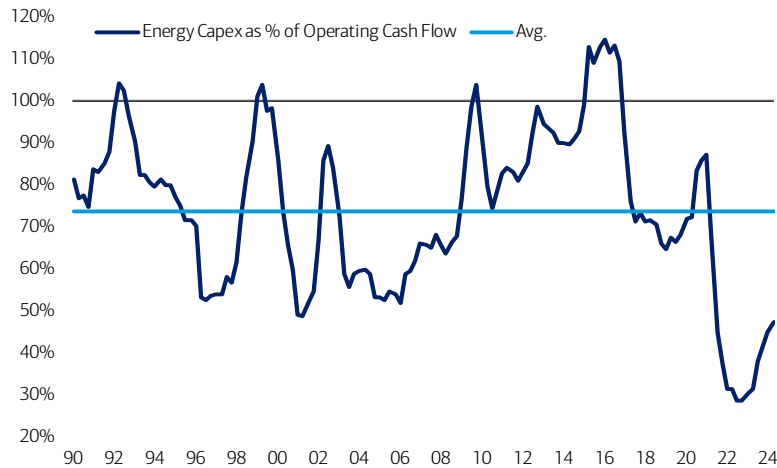
Source: BofA Equity & Quant Strategy, FactSet



Large cap value: 2000s bad actors are 2020's high quality

Don't expect a supply response in Energy...

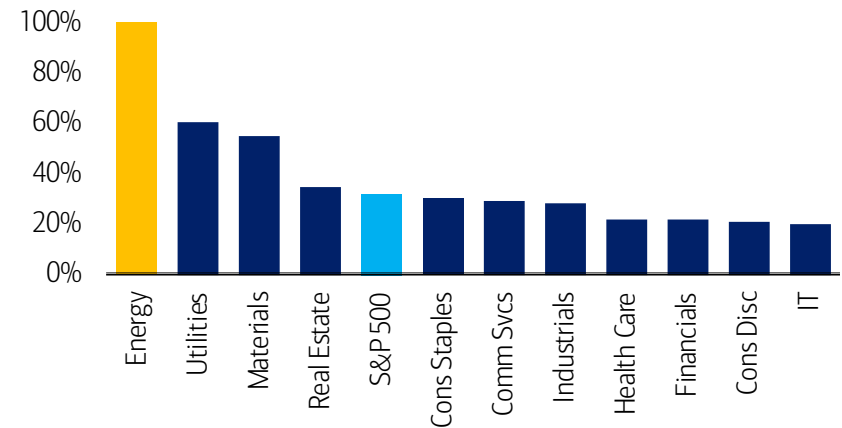
S&P 500 Energy capex as % of operating cash flow (1990-1Q24)



Source: BofA US Equity & Quant Strategy, FactSet

...until CEO comp incentives revert to production goals

% of S&P 500 cos with ESG as part of CEO short-term incentive compensation plan (as of 11/23)



Source: BofA US Equity & Quant Strategy, ICE Data Services

Financials leverage near record lows

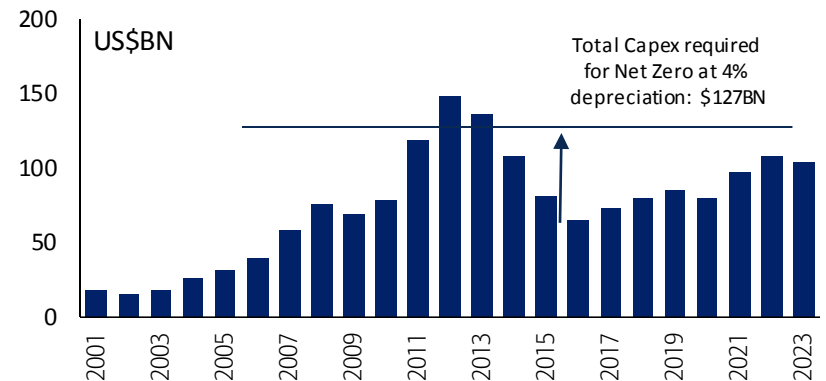
S&P 500 Financials: Total Assets/Equity (1987-1Q24)



Source: FactSet, BofA US Equity & Quant Strategy

Metals & Mining capex needs to increase to get to reach Net Zero

Global Metals and Mining capex



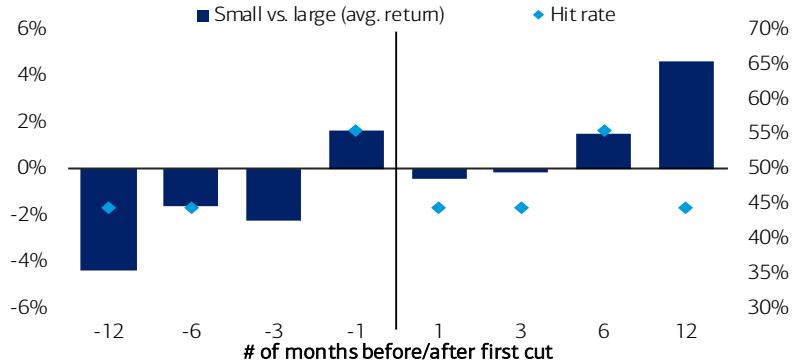
Source: S&P, IEA, BofA Global Research



Own Russell 2000 after Fed cuts, own quality SMID for now

Small caps typically outperform 6-12mos after the first rate cut

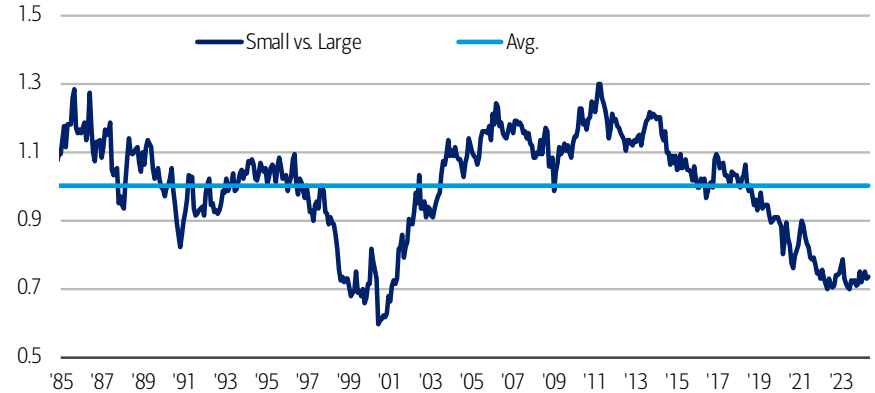
Small caps' relative performance vs. large caps around the first Fed cut since 1926



Source: BofA US Equity & Quant Strategy, Dartmouth data library

Cheap for a reason?

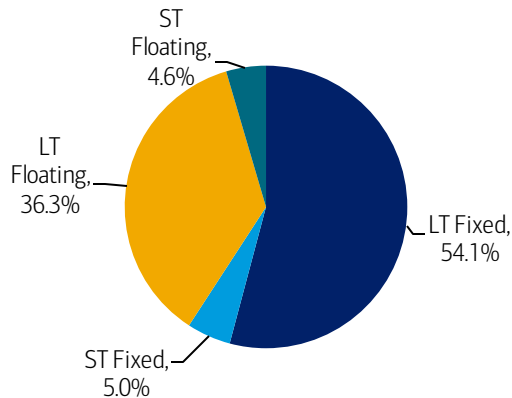
Relative Forward P/E: Russell 2000 versus Russell 1000, 1985-5/24



Source: BofA US Equity & Quant Strategy, Russell Investment Group, I/B/E/S, Compustat

>40% of SMID debt is short-term floating rate

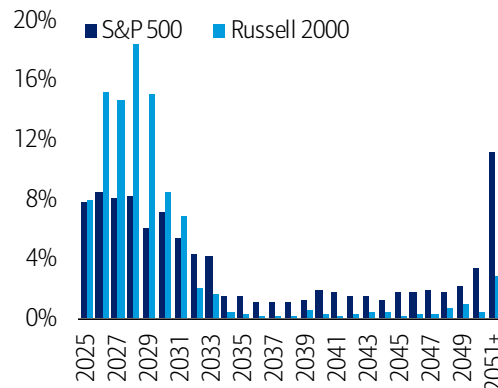
Russell 2000 (ex-Financials) debt profile (as of 3/24)



Source: FactSet, BofA US Equity & US Quant Strategy

S&P debt maturing in manageable chunks, more risk in SMID

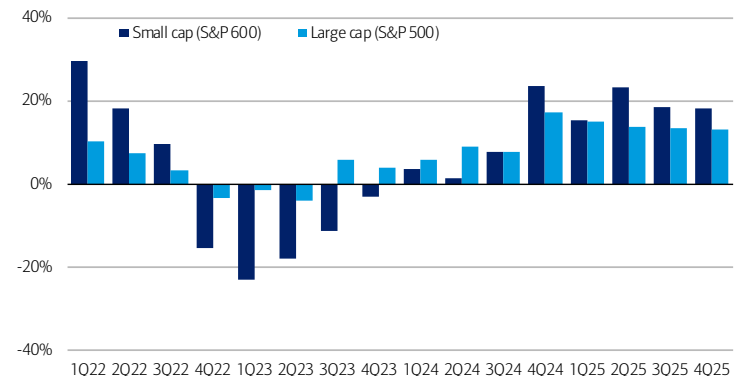
% of LT fixed debt maturing each year ex. Fins



Source: FactSet, BofA US Equity & US Quant Strategy

Small caps back-end loaded growth in 2024

Quarterly y/y bottom up EPS growth trajectory for S&P 600 vs S&P 500 (Consensus estimates; based on historical index const.)



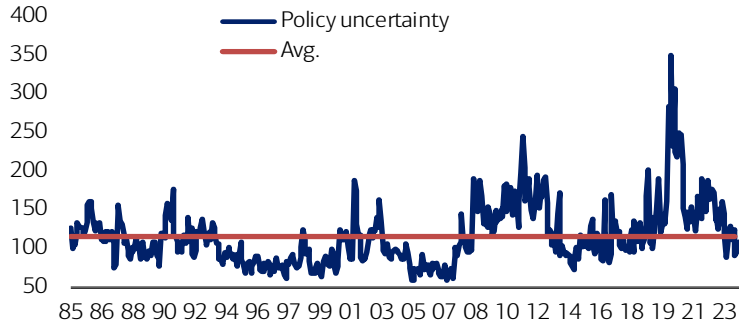
Source: FactSet, BofA US Equity & US Quant Strategy



Timing is everything: watch 2H 2024

Policy uncertainty spiked into Nov. '20, Nov '16, Nov '12, Nov '08

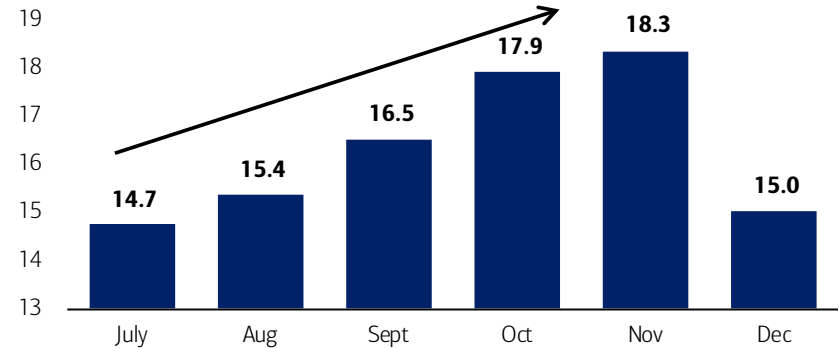
US Economic Policy Uncertainty Index, 1985-today



Source: Haver, BofA US Equity & Quantitative Strategy

25% increase in volatility from July-Nov of presidential election years

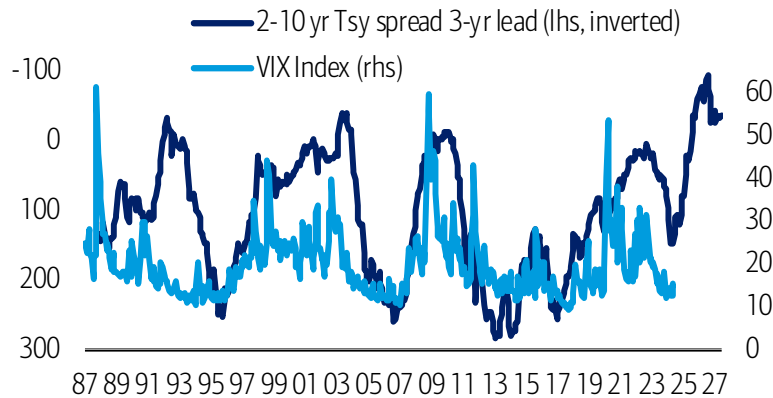
Average monthly volatility (monthly average of daily S&P 500 return volatility 1928-1989, VIX 1990-present) for US election years since 1928



Source: Bloomberg, FactSet, BofA US Equity & Quantitative Strategy

VIX surge right about now: YC slope indicates mid-'24 VIX trough

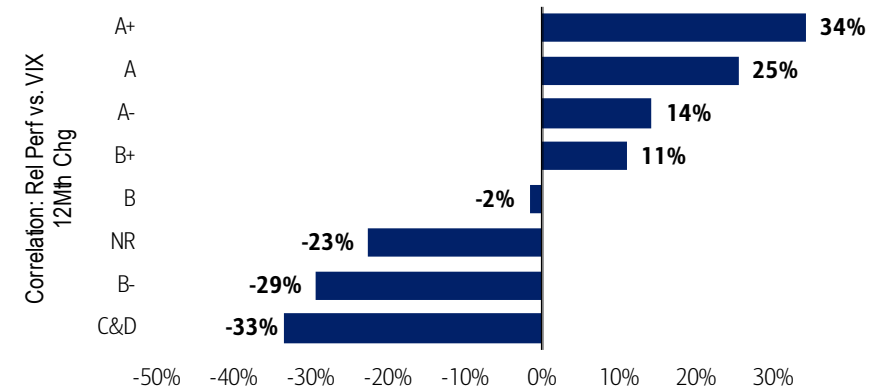
YC 2-10 spread (3yr lead) vs CBOE VIX



Source: Bloomberg, FactSet, BofA US Equity & Quantitative Strategy

Low earnings volatility has outperformed when volatility rose

BofA Quality Indices 12-Mth Performance Correlation to 12-mth change in CBOE VIX (1986-present)



Source: FactSet, BofA US Equity & Quantitative Strategy



Oil shocks and stocks

Middle East conflict scenarios

We present three potential Iran-Israel scenarios and their impact on energy prices: a limited conflict, a direct Iran-Israel war, and a broader regional war

Scenario	Description
1	No response, failed retaliation, or limited Iran-Israel tit-for-tat military confrontation with no disruption to energy supplies.
2	Direct Iran-Israel war that could last several months with major Iranian oil supply disruptions: Iran crude oil production goes down by 1 to 1.5mn b/d. Then OPEC+ increases production to partially offset volume losses from Iran, but spare oil production capacity drops sharply.
3	Expansive Iran-Israel prolonged war with a major oil disruption in Iran that also triggers energy disruptions in other parts of Middle East, whether due to infrastructure damage or refusal to navigate the strait. Oil market loses +2mn b/d and tensions in the Persian Gulf led to LNG export disruptions.

Source: BofA Global Research

Price assumptions under Middle East conflict scenarios

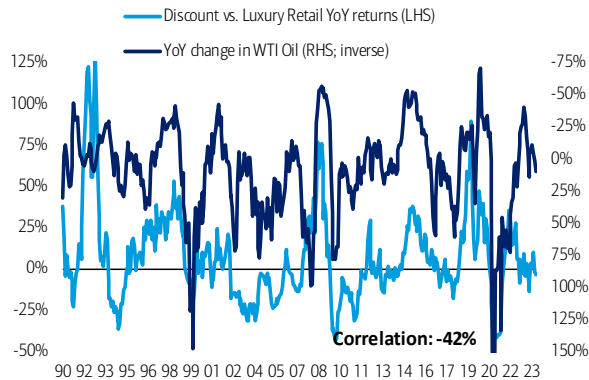
Projected quarterly price paths for Brent, WTI crude oil, TTF natural gas in each scenario into 2025

Scenarios	Brent \$/bbl			WTI \$/bbl			TTF EUR/MWh		
	1	2	3	1	2	3	1	2	3
2024Q1	82	82	82	77	77	77	28	28	28
2024Q2	88	130	190	83	123	180	33	57	150
2024Q3	90	120	170	85	113	160	33	50	150
2024Q4	86	110	155	81	103	145	32	45	120
2025Q1	84	100	140	79	93	130	37	42	105
2025Q2	80	100	130	75	93	120	35	40	85
2025Q3	78	100	120	73	93	110	33	38	65
2025Q4	78	100	110	73	93	100	35	40	65

Source: BofA Global Research estimates

Discount retailers lagged luxury as oil prices rose

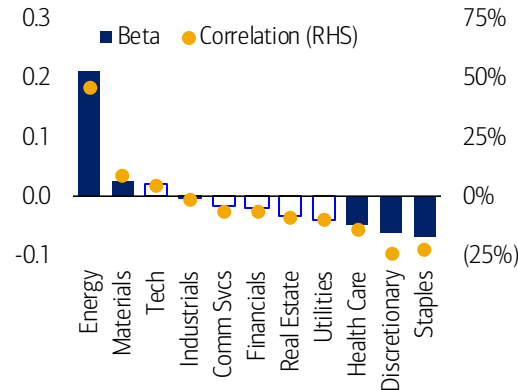
Relative 12m returns of discount vs. luxury retailers and 12m change in WTI oil since 1990



Source: BofA US Equity & Quant Strategy, Bloomberg, FactSet Note: Discount retailers performance based on equal-weighted monthly returns of YUM, DLTR, DG, TGT, WMT, MCD, KSS, TJX, ROST. Luxury retailers performance based on equal-weighted monthly returns of CPRI, EL, JWN, TIF (through Sept 2020), TPR, RL.

Oil shock? Buy Energy, sell Consumer (especially Staples/low price point retailers)

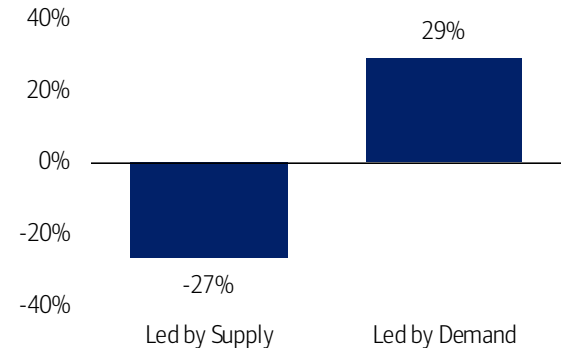
S&P 500 sectors' relative performance vs. WTI oil based on monthly changes (1972-present)



Source: FactSet, BofA US Equity & US Quant Strategy, Bloomberg

Supply-driven oil spikes are worse for stocks

Correlation between S&P 500 QoQ return and WTI QoQ price change when higher oil prices are led by supply (narrowing crack spread) vs. demand (widening crack spread), 3/1986-9/2021



Source: FactSet, BofA US Equity & US Quant Strategy, Bloomberg



Geopolitical shocks and stocks

S&P 500 peak-to-trough declines have been 8% on average during major macro shocks/geopolitical events, but more than fully recovered after three months

S&P 500 price changes around historical macro shocks and geopolitical events since 2010

Events	-1 month	-1 day	+1 day	+1 month	+3 month	Peak to trough	Trough to +3m after event	Trough days after (before) event
S&P downgrades Greek Sovereign Debt to junk/1st Greek Bailout	3.9%	-0.4%	-2.3%	-9.0%	-8.1%	-16.0%	9.0%	66
Arab Spring: "Beginning", Tunisian Revolution begins	3.9%	0.1%	0.3%	4.1%	2.8%	-1.6%	13.8%	-18
Arab Spring: Syrian/Libyan civil war begins	-2.4%	-0.6%	-1.1%	1.8%	-2.4%	-6.4%	8.5%	1
S&P downgrades US debt	-10.3%	-4.8%	-0.1%	-2.2%	4.4%	-18.8%	16.9%	59
US government shuts down	3.0%	-0.6%	0.8%	4.8%	9.9%	-5.4%	13.2%	7
Scotland passes referendum to vote on independence (voting date was 9/18/14)	3.6%	-0.4%	0.3%	2.8%	1.5%	-2.3%	11.7%	-24
Russia annexes Crimea	1.0%	1.0%	0.7%	0.3%	5.3%	-4.0%	7.8%	24
Swiss abandons cap on Franc vs. Euro FX rate	1.1%	-0.6%	-0.9%	4.3%	4.7%	-0.8%	7.3%	-30
Greece: misses debt payment to IMF	-2.3%	0.3%	0.7%	2.0%	-6.8%	-12.2%	6.8%	55
China: Devalues yuan	1.3%	1.3%	-1.0%	-6.8%	-1.4%	-12.2%	13.0%	14
S&P downgrades Japan credit rating	-5.4%	1.3%	0.9%	2.8%	4.8%	-11.2%	13.0%	-22
Turkey shoots down Russian plane for violating Turkish airspace	0.6%	-0.1%	0.1%	-1.2%	-7.5%	-13.3%	6.4%	79
Fed - 1st rate hike - increase interest rate 25bps	-0.5%	1.1%	1.5%	-8.0%	-0.8%	-13.0%	10.8%	57
Brazil: House votes to begin President impeachment trial	1.5%	-0.1%	0.7%	-1.6%	4.1%	-5.6%	8.3%	70
Brexit: UK votes to leave the EU	3.2%	1.3%	-3.6%	2.9%	2.4%	-5.6%	9.5%	4
Trump orders 59 Tomahawk cruise missiles to be fired at the Shayrat airbase in Syria	-0.9%	-0.3%	0.2%	2.0%	2.4%	-2.4%	5.3%	7
Trump fires FBI director James Comey	1.9%	0.0%	-0.1%	1.3%	3.1%	-1.2%	6.5%	-26
North Korea detonates a hydrogen bomb -its most powerful nuclear test ever	0.0%	0.2%	0.0%	2.1%	6.7%	-2.2%	9.2%	-15
Catalonia votes for independence from Spain	1.7%	0.4%	0.4%	2.4%	6.1%	-0.8%	9.5%	-26
The US announces imports of steel and aluminum threaten national security Under Section 232	-1.6%	1.2%	0.0%	0.8%	-0.3%	-10.2%	8.0%	-8
Trump administration releases initial list of Chinese products worth \$50bn that are under consideration for tariffs	-4.1%	-2.2%	1.3%	1.9%	5.1%	-7.3%	7.9%	-1
Italian bond yields spike on budget concerns	0.6%	0.4%	-0.1%	2.1%	4.7%	-2.9%	8.7%	-14
Collapse in Argentina and Turkey's currency ignites concerns of emerging market currency crisis	1.6%	-0.3%	0.7%	1.4%	5.5%	-1.5%	8.9%	-18
US releases list of \$200bn Chinese goods subject to tariffs	0.2%	0.9%	0.3%	1.8%	0.1%	-3.1%	8.6%	-13
Powell says we're "a long way" from neutral on interest rates	0.8%	0.0%	0.1%	-6.9%	-16.3%	-19.8%	6.8%	82
US government shuts down	-8.8%	-2.1%	-2.7%	8.9%	15.9%	-15.7%	21.4%	2
US Treasury designates China as a currency manipulator	-2.0%	-0.7%	-3.0%	1.5%	4.9%	-6.1%	8.4%	9
Drones were used to attack the state-owned Saudi Aramco oil processing facilities	4.1%	-0.1%	-0.3%	-0.6%	6.1%	-2.6%	12.1%	-24
Top Iranian military official killed by US airstrike	3.8%	0.0%	0.8%	-0.2%	-21.8%	-1.0%	17.6%	81
China puts Wuhan City, the center of the COVID-19 outbreak on lockdown	3.0%	0.0%	0.1%	0.5%	-15.8%	-33.9%	28.5%	60
Russia/Ukraine conflict begins	-4.2%	-1.8%	1.5%	7.0%	-6.7%	-15.8%	1.9%	84
Average	-0.1%	-0.2%	-0.1%	0.7%	0.4%	-8.2%	10.5%	17
Median	0.8%	0.0%	0.1%	1.8%	2.8%	-5.6%	8.9%	4
Min	-10.3%	-4.8%	-3.6%	-9.0%	-21.8%	-33.9%	1.9%	
Max	4.1%	1.3%	1.5%	8.9%	15.9%	-0.8%	28.5%	
Average non-US	0.9%	0.1%	-0.1%	0.9%	-0.6%	-7.4%	10.3%	
% positive	61%	45%	61%	71%	65%			

Earnings outlook





S&P 500 Earnings Outlook: \$250 for 2024, \$275 for 2025

All based on current constituents unless specified

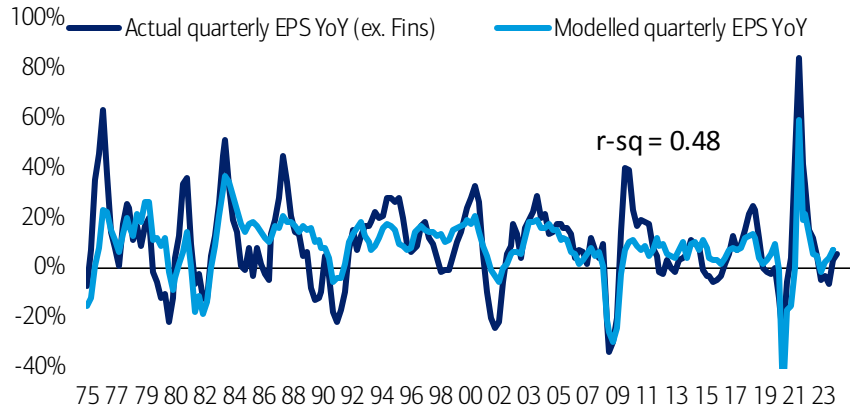
	2023	Bottom-up Consensus				BofA Analyst estimates				BofA Strategy			
		2024	y/y	2025	y/y	2024	y/y	2025	y/y	2024	y/y	2025	y/y
S&P 500 Pro-forma EPS (Historical Index)	\$222.0												
S&P 500 Pro-forma EPS (Current Constituents)	\$224.1	\$243.4	9%	\$276.0	13%	\$247.0	10%	\$279.9	15%	\$250.0	12%	\$275.0	10%
Sector (\$ billions)													
Consumer Discretionary	157.8	171.2	9%	196.1	15%	198.4	26%	225.0	31%	179.3	14%	196.1	9%
Consumer Staples	122.0	127.1	4%	136.7	8%	127.3	4%	136.8	8%	126.6	4%	132.0	4%
Energy	142.6	132.3	-7%	148.5	12%	128.9	-10%	144.2	9%	140.5	-1%	149.5	6%
Financials	337.9	329.1	-3%	356.8	8%	326.5	-3%	353.2	7%	335.3	-1%	359.1	7%
Health Care	244.5	277.3	13%	310.0	12%	277.4	13%	309.8	12%	276.7	13%	299.8	8%
Industrials	162.7	174.6	7%	197.5	13%	173.6	7%	196.8	13%	181.9	12%	202.0	11%
Information Technology	375.8	440.1	17%	512.7	16%	439.4	17%	515.9	17%	453.4	21%	509.9	12%
Materials	48.2	47.2	-2%	53.6	14%	47.3	-2%	54.3	15%	47.8	-1%	52.2	9%
Real Estate	53.1	55.8	5%	59.2	6%	57.4	8%	60.9	9%	57.6	8%	59.7	4%
Communication Services	174.6	199.4	14%	223.1	12%	207.5	19%	229.7	15%	205.3	18%	223.4	9%
Utilities	52.7	59.2	12%	64.1	8%	58.9	12%	64.8	10%	60.1	14%	65.9	10%
S&P 500	1,871.9	2,013.4	8%	2,258.2	12%	2,042.6	9%	2,291.3	14%	2,064.6	10%	2,249.6	9%
S&P 500 ex. Financials	1,534.0	1,684.2	10%	1,901.5	13%	1,716.1	12%	1,938.1	15%	1,729.3	13%	1,890.5	9%
S&P 500 ex. Energy and Financials	1,391.3	1,551.9	12%	1,753.0	13%	1,587.2	14%	1,793.9	16%	1,588.8	14%	1,741.0	10%
S&P 500 ex. Energy	1,729.2	1,881.1	9%	2,109.7	12%	1,913.7	11%	2,147.1	14%	1,924.1	11%	2,100.1	9%
Energy Sector (\$bn)	142.6	132.3	-7%	148.5	12%	128.9	-10%	144.2	9%	140.5	-1%	149.5	6%
<i>Avg. Oil Price (wtd. blend of Brent & WTI)</i>	\$81/bbl									~\$78/bbl	-3%	~\$78/bbl	0%
S&P 500 Dividends (Historical Constituents, \$/share)	\$70.30									\$80.00	14%	\$88.00	10%
Key Macro Economic Forecasts													
Global GDP growth (real)	3.0%									2.9%		3.2%	
US GDP growth (real)	2.5%									2.7%		1.9%	
FX Rate: US\$/Euro (average)	1.08									1.11		1.18	



2023: EPS recession. 2024: EPS recovery

Higher costs, services > goods drove an EPS recession

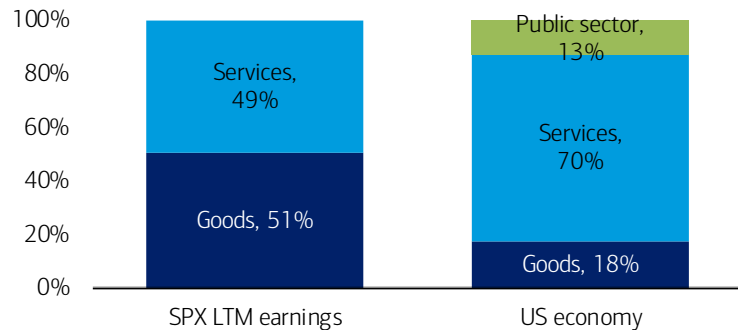
S&P 500 quarterly EPS YoY (ex-Fins) vs. modelled EPS YoY based on linear regression using GDP (+), CPI (+), wages (-), oil (+) and USD (-)



Source: BofA US Equity & Quant Strategy, FactSet; Modelled earnings growth is based on a linear regression using these variables: GDP, CPI, Avg. hourly earnings, oil and USD

S&P 500 is more geared towards goods consumption than the economy

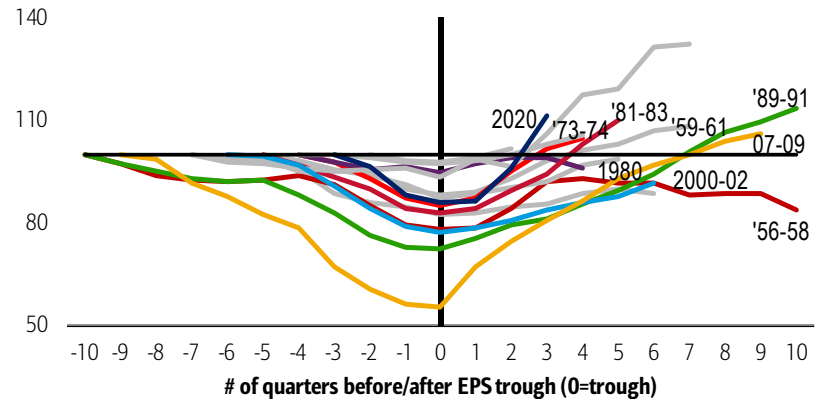
Our estimate for Goods vs. Services exposure of S&P 500 based on industry breakout of 2Q23 earnings vs. % goods/services for US economy (based on gross value added by industry, 2022)



Source: Haver Analytics, FactSet, BofA US Equity & US Quant Strategy

Earnings recover stronger than they fall

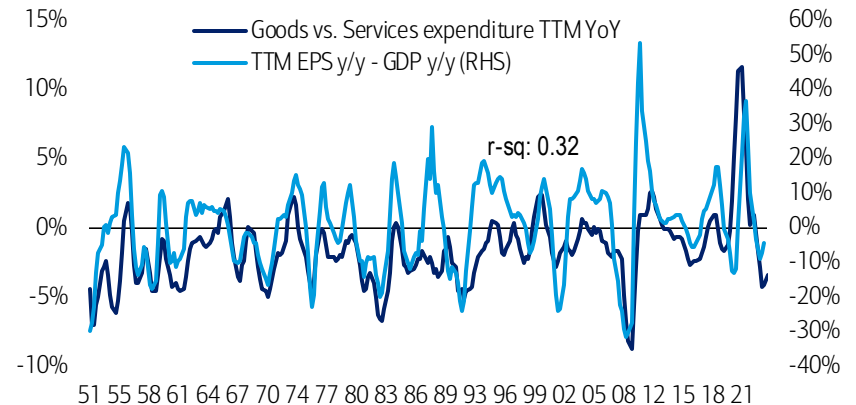
S&P 500 TTM EPS before/after earnings troughs (1950-present)



Source: BofA US Equity & US Quant Strategy, FactSet, Haver Analytics. Note: based on the same number of quarters leading to the trough and following the trough; 100=pre-recession peak

Goods vs. services started improving at a very low level

Goods vs Services consumption TTM YoY vs EPS vs. GDP TTM YoY (1951-1Q24)



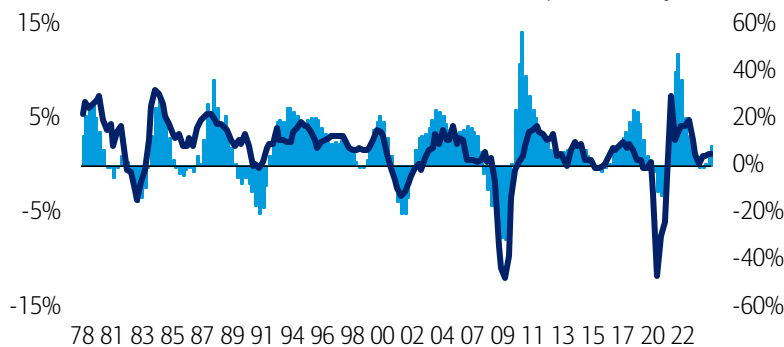
Source: FactSet, Bloomberg, BofA US Equity & US Quant Strategy



Coincident and leading indicators picking up

Our Corporate Misery indicator remains positive (macro margin proxy)

BofA Corp. Misery Indicator (lower=more miserable) 4Q78-4/24



Source: BofA US Equity & Quant Strategy, Conference Board, BLS

Dr. Copper bodes well for global economy

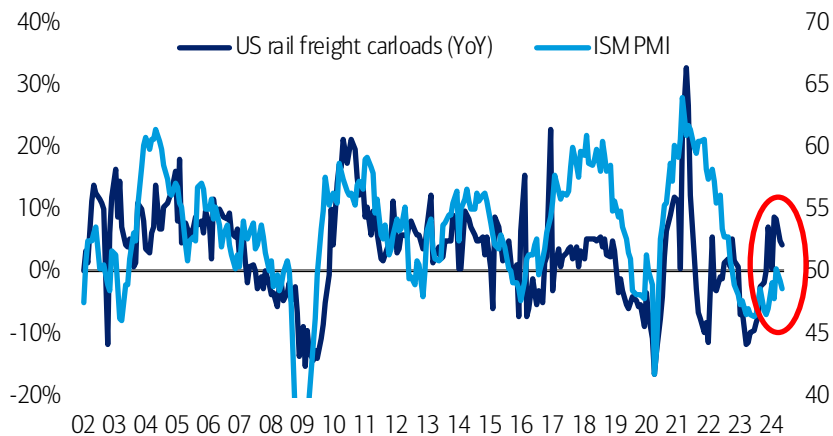
Spot price of copper in USD (12/1986 to 5/2024) LME Copper Cash



Source: Bloomberg

Rail freight volume argue for a pickup in manufacturing

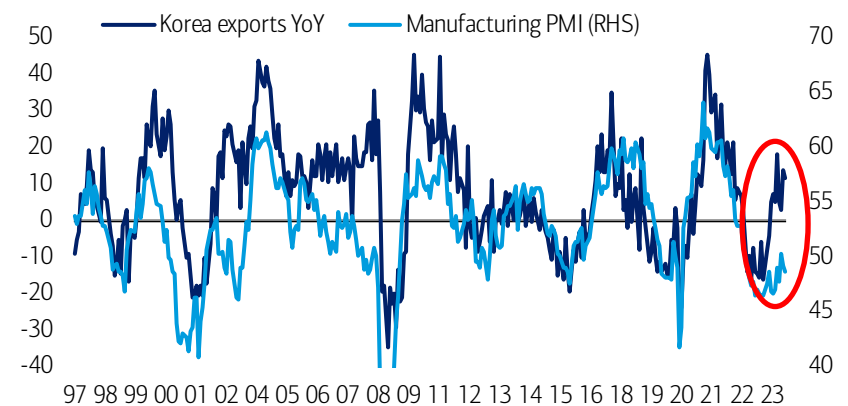
US rail freight carloads YoY vs. ISM Manufacturing PMI (2002-5/24)



Source: Bloomberg, BofA US Equity & Quant Strategy

Korea exports read positive for manufacturing

Korea exports YoY vs. ISM Manufacturing PMI (1997-5/24)



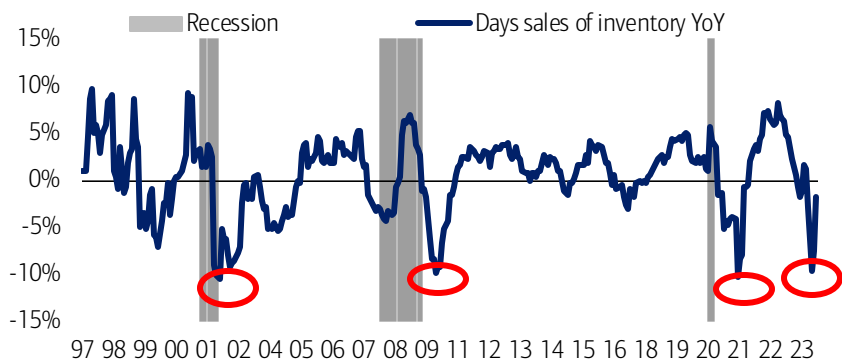
Source: Bloomberg, BofA US Equity & Quant Strategy

Margins bottomed, demand recovery & operating leverage next



The inventory cycle is bouncing off the trough level

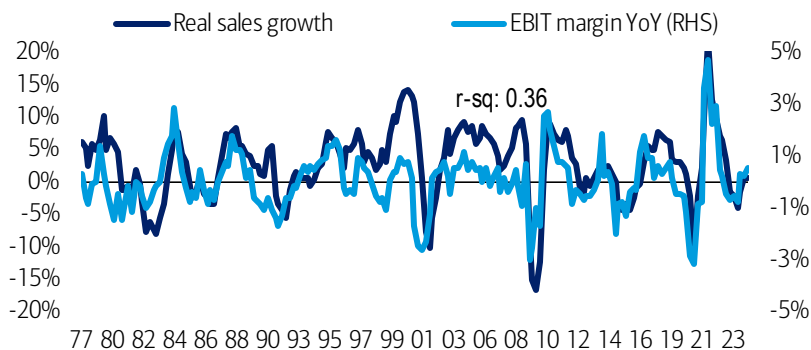
S&P 500 select industry groups* days sales of inventory YoY (1997-5/24)



Source: BofA US Equity & Quant Strategy, FactSet **Automobiles & Components, Capital Goods, Consumer Discretionary Distribution & Retail, Consumer Durables & Apparel, Consumer Staples Distribution & Retail, Food, Beverage & Tobacco, Health Care Equipment & Services, Household & Personal Products, Materials, Pharmaceuticals, Biotechnology & Life Sciences, Semiconductors & Semiconductor Equipment, Technology Hardware & Equipment

Demand recovery = higher margins

S&P 500 ex. Energy & Financials sales growth YoY vs. EBIT margin YoY (1977-1Q24)

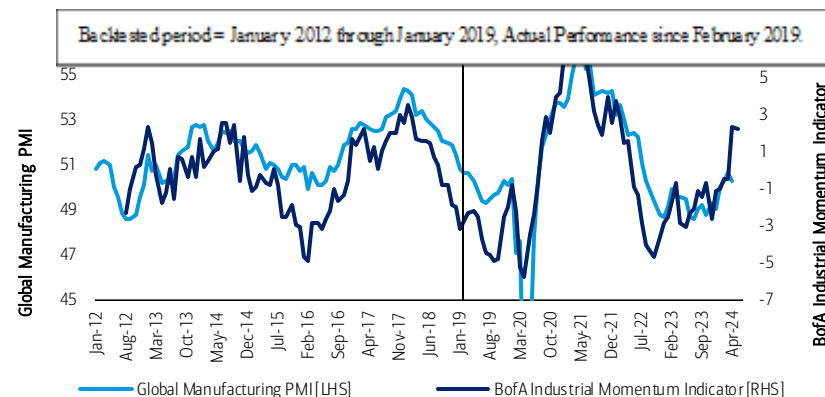


Source: FactSet BofA US Equity & Quant Strategy

BofA Industrial Momentum Indicator: Backtested period = January 2012 through January 2019, Actual Performance since February 2019. This performance is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein. Disclaimer: The indicator identified as BofA Industrial Momentum Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purposes, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

BofA Industrial Momentum Indicator typically leads Global Manufacturing PMI

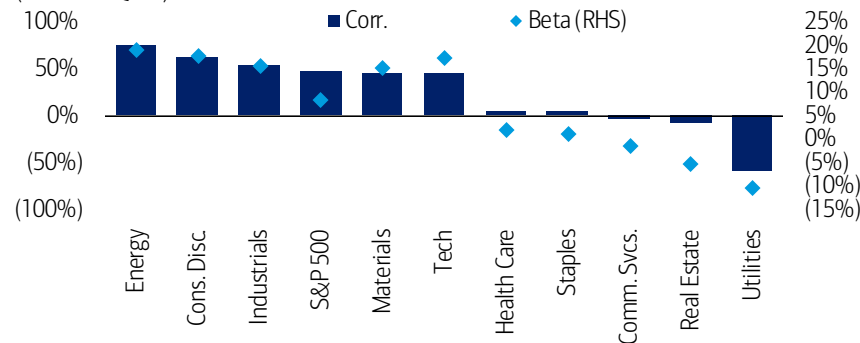
BofA Industrial Momentum Indicator



Source: BofA Global Research

Energy, Cons. Disc. Industrials, Materials and Tech have historically had high operating leverage

Correlation and beta between EBIT margin YoY vs. real sales growth YoY (1977-1Q24)



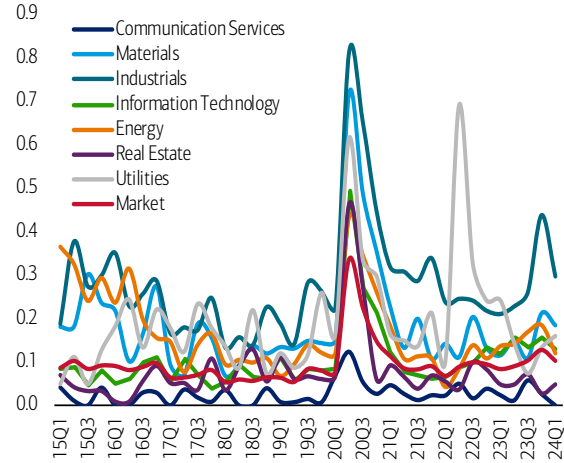
Source: BofA US Equity & Quant Strategy, Bloomberg

Manufacturing capex cycle intact



No major project delays

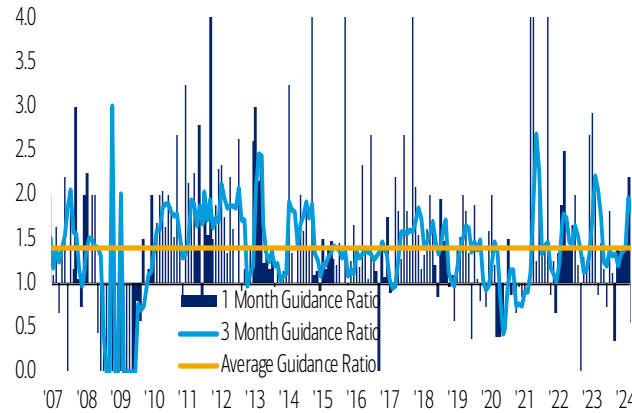
Mentions of "project delay" on earnings calls



Source: BofA US Equity & Quant Strategy, FactSet

Capex guidance still positive

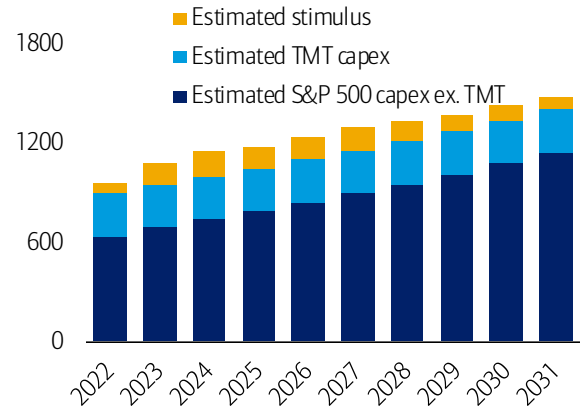
Ratio of upward to downward guidance of S&P 500 companies on planned capex (2007 to 5/2024)



Source: BofA US Equity & Quant Strategy, FactSet

Corporate capex dwarfs stimulus capex

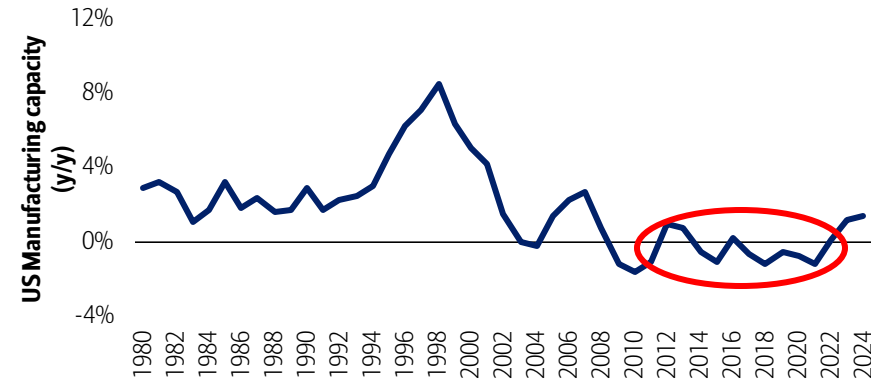
Estimated S&P 500 capex vs. estimated stimulus from CHIPS, ESSER, IJJA, IRA etc.



Source: FactSet, BofA Global Research, FactSet; 2024-2031; assumes 5% YoY growth rate.

10+ years of underinvestment in US manufacturing

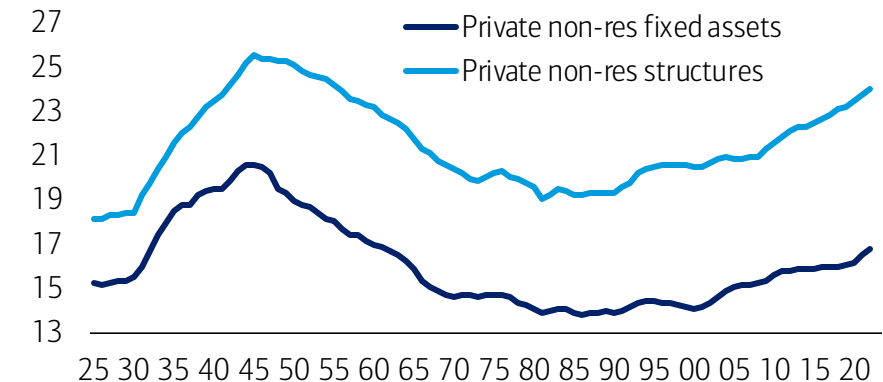
US manufacturing capacity YoY (1980 to 2023)



Source: Federal Reserve, US Equity & Quanti Strategy

Stuff is old

Average age of private fixed assets and structures



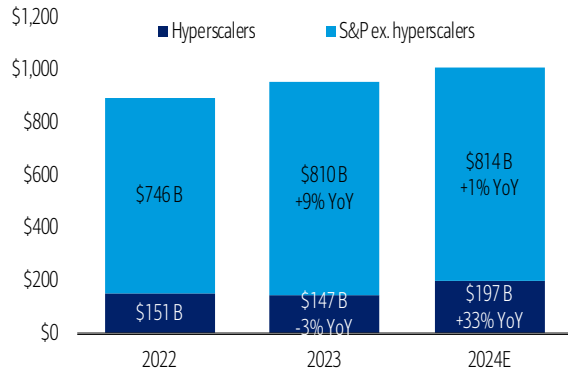
Source: Haver Analytics, US Equity & Quant Strategy

Hyper-scalers: TMT accelerating capex is bullish for rest of market



Hyper-scalers expected to drive most of capex growth for the S&P 500 in 2024

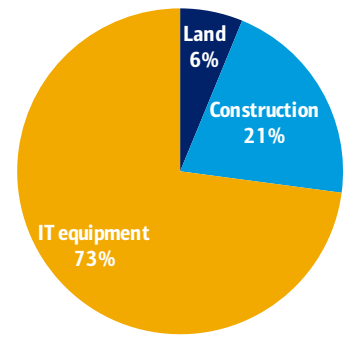
S&P 500 and hyperscalers (MSFT, AMZN, GOOGL, META) capex



Source: BofA US Equity & Quant Strategy, FactSet

Who builds data centers?

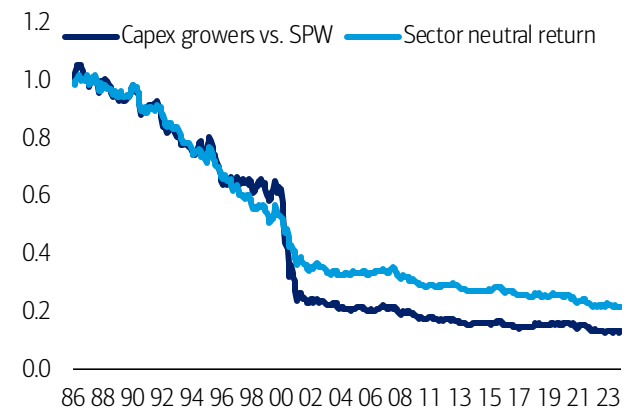
% of data center capex by category



Source: US Chamber of Commerce

Capex growers have historically underperformed

Relative performance of top decile in LTM capex YoY vs. the equal-weighted S&P 500 (1986-5/24)



Source: BofA US Equity & Quant Strategy, FactSet

Fade the naysayers

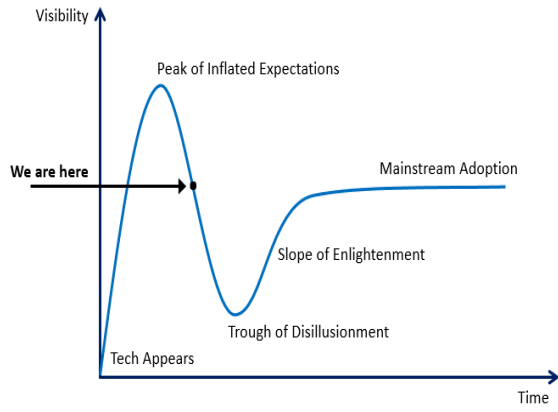
“Internet may be just a passing fad...”



Source: Global Financial Data, Homer and Sylla "A History of Interest Rates" (2005), Bloomberg

Disruptive tech adoption takes time

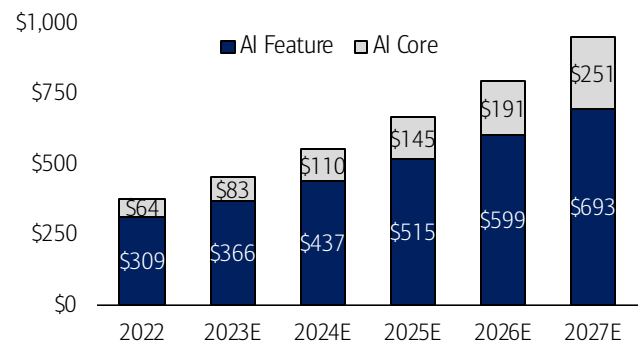
AI hype cycle



Source: BofA Global Research

AI software market slated to grow to \$944bn by 2027, +153% vs 2022

Global AI software revenues (\$bn) from 2022-2027E



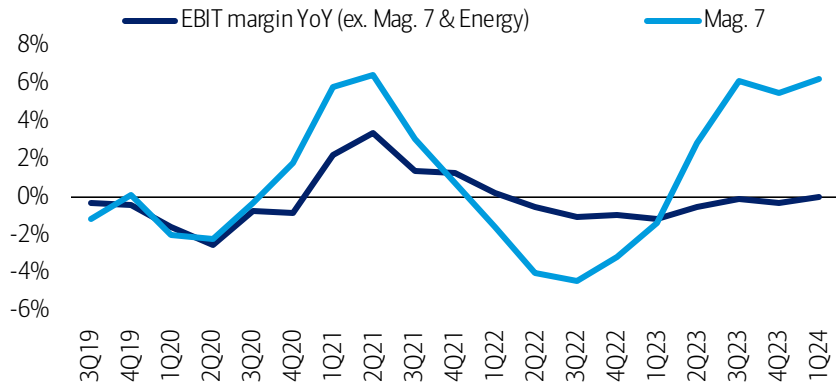
Source: BofA Global Research, IDC; AI Feature software includes software product offerings that were already developed and in production before AI features were embedded. AI Feature software would continue to function even if AI capabilities were removed. AI Core software includes software product offerings that were developed with AI features as the core component of functionality. AI Core software would not continue to function if AI capabilities were removed.

Tech is done cutting costs. Self-help moving into non-Tech.



The Magnificent 7 recouped their margin loss by cutting costs

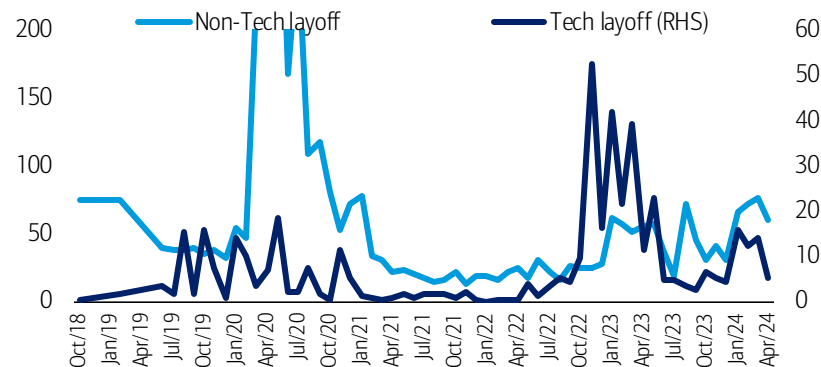
EBIT margin YoY ex. Energy & Financials (3Q19-1Q24)



Source: BofA US Equity & Quant Strategy, FactSet

Non-Tech is still cutting costs, but Tech is done

Challenger US job cut announcement (6/21-4/24; ,000)

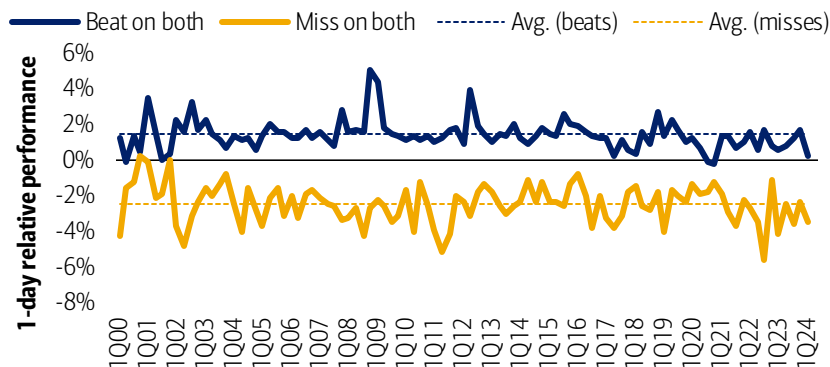


Source: BofA US Equity & Quant Strategy, Bloomberg

The bar was high for 1Q earnings ... especially Tech

No rewards for beats, but bigger penalties for misses

Rel. 1-day post-reporting performance (vs. S&P 500) on EPS & sales surprise (1Q00-1Q24)



Source: FactSet BofA US Equity & Quant Strategy

Relative performance of reported companies vs. S&P 500

1Q24 earnings reactions based on surprise

	1 day	5 day	Start of reporting season to 1 day after reporting	Start of reporting season to 5 days after reporting
EPS Beat	-0.2%	0.0%	0.1%	0.2%
EPS Miss	-2.5%	-2.3%	-3.4%	-3.3%
EPS In-Line	-1.7%	-1.7%	-3.0%	-3.0%
Sales Beat	0.2%	0.2%	0.3%	0.4%
Sales Miss	-2.0%	-1.8%	-2.7%	-2.5%
Sales In-Line	-3.4%	-2.3%	-1.9%	-0.6%
Both Beat	0.4%	0.4%	0.7%	0.8%
Both Miss	-3.4%	-3.3%	-4.4%	-4.4%

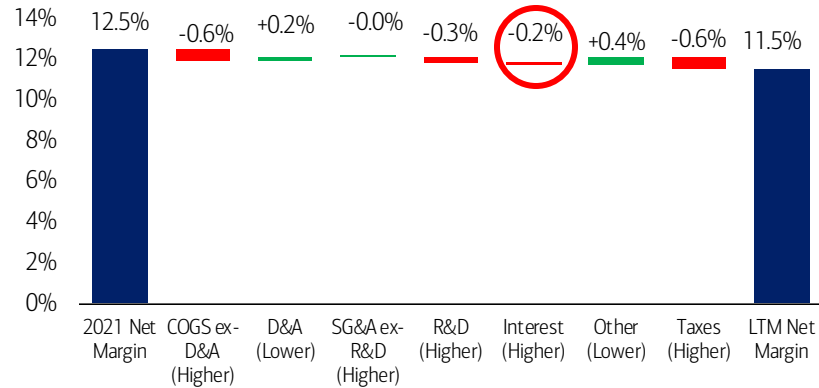
Source: FactSet BofA US Equity & Quant Strategy



Corporates have time to adapt to higher rates

Higher interest expense has been a small drag since hiking began...

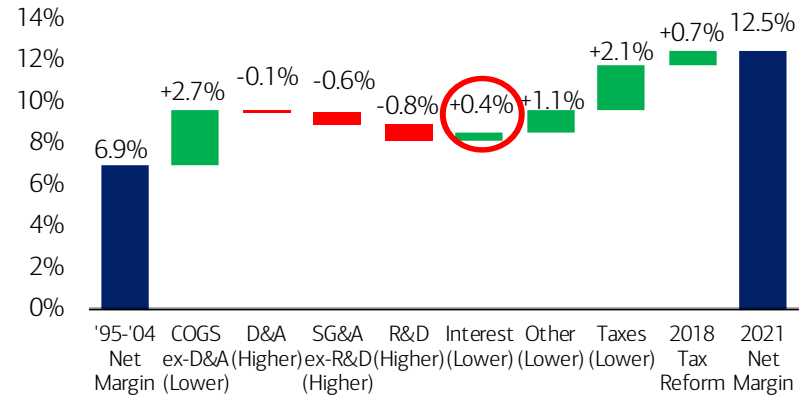
S&P 500 ex-Fins change in net margin contribution since 2021 (LTM as of 4Q23)



Source: FactSet, BofA US Equity & Quant Strategy

...and has been a surprisingly small tailwind from 90s to 2021

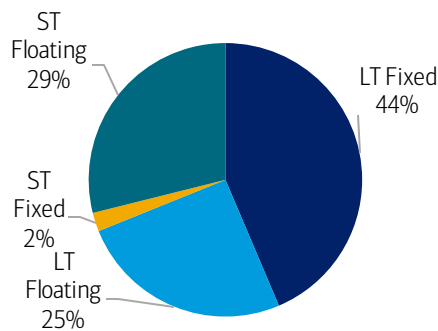
S&P 500 ex-Fins change in net margin contribution from 1990s to 2021



Source: FactSet, BofA US Equity & Quant Strategy

2007: 44% of S&P debt was L/T fixed

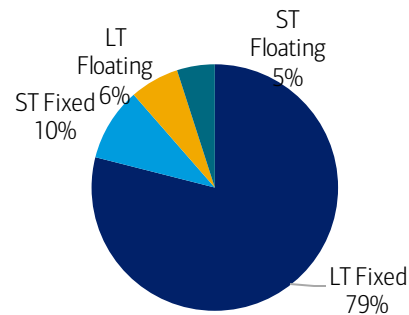
S&P 500 debt composition (as 4Q 2007)



Source: FactSet, BofA US Equity & Quant Strategy

Now: 79% of S&P debt is L/T fixed

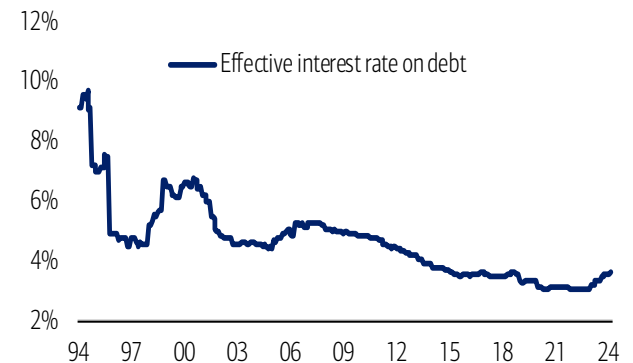
S&P 500 debt composition (as of March '24)



Source: FactSet, BofA US Equity & Quant Strategy

Effective rate rising, but just back to pre-COVID levels

S&P 500 effective interest rate on debt (1994-5/24)



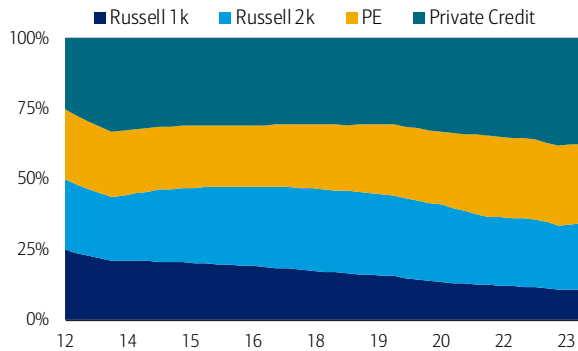
Source: FactSet, BofA US Equity & Quant Strategy



This is not your parents' credit cycle

Difference sources: from banks to private sector

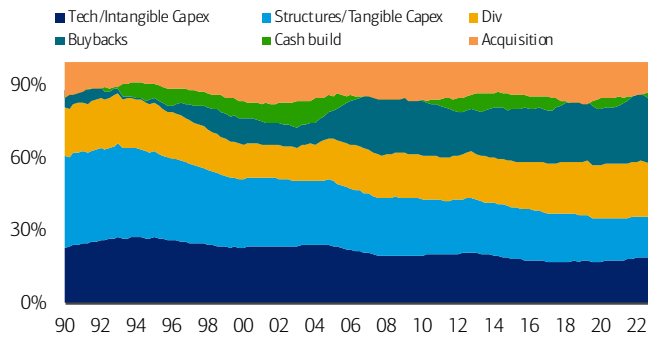
Growth of \$1 in large cap banks' vs. small cap banks' vs. private equity's vs. private credit's AUMs (Q4 2012-Q2 '23)



Source: FactSet, BofA US Equity & Quant Strategy, Preqin

Different uses from expanding manufacturing capacity to share buybacks

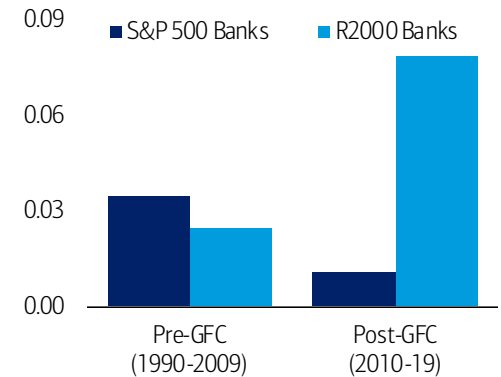
Use of rolling 5-yr operating cash flow + debt issued (4Q85-1Q24)



Source: FactSet, BofA US Equity & Quant Strategy

Regionals more credit sensitive than SIFIs (flipped from pre-GFC)

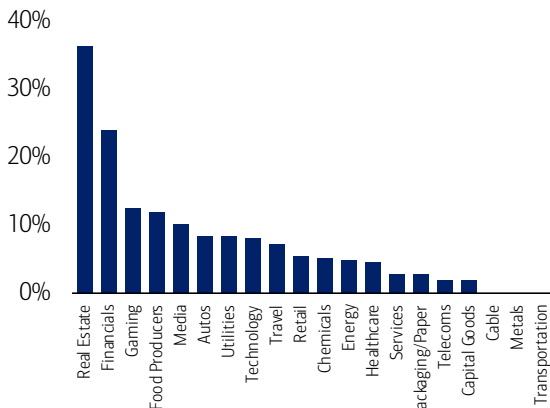
R-sq of earnings growth YoY vs. Sr. Loan Officer Survey



Source: Haver Analytics, FactSet, Bloomberg, BofA US Equity & Quant Strategy

Real Estate/Fins were problems of GFC

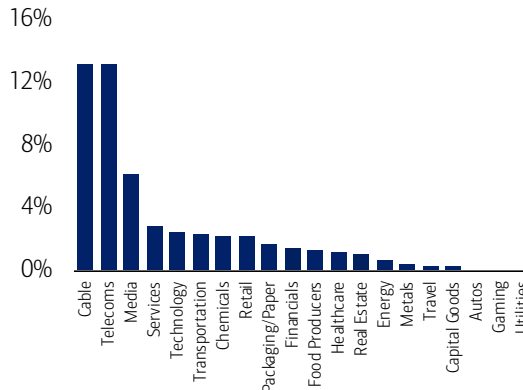
High yield credit: actual default rates as of 4Q2008



Source: BofA High Yield Credit Research

...TMT is problem of today

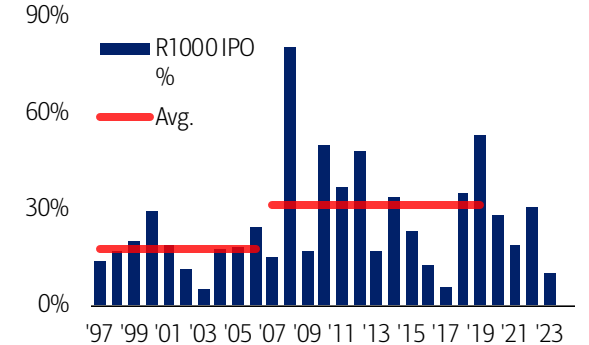
High yield credit: default estimate over next 12m



Source: BofA High Yield Credit Research

Small caps Longer gestation, larger cap debuts for IPOs

% of IPO value debuting in Russell 1k (97-present)



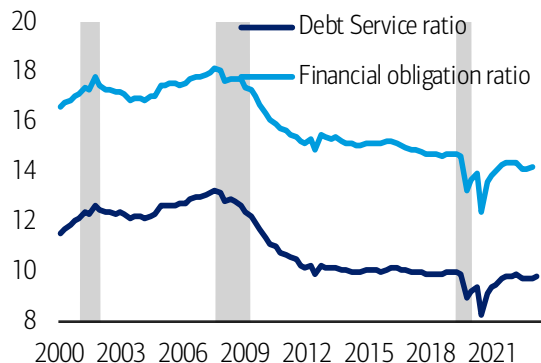
Source: Dealogic, FactSet, BofA US Equity & Quant Strategy

US consumers slowing, but won't stop until they lose their jobs



Hiking cycle has yet to materially affect households

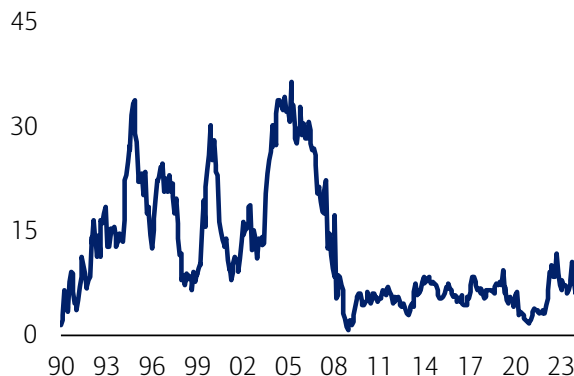
HH debt service & financial obligations ratio (%)



Source: Haver

~85% of mortgages in the US are fixed rate

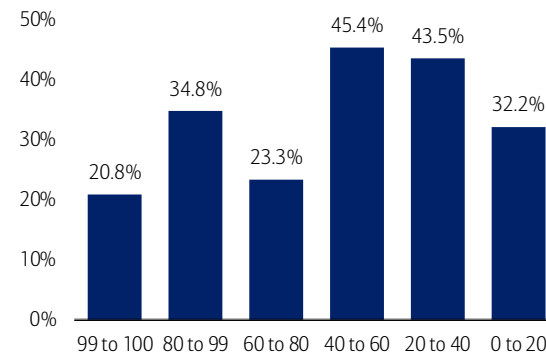
Floating mortgages as a share of dollar volume of loan applications (as of 5/24)



Source: Bloomberg

All cohorts gained since 2019

Change in net worth by income cohort (i.e., income percentiles) since 2019 (as of 4Q23)



Source: Haver, BofA Global Research

Layoff announcements are off the peak

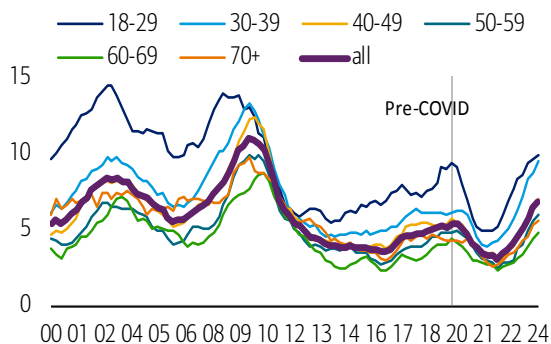
Challenger job cuts announced (3-mo. avg.) vs. # of layoff news stories (2020-4/24)



Source: BofA US Equity & Quant Strategy, Bloomberg

Delinquencies rising for Gen Z & Y, but poised to inherit from Boomers

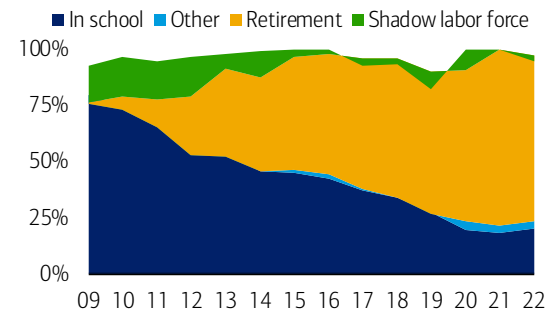
Transition into serious delinquency (90+) for credit cards by age (as of 1Q24)



Source: New York Federal Reserve

Great resign., re-shoring & tight immigration have kept participation rate near cycle lows

% contribution to the total change in labor force participation since '98



Source: FRB Atlanta, BofA US Equity & Quant Strategy. Note: Disability/Illness and Family Responsibilities are not included 34



Long tail of reshoring projects underway, bullish for cyclicals

China sales exposure stalled since 2018 despite China's economy representing a bigger portion of the world economy

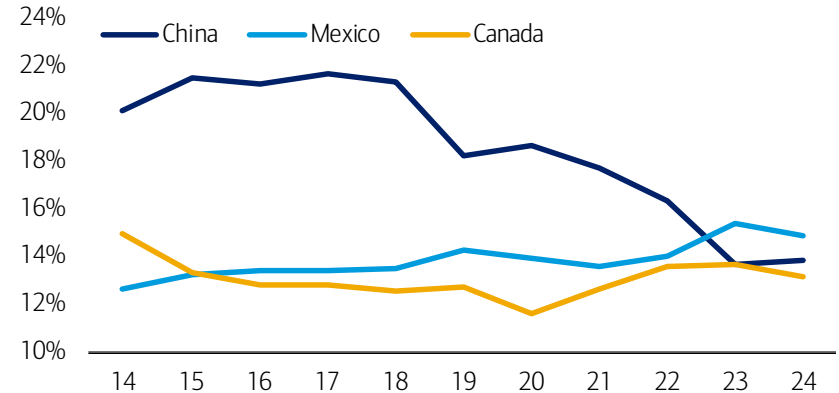
S&P 500's China sales exposure vs. China's GDP as % of world GDP



Source: BofA US Equity & Quant Strategy, FactSet, Bloomberg

North America corridor: China's share of US imports now < Mexico + Canada

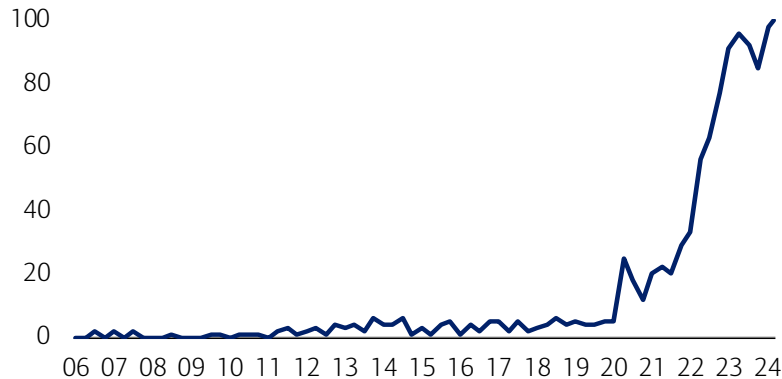
% of US imports of everything from China, Mexico, and Canada



Source: Panjiva, BofA US Equity & Quant Strategy

Everyone is talking about re-shoring

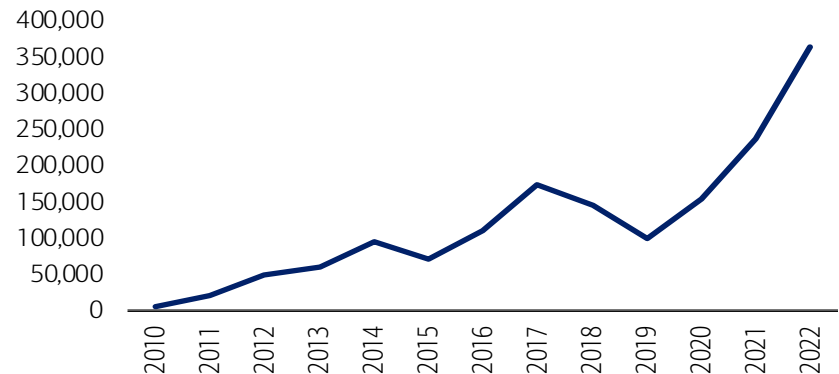
Companies mentions of re-/near-/on-shoring (100=max) (as of 5/24)



Source: BofA US Equity & Quant Strategy, Alphasense

Reshoring in practice: FDI jobs in 2022 at an all-time high

Manufacturing jobs: reshoring + Foreign Direct Investment



Source: Reshoring Initiative Library data

Sector outlook



Summary outlook



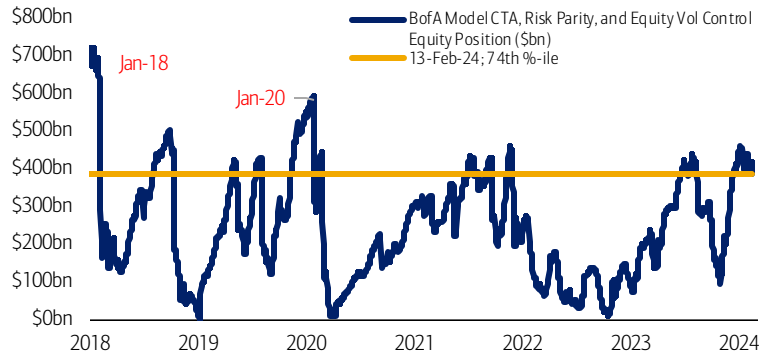
Sector	Weight in S&P 500	BofA View	Bull case	Bear case
Energy	4.1%	O/W	Commodity cycles end w/ oversupply; not likely if CEO pay is on ESG /div targets, not production. Avg. \$86/bbl Brent in 2024 (house view); attractive FCF even at \$70 Inflation-protected yield; weakening USD War pushes energy security ahead of decarbonization Re-rating on capital and supply discipline, IRA beneficiary	Lowest Quality sector based on S&P rankings High GHG direct emissions profile + secular headwinds from renewables, green capex Ceasefires, peace breaks out
Consumer Discretionary	10.2%	O/W	Fed is done hiking Housing benefits from structural shortages Positioning: long-only fund and hedge fund positioning near historical lows Real wage growth positive, Recovery regime beneficiary Consumer resilience - 85% of US mortgages are fixed; Boomers transferring wealth	Risk if job losses extend beyond Silicon Valley/Wall Street Long duration (AMZN + TSLA = 50% of sector), AMZN = COVID demand pull forward Expensive (but roughly in line with average ex. TSLA/AMZN) Continued Fed hiking Temu
Financials	13.1%	O/W	High quality and low leverage; Mispriced risk: Lower EPS vol than S&P 500 but high price beta Higher interest rates vs. prior cycle; 100% hit rate in Recovery regimes; historically inexpensive Regional Banks = 2.5% of the sector Positioning is excessively light vs. history	Rising deposit costs & increased regulatory risk after bank fallouts Commercial Real Estate (23% of total loans)
Real Estate	2.2%	O/W	Inflation protected yield, adequately pricing in refinancing risks assuming peak short rates Inexpensive and unloved by long-only funds and hedge funds; Real asset, but also a bond proxy CRE/office < 3% of market capitalization	Commercial real estate risk Biggest exposure to refinancing risk, most negative real rate beta
Materials	2.4%	M/W	Underinvestment in manufacturing, single family, mining over last decade drives higher returns Continued capex cycle Potential recovery in goods spending (exposed to housing/autos/etc.)	Most exposed to China (along with Tech) Overweight by hedge funds, long-only positioning elevated Ranks last in our tactical quant model
Industrials	8.8%	M/W	Capex, automation, green solutions and re-shoring beneficiary Half cyclical, half Quality Fiscal stimulus (bipartisan infrastructure bill = 11% of nonresidential construction spend)	Crowded (overweight by both long-only and hedge funds) Rising earnings volatility amid de-globalization / less diversified end markets
Utilities	2.2%	M/W	Stable fundamentals / defensive hedge IRA / energy transition beneficiary Disinflation and lower rates	Renewables / green themes were born during ZIRP, not 5% rate world Dividend yield vs. 10-yr yield below post-GFC avg. Has lagged in Recovery/Downturn regimes with a 0%/12.5% hit rate. Positioning: long only funds at 10yr high
Communication Services	9.2%	M/W	#1 in our tactical quant model Big buybacks shortened duration risk Valuations reasonable	Positioning risk rising, high expectations (LTG forecasts) Headline risk in 2024 regulatory, anti-monopolistic Too big to grow Corp ad spend slowdown potential
Technology	29.6%	U/W	Secular themes (AI, cloud, telecommuting, robotics, etc.) & re-shoring capex Long-only positioning risks subsided Clean balance sheets, strong margins, positive earnings trends AI arms race	Peak globalization (most multinational sector) COVID pull-forward as extreme as ahead of Y2K Regulatory / anti-monopolistic overhang; expensive, crowding risk in NVDA/MSFT De-stocking risk most evident for semis, tech hardware and autos
Health Care	12.2%	U/W	Defensive sector offering secular growth Baby boomer spend beneficiary Select stocks benefit from AI	Positioning: overweight by both long-only and hedge funds Gov't exposure ahead of fiscal austerity; election year – headline risk on drug prices Increased labor intensity, care workers harder to automate Expensive on some measures; higher refinancing dollar risks than other sectors
Consumer Staples	5.9%	U/W	No matter what, we still have to eat - defensive hedge Benefits from white collar recession/consumer trade down	Elevated positioning by hedge funds Underperforms in Recovery regime Ranks poorly in our tactical quant model; lower quality vs. history Hit harder than Discretionary by regressive oil / gas tax - low price point retailers hit Deflation risks; GLP-1 = thematic overhang

Mixed positioning signals, but defensives & bonds crowded



Global equity positioning among systematics equity stretched: 74th percentile

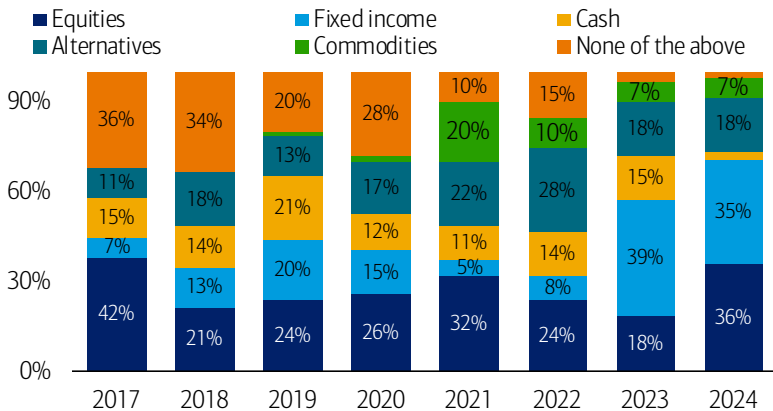
BofA Model CTA, risk parity and vol control equity position



Source: BofA Global Research. Data from 29-Dec-2017 to 13-Feb-24. Assumes unlevered AUM of \$300bn in CTAs, \$200bn in risk parity and \$200bn in equity vol control strategies.

GWIM survey: 35% of respondents are moving into bonds, similar to % moving into equities

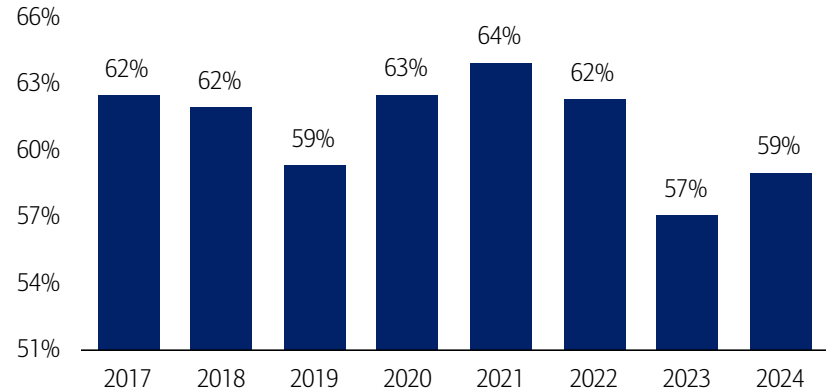
How are you currently changing your asset allocation? Moving more into...



Source: Wealth Management Marketing Research, BofA US Equity & Quant Strategy

GWIM survey: Equity allocation increased YoY, but remains below the 2017-22 levels

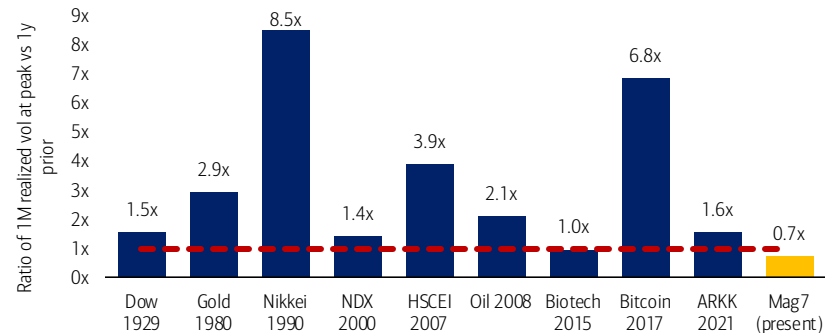
Average % equity allocation



Source: Wealth Management Marketing Research, BofA US Equity & Quant Strategy

Bubblette, not a bubble: volatility rises prior to peak as assets trade increasingly on momentum rather than fundamentals

Ratio of 1m realized vol at peaks vs 1y prior, for historical asset bubbles



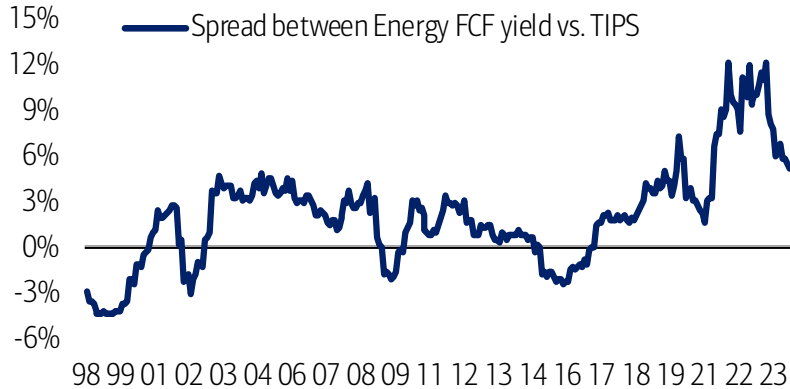
Source: BofA Global Research. Data from Sep-1927 to 20-Feb-24. Mag7 data point represents ratio current 1m realized vol to 1y prior. "Magnificent 7" or Mag7 refers to Apple (AAPL), Microsoft (MSFT), Nvidia (NVDA), Amazon (AMZN), Meta (META), Alphabet (GOOGL) and Tesla (TSLA).



Overweight Energy

Inflation-protected yield: TIPS + 5ppt

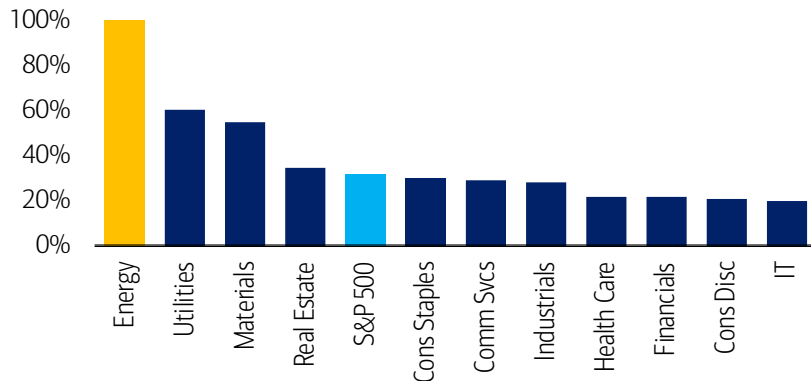
FCF yield of S&P 500 Energy sector vs. TIPS yield (1998-3/24)



Source: BofA US Equity & Quant Strategy, FactSet, Bloomberg

Energy leads in aligning CEO compensation to ESG metrics

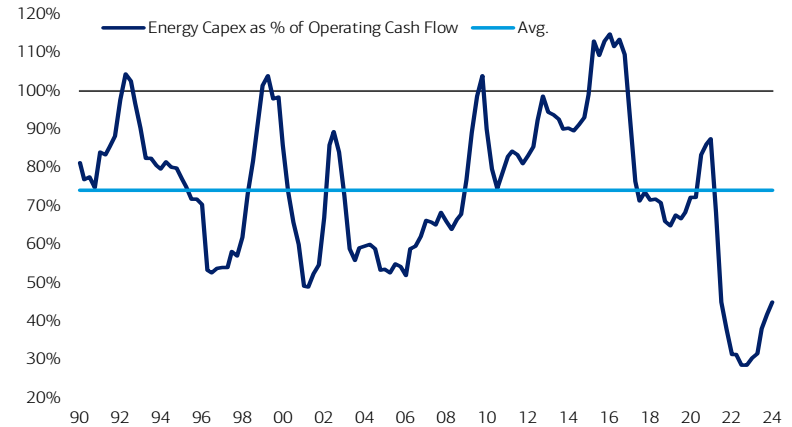
% of S&P 500 companies with ESG metrics as part of CEO short-term compensation plan within the last 3 years, as of 11/2023)



Source: BofA US Equity & Quant Strategy, ICE

Supply discipline prioritized over production goals

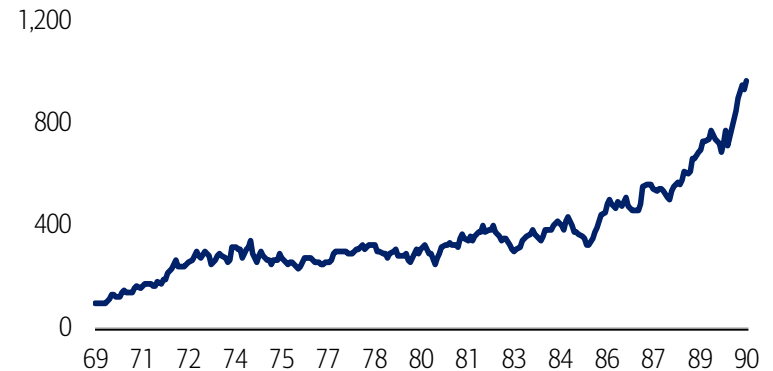
S&P 500 Energy capex as % of operating cash flow (1990-4Q23)



Source: BofA US Equity & Quant Strategy, FactSet

Oil going to \$0? Tobacco similarly “doomed” after surgeon general cancer announcement in 60s

S&P 500 Tobacco industry’s rel. perf (total return) vs. SPX (1969-90)



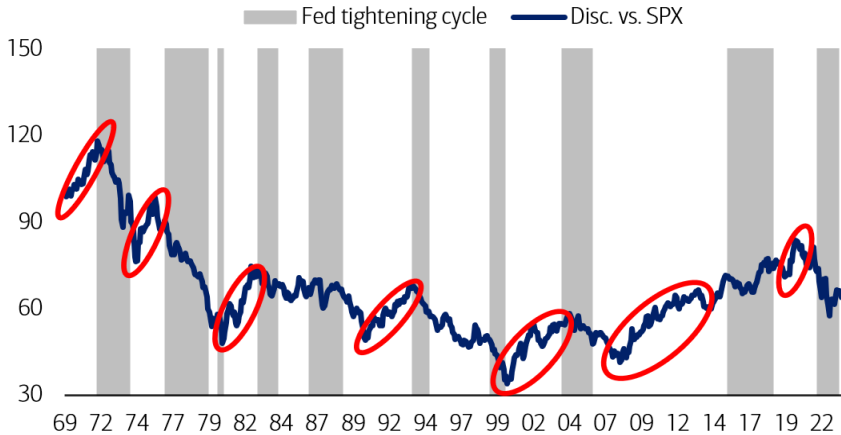
Source: BofA US Equity & Quant Strategy, FactSet



Overweight Consumer Discretionary

End of tightening? Buy lending beneficiaries

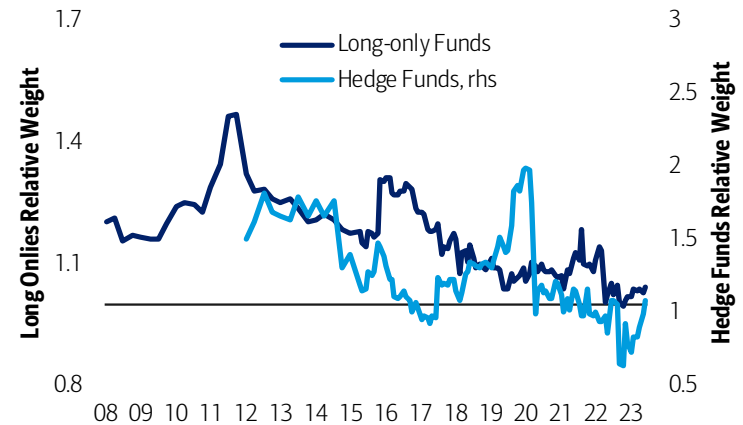
Discretionary sector historical relative performance vs S&P 500



Source: BofA US Equity & Quant Strategy, FactSet

Positioning just off all-time lows for LO and HF

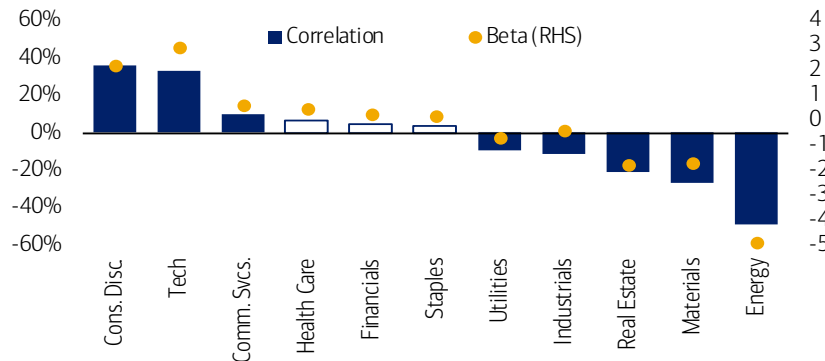
Funds' relative weight in Discretionary vs S&P 500 (2008-2/24)



Source: FactSet Ownership, BofA US Equity & Quant Strategy

CD is biggest beneficiary from real wage growth

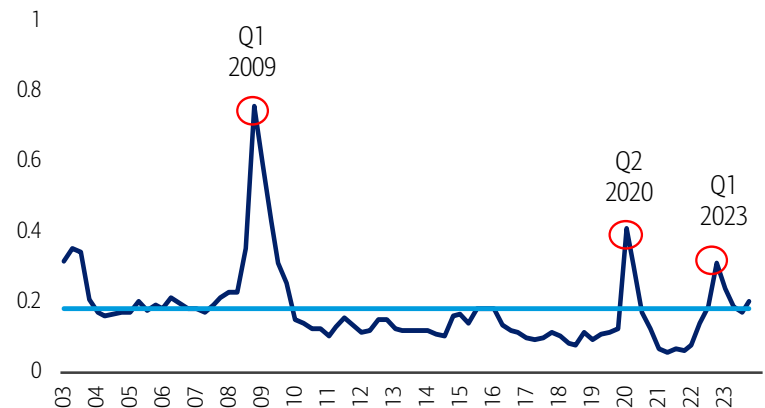
Relationship between real wage growth YoY (Avg. hourly earnings – CPI) vs relative sector performance (1970-present)



Source: BofA US Equity & Quant Strategy, FactSet

Jobs are lynchpin of consumption, and no broad-based layoffs yet

Earnings transcript mentions of "layoffs" (as of 2/24)



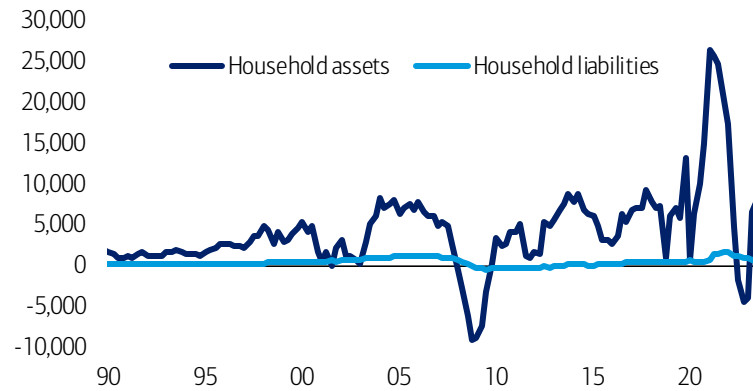
Source: BofA US Equity & Quant Strategy, FactSet



Overweight Consumer Discretionary

Household assets rebounded in 4Q 2023

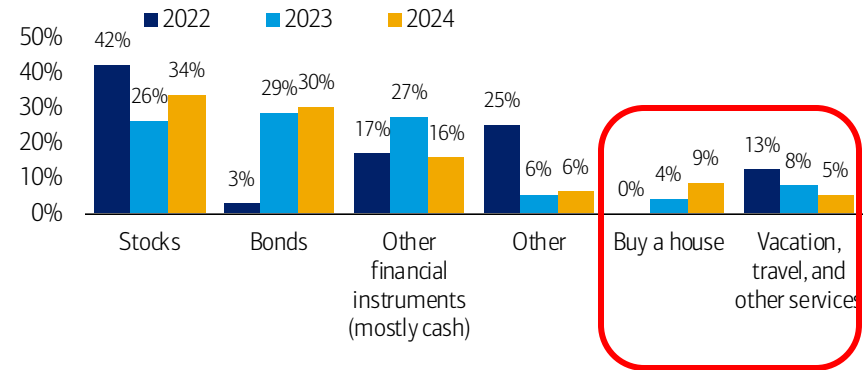
Four-quarter change in household assets and liabilities, \$bn



Source: Federal Reserve, Haver Analytics, BofA Global Research

Advisors looking to buy stocks with excess cash (as well as a house) but vacation interest has subsided - bigger hit to SMID Cons Disc

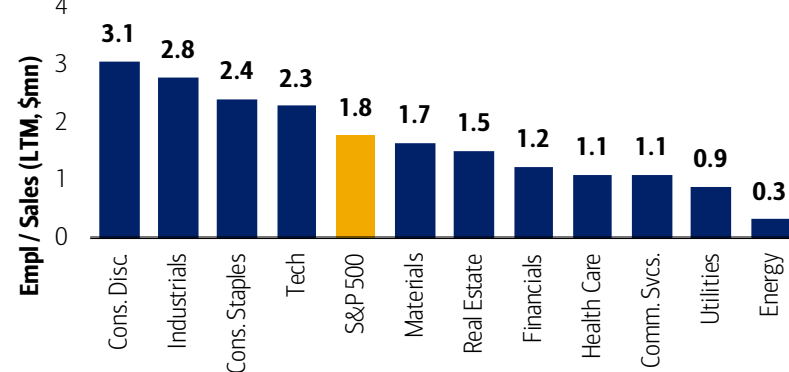
What are the clients looking to do with excess cash? (2023 GWIM survey)



Source: Wealth Management Marketing Research, BofA US Equity & Quant Strategy

Most labor-intensive might mean biggest beneficiary of efficiency gains

Employees/sales (LTM, \$mn) by S&P 500 sector as of 4/2/24



Source: FactSet, BofA US Equity & Quant Strategy

Chipotle case study: Per store labor growing less than expected = automation-driven productivity

CMG expected labor per store* vs. reported labor per store



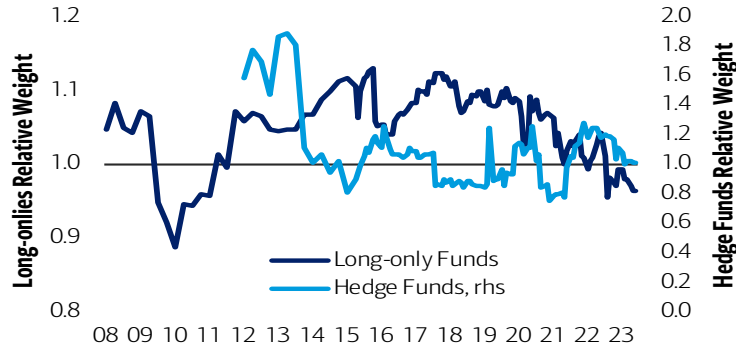
Source: BofA Global Research. *Assumes that labor should grow at half the rate of transaction growth. Calculated as $(1 + \text{wage inflation}) * (1 + \text{transaction growth} / 2)$.



Overweight Financials

Positioning light vs. history

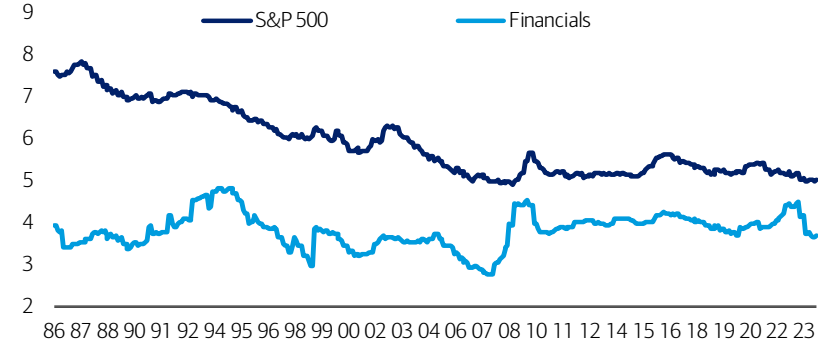
Funds' relative weight in Financials vs S&P 500 (2008-2/24)



Source: FactSet, BofA US Equity & Quant Strategy

Financials grew more labor-intensive after GFC (legal/compliance/etc.) but GenAI can help

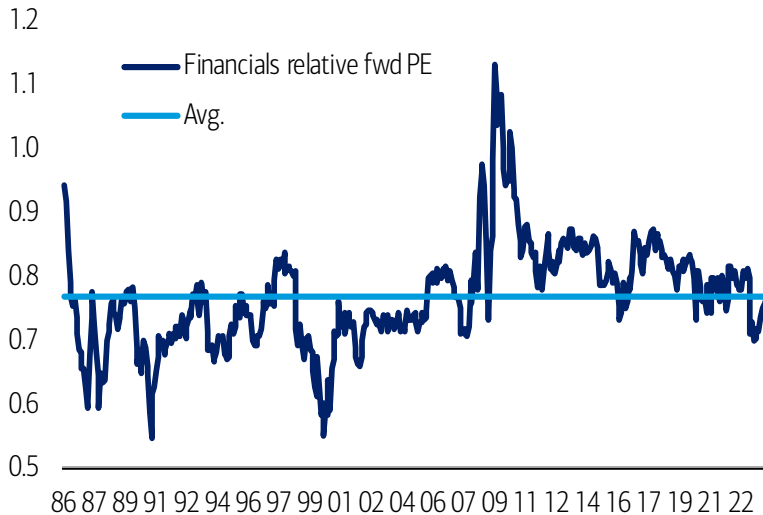
Number of employees per \$mn dollar of sales (real 1986 dollars)



Source: BofA US Equity & Quant Strategy, FactSet

Valuations roughly in line with LT average

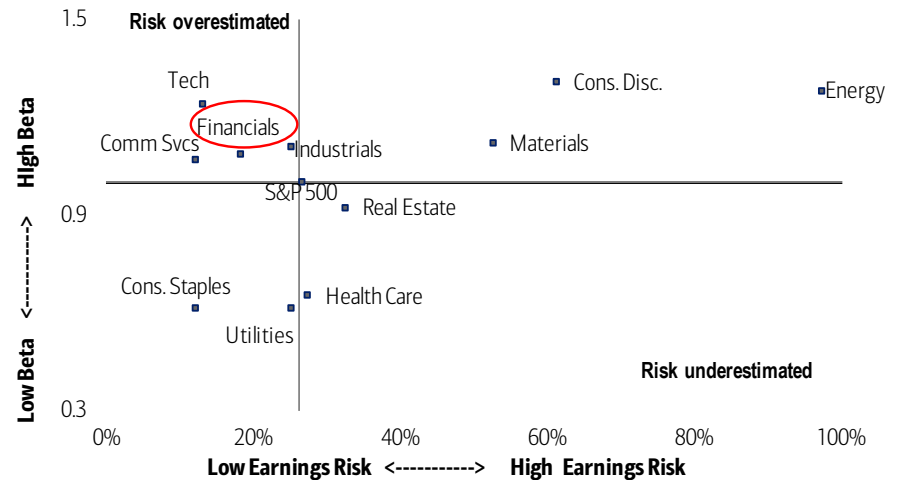
Financials relative fwd. PE vs. S&P 500 (1986-3/2024)



Source: FactSet, BofA US Equity & Quant Strategy

Misunderstood risk: high earnings quality but high price beta

S&P Quality rankings (cap-weighted % of Low Quality B or Worse stocks) vs. 5-yr price beta (as of 3/24)



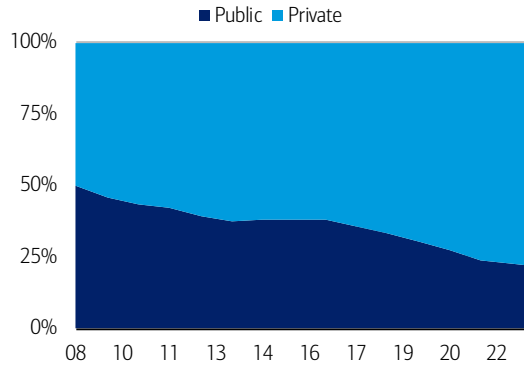
Note: Financials excludes BRK/B. Source: S&P, FactSet, BofA US Equity & Quant Strategy



Overweight Financials

Big regulated banks may only lender left

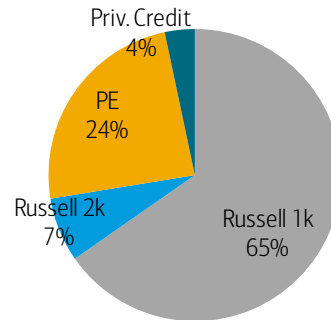
Growth of \$1 in private markets vs. public equity lenders' AUMS (Q4 2008-Q2 '23)



Source: FactSet, BofA US Equity & Quant Strategy, Preqin

Large-cap fins used to dominate lending

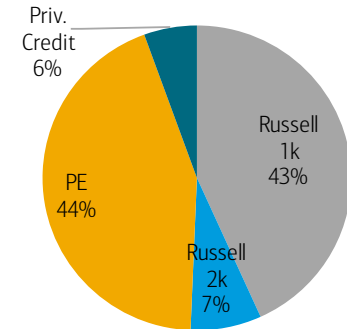
% AUM breakdown (Q4 2012)



Source: FactSet, BofA US Equity & Quant Strategy, Preqin

But private lenders have cut into their share

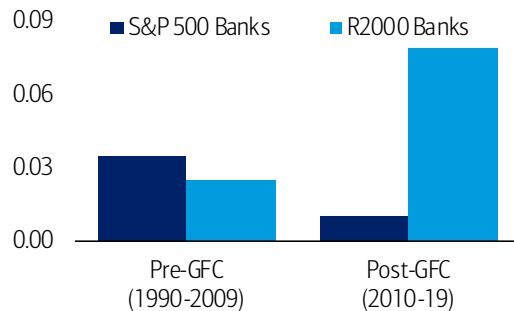
% AUM breakdown (Q2 2023)



Source: FactSet, BofA US Equity & Quant Strategy, Preqin

Regional banks more sensitive to SLOOS post-GFC, SIFIs less sensitive

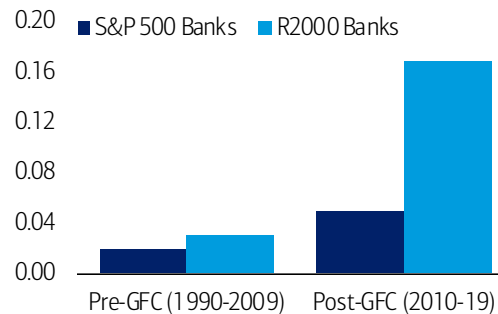
R-sq of earnings growth YoY vs. Sr. Loan Officer Opinion Survey



Source: BofA US Equity & Quant Strategy, Haver Analytics, FactSet, Bloomberg

Regionals also sensitive to credit impulse

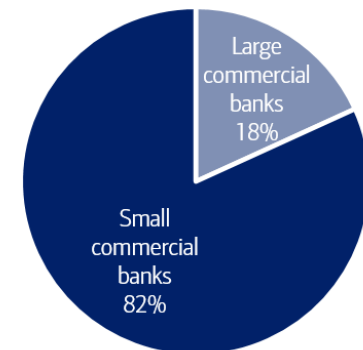
R-sq of earnings growth YoY vs. credit impulse



Source: BofA US Equity & Quant Strategy, Haver Analytics, FactSet, Bloomberg

Majority of CRE growth driven by smaller banks

Contribution to total CRE growth since 2012



Source: Federal Reserve, BofA Global Research

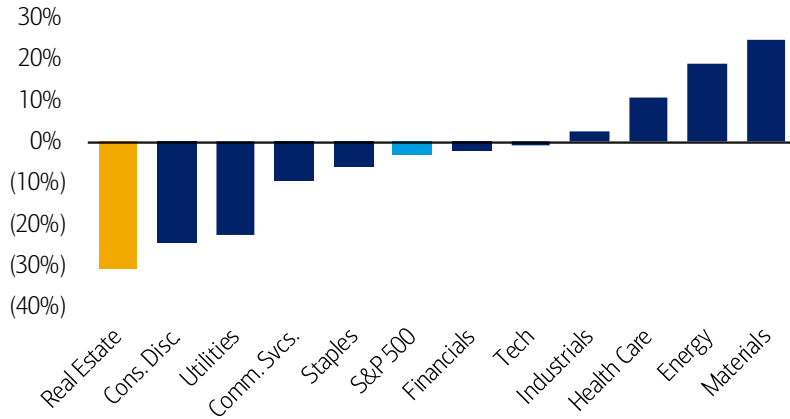
Note: CRE loans comprised of nonfarm/nonresidential, multifamily, and construction loans



Overweight Real Estate

Biggest de-rating since 2021 (more than offsets refi risks)

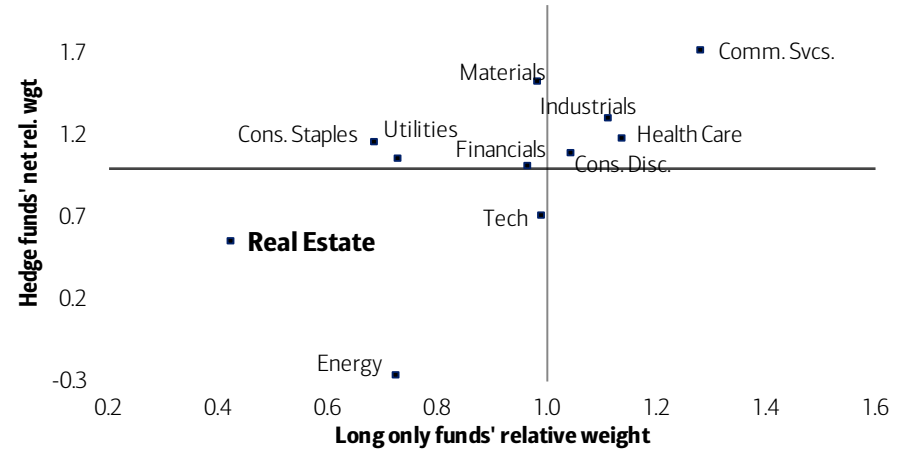
Change in fwd P/E (P/FFO for REITs) since Dec. 21 (as of 3/24)



Source: FactSet, BofA US Equity & Quant Strategy

Deeply underweight by LOs and HF

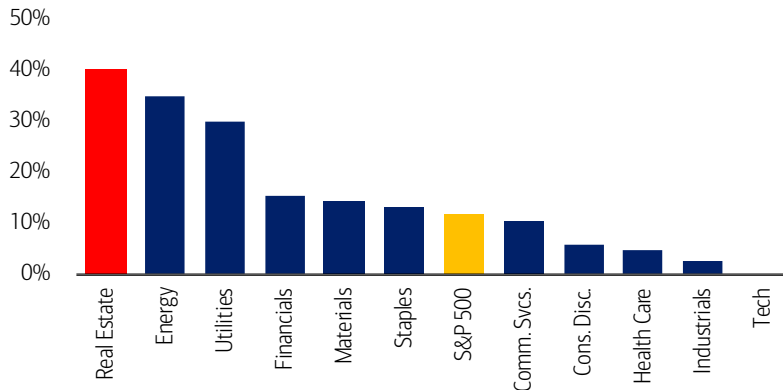
LO and HF sector weights relative to the S&P 500 (as of 2/24)



Source: FactSet Ownership, BofA US Equity & US Quant Strategy

~40% of RE stocks yield higher than 10-yr

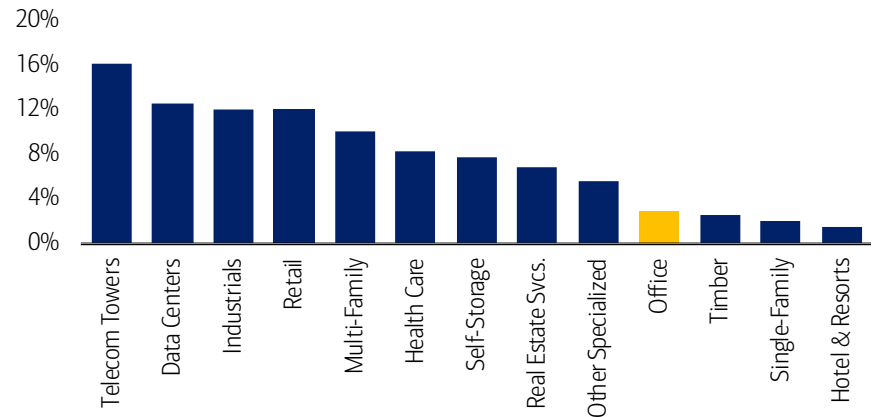
% of stocks with a higher div. yield than the 10-yr (as of 3/24)



Source: FactSet, BofA US Equity & Quant Strategy

But Office is only 3% of S&P 500 Real Estate

S&P 500 Real Estate sub-industry weights (as of 4/3/24)



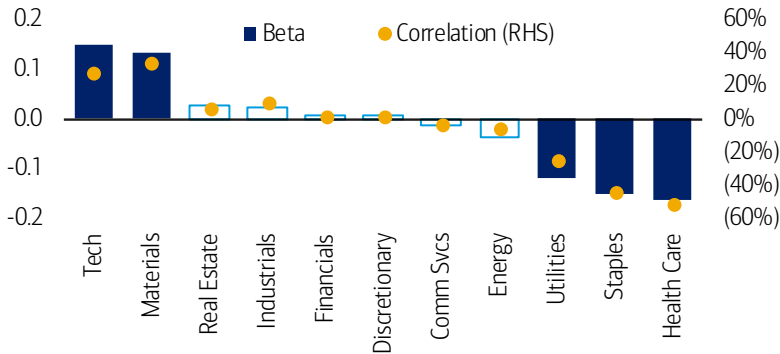
Source: BofA US Equity & Quant Strategy, Bloomberg



Market-weight Materials

China risk

S&P 500 sectors' rel. perf. to MSCI China (May 1996-present)



Source: Bloomberg, FactSet, BofA US Equity & Quant Strategy. Note: Based on MSCI China index on a YoY basis; Empty bars indicate not statistically significant

Commodity exposure by LOs is near all time lows

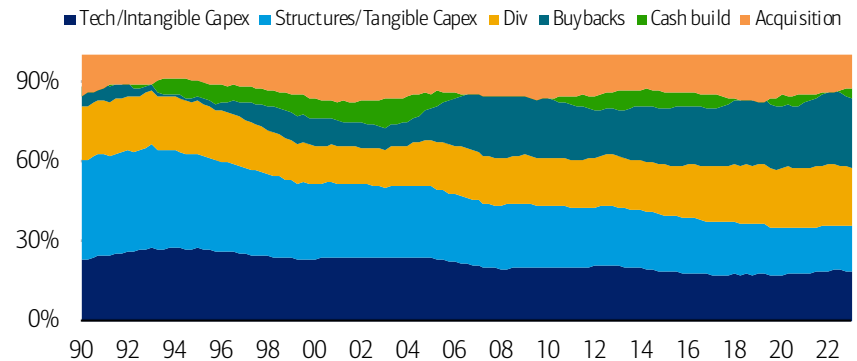
Long-only funds relative weight in sector vs. S&P 500 (2/24)



Source: FactSet, BofA US Equity & Quant Strategy

Underinvestment in traditional capex since 1990

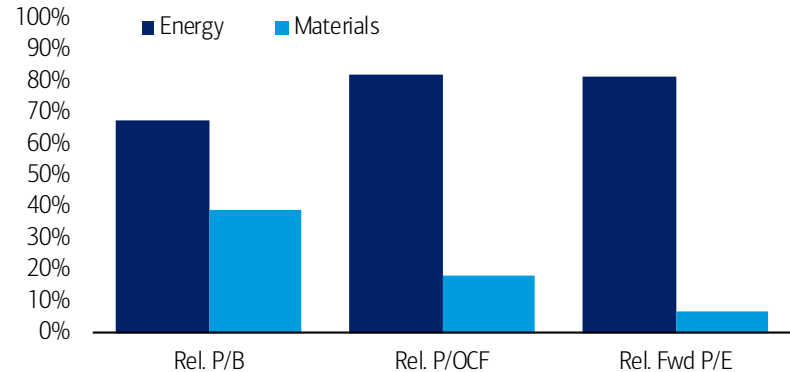
Use of rolling 5-yr op cash flow + debt issued (4Q85-4Q23)



Source: FactSet, BofA US Equity & Quant Strategy *Other uses of cash can include cash build, acquisitions, etc.

More upside in Energy than Materials

Upside % from historical average for Materials and Energy based on relative valuations (vs. S&P 500) since 1986, as of 3/24



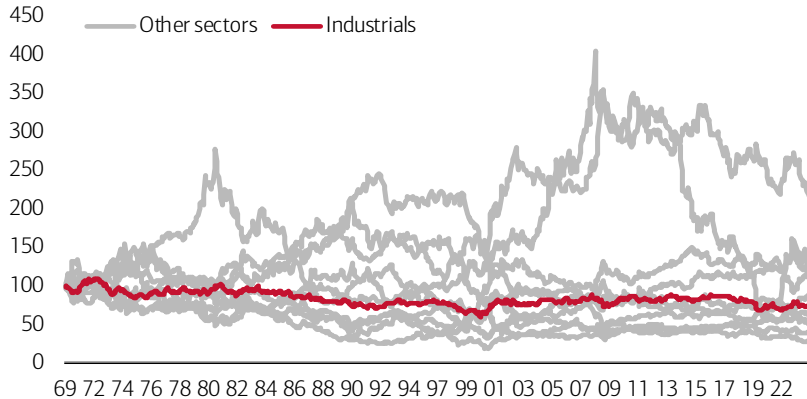
Source: Bloomberg, BofA US Equity & Quant Strategy



Market-weight Industrials

Perpetual market performer

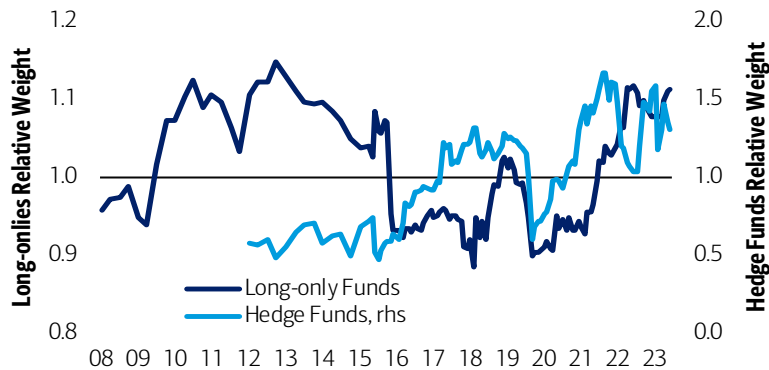
Industrials relative performance vs. S&P 500 (1969-present)



Source: Bloomberg, FactSet, BofA US Equity & Quant Strategy

Key risk: consensus. Loved by long only & hedge funds

Long-only and hedge funds' net relative weight in Industrials (as of 2/24)

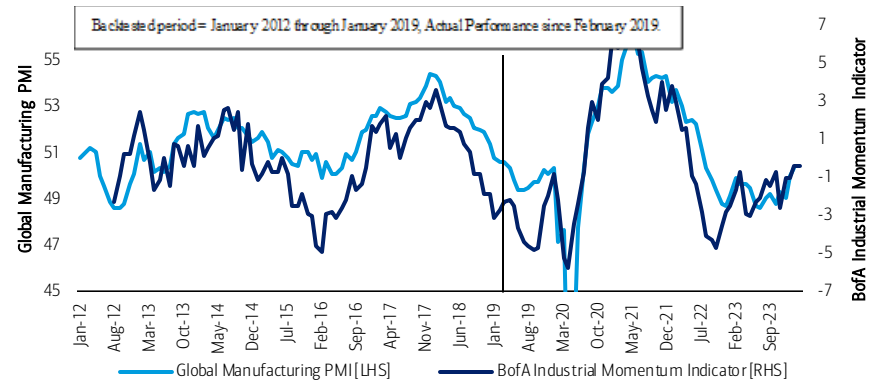


Source: FactSet, BofA US Equity & Quant Strategy

BofA Industrial Momentum Indicator: Backtested period = January 2012 through January 2019, Actual Performance since February 2019. This performance is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein. Disclaimer: The indicator identified as BofA Industrial Momentum Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purposes, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark

BofA Industrial Momentum Indicator is improving

BofA Industrial Momentum Indicator typically leads Global Manufacturing PMI



Source: BofA Global Research

No beta bias: Machinery hated, Conglomerates loved

LO relative exposure to Machinery (cyclical) vs. Industrial Conglomerates (defensive) within S&P 500 (as of 2/24)



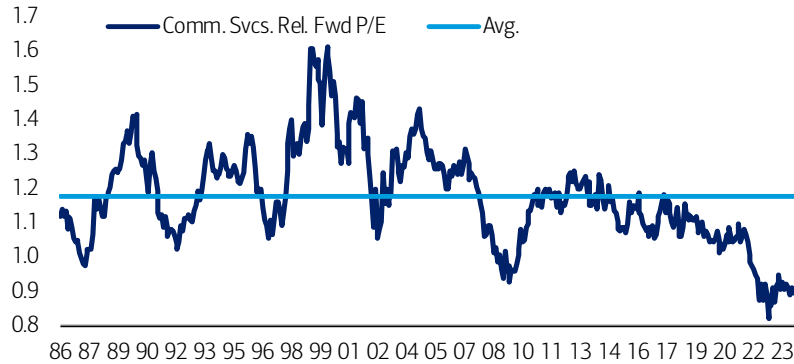
Source: BofA US Equity & Quant Strategy, FactSet Ownership



Market-weight Communication Services

Historically cheap

Communication Services relative fwd PE vs. S&P 500 (1986-3/24)



Source: FactSet, BofA US Equity & Quant Strategy

#1 in our tactical quant model in 12 out of last 13 months

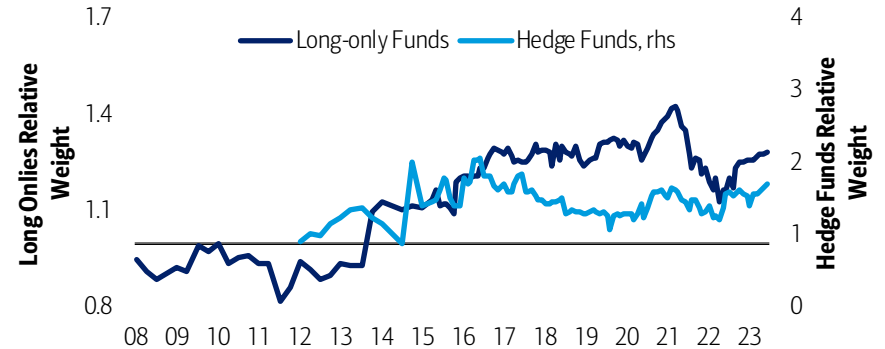
S&P 500 Momentum & Value Framework Sector Ranks as of 2/24

Sector	Combined Rank	Price Momentum Rank	EPS Revision Rank	Valuation Rank
Communication Services	30	11	9	10
Information Technology	23	10	11	2
Financials	21	8	8	5
Consumer Discretionary	18	7	10	1
Consumer Staples	17	4	6	7
Utilities	17	1	7	9
Health Care	17	6	5	6
Industrials	16	9	4	3
Real Estate	14	3	3	8
Energy	14	2	1	11
Materials	11	5	2	4

Source: BofA US Equity & US Quant Strategy

Risk: Consensus overweight by LO and HF

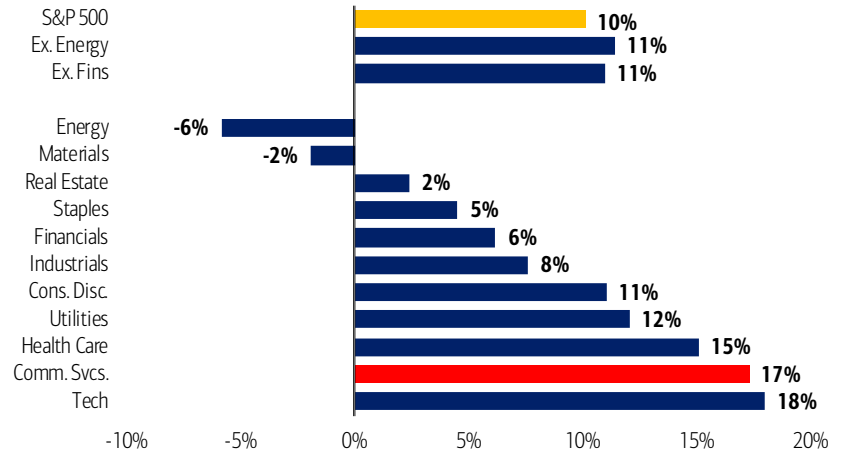
Long-only and hedge funds' net relative weight in Comm. Svcs. (as of 2/24)



Source: FactSet Ownership, BofA US Equity & Quant Strategy

Slated for another year of strong growth after +26% YoY in 2023

2024 consensus earnings growth YoY by sector (as of 4/1/24)



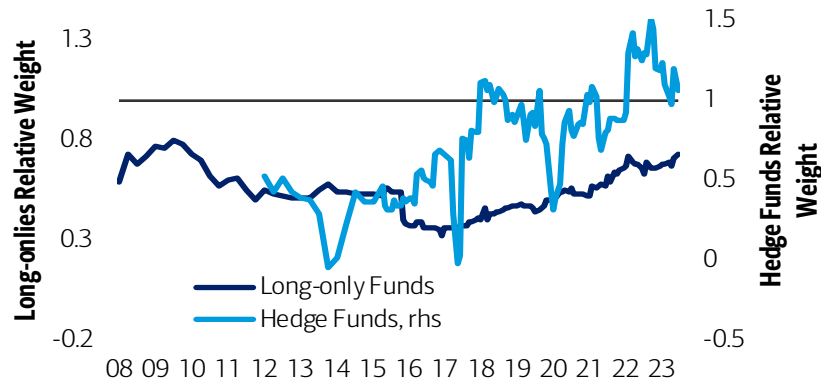
Source: BofA US Equity & US Quant Strategy, FactSet



Market-weight Utilities

Crowded vs. history

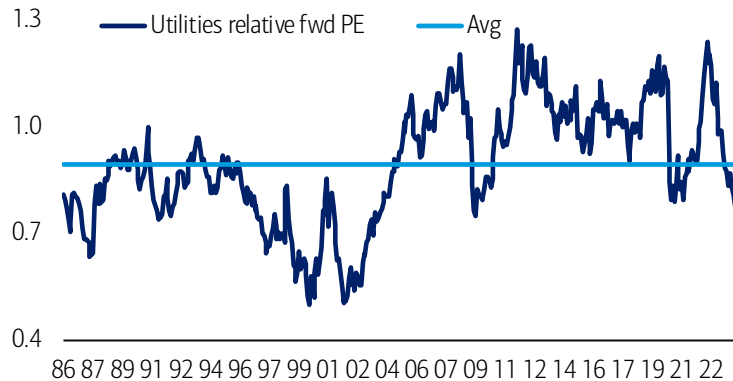
Long-only and hedge funds' net rel. wgt in Utilities (as of 2/24)



Source: BofA US Equity & Quant Strategy, FactSet Ownership

Discount vs. history on relative fwd. P/E

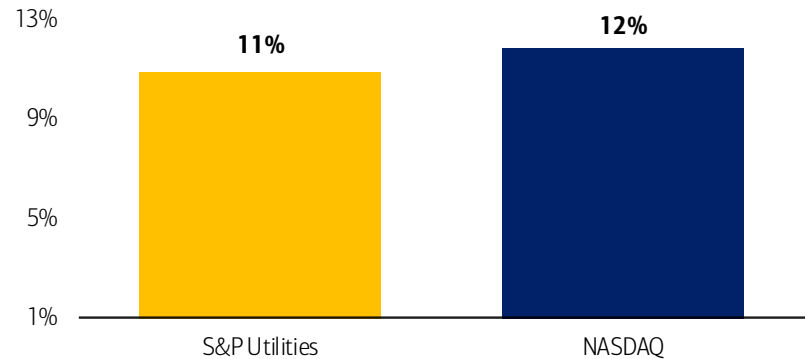
Utilities relative (versus S&P 500) forward PE (1/86-3/24)



Source: FactSet, BofA US Equity & Quant Strategy

Close race for the tortoise and the hare

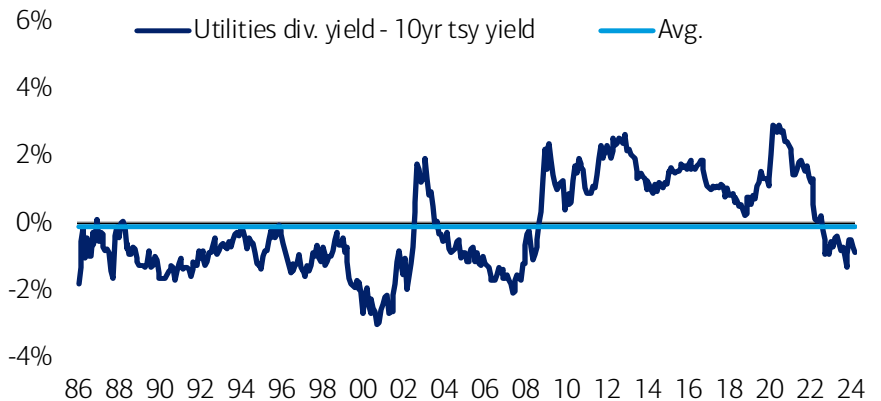
Annualized returns 1980-3/24, S&P Utilities vs. NASDAQ



Source: BofA US Equity & Quant Strategy, Datastream, Bloomberg

Dividend yield back below 10yr Tsy. Yield due to untenable renewables in a 5ppt cost of capital world

Utilities dividend yield vs. 10yr Tsy spread, 1986-3/24



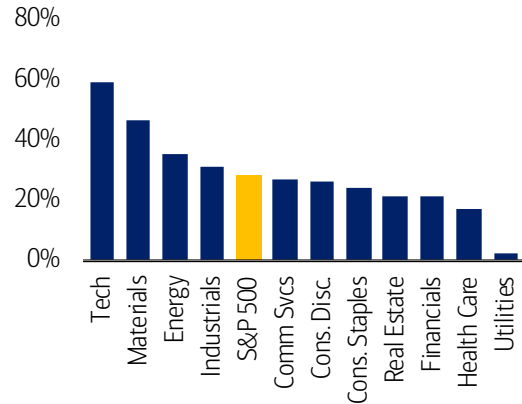
Source: FactSet, BofA US Equity & Quant Strategy



Underweight Tech

Globalization pause is a risk for the sector

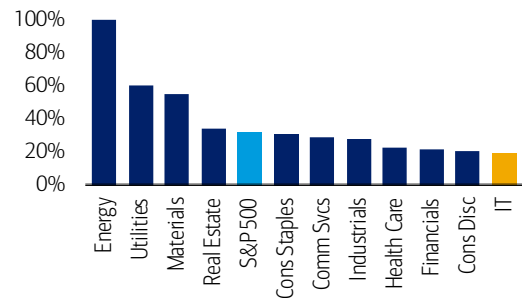
S&P 500 foreign exposure by sector



Source: BofA US Equity & Quant Strategy, 2022FY company filings, FactSet, BofA analyst estimates

Tech lags the S&P 500 in aligning CEO compensation to ESG metrics

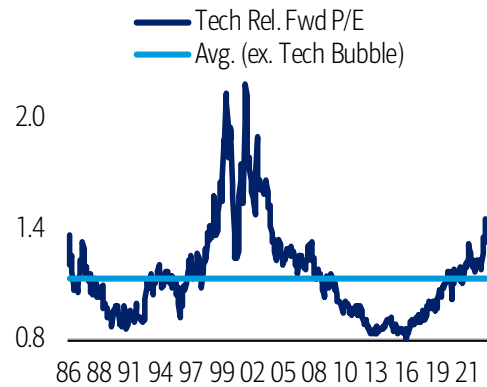
% of S&P 500 companies with ESG metrics as part of CEO short-term compensation plan within the last 3 years, as of 11/2023



Source: BofA US Equity & Quant Strategy, FactSet

Expensive vs. ex-Tech Bubble history

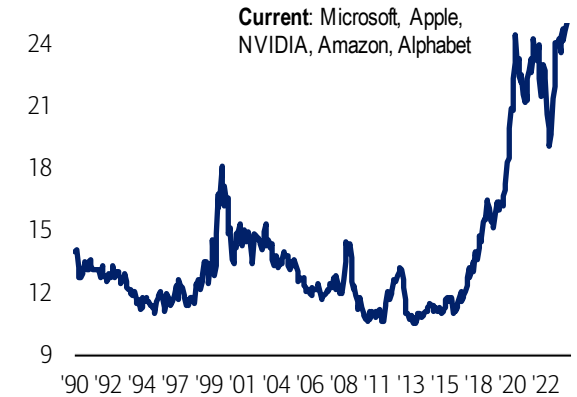
Tech relative fwd PE vs. S&P 500 (1986-3/24)



Source: FactSet, BofA US Equity & Quant Strategy

Concentration risk

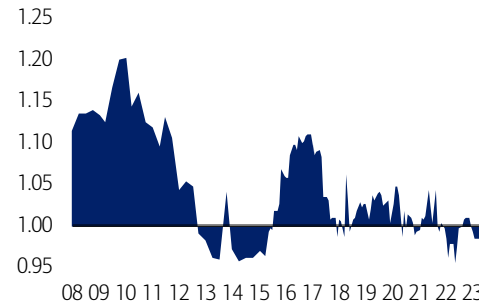
Weight of largest 5 companies in the S&P 500



Source: FactSet, BofA US Equity & Quant Strategy

Long-only positioning back to slight underweight

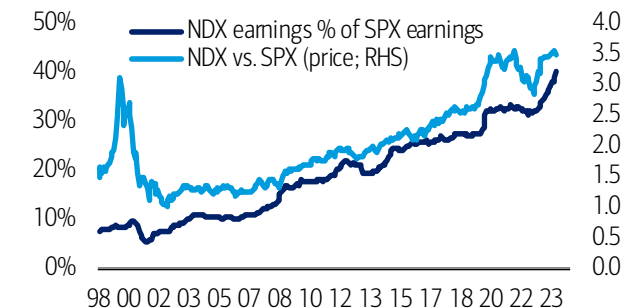
Relative weight (versus S&P 500) in Information Technology by long-only funds, 1/08-2/24



Source: BofA US Equity & Quant Strategy, FactSet

Tech's outperformance has been supported by strong fundamentals so far

Nasdaq 100 earnings as % of S&P 500 earnings vs. Nasdaq's relative performance vs. the S&P 500 (1998-3/24)



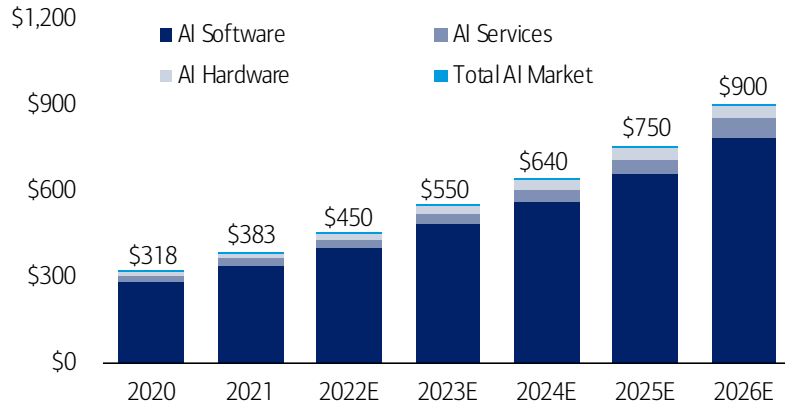
Source: BofA US Equity & Quant Strategy, FactSet



Underweight Tech

AI spend to reach ~900bn by 2026E, mostly via software

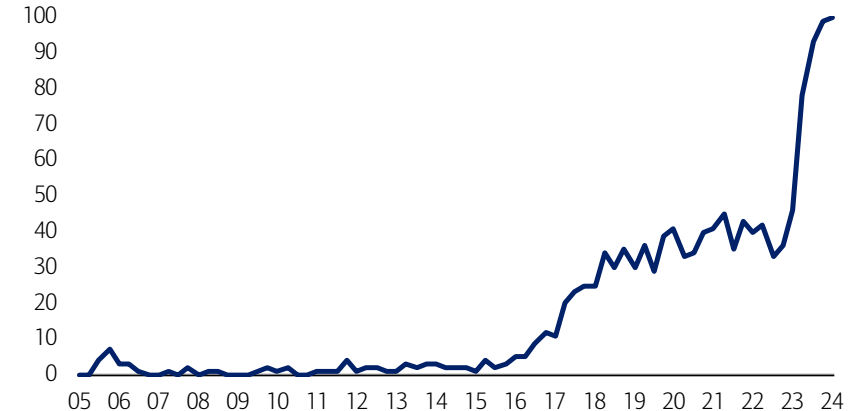
Global AI market size (US\$ bn)



Source: BofA Global Research, IDC

AI spend beneficiary

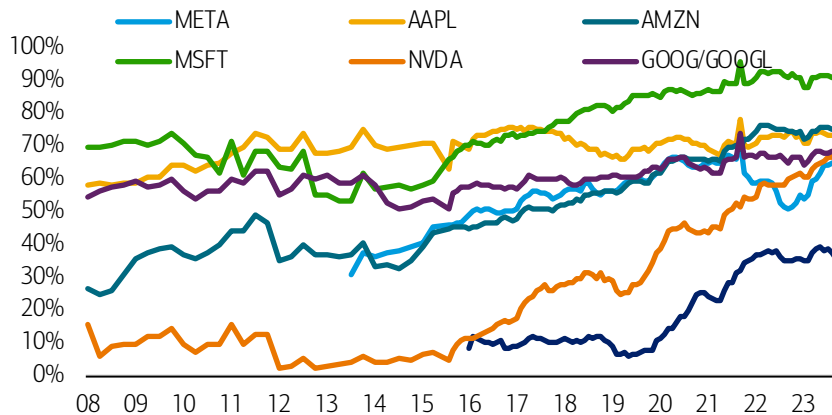
Mentions of "AI" during earnings calls (max = 100; 1Q05-1Q24)



Source: AlphaSense, BofA US Equity & Quant Strategy

Obvious way to play AI: buy capex takers like NVDA....

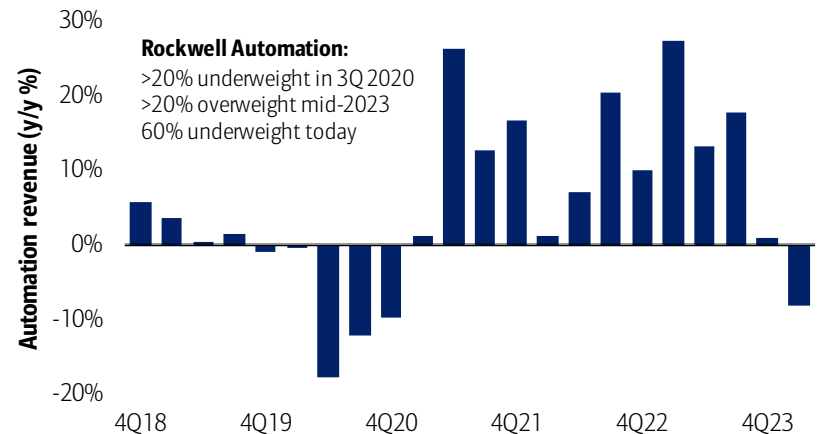
% of large cap long only active funds owning each ticker (as of 2/2024)



Source: FactSet, BofA US Equity & Quant Strategy

...but capex takers are not perennial holdings: case study of Rockwell

Organic revenue growth of ROK



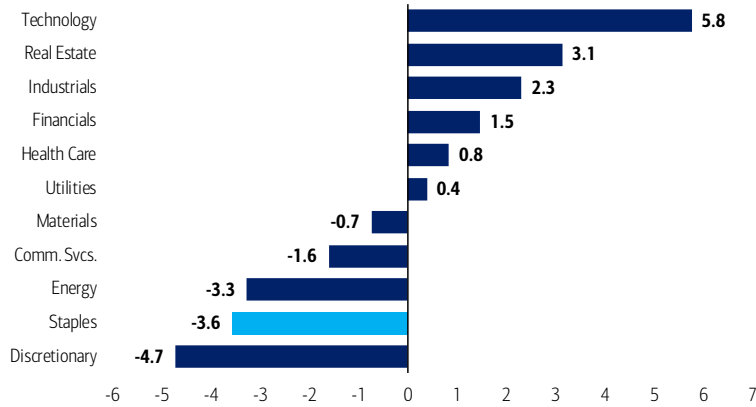
Source: BofA Global Research, FactSet



Underweight Consumer Staples

Lower quality vs. history

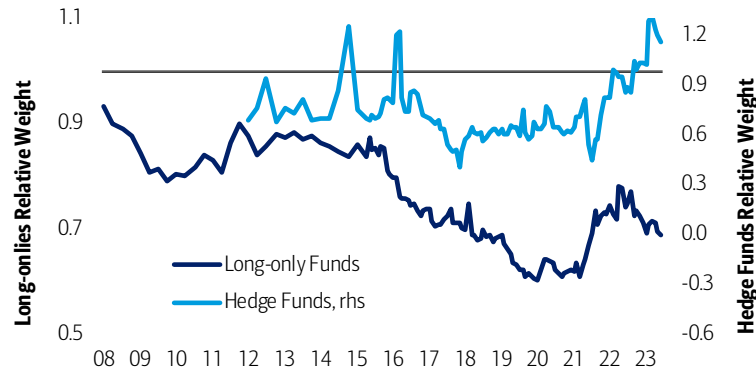
B+ or Better current sector weight vs. historical avg (ppt), as of 3/24



Source: FactSet, BofA US Equity & Quant Strategy. Note: based on equal weight (number of companies), Real Estate since 5/2003, all other sectors since 1986.

HFs near peak Staples love

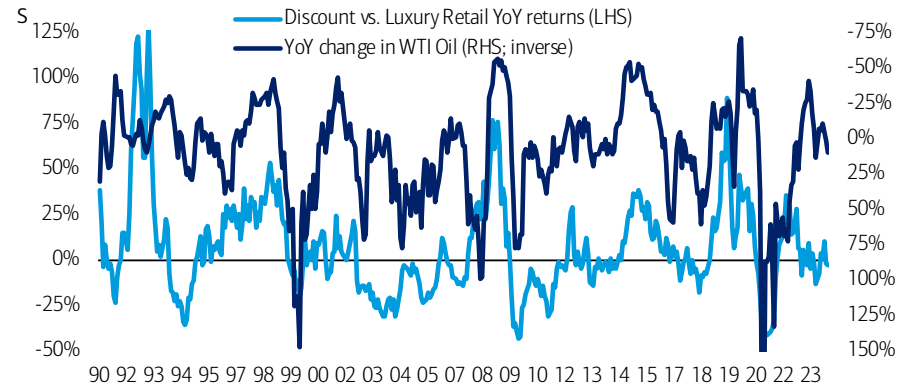
Funds' relative weight in Staples vs S&P 500 (2008-2/24)



Source: BofA US Equity & Quant Strategy, FactSet

Discount retailers underperform luxury retailers amid regressive oil tax on low income consumers

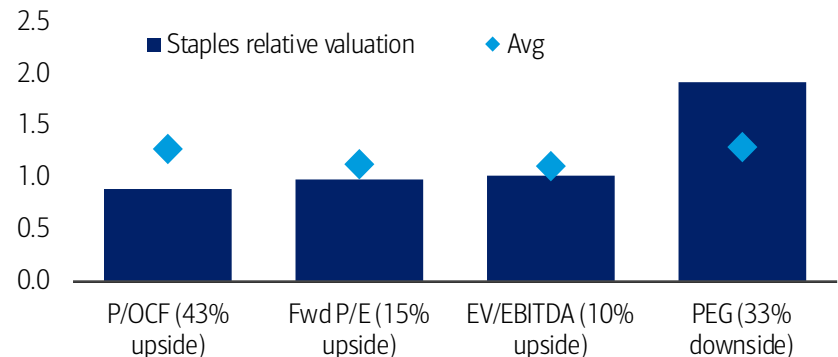
Relative 12m returns of discount vs luxury retailers and 12m change in WTI oil



Source: FactSet, Bloomberg, BofA US Equity & Quant Strategy. Note: Discount retailers performance based on equal-weighted monthly returns of YUM, DLTR, DG, TGT, WMT, MCD, KSS, TJX, ROST. Luxury retailer performance based on equal-weighted monthly returns of CPRI, EL, JWN, TIF (through Sept 2020), TPR, RL

Less expensive, but not cheap

Relative valuations of Staples (vs. S&P 500) percent upside/downside versus historical average as of 3/2024



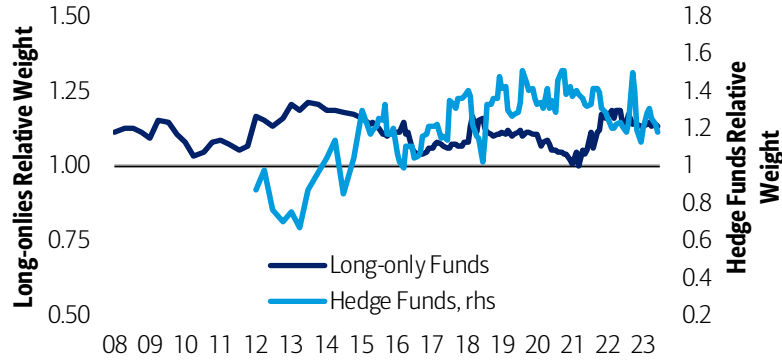
Source: FactSet, BofA US Equity & Quant Strategy



Underweight Health Care

Everyone loves Health Care – near record highs

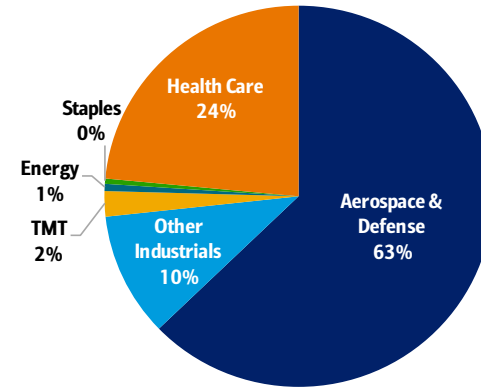
Health Care long-only and hedge fund relative weight vs. S&P 500 (2008-2/24)



Source: BofA US Equity & Quant Strategy, FactSet

Exposed to deficit austerity risks

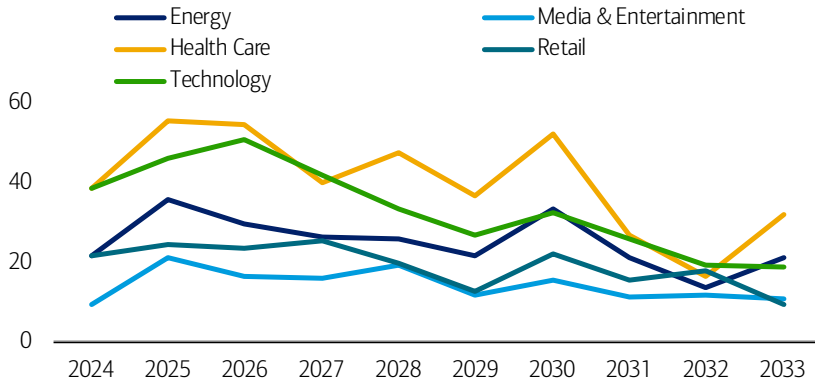
% of Gov't dollar obligated by industry based on top 100 federal contractors in FY22



Source: BofA US Equity & Quant Strategy, Top 100 Contractors Report – SAM.gov

Elevated floating rate risk

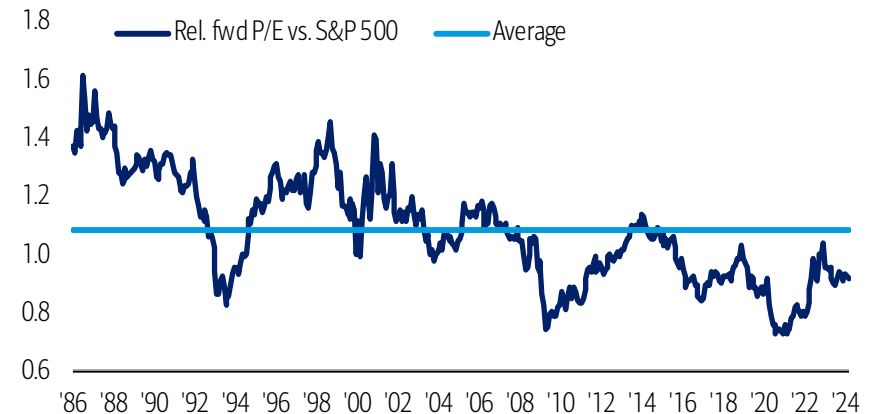
US-domiciled IG issuer bond maturities in the next 10 years for top 5 sectors with the most debt maturing (\$bn)



Source: BofA Global Research, ICE Data Indices, LLC

Some upside on valuation

Health Care relative forward Price/Earnings Ratio (1/86-3/24)



Source: FactSet, BofA US Equity & Quant Strategy

Quantitative Strategy



Global, US & Europe indicators all point up

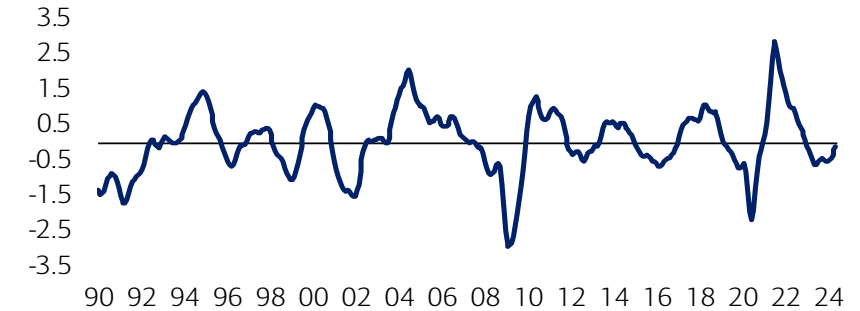


A synchronized Recovery...

Our US Regime indicator continued its Recovery, and other regions are signaling expansion. In Europe, after nine months in Recession, the Style Cycle just flipped to Recovery where it has not been for four years. BofA Research's global quantitative framework, the Global Wave, entered its "Upturn" phase in January and has moved higher since. This marks the first time since September 2020 that all three frameworks are signaling a synchronized Recovery.

US Regime Indicator advanced further in the Recovery phase

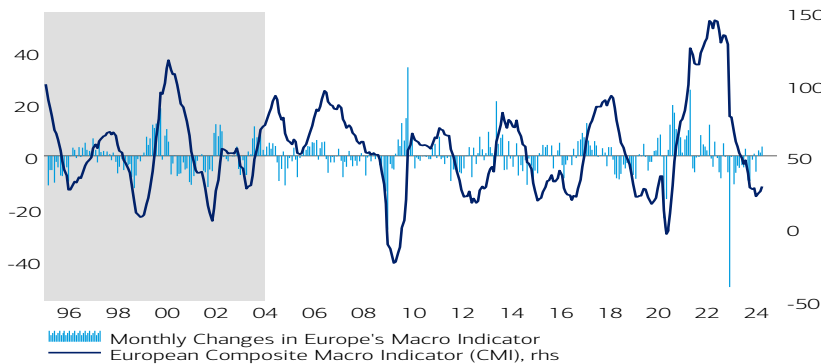
US Regime Indicator (January 1990 - May 2024)



Source: BofA US Equity & Quant Strategy, Refinitiv, ICE Data Indices, LLC, Institute for Supply Management, Bureau of Labor Statistics, Federal Reserve. The indicator identified as the US Regime Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise be relied upon by third parties for any other purpose, without the written consent of BofA Global Research. This indicator was not created to act as a benchmark.

European Composite Macro Indicator (CMI) also moved into Recovery

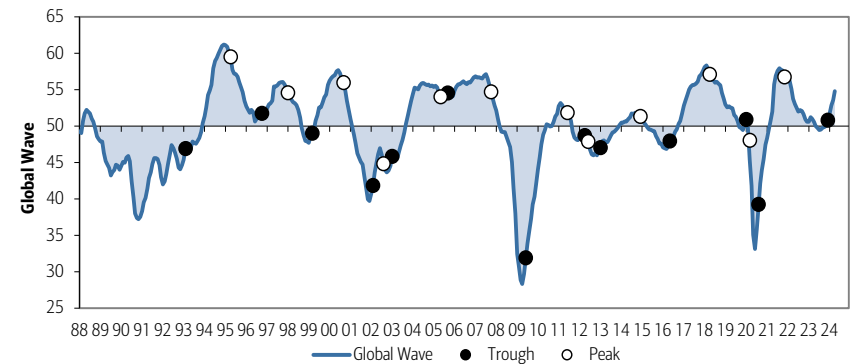
European Composite Macro Indicator (CMI)



Source: BofA European Equity Quant Strategy – Based on BY, GDP Forecasts, OECD, IFO Survey, PPI & EPS Revs. The sentiment indicator identified as European Composite Macro Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research

The Global Wave improved again as macro data continues to strengthen

The Global Wave



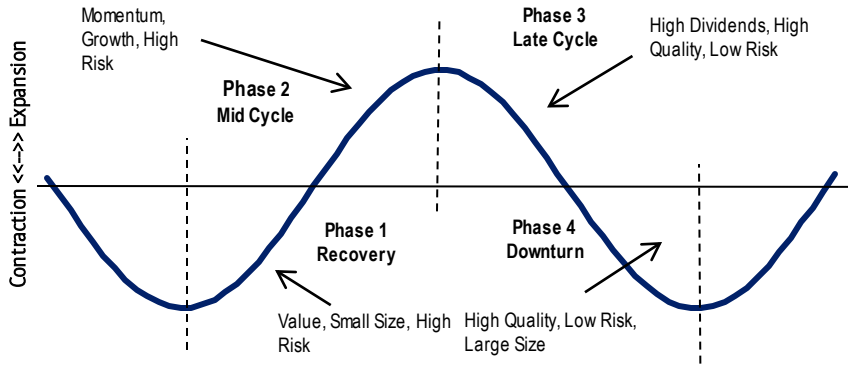
Source: BofA Global Quantitative Strategy, MSCI, IBES, Haver, Bloomberg, OECD, IMF, ICE Bond Indices, National Statistics Database. The sentiment indicator identified as Global Wave above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for other purpose, without the prior written consent of BofA Research. This sentiment indicator was not created to act as a benchmark.

What works in Recovery: Value, Small Size, High Risk



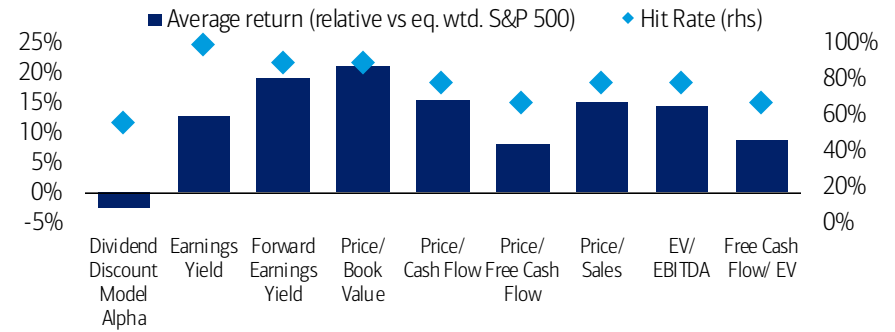
US Regimes – a heuristic

Value, Small Size, and High Risk outperform in Recovery



Deep value factors had highest hit rates in Recovery – 100% for EPS Yield and 89% for Forward EPS Yield and Low Price/Book

Value factors' performance and hit (outperformance) rates during Recoveries



Style performance vs. equal-weighted S&P 500 in the four US Regime indicator phases

		Value	Growth	Momentum	High Quality	Low Quality	High Risk	Low Risk	Large Cap	Small Cap	Low Beta	High Div. Yield
Phase 1 Early Cycle (Current)	Avg:	21.5%	-8.9%	-6.8%	-4.9%	6.2%	17.5%	-8.9%	-6.5%	15.7%	-13.0%	7.5%
	Median:	16.7%	-6.5%	-7.6%	-6.0%	8.4%	11.2%	-10.8%	-6.8%	9.6%	-11.5%	4.8%
	Hit Rate:	100.0%	11.1%	44.4%	33.3%	66.7%	77.8%	33.3%	22.2%	66.7%	11.1%	88.9%
Phase 2 Mid Cycle	Avg:	3.8%	10.9%	11.2%	0.8%	3.9%	11.0%	-6.6%	-2.1%	6.0%	-12.6%	-6.7%
	Median:	4.3%	2.3%	4.0%	-0.7%	2.2%	10.3%	-4.9%	-6.6%	9.1%	-12.1%	-7.1%
	Hit Rate:	77.8%	66.7%	77.8%	44.4%	66.7%	77.8%	22.2%	33.3%	77.8%	0.0%	11.1%
Phase 3 Late Cycle	Avg:	-0.8%	-6.2%	-3.4%	3.5%	-6.9%	-11.4%	8.4%	-1.2%	-7.6%	7.0%	7.5%
	Median:	-0.9%	-1.8%	2.3%	5.8%	-6.6%	-8.9%	9.8%	2.3%	-8.1%	3.2%	3.5%
	Hit Rate:	44.4%	33.3%	55.6%	66.7%	22.2%	11.1%	77.8%	55.6%	11.1%	55.6%	77.8%
Phase 4 Downturn	Avg:	-3.2%	1.5%	2.4%	7.5%	-3.1%	-3.7%	2.3%	6.7%	-3.6%	-2.5%	-3.9%
	Median:	-6.9%	1.1%	-0.1%	7.6%	0.0%	0.0%	3.0%	6.6%	-7.7%	-0.3%	-6.0%
	Hit Rate:	25.0%	62.5%	50.0%	75.0%	37.5%	50.0%	75.0%	87.5%	12.5%	50.0%	25.0%

Note: Performance is calculated as price return relative to equal-weighted S&P 500, for all styles except High Dividend Yield, where total return for the style and the index are used. Hit rate = % of months in phase where style outperformed equal-weighted S&P 500 and based on the January 1990 – present time period.

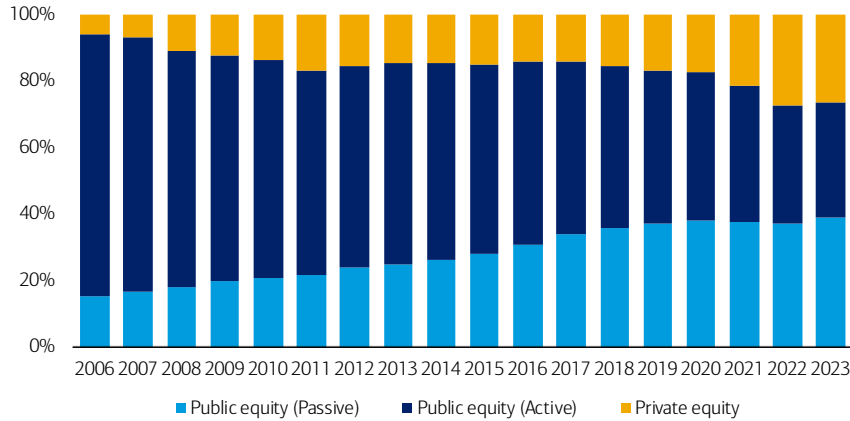
Source: BofA US Equity & Quant. Strategy, Refinitiv, ICE Data Indices, LLC, Institute for Supply Management, Bureau of Labor Statistics, Federal Reserve



Active > Passive - increasing market inefficiencies

Fundamental active equity squeezed out by passive & private

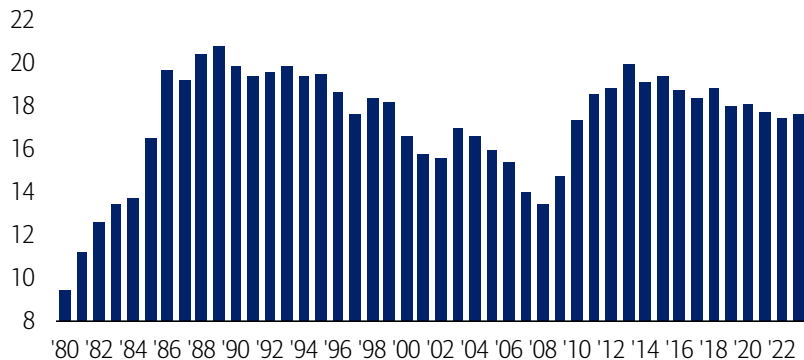
Pension allocation: Public equity (Active)*, Public equity (Passive)*, Private Equity as a % of total equity



Source: BofA US Equity & Quant Strategy, FactSet. Pensions & Investments Research Center (as of 9/2023), Strategic Insights, SimFund, BofA US Equity & US Quant Strategy. Based on US pension funds within the top 1000 that have available asset allocations. Total equity includes public equity (global, international, and domestic) and private equity. *We make assumptions on mix shift based on SimFund US AUM tracked in passive vs active.

Avg. # of analysts covering an S&P 500 stock down 15% since 1990

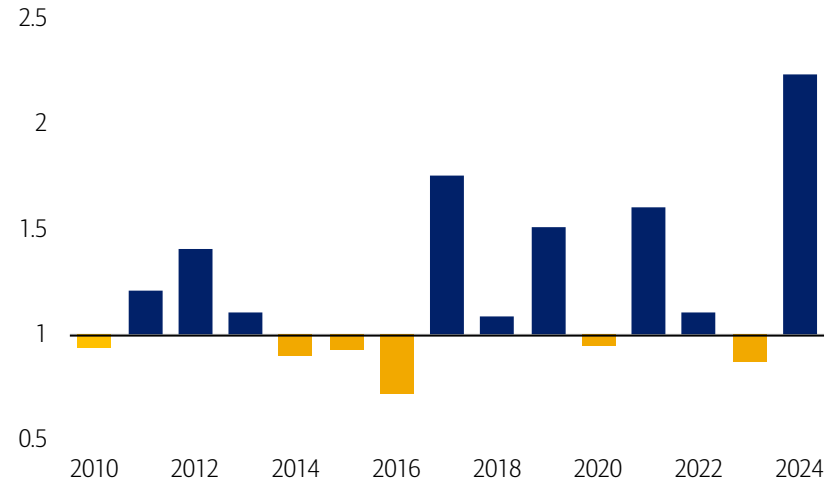
Avg. # of analysts covering an S&P 500 stock (1980-2023)



Source: FactSet, BofA US Equity & Quant Strategy

Russell 2000 saw lower realized vol than S&P 500 in several key years of market stress ('16 Brexit, '20 COVID, '23 SVB crisis)

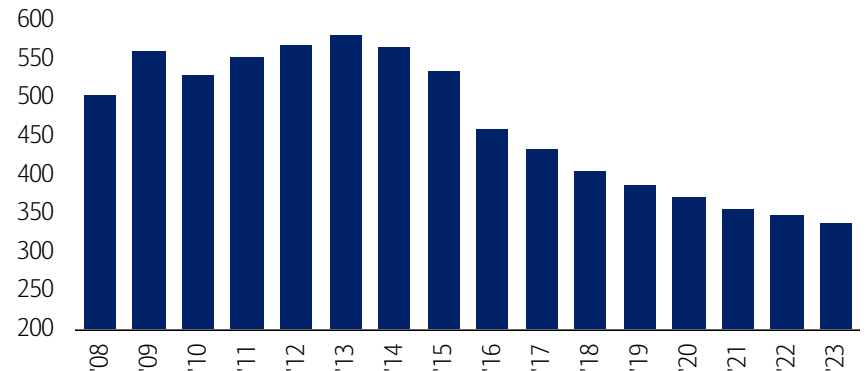
Ratio of Russell 2000 to S&P 500 30-day Realized Volatility (median by year), 2010-2024 YTD



Source: BofA US Equity & Quant Strategy, Bloomberg

of funds - -40% since '13

of large cap US long only funds (2008-2023)



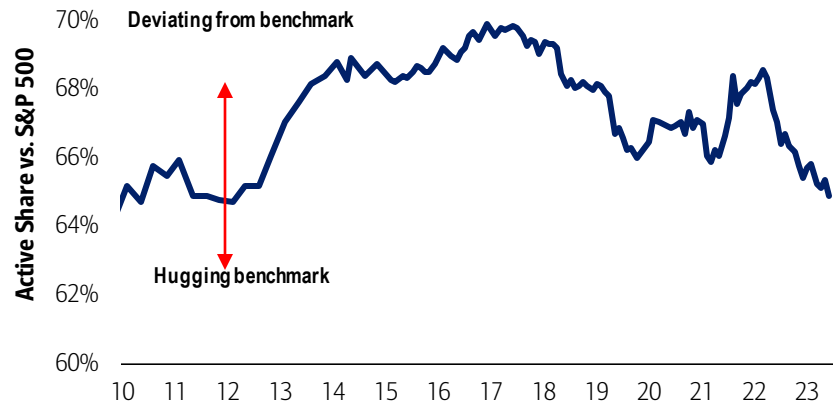
Source: BofA US Equity & Quant Strategy, Lipper, FactSet



From here, it's likely to be a stock pickers' paradise

More benchmark hugging = waning investor conviction

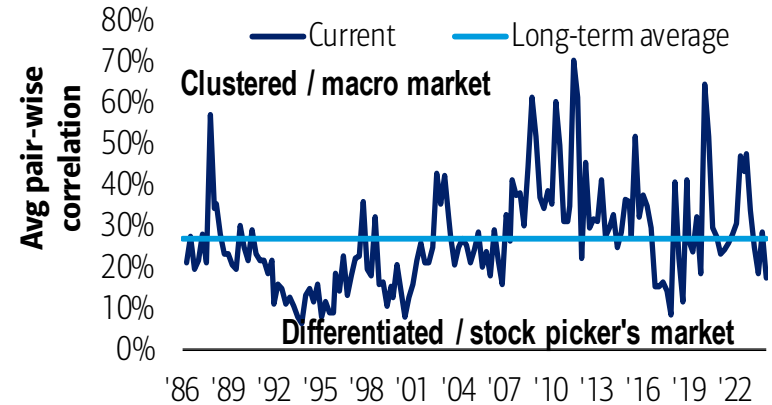
Active share ratio of core managers vs. S&P 500 (Nov. 2010-Apr. 2024)



Source: BofA US Equity & Quant Strategy, FactSet Ownership

Lower pair-wise correlations = more micro, less macro

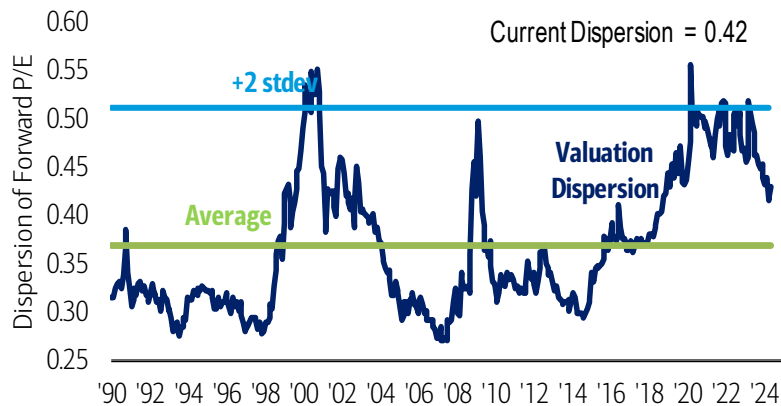
Avg. pair-wise stock correl. based on 90-day periods, daily (as of 5/24)



Source: BofA US Equity & Quant Strategy, FactSet

Elevated P/E dispersion = alpha for value investors

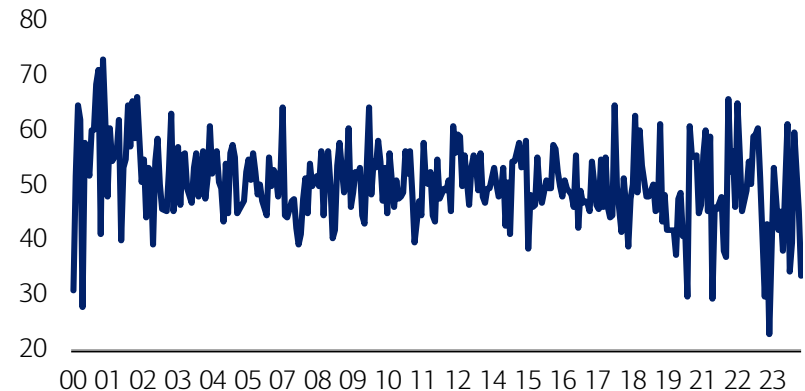
S&P 500 valuation dispersion of fwd P/E (std. dev / avg) (1990-5/2024)



Source: BofA US Equity & Quant Strategy, FactSet

Risk: market breadth narrowed again

% of stocks outperforming S&P 500 over the last month (as of 5/24)

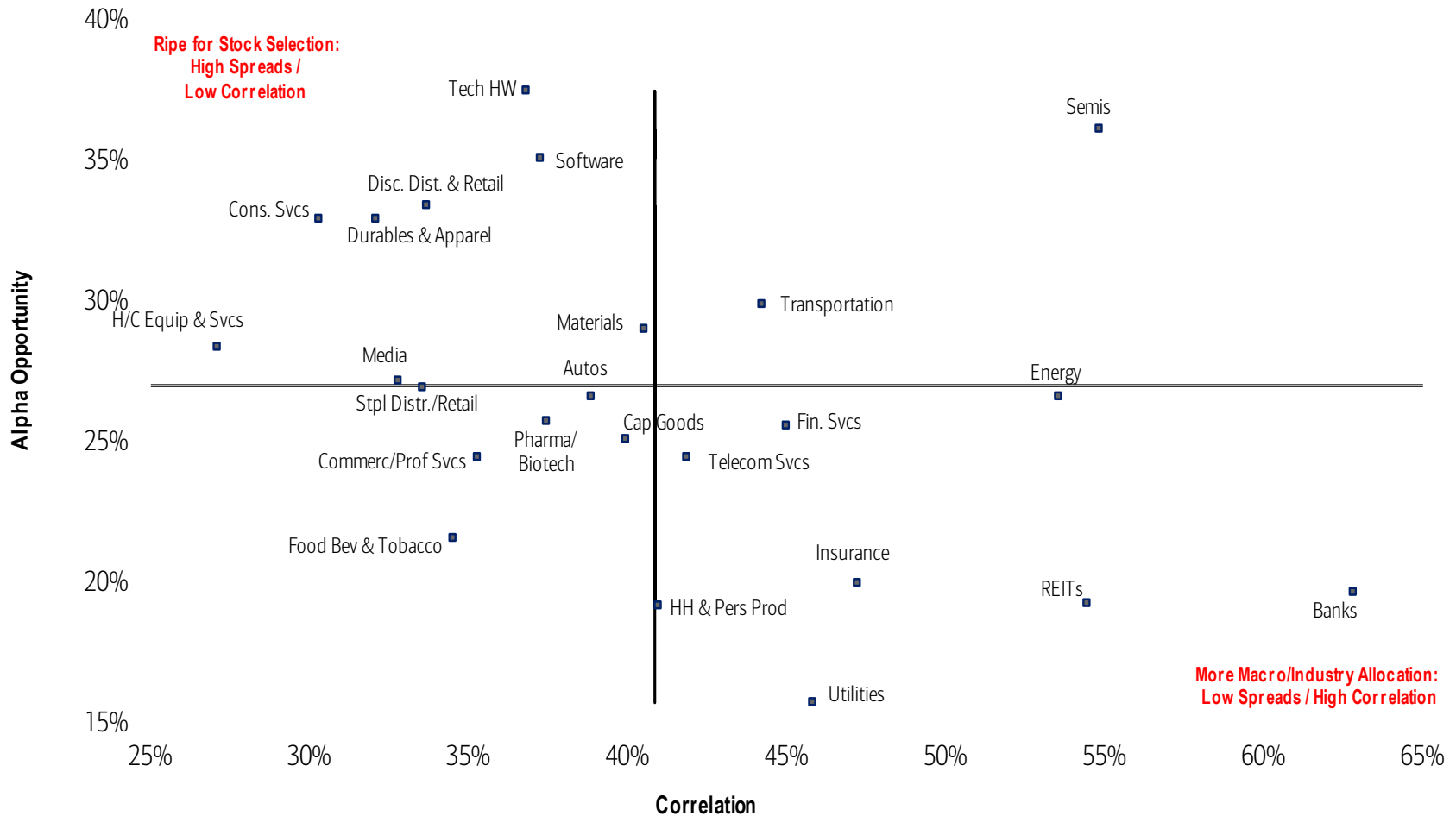


Source: BofA US Equity & Quant Strategy, FactSet



Pick your battles: correlations vs. dispersion by sector

Historical Intra-stock correlation vs. performance spread (3Q86 to 1Q24)



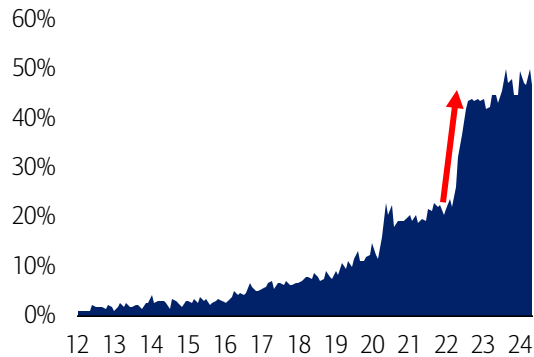
Source: BofA US Equity & Quant Strategy, FactSet



Perils of market timing

0-day S&P options volume now accounts for nearly half of all S&P options volume

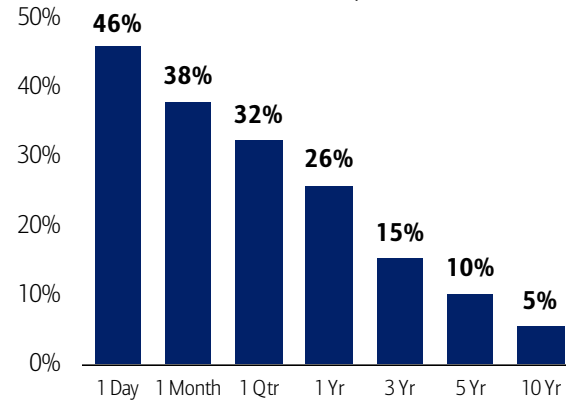
SPX 0-days to expiry option volume as a % of total options volume (as of 5/2024)



Source: BofA Global Research, Bloomberg

As time horizons increase, equity losses drop

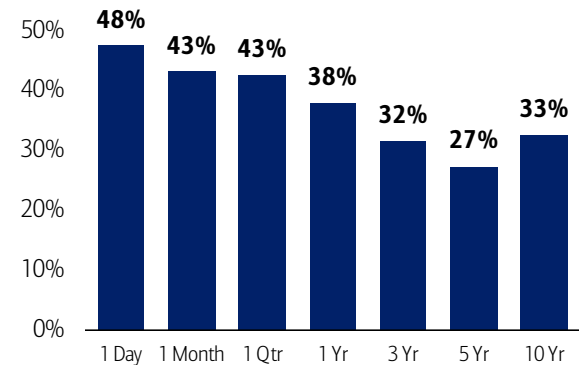
Probability of negative returns, based on S&P 500 total returns from 1929-present as of 5/24



Source: Bloomberg, BofA US Equity & Quant Strategy

Time not compelling for all asset classes

Probability of negative returns*



Source: Bloomberg, BofA US Equity & Quant Strategy. *Based on WTI oil returns from 1929-present for annual/ 3yr/5yr/10yr, 1974-present for quarterly/ monthly and 1986-present for daily

Market timing can lead to missing out on the best days

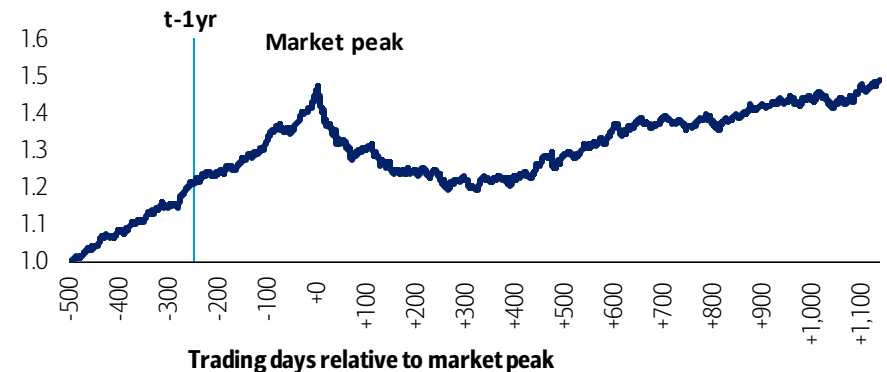
S&P 500 returns by decade excluding the 10 best and 10 worst days, as of 6/4/24

Decade	Price return	Excluding best 10d per decade	Excluding worst 10d per decade	Excluding best/worst 10d per decade
1930	-42%	-79%	39%	-50%
1940	35%	-14%	136%	51%
1950	257%	167%	425%	293%
1960	54%	14%	107%	54%
1970	17%	-20%	59%	8%
1980	227%	108%	572%	328%
1990	316%	186%	526%	330%
2000	-24%	-62%	57%	-21%
2010	190%	95%	351%	203%
2020	64%	-9%	214%	74%
Since 1930	24,567%	74%	5,296,667%	37,240%

Source: BofA US Equity & Quant Strategy, Bloomberg

Unless you can pinpoint the peak of the market to within 12 months, you are typically better off remaining invested

Average daily performance index of S&P 500 before and after market peaks 1937 through COVID (2020) market peaks



Source: BofA US Equity & Quant Strategy, Bloomberg

Important Disclosures



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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1}Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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