FAQs

Bullish or bubble-icious?

Quantitative Strategy

08 March 2024

Equity and Quant Strategy
United States

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We raised S&P 500 year-end target from 5000 to 5400

We revised our year-end S&P 500 target to 5400 from 5000 (see Target) and have had a full week of feedback and pushback. We hear that sentiment is now "full bull", the market is trading in bubble-like territory, and it is time for something else to break from the Fed's aggressive monetary policy. We address FAQs here, essentially derivatives of one very direct question on a recent call: "Savita, are you forecasting a bubble?"

Q: What defines a bubble, and is the S&P 500 one?

A: Prior market bubble conditions include (1) a gap between price and intrinsic value, (2) democratization of the asset class, and (3) rampant speculation, often amplified by the use of leverage. Housing in 2007, Tech in 2000, tulips in 1637 are examples that tick these boxes. But the S&P 500 today does not: passive/index ownership (most of which is a proxy for the S&P 500) makes up just over half of US equity float, but Japan passive equity reached 80%. Moreover, CFTC data show net short positions by speculators. The gap between price and intrinsic value is high based on snapshot PE multiples, but the ex-Magnificent 7 trades closer to long-term average multiples, and, more importantly, today's index lacks comparability to prior decades', in our view.

Q: So historical valuation doesn't matter?

A: Valuation matters. But comparing a trailing PE today to a trailing PE of prior decades makes little sense given the index's mix shift. Furthermore, companies have been forced to abandon low quality EPS growth (levered buybacks, global cost/tax arbitrage) to focus on efficiency, yielding more predictable margins and warranting a higher multiple. Finally, valuation is a poor predictor in the short-term (r-sq of 10% for 1yr returns) but is all that matters in the long-term. Today it indicates lower price returns over the next decade with a higher proportion of total return from dividends.

Q: Is it 1995 or 1999?

A: More 1995. US equity sentiment is at almost precisely the same level as in 1995 based on our Sell Side Indicator – neutral, not wildly bullish like 1999. The S&P 500 ERP is at almost the same level as in the mid-90s, and actually went negative by 1999. The efficiency/productivity themes of today (AI, automation) are nascent like the PC revolution was in the mid-90s. In 1999, Tech was valued on price to eyeballs, today, the earnings contribution and capital discipline of TMT is similar to that of 1995's Nifty 50.

Q: Where is equity sentiment today, really?

A: The net message of investor sentiment frameworks is neutral on US equities. Bull markets end with euphoria, and today euphoria has been ring-fenced to themes (AI, GLP-1 etc.) Sentiment *has* warmed up on equities since mid-2023, driving our slightly lower level of conviction in an up market, but is nowhere near bullish levels of prior market peaks. In our view, this bull market has legs.

Refer to important disclosures on page 11 to 13.
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Timestamp: 08 March 2024 08:56AM EST

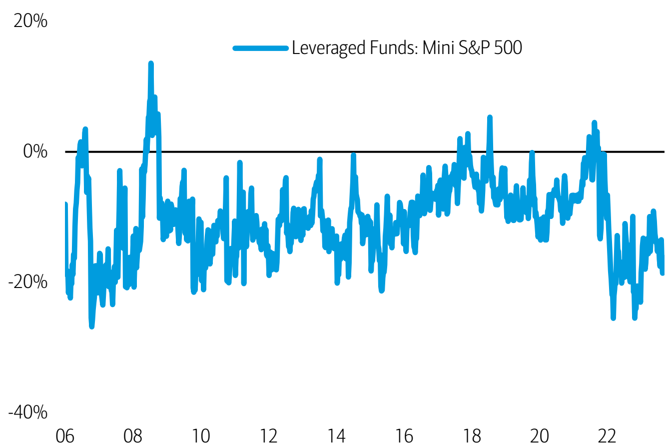
Savita, are you forecasting a bubble?

We revised our year-end S&P 500 target to 5400 from 5000 last weekend, and have had a full week of feedback. From our conversations, we sense that the prevailing view is sentiment is now "full bull", the market is trading in bubble-like territory and it's time for something else to break from aggressive monetary policy since 2022. We address the FAQs here, which are derivatives of one very direct question we received on a recent call: "Savita, are you forecasting a bubble?"

Q: What defines a bubble, and is the S&P 500 one?

A: Prior market bubble conditions include (1) a gap between asset price and intrinsic value, (2) democratization of the asset class, and (3) rampant speculation, often amplified by the use of leverage. Housing in 2007, Tech in 2000, tulips in 1637 are examples that tick these boxes. But for the S&P 500, passive makes up just over half of float, where Japan passive equity reached 80% of AUM. CFTC data show net short positions by speculators. The gap between price and intrinsic value is high on snapshot multiples, but S&P 500 ex-Magnificent 7 trades closer to long-term multiples; and more importantly, today's index is incomparable to prior decades', in our view.

Exhibit 1: Speculators are short and historically bearish on the S&P 500
Leveraged funds net total mini S&P 500 futures contract positioning (6/2006-2/23/2024)



Source: BofA US Equity & Quant Strategy, CFTC

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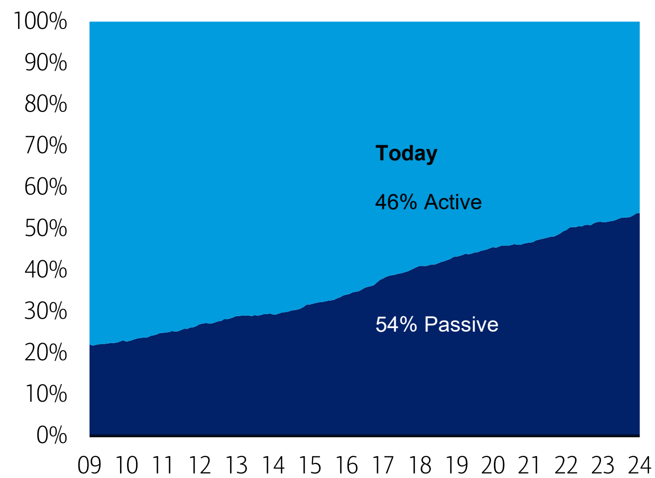
Exhibit 2: Passive now accounts for the majority of US domiciled AUM
US AUM allocation active vs passive (2009 to 1/2024)



Source: Strategic Insights SimFund, BofA US Equity & Quant Strategy

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The S&P 500 is statistically expensive on 19 of 20 metrics

Exhibit 13: S&P 500 Valuations – shading indicates that metric is statistically expensive relative to history (as of 2/22/24)
S&P 500 valuation metrics

Metric	Current	Average	Avg. ex. Tech Bubble	Min	Max	% Above (below) avg	Z-Score	History
Trailing PE	23.2	14.8	14.5	5.2	30.5	56.5%	1.7	1900-present
Trailing GAAP PE	27.6	15.1	14.8	4.2	122.4	82.5%	1.4	1832-present
Forward Consensus PE	20.8	15.8	15.0	9.8	25.1	32.0%	1.5	1986-present
Trailing Normalized PE	24.7	19.1	17.8	9.2	34.5	29.4%	1.1	9/1987-present
Median Forward P/E	17.3	15.5	15.3	10.0	21.9	11.4%	0.8	1986-present
Shiller PE	30.8	17.4	16.8	4.8	44.2	77.1%	1.9	1881-present
P/BV	4.7	2.7	2.5	1.0	5.3	76.9%	2.0	1978-present
EV/EBITDA	15.1	10.5	10.2	6.0	17.1	43.1%	1.9	1986-present
Trailing PEG	2.4	1.7	1.6	1.1	3.2	43.1%	2.1	1986-present
Forward PEG	2.1	1.4	1.4	0.9	3.5	44.7%	1.8	1986-present
P/OCF	17.0	11.3	10.7	5.4	19.3	50.3%	1.7	1986-present
P/FCF	29.5	27.8	25.0	12.9	65.7	5.9%	0.2	1986-present
EV/Sales	3.0	2.0	1.9	0.9	3.4	51.3%	1.8	1986-present
ERP (Market-Based)	563.0	504.8	521.2	136.0	880.0	11.5%	0.2	11/1980-present

Exhibit 13: S&P 500 Valuations – shading indicates that metric is statistically expensive relative to history (as of 2/22/24)
S&P 500 valuation metrics

Metric	Current	Average	Avg. ex. Tech Bubble	Min	Max	% Above (below) avg	Z-Score	History
Normalized ERP	231	384	432	-120	929	-40.0%	-0.8	1987-present
S&P 500 Div. Yld. vs 10yr Tsy. Yld.	0.5	1.2	1.2	0.2	4.2	-62.6%	0.0	1792-present
S&P 500 in WTI terms	49.3	26.9	24.7	2.7	175.3	83.0%	36.4	1960-present
S&P 500 in Gold terms	2.2	1.6	1.4	0.2	5.5	34.7%	0.0	1968-present
S&P 500 vs R2000 Fwd. P/E	1.4	1.0	1.0	0.8	1.7	35.3%	0.3	1986-present
S&P 500 Market Cap/GDP	1.27	0.66	0.63	0.22	1.64	92.5%	3.0	1964-present

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

*Above average implied equities are attractive relative to bonds. Note: Trailing P/E based on GAAP EPS from 1900-77, Operating EPS from 1978-87, Pro forma EPS 1988-now. Trailing GAAP P/E based on GAAP P/E for entire series. Market-based ERP based on DDM-implied S&P 500 return less AAA corp bond yield. Normalized ERP based on normalized EPS yield less normalized real risk-free rate.

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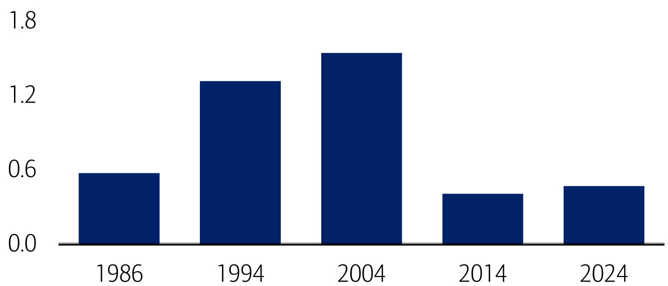
Does comparing today's PE to that of prior decades make sense?

Today's S&P 500 is half as levered, is higher quality and has similar or lower earnings volatility than in prior decades. The index composition has shifted from 70% asset-intensive manufacturing, financials and real estate in 1980 to 50% asset-light innovation-oriented companies today.

Exhibit 3: Leverage lower than 1990s-early 2000s
S&P 500 non-Financials net debt/Equity, 1986-present



Source: FactSet, BofA US Equity & Quant Strategy

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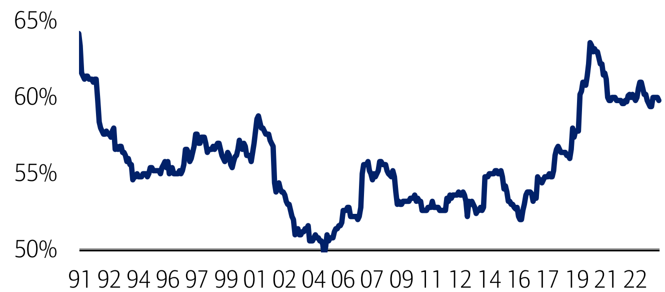
Exhibit 4: Higher quality composition than prior decades
S&P 500: % of B+ or better quality-rated stocks, 1990-1/24



Source: FactSet, BofA US Equity & US Quant Strategy

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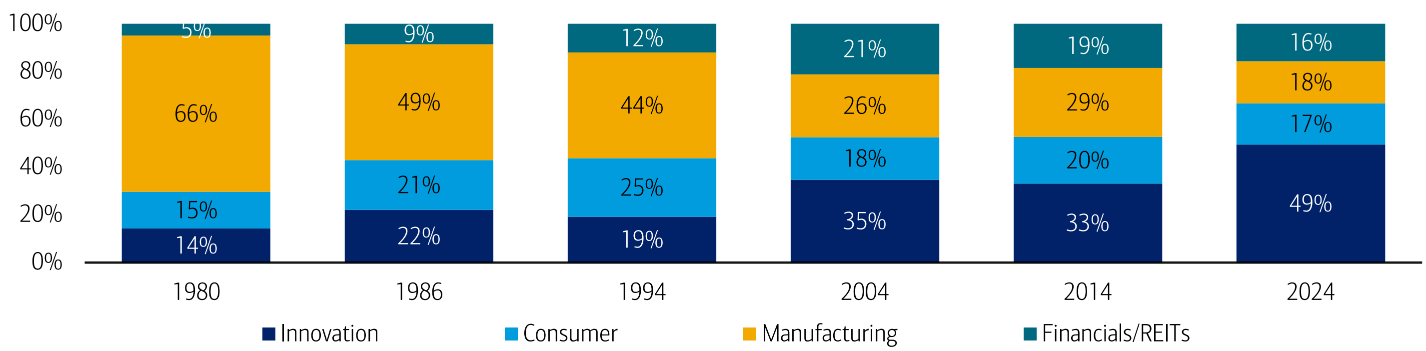
Exhibit 5: 50% of S&P 500 is asset-light sectors today vs <15% in 1980; Manufacturing is <20% of index today vs 66% in 1980
% of S&P 500 market cap by sector, 1980-present (Asset light / Innovation = Tech, Comm. Services ex-Telecom & Health Care, Consumer =Staples/Discretionary, Manufacturing/Asset Intensive/Capex = Industrials, Materials, Energy, Utilities, Telecom)



Source: Haver Analytics/S&P Analyst Handbook, FactSet, BofA US Equity & Quant Strategy

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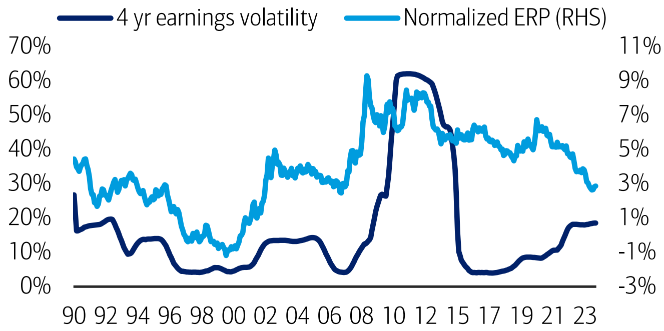
Exhibit 6: Equity risk premium moves with earnings volatility
S&P 500 4yr rolling earnings volatility vs Normalized ERP (RHS) (1990-1/2024)



Source: Bloomberg, FactSet, Haver Analytics, BofA US Equity & US Quant Strategy
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Exhibit 7: Prior cycles of similar earnings risk saw lower ERP
Average Norm. ERP and real rates given different levels of earnings volatility (since 1990)

4yr earnings vol (since 1990) Greater than...	Less than...	Avg. ERP	Avg. Real Rates
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 & US Quant Strategy
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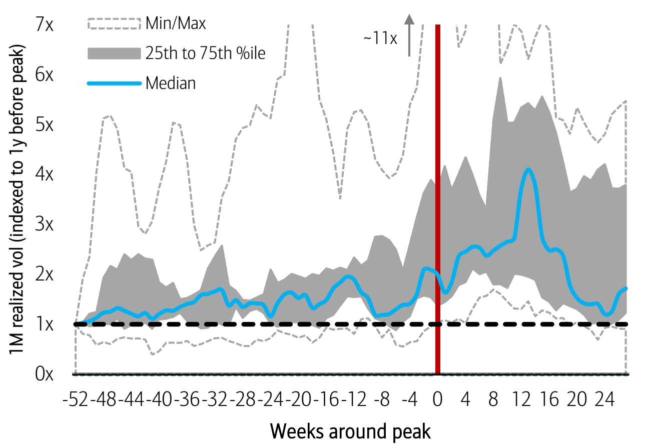
Exhibit 8: Historically, realized vol for assets in a bubble have typically risen as the peak approaches (see our Global Equity Volatility Insights)
1m realized vol for historical asset bubbles



Source: BofA Global Research. Data from Sep-1927 to 18-Dec-2018. Historical asset bubbles cover Dow Jones in Sep-29, Gold in Jan-80, Nikkei in Jan-90, Nasdaq in Mar-00, HSCEI in Oct-07, oil in Jul-08, biotech in Jun-15, Bitcoin in Dec-17 and Arkk in Feb-21.
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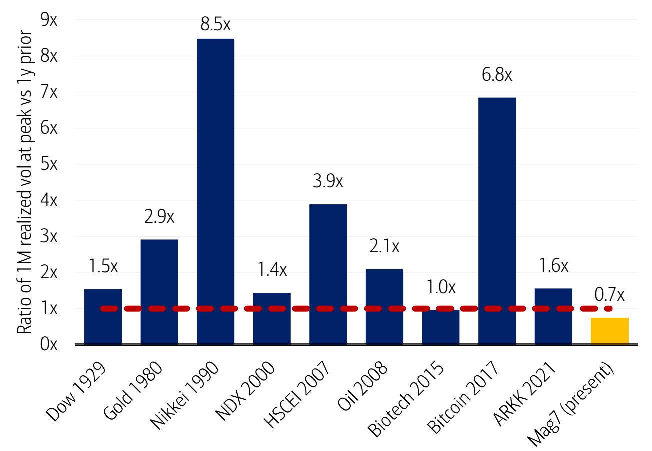
Exhibit 9: Most historical asset bubbles have seen volatility rise substantially prior to the bubble peak as assets begin to trade more on momentum and less on any fundamental grounding
Ratio of 1m realized vol at peaks vs 1y prior, for historical asset bubbles



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).
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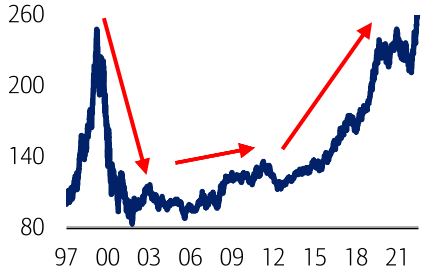
Bubbles can turn into blue chips

Growth stocks can deliver. The 2000 Tech Bubble saw consolidation and relative losses for about a decade (Exhibit 6), but 1 in 5 IPOs of the late 1990s survived and are today's blue chips (Exhibit 7).

Exhibit 6: Tech took 10yrs to recover, but it really recovered
S&P 500 Tech relative performance vs S&P 500 1997-present (indexed to 100 12/31/1997)



Source: BofA US Equity & Quant Strategy, Bloomberg
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Exhibit 7: 1 in 5 IPOs from 1995-2000 are around today
IPO survivorship and annualized performance since inception

Summary Statistics - 1995-2000 IPOs	
Proportion of IPOs around Today	20%
Average Annualized Return	-19%
Median Annualized Return	-16%
Hit Rate	32%
IPOs that survived	
Average Annualized Return of IPOs	1%
Median Annualized Return of IPOs	3%
Hit Rate	62%

Source: FactSet, BofA US Equity & US Quant Strategy
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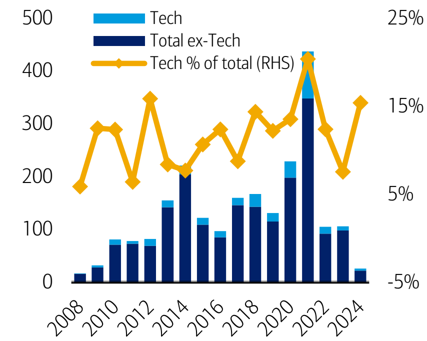
Exhibit 8: Tech IPO supply waning = bullish
US IPO count by year: 2008-YTD 2024



Source: FactSet, BofA US Equity & US Quant Strategy
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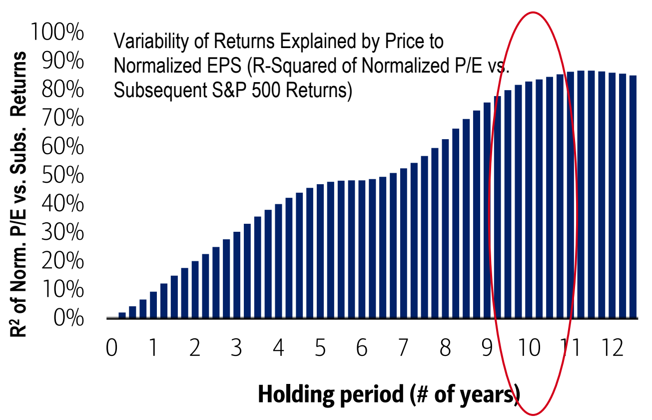
Q: Are you saying historical valuation doesn't matter?

A: No. But comparing a snapshot PE multiple today to a snapshot PE multiple in prior decades makes little sense given the index's mix shift. Furthermore, companies have been forced to abandon low quality EPS growth (levered buybacks, global cost/tax arbitrage) to focus on efficiency, yielding more predictable margins and warranting a higher multiple, and (c) valuation is a poor predictor in the short-term (sentiment is a bigger driver) but is all that matters in the long-term and today indicates lower for longer price returns with a higher proportion of total return from dividends.

Exhibit 10: Valuation is almost all that matters for long-term stock returns
Price to normalized earnings predictive power on subsequent holding period returns (since 1987)



Source: BofA US Equity & US Quant Strategy, Haver Analytics, FactSet
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Exhibit 11: Sentiment is more predictive than valuation in the near term
Predictive Power of Selected Indicators Forecasting 12-Month S&P 500 Returns (8/85-2/24)

Indicator	**R2**
Sell Side Indicator	24%
Sell Side Indicator at extremes (Buy or Sell)	34%
S&P 500 Dividend Yield	11%
Proforma PE	10%
M1 Growth	3%
Fed Model (EPS Yield - 10-Yr Treasury)	1%
Adj. Fed Model (EPS Yld - Real 10-Yr Tsy Yld)	1%
10-Yr Treasury Yield	0%
3-Mo T-Bill Rate	0%
GAAP PE	0%
M2 Growth	0%
BBB to Treasury Spread	0%
Yield Curve (10-Yr - 3-Mo)	0%

Source: BofA US Equity & Quant Strategy. Haver Analytics
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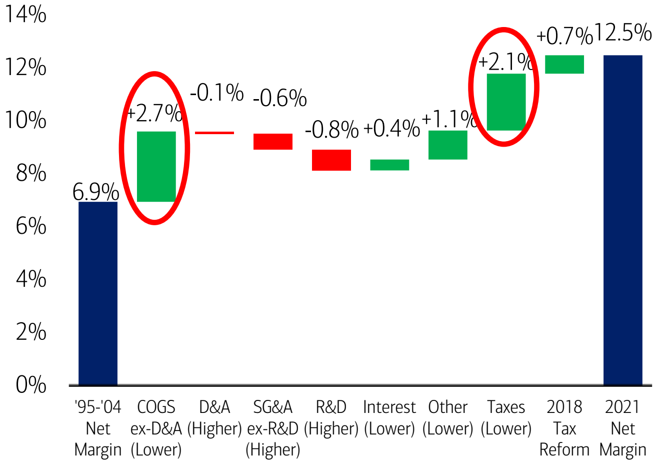
Exhibit 12: Globalization contributed to margin expansion, but is less predictable than efficiency
S&P 500 ex-Fins change in net margin contribution from 1990s to 2021



Source: FactSet, BofA US Equity & Quant Strategy

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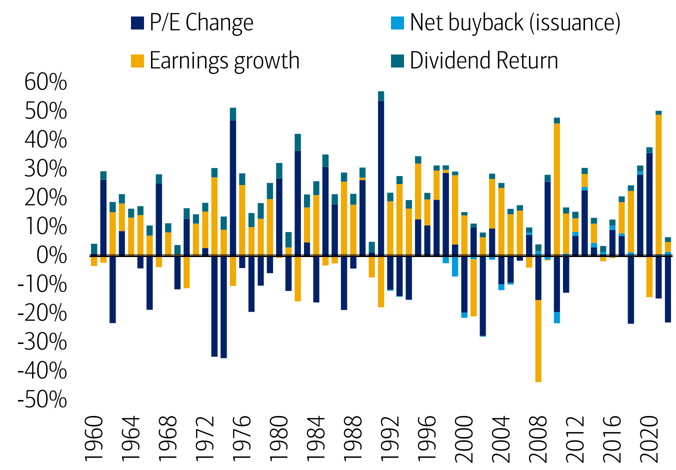
Exhibit 13: Buybacks have added 1ppt/yr of EPS over the past decade
S&P 500 total return decomposition, 1960-2022



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

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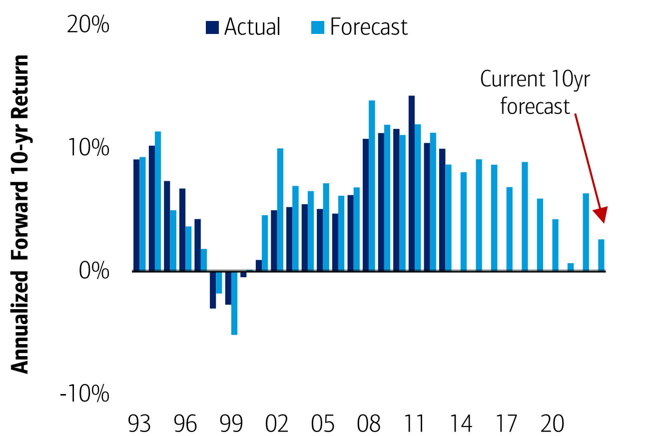
Exhibit 14: Valuation currently suggests 3% p.a. price returns over the next decade
S&P 500 annualized forward 10-yr return: actuals vs model forecast (1993-2/2024)



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

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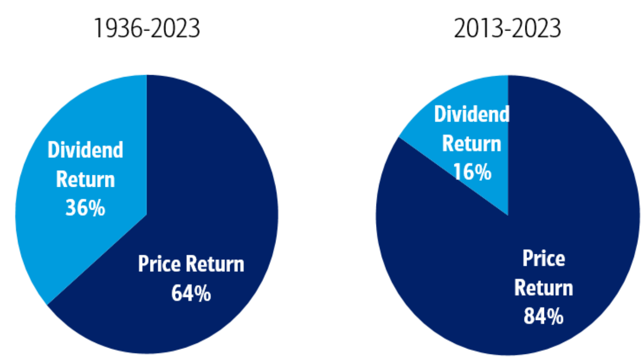
Exhibit 15: Dividends will likely contribute more to total return than they did in the last decade
S&P 500 total returns decomposition



Source: Bloomberg, BofA US Equity & Quant Strategy

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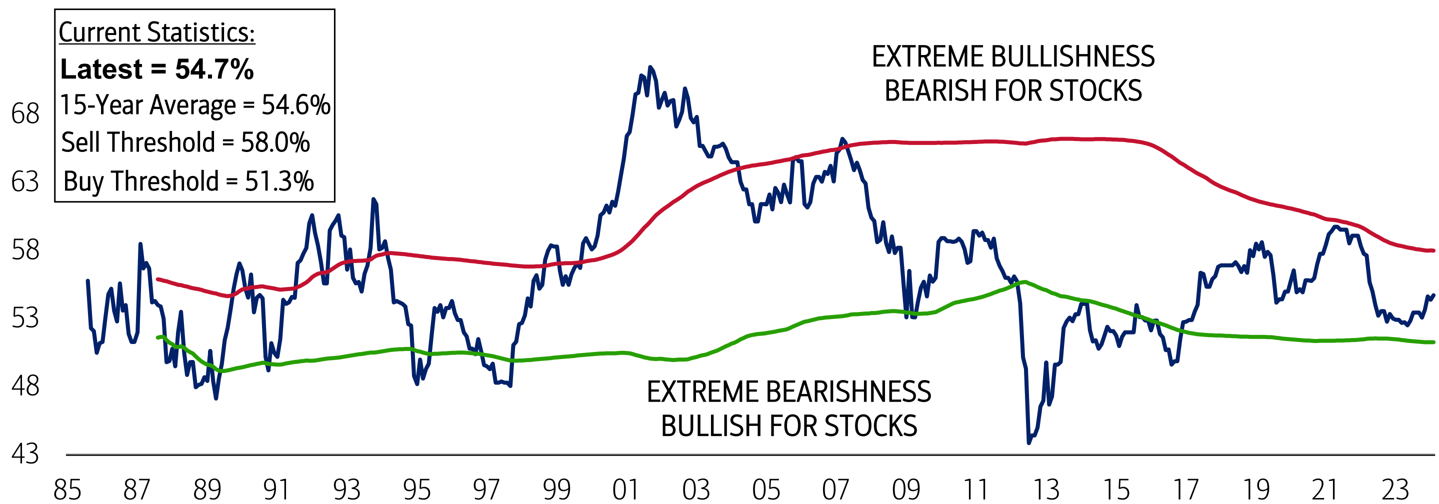
Exhibit 16: Equity allocations today are almost precisely where they were in 1995, far from 1999's euphoria
Sell Side Indicator, 8/1985-2/2024



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

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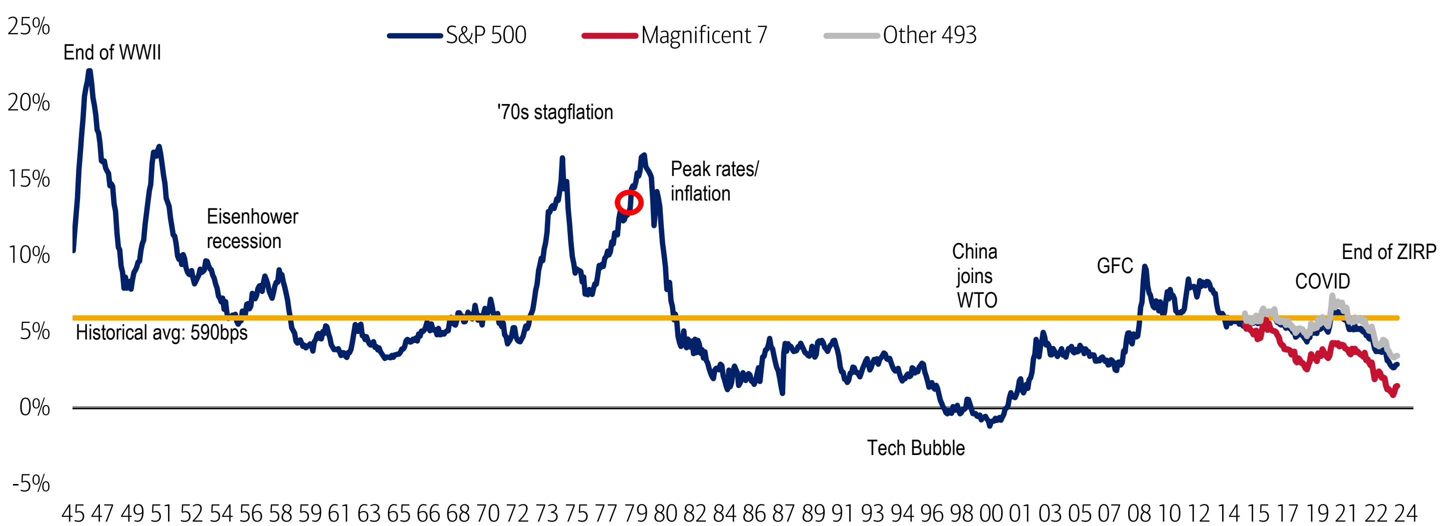
Exhibit 17: Today's ERP is around the same levels as in the mid 90s
S&P 500 normalized equity risk premium 1950-present, with ERP for Magnificent 7 vs rest of index from 2015-present



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

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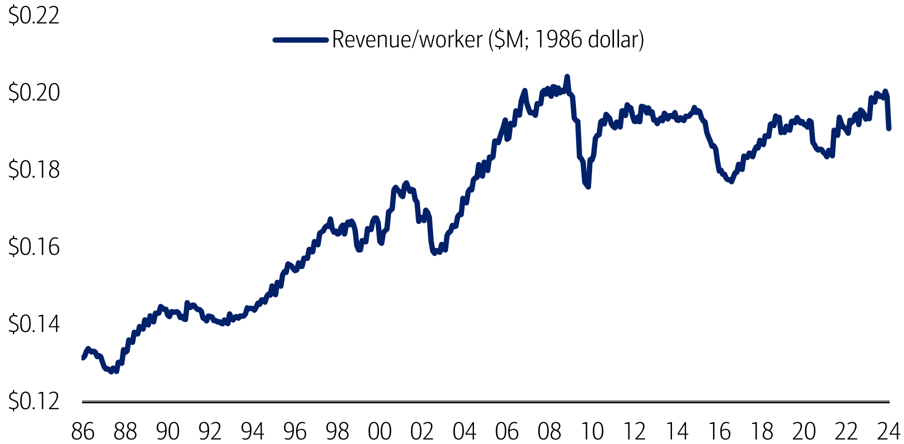
Exhibit 18: 1980s-to early 2000s: labor efficiency gains
S&P 500 companies' revenue per worker ($M 1986 dollar)



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

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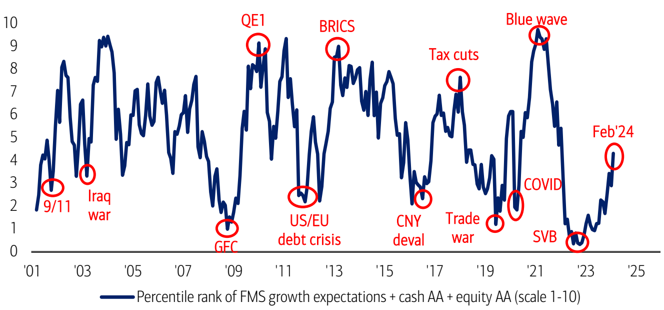
Q: Where is equity sentiment today, really?

A: The net message of investor sentiment frameworks is neutral on US equities. Bull markets end with euphoria, and today euphoria has been ring-fenced to themes (AI, GLP-1 etc.) Sentiment *has* warmed up on equities since mid-2023, driving our slightly lower level of conviction in an up market, but is nowhere near bullish levels of prior market peaks. In our view, this bull market has legs.

Buyside: PMs say they're bullish, but positioning hasn't caught up

Exhibit 18: BofA FMS sentiment most bullish since Jan'22
Percentile rank of FMS growth expectations



Source: BofA Global Fund Manager Survey

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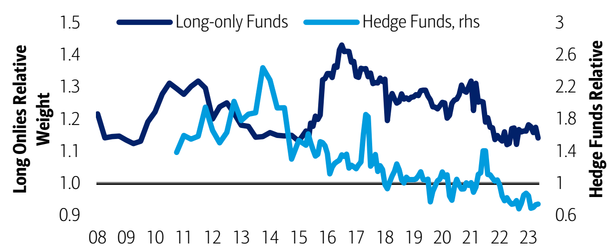
Exhibit 19: ...but LO and hedge fund positioning skews defensive
Long only fund and hedge fund rel. exposure to cyclical vs defensive* sectors within S&P 500 (as of 1/24)



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

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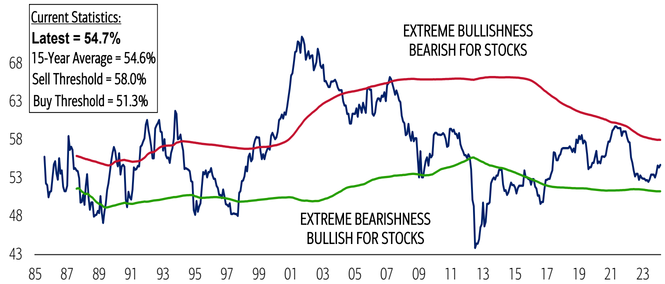
Exhibit 20: Equity sentiment ticked up 33bp in February, moving above its 15-year average
Sell Side Indicator, 8/1985-2/2024



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. The BofA Sell Side Indicator 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.

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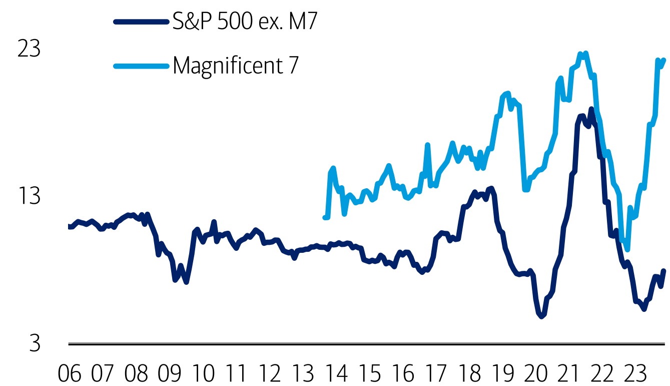
Exhibit 21: LT growth expectations near all-time lows... except for Magnificent 7
Sell side consensus bottom-up long-term growth expectations for S&P 500 (2006-2/2024)



Source: FactSet, BofA US Equity & Quant Strategy

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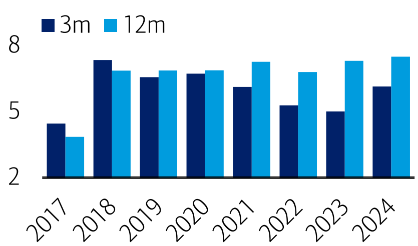
Retail: More bulls than bears

Exhibit 28: Merrill advisor survey: Most near-term bulls since 2021, most 12m bulls in survey history
Average score of respondents (1=Extremely Bearish, 10=Extremely Bullish) based on 3-month and 12-month time frames



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

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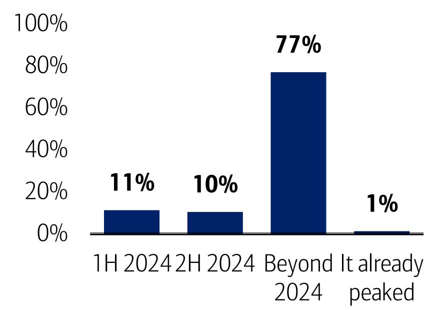
Exhibit 29: FAs expect the bull market to continue beyond 2024
When do you expect the U.S. equity market will peak (signaling the end of this bull market)?



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

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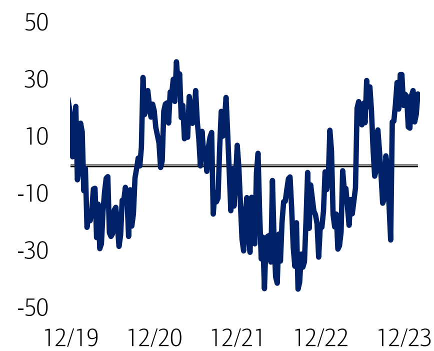
Exhibit 30: AAII: Individual investors 25% net bullish (vs 26% net *bearish* last fall)
AAII: Bull-Bear spread (2019-2/29/2024)



Source: Bloomberg

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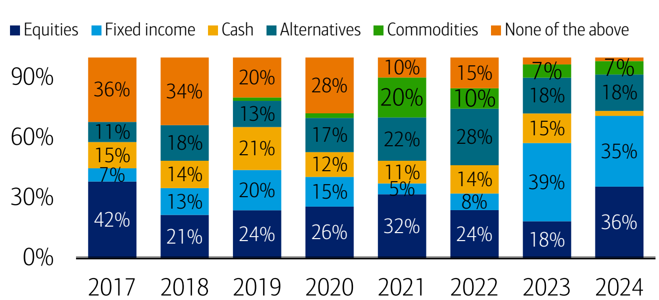
Exhibit 31: 35% of respondents are moving into bonds, similar to the % moving into equities
How are you currently changing your asset allocation? Moving more into...



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

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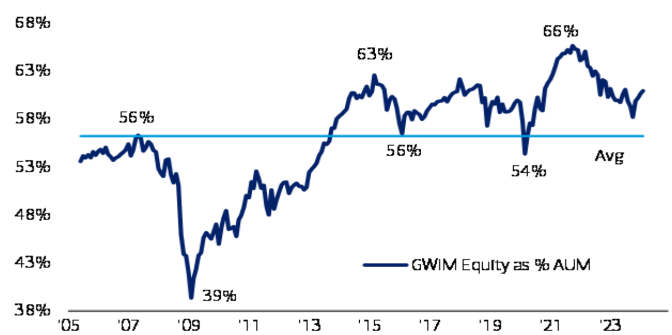
Exhibit 19: GWIM equity allocation at 61%
BofA private client equity holdings as % of AUM



Source: BofA Global Investment Strategy

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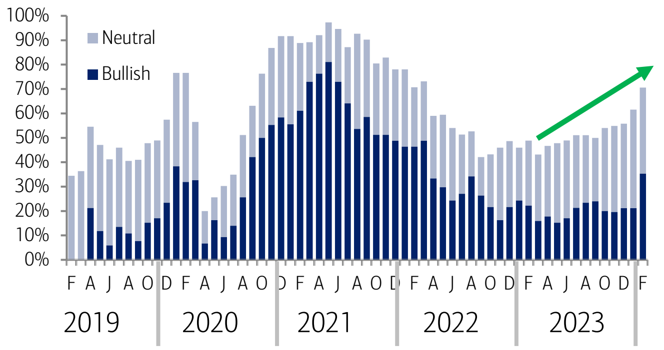
Global sentiment

Exhibit 33: Global growth firming up: 71% Bullish/Neutral signals now vs 43% in March-2023 (see our BofA GPS note)
Proportion of growth indicators providing Bullish/Neutral signal



Source: BofA Predictive Analytics. Notes: Based on 51 growth indicators as of today.

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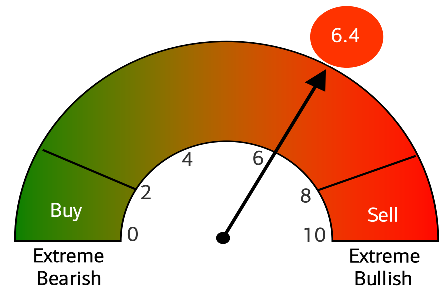
Exhibit 20: BofA Bull & Bear Indicator
Down to 6.4 from 6.6



Source: BofA Global Investment Strategy The indicator identified above as the BofA Bull & Bear Indicator 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.

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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]
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[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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