

Sector Focus Point

Consumer deep dive: a macro, quant and thematic perspective

Death of US consumer has been greatly exaggerated

We deconstruct large cap US consumer stocks (see [SMID companion](#)), where trends in consumption have slowed but defied expectations of collapse from rising borrowing costs and inflation. Why? Termed-out mortgages, tight labor markets and a nascent wealth transfer from cash-rich retirees to strapped Gen Y & Z helped. But real-time data point to a slowdown and a trade-down where higher income jobs have been cut, and AI could continue to disrupt. Overall, we still see more reasons to be bullish than bearish on the US consumer – we remain overweight Discretionary and underweight Staples.

Best stock-pickers' sector; doubly so post-COVID...

Consumer sectors have always had more idiosyncratic risk than others, where brand equity and product differentiation have resulted in lower correlations and higher dispersion across stocks. COVID's consumption impact – stockpiling, B&M to online, services bust to boom, supply chain issues, CPI/oil volatility, labor squeezes, helicopter money – doubled the idiosyncratic industry risk based on industry earnings correlations.

But 2024 is a big macro/policy year: elections, Fed

Globally and in the US, election risks loom large. Tax uncertainty could drive shifts in capex and consumption, or selling in big gainers (AMZN is a top retail holding based on [GWIM data](#)). Immigration/foreign relations policy shifts could affect labor and near-shoring trends, but China tariff impacts are mollified vs. 2018 given supply chain shifts since then. Easy monetary policy is correlated with consumer equity alpha, with four Fed cuts priced in for 2024. A shift in policy could impact stocks sensitive to short rates.

Secular shifts: productivity, automation, AI

Consumer companies are more labor intensive than any other sector and, like most US corporates over the last 20 years, shifted focus from efficiency-driven earnings to lower hanging fruit: global cost arbitrage and cheap capital. But margin risk from higher labor costs has been managed, and trends in automation show a renewed focus on efficiency, driving smoother earnings and multiple expansion – see inside for a case study.

A new aspirational consumer: India

According to Amish Shah, Head of India Strategy ([Survey](#)), shifts from staples to discretionary are in the works (grains to beverages, necessities to experiences). iPhone sales registered a remarkable 52% CAGR, with similar premiumization trends across big ticket (residence, autos) and low price point (laundry, beauty, biscuits). Per capita income should nearly double by FY30, making India the 3rd largest economy.

An empirical toolkit for consumer-focused investors

Positioning data indicate Discretionary being out of favor, which is one reason we are overweight. Also see metrics for picking consumer stocks, AMZN/TSLA impacts and more.

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

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Refer to important disclosures on page 30 to 32.

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GFC: global financial crisis

B&M: brick and mortar

GWIM: Global Wealth & Investment
Management

AMZN: Amazon.com

TSLA: Tesla

Death of US consumer exaggerated

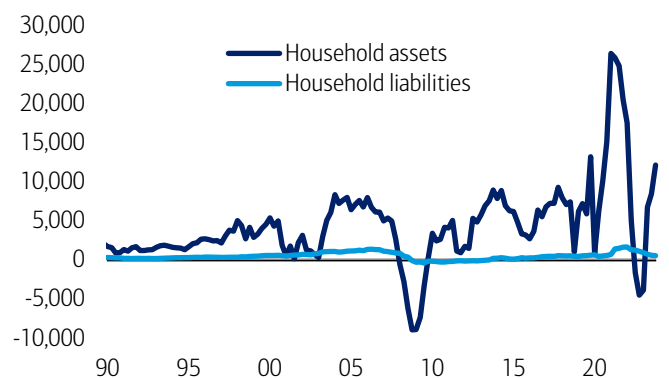
The US consumer has remained resilient despite the fastest Fed tightening cycle ever. Ratios of health based on debt service and financial obligations have risen but remain below pre-COVID levels. Strong balance sheets, especially after unprecedented amounts of fiscal stimulus during COVID, have mitigated the impact of inflation and higher rates. ~90% of US homeowners locked in fixed-rate mortgages, now earning higher returns from cash and equivalents. Demographics and early retirement during COVID have kept the labor market tight, and real wage growth (a strong driver of consumption) inflected to positive territory in mid-2023. While consumption trends have started to slow, we expect the US consumer to remain healthy in 2024.

Consumer balance sheets still strong

Household net worth jumped by \$4.8tn in 4Q23 and is up a remarkable \$39.3tn (140% of GDP) since the pandemic (see [economics note](#)).

Exhibit 1: Household assets rebounded sharply in 4Q 2023

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

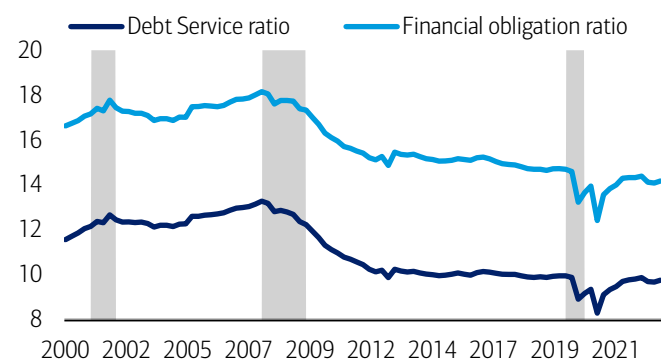


Source: Federal Reserve, Haver Analytics, BofA Global Research

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Exhibit 2: The hiking cycle has yet to materially affect households

Household debt service & financial obligations ratio (%) (2000-3Q23)



Source: Haver Analytics, BofA Global Research

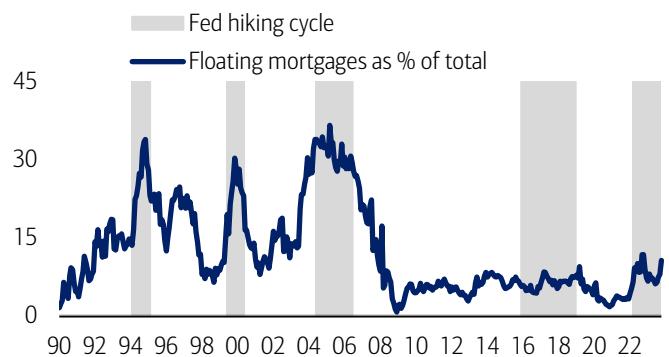
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US homeowners have benefited from low floating rate risk

Roughly 90% of mortgage loans in the US are in fixed-rate products, a difference vs. other economies (see [Economic Viewpoint](#)). The current effective mortgage rate of 3.8% remains below pre-COVID levels, contributing to consumer resilience.

Exhibit 3: ~90% of US mortgage loans are fixed rate

Share of dollar volume of loan applications (1990-2/2024)

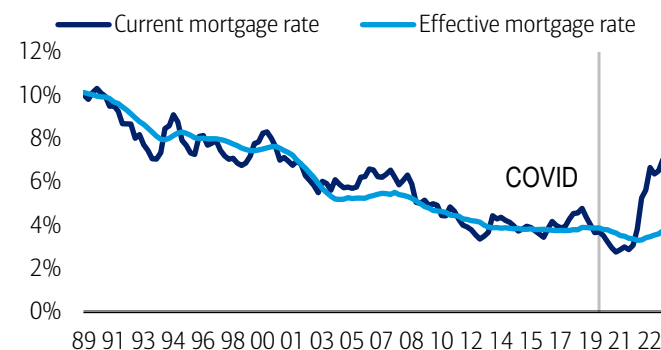


Source: Bloomberg, BofA US Equity & Quant Strategy

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Exhibit 4: Effective mortgage rate is still below pre-COVID levels

Current mortgage rate vs. effective rate on all mortgage debt outstanding (1989-4Q23)



Source: Bloomberg, BofA US Equity & Quant Strategy

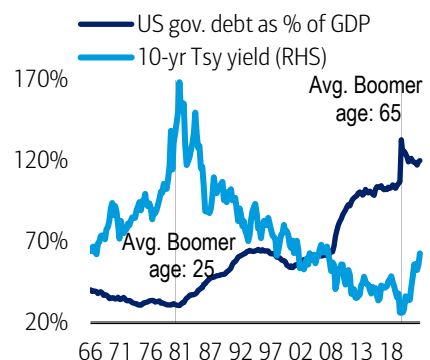
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Baby boomer strength

The healthiest balance sheets and the lion's share of cash sit with Baby Boomers (born in 1946-64). Baby Boomers have benefitted from the wealth transfer from the US government to the private sector, own over half of total household net worth in the US and have locked in ultra-low mortgage rates (see [Boomers Boom](#)). BAC aggregated credit and debit card data show stronger spending trends in older generations.

Exhibit 5: The great wealth transfer: from public to private

US government debt as % of GDP vs. 10-yr Treasury yield (1966-3Q23)

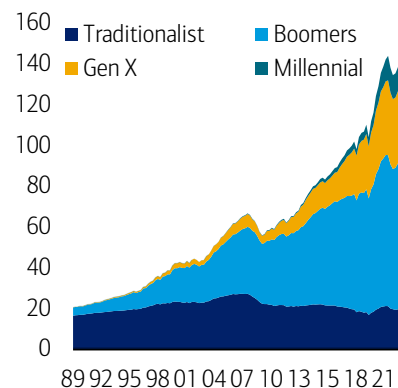


Source: Federal Reserve Bank of St. Louis, Bloomberg, BofA US Equity & Quant Strategy

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Exhibit 6: Household net worth = \$156T. Boomers + Traditionalists = 2/3 of total net worth

Household net worth by generation (1989-present)

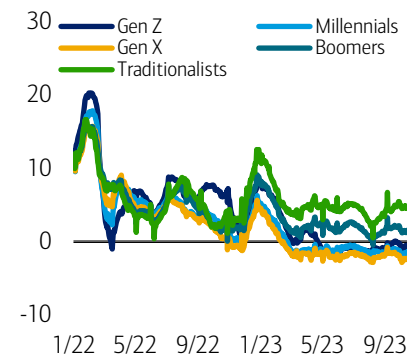


Source: Haver Analytics, BofA US Equity & Quant Strategy

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Exhibit 7: Throughout 2023, older generations' spending growth outstripped that of younger generations

Bank of America total card spending per household by generation (28-day moving average, % YoY)



Source: Bank of America Institute

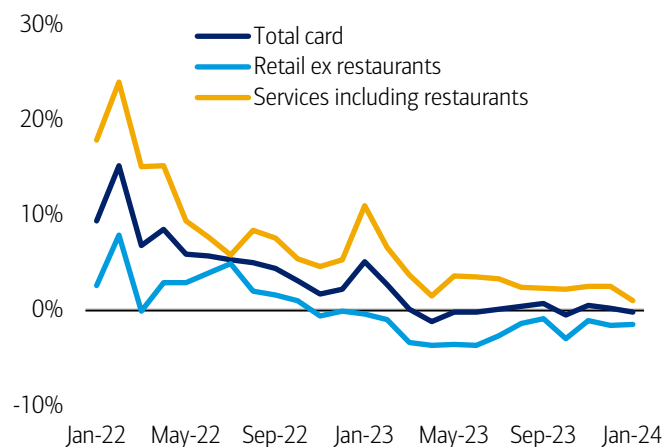
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Spending softened in January, partially due to cold weather

Consumer spending was generally more resilient than expected in 2023 but softened in January. Bank of America aggregated credit and debit card spending per household fell by 0.2% YoY (see [Consumer Checkpoint](#)), but the weather appears largely to blame as it was cold and snowy and/or rainy in large parts of the country. See BofA's [Consumer Spend Collective](#) for a breakdown of spending by industry. In February, spending remained soft but stable (see [BofA on USA](#)).

Exhibit 8: Total card spending fell 0.2% YoY in January

Total card spending per household (monthly, %YoY)

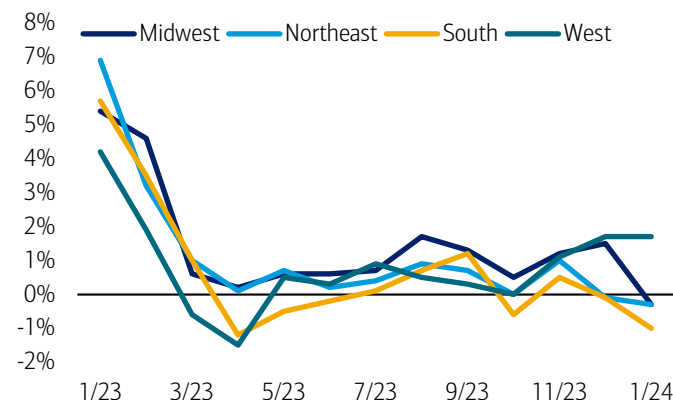


Source: Bank of America Institute

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Exhibit 9: The West showed resilience in spending, while weather hit the other regions

Total card spending per household by Census region (% growth YoY)



Source: Bank of America Institute

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See [Consumer Checkpoint](#) for methodology, limitations, and disclaimers related to BAC card data.

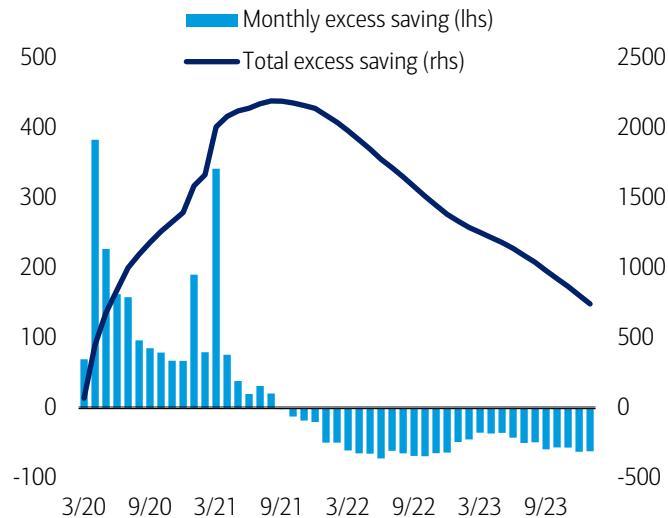


Depleted “excess savings” headlines overstate risks

Investors worry that spending stops when excess savings run out, but the rundown is more likely to be a gentle slope than a cliff edge (see [excess savings note](#)). The key word is “excess”, and how one defines the pre-pandemic savings trend is fuzzy and prone to revisions. As long as the labor market remains tight, we believe the rundown of household savings is consistent with balance sheet normalization and a slowdown, not a collapse.

Exhibit 10: Excess savings may still be elevated

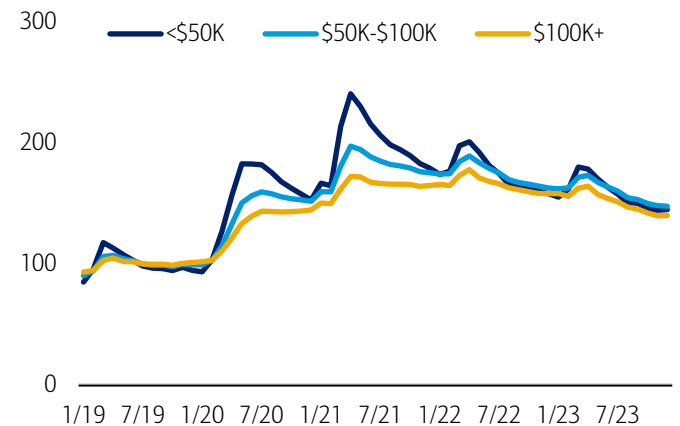
Estimates of excess savings (\$bn)



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Exhibit 11: Households continues to have raised deposit balances compared to 2019

Monthly median household savings and checking balances by income (2019=100) for a fixed group of households through December

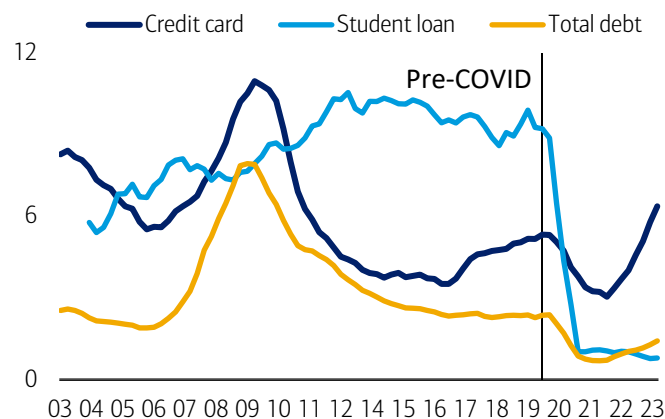


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Risk: rising credit card delinquencies

Exhibit 12: Credit card delinquencies are now above pre-COVID levels

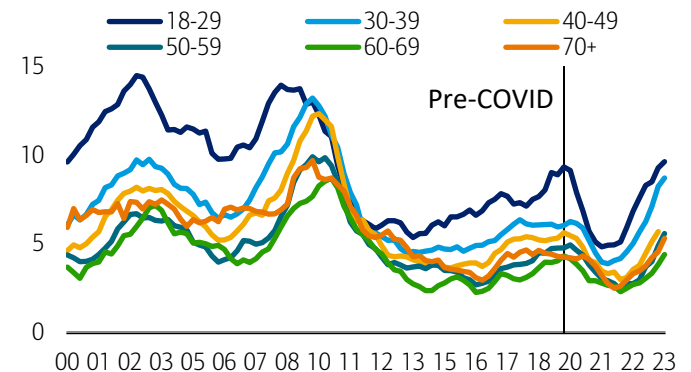
Transition into serious delinquency (90+) by loan type (as of Q4 2023)



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Exhibit 13: Gen Y and Z have seen uptick in credit card delinquency

Transition into serious delinquency (90+) for credit cards by age (as of Q4 2023)



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The lynchpin to the recovery: Jobs

US consumers tend to spend until they lose their source of income.

BofA expects a modest uptick in unemployment from 3.9% today to a peak of 4.1% by 4Q 2025, still healthy (see [US outlook](#)). Layoff headlines have picked up seasonally, but the magnitude is smaller vs. last year (Exhibit 16). Layoffs and consumer earnings cycles have a strong inverse correlation, and the earnings upcycle that we expect in 2024 (see [earnings tracker](#)) suggests that peak layoffs are likely behind us. Real wage growth has also been positive since mid-2023, a key driver of Discretionary (Exhibit 25).

Exhibit 14: Size and frequency of layoff announcements are well off the peak

Challenger job cuts announced (3-mo. avg.) vs. # of layoff news stories on Bloomberg (2020-2/24)

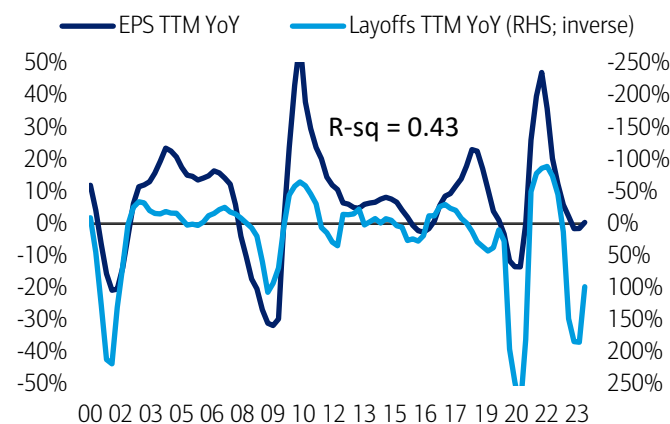


Source: BofA US Equity & Quant Strategy, Bloomberg

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Exhibit 15: Earnings upcycle should translate to fewer layoffs ahead

S&P 500 trailing 12-mo. EPS YoY vs. Challenger job cuts TTM YoY (2000-12/23)

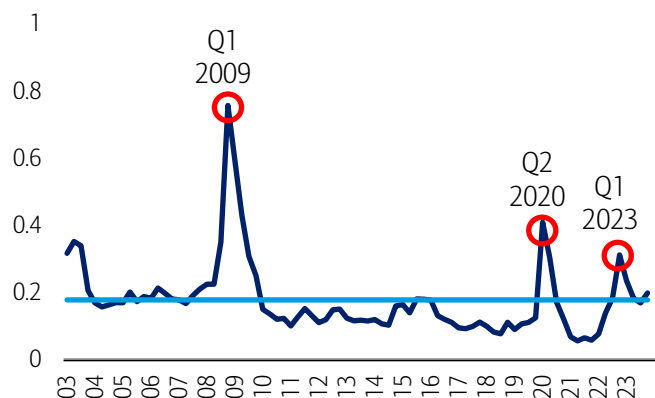


Source: BofA US Equity & Quant Strategy, Bloomberg, FactSet

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Exhibit 16: Mentions of “layoffs” in earnings transcript ticked up

Earnings transcript mentions of “layoffs” (as of 2/27/2024)

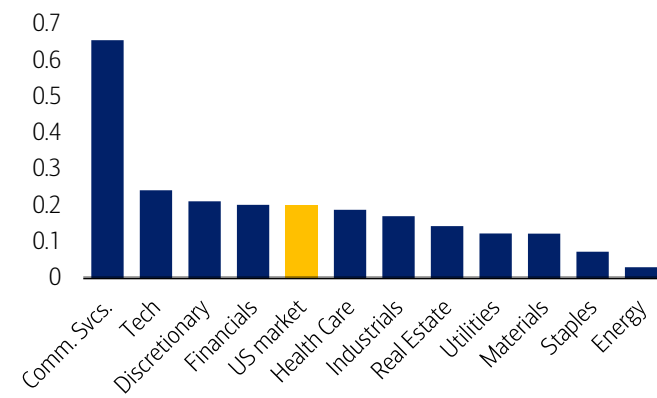


Source: BofA Global Research, FactSet

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Exhibit 17: “Layoff” mentions most acute in TMT

Earnings transcript mentions of “layoffs” in 2024 (as of 2/27/2024)



Source: BofA Global Research, FactSet

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Sector views: Discretionary > Staples

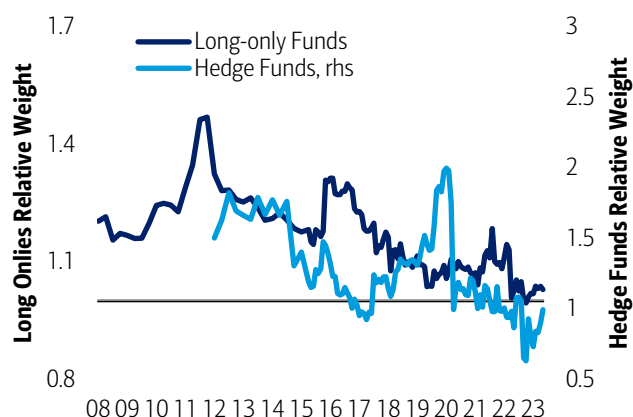
Continued consumer resilience, bearish positioning, our economists' soft landing forecast (see [US outlook](#)), plus a shift from Fed tightening to Fed easing drive our preference for Consumer Discretionary (overweight) over Consumer Staples (underweight). The risk to margins from higher wage pressure has been managed ably, and Discretionary saw the biggest EPS beat of all 11 sectors during 4Q earnings season. Automation may be helping – see Case study: Restaurants.

Positioning: cyclicalshunned, defensives overbought

Long only funds have been chronically overweight Discretionary since we began tracking ownership data in 2008, likely due to higher idiosyncratic or stock-specific drivers. Today, Discretionary is 1.3 std dev below its average exposure at a slim 3% overweight, just off the record low 1% underweight of mid-2023. Meanwhile, long-only funds are also underweight Staples, but positioning is less extreme relative to history (0.5 std dev below average); hedge funds are near peak exposure. See [ownership report](#) for positioning details/methodology.

Exhibit 18: LO and HF exposure to Discretionary is close to lows

Funds' relative weight in Discretionary vs S&P 500 (2008-1/2024)

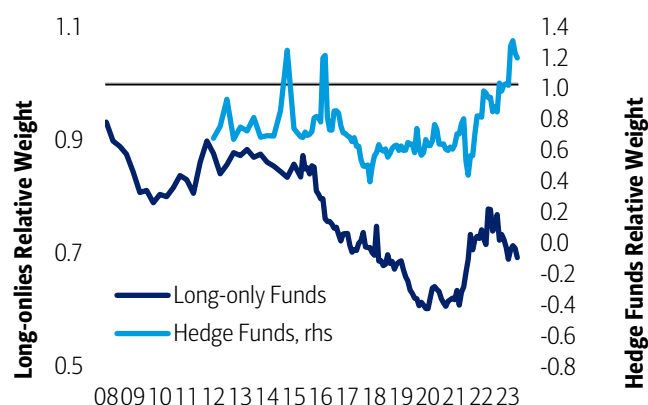


Source: FactSet Ownership, BofA US Equity & US Quant Strategy

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Exhibit 19: LOs are fading Staples; but HF exposure is near peak

Funds' relative weight in Staples vs S&P 500 (2008-1/2024)

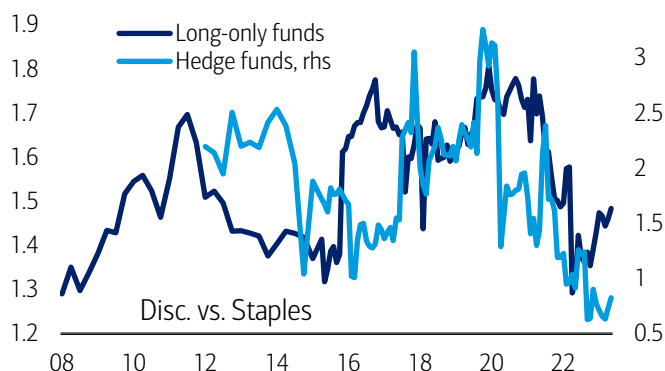


Source: FactSet Ownership, BofA US Equity & US Quant Strategy

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Exhibit 20: Discretionary vs Staples off its lows, but still below average

Funds' relative weight in Discretionary vs Staples (2008-1/2024)

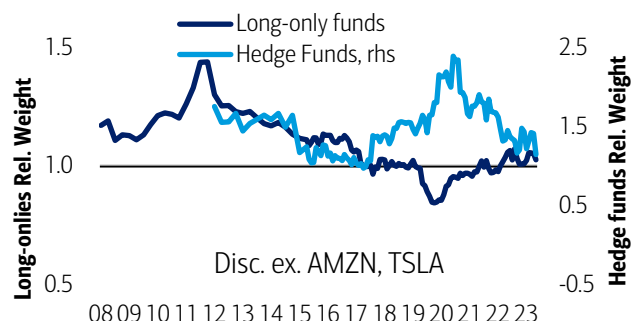


Source: FactSet Ownership, BofA US Equity & US Quant Strategy

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Exhibit 21: Ex AMZN/TSLA, LO exposure to Discretionary has increased since 2020 but is still below average; HFs near all-time low

Funds' relative weight in Discretionary ex AMZN & TSLA vs S&P 500 (2008-1/2024)

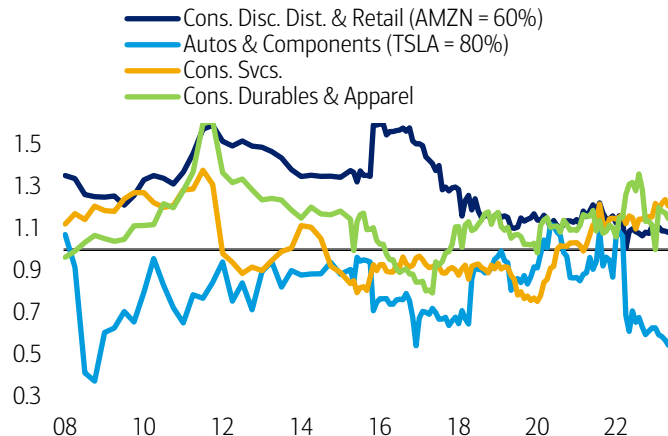


Source: FactSet Ownership, BofA US Equity & US Quant Strategy

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Exhibit 22: Funds are most underweight Autos (TSLA), most overweight Services

Long-only funds' relative weight in Discretionary industry groups vs S&P 500 (2008-1/2024)

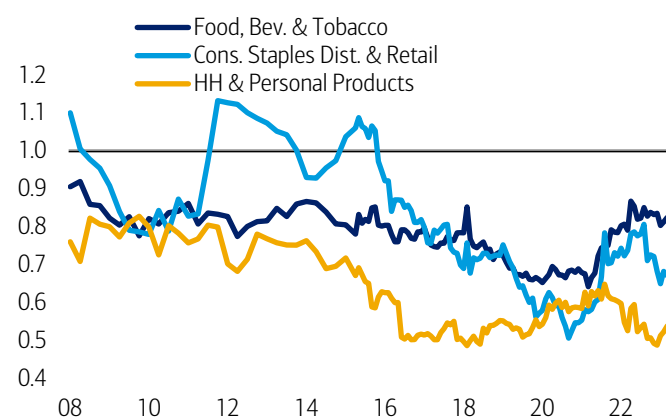


Source: FactSet Ownership, BofA US Equity & Quant Strategy

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Exhibit 23: Funds are most underweight Household & Personal Products, least underweight Food, Beverage & Tobacco

Long-only funds' relative weight in Staples industry groups vs S&P 500 (2008-1/2024)



Source: FactSet Ownership, BofA US Equity & Quant Strategy

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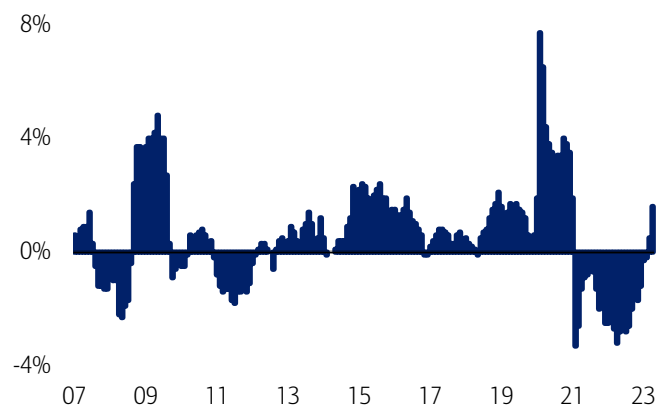
Real wage growth supports Discretionary

Real wage growth inflected positive mid-2023 for the first time since 2021.

Discretionary has been the biggest beneficiary (along with Tech) of real wage growth.

Exhibit 24: Real wages inflected positive in mid-2023

Real average hourly earnings YoY (2007-1/2024)

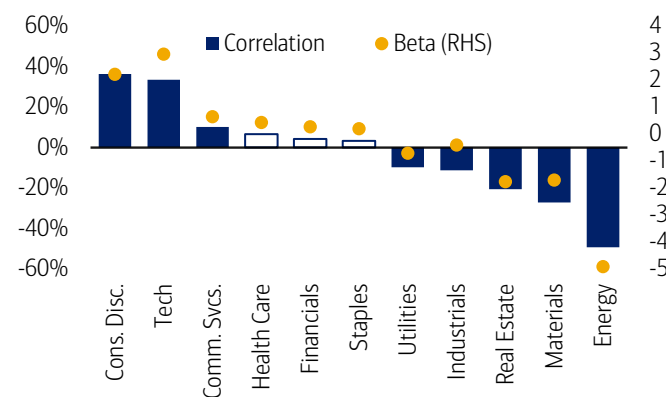


Source: Bloomberg

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Exhibit 25: Consumer Discretionary benefits most from real wage growth

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



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

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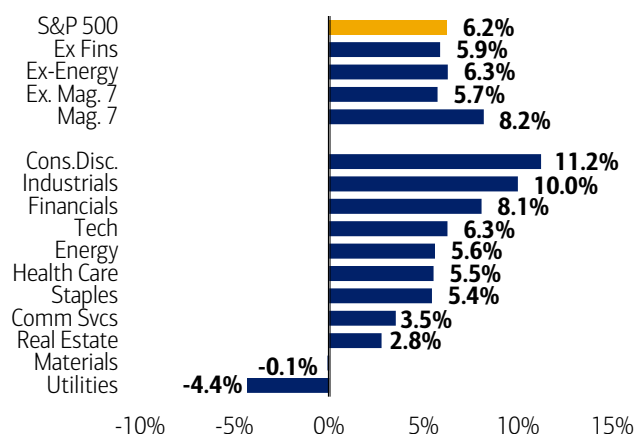
4Q earnings shows margin resilience – top line next

Discretionary companies posted an impressive 11% beat vs. 4Q consensus earnings estimates (7% ex. AMZN/TSLA), leading the S&P 500. Staples also beat, although by a lesser 5%. Discretionary companies saw a stronger beat ratio – 78%/57%/49% beat on EPS/sales/both vs. 80%/51%/43% for Staples.

Discretionary beat 4Q estimates by 11%, leading the S&P 500

Exhibit 26: Consumer Discretionary led the 4Q beat

Revision to consensus 4Q23 earnings since start of January



Source: FactSet, BofA US Equity & Quant Strategy

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Exhibit 27: Discretionary & Staples beat on EPS more than sales

Results from companies that have reported 4Q earnings

Sector	Total companies	Number Reported	% with EPS beat	% with Sales beat	% EPS & Sales beat
Cons. Disc.	53	51	78%	57%	49%
Staples	38	35	80%	51%	43%
Energy	23	23	35%	39%	13%
Financials	72	72	72%	63%	51%
Health Care	64	64	72%	84%	63%
Industrials	78	78	71%	71%	56%
Tech	64	63	84%	68%	65%
Materials	28	28	64%	54%	39%
Real Estate	31	31	42%	61%	23%
Comm. Svcs.	19	19	58%	68%	37%
Utilities	30	30	47%	27%	20%
S&P 500	500	494	68%	62%	48%

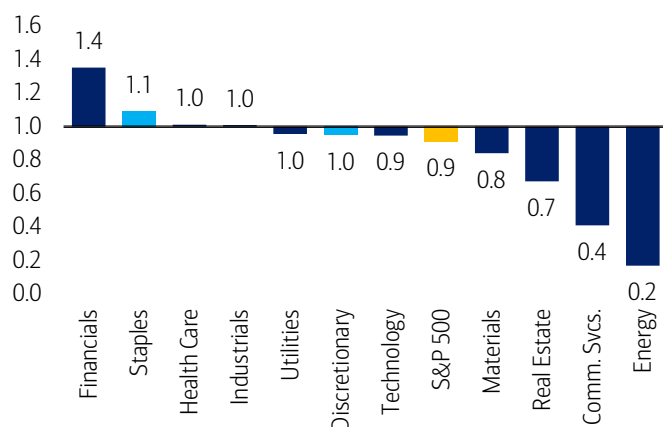
Source: FactSet, BofA US Equity & Quant Strategy

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Stronger revisions for Staples, better guidance for Discretionary

Exhibit 28: Both Staples & Discretionary lead the S&P 500 in earnings revisions, with slightly stronger revisions in Staples

S&P 500 3-mo. earnings estimate revision ratio (number of upward revisions / number of downward revisions) by sector (as of 2/24)

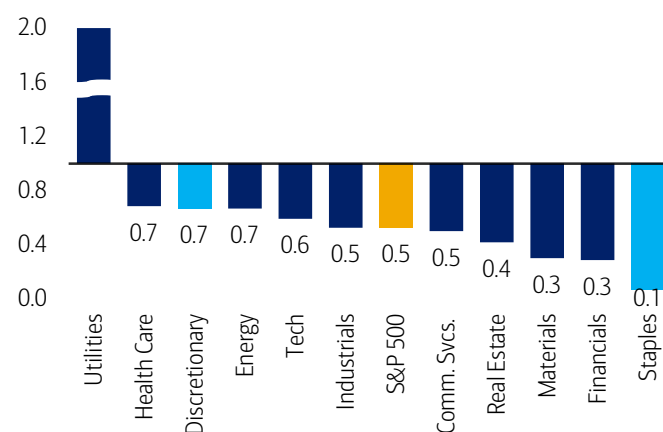


Source: BofA US Equity and Quant Strategy, FactSet

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Exhibit 29: Discretionary guidance leads the S&P 500, Staples lags

3-month guidance ratio (number of upward guides / number of downward guides) by sector (as of 2/24)



Source: BofA US Equity & Quant Strategy, Bloomberg

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Some evidence of a “rich-cession”

In 2023, lower-income household spending grew more than higher-income, boosted by higher real wage growth. Our Luxury Goods analysts highlight that the US luxury market has given back all the outsized consumption since 2019 – see [Luxury Year Ahead](#).

Watches of Switzerland’s [guidance cut](#) is one sign that exuberance is stalling, but other luxury brands posted strong 4Q results – see [LVMH](#). Walmart noted a growing customer base of households that make over \$100k/year, suggesting higher income consumers continue to trade-down.

Exhibit 30: Mentions of “trade down” are elevated, but well off peak

Mentions of “trade down” during earnings calls (as of 3/08/2024)



Source: FactSet, BofA Global Research

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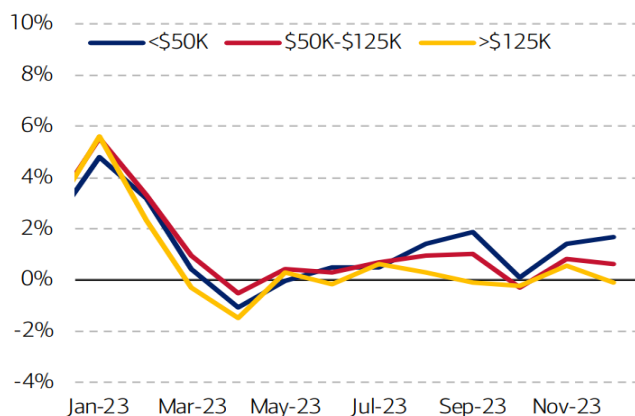
4Q earnings commentary:

Walmart – “One of the biggest contributors in the quarter was in this income demographic from households that make more than \$100,000 a year ... Our value proposition is resonating with customers and they’re clearly shopping us in new ways versus how they have historically.”

Watches of Switzerland – “The consumer preference about where they were spending money, and there’s no doubt that travel, leisure, food, beverage, hospitality and so on beauty, were all favored categories, and watches and jewelry went down the priority list.”

Exhibit 31: Spending growth of lower-income households began to outpace that of higher-income households in 2023

Total card spending per household YoY growth by income (monthly, %)

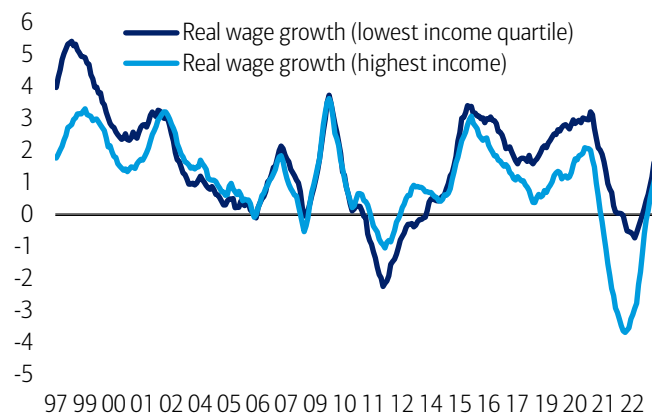


Source: Bank of America Institute. As of Dec. 2023.

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Exhibit 32: High-income cohort saw a much larger drop in real wage growth than the low-income cohort

Real wage growth in highest vs. lowest income group (ppt) (as of 1/2024)



Source: Current Population Survey, Bureau of Labor Statistics, and Federal Reserve Bank of Atlanta Calculations, BofA US Equity & Quant Strategy

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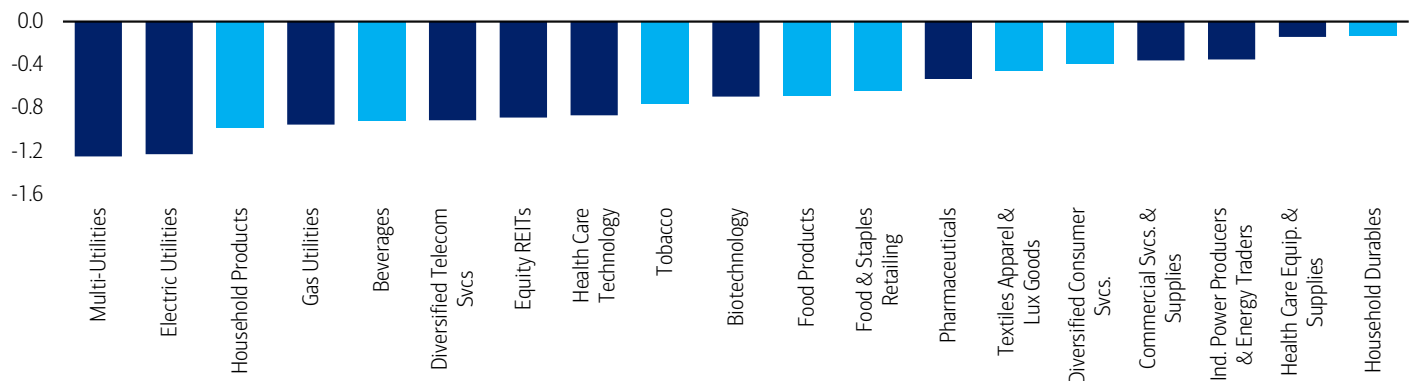
See [Consumer Checkpoint \(published Jan. 2023\)](#) for methodology, limitations, and disclaimers related to BAC card data.

Fed cuts = positive for the consumer

Discretionary has chronically lagged the market during Fed hiking cycles as higher rates tend to shift preferences to saving from overspending. A Fed easing cycle is generally positive for consumer sectors, but this cycle is distinct from past cycles in that the Fed plans to cut rates to move from restrictive levels to neutral rather than cut rates because of a recession. This suggests potentially more upside in Discretionary than Staples.

Exhibit 33: Historically, consumer industries have benefitted from a dovish Fed

Median relative performance spread in weeks when Fed hikes get pulled fwd vs. weeks when Fed hikes get pushed back (data from 2008-2018) (consumer industries = light blue)

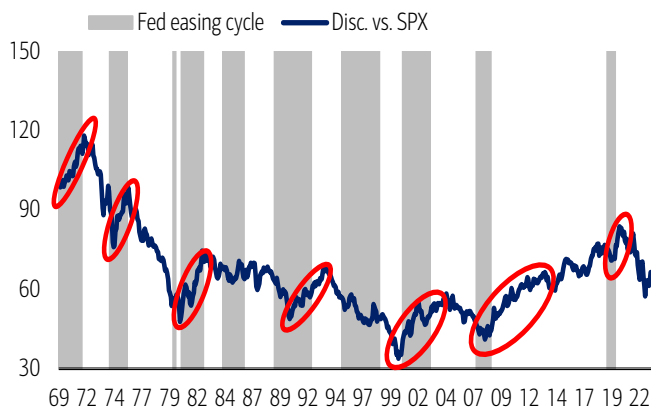


Source: FactSet, BofA US Equity & Quant Strategy, BofA Global Research. Industries with negative relative performance spreads when market-implied probability of Fed rate hike was pushed forward vs. dates when fed rate hike was pushed back from 2008-2018

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Exhibit 34: Fed cutting cycles have historically been positive for Consumer Discretionary...

Relative performance of Consumer Discretionary vs. S&P 500

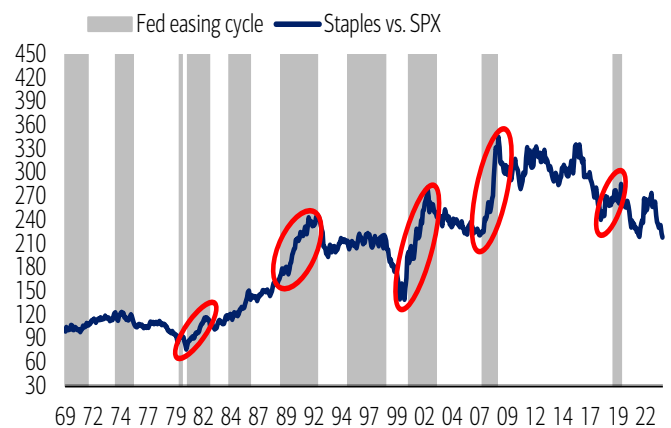


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 35: ...and Consumer Staples

Relative performance of Consumer Staples vs. S&P 500



Source: BofA US Equity & Quant Strategy, FactSet

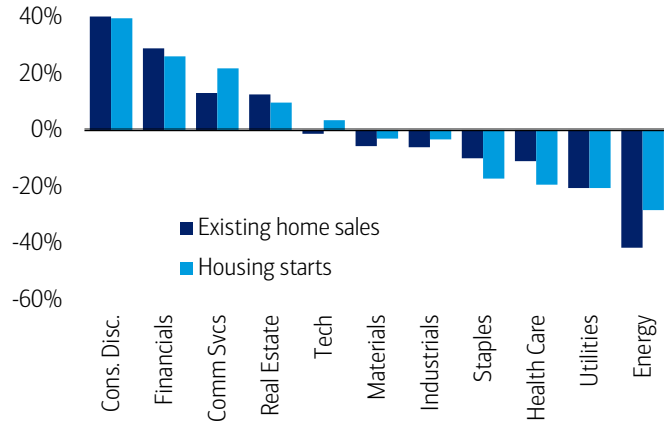
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Homebuilders are the canary in the coal mine

Housing activity is slated to pick up in 2024 as the Fed cuts rates (see [Housing Watch](#)), a positive for Consumer Discretionary as it is the most correlated sector to housing data. Homebuilders, which typically lead Consumer Discretionary, have outperformed the S&P 500 by over 30ppts since late October.

Exhibit 36: Consumer Disc. is the most correlated sector to housing

Correlation between housing data vs relative sector performance: 1/1959-present

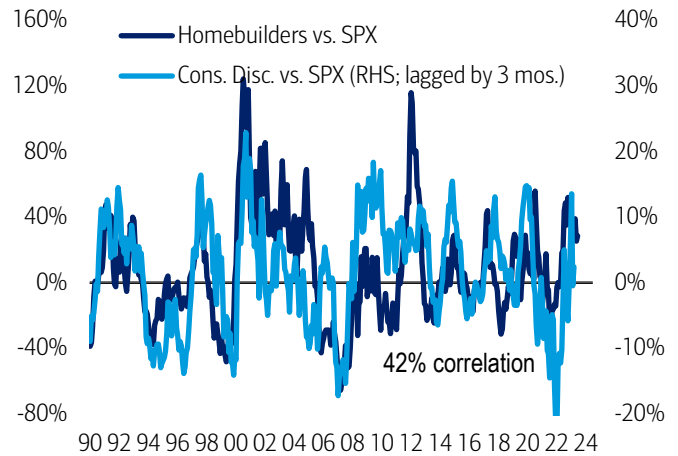


*Based on data since 2000 for existing home sales and 1959 for housing starts. Global Financial Data (used from 1959-1969) combines Utilities and Telecom into one sector.

Source: Bloomberg, BofA US Equity & Quant Strategy, Global Financial Data
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Exhibit 37: Discretionary outperformance typically follows homebuilder outperformance

Relative performance of S&P 500 Homebuilders vs S&P 500 & Cons. Disc. vs S&P 500 (3-mo. lag), 1990-2/2024



Source: BofA US Equity & Quant Strategy, Bloomberg

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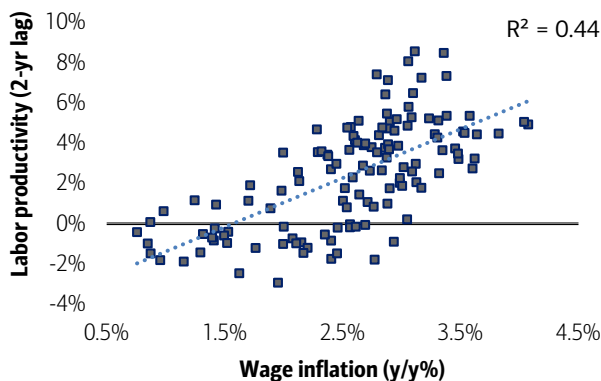
Two secular bull cases: efficiency & India

Labor-intensive industries = automation beneficiaries

Advancements in AI/automation have been cast primarily as a bull case for Tech, but we think there is also a longer-term bull case for efficiency leaders in less efficient sectors. As the most-labor intensive sector, Consumer Discretionary stands to benefit from a potential pickup in productivity.

Exhibit 38: Wage inflation has driven labor productivity growth with a multi-year lag

US Manufacturing wage inflation and labor productivity (y/y % changes)

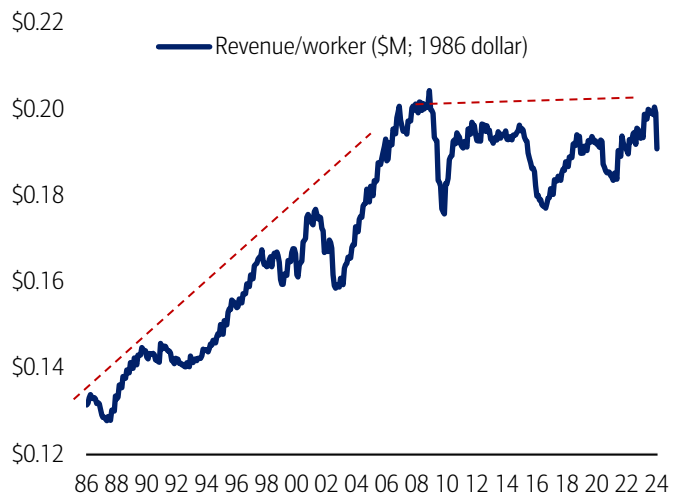


Source: Bureau of Labor Statistics, BofA Global Research. Note: Quarterly data of US manufacturing labor productivity versus average hourly earnings of production & nonsupervisory employees

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Exhibit 39: Labor efficiency improvements stalled amid ZIRP. What next?

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

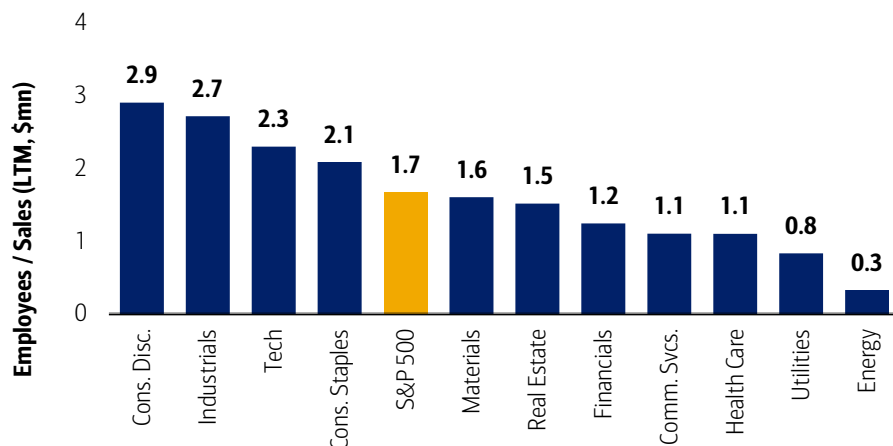


Source: FactSet, Bloomberg, BofA US Equity & Quant Strategy

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Exhibit 40: Consumer Discretionary is the most labor-intensive sector

Employees/sales (LTM; \$mn) by S&P 500 sector as of 3/8/24



Source: FactSet, BofA US Equity & Quant Strategy

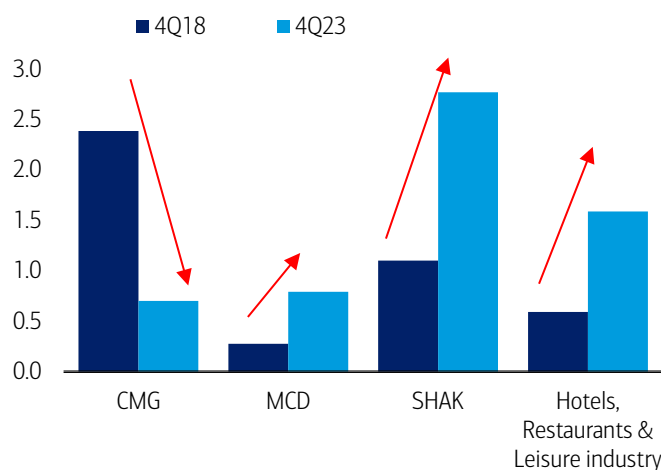
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Case study: Restaurants

Restaurant analyst Sara Senatore has highlighted Chipotle as being at the forefront of automation investments. Chipotle ramped meaningfully in digitized orders from 11% digital sales in 3Q 2018 to 38% as of 4Q 2023. In tandem, its earnings volatility dropped since then where peers have seen an increase in volatility. The industry overall has generally seen improving trends in drivers of margin stability. In 2022, the reported change in per store labor fell below the expected change, which assumes that labor should grow at half the rate of transaction growth. The gap has widened meaningfully since then, suggesting automation-driven transaction growth. See [Off-Premise Pt 1](#) and [Off-Premise Primer Pt 2](#) for more details on this theme.

Exhibit 41: Case study: Chipotle's digital transformation. Less earnings volatility

Coefficient of variation of rolling 3-yr quarterly EPS growth YoY

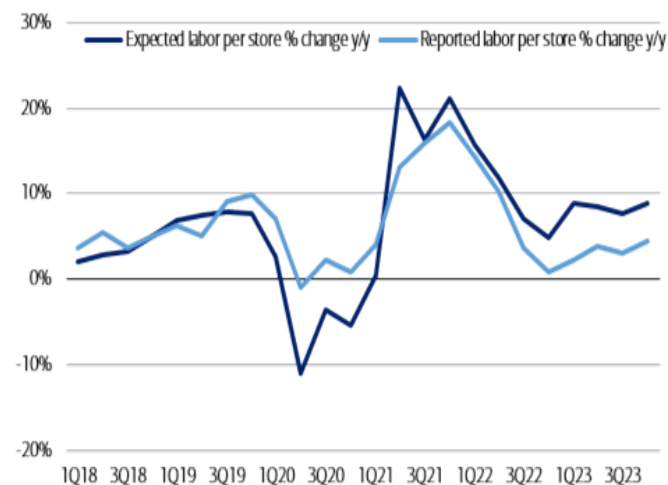


Source: FactSet, BofA US Equity & Quant Strategy

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Exhibit 42: Per store labor is growing less than expected, suggesting productivity gains

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 $(1 + \text{wage inflation}) * (1 + \text{transaction growth} / 2)$.

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India: the new aspirational consumer

Amish Shah, head of India Equity Strategy, notes that India's consumer story is pivoting in favor of premiumization on the back of rising discretionary consumption led by robust economic growth and rising aspirations. As per the latest consumer survey by the govt, share of expenditure on food fell by 4-7% in both urban & rural areas when compared to 2011-12. Indians are spending less on staples like cereals & pulses, but more on discretionary categories like beverages, refreshments & processed food. Among non-food items as well, consumers are spending more on services, experiences & durable goods.

Amish believes this trend could accelerate as India's per capita income expands to US\$4000, likely by FY30 (from US\$2500 currently). A confluence of favorable socio-demographic trends and with democratization of data and internet, we're seeing substantial change in the Indian consumer. Early signs across products & services are already visible. For instance, over the past four years, I-Phone sales registered a whopping 52% CAGR, premium German automakers (Mercedes, BMW, & Audi) posted a 30% volume CAGR, premium residential launches grew by 32% CAGR, premium alcohol sales growing at 30%+ CAGR, air conditioner sales grew by 17% CAGR and premium hotel properties increased by 37% CAGR. Even within products typically of mass consumption, we see a gravitation towards premium products where consumers are willing to spend more for perceived higher order benefits – from laundry detergents to skin/hair care products to cookies/biscuits, the premiumization trend has continued despite inflation linked volatility in recent years.

With India's economic growth expected to be the fastest among large economies globally & India likely to emerge as the third largest global economy before 2030 (vs fifth currently), India is likely to be the driver of growth for global consumer firms. This is also reflected in Indian consumer stocks' outperformance vs their global parents. For instance, over the past 5 years, Hindustan Unilever has delivered 42% cumulative returns vs Unilever Plc registering an 8% decline. Similarly, Nestle and Colgate have seen their listed India arms (149%/102% cumulative returns) outperform their global parents (1%/35% respectively) over the past five years.

Our consumer survey last year [Consumer Survey: Steady trends at the top-end; Structural themes playing out](#) highlights structural changes in India's consumption patterns.



Risks: valuation, macro

Consumer Discretionary trades at a premium to historical valuation measures, whereas Consumer Staples trades at a discount. But Consumer Discretionary multiples look more reasonable excluding Amazon (AMZN) and Tesla (TSLA). The relative forward P/E of the sector excluding these stocks is now below its long-term average.

Exhibit 43: Valuation upside for Staples, downside for Disc...

% upside (downside) of relative valuations vs relative long-term average by sector, 1986-2/24*

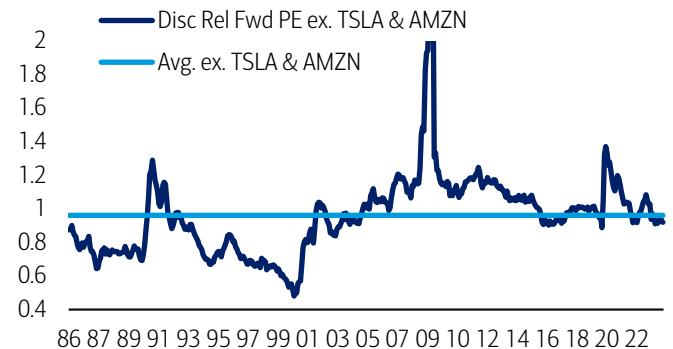
Sector	P/BV	P/OCF	Fwd P/E	EV/Sales
S&P 500 (absolute)	-38%	-36%	-23%	-34%
Comm. Svcs.	9%	16%	31%	1%
Cons. Disc.	-33%	-11%	-17%	-29%
Energy	67%	82%	82%	33%
Financials	32%	N/A	1%	93%
Health Care	55%	40%	17%	90%
Industrials	-13%	2%	-1%	1%
Materials	39%	18%	6%	-3%
Real Estate	45%	N/A	85%	-22%
Staples	38%	44%	16%	33%
Technology	-40%	-24%	-18%	-54%
Utilities	54%	28%	20%	-2%

*Note: Real Estate since 2002. Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 44: ...but Disc. ex TSLA & AMZN trades slightly below the historical avg

Relative forward PE of Consumer Discretionary vs S&P 500 (as of 2/24)



Source: FactSet, BofA US Equity & Quant Strategy

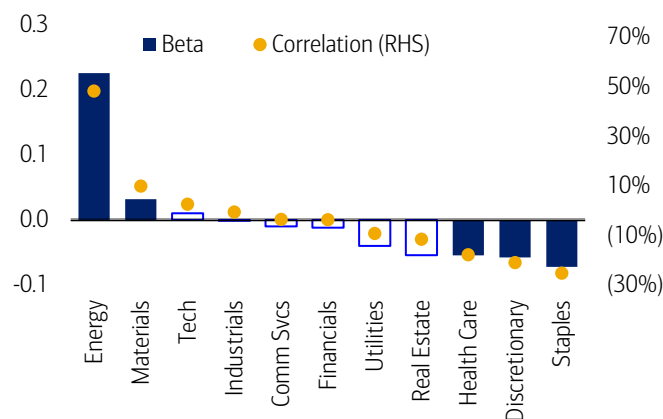
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Consumer sectors are sensitive to oil

Higher oil prices hurt low-income workers more than high-income workers. Discount retailers' relative performance vs. luxury retailers has historically been negatively correlated to higher oil prices (Exhibit 46). Our commodity strategists don't expect a spike in oil this year, but geopolitics pose upside risks (see [energy outlook](#)).

Exhibit 45: Staples = most hurt by higher oil

S&P 500 sectors' rel. perf. to WTI (1972-2/24)



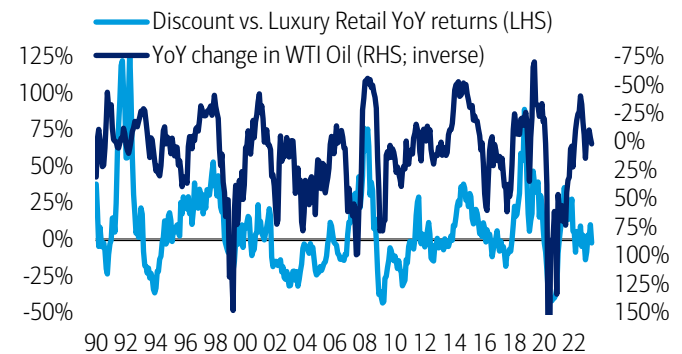
Source: Bloomberg, FactSet, BofA US Equity & Quant Strategy

Note: Empty bars indicate not statistically significant

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Exhibit 46: Discount retailers underperform luxury retailers when oil prices rise

Relative 12m returns of discount vs luxury retailers and 12m change in WTI oil since 1990 (-42% correlation)



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 retailers performance based on equal-weighted monthly returns of CPRI, EL, JWN, TIF (through Sept 2020), TPR, RL

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Election puts and takes

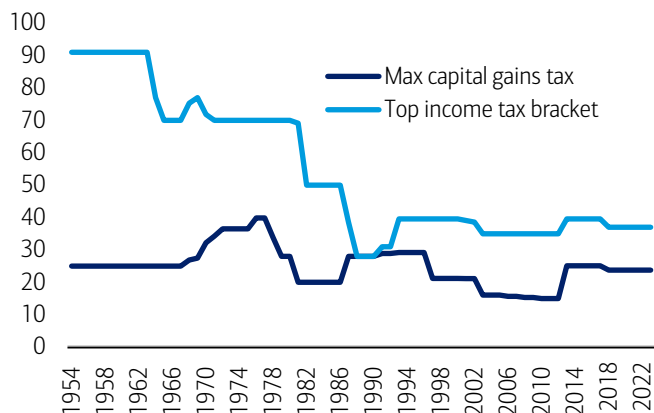
We will likely hear firming up of campaign agendas from here, but general risks to Consumer Discretionary and Staples include the following:

- (1) individual tax uncertainty – not just potential for lowered or increased income taxes, but capital gains increases could drive selling ahead of 2025 in big gainers. AMZN, a core retail holding based on GWIM data, has returned over 20% per year in the last decade and makes up over a third of Consumer Discretionary's market cap.
- (2) lower corporate taxes under Trump could benefit industries with higher effective tax rates like Distribution & Retail and Household & Personal Products.
- (3) labor – easier immigration policy could alleviate wage inflation (potentially offset by Biden's track record of strong union support).

See next page for links to election-focused fundamental research on consumer stocks.

Exhibit 47: Potential for higher capital gains taxes could drive selling in big gainers

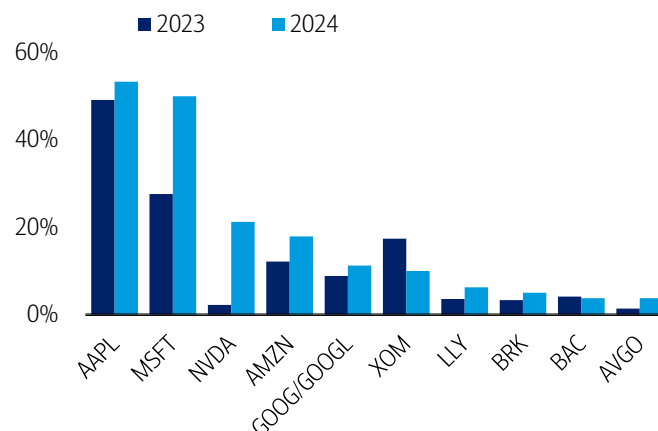
Maximum capital gains tax vs. marginal tax rate for top income bracket



Source: IRS, Haver Analytics, Tax Foundation, BofA US Equity & Quant Strategy
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Exhibit 48: GWIM survey: AMZN is a top retail holding in Consumer

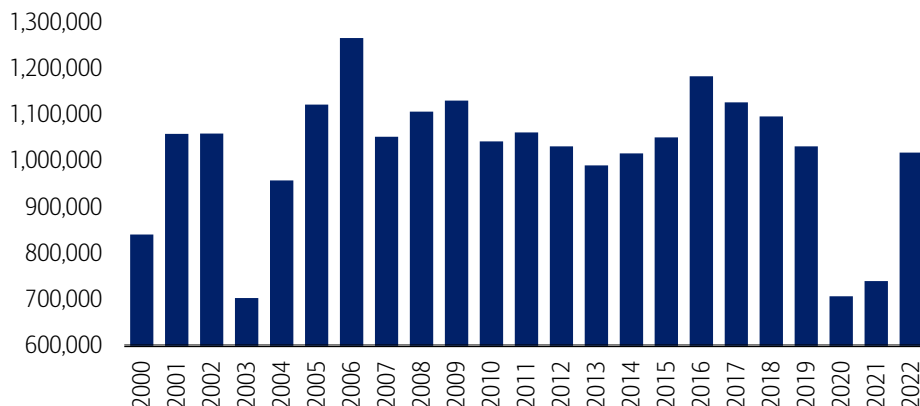
% of respondents citing stock as a top 3 holding



Source: Wealth Management Marketing Research, BofA US Equity & US Quant Strategy
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Exhibit 49: Immigration rebound could bring the labor market into better balance

of persons obtaining US legal permanent resident status



Source: Haver Analytics

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Election commentary from our fundamental analysts:[Justin Post, Internet/e-Commerce](#)

- “The US election could provide modest direct revenue benefit to digital ad spending in 2024, while the bigger impact on the Internet sector will likely be potential policy changes related to a broader Republican or Democratic victory.”
- “With a broad Republican win, potential implications include: 1) more restrictions on China imports, 2) higher probability of a ban on TikTok, 3) further limits on Section 230 protections, and 4) greater potential for antitrust settlements with big-tech platforms.”
- “With a broad Democratic win in both houses of Congress, potential implications include: 1) Additional challenges to big-tech business models, 2) More restrictions on M&A, and 3) less focus on restricting China competition.”

[Lorraine Hutchinson, Specialty Retail and Department Stores](#)

- “We view escalating China apparel tariffs as a risk, but one that has been significantly mitigated by sourcing shifts out of China. Over the last decade, many retailers moved their apparel sourcing from China to Vietnam, Bangladesh and India to cut costs. Since 2010, China as a percentage of US apparel imports has dropped from 39% to 20%, while Vietnam grew from 8% to 16%.”
- “We estimate that a 10% total tariff equates to 25bp of headwind to GM, a 25% tariff results in over 60bp of headwind, and a hypothetical 60% a 150bp headwind. Compared to the current case (7.5% tariff & our estimate of 10% China imports), a hike in the tariff rate to 15% would be a 20bp incremental headwind to GM; however, the headwind could be completely offset by reducing China imports from 10% to 5%, based on our analysis.”

[John Murphy, Autos](#)

- “We expect that a Democrat victory would accelerate a transition to clean vehicles, while a Republican win would delay the transition. Although there is already some visibility on policies, at least from democrats, it is early to determine all of the implications for the industry.”

[Ashley Wallace, Luxury Goods](#)

- “We look at history to see how luxury stocks have performed in previous election years, using the example of the US, given the relative prominence of the US election cycle and US consumer representing >20% of luxury consumer base. We however don't see a meaningful relationship between luxury share price performance in the run-up to US presidential elections, irrespective of the winning party.”

Regime guide to consumer sectors

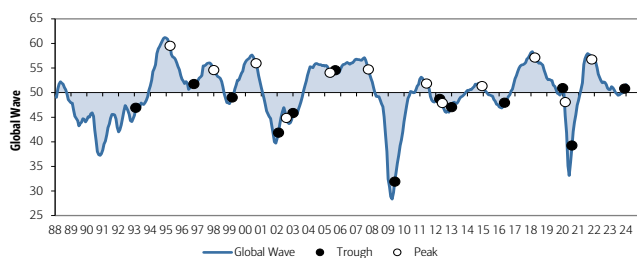
Cycle shift argues for Discretionary > Staples

The Global Wave troughed, favoring cyclical over defensives

The Global Wave has signaled a trough in the global cycle, suggesting investors can now position for a sustained upturn. The trough signal follows the longest downturn on record (25 months). Historically, a trough in the Global Wave has been positive for cyclical sectors (see Global Wave: Moving on up).

Exhibit 50: The Global Wave troughed, a positive for cyclical

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.

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Exhibit 51: The Global Wave is an amalgamation of seven components representing various aspects of the global economy

Components of the Global Wave

Components

Global Industrial Confidence
Global Consumer Confidence
Global Capacity Utilization
Global Unemployment
Global Producer Prices
Global Credit Spreads
Global Earnings Revisions Ratio

Type

Output
Demand
Investment
Labor Market
Prices
Bond Market
Equity Market

Source: BofA Global Quantitative Strategy

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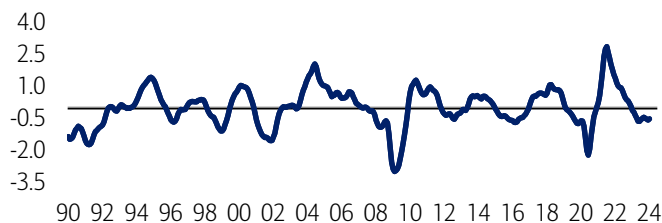
US Regime Indicator: flirting with Recovery

Our US Regime Indicator has flip flopped between Downturn and Recovery over the last year (see [Quantitative Profiles](#)). The indicator improved in January after three months in its Downturn phase, potentially signaling a return to Recovery (we wait for 2 consecutive months to call a new phase). Although this indicator is better used for factors than sectors given the changing dynamics of sectors over time, Consumer Discretionary has typically outperformed in Recovery, while Consumer Staples has lagged.

Our US Regime Indicator is a four-phase framework based on the amalgamation of various uncorrelated macro inputs (credit spreads, inflation, estimate revisions the slope of the yield curve, etc.) – see Appendix for details.

Exhibit 52: US Regime Indicator advanced in January

The US Regime indicator (Jan. 1990-January 2024)

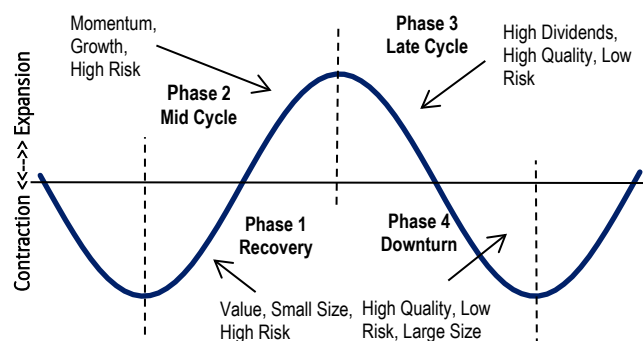


Source: BofA US Equity & Quant Strategy, Refinitiv, ICE Data Indices, LLC, Institute for Supply Management, Bureau of Labor Statistics, Federal Reserve Note: Phase 1 – Early Cycle; Phase 2 – Mid Cycle; Phase 3 – Late Cycle; Phase 4 – Recession. Disclaimer: The indicator identified as the US Regime Indicator 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.

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Exhibit 53: Value, Small Size, High Risk tend to fare well in Recovery

US Regimes – a heuristic



Source: BofA US Equity & US Quant Strategy

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Exhibit 54: Consumer Discretionary outperforms in Early Cycle

Sector performance in the four US regime indicator phases (relative to equal-weighted S&P 500)

		Comm Svcs	Staples	Discretionary	Energy	Financials	Health Care	Industrials	Info. Tech.	Materials	Real Estate	Utilities
Phase 1 Early Cycle	Avg:	-2.6%	-4.9%	2.0%	12.0%	14.6%	-6.6%	4.6%	-1.3%	8.7%	5.1%	-14.3%
	Median:	-3.7%	-7.9%	4.9%	1.3%	10.0%	-4.8%	2.5%	-3.2%	9.0%	-10.4%	-13.5%
	Hit Rate:	44.4%	33.3%	55.6%	55.6%	100.0%	33.3%	66.7%	44.4%	66.7%	44.4%	0.0%
Phase 2 Mid Cycle	Avg:	-2.3%	-9.3%	0.0%	3.7%	-0.3%	-2.9%	2.5%	12.0%	-3.1%	-6.2%	-15.9%
	Median:	-3.2%	-10.3%	-2.7%	-2.0%	0.7%	-1.1%	-0.6%	6.6%	-1.4%	-12.6%	-17.4%
	Hit Rate:	33.3%	22.2%	44.4%	44.4%	55.6%	44.4%	44.4%	66.7%	44.4%	33.3%	0.0%
Phase 3 Late Cycle	Avg:	-4.8%	9.8%	-2.3%	1.0%	0.9%	16.4%	3.6%	-1.6%	-4.9%	-3.0%	12.9%
	Median:	-2.4%	5.5%	-2.3%	-6.6%	-1.8%	10.4%	1.1%	1.5%	-8.6%	-2.6%	5.6%
	Hit Rate:	33.3%	66.7%	33.3%	44.4%	44.4%	77.8%	77.8%	55.6%	33.3%	44.4%	66.7%
Phase 4 Downturn	Avg:	8.1%	0.1%	10.3%	-14.3%	-8.6%	0.7%	-5.4%	12.5%	-5.6%	-5.2%	-12.9%
	Median:	7.2%	-1.2%	6.6%	-18.0%	-6.2%	2.2%	-7.4%	6.2%	-9.2%	-11.4%	-12.9%
	Hit Rate:	62.5%	37.5%	75.0%	25.0%	37.5%	62.5%	25.0%	62.5%	25.0%	25.0%	12.5%

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

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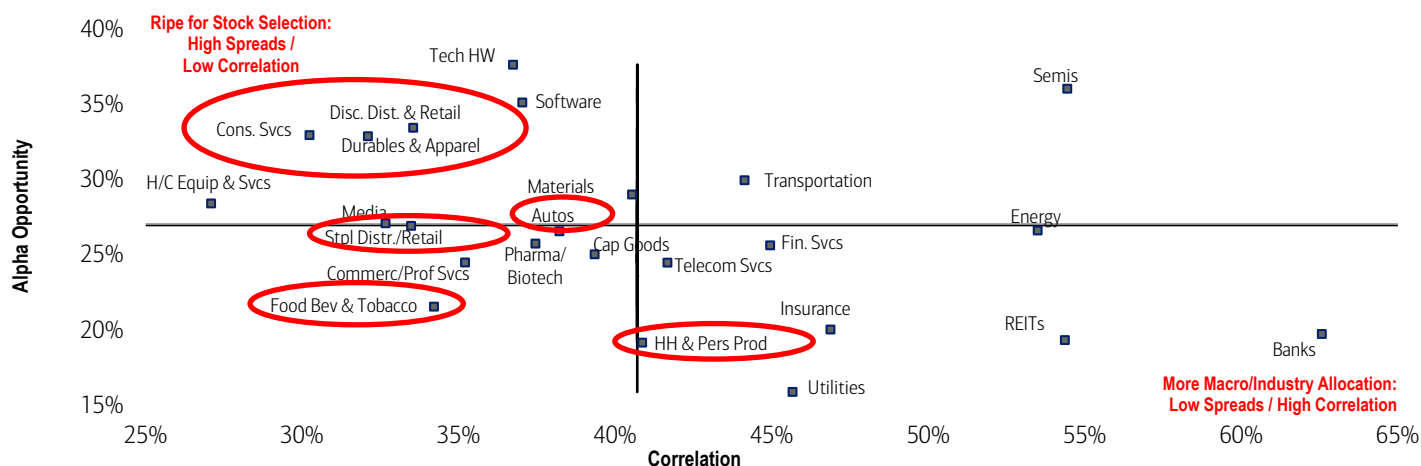
Stock selection vs. industry allocation

Consumer Services, Discretionary Distribution & Retail and Durables & Apparels have high idiosyncratic (stock-specific) risk and wide dispersion between the best and worst performers, making them ripe for stock picking.

Consumer groups by two measures: (1) **Long-short alpha**, or “perfect foresight alpha”, the spread between the best and worst performing stocks within a group over a discrete time period. High average long-short alpha offers investors stronger alpha opportunities. (2) **Pair wise correlation**, the average correlation of daily returns of every pair of stocks within a sector over a discrete time period. Low average correlation indicates more differentiated companies, and can indicate more idiosyncratic or company-specific factors rather than just macro. See How to pick stocks in consumer sectors for factor performance within industries.

Exhibit 55: Pick your battles: correlations vs. dispersion by sector

Historical Intra-stock correlation vs. performance spread (3Q86 to 4Q23) (Consumer Staples and Discretionary industry groups circled)



Source: FactSet, BofA US Equity & Quant Strategy

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COVID impact drives importance of selectivity

Consumer earnings recovered asynchronously following Covid. The median post-Covid Consumer industry earnings correlation was 47%, compared to 81% from 1986-2001.

Globalization first drove earnings decoupling in the 2000s. Post-Covid phenomena — disrupted supply chains, heightened inflation, oil and gas price volatility, and rising rates — have intensified this desynchronization, particularly for Staples: the median Staples industry earnings correlation fell to 50% after Covid, compared with 95% from 1986-2001 and 80% from 2002-Feb. 2020.

Exhibit 56: Consumer industry earnings used to move in tandem

Consumer industries net income correlation matrix, 1986-2001

	Auto Components	Autos	Broad. Retail	Hotels & Restaurants	HH Durables	Leisure Prod.	Spec. Retail	Textiles	Beverages	Dist. & Retail	Food	HH Prod.	Personal Care	Tobacco
Auto Components														
Autos	72%													
Broad. Retail	80%	72%												
Hotels & Restaurants	77%	77%	69%											
HH Durables	85%	85%	80%	95%										
Leisure Prod.	87%	87%	73%	66%	75%									
Spec. Retail	75%	75%	66%	94%	93%	62%								
Textiles	60%	60%	46%	59%	66%	79%	56%							
Beverages	70%	70%	60%	87%	88%	74%	82%	85%						
Distrib. & Retail	74%	74%	68%	98%	95%	63%	98%	61%	89%					
Food	82%	82%	74%	86%	90%	87%	81%	84%	92%	86%				
HH Products	81%	81%	73%	95%	97%	77%	93%	75%	94%	96%	94%			
Personal Care	79%	79%	73%	90%	92%	83%	83%	82%	95%	89%	98%	96%		
Tobacco	72%	72%	62%	88%	90%	77%	87%	84%	96%	91%	95%	96%	95%	

Source: FactSet, BofA US Equity & Quant Strategy

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Exhibit 57: Globalization ushered in a new era of Consumer earnings decoupling

Consumer industries net income correlation matrix, 2002-Feb. 2020

	Auto. Components	Autos	Broad. Retail	Distrib.	Div. Consum. Svs.	Hotels & Restaurants	HH Durables	Leisure Prod.	Spec. Retail	Textiles	Beverages	Dist. & Retail	Food	HH Prod.	Personal Care	Tobacco
Auto Components																
Autos	61%															
Broad. Retail	40%	51%														
Distrib.	45%	64%	88%													
Div. Consum. Svs.	-65%	-52%	-49%	-67%												
Hotels & Restaurants	55%	58%	92%	94%	-63%											
HH Durables	25%	65%	39%	48%	-46%	39%										
Leisure Prod.	-20%	-10%	-65%	-68%	23%	-70%	-5%									
Spec. Retail	62%	69%	88%	94%	-77%	95%	53%	-57%								
Textiles	77%	68%	82%	88%	-75%	93%	39%	-60%	95%							
Beverages	72%	54%	78%	75%	-58%	91%	18%	-58%	85%	93%						
Distrib. & Retail	78%	52%	65%	68%	-58%	83%	12%	-54%	79%	91%	96%					
Food	63%	51%	63%	69%	-38%	80%	12%	-60%	75%	83%	88%	88%				
HH Prod.	51%	18%	61%	50%	-13%	74%	-15%	-62%	62%	73%	89%	89%	80%			
Personal Care	-20%	37%	24%	31%	-20%	14%	42%	6%	16%	4%	-12%	-23%	-12%	-32%		
Tobacco	70%	37%	62%	52%	-45%	70%	0%	-39%	67%	75%	87%	85%	72%	79%	-26%	

Source: FactSet, BofA US Equity & Quant Strategy

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Exhibit 58: Earnings decoupling continued after Covid

Consumer industries net income correlation matrix, Mar. 2020-Present

	Auto. Components	Autos	Broad. Retail	Distrib.	Div. Consum. Svs.	Hotels & Restaurants	HH Durables	Leisure Prod.	Spec. Retail	Textiles	Beverages	Distrib. & Retail	Food	HH Prod.	Personal Care	Tobacco
Auto Components																
Autos	67%															
Broad. Retail	-5%	-17%														
Distrib.	45%	94%	-20%													
Div. Consum. Svs.	55%	73%	90%	75%												
Hotels & Restaurants	70%	30%	-38%	14%	70%											
HH Durables	39%	91%	-25%	98%	-30%	6%										
Leisure Prod.	-8%	16%	20%	29%	-12%	-53%	39%									
Spec. Retail	48%	91%	-3%	95%	99%	4%	95%	47%								
Textiles	62%	61%	13%	59%	87%	27%	59%	54%	74%							
Beverages	68%	89%	-38%	83%	43%	61%	78%	-17%	71%	48%						
Distrib. & Retail	31%	79%	23%	86%	9%	-16%	84%	53%	93%	66%	53%					
Food	48%	92%	-30%	92%	-81%	27%	88%	0%	80%	35%	89%	70%				
HH Prod.	-31%	-9%	75%	-6%	-80%	-47%	-13%	-12%	-7%	-27%	-21%	21%	-2%			
Personal Care	54%	47%	18%	44%	74%	33%	40%	23%	52%	74%	43%	50%	24%	-7%		
Tobacco	61%	93%	-14%	94%	-54%	33%	91%	25%	91%	68%	87%	84%	89%	-10%	56%	

Source: FactSet, BofA US Equity & Quant Strategy

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Quant industry model: middle of the pack

Our Momentum & Value framework ranks sectors based on price momentum, earnings momentum, and valuation factors. Sectors are sorted from highest (most attractive) to lowest (least attractive) ranks as of the latest month below. Consumer Discretionary and Consumer Staples both rank in the middle of the pack (#4 and #5, respectively).

We use this framework as one component in determining our overall S&P 500 sector preferences, but fundamentals, risk and other macro factors are also important drivers. We more heavily utilize this framework in determining our favored industries (though again, other factors also contribute) and in highlighting attractive short-term sector opportunities for more tactical investors. See our [Cheat Sheet](#) for more details.

Exhibit 59: S&P 500 Momentum & Value Framework Sector Ranks as of 2/24

Sector ranks based on relative price momentum, EPS revision and valuation

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

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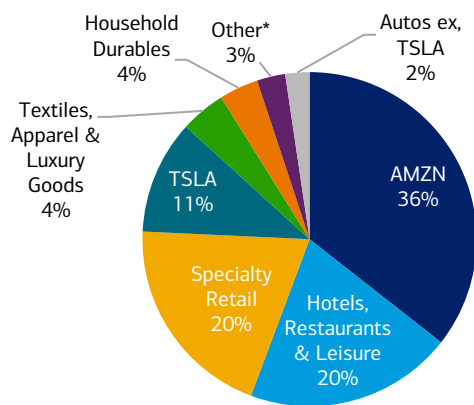
Deep dive on AMZN and TSLA holdings

AMZN and TSLA = 50% of Discretionary's market cap, 20% of 2023 earnings.

Exhibit 60: Amazon & TSLA account for nearly 50% of S&P 500 Consumer Discretionary by market cap

Consumer Discretionary by market cap

Weight of AMZN, TSLA, and industries within S&P Consumer Discretionary (as of 3/6/2024)



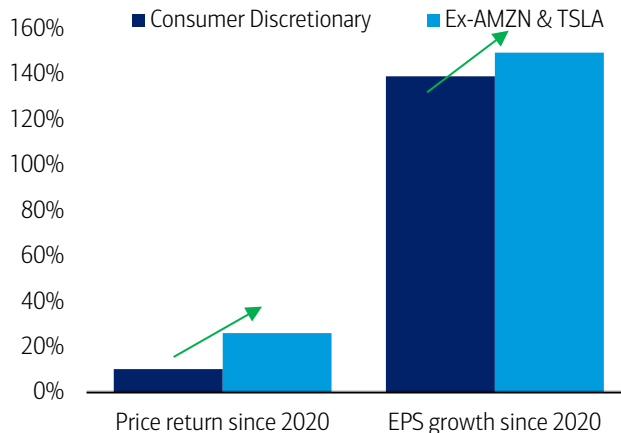
Source: BofA US Equity & Quant Strategy, Bloomberg

*Other includes industries with 1 or <1% weight: Broadline Retail ex. AMZN, Automobile Components, Distributors, and Leisure Products

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Exhibit 61: AMZN & TSLA drove over 70% of sector returns in 2023, but have been detractors since the end of 2020

Consumer Discretionary price return & EPS growth since 2020 with and without AMZN & TSLA (as of 2/24)

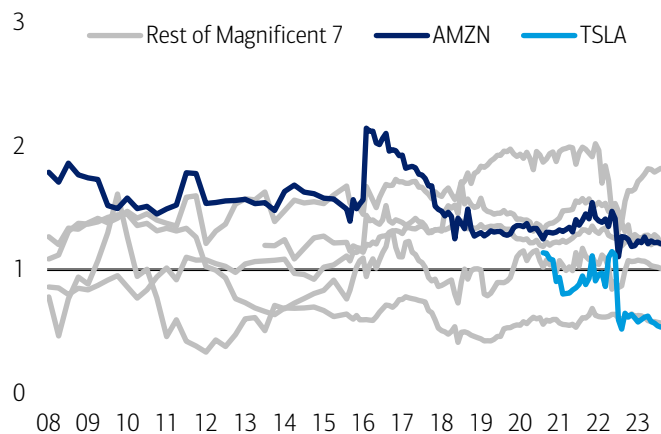


Source: FactSet, BofA US Equity & Quant Strategy

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Exhibit 62: AMZN 20% overweight, TSLA 50% underweight

Long-only funds' relative weight in Magnificent 7 stocks vs S&P 500 (2008-1/2024)



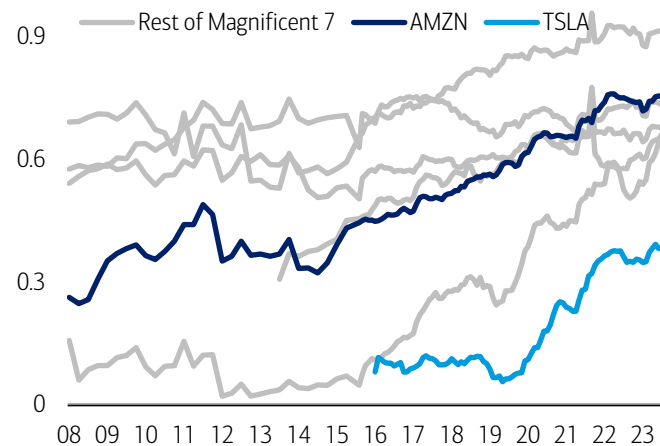
Source: FactSet Ownership, BofA US Equity & Quant Strategy

Magnificent 7 = AMZN, TSLA, AAPL, MSFT, GOOG/GOOGL, NVDA, META

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Exhibit 63: AMZN owned by 75% of funds, TSLA owned by <40%

% of long-only funds that own each Magnificent 7 stock (2008-1/2024)



Source: FactSet Ownership, BofA US Equity & Quant Strategy

Magnificent 7 = AMZN, TSLA, AAPL, MSFT, GOOG/GOOGL, NVDA, META

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How to pick stocks in consumer sectors

Given that certain screens may be more effective in some sectors than in others, we believe that determining drivers of returns within specific industry groups can add significant value to a screening process. See our latest [Quantitative Primer](#) for more details on our factors. Note: All scatter plot charts in this section are based on actual performance after the screens were introduced, except where noted.

Exhibit 64: Most predictive long-short factors within industry groups.

Analysis spans 1985 to Apr 2023, Historical Russell 1000 Constituents

	Valuation Measure	Momentum Measure	Growth Measure	Quality Measure
Consumer Discretionary				
Retailing	P/FCF, EV/EBITDA	Trading Volume, Relative Strength - 5W/30W	Estimate Revision	ROC
Other Discretionary (Autos, Durables, Services)	FCF/EV, Forward P/E	12-Mth Return and 1-Mth Reversal, 30Wk / 75Wk Relative Strength	Estimate Revision	ROC
Consumer Staples	Trailing and Forward P/E, EV/EBITDA	Trading Volume, 12-Mth Return and 1-Mth Reversal	PEG Ratio	ROC

Source: BofA US Equity & Quant Strategy

Note: Historical Relative P/E is calculated as the relative forward P/E of a stock versus the market compared to its long-term average relative P/E.

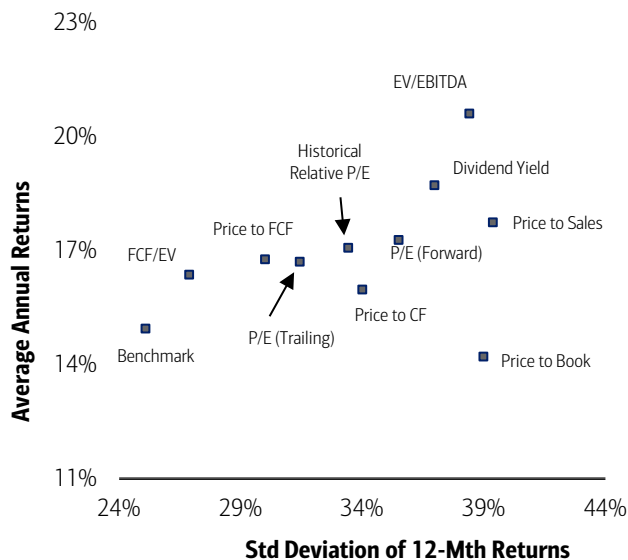
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Consumer Discretionary: Retailing

Long only: Top Quintile Performance

Exhibit 65: Valuation Strategies for Retailing: Top Quintile Returns (1985 to April 2023)

EV/EBITDA fared best

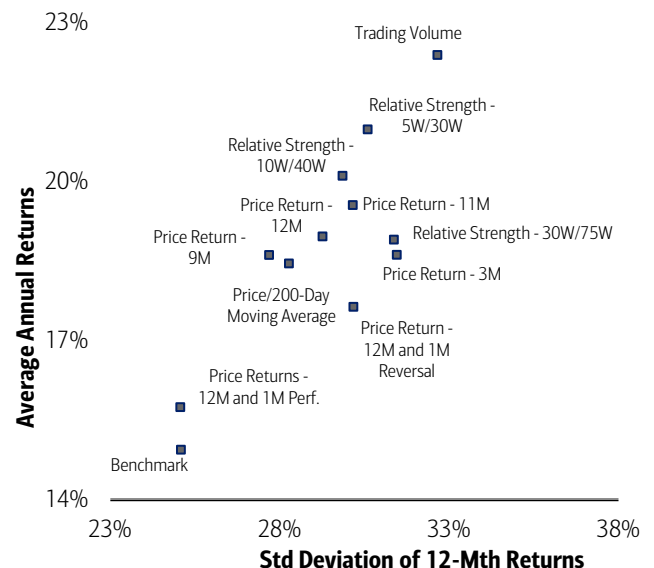


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 66: Momentum Strategies for Retailing: Top Quintile Returns (1985 to April 2023)

Trading Volume fared best

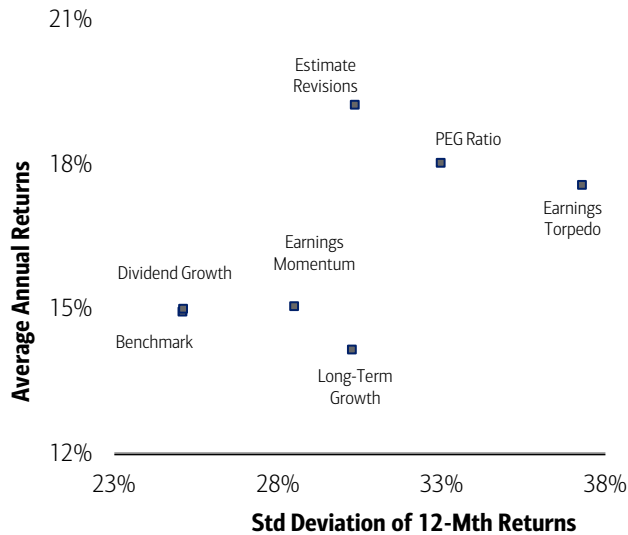


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 67: Growth Strategies for Retailing: Top Quintile Returns (1985 to April 2023)

EPS Estimate Revisions fared best

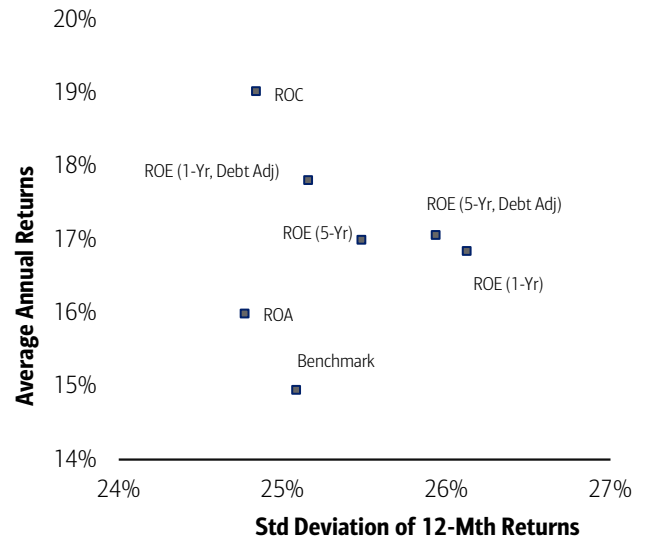


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 68: Quality Strategies for Retailing: Top Quintile Returns (1985 to April 2023)

Return on Capital fared best



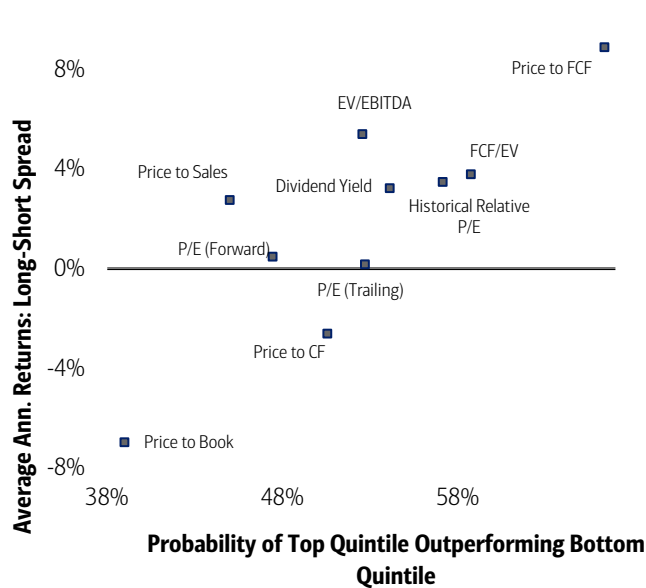
Source: BofA US Equity & Quant Strategy, FactSet

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Long-Short: Quintile 1 / Quintile 5 Spread

Exhibit 69: Valuation Strategies for Retailing: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

Price to FCF fared best

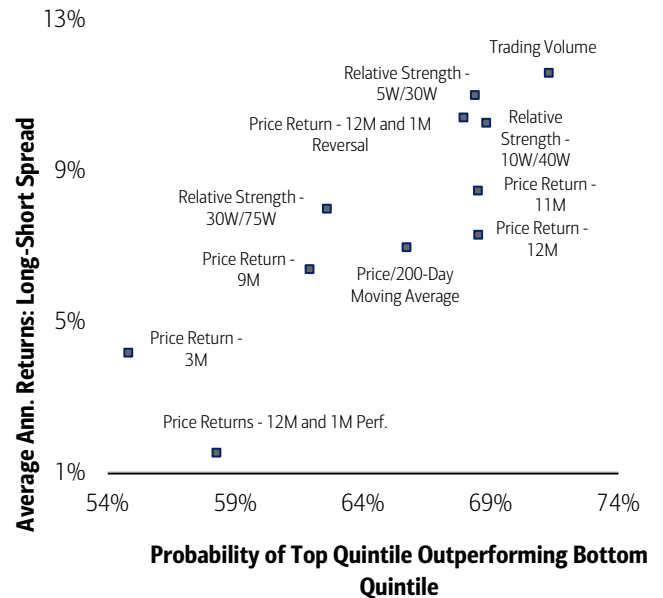


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 70: Momentum Strategies for Retailing: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

Trading Volume fared best

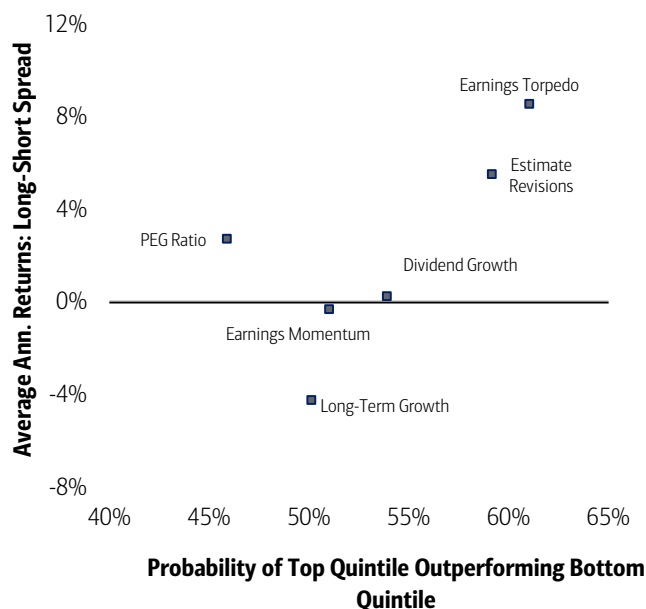


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 71: Growth Strategies for Retailing: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

Earnings Torpedo fared best

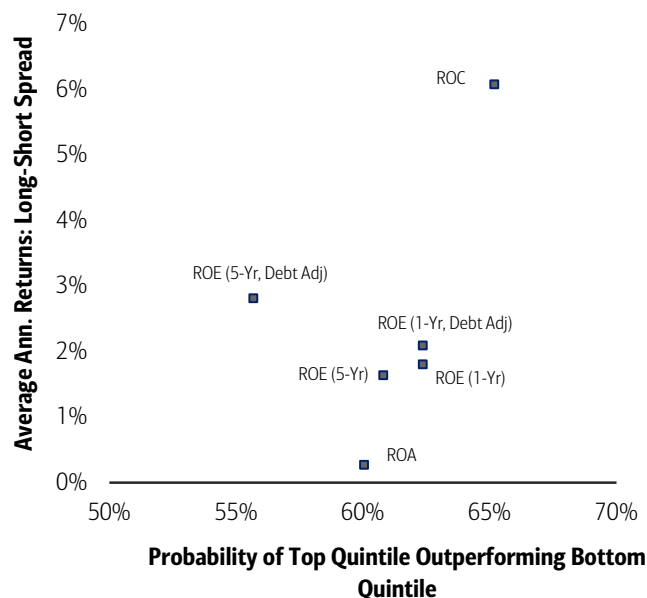


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 72: Quality Strategies for Retailing: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

High Return on Capital fared best



Source: BofA US Equity & Quant Strategy, FactSet

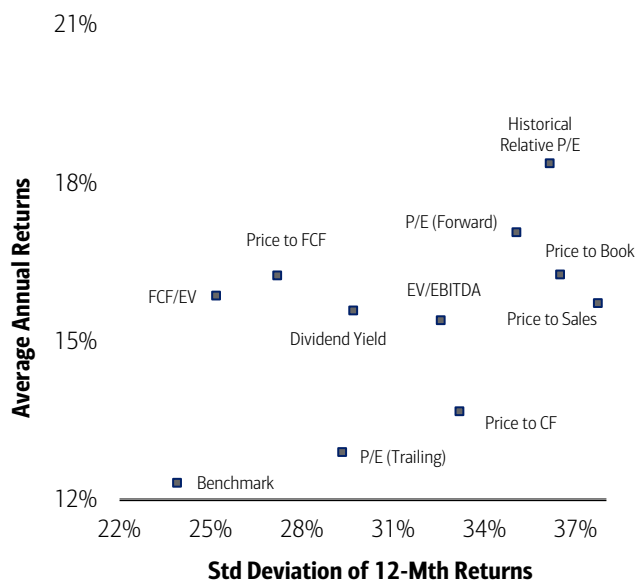
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Other Disc. (Autos, Durables, Services)

Long only: Hypothetical Top Quintile Performance

Exhibit 73: Valuation Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Top Quintile Returns (1985 to April 2023)

Historical Relative P/E fared best

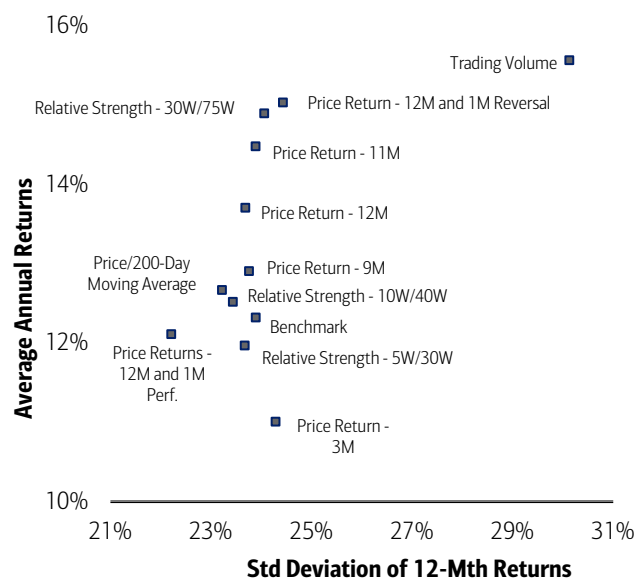


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 74: Momentum Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Top Quintile Returns (1985 to April 2023)

Trading Volume fared best

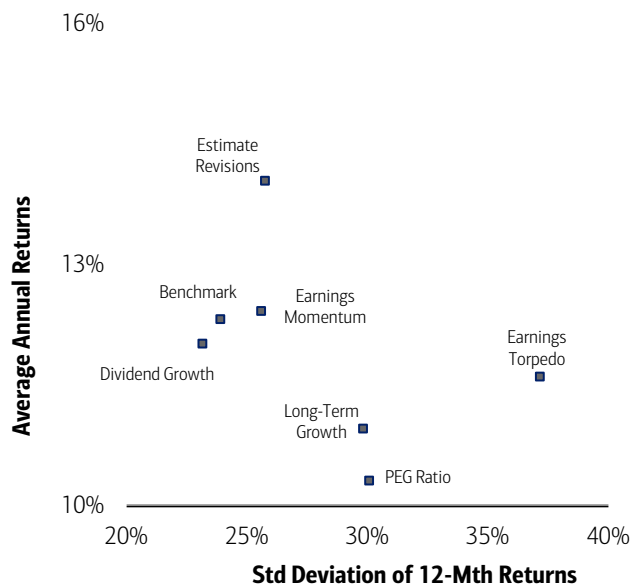


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 75: Growth Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Top Quintile Returns (1985 to April 2023)

EPS Estimate Revisions fared best

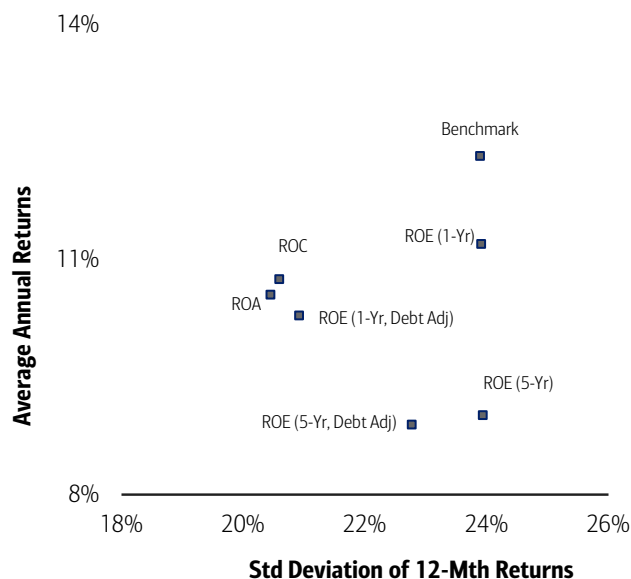


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 76: Quality Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Top Quintile Returns (1985 to April 2023)

1-yr ROE underperformed least



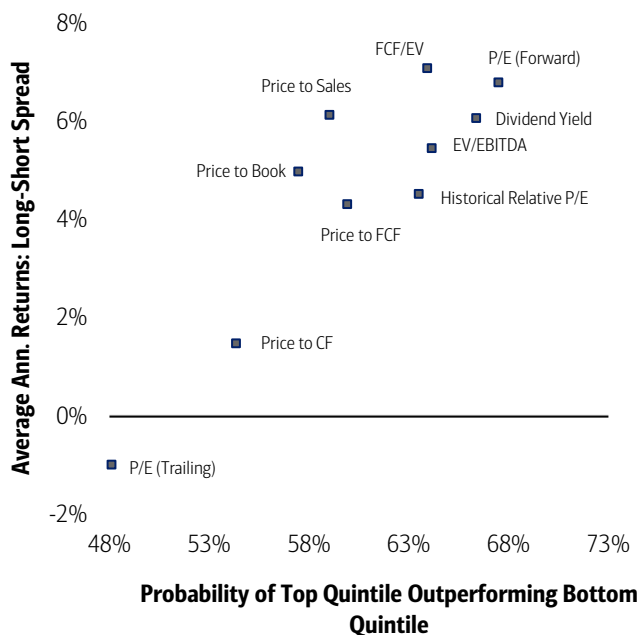
Source: BofA US Equity & Quant Strategy, FactSet

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Long-Short: Quintile 1 / Quintile 5 Spread

Exhibit 77: Valuation Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

FCF/EV fared best

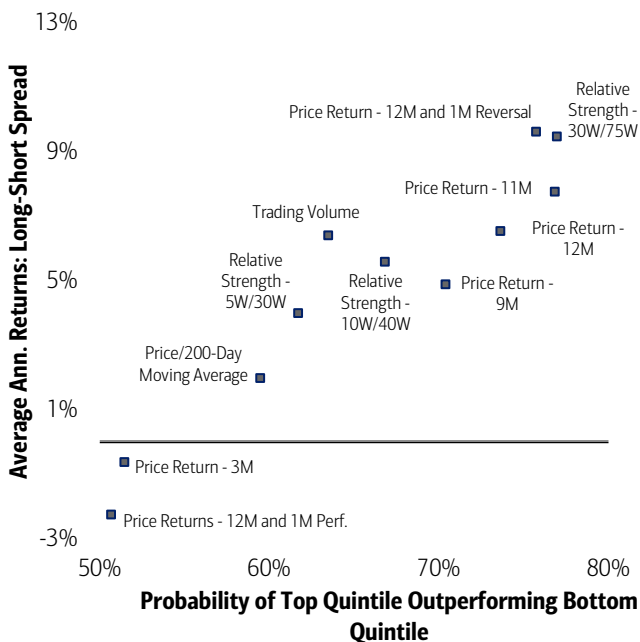


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 78: Momentum Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

12-mth and 1-mth Reversal fared best

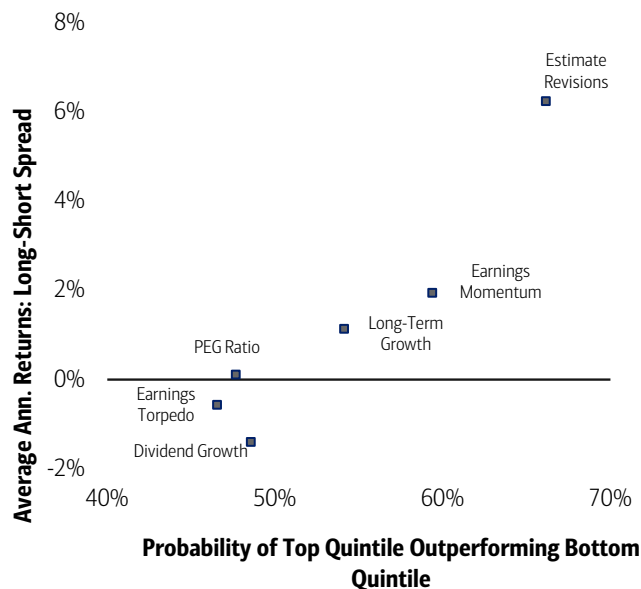


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 79: Growth Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

EPS Estimate Revisions fared best

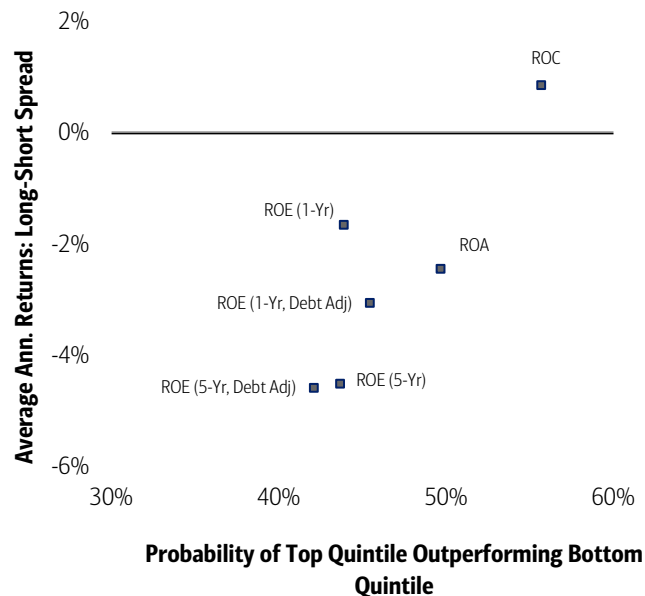


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 80: Quality Strategies for Autos, Cons Durables & Apparel, Cons Svcs: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

ROC fared best



Source: BofA US Equity & Quant Strategy, FactSet

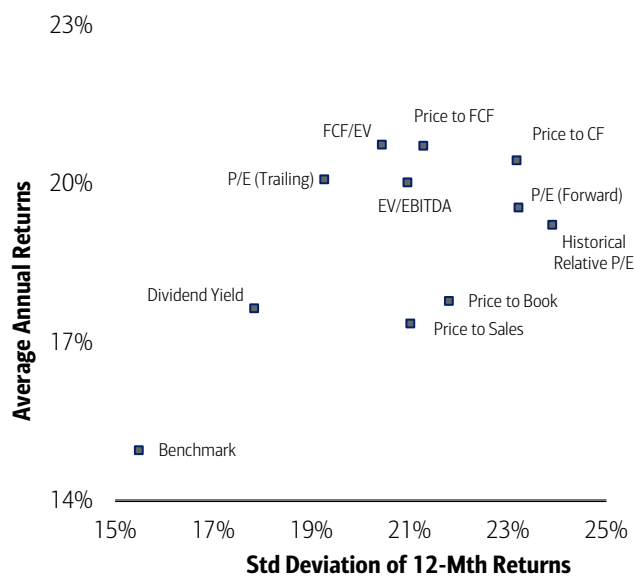
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Consumer Staples

Long only: Top Quintile Performance

Exhibit 81: Valuation Strategies for Consumer Staples: Top Quintile Returns (1985 to April 2023)

FCF/EV and Price to FCF fared best

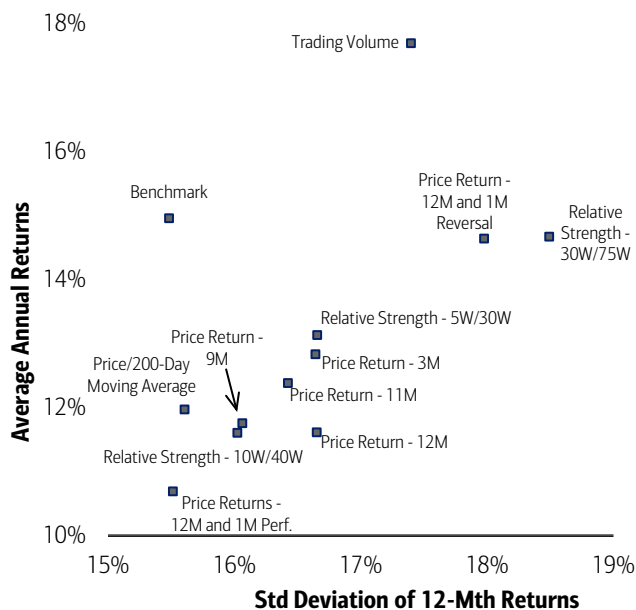


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 82: Momentum Strategies for Consumer Staples: Top Quintile Returns (1985 to April 2023)

Trading Volume outperformed the index most

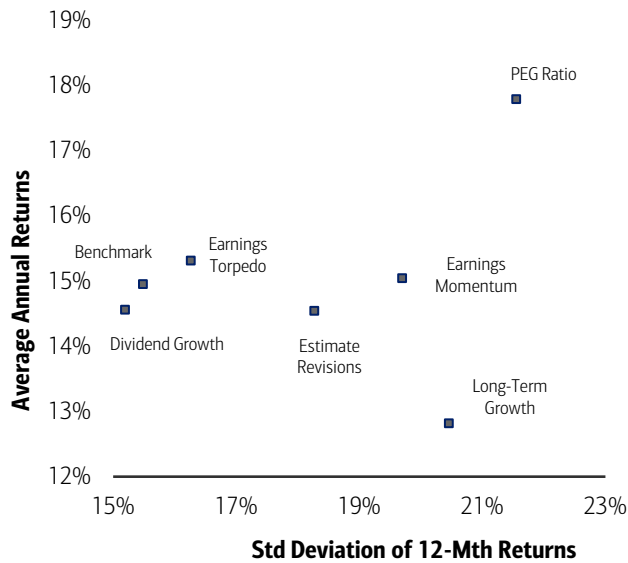


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 83: Growth Strategies for Consumer Staples: Top Quintile Returns (1985 to April 2023)

PEG Ratio outperformed the index most

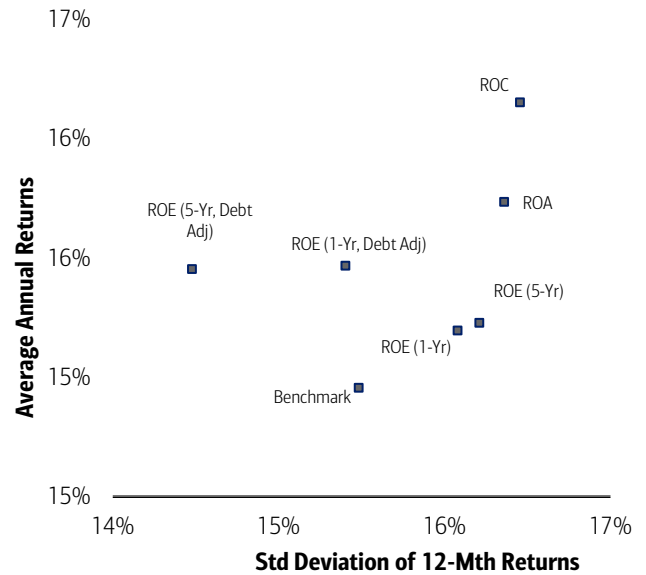


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 84: Quality Strategies for Consumer Staples: Top Quintile Returns (1985 to April 2023)

ROC outperformed the index most



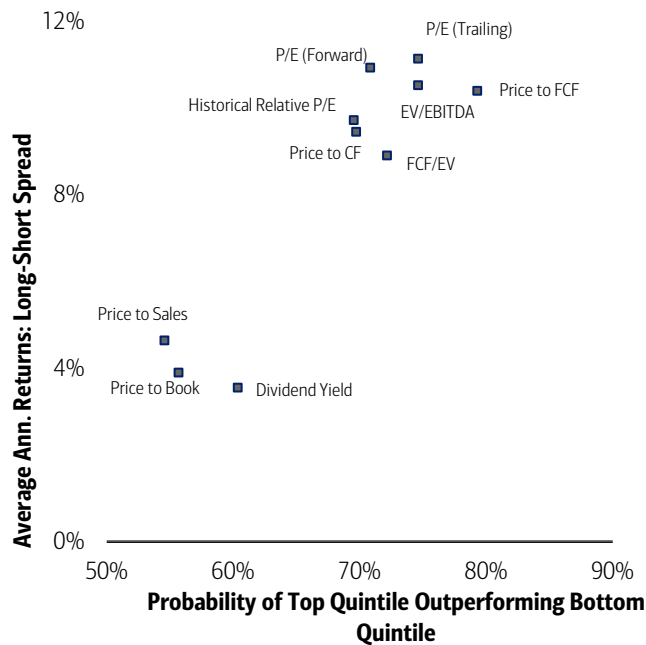
Source: BofA US Equity & Quant Strategy, FactSet

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Long-Short: Quintile 1 / Quintile 5 Spread

Exhibit 85: Valuation Strategies for Consumer Staples: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

P/E fared best

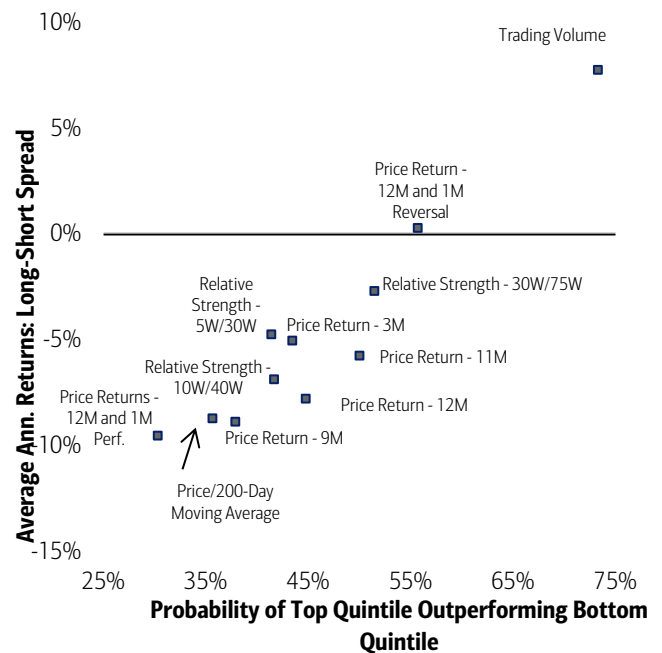


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 86: Momentum Strategies for Consumer Staples: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

Trading Volume fared best

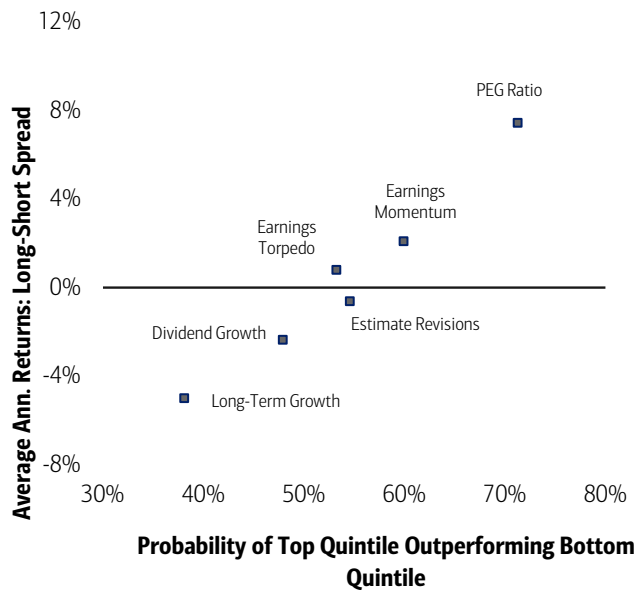


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 87: Growth Strategies for Consumer Staples: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

PEG Ratio fared best

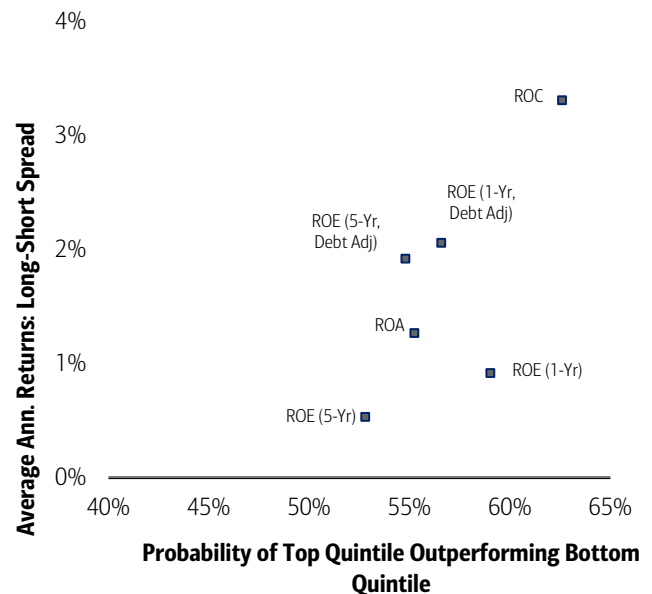


Source: BofA US Equity & Quant Strategy, FactSet

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Exhibit 88: Quality Strategies for Consumer Staples: Avg Long-Short Spreads vs. Consistency of Spreads (1985 to April 2023)

Return on Capital fared best



Source: BofA US Equity & Quant Strategy, FactSet

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Micro views: Consumer year-ahead reports

[Airlines: 2024 Year Ahead: continued tough domestic: valuation drives UAL to Buy 09 January 2024](#)

[Automotive Industry: Year Ahead 2024: Five Auto themes & top stock picks as volatility remains 09 January 2024](#)

[Building Products: 2024 outlook: prefer new construction > R&R; upgrade BLDR on stronger starts 29 January 2024](#)

[Gaming: Year Ahead 2024: Could the micro top the macro? 08 January 2024](#)

[Internet/e-Commerce: eCommerce Year Ahead: Global eCommerce outlook and top stocks for 2024 07 December 2023](#)

[Internet/e-Commerce: US Internet 2024 Sector Year-ahead 17 January 2024](#)

[Internet/e-Commerce: 2024 Online Media Year Ahead 11 December 2023](#)

[Leisure Brands & Retailers: Year Ahead 2024: Multigenerational leisure entertainment & fitness well positioned 18 January 2024](#)

[Lodging: Year Ahead 2024: The recovery is \(finally\) over. what's next? 08 January 2024](#)

[Luxury Goods: Year Ahead 2024: darkness before dawn 10 January 2024](#)

[Restaurants Industry: Year Ahead 2024: Business as usual? 16 January 2024](#)

[US Consumer Staples: Year Ahead 2024: Running in Place 15 December 2023](#)

Appendix

Inputs for the US Regime Indicator

Inputs for the US regime indicator include the following eight macroeconomic or top-down variables listed below.

- **Earnings Revision ratio:** Calculated as the ratio between the number of companies in the S&P 500 for which Thomson Financial consensus earnings estimates have been raised versus those that have been lowered. A rising ratio indicates an improving economic cycle.
- **ISM PMI:** ISM PMI Institute for Supply Management Manufacturing Purchasing Managers Index, represented as the Z-Score. The ISM Manufacturing Index monitors economic activity as reported by 300 supply management professionals. The reading of the index above (below) 50 indicated economic expansion (contraction).
- **Inflation:** The 12-month change in the BofA Inflation Composite (see methodology further below), represented as the Z-Score. Rising inflation indicates improving economic conditions.
- **GDP Forecast:** The next 12-month US GDP growth forecast from the Federal Reserve Bank of Philadelphia Survey, represented as the Z-Score.
- **Leading Economic Indicators index:** The 12-month change in the Conference Board US Leading Index of Ten Economic Indicators, represented as a Z-Score. A rising Z-Score indicates improving economic conditions.
- **US Capacity Utilization:** The 12-month change in US capacity utilization, represented as the Z-score. The capacity utilization rate indicates the percentage of total economic capacity currently utilized. Rising capacity utilization implies improving economic conditions. Rising capacity utilization suggests more expanding economic cycle and potentially rising inflationary pressure.
- **10-yr US Treasury Bond Yield:** The 12-month change in the bond yield, represented as the Z-Score. Rising yields indicate improving economic conditions.
- **High Yield corporate bond credit spread:** The 12-month change in the US High Yield credit spread of the ICE BofA US High Yield Index, represented as a Z-score. Falling spreads indicate improving economic conditions.

Guidance Ratio

Earnings guidance: We track the number of instances of above- vs. below-consensus management guidance for earnings over the last three months for S&P 500 companies. If a company issues changes to its outlook more than once in a one-month period, we incorporate all instances of guidance into our aggregate number. The ratio also includes all instances of above- or below-consensus earnings guidance issued by a company (for example, if they issue both quarterly and annual guidance). The one-month and three-month revision ratios are calculated as they are for estimate revision ratios. The data source is Bloomberg. For companies that provide both GAAP and Operating guidance, or for REITs that provide both EPS and FFO guidance, we remove one data point if both data points provide the same guidance direction, otherwise both data points are used.



Disclosures

Important Disclosures

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. **INVESTMENT RATINGS** reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

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.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. **Coverage Cluster** is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

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