

US Weekly Kickstart

Exploring the cyclical rotation across \$5 trillion of hedge fund and mutual fund holdings

We published this week our [Hedge Fund Trend Monitor](#) and [Mutual Fundamentals](#) reports which analyzed 744 hedge funds with \$2.4 trillion of gross equity positions and 528 mutual funds with \$2.8 trillion of AUM as of the start of 3Q 2023. Both hedge funds and mutual funds benefited from the broader cyclical rally given their increased exposure to cyclical sectors like Energy. Financials was one area of disagreement, with hedge funds underweight and mutual funds overweight. There are only six “shared favorites” between our Hedge Fund VIP basket (GSTHHVIP) and Mutual Fund Overweight basket (GSTHMFOW), the lowest number in 9 quarters: CI, FI, MA, UBER, V, WDAY (Exhibits 5 – 9).

Performance

The S&P 500 was down 0.2% this week. Information Technology was the best-performing sector (+1.9%) while Energy was the worst-performing sector (-1.5%). We expect the S&P 500 will end 2023 at 4500 (+2.8%).

S&P 500 earnings and valuation

	Goldman Sachs Portfolio Strategy		Consensus Bottom-Up	
	2023E	2024E	2023E	2024E
EPS	\$224	\$237	\$223	\$248
Growth	1 %	5 %	1 %	11 %
P/E	NTM	2023E	NTM	2023E
	18.8x	18.5x	18.6x	19.6x

Source: I/B/E/S, FirstCall, Goldman Sachs Investment Research

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Conversations we are having with clients: Comparing mutual fund and hedge fund holdings

We recently published our [Hedge Fund Trend Monitor](#) and [Mutual Fundamentals](#) reports, which analyzed holdings at the start of 3Q 2023. Our analysis covered 744 hedge funds with \$2.4 trillion of gross equity positions (\$1.6 trillion long, \$838 billion short) and 528 core, growth, and value mutual funds with \$2.8 trillion of AUM.

The median S&P 500 stock's return has sharply become more micro-driven this year, representing alpha opportunity for hedge funds and mutual funds. Our research shows that the typical S&P 500 stock has been more [micro-driven](#) in the last six months than at any time since 2017, driven by falling stock correlation. A more micro-driven market has typically been associated with more opportunity for stock pickers to capture alpha. For example, hedge fund returns have historically been more positive when stock returns are more micro-driven (Exhibit 1).

Hedge funds and mutual funds both increased market exposure during 2Q (Exhibit 2). Partly explained by improving economic data and sentiment, a basket of stocks with the most concentrated short interest (GSCBMSAL) rallied nearly 40% between May and July before plunging by 21% this month as expectations soften. Hedge fund net leverage increased to a high of 70% during 2Q, which ranked at the 50th percentile vs. the past 5 years, before recently falling to 65%. Gross leverage remains elevated at 269% (91st percentile). Similarly, mutual fund cash allocations fell from 2.5% in November to 2.0% in June, but are still above the record low of 1.5% reached in 2021.

Reflecting the fertile stock picking environment, mutual fund and hedge fund favorites have outperformed in recent months. The most popular mutual fund overweight (GSTMFOV) have outperformed the largest mutual fund underweights (GSTMFOU) by 5 pp (10% vs. 5%) since the start of 2Q, although overweights are still trailing underweights by 3 pp YTD. The most popular hedge fund long positions (GSTHHVIP) have outpaced the largest shorts (GSTHHVIP) by 21 pp YTD (24% vs. 3%) after a record stretch of underperformance in 2022.

The rotation from defensives to cyclicals observed in the broader market was mirrored in fund positioning. Hedge funds have rotated toward cyclicals for four consecutive quarters and their long portfolios carry the most cyclical tilt since 2014. Mutual funds remain overweight cyclical sectors and excluding Big Tech, their cyclicals vs. defensives exposure ranks at the 80th percentile since 2012. Hedge funds and mutual funds have been rewarded for their pro-cyclical stance as Cyclicals have outperformed Defensives since May.

Hedge funds and mutual funds both increased exposure to the cyclical Energy sector. Hedge funds entered 3Q 115 bp overweight the sector relative to the Russell 3000, compared with 48 bp underweight during 1Q. The increase in hedge fund net tilt was spread across all seven subsectors. Mutual funds increased their exposure to the Energy sector by 13 bp to 82 bp and are now the most overweight since at least 2012. CVX and XOM were among the top stocks that generated the most positive alpha for mutual funds. CHK, ET, EQT, and VAL rank among hedge fund favorites.

Financials is the one sector where hedge funds and mutual funds have opposing views, with mutual funds overweight and hedge funds underweight, but both added exposure to the sector in 2Q. Although hedge funds entered 3Q 192 bp underweight Financials, it was the least negative net tilt in 10 years. The negative net tilt narrowed the most for Regional and Diversified Banks. BX screened into our list of stocks with the largest increase in hedge fund popularity and C joined FCNCA and JPM in our list of hedge fund favorites. However, many Financials also screened into our list of stocks with the largest decrease in hedge fund popularity, reflecting the focus on alpha generation. Mutual funds also hold the highest exposure to the sector since at least 2012. However, funds cut exposures to Regional Banks.

Hedge funds and mutual funds rotated into cyclicals at the expense of growth sectors like Info Tech and Consumer Discretionary. Earlier this year, the seven mega-cap tech stocks lifted the S&P 500 in an extremely narrow rally. Returns have since broadened out and funds cut exposure to the two sectors. Hedge funds and mutual funds both entered 3Q with largest Info Tech underweight since at least 2012.

Despite the rotation away from tech at the macro level, hedge funds continued to lift exposures in select tech stocks. Hedge funds carried a record long portfolio weight in mega-cap tech during 2Q and the group remains atop the list of the most popular hedge fund long positions. AMZN supplanted MSFT as hedge funds' favorite position and NVDA joined META and GOOGL in the top five. In addition, six of the 20 stocks in this quarter's Rising Stars list are Info Tech stocks.

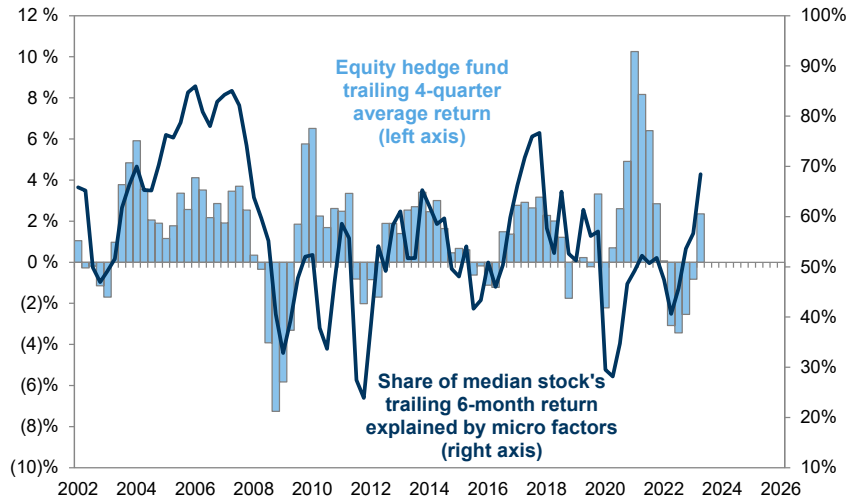
In contrast, the largest tech stocks were the primary contributors to negative alpha in mutual funds portfolios. In aggregate, mutual funds hold the widest ever underweight in the seven mega cap tech stocks. The average large-cap core mutual fund is 10 pp underweight the group (18% allocation vs. 28% S&P 500 weight) while the average large-cap growth fund is 18 pp underweight (30% vs. 48% Russell 1000 Growth weight). These underweights have been the primary headwind to mutual fund performance YTD. Our analysis shows that PMs chased META, GOOGL, and MSFT in 2Q though their underweights in the other mega caps widened.

One area hedge funds and mutual funds agreed on is their group of "shared favorites." We define shared favorites as stocks that screen into our Hedge Fund VIP and Mutual Fund Overweight baskets. There are six shared favorites this quarter: CI, FI, MA, UBER, V, and WDAY. CI is the only new shared favorite this quarter. Three of the stocks are Financials and the other three are from Health Care, Info Tech, and Industrials. The median shared favorite trades at a 58% NTM P/E premium to the median S&P 500 stock (27x vs. 17x).

Shared favorites have lagged the S&P 500 by 1 pp YTD (14% vs. 15%) but have a strong track record of outperformance (Exhibit 4). An equal-weighted list of shared favorites has generated an annualized return of 14% vs. 13% for the S&P 500 and has a 59% monthly hit rate of outperformance. Looking ahead, pricing in options markets reflects expectations for high return dispersion and our forecast of 7% S&P 500 upside over the next 12 months underscores the importance of alpha over beta.

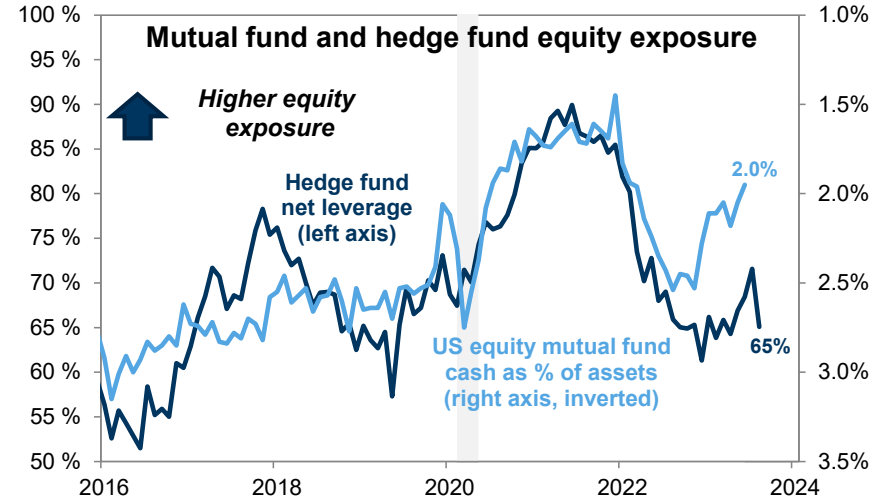
Charts we are watching: Hedge fund and mutual fund positioning & performance YTD

Exhibit 1: Hedge fund returns typically improve in a micro-driven market
as of August 24, 2023



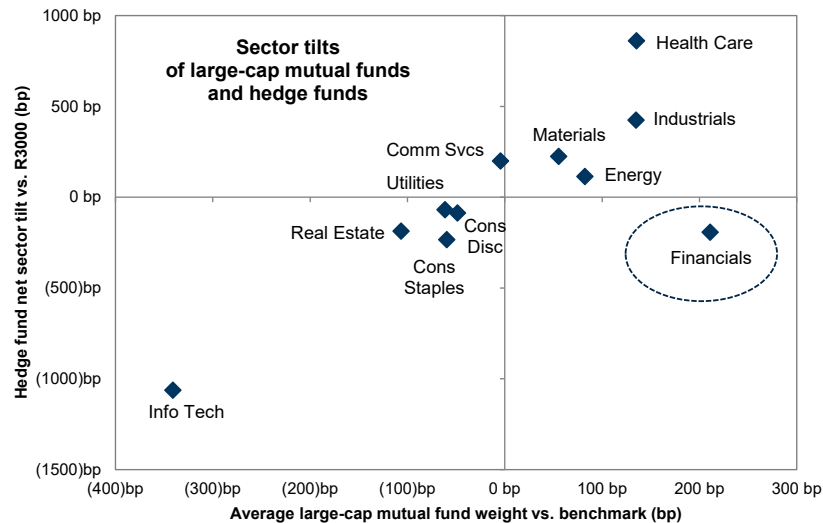
Source: HFR, Goldman Sachs Global Investment Research

Exhibit 2: Mutual funds and hedge funds have increased equity exposure YTD
as of August 24, 2023



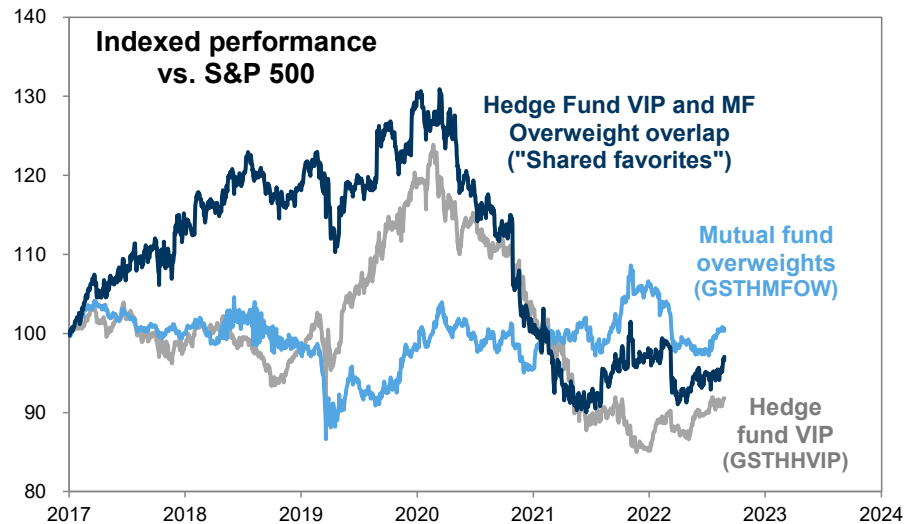
Source: Goldman Sachs Prime Services, ICI, Goldman Sachs Global Investment Research

Exhibit 3: Hedge funds and mutual funds disagree on the Financials sector
holdings as of June 30, 2023



Source: Goldman Sachs Global Investment Research

Exhibit 4: Performance of GSTHHVIP, GSTHMFOW, and "shared favorites"
as of August 24, 2023



Source: FactSet, Goldman Sachs Global Investment Research

Overlap between our mutual fund and hedge fund baskets

Exhibit 5: Overlap between our mutual fund and hedge fund baskets

holdings as of 2Q 2023

		Overlap with our MUTUAL FUND baskets							
		<i>Overweight</i>				<i>Underweight</i>			
		Mutual Fund Overweight Positions <GSTHMFOW>				Mutual Fund Underweight Positions <GSTHMFUW>			
Overlap with our HEDGE FUND baskets	Long	Hedge Fund VIP List <GSTHHVIP>							
	Short	Hedge Fund Very Important Short Positions <GSTHVISP>							
		CI V	FI WDAY	MA	UBER	AAPL BA META	AMD BRK.B MSFT	AMZN GOOGL NVDA	AVGO LLY
		BAC UNH	CMCSA USB	INTU	SCHW	ABBV DIS INTC MRNA T XOM	CAT F ITW PEP TMO	COST HD JNJ PFE TSLA	CVX IBM MCD PG WMT

Source: Goldman Sachs Global Investment Research.

Constituents of our Hedge Fund Very Important Positions basket (GSTHHVIP)

Exhibit 6: Constituents of GSTHHVIP

holdings as of 2Q 2023; pricing as of August 24, 2023; new constituents in **bold**

Hedge Fund Very Important Position (VIP) Basket <GSTHHVIP>											
Company	Ticker	Sub-sector	Total Return YTD	No. of funds with stock as top 10 holding	Percent of equity cap owned by hedge funds	Company	Ticker	Sub-sector	Total Return YTD	No. of funds with stock as top 10 holding	Percent of equity cap owned by hedge funds
				30-Jun-23	30-Jun-23					30-Jun-23	30-Jun-23
Amazon.com Inc.	AMZN	Broadline Retail	57 %	97	2 %	Fiserv Inc.	FI	Transaction & Payment Processing Services	19%	12	5%
Microsoft Corp.	MSFT	Systems Software	34	90	1	Humana Inc.	HUM	Managed Health Care	(5)	12	4
Meta Platforms Inc.	META	Interactive Media & Services	138	77	3	MercadoLibre Inc.	MELI	Broadline Retail	44	12	3
Alphabet Inc.	GOOGL	Interactive Media & Services	47	49	2	Seagen Inc.	SGEN	Biotechnology	54	12	35
NVIDIA Corp.	NVDA	Semiconductors	223	38	2	argenx SE ADR	ARGX	Biotechnology	34	11	9
Uber Technologies	UBER	Passenger Ground Transportation	81	38	8	Booking Holdings	BKNG	Hotels Resorts & Cruise Lines	50	11	3
Activision Blizzard	ATVI	Interactive Home Entertainment	21	35	11	Broadcom Inc.	AVGO	Semiconductors	55	11	0
Apple Inc.	AAPL	Technology Hardware Storage & Peripherals	36	34	0	Charter Communications	CHTR	Cable & Satellite	21	11	3
Horizon Therapeutics Public Limited	HZNP	Biotechnology	(7)	27	38	Energy Transfer LP	ET	Oil & Gas Storage & Transportation	17	11	2
Visa Inc.	V	Transaction & Payment Processing Services	16	25	3	EQT Corp.	EQT	Oil & Gas Exploration & Production	25	11	8
Mastercard Inc.	MA	Transaction & Payment Processing Services	15	22	2	National Instruments Corporation	NATI	Electronic Equipment & Instruments	64	11	19
Netflix Inc.	NFLX	Movies & Entertainment	38	21	3	Palo Alto Networks	PANW	Systems Software	63	11	4
Salesforce Inc.	CRM	Application Software	55	20	3	PayPal Holdings	PYPL	Transaction & Payment Processing Services	(15)	11	3
Alibaba Group Hldg (ADR)	BABA	Broadline Retail	1	19	1	Cigna Group	CI	Health Care Services	(14)	11	4
Berkshire Hathaway	BRK.B	Multi-Sector Holdings	15	19	1	GoDaddy Inc.	GDDY	Internet Services & Infrastructure	(6)	10	14
Advanced Micro Devices	AMD	Semiconductors	57	17	2	JPMorgan Chase	JPM	Diversified Banks	12	10	1
Eli Lilly & Co.	LLY	Pharmaceuticals	51	16	1	Vistra Corp.	VST	Independent Power Producers & Energy Traders	31	10	18
Apollo Global Mgmt	APO	Diversified Financial Services	32	15	4	Workday Inc.	WDAY	Application Software	34	10	9
Taiwan Semiconductor Manufacturing, (ADR)	TSM	Semiconductors	25	15	1	Albertsons Companies	ACI	Food Retail	8	9	10
Tenet Healthcare	THC	Health Care Facilities	51	15	28	Black Knight Inc.	BKI	Application Software	21	9	8
TransDigm Group	TDG	Aerospace & Defense	36	15	14	Boeing Co.	BA	Aerospace & Defense	14	9	2
Vertiv Holdings	VRT	Electrical Components & Equipment	156	14	18	Chesapeake Energy	CHK	Oil & Gas Exploration & Production	(7)	9	13
First Citizens BancShares	FCNCA	Diversified Banks	81	13	11	Citigroup Inc.	C	Diversified Banks	(6)	9	2
S&P Global Inc.	SPGI	Financial Exchanges & Data	16	13	2	GSTHHVIP Average37%217% Median32134					
Valaris Ltd.	VAL	Oil & Gas Drilling	7	13	19						
VMware Inc.	VMW	Systems Software	32	13	4						
Caesars Entertainment	CZR	Casinos & Gaming	25	12	9						

Source: FactSet, Goldman Sachs Global Investment Research.

Constituents of our Hedge Fund Very Important Shorts basket (GSTHVISP)

Exhibit 7: Constituents of GSTHVISP

holdings as of 2Q 2023; pricing as of August 24, 2023; new constituents in bold

Hedge Fund Very Important Short Position Basket <GSTHVISP>											
Company	Ticker	Sub-sector	Total Return YTD	Short Interest as a % of Float Cap 31-Jul-23	Value of Short Interest (\$bil) 31-Jul-23	Company	Ticker	Sub-sector	Total Return YTD	Short Interest as a % of Float Cap 31-Jul-23	Value of Short Interest (\$bil) 31-Jul-23
Tesla Inc.	TSLA	Automobile Manufacturers	87%	3%	\$20.9	Ford Motor Co.	F	Automobile Manufacturers	10%	4%	\$2.0
Johnson & Johnson	JNJ	Pharmaceuticals	(5)	1	4.3	Charles Schwab	SCHW	Investment Banking & Brokerage	(30)	2	1.9
International Bus. Machines	IBM	IT Consulting & Other Services	6	3	3.8	Walmart Inc.	WMT	Consumer Staples Merchandise Retail	12	1	1.9
Exxon Mobil Corp.	XOM	Integrated Oil & Gas	(1)	1	3.6	DexCom Inc.	DXCM	Health Care Equipment	(11)	4	1.9
Texas Instruments	TXN	Semiconductors	2	2	3.3	Moderna Inc.	MRNA	Biotechnology	(37)	5	1.9
Cisco Systems Inc.	CSCO	Communications Equipment	19	2	3.2	Intuit Inc.	INTU	Application Software	29	1	1.8
Chevron Corp.	CVX	Integrated Oil & Gas	(10)	1	3.2	United Parcel Service	UPS	Air Freight & Logistics	(1)	1	1.8
UnitedHealth Group	UNH	Managed Health Care	(7)	1	3.2	Carrier Global	CARR	Building Products	32	4	1.8
Applied Materials	AMAT	Semiconductor Materials & Equipment	47	2	3.1	Lowe's Companies	LOW	Home Improvement Retail	14	1	1.8
T-Mobile US Inc.	TMUS	Wireless Telecommunication Services	(5)	4	3.1	Caterpillar Inc.	CAT	Construction Machinery & Heavy Transportation Equipment	14	1	1.8
Home Depot Inc.	HD	Home Improvement Retail	4	1	3.0	QUALCOMM Inc.	QCOM	Semiconductors	(0)	1	1.8
Occidental Petroleum	OXY	Integrated Oil & Gas	(2)	6	2.9	Oracle Corp.	ORCL	Systems Software	40	1	1.8
ON Semiconductor	ON	Semiconductors	44	6	2.8	NIKE Inc.	NKE	Footwear	(16)	1	1.7
Procter & Gamble	PG	Household Products	3	1	2.3	Microchip Technology	MCHP	Semiconductors	12	3	1.7
Royal Caribbean Group	RCL	Hotels Resorts & Cruise Lines	100	10	2.3	Illinois Tool Works	ITW	Industrial Machinery & Supplies & Components	9	2	1.7
Costco Wholesale	COST	Consumer Staples Merchandise Retail	17	1	2.3	AbbVie Inc.	ABBV	Biotechnology	(7)	1	1.7
Adobe Inc.	ADBE	Application Software	52	1	2.3	Morgan Stanley	MS	Investment Banking & Brokerage	1	1	1.7
Bank of America	BAC	Diversified Banks	(12)	1	2.3	Thermo Fisher Scientific	TMO	Life Sciences Tools & Services	(2)	1	1.7
T. Rowe Price Group	TROW	Asset Management & Custody Banks	3	8	2.3	AT&T Inc.	T	Integrated Telecommunication Services	(20)	2	1.7
Accenture Plc	ACN	IT Consulting & Other Services	19	1	2.3	Pfizer Inc.	PFE	Pharmaceuticals	(27)	1	1.7
Lam Research Corp.	LRCX	Semiconductor Materials & Equipment	57	2	2.3	McDonald's Corp.	MCD	Restaurants	8	1	1.6
Intel Corp.	INTC	Semiconductors	26	1	2.2	BlackRock Inc.	BLK	Asset Management & Custody Banks	(4)	1	1.6
Digital Realty Trust	DLR	Data Center REITs	30	6	2.2	Comcast Corp.	CMCSA	Cable & Satellite	32	1	1.6
PepsiCo Inc.	PEP	Soft Drinks & Non-alcoholic Beverages	(1)	1	2.1	Starbucks Corp.	SBUX	Restaurants	(3)	1	1.6
Walt Disney	DIS	Movies & Entertainment	(5)	1	2.0	U.S. Bancorp	USB	Diversified Banks	(15)	3	1.6
GSTHVISP Average									10%	2 %	\$2.6
Median									3	1	2.0

Source: FactSet, Goldman Sachs Global Investment Research.

Constituents of our Mutual Fund Overweight Positions Basket (GSTHMFOW)

Exhibit 8: Constituents of GSTHMFOW

holdings as of 2Q 2023; pricing as of August 24, 2023; new constituents in bold

Company Name	Ticker	Sector	YTD return	Blended Weight		OVER- weight	Company Name	Ticker	Sector	YTD return	Blended Weight		OVER- weight
				Average Fund	Benchmark						Average Fund	Benchmark	
Visa	V	Financials	16 %	1.2 %	0.9 %	28 bp	Veeva Systems	VEEV	Health Care	15 %	0.1 %	0.0 %	8 bp
Comcast	CMCSA	Comm. Services	32	0.7	0.4	27	Air Products & Chemicals	APD	Materials	(6)	0.3	0.2	8
Uber Technologies	UBER	Industrials	81	0.4	0.1	24	Snowflake	SNOW	Info Tech	3	0.2	0.1	8
Wells Fargo	WFC	Financials	3	0.7	0.4	23	General Motors	GM	Discretionary	(2)	0.2	0.1	8
Mastercard	MA	Financials	15	1.0	0.8	22	Hess	HES	Energy	6	0.2	0.1	7
Fiserv	FI	Financials	19	0.4	0.2	17	Zoetis	ZTS	Health Care	25	0.3	0.2	7
Cigna	CI	Health Care	(14)	0.4	0.2	17	EOG Resources	EOG	Energy	(0)	0.2	0.2	7
American International Group	AIG	Financials	(7)	0.3	0.1	16	Laboratory Corp	LH	Health Care	6	0.1	0.1	7
Intuitive Surgical	ISRG	Health Care	8	0.4	0.3	15	Hartford Financial Services	HIG	Financials	(4)	0.1	0.1	7
ServiceNow	NOW	Info Tech	42	0.4	0.3	15	Constellation Brands	STZ	Staples	13	0.2	0.1	7
UnitedHealth Group	UNH	Health Care	(7)	1.2	1.1	14	Chipotle	CMG	Discretionary	35	0.2	0.1	7
Medtronic	MDT	Health Care	6	0.4	0.3	14	Bank of New York Mellon	BK	Financials	(2)	0.2	0.1	7
TJX Cos	TJX	Discretionary	12	0.4	0.2	14	Travelers Companies	TRV	Financials	(13)	0.2	0.1	7
Intuit	INTU	Info Tech	29	0.4	0.3	13	SS&C Technologies Holdings	SSNC	Industrials	7	0.1	0.0	7
Charles Schwab	SCHW	Financials	(30)	0.3	0.2	12	CVS Health	CVS	Health Care	(27)	0.3	0.2	7
Amdocs Ltd	DOX	Info Tech	(3)	0.1	0.0	12	Zimmer Biomet Holdings	ZBH	Health Care	(10)	0.1	0.1	7
Bristol-Myers Squibb	BMJ	Health Care	(13)	0.5	0.4	11	Dollar General	DG	Staples	(37)	0.2	0.1	7
Workday	WDAY	Info Tech	34	0.2	0.1	11	Danaher	DHR	Health Care	(4)	0.5	0.4	7
ConocoPhillips	COP	Energy	(0)	0.4	0.3	10	AmerisourceBergen	ABC	Health Care	9	0.1	0.1	7
Trade Desk	TTD	Comm. Services	66	0.2	0.1	10	Johnson Ctr Int	JCI	Industrials	(8)	0.2	0.1	7
Bank of America	BAC	Financials	(12)	0.6	0.5	10	Mutual Fund Overweight Positions Median						
Lululemon Athletica	LULU	Discretionary	12	0.2	0.1	10							
Pioneer Natural Resources	PXD	Energy	6	0.2	0.1	10							
U.S. Bancorp	USB	Financials	(15)	0.2	0.1	9							
Intercontinental Exchange	ICE	Financials	13	0.3	0.2	9							
Elevance Health	ELV	Health Care	(11)	0.4	0.3	9							
Progressive	PGR	Financials	2	0.3	0.2	9							
FedEx	FDX	Industrials	51	0.2	0.2	9							
Cloudflare	NET	Info Tech	32	0.1	0.0	9							
TX Pac Land	TPL	Energy	(19)	0.1	0.0	8							
							Russell 1000 Median			4 %	0.3 %	0.1 %	9 bp
										4	0.0	0.0	0

Constituents of our Mutual Fund Underweight Positions Basket (GSTHMFUW)

Exhibit 9: Constituents of GSTHMFUW

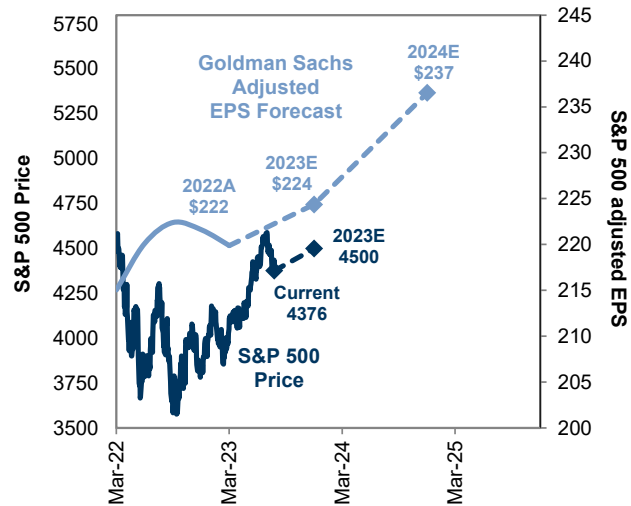
holdings as of 2Q 2023; pricing as of August 24, 2023; new constituents in bold

Company Name	Ticker	Sector	YTD return	Blended Weight		UNDER-weight	Company Name	Ticker	Sector	YTD return	Blended Weight		UNDER-weight
				Average Fund	Benchmark						Average Fund	Benchmark	
Apple	AAPL	Info Tech	36 %	3.4 %	7.0 %	(365)bp	Prologis	PLD	Real Estate	10 %	0.2 %	0.3 %	(12)bp
Microsoft	MSFT	Info Tech	34	4.8	6.2	(134)	Ford Motor	F	Discretionary	10	0.0	0.2	(11)
Tesla	TSLA	Discretionary	87	0.5	1.7	(121)	Southern	SO	Utilities	(3)	0.1	0.2	(11)
Berkshire Hathaway	BRK.B	Financials	15	0.8	1.6	(83)	NextEra Energy	NEE	Utilities	(19)	0.3	0.4	(10)
NVIDIA	NVDA	Info Tech	223	1.9	2.5	(57)	Illinois Tool Works	ITW	Industrials	9	0.1	0.2	(10)
Amazon.com	AMZN	Discretionary	57	2.3	2.9	(56)	Boeing	BA	Industrials	14	0.2	0.3	(10)
Procter & Gamble	PG	Staples	3	0.4	0.9	(50)	Realty Income	O	Real Estate	(9)	0.0	0.1	(9)
Johnson & Johnson	JNJ	Health Care	(5)	0.8	1.1	(35)	Stryker	SYK	Health Care	12	0.2	0.3	(9)
Alphabet	GOOGL	Comm. Services	47	2.9	3.2	(32)	Equinix	EQIX	Real Estate	18	0.1	0.2	(8)
Home Depot	HD	Discretionary	4	0.5	0.8	(30)	Welltower	WELL	Real Estate	25	0.0	0.1	(8)
Exxon Mobil	XOM	Energy	(1)	0.8	1.1	(29)	Honeywell International	HON	Industrials	(12)	0.3	0.4	(8)
Coca-Cola	KO	Staples	(4)	0.3	0.6	(28)	Aon Plc	AON	Financials	10	0.1	0.2	(8)
McDonald's	MCD	Discretionary	8	0.3	0.6	(28)	Thermo Fisher Scientific	TMO	Health Care	(2)	0.4	0.5	(8)
Broadcom	AVGO	Info Tech	55	0.6	0.9	(28)	3M Co	MMM	Industrials	(14)	0.1	0.1	(8)
Meta Platforms	META	Comm. Services	138	1.3	1.5	(27)	Moderna	MRNA	Health Care	(37)	0.0	0.1	(8)
Eli Lilly & Co	LLY	Health Care	51	0.7	0.9	(25)	Philip Morris	PM	Staples	(5)	0.3	0.4	(7)
Walmart	WMT	Staples	12	0.4	0.6	(23)	Merck & Co	MRK	Health Care	(0)	0.7	0.8	(7)
Pfizer	PFE	Health Care	(27)	0.3	0.5	(21)	Automatic Data Processing	ADP	Industrials	6	0.2	0.2	(7)
PepsiCo	PEP	Staples	(1)	0.4	0.6	(21)	Duke Energy	DUK	Utilities	(10)	0.1	0.2	(7)
Intel	INTC	Info Tech	26	0.2	0.4	(21)	Amgen	AMGN	Health Care	0	0.2	0.3	(7)
Chevron	CVX	Energy	(10)	0.5	0.7	(20)							
Abbott Laboratories	ABT	Health Care	(4)	0.3	0.5	(19)							
Costco Wholesale	COST	Staples	17	0.4	0.6	(19)							
Linde	LIN	Materials	17	0.3	0.5	(17)							
AbbVie	ABBV	Health Care	(7)	0.4	0.6	(17)							
AT&T	T	Comm. Services	(20)	0.1	0.3	(16)							
Caterpillar	CAT	Industrials	14	0.2	0.3	(16)							
Walt Disney	DIS	Comm. Services	(5)	0.3	0.4	(14)							
IBM	IBM	Info Tech	6	0.2	0.3	(13)							
AMD	AMD	Info Tech	57	0.3	0.5	(12)							
							Mutual Fund Underweight Positions Median			7 %	0.3 %	0.5 %	(16)bp
							Russell 1000 Median			4	0.0	0.0	0

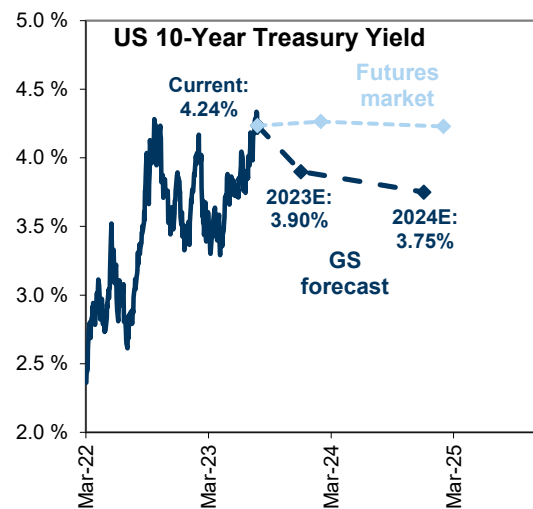
Source: FactSet, Goldman Sachs Global Investment Research.

Markets and Money Flow

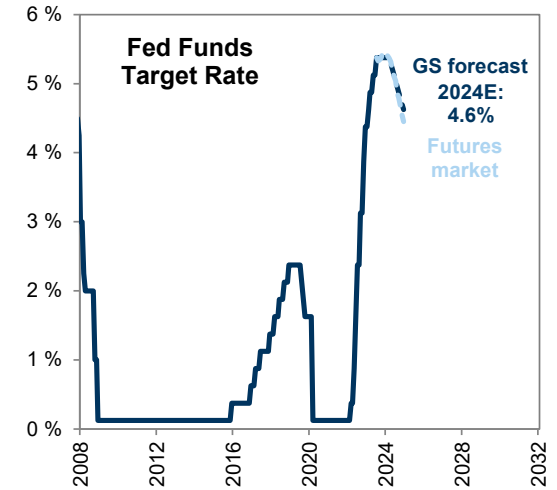
S&P 500 level and EPS



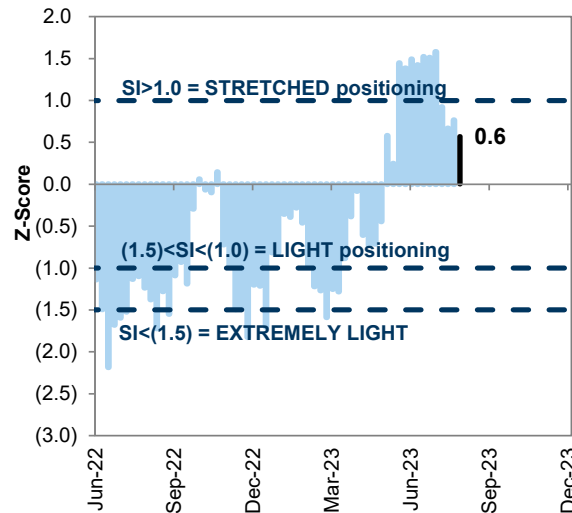
10-yr. Treasury Yields



Fed Funds Target Rate



Sentiment Indicator



Note: Sentiment Indicator measures stock positioning across retail, institutional, and foreign investors versus the past 12 months. Readings below -1.0 or above +1.0 indicate extreme positions that are significant in predicting future returns.

10-yr Real Treasury Yields

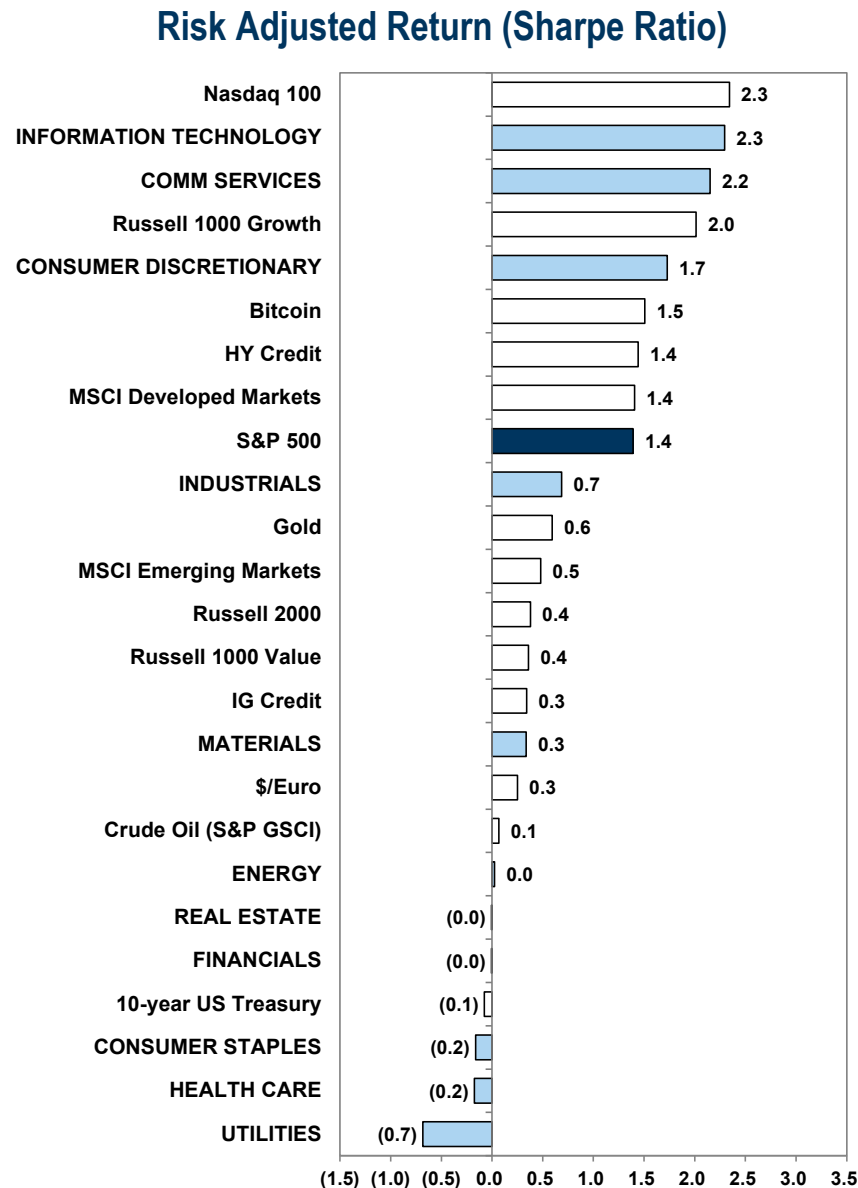
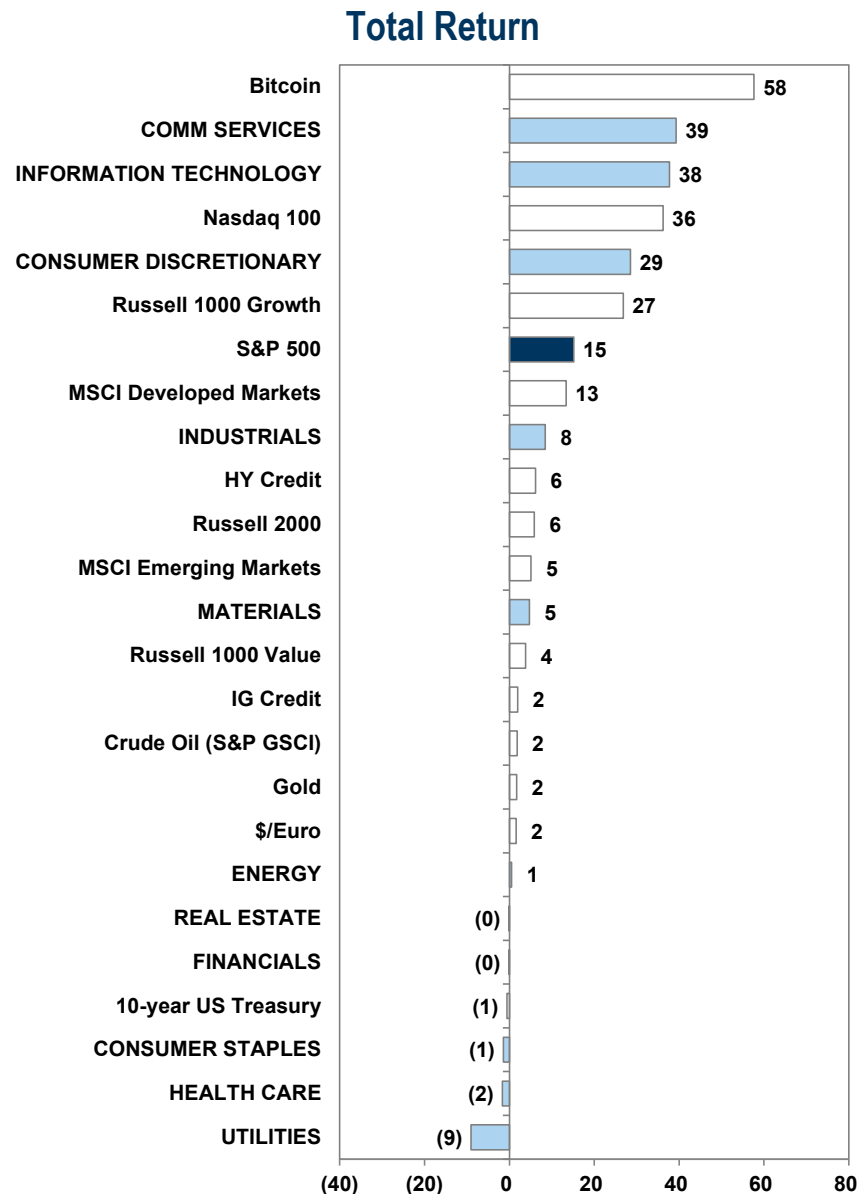


Volatility



Source: Haver, EPFR, FactSet, CFTC, and Goldman Sachs Global Investment Research.
Note: Sentiment Indicator components as of 8/24 except CFTC positioning data as of 8/17

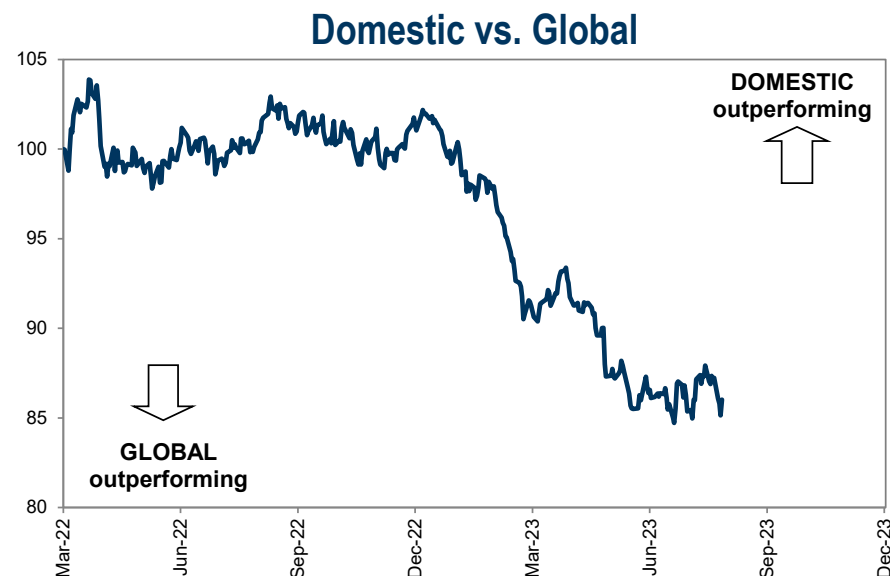
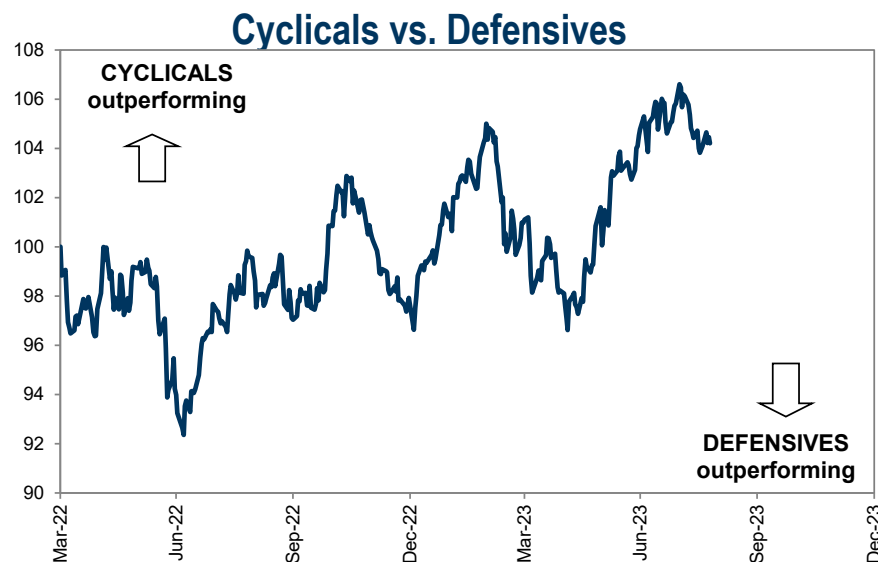
Market Performance: YTD absolute and risk-adjusted returns



Note: Crude Oil (S&P GSCI) return represents S&P GSCI Crude Oil Index total return. Spot change equals (3)% YTD.

Source: Haver, FactSet, and Goldman Sachs Global Investment Research.

Sector Baskets Performance

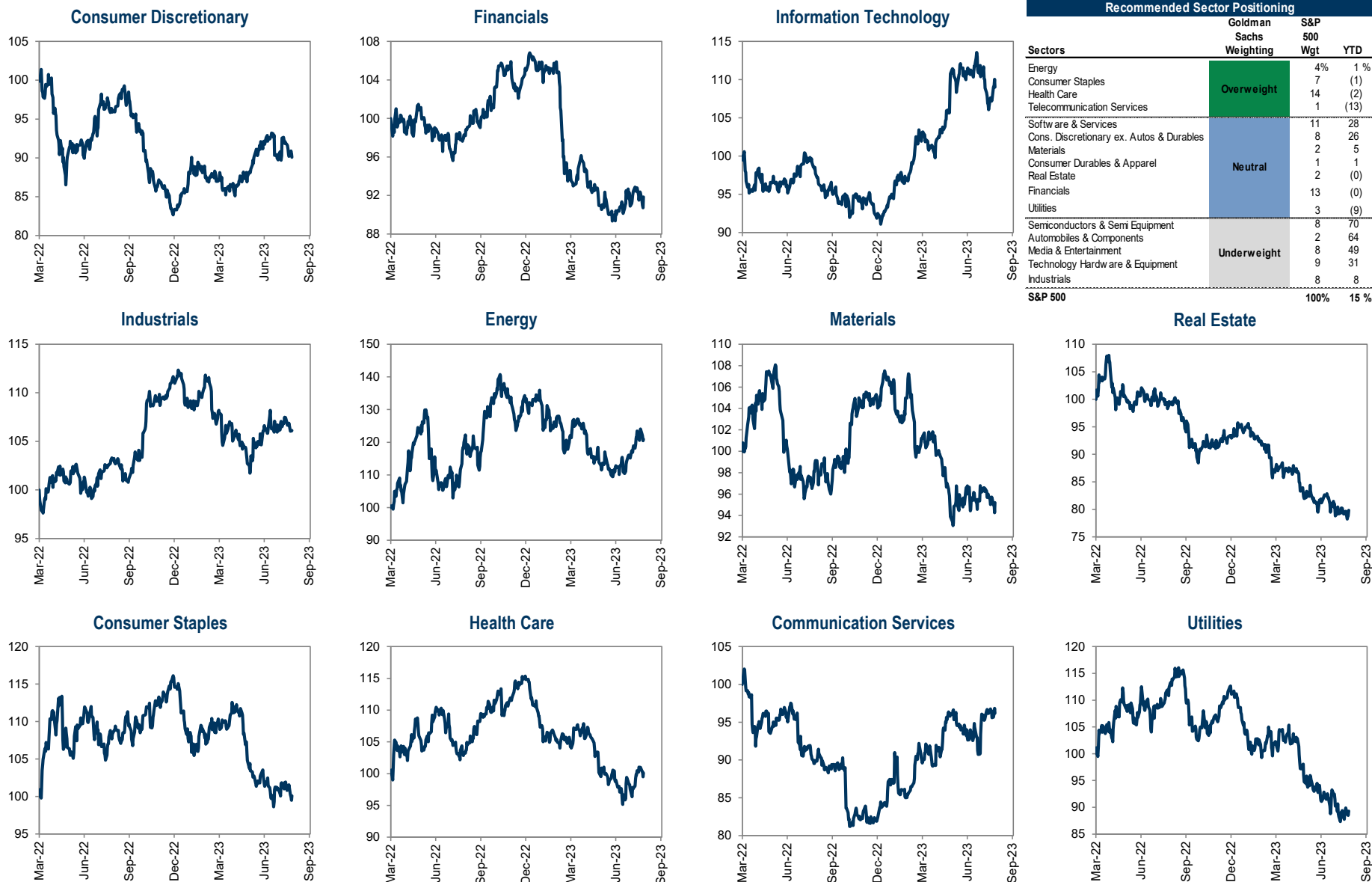


Performance and fundamentals of our sector baskets

Basket	Bloomberg Ticker <GSSBXXXX>	# of Stocks	% of S&P 500 Cap	Beta	Non-US Sales	Earnings Growth		Sales Growth		NTM P/E	LTM P/B	Div Yield	Total Return				
						2023E	2024E	2023E	2024E				1 Wk	1 Mo	3 Mo	LTM	YTD
Cyclicals	CYCL	292	55 %	1.1	35%	1 %	12 %	(2)%	5 %	17.9x	4.0x	1.5 %	0.3 %	(4)%	9 %	10 %	19 %
Defensives	DEFS	208	45	0.9	23	1	13	5	5	19.5	4.7	1.7	0.0	(4)	4	5	11
Global	GLBL	273	66 %	1.1	45%	(4)%	14 %	(1)%	5 %	19.8x	5.8x	1.4 %	0.5 %	(4)%	8 %	13 %	21 %
Domestic	DOMS	227	34	0.9	15	9	10	5	5	16.6	2.8	1.9	(0.7)	(5)	4	(2)	4
Global Cyclicals	GCYC	173	34 %	1.2	45%	(7)%	13 %	(4)%	5 %	19.2x	5.5x	1.4 %	0.9 %	(5)%	10 %	13 %	25 %
Global Defensives	GDEF	100	32	1.0	45	0	15	3	6	20.6	6.2	1.3	0.1	(2)	6	13	18
Domestic Cyclicals	DCYC	119	21	1.0	21	14	10	3	6	16.1	2.7	1.6	(1.0)	(4)	7	7	8
Domestic Defensives	DDEF	108	13	0.8	10	1	8	6	5	17.5	2.9	2.5	(0.3)	(6)	1	(9)	(0)
Services-providing	SERV	286	55 %	1.1	20%	13 %	12 %	6 %	6 %	18.2x	3.6x	1.5 %	(0.1)%	(4)%	6 %	6 %	15 %
Goods-producing	GOOD	214	45	1.0	42	(12)	13	(4)	4	19.1	5.3	1.7	0.5	(4)	8	9	15
S&P 500		500	100 %	1.0	29%	1 %	11 %	3 %	5 %	18.6x	4.3x	1.6 %	0.2 %	(4)%	7 %	7 %	15 %

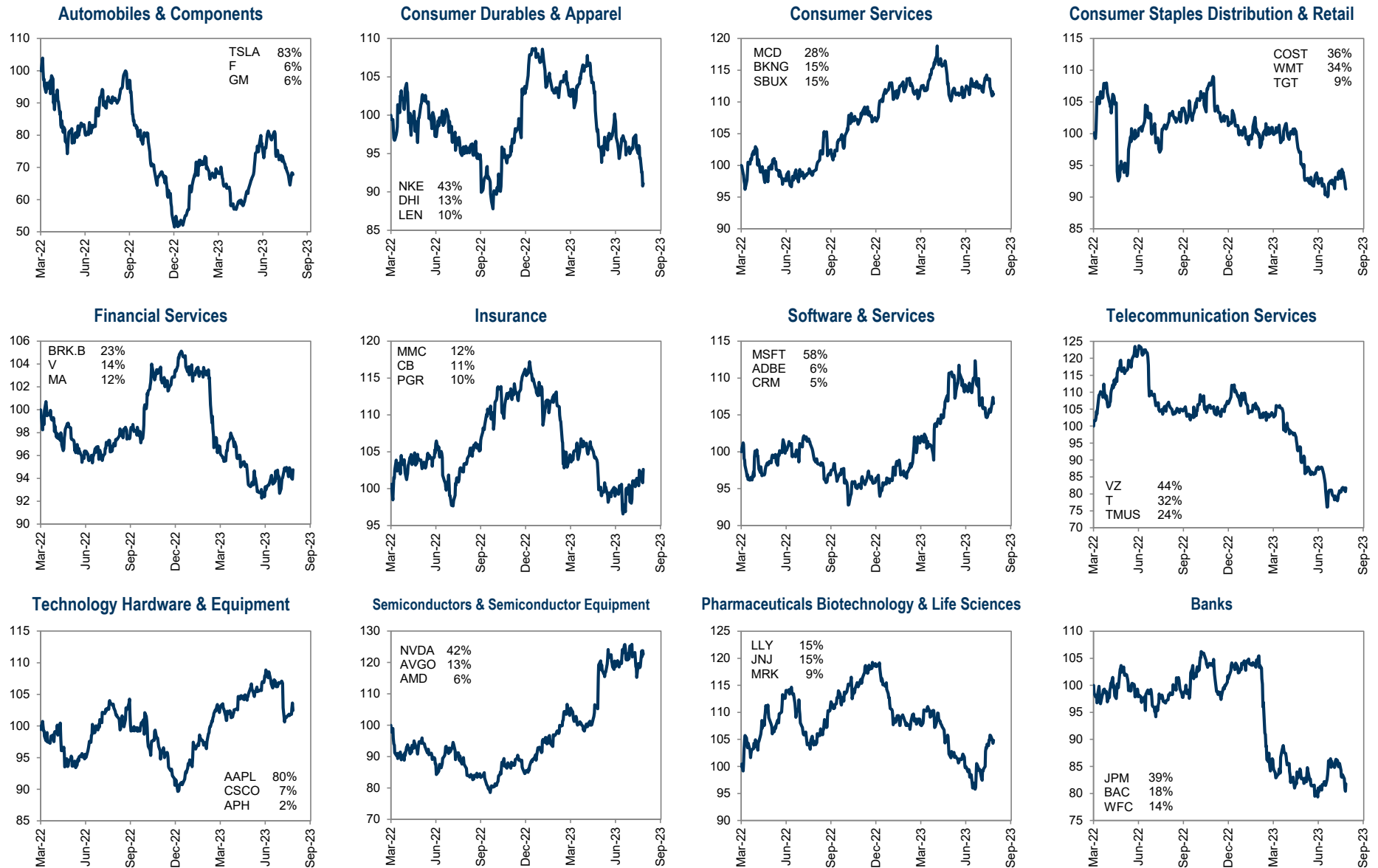
Source: FactSet and Goldman Sachs Global Investment Research.

Sectors – Relative Performance vs. S&P 500



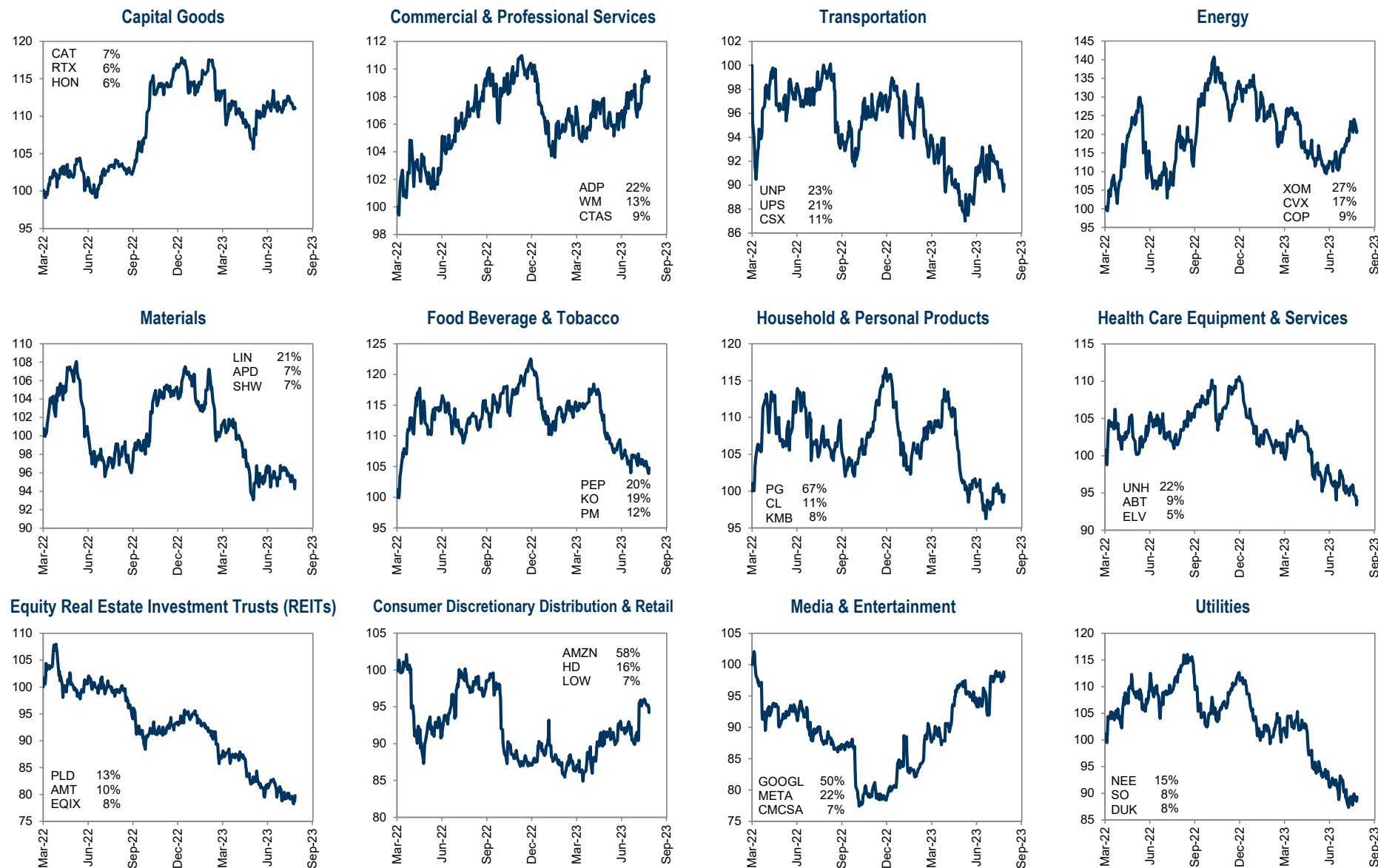
Source: FactSet and Goldman Sachs Global Investment Research.

Industry Groups – Relative Performance vs. S&P 500 and 3 largest stocks



Source: FactSet, compiled by Goldman Sachs Global Investment Research.

Industry Groups – Relative Performance vs. S&P 500 and 3 largest stocks (continued)



Source: FactSet, compiled by Goldman Sachs Global Investment Research.

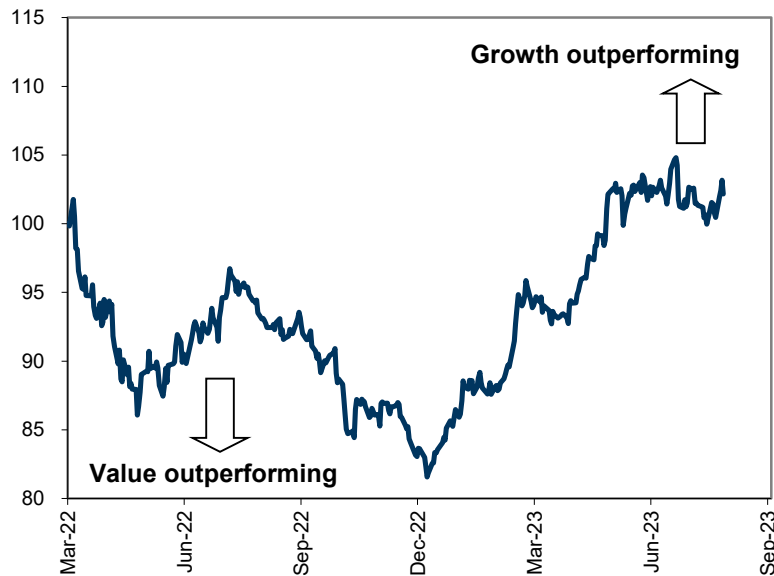
S&P 500 Sector and Industry Group Performance

S&P 500		Weight	1 Week	1 Month	3 Months	Last 12 Months	YTD		
		100 %	0.2 %	(3.8)%	7 %	7 %	15 %		
S E C T O R	Information Technology	28 %	1.9 %	(5.0)%	10 %	19 %	38 %	Top quartile	
	Real Estate	2	0.7	(6.6)	4	(13)	(0)	Bottom quartile	
	Utilities	3	(0.0)	(7.5)	(3)	(15)	(9)		
	Communication Services	9	(0.2)	1.7	7	17	39		
	Consumer Discretionary	10	(0.3)	(4.5)	10	1	29		
	Financials	13	(0.4)	(4.9)	7	1	(0)		
	Materials	2	(0.4)	(4.1)	6	4	5		
	Industrials	8	(0.4)	(3.8)	9	10	8		
	Health Care	14	(0.8)	(2.5)	3	4	(2)		
	Consumer Staples	7	(0.9)	(4.8)	(1)	(2)	(1)		
	Energy	4	(1.5)	1.1	8	9	1		
								Region	Cycle
I N D U S T R Y G R O U P	Automobiles & Components	2 %	4.0 %	(14.6)%	21 %	(21)%	64 %	Global	Cyclicals
	Semiconductors & Semiconductor Equipment	8	3.8	(1.6)	24	52	70	Global	Cyclicals
	Software & Services	11	1.2	(5.5)	6	15	28	Global	Defensives
	Technology Hardware & Equipment	9	1.0	(7.0)	4	6	31	Global	Cyclicals
	Equity Real Estate Investment Trusts (REITs)	2	0.7	(6.6)	4	(13)	(0)	Domestic	Defensives
	Insurance	2	0.5	(1.4)	6	7	0	Domestic	Cyclicals
	Commercial & Professional Services	1	0.4	(2.2)	8	9	13	Domestic	Cyclicals
	Telecommunication Services	1	0.2	(3.9)	(7)	(17)	(13)	Domestic	Defensives
	Utilities	3	(0.0)	(7.5)	(3)	(15)	(9)	Domestic	Defensives
	Financial Services	7	(0.0)	(3.9)	8	5	5	Domestic	Cyclicals
	Media & Entertainment	8	(0.2)	2.3	9	22	49	Global	Defensives
	Household & Personal Products	1	(0.3)	(2.8)	0	(0)	(2)	Global	Defensives
	Materials	2	(0.4)	(4.1)	6	4	5	Global	Cyclicals
	Food Beverage & Tobacco	3	(0.5)	(5.4)	(2)	(1)	(3)	Global	Defensives
	Capital Goods	6	(0.5)	(3.6)	10	15	7	Global	Cyclicals
	Health Care Equipment & Services	6	(0.7)	(7.2)	(0)	(1)	(3)	Domestic	Defensives
	Transportation	2	(0.8)	(5.5)	9	(3)	9	Domestic	Cyclicals
	Pharmaceuticals Biotechnology & Life Sciences	8	(0.8)	1.0	6	8	(1)	Global	Defensives
	Consumer Services	2	(0.9)	(4.4)	4	21	19	Global	Cyclicals
	Consumer Discretionary Distribution & Retail	6	(1.1)	0.3	10	4	28	Domestic	Cyclicals
	Energy	4	(1.5)	1.1	8	9	1	Global	Cyclicals
	Banks	3	(1.9)	(9.6)	5	(9)	(8)	Domestic	Cyclicals
	Consumer Staples Distribution & Retail	2	(2.2)	(5.4)	0	(3)	3	Domestic	Defensives
	Consumer Durables & Apparel	1	(3.4)	(8.5)	(1)	3	1	Global	Cyclicals

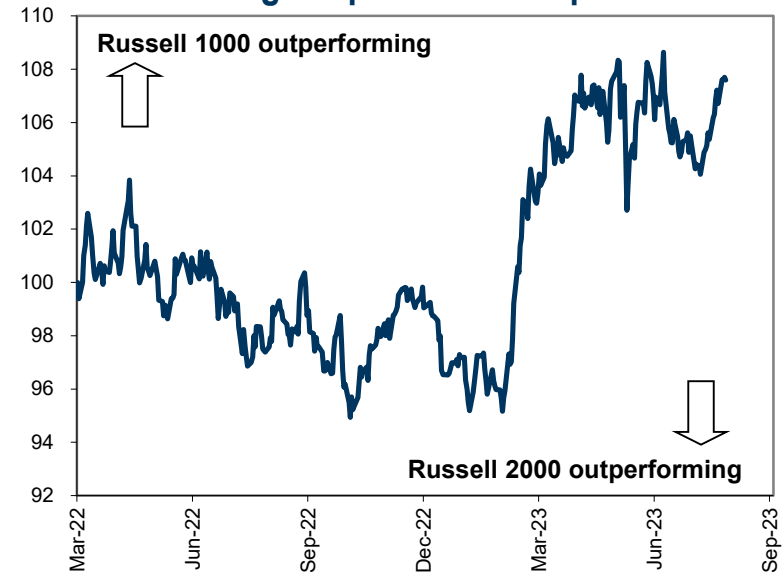
Source: FactSet and Goldman Sachs Global Investment Research.

Style and Size

Growth vs. Value



Large-cap vs. Small-cap



Sectors: Russell 1000 Growth vs. Value

Russell Sector	1-Week (% Return)			YTD (% Return)		
	Growth	Value	Δ (bps)	Growth	Value	Δ (bps)
Financials	1	(1)	211	9	0	902
Technology	2	0	157	46	43	299
Cons Discretionary	(0)	(1)	102	32	7	2,522
Industrials	0	(0)	65	10	9	51
Health Care	(0)	(1)	43	5	(5)	1,019
Consumer Staples	(0)	(0)	4	(0)	(4)	410
Materials	(1)	(0)	(34)	11	4	748
Utilities	(1)	(0)	(74)	(0)	(9)	857
Energy	(2)	(2)	(95)	(7)	1	(818)
Index	1	(1)	138	27	4	2,300

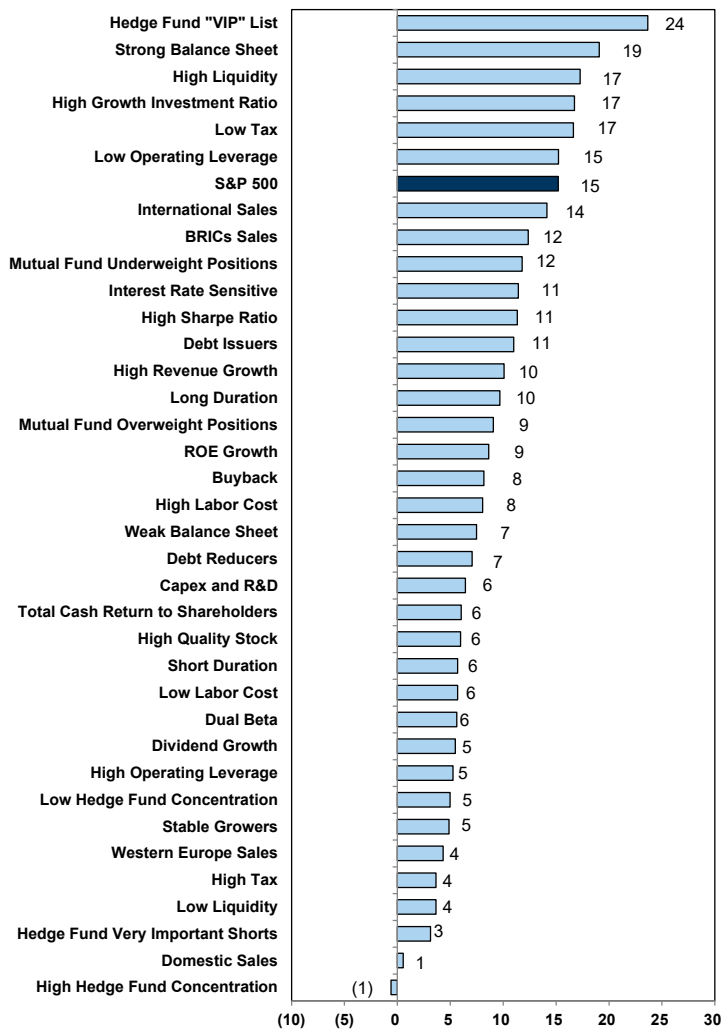
Sectors: Russell 1000 vs. Russell 2000

Russell Sector	1-Week (% Return)			YTD (% Return)		
	R1000	R2000	Δ (bps)	R1000	R2000	Δ (bps)
Financials	(0)	(2)	122	1	(6)	734
Utilities	(0)	(1)	86	(8)	(8)	(21)
Consumer Staples	(0)	(1)	60	(3)	2	(440)
Cons Discretionary	(1)	(1)	19	22	13	966
Industrials	(0)	0	(22)	9	17	(741)
Materials	(0)	0	(40)	5	4	116
Technology	2	2	(54)	45	16	2,911
Energy	(2)	(1)	(66)	(1)	9	(992)
Health Care	(1)	0	(73)	(1)	0	(140)
Index	0	(0)	35	15	6	910

Source: FactSet and Goldman Sachs Global Investment Research.

US Portfolio Strategy Baskets are available on GS [Marquee](#) platform

YTD Performance



	Ticker	Total Return			P/E	EV/Sales	`23 EPS growth
		1 wk	1 mo	YTD	NTM	NTM	
Macroeconomic	Dual Beta	GSTHBETA	(0.9)%	(8)%	6 %	16x	2.9x (22.2)%
	Interest Rate Sensitive	GSTHUSTY	(0.4)	(5)	11	13	1.7 3.4
	High Tax	GSTHHTAX	(0.3)	(3)	4	16	2.0 4.2
	Low Tax	GSTHLTAX	0.6	(5)	17	17	3.9 3.5
	High Labor Cost	GSTHHLAB	0.4	(6)	8	18	3.0 5.2
	Low Labor Cost	GSTHLLAB	(0.0)	(3)	6	14	2.3 (1.4)
Geographic Sales	Domestic Sales	GSTHAINT	(0.8)%	(4)%	1 %	15x	2.1x (2.2)%
	International Sales	GSTHINTL	(0.1)	(5)	14	19	3.8 0.4
	BRICs Sales	GSTHBRIC	(0.0)	(5)	12	17	4.3 (5.3)
	Western Europe Sales	GSTHWEUR	(0.3)	(7)	4	16	2.9 0.4
Fundamental	High Revenue Growth	GSTHREVG	(0.5)%	(7)%	10 %	20x	3.9x 18.5 %
	High Operating Leverage	GSTHOPHI	(0.8)	(6)	5	16	1.9 8.8
	Low Operating Leverage	GSTHOPLO	0.1	(3)	15	21	4.8 2.5
	Stable Growers	GSTHSTGR	(0.5)	(4)	5	20	3.7 9.0
	ROE Growth	GSTHGROE	(0.4)	(5)	9	19	3.0 16.6
	High Quality Stock	GSTHQUAL	0.1	(4)	6	23	4.2 6.4
	Long Duration	GSTHLDUR	(0.1)	(9)	10	37	4.6 39.3
	Short Duration	GSTHSDUR	(0.4)	(5)	6	11	1.6 (30.7)
	Strong Balance Sheet	GSTHSBAL	(0.0)	(5)	19	27	5.2 6.1
Uses of Cash	Weak Balance Sheet	GSTHWBAL	(0.7)	(5)	7	13	2.3 4.2
	Capex and R&D	GSTHCAPX	(0.9)%	(6)%	6 %	12x	2.3x (5.2)%
	Total Cash Return to Shareholders	GSTHCASH	(0.1)	(5)	6	13	2.0 (3.5)
	Buyback	GSTHREPO	(0.1)	(5)	8	13	1.9 (3.2)
	Dividend Growth	GSTHDIVG	(0.4)	(5)	5	12	2.9 (4.0)
	High Growth Investment Ratio	GSTHHGIR	(0.1)	(6)	17	18	3.5 15.7
	Debt Issuers	GSTHDISS	(0.3)	(6)	11	16	3.1 (0.8)
Risk & Liquidity	Debt Reducers	GSTHDRED	(0.4)	(6)	7	13	2.1 0.7
	High Sharpe Ratio	GSTHSHRP	(0.8)%	(6)%	11 %	14x	2.2x 3.7 %
	High Liquidity	GSTHHLIQ	(0.1)	(3)	17	19	3.6 7.2
Hedge Funds & Mutual Funds	Low Liquidity	GSTHLLIQ	(0.5)	(11)	4	20	3.6 (1.1)
	Hedge Fund "VIP" List	GSTHHVIP	1.2 %	(3)%	24 %	20x	4.6x 12.6 %
	Hedge Fund Very Important Shorts	GSTHVISP	(0.8)	(4)	3	17	3.3 0.4
	High Hedge Fund Concentration	GSTHHFHI	(0.5)	(6)	(1)	12	2.5 (5.3)
	Low Hedge Fund Concentration	GSTHHFSL	(0.1)	(4)	5	23	4.8 3.1
	Mutual Fund Overweight Positions	GSTHMFOW	0.2	(3)	9	15	3.5 8.2
	Mutual Fund Underweight Positions	GSTHMFUW	0.1	(4)	12	22	4.5 5.4
S&P 500 Median					17	2.9	3.9

For details and constituents of our baskets see [Anatomy of our US Portfolio Strategy Thematic and Sector Baskets](#), March 8, 2023

Source: FactSet and Goldman Sachs Global Investment Research.

US Portfolio Strategy Baskets – Relative performance vs. S&P 500

Macroeconomics

Dual Beta



Interest Rate Sensitive



Low vs. High Labor Cost

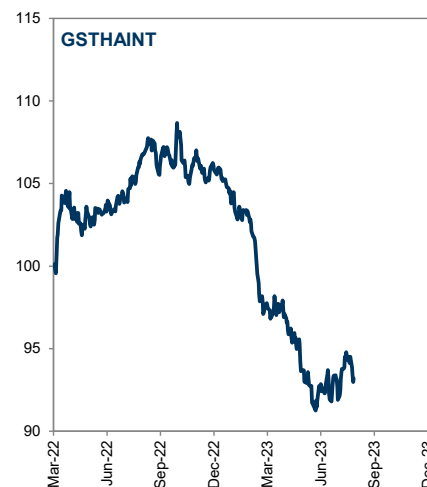


High vs. Low Tax Rate



Geographic Sales

US Sales



International Sales



BRICs Sales



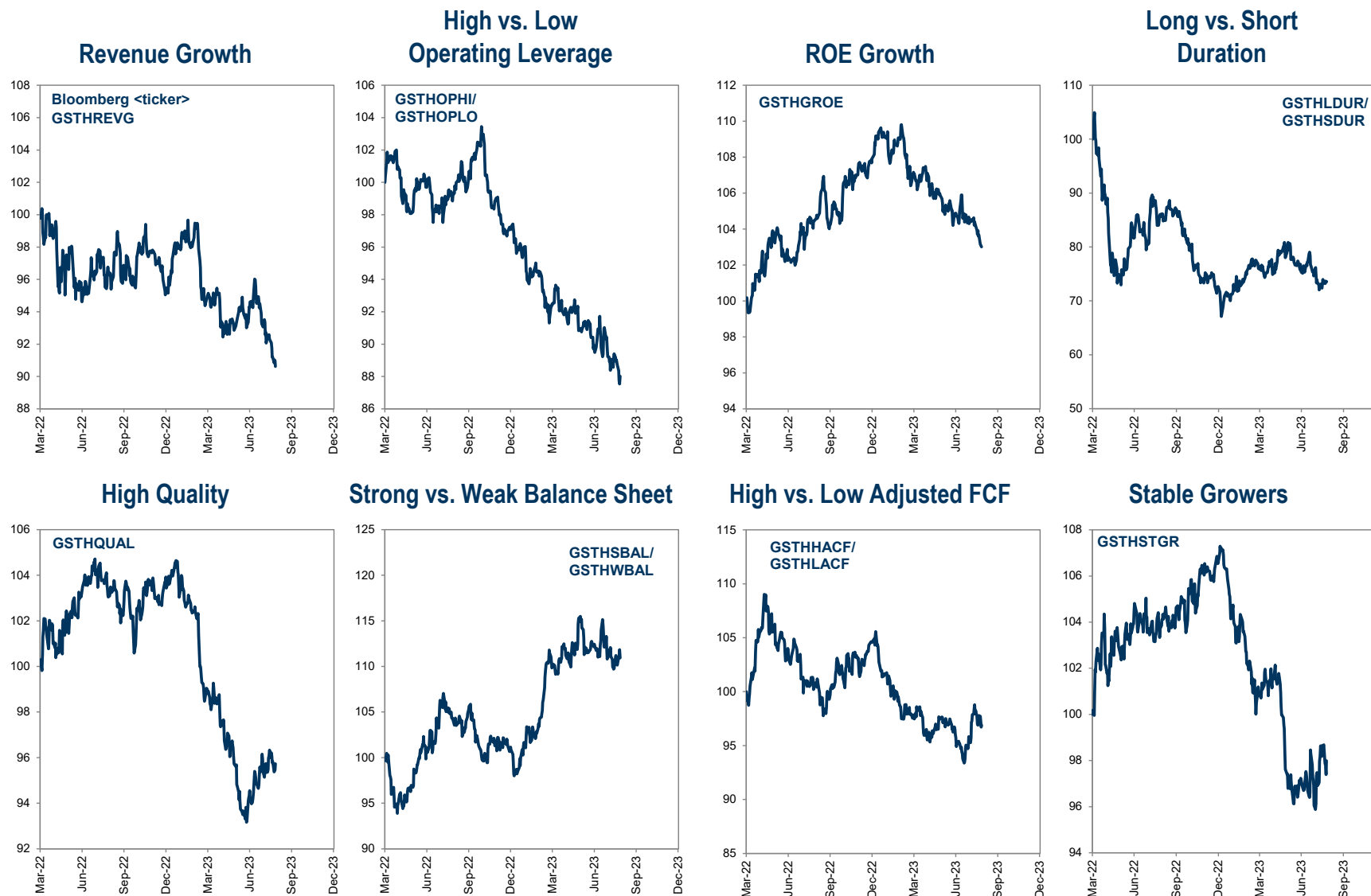
Western Europe Sales



Source: FactSet and Goldman Sachs Global Investment Research.

US Portfolio Strategy Baskets – Relative performance vs. S&P 500 (continued)

Fundamentals



Source: FactSet and Goldman Sachs Global Investment Research.

US Portfolio Strategy Baskets – Relative performance vs. S&P 500 (continued)

Uses of Cash

Capex and R&D



High Growth Investment Ratio



Debt Reducers vs. Issuers



Risk & Liquidity

High Sharpe Ratio



Total Cash Return



Buybacks



Dividend Growth



Low vs. High Liquidity

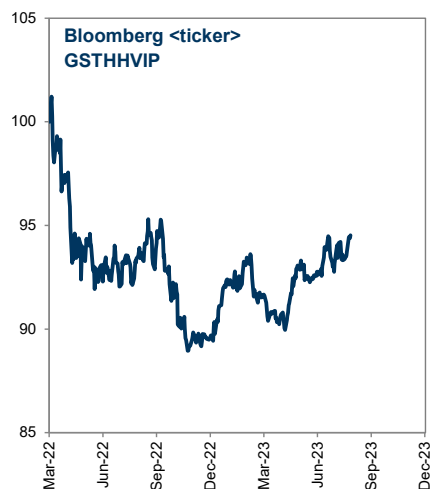


Source: FactSet and Goldman Sachs Global Investment Research.

US Portfolio Strategy Baskets – Relative performance vs. S&P 500 (continued)

Hedge Fund Ownership

Hedge Fund VIP



Short Positions



High Concentration



Low Concentration



Mutual Fund Ownership

Overweight Positions



Underweight Positions



Source: FactSet and Goldman Sachs Global Investment Research.

S&P 500 Earnings, Sales and Revisions

GS Top-Down EPS & Consensus Bottom-Up EPS

	2022A	Adjusted EPS				Adjusted EPS			
		GS Top-Down				Consensus Bottom-Up			
		Contribution	EPS growth			Contribution	EPS growth		
		2023E	2024E	2023E	2024E	2023E	2024E	2023E	2024E
Information Technology	\$42	\$43	\$47	2 %	10 %	\$43	\$51	3 %	18 %
Financials	37	38	40	4	5	40	42	8	7
Health Care	37	35	37	(6)	6	33	36	(10)	9
Communication Services	18	21	22	14	6	21	25	14	19
Industrials	17	19	19	9	2	19	21	11	12
Consumer Discretionary	14	15	16	10	6	18	20	25	13
Consumer Staples	13	15	15	12	3	14	15	6	9
Materials	7	7	7	(2)	(0)	6	6	(18)	7
Utilities	6	6	7	5	7	7	7	11	5
Real Estate	6	6	6	(3)	3	6	7	1	8
S&P 500 ex-Energy	198	205	217	4	6	206	231	4	12
Energy	24	19	20	(19)	0	17	17	(31)	3
S&P 500 EPS	\$222	\$224	\$237	1 %	5 %	\$223	\$248	1 %	11 %

Earnings & Sales Revisions (Consensus)

	EPS REVISIONS				SALES REVISIONS			
	1 month		3 month		1 month		3 month	
	23E	24E	23E	24E	23E	24E	23E	24E
Consumer Discretionary	6.8 %	4.8 %	8.8 %	5.8 %	0.4 %	0.4 %	1.1 %	0.9 %
Communication Services	3.0	3.5	3.3	4.1	0.6	1.0	0.6	0.9
Real Estate	2.2	(1.4)	1.8	(1.9)	NM	NM	NM	NM
Information Technology	2.1	2.6	4.5	6.1	0.4	0.5	1.1	1.7
Energy	2.0	2.7	(5.2)	(2.9)	(0.2)	(0.0)	(4.4)	(3.5)
S&P 500	1.6	1.3	0.6	1.3	0.3	0.3	0.0	0.3
S&P 500 ex. Energy	1.5	1.2	1.1	1.6	0.3	0.3	0.6	0.7
Financials	1.2	0.0	(0.6)	(1.4)	NM	NM	NM	NM
Industrials	0.4	(0.0)	1.5	0.4	0.4	0.5	0.5	0.6
Utilities	(0.1)	0.0	(0.8)	0.1	NM	NM	NM	NM
Consumer Staples	(0.2)	(0.3)	(0.7)	(1.3)	(0.1)	(0.2)	(0.1)	(0.5)
Materials	(0.2)	(0.7)	(3.7)	(2.8)	(1.9)	(1.7)	(3.7)	(2.1)
Health Care	(0.4)	(0.6)	(4.3)	(1.1)	0.7	0.5	1.1	1.1

Earnings Growth (consensus bottom-up)

	2023 Earnings Per Share Growth				Annual	
	1QA	2QE	3QE	4QE	2023E	2024E
Consumer Discretionary	23 %	32 %	18 %	27 %	25 %	13 %
Communication Services	(16)	6	30	45	14	19
Industrials	20	13	9	6	11	12
Utilities	(20)	7	18	54	11	5
Financials	4	8	10	8	8	7
Consumer Staples	2	11	3	8	6	9
S&P 500 ex. Energy	(5)	4	6	13	4	12
Information Technology	(10)	4	4	15	3	18
Real Estate	7	4	(6)	(0)	1	8
S&P 500	(3)	(3)	0	9	1	11
Health Care	(16)	(14)	(10)	2	(10)	9
Materials	(21)	(24)	(16)	(8)	(18)	7
Energy	17	(51)	(41)	(27)	(31)	3

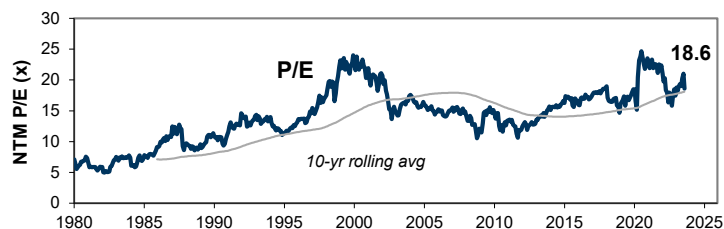
Sales Growth (consensus bottom-up)

	2023E Sales Per Share Growth				Annual	
	1QA	2QE	3QE	4QE	2023E	2024E
Consumer Staples	11 %	9 %	8 %	8 %	9 %	3 %
Consumer Discretionary	9	10	6	5	7	6
Health Care	6	7	7	6	7	5
S&P 500 ex. Energy	5	5	5	5	5	5
Industrials	8	4	2	2	4	2
S&P 500	4	1	2	4	3	5
Communication Services	(1)	2	4	4	2	5
Information Technology	(2)	(1)	1	7	1	10
Materials	(3)	(8)	(4)	(2)	(4)	(1)
Energy	(3)	(28)	(20)	(10)	(16)	2

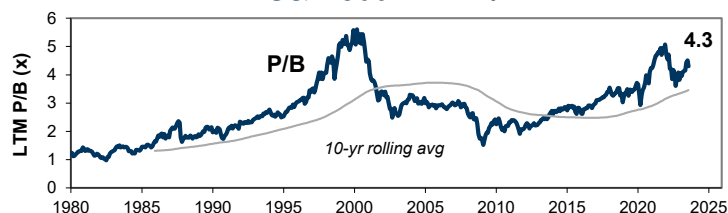
Source: FirstCall, I/B/E/S, FactSet, and Goldman Sachs Global Investment Research.

Valuation: Absolute and Relative

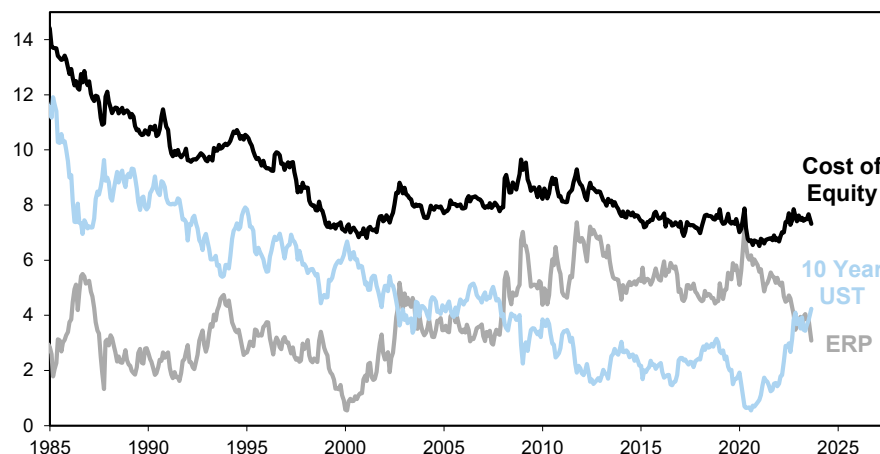
S&P 500 NTM P/E



S&P 500 LTM P/B



S&P 500 Cost of Equity = ERP + 10-yr UST



We estimate the equity risk premium (ERP) using our DDM framework to model expected future cash flows.

We solve for the cost of equity that implies the market is at 'fair value' and then deduct the 10-year US treasury.

Current aggregate valuation metrics - absolute

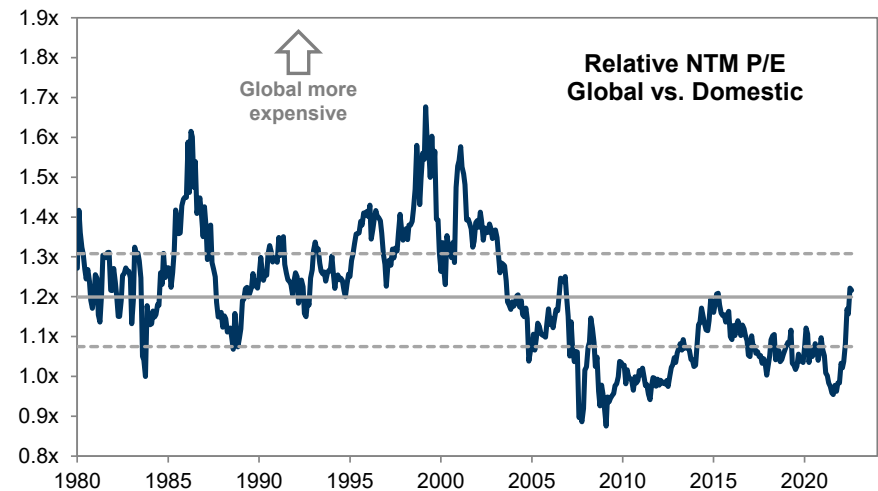
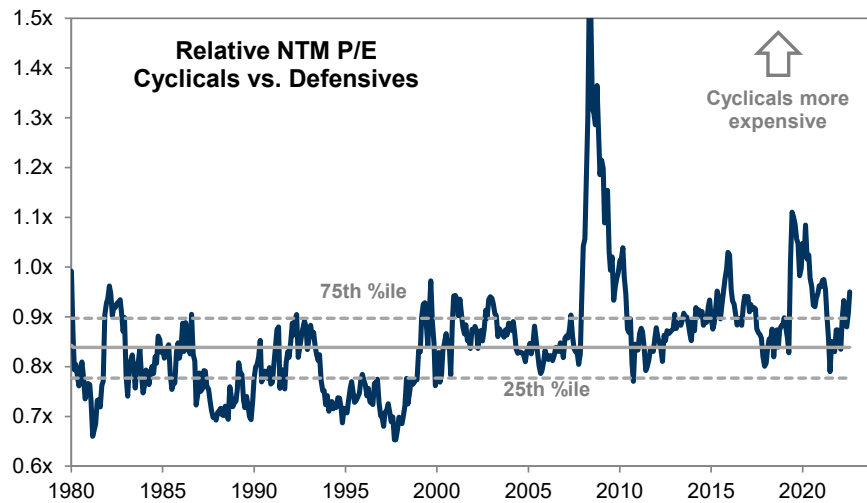
	EV/ Sales	EV/ EBITDA	Price/ Book	FCF Yield	PEG Ratio	NTM P/E
S&P 500	2.7x	13.3x	4.3x	3.8 %	1.8x	18.6x
Energy	1.4	5.4	2.3	10.1	NM	11.5
Financials	NM	NM	1.9	NM	1.1	13.3
Real Estate	NM	NM	2.9	NM	1.9	15.9
Utilities	NM	11.6	2.0	(7.0)	2.3	16.1
Comm Services	3.4	9.8	3.4	5.1	0.9	16.4
Health Care	1.9	13.3	4.7	5.3	2.4	17.3
Materials	2.3	10.3	2.8	4.1	2.8	17.4
Industrials	2.4	12.9	5.4	3.9	1.5	18.0
Cons Staples	1.6	14.0	6.0	3.8	2.3	19.1
Cons Discr	2.4	15.9	9.2	2.7	2.3	23.8
Info Tech	6.9	21.6	10.5	3.0	2.4	25.2

Current relative valuation vs. historical average (Z-score)

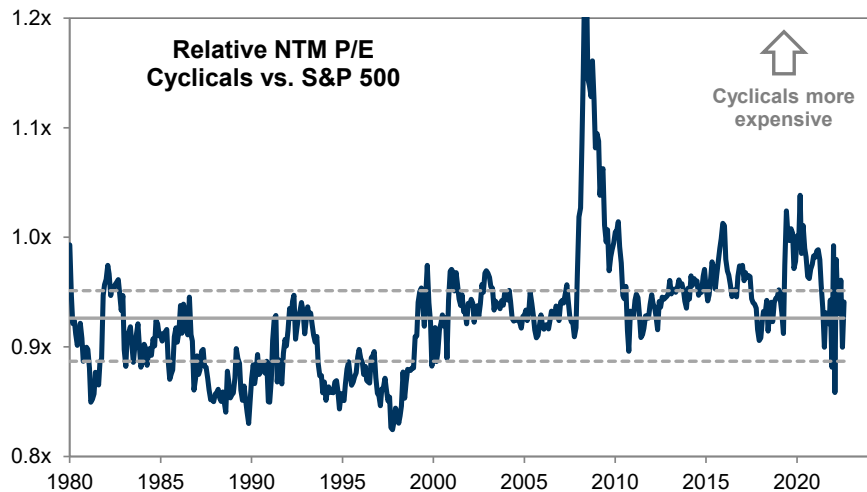
	10-year						30-year	
	EV/ Sales	EV/ EBITDA	Price/ Book	FCF Yield	PEG Ratio	P/E	Median Z-Score	Median Z-Score
S&P 500	0.8	0.2	1.2	1.1	1.4	0.2	1.0	1.1
Real Estate	NM	NM	(2.6)	NM	(1.0)	(2.0)	(2.0)	(0.9)
Comm Services	(1.9)	(2.1)	(1.4)	(1.7)	(3.0)	(2.2)	(2.0)	(1.6)
Financials	NM	NM	(1.2)	NM	(1.5)	(2.2)	(1.5)	(1.2)
Energy	(1.0)	(1.1)	0.0	(1.7)	NM	(0.8)	(1.0)	(1.4)
Cons Staples	(1.1)	(0.1)	(0.9)	0.5	(1.6)	(0.7)	(0.8)	(0.7)
Materials	(1.5)	(1.0)	(1.1)	(0.3)	1.4	(0.2)	(0.6)	(0.5)
Industrials	(1.1)	(0.5)	(1.0)	(0.5)	(0.7)	(0.3)	(0.6)	(0.0)
Utilities	NM	(0.5)	(2.1)	3.4	(1.7)	0.0	(0.5)	(0.0)
Health Care	(1.3)	(0.2)	(1.4)	(0.8)	0.6	0.1	(0.5)	(0.9)
Cons Discr	(0.4)	(0.1)	0.1	(0.1)	1.9	(0.3)	(0.1)	0.8
Info Tech	2.3	2.9	1.1	1.7	1.2	2.3	2.0	1.4

Source: FactSet, I/B/E/S, FirstCall, and Goldman Sachs Global Investment Research.

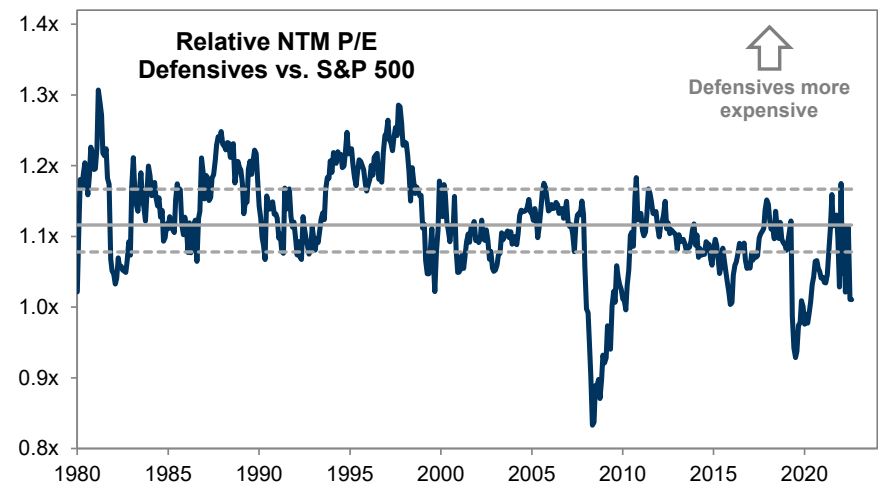
Valuation: Sector baskets



Cyclicals vs. S&P 500

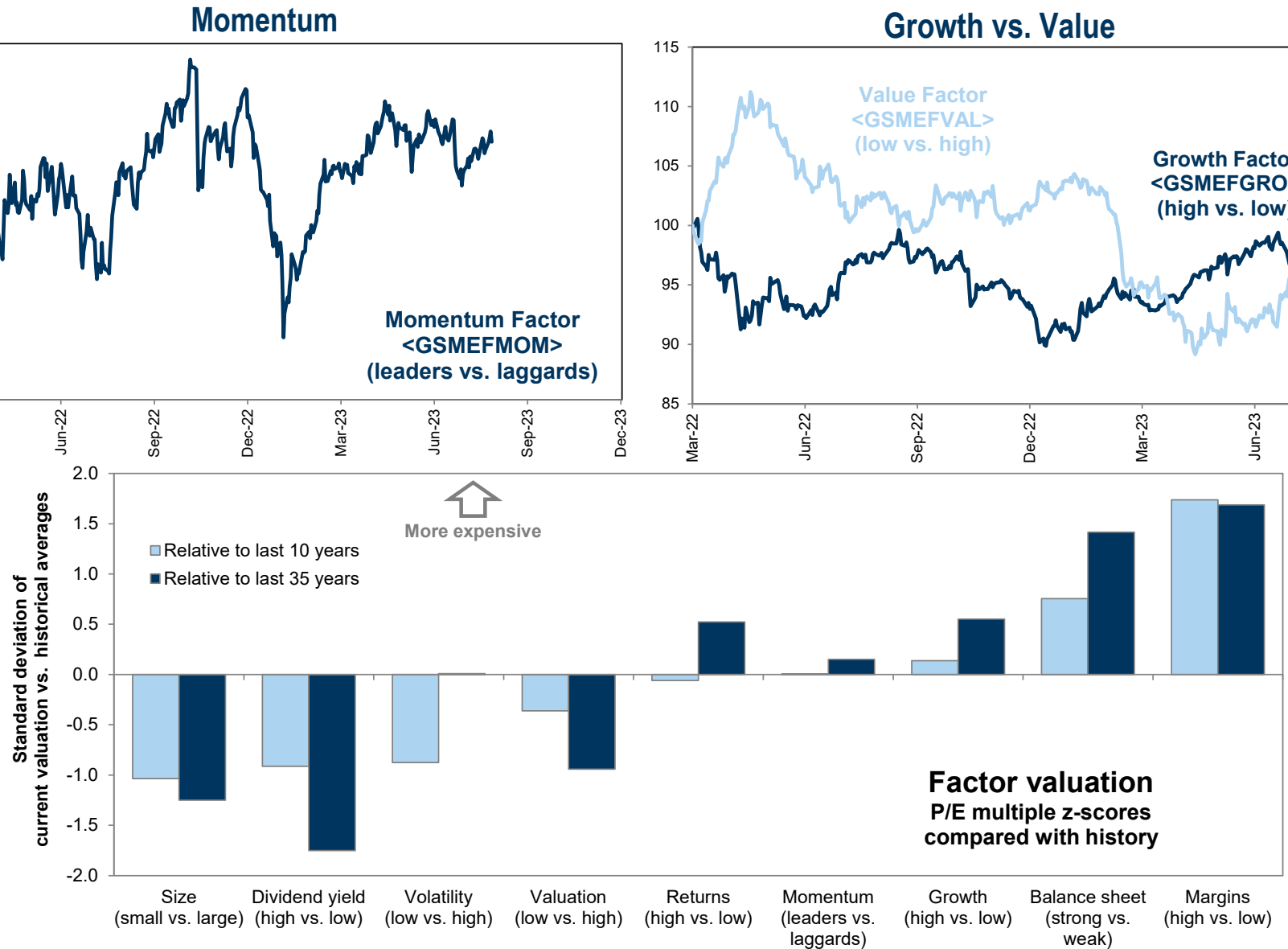


Defensives vs. S&P 500



Source: Compustat, FactSet, I/B/E/S, and Goldman Sachs Global Investment Research.

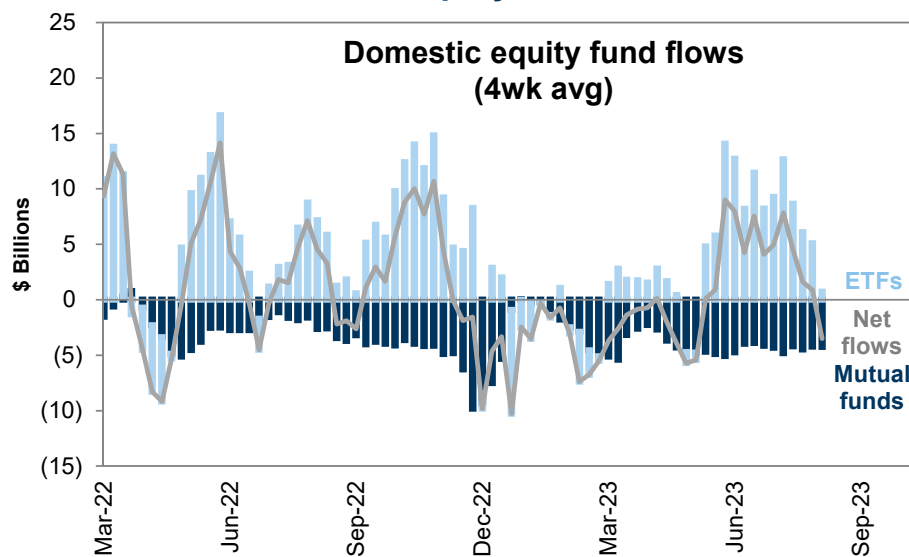
Factors: Performance and Valuation



Source: Compustat, FactSet, I/B/E/S, and Goldman Sachs Global Investment Research.

Fund Flows, Fund Performance, and Short Interest

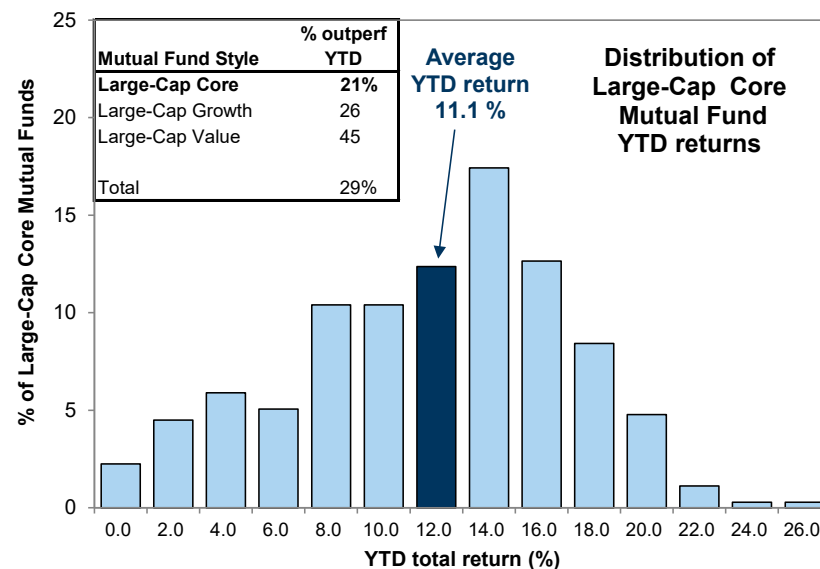
Domestic equity fund flows



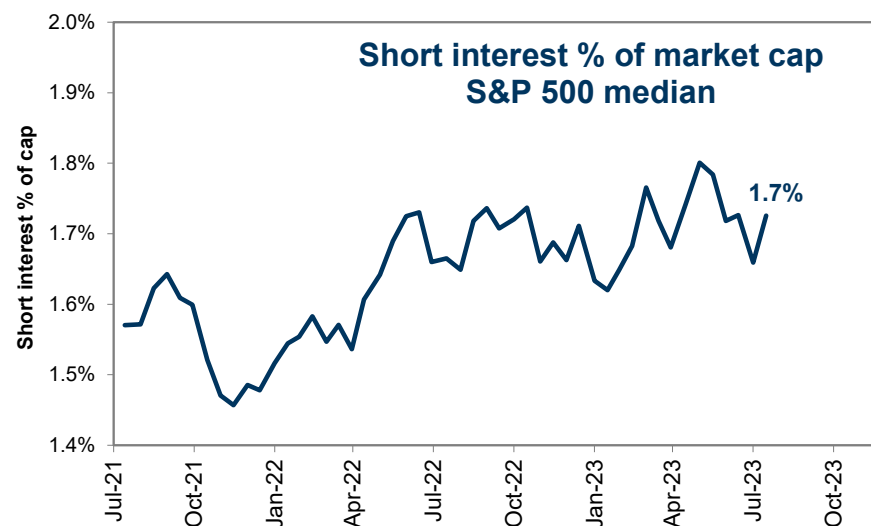
Weekly fund flows

(\$ billions)	EPFR Mutual Fund Flows			EPFR ETF Fund Flows		
	Total Assets	4-Wk Avg Flows	Total Flows YTD	Total Assets	4-Wk Avg Flows	Total Flows YTD
All Equity	8,754	(8.6)	(195.7)	7,948	8.1	272.9
U.S. Equity	3,750	(4.3)	(122.7)	5,029	0.7	102.0
Equity Income	661	(1.0)	(15.3)	497	0.6	15.9
Int'l Equity	4,415	(4.2)	(67.3)	2,256	6.5	133.0
Global	589	(0.1)	(5.6)	663	0.8	37.9
ESG/SRI	1,099	(1.0)	0.3	363	0.7	16.2
All Bonds	4,779	(0.1)	26.4	1,928	3.9	203.9
All Taxable Bond	4,002	(0.4)	9.6	1,291	0.3	84.7
Gov't Treasury	400	0.4	20.9	528	3.6	114.8
Municipal Bond	377	(0.1)	(4.0)	109	(0.0)	4.4
ESG/SRI	454	0.4	10.8	89	0.3	11.9
Money Market	7,872	16.5	915.9	72	0.8	9.2

Mutual Fund Performance



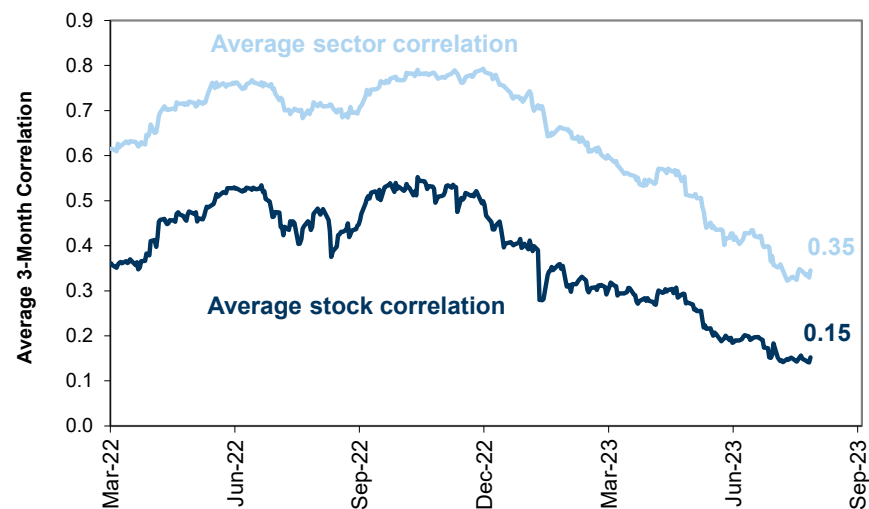
Short Interest



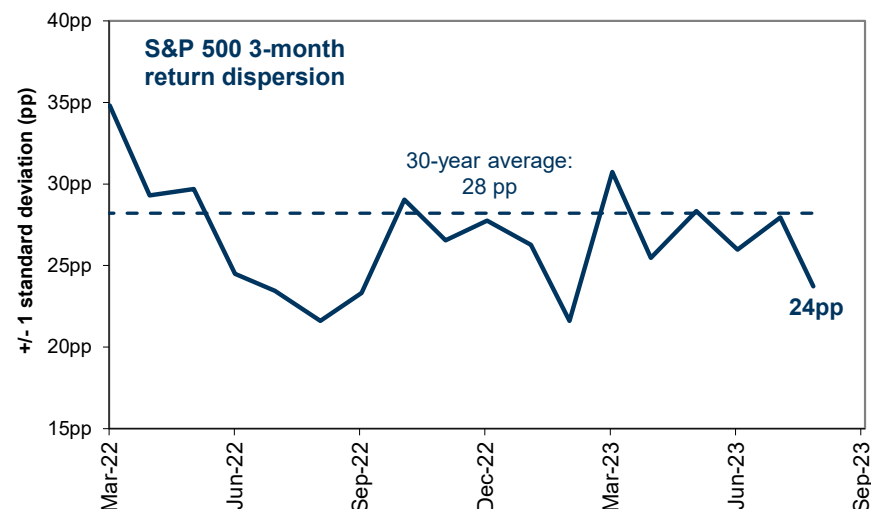
Source: FactSet, EPFR, and Goldman Sachs Global Investment Research.

Correlation, Breadth and Dispersion

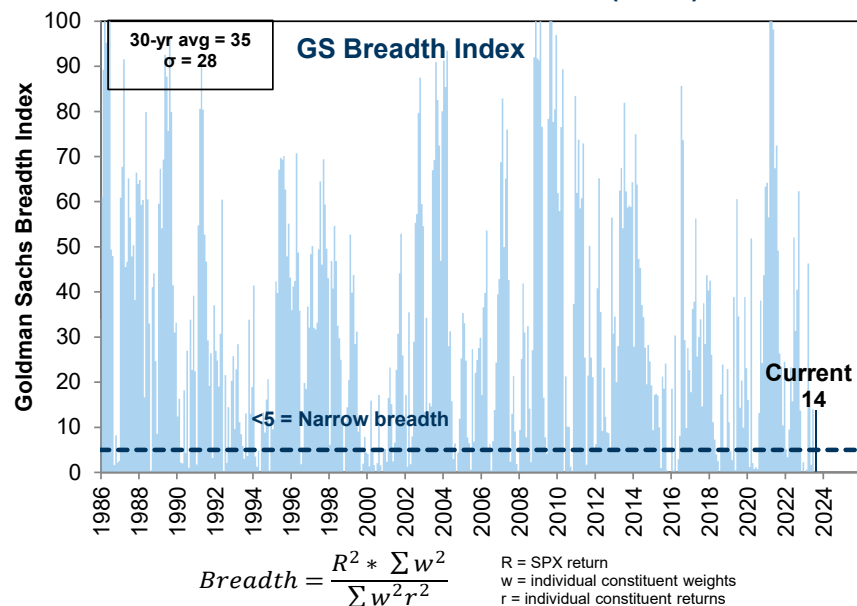
Sector and Stock Correlation



S&P 500 3-month Return Dispersion



Goldman Sachs Breadth Index (GSBI)

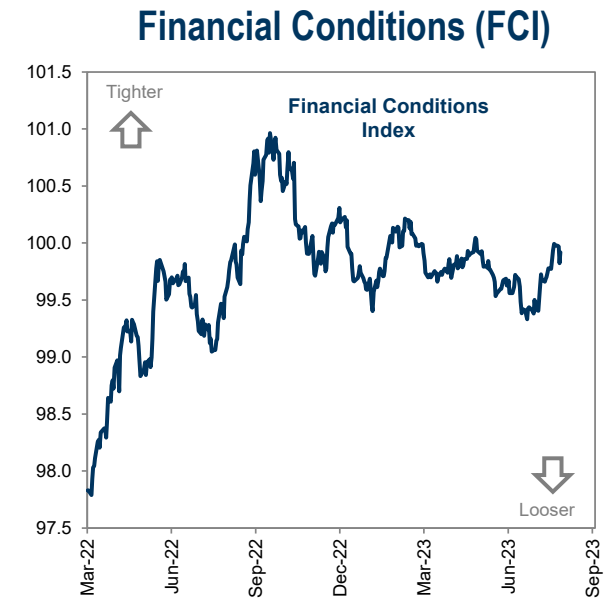
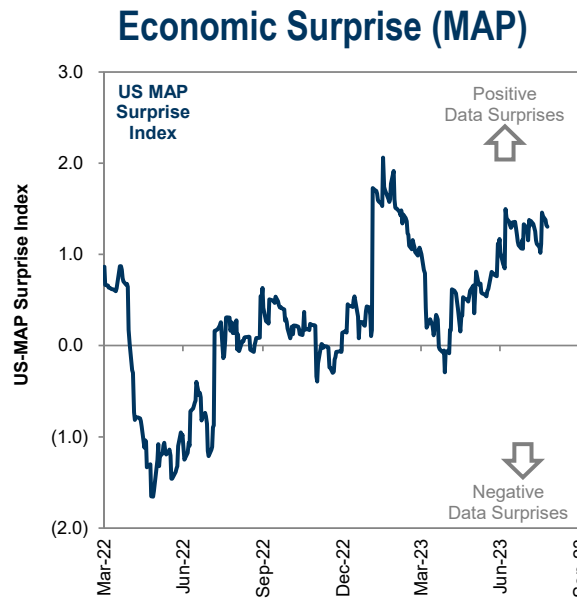
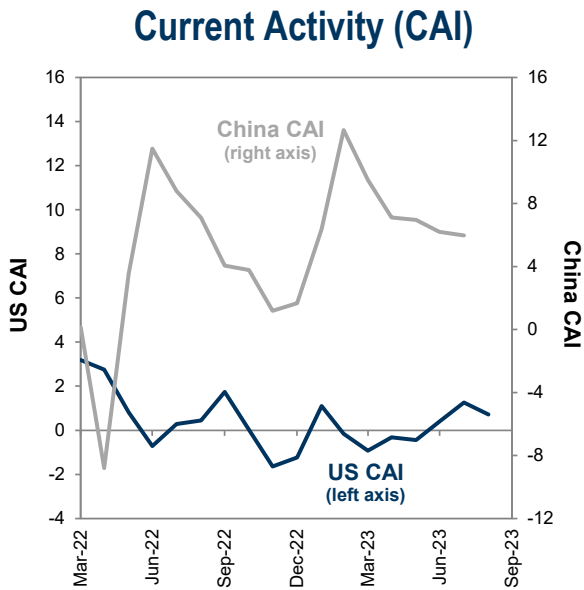
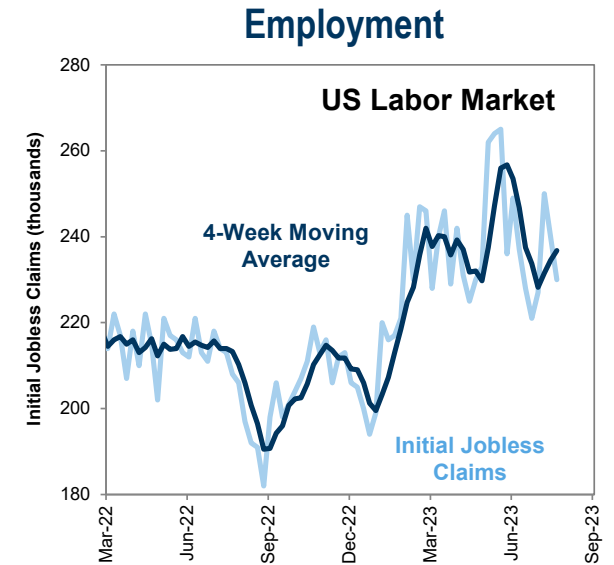
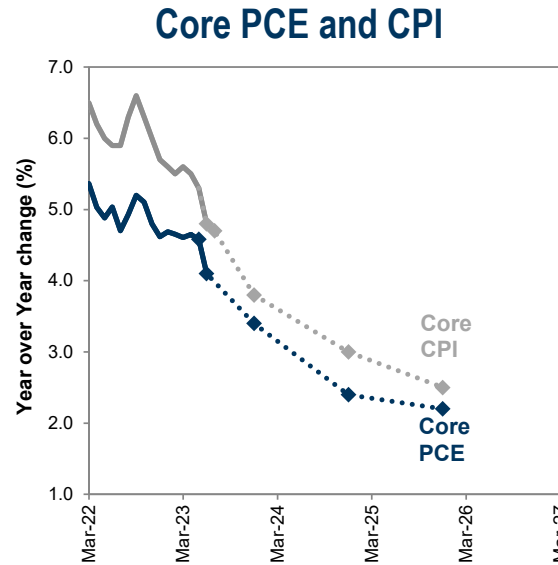
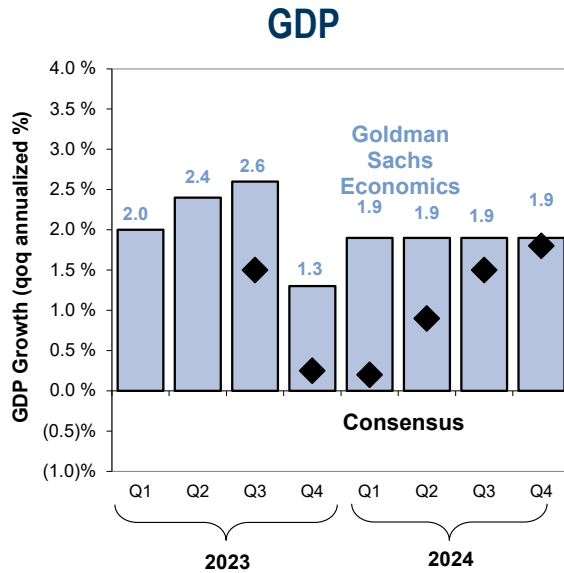


Return Dispersion

	+/- 1 Standard Deviation					
	1-Month Returns			3-Month Returns		
	Current Aug 24	30-Year Average	Historical %ile	Current Aug 24	30-Year Average	Historical %ile
S&P 500	14 pp	16 pp	46 %	24 pp	28 pp	35 %
Real Estate	8 pp	9 pp	51 %	24 pp	15 pp	89 %
Consumer Staples	11	13	37	22	22	68
Communication Services	11	16	27	25	27	53
Consumer Discretionary	13	17	26	27	29	53
Utilities	9	10	63	15	17	50
Industrials	14	13	70	20	23	48
Health Care	17	15	76	23	26	45
Information Technology	18	19	57	28	34	41
Materials	14	14	60	21	25	38
Financials	13	13	66	15	22	24
Energy	9	14	9	17	25	18

Source: FactSet and Goldman Sachs Global Investment Research.

Economics



Our Current Activity Indicator (CAI) measures the growth signal in major high-frequency activity indicators for the US economy, expressed in GDP-equivalent units.

Source: FactSet and Goldman Sachs Global Investment Research.

Goldman Sachs Global Macro Forecasts

Goldman Sachs Global Macro Forecasts

	units	Current	3m	6m	12m	Change to Target
Equities						
STOXX Europe 600	level	452	470	480	500	11 %
MXAPJ	level	504	505	530	555	10
TOPIX	level	2287	2200	2400	2500	9
S&P 500	level	4376	4500	4600	4700	7
Ten Year Rates						
Japan	%	0.7	0.8	0.8	0.7	5 bp
Euro Area (Germany)	%	2.5	2.8	2.6	2.3	(27)
US	%	4.2	3.9	3.8	3.8	(49)
Corporate Bonds						
Investment grade	bp	120	118	118	NA	(2)bp
High yield	bp	385	355	355	NA	(30)
Currencies						
Sterling / US Dollar	£/\$	1.26	1.24	1.29	1.33	5 %
Euro / US Dollar	EUR/\$	1.08	1.07	1.10	1.12	3
US Dollar / Yen	\$/¥	146	140	135	125	(14)
Commodities						
LME Copper	\$/mt	8359	9250	9500	10000	20 %
NYMEX Nat. Gas	\$/mmBtu	3	2.90	2.95	2.85	13
WTI Crude Oil	\$/bbl	78	81	82	88	12
Brent Crude Oil	\$/bbl	83	86	87	93	12
COMEX Gold	\$/troy oz	1947	2050	2050	2050	5
ICE TTF Nat. Gas	\$/mmBtu	32	17	15	15	(55)

	EPS Forecast			EPS Growth		NTM P/E		Div Yield
	2022	2023	2024	2023	2024	Current	YE 2023	
STOXX Europe 600	€ 35	€ 36	€ 37	0 %	5 %	12.3 x	13.4 x	3.7 %
MXAPJ	\$ 37	\$ 36	\$ 43	(2)	16	12.5	13.0	3.0
TOPIX	¥ 144	¥ 158	¥ 169	10	7	13.9	14.8	2.4
S&P 500	\$ 222	\$ 224	\$ 237	1	5	18.8	19.0	1.6

Source: FactSet and Goldman Sachs Global Investment Research.

Goldman Sachs US Economics Forecasts

	Share of GDP	% Annual Change			
		2022	2023E	2024E	2025E
OUTPUT AND SPENDING					
Real GDP	100%	2.1%	2.2%	1.9%	1.9%
Consumer Spending	71	2.7	2.4	1.9	1.9
Total Fixed Investment	18	(0.2)	(0.3)	3.3	3.5
Business Fixed Investment	15	3.9	3.4	3.4	3.6
Structures	2	(6.6)	7.0	1.9	2.8
Equipment	6	4.3	0.6	4.4	3.2
IP Products	6	8.8	4.4	3.3	4.5
Residential Investment	3	(10.6)	(11.3)	2.9	3.2
Federal Government Spending	7	(2.5)	3.0	0.1	
State and Local Government	10	0.7	2.7	0.5	0.9
Net Exports (Bil.)	(6)	(1,357)	(1,209)	(1,256)	(1,289)
HOUSING MARKET					
Housing Starts (000s)		1,551	1,423	1,539	1,539
New Home Sales (000s)		637	695	713	716
Existing Home Sales (000s)		5,081	4,360	4,750	4,995
Case-Shiller Home Prices (%)		7.4	1.3	1.7	2.4
INFLATION					
Core CPI		5.7	3.8	3.0	2.5
Core PCE		4.6	3.4	2.4	2.2
LABOR MARKET					
Unemployment Rate		3.5	3.5	3.5	3.5
U6 Underemployment Rate		6.5	6.7	6.7	6.7
Payrolls (000s)		479	253	124	96
GOVERNMENT FINANCE					
Federal Budget (FY, Bil.)		(1375)	(1700)	(1650)	(1800)
Federal debt-to-GDP ratio (FY, %)		97	96	98	100
FINANCIAL INDICATORS					
Fed Funds Rate		4.4	5.4	4.6	3.6
10-year Treasury Rate		3.9	3.9	3.8	3.8

Real GDP

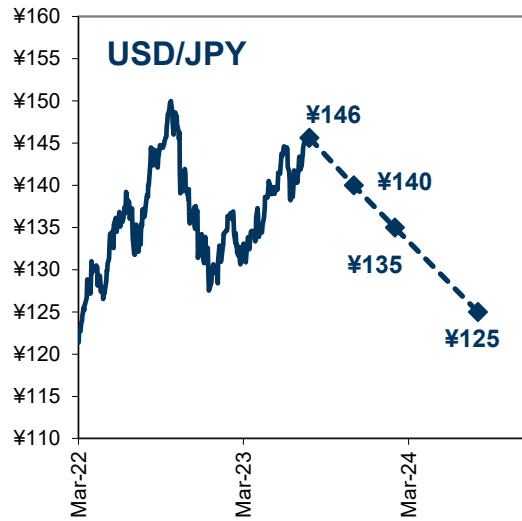
	2022A	2023A	2024E	2025E
China	3.2 %	5.4 %	4.5 %	4.0 %
World	3.0	2.6	2.6	2.7
Russia	(1.9)	1.9	2.0	1.5
USA	2.1	2.2	1.9	1.9
Australia	3.7	1.9	1.8	2.4
Spain	5.5	2.3	1.6	2.0
Japan	1.0	2.4	1.6	1.4
Brazil	3.0	2.3	1.3	2.4
France	2.5	0.9	1.3	1.5
Euro Area	3.4	0.6	1.3	1.7
Germany	1.9	0.2	1.1	1.7
Italy	3.8	0.8	1.0	1.5
UK	4.1	0.6	0.9	1.2

Goldman Sachs Global Macro Forecasts

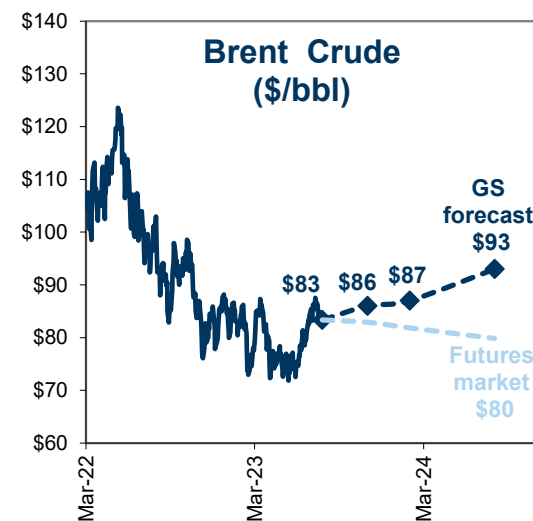
EURO



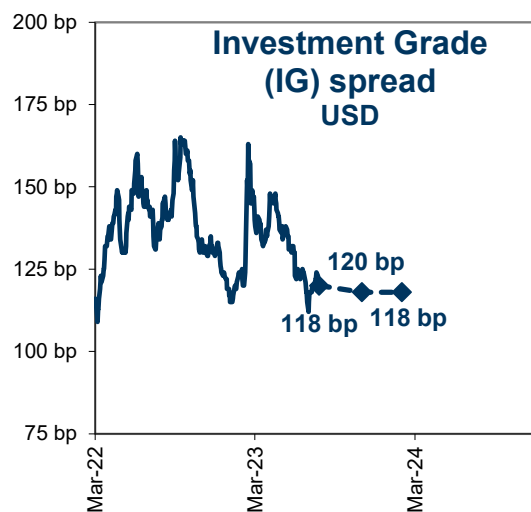
YEN



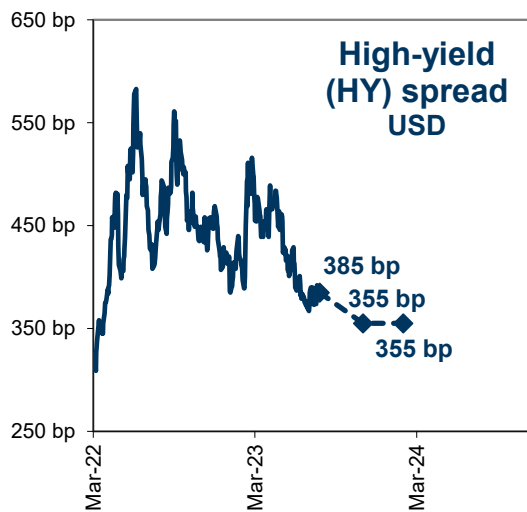
OIL



Investment Grade (IG) spread



High-Yield (HY) spread



Global Equity Market performance

Market	Price Return (%) US Dollar				Local Currency
	1-Wk	1-Mo	3-Mo	YTD	
Mexico (Bolsa)	2 %	(0)%	6 %	27 %	10 %
Spain (IBEX 35)	0	(4)	2	15	13
Brazil (Bovespa)	4	(6)	9	15	7
U.S. (S&P 500)	0	(4)	6	14	14
Germany (Dax)	(1)	(6)	(1)	14	12
France (CAC 40)	(0)	(5)	0	13	11
Japan (TOPIX)	2	(3)	1	10	21
Korea (KOSPI)	2	(7)	(2)	8	13
Europe (DJ Stoxx 600)	(0)	(5)	(1)	8	6
UK (FTSE 100)	(1)	(6)	(2)	3	(2)
Australia (ASX 200)	1	(6)	(2)	(3)	2
China (MSCI China)	(1)	(2)	(3)	(8)	(7)
Average	1 %	(4)%	1 %	10 %	8 %

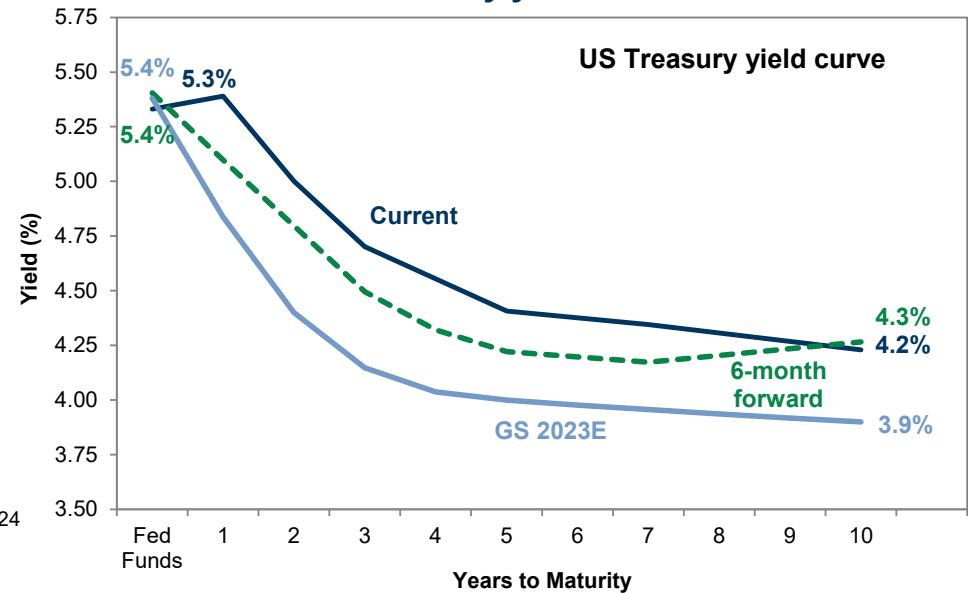
Source: FactSet and Goldman Sachs Global Investment Research.

Politics and policies

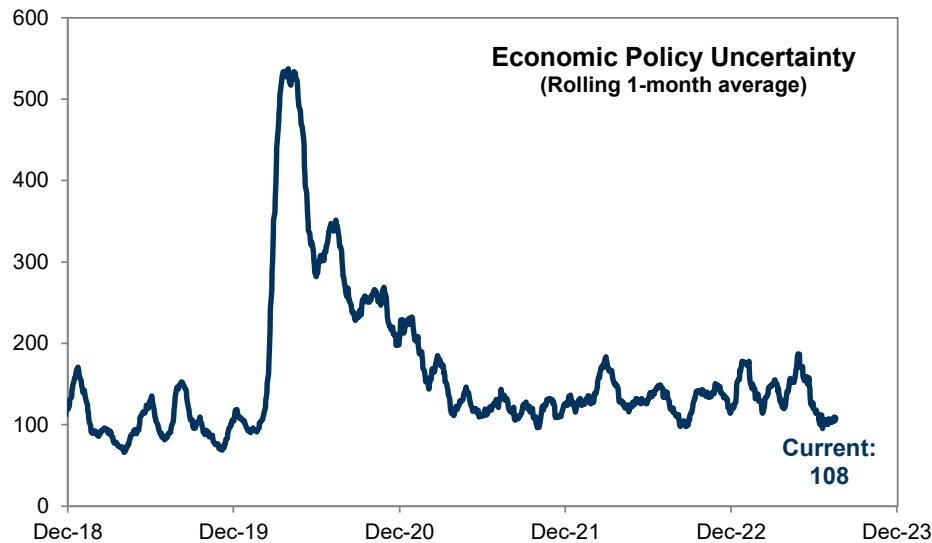
Market-implied change in fed funds rate



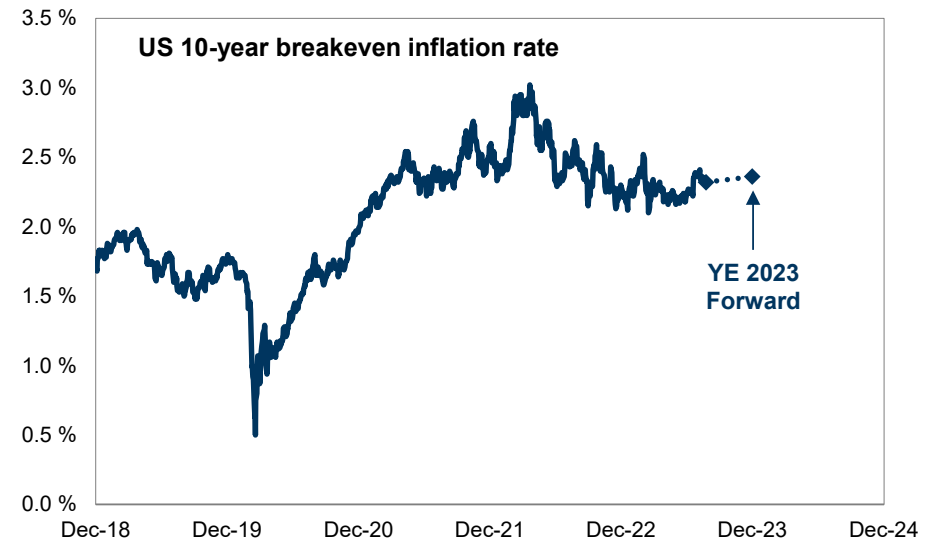
US Treasury yield curve



Economic Policy Uncertainty



Breakeven inflation



Source: FactSet, PolicyUncertainty.com, Federal Reserve Bank, Haver Analytics, and Goldman Sachs Global Investment Research.

Disclosure Appendix

Reg AC

We, David J. Kostin, Ben Snider, Ryan Hammond, Cormac Conners, Lily Calcagnini, Jenny Ma and Daniel Chavez, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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