

US Weekly Kickstart

Investor anxiety spikes as fund managers fret about the path of Fed tightening and the risk of recession

Tightening financial conditions have outweighed the surprising strength of 1Q earnings reports. P/E multiple compression explains the 13% YTD S&P 500 decline. The 550 bp “yield gap” between the EPS yield and real Treasury yield is near the 10-year median. Looking forward, the path of the market will depend on the Fed’s battle against inflation. In our base case, the negative impact on valuation from higher real rates will be partially offset by a narrowing yield gap. If recession risk rises, interest rates may fall but not by enough to prevent equity multiples and share prices from falling further. Recommended strategies: (1) stable earnings growth, (2) high margin vs. low margin Growth, (3) high dividend yield and growth.

Performance

The S&P 500 was down -3.3% this week. Energy was the best-performing sector (+4.5%) while Consumer Discretionary was the worst-performing sector (-7.9%). We expect the S&P 500 will end 2022 at 4700 (+13.3%).

S&P 500 earnings and valuation

	Goldman Sachs Portfolio Strategy		Consensus Bottom-Up	
	2022E	2023E	2022E	2023E
EPS	\$221	\$233	\$229	\$249
Growth	5 %	6 %	10 %	9 %
P/E	NTM	2023E	NTM	2023E
	18.4x	17.8x	17.8x	16.6x

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

Table of Contents

Markets and money flow	7
Market performance	8
Sector performance	11
Style and size	15
Strategy baskets	16
Earnings, sales, and revisions	21
Valuations	22
Factors	24
Fund flows, fund performance, and short interest	25
Correlation, breadth, and dispersion	26
Economics	27
Goldman Sachs macro forecasts	28

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Conversations we are having with clients: Recession risk, rate hikes, and the equity outlook

Investor concerns about Fed tightening, surging interest rates, and the risk of recession have outweighed the surprising strength of 1Q earnings reports.

Results have exceeded expectations and prompted modest upward revisions to estimates for the remainder of 2022 and for 2023, driven largely by the Energy sector. However, the boost to analyst estimates has not been enough to offset portfolio manager fears about the downside risk to EPS if the economy falls into recession and the downside risk to valuations as the Fed tightens policy.

With analyst earnings estimates moving higher, valuation compression has driven the 13% YTD S&P 500 decline. The consensus forward P/E multiple has declined by 16% from 21x at the start of 2022 to 17x today, tracking closely the rise in real interest rates (Exhibit 1). During just the last two months, the real 10-year Treasury yield has surged from -1.0% to +0.25%, its first venture into positive territory since early 2020. YTD, the S&P 500 earnings yield (inverse of the P/E) has risen by 90 bp (4.8% to 5.7%), nearly matching the 125 bp rise in the real Treasury yield. Because the P/E multiple has moved with the risk free rate, the “yield gap” between the EPS yield and the real Treasury yield – a proxy for the equity risk premium (ERP) – is close to where it began the year. The current 550 bp yield gap is near its 10-year median, though far wider than it was 20 years ago (Exhibit 2).

Looking forward, the path of the equity market will depend on the outcome of the Fed's battle against inflation. In our base case scenario, GDP and earnings both continue to grow, albeit at a slower pace than in 2021. Financial conditions will continue to tighten, but the impact of higher rates on equity valuations should be at least partially offset by a narrowing yield gap. In our macro model, the equity risk premium is affected by growth expectations, consumer confidence, and political uncertainty. These drivers should improve if it becomes clear that inflation will slow and recession will be averted. For example, keeping EPS constant, if the real 10-year yield rises to 0.5% but the yield gap narrows to 480 bp, the low of the past decade, the P/E multiple would rise to 19x, and the S&P 500 would gain 17% to 4700 (Ex. 3).

In contrast, if recession risk rises, interest rates may decline, but not by enough to prevent equity multiples and share prices from falling further. In a recession scenario, analysts would cut profit forecasts. The median EPS decline during US recessions since 1949 equals 13%. The real Treasury yield could also fall to -0.5%, 50 bp above its record low. If the yield gap were to widen to 650 bp, close to its high in 4Q 2018, the P/E would contract to 17x and the S&P 500 index would fall to 3600 (-13% from today). Such a drop would represent a 24% peak-to-trough S&P 500 decline, matching the median fall during past recessions.

Our economists estimate a 35% likelihood of US recession within the next 24 months. Without more clarity on the path of Fed policy and economic growth, stocks will price an above-average recession probability and will be challenged to sustain prices much above the current level. At 4123, the current S&P 500 index level implies a roughly 50% likelihood to the illustrative downside recession scenario.

While the Fed remains focused on battling inflation, much higher equity prices would ease financial conditions and therefore be antithetical to the Fed's goal. As a result, the best case scenario for the economy – and, eventually, for equity

prices – probably involves a continued period of constrained equity market returns. If the economy avoids recession but real interest rates move substantially higher, equity multiples will likely be vulnerable despite a narrowing yield gap. For example, a real yield of +1% and yield gap that tightens to 480 bp would reduce the P/E multiple to 17x (-3% from current), but it would be closer to 15x (-15%) if the yield gap remains unchanged from today's level. Accordingly, risks around equity valuations are skewed to the downside even in our base-case, non-recessionary scenario.

Rotations within the equity market also reflect concerns about recession risk. Defensive industries recently have sharply outperformed cyclical industries. The magnitude of cyclical underperformance appears consistent with a steeper economic slowdown than the recent pace of deceleration in metrics such as the ISM (Exhibit 4).

Recent equity flows have mirrored the internal market rotation and helped reduce our US Equity Sentiment Indicator to -2.7, the lowest reading since the 19% S&P 500 drawdown in 2011. In total, US equity mutual funds and ETFs have suffered outflows of \$37 billion during the past 4 weeks, the most negative four-week total since the S&P 500 sell-off in 4Q 2018. The indicator registered -2.5 last week.

Extremely low Sentiment Indicator readings have historically been statistically significant [signals](#) for subsequent short-term equity returns. Readings of -2 standard deviations or lower have accounted for only 24 of 688 weekly observations (3%) since 2009. The S&P 500 index has risen by a median and average of 5% during the month following these low readings.

While the positioning metrics that feed our Sentiment Indicator have dropped sharply in recent weeks, investor positioning remains elevated on a longer-term basis. For example, US equity mutual fund cash balances have jumped to 2% of assets this year, the highest ratio since mid-2020, but this compares to an average of 3% during the past decade. Likewise, GS Prime Services [hedge fund net leverage](#) sits near a two-year low but remains high relative to pre-COVID history. And household allocations to equities register near the historical record reached in 2000.

Less than two months ago, a low Sentiment Indicator reading (-1.9) preceded an 11% S&P 500 rally during the second half of March, but that reading coincided with a much wider equity risk premium. In mid-March, the combination of falling share prices and plummeting Treasury yields widened the yield gap to 655 bp, similar to the level in late 2018 and roughly 100 bp wider than it is today.

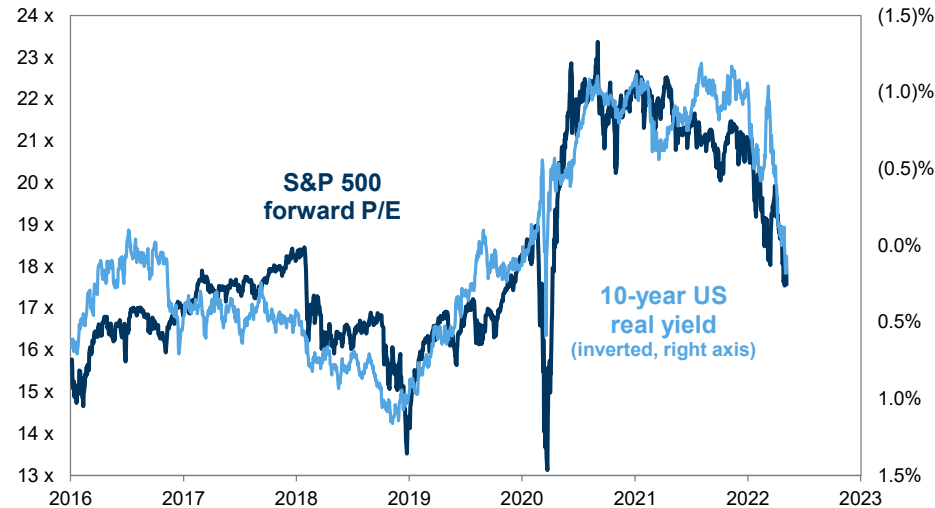
However, tightening financial conditions and poor market liquidity make it difficult to argue for a short-term rally similar in size to the one in late March. But healthy earnings reports, a low Sentiment Indicator, and a weak economic growth outlook already priced by cyclical stocks suggest equities will require an extremely large negative shock to drive share prices substantially lower in the near future.

S&P 500 index swings will remain large until the path of inflation is clarified. Investors should continue to focus on our recommended thematic strategies: (1) Stocks with [stable growth](#), as measured by low historical variation in EBITDA growth and low price volatility; (2) [high margin vs. low margin growth stocks](#), which trade at unreasonably similar valuations; and (3) stocks with [high dividend yield and growth](#).

Charts we are watching: Interest rates, equity valuations, and equity market pricing of growth

Exhibit 1: The S&P 500 P/E has been moving closely with real interest rates

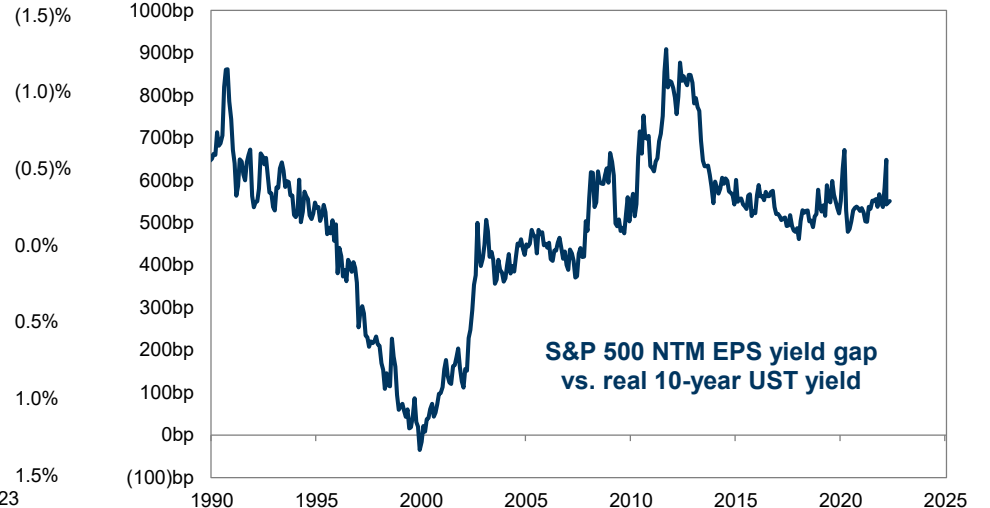
as of May 6, 2022



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 2: The equity yield gap is close to its recent average but far from past lows

as of May 6, 2022



Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 3: S&P 500 P/E multiple based on real 10-year UST yield and yield gap

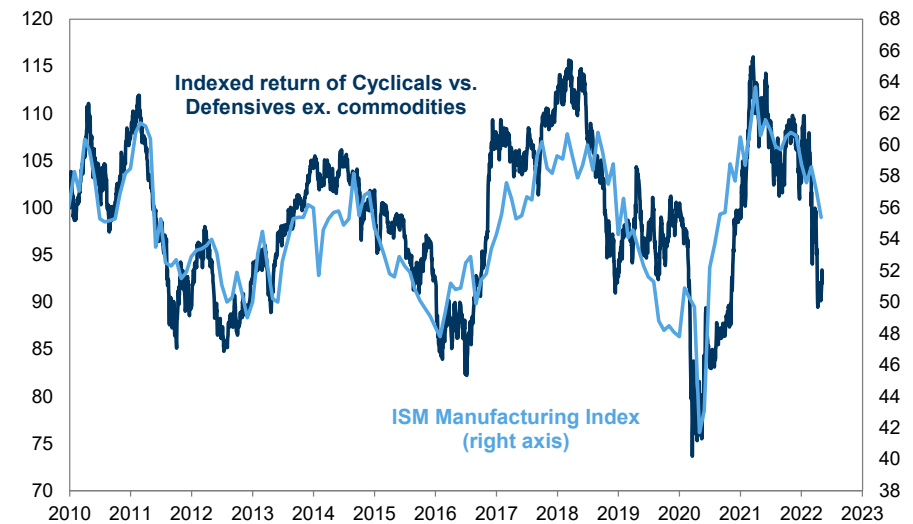
as of May 6, 2022

	Yield gap	10-year real UST yield				
		-1.0%	-0.5%	0.0%	0.5%	1.0%
Last cycle low (Jan-18)	4.8%	26	23	21	19	17
2021 low	5.1%	24	22	20	18	16
Current	5.5%	22	20	18	17	15
	6.0%	20	18	17	15	14
Dec-18	6.5%	18	17	15	14	13
	7.0%	17	15	14	13	13
		Feb 2022		2014-19 average		4Q 2018

Source: Goldman Sachs Global Investment Research

Exhibit 4: Cyclical vs. Defensive industry rotations pricing a sharp slowdown

as of May 5, 2022



Source: Goldman Sachs Global Investment Research

Stocks with stable EBITDA growth and low share price volatility

Exhibit 5: Russell 1000 stocks with low EBITDA growth volatility and low share price volatility

as of May 5, 2022

						Price stability		10-year				Price stability		10-year			
						6m	3m option-	EBITDA				6m	3m option-	EBITDA			
			Market	total	NTM	realized	implied	growth				Market	total	NTM	realized	implied	growth
Company	Ticker	Industry Group	cap (bn)	return	P/E	volatility	volatility	variability	Company	Ticker	Industry Group	cap (bn)	return	P/E	volatility	volatility	variability
COMMUNICATION SERVICES									MATERIALS								
Sirius XM Holdings	SIRI	Media & Entertainment	\$24	1 %	19 x	28	36	6.7 pp	Sonoco Products Company	SON	Materials	\$6	7 %	12 x	27	26	7.6 pp
Comcast Corp.	CMCSA	Media & Entertainment	181	(19)	11	26	34	7.6	HEALTH CARE								
Omnicom Group Inc	OMC	Media & Entertainment	16	7	11	34	34	13.3	ResMed Inc.	RMD	Health Care Equipment & Services	\$30	(22)%	31 x	35	38	8.6 pp
Alphabet Inc.	GOOGL	Media & Entertainment	1,540	(20)	19	33	37	23.2	Cerner Corp.	CERN	Health Care Equipment & Services	28	2	25	22	NM	8.9
Interpublic Group of Companies	IPG	Media & Entertainment	13	(11)	12	36	35	29.3	Mettler-Toledo International Inc.	MTD	Pharmaceuticals Biotechnology & Life Sciences	30	(23)	33	32	36	9.4
CONSUMER DISCRETIONARY									Amgen Inc.	AMGN	Pharmaceuticals Biotechnology & Life Sciences	125	5	13	22	25	10.1
Domino's Pizza	DPZ	Consumer Services	\$12	(39)%	25 x	33	38	5.5 pp	Johnson & Johnson	JNJ	Pharmaceuticals Biotechnology & Life Sciences	465	4	17	19	22	11.3
AutoZone	AZO	Retailing	39	(6)	17	31	36	7.9	Cardinal Health	CAH	Health Care Equipment & Services	16	13	10	27	32	12.3
Home Depot	HD	Retailing	309	(27)	18	31	34	9.3	Waters Corp.	WAT	Pharmaceuticals Biotechnology & Life Sciences	20	(11)	27	32	36	14.1
Genuine Parts Company	GPC	Retailing	18	(6)	16	25	29	10.9	INDUSTRIALS								
O'Reilly Automotive	ORLY	Retailing	40	(15)	18	32	32	11.6	Verisk Analytics Inc	VRSK	Commercial & Professional Services	\$30	(18)%	32 x	25	29	5.8 pp
Dollar General Corp.	DG	Retailing	53	(1)	20	28	31	17.1	Waste Management	WM	Commercial & Professional Services	66	(5)	27	22	24	5.9
CONSUMER STAPLES									Hubbell Incorporated	HUBB	Capital Goods	11	(5)	20	25	28	6.0
Colgate-Palmolive Company	CL	Household & Personal Products	\$64	(10)%	24 x	21	23	4.3 pp	Fastenal Company	FAST	Capital Goods	31	(14)	28	26	30	6.5
PepsiCo	PEP	Food Beverage & Tobacco	236	(1)	25	18	22	6.0	INFORMATION TECHNOLOGY								
Altria Group Inc	MO	Food Beverage & Tobacco	101	20	11	19	24	7.8	Amdocs Limited	DOX	Software & Services	\$10	7 %	14 x	18	NM	4.1 pp
ENERGY									CDW Corp.	CDW	Technology Hardware & Equipment	23	(16)	17	32	34	4.4
Williams Companies	WMB	Energy	\$44	40 %	24 x	24	30	19.0 pp	Oracle Corp.	ORCL	Software & Services	194	(16)	14	36	35	6.1
ONEOK	OKE	Energy	29	12	16	31	33	19.3	Jack Henry & Associates	JKHY	Software & Services	14	12	36	25	30	7.1
FINANCIALS									Paychex	PAYX	Software & Services	45	(8)	31	28	31	8.9
Marsh & McLennan Companies	MMC	Insurance	\$81	(7)%	23 x	24	27	6.7 pp	VeriSign	VRSN	Software & Services	19	(31)	26	34	32	9.2
Bank of New York Mellon Corp.	BK	Diversified Financials	36	(23)	9	32	33	7.0	Automatic Data Processing	ADP	Software & Services	91	(11)	29	27	30	9.7
Nasdaq	NDAQ	Diversified Financials	26	(26)	19	24	27	9.1	Akamai Technologies	AKAM	Software & Services	16	(16)	17	29	35	10.1
BlackRock	BLK	Diversified Financials	96	(30)	15	30	35	9.9	Cisco Systems	CSCO	Technology Hardware & Equipment	206	(21)	14	27	31	10.1
Primerica	PRI	Insurance	5	(15)	10	32	37	10.4	Visa Inc.	V	Software & Services	430	(5)	26	35	34	11.3
S&P Global	SPGI	Diversified Financials	120	(26)	25	27	30	12.6	Black Knight	BKI	Software & Services	11	(13)	26	44	27	11.3
REAL ESTATE									Cognizant Technology Solutions Corp.	CTSH	Software & Services	39	(17)	16	31	32	11.7
American Tower Corp.	AMT	Real Estate	\$110	(17)%	52 x	26	30	8.4 pp	Amphenol Corp.	APH	Technology Hardware & Equipment	43	(18)	25	28	30	12.1
UTILITIES									Genpact Limited	G	Software & Services	7	(27)	14	28	30	12.4
Xcel Energy Inc.	XEL	Utilities	\$40	8 %	22 x	19	23	5.6 pp	List median			\$37	(11)%	19 x	28	31	9.2 pp
									Russell 1000 median			13	(13)	17	34	37	28.9

Source: FactSet, Goldman Sachs Global Investment Research.

S&P 500 earnings results

Exhibit 6: S&P 500 1Q 2022 earnings results

as of May 6, 2022

S&P 500 EQUAL-WEIGHTED												
Number of Companies				EARNINGS						REVENUE		
				Std Dev Surprises			Absolute Surprises		Avg 1Q Surprise	Std Dev Surprises		Avg 1Q Surprise
Reported	Total	% of Co's	Positive	Negative	In-Line	Positive	Negative	Positive		Negative		
Consumer Staples	24	32	75%	79 %	4 %	17 %	88 %	4 %	15 %	63 %	4 %	3 %
Information Technology	59	76	78	73	5	20	85	12	9	66	2	3
Industrials	67	71	94	67	4	28	87	10	7	58	7	2
Health Care	59	65	91	56	10	34	81	15	7	59	8	3
Materials	27	28	96	56	7	37	70	19	9	59	0	4
Energy	20	21	95	55	5	40	65	20	12	40	15	10
Real Estate	28	30	93	54	11	36	82	11	9	39	4	2
Consumer Discretionary	42	59	71	43	24	33	55	45	(0)	33	12	(0)
Financials	66	66	100	41	11	47	73	21	6	20	26	0
Utilities	25	29	86	32	8	60	56	28	8	56	12	7
Communication Services	19	23	83	26	5	68	74	21	15	11	11	(2)
S&P 500	436	500	87%	55 %	9 %	36 %	76 %	18 %	8 %	47 %	10 %	2 %

Comparative Data (full earnings season)

4Q 2021	54 %	10 %	36 %	75 %	21 %	8 %	53 %	8 %	4 %
3Q 2021	61	9	30	79	18	10	54	13	2
2Q 2021	72	5	23	87	10	18	67	5	4
1Q 2021	70	5	25	86	13	23	59	6	4

S&P 500 CAP-WEIGHTED												
Weight of Companies				EARNINGS						REVENUE		
				Std Dev Surprises			Absolute Surprises		Avg 1Q Surprise	Std Dev Surprises		Avg 1Q Surprise
				Positive	Negative	In-Line	Positive	Negative		Positive	Negative	
Consumer Staples	6	7	84%	74 %	2 %	24 %	94 %	2 %	8 %	64 %	0 %	3 %
Industrials	7	8	94	68	5	27	86	10	6	49	11	1
Information Technology	23	27	83	63	3	34	94	5	6	88	1	2
Materials	3	3	97	56	5	39	76	15	8	43	0	3
Real Estate	3	3	92	49	9	42	85	9	11	39	3	1
Consumer Discretionary	9	11	78	48	6	46	53	47	8	16	3	NM
Health Care	13	14	95	48	3	49	92	6	8	64	2	4
Financials	11	11	100	39	7	54	76	14	6	14	16	1
Energy	4	4	96	38	2	60	42	8	9	38	10	6
Utilities	2	3	84	24	6	70	61	17	6	43	23	(1)
Communication Services	8	9	91	11	2	87	38	55	3	1	5	NM
S&P 500	89	100	89%	50 %	4 %	46 %	77 %	16 %	7 %	49 %	5 %	2 %
S&P 500 ex. Energy	85	96	88%	50 %	4 %	46 %	79 %	16 %	7 %	50 %	5 %	2 %

(a) Result for each company relative to the standard deviation of consensus estimates two weeks prior to reporting date.

(b) Result for each company relative to the average consensus estimates two weeks prior to reporting date.

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

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

1Q earnings calendar (week of May 9th)

Exhibit 7: Expected report dates for S&P 500 stocks reporting week of May 9th

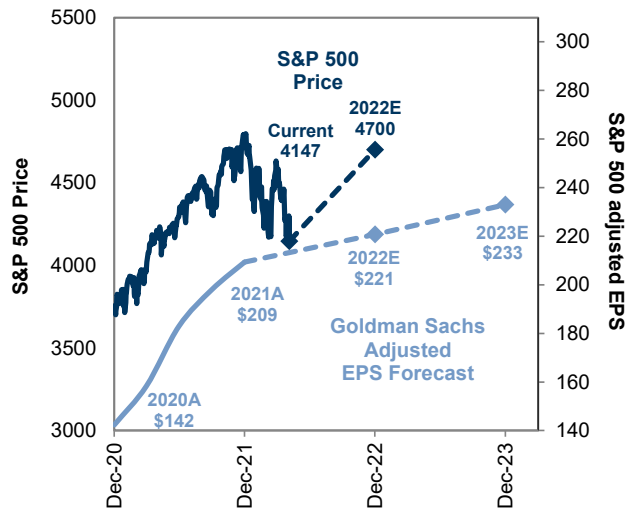
as of May 6, 2022

Sector	Company name	Ticker	YTD Return	Mkt Cap (\$ bil)	Consensus 1Q 2022				P/E (NTM)
					EPS	Std. Dev.	3 Mo Revision	Yr/Yr Growth	
<u>Monday, May 9, 2022</u>									
Consumer Staples	Tyson Foods Inc.	TSN	10 %	\$ 28	\$ 1.89	\$ 0.26	27 %	41 %	12.2 x
Health Care	Viatis Inc.	VTRS	(22)	13	0.83	0.03	(10)	(10)	3.0
Information Technology	Microchip Technology	MCHP	(21)	38	1.25	0.01	1	35	13.3
Materials	International Flav/Frag	IFF	(16)	32	1.35	0.11	(5)	(16)	21.9
Real Estate	Simon Property Group	SPG	(21)	41	2.73	0.09	(1)	10	10.6
Utilities	Duke Energy Corp.	DUK	10	88	1.34	0.05	(1)	7	20.8
	Exelon Corp.	EXC	18	47	0.66	0.02	(7)	NM	21.5
<u>Tuesday, May 10, 2022</u>									
Communication Services	Electronic Arts	EA	(6)%	\$ 35	\$ 1.43	\$ 0.07	(0)%	17 %	16.8 x
	Fox Corp.	FOXA	(0)	16	0.88	0.11	(3)	0	10.7
Consumer Discretionary	Norwegian Cruise Line Hldgs	NCLH	(1)	9	(1.55)	0.49	(111)	24	NM
	Wynn Resorts, Limited	WYNN	(17)	8	(1.24)	0.35	(84)	49	NM
Consumer Staples	Sysco Corp.	SYU	14	45	0.55	0.06	(30)	148	23.6
Energy	Occidental Petroleum	OXY	97	53	1.93	0.37	83	NM	6.4
Health Care	DENTSPLY SIRONA	XRAY	(28)	9	0.56	0.09	(24)	(22)	14.5
Industrials	TransDigm Group	TDG	(3)	34	3.68	0.22	0	43	35.9
Real Estate	Welltower Inc.	WELL	11	41	0.83	0.02	(1)	3	26.7
<u>Wednesday, May 11, 2022</u>									
Communication Services	Walt Disney	DIS	(26)%	\$ 210	\$ 1.17	\$ 0.15	(0)%	48 %	24.3 x
Health Care	STERIS Plc	STE	(5)	23	2.02	0.01	(1)	24	27.5
<u>Thursday, May 12, 2022</u>									
Consumer Discretionary	Tapestry Inc.	TPR	(17)%	\$ 9	\$ 0.41	\$ 0.02	(27)%	(19)%	8.4 x
Information Technology	Citrix Systems Inc.	CTXS	6	13	1.21	0.08	1	(15)	19.7
	Motorola Solutions	MSI	(18)	38	1.61	0.10	(3)	(14)	22.7
Utilities	Constellation Energy	CEG	NM	20	0.72	0.20	NM	NM	23.0

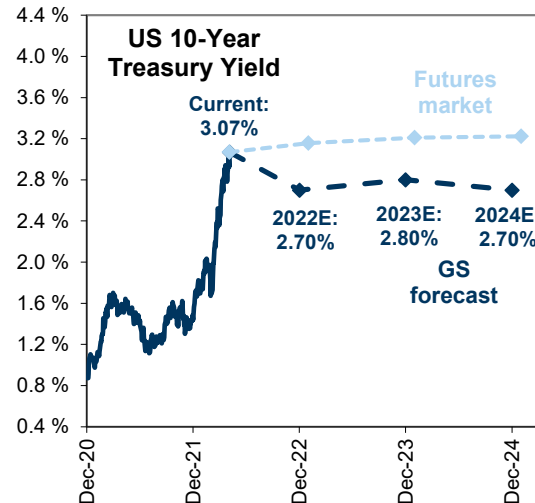
Source: Compustat and FactSet.

Markets and Money Flow

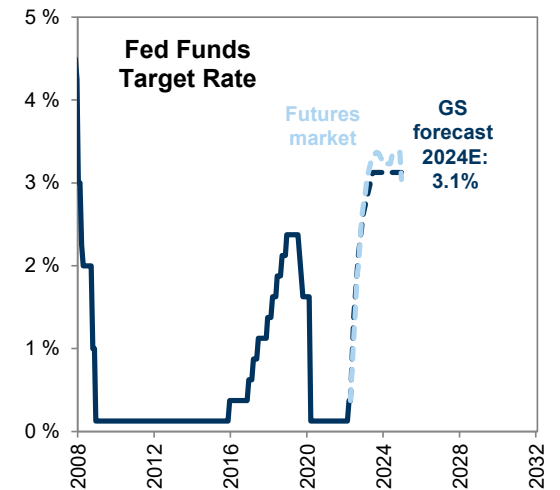
S&P 500 level and EPS



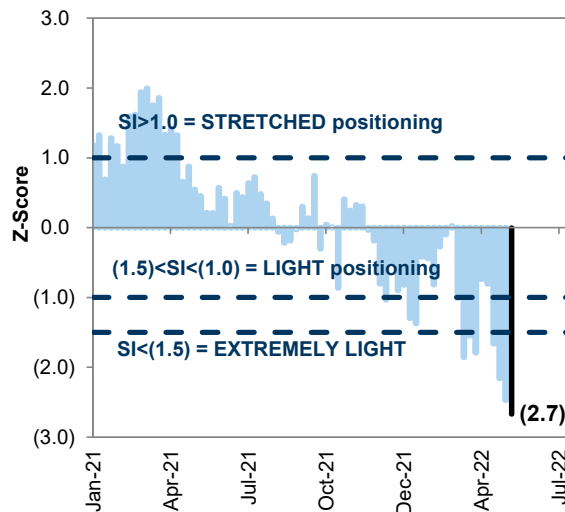
10-yr. Treasury Yields



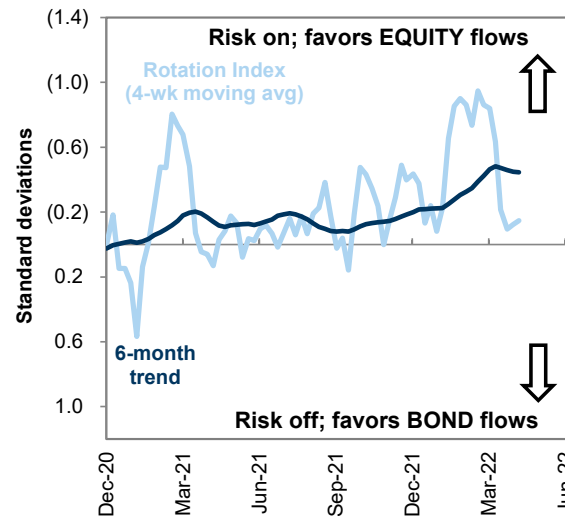
Fed Funds Target Rate



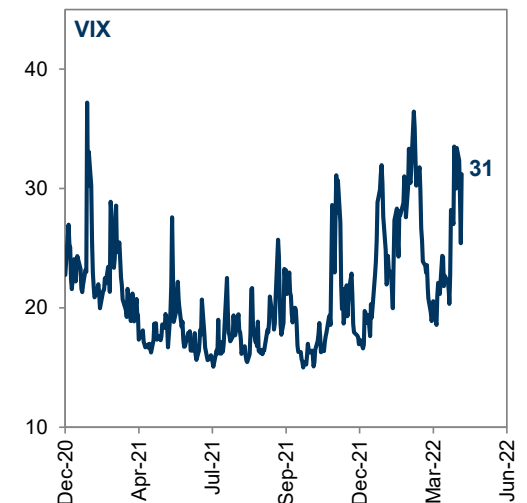
Sentiment Indicator



Rotation Index



Volatility



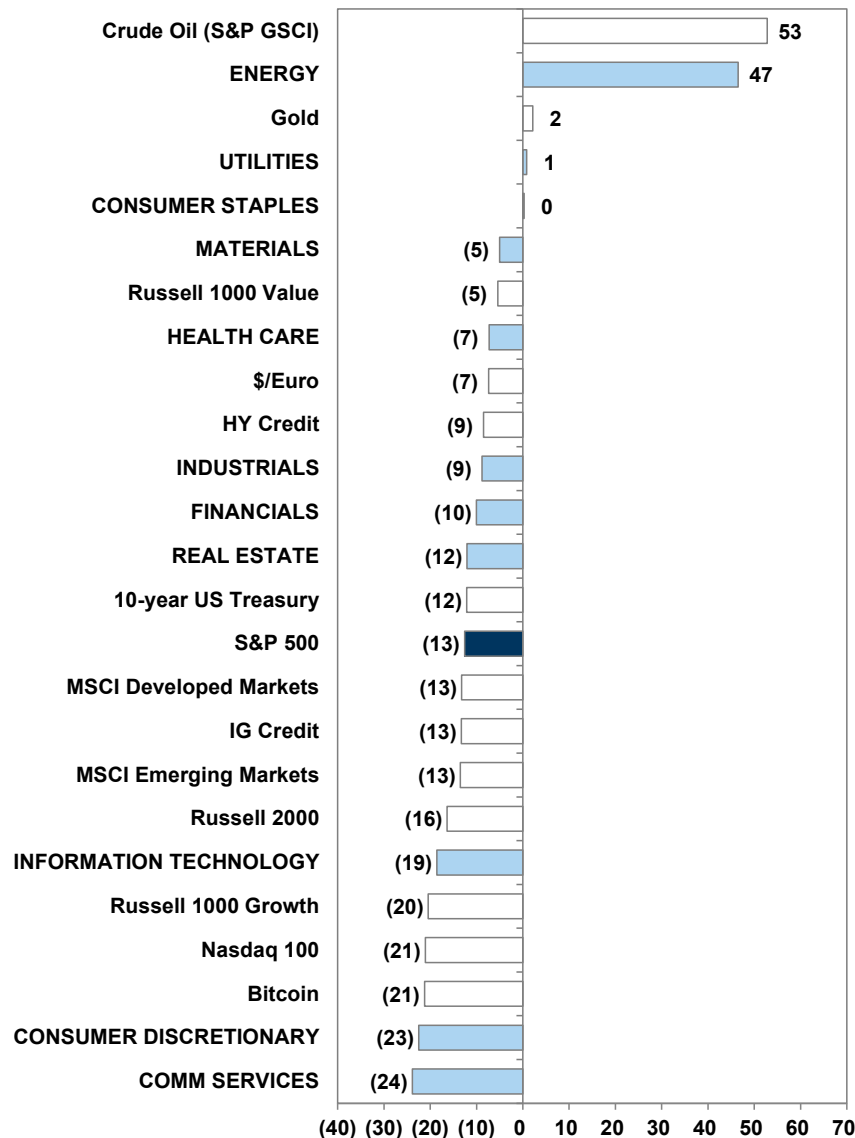
Note: Sentiment Indicator measures stock positioning across retail, institutional, and foreign investors versus the past 12 months. Readings below -1.0 or above +1.0 indicate extreme positions that are significant in predicting future returns.

Note: Rotation Index plots the first principal component of weekly reallocation activity across equity and debt mutual fund and ETF categories as a measure of retail risk appetite.

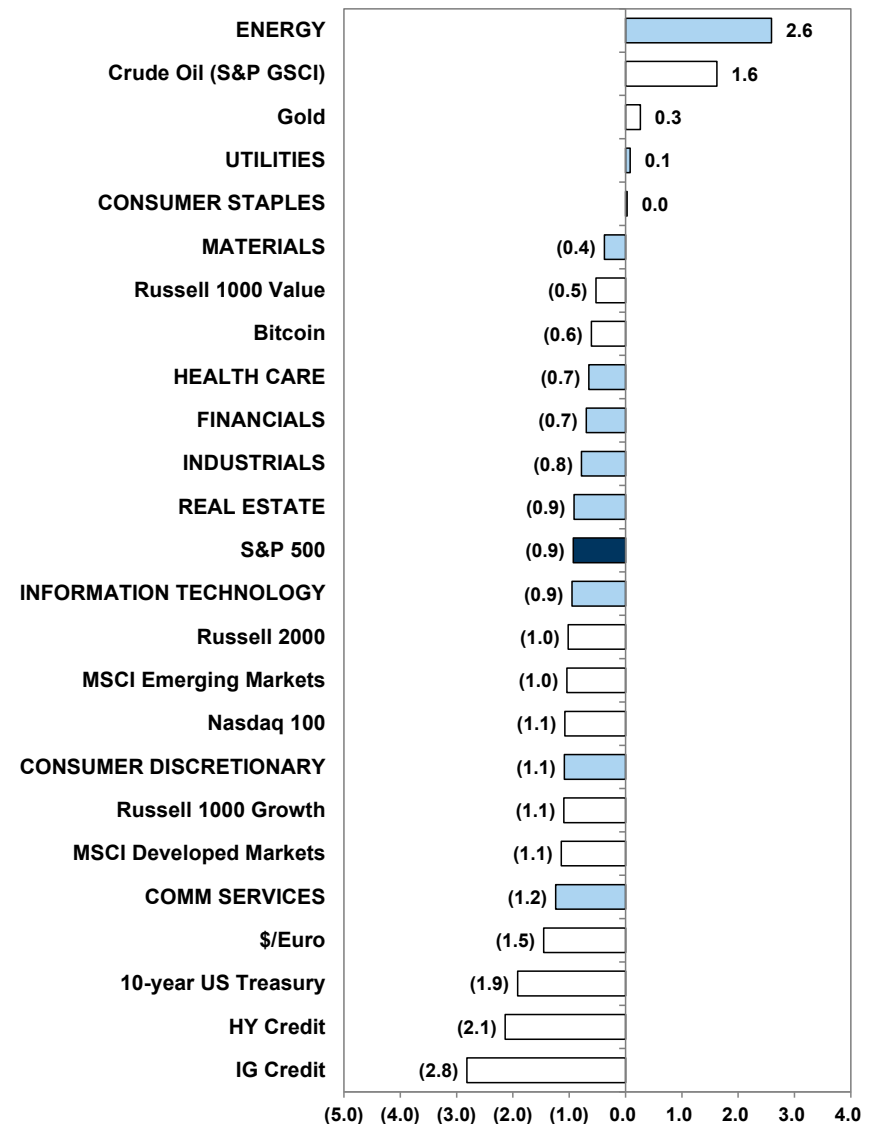
Source: Haver, EPFR, FactSet, CFTC, and Goldman Sachs Global Investment Research.

Market Performance: YTD absolute and risk-adjusted returns

Total Return



Risk Adjusted Return (Sharpe Ratio)

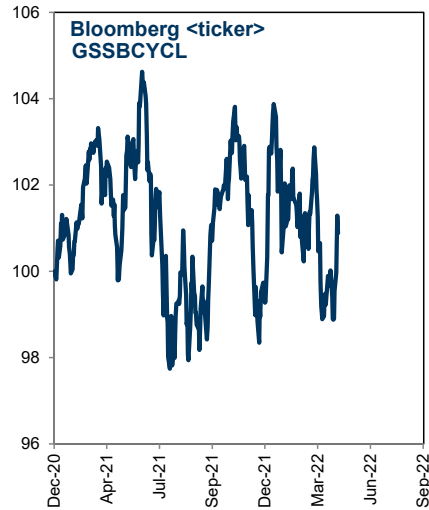


Note: Crude Oil (S&P GSCI) return represents S&P GSCI Crude Oil Index total return. Spot change equals 43% YTD.

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

Sector Baskets – Performance Relative to S&P 500

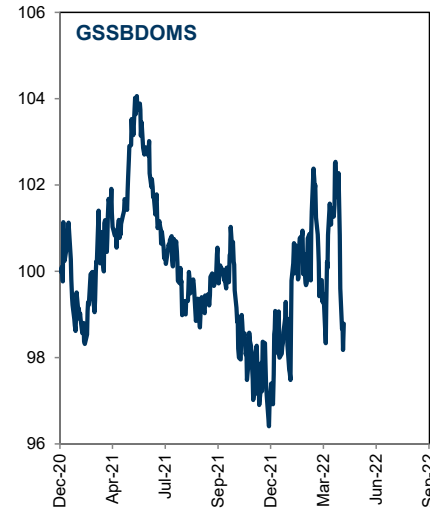
Cyclicals



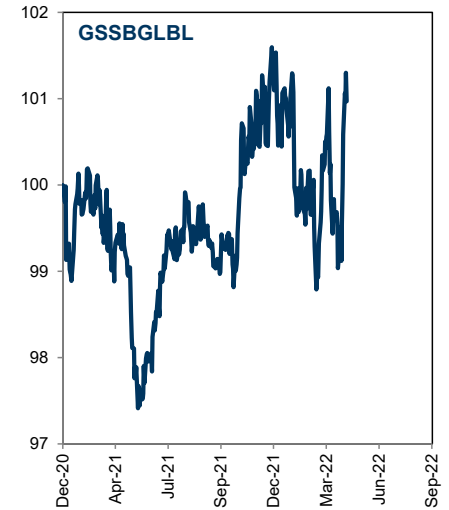
Defensives



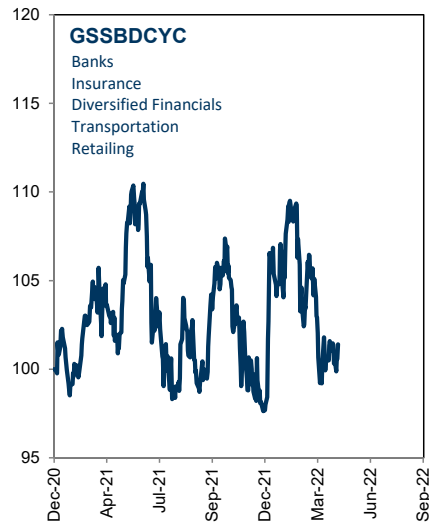
Domestic



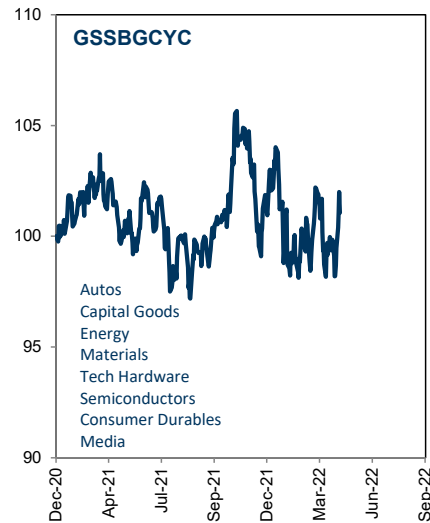
Global



Domestic Cyclicals



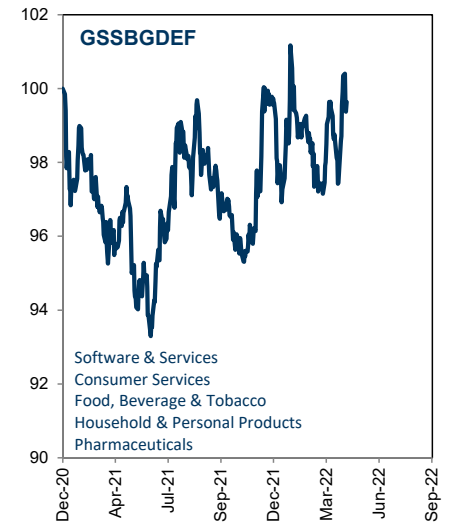
Global Cyclicals



Domestic Defensives



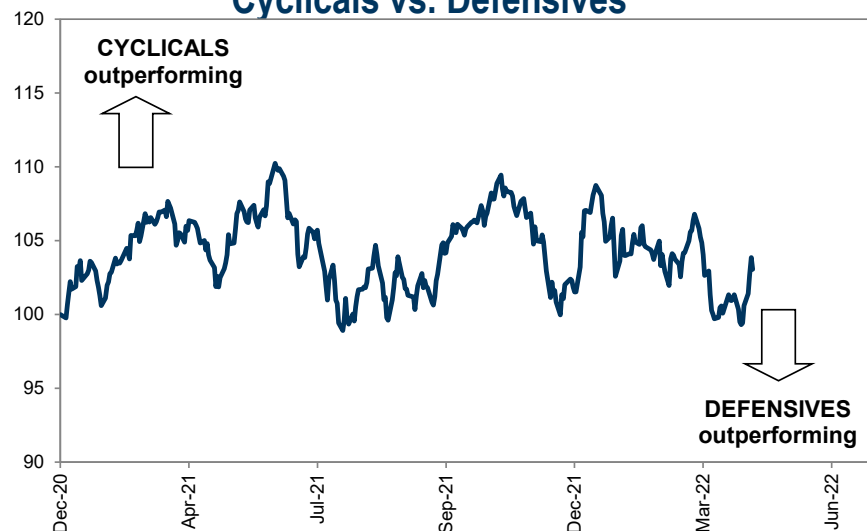
Global Defensives



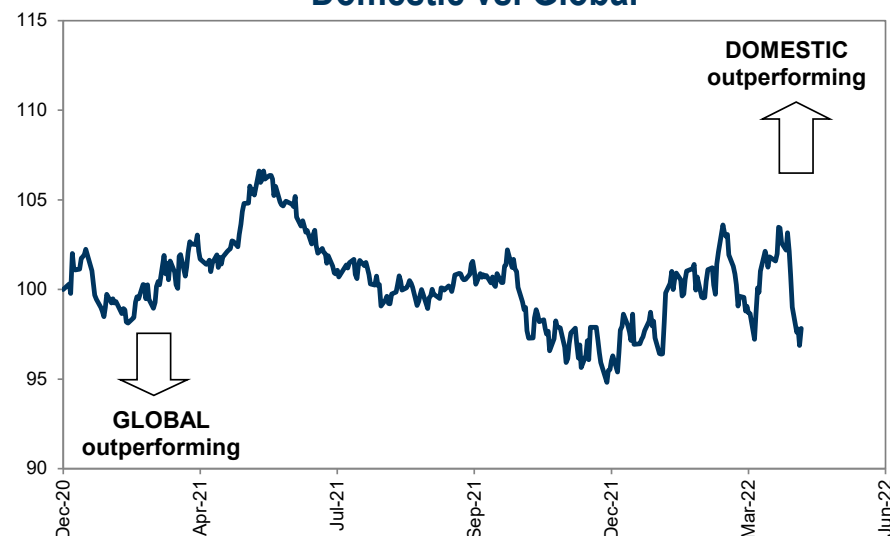
Source: FactSet and Goldman Sachs Global Investment Research.

Sector Baskets Performance

Cyclicals vs. Defensives



Domestic vs. Global

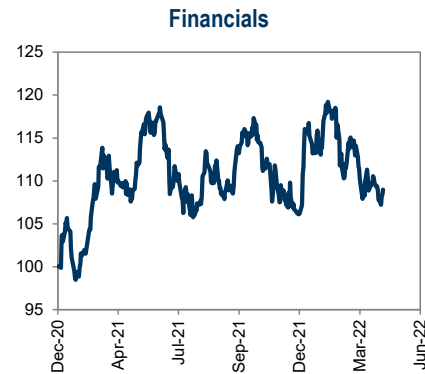
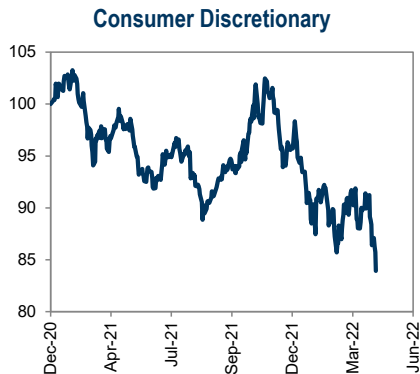


Performance and fundamentals of our sector baskets

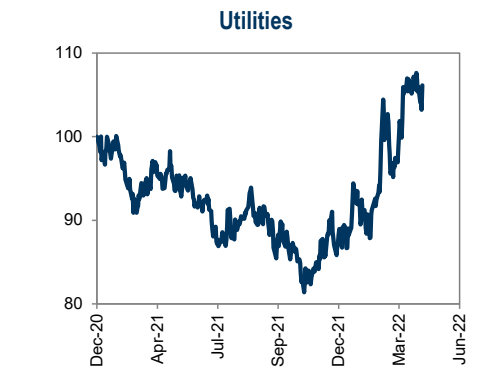
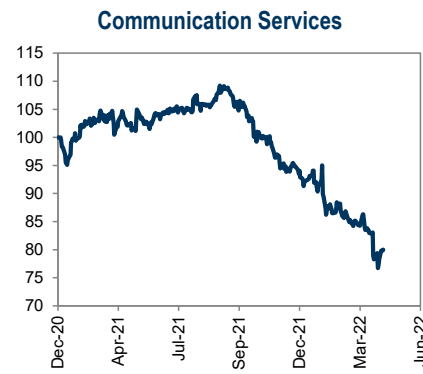
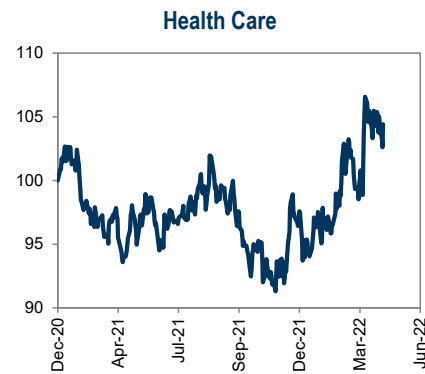
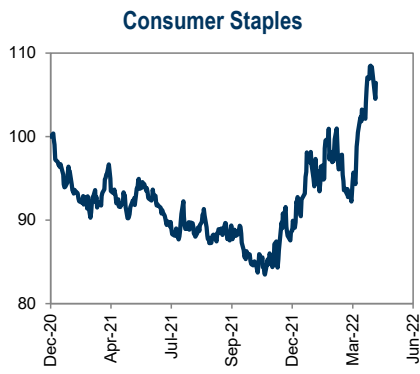
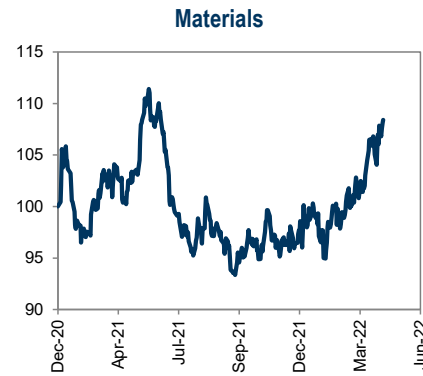
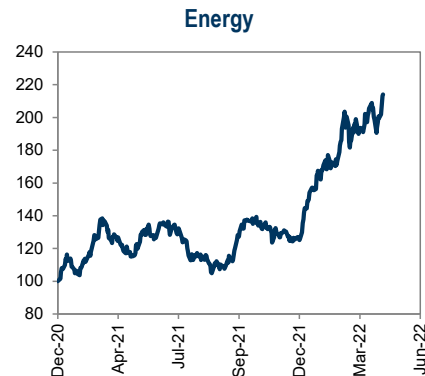
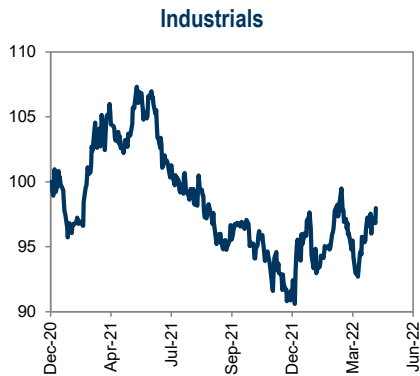
Basket	Bloomberg Ticker <GSSBXXXX>	# of Stocks	% of S&P 500 Cap	Beta	Non-US Sales	Earnings Growth		Sales Growth		NTM P/E	LTM P/B	Div Yield	Total Return				
						2022E	2023E	2022E	2023E				1 Wk	1 Mo	3 Mo	LTM	YTD
Cyclicals	CYCL	245	44 %	1.1	36%	13 %	9 %	17 %	4 %	15.4x	3.3x	1.6 %	(1.6)%	(7)%	(8)%	(1)%	(11)%
Defensives	DEFS	255	56	0.9	22	5	11	7	6	20.2	5.4	1.5	(4.7)	(9)	(7)	3	(13)
Domestic	DOMS	216	34 %	0.9	14%	(3)%	14 %	6 %	5 %	17.1x	2.7x	1.8 %	(5.0)%	(9)%	(8)%	(3)%	(12)%
Global	GLBL	284	66	1.0	45	16	7	14	5	18.1	5.9	1.4	(2.4)	(8)	(7)	4	(13)
Domestic Cyclicals	DCYC	91	14 %	1.0	19%	(4)%	16 %	20 %	5 %	13.5x	1.8x	1.9 %	(2.3)%	(7)%	(12)%	(4)%	(10)%
Global Cyclicals	GCYC	154	30	1.1	47	25	5	16	4	16.4	5.3	1.5	(1.2)	(8)	(6)	1	(12)
Domestic Defensives	DDEF	125	20	0.8	12	(2)	13	5	5	20.7	4.1	1.7	(6.5)	(10)	(6)	(2)	(13)
Global Defensives	GDEF	130	36	1.0	42	9	10	11	7	19.8	6.5	1.3	(3.5)	(8)	(7)	6	(13)
Services-providing	SERV	259	52 %	1.0	20%	2 %	17 %	9 %	7 %	18.5x	3.6x	1.3 %	(4.7)%	(10)%	(11)%	(7)%	(16)%
Goods-producing	GOOD	241	48	0.9	42	17	3	13	3	17.0	5.2	1.8	(1.8)	(6)	(3)	11	(8)
S&P 500		500	100 %	1.0	28%	10 %	9 %	12 %	5 %	17.8x	4.2x	1.5 %	(3.3)%	(8)%	(8)%	1 %	(13)%

Source: FactSet and Goldman Sachs Global Investment Research.

Sectors – Relative Performance vs. S&P 500

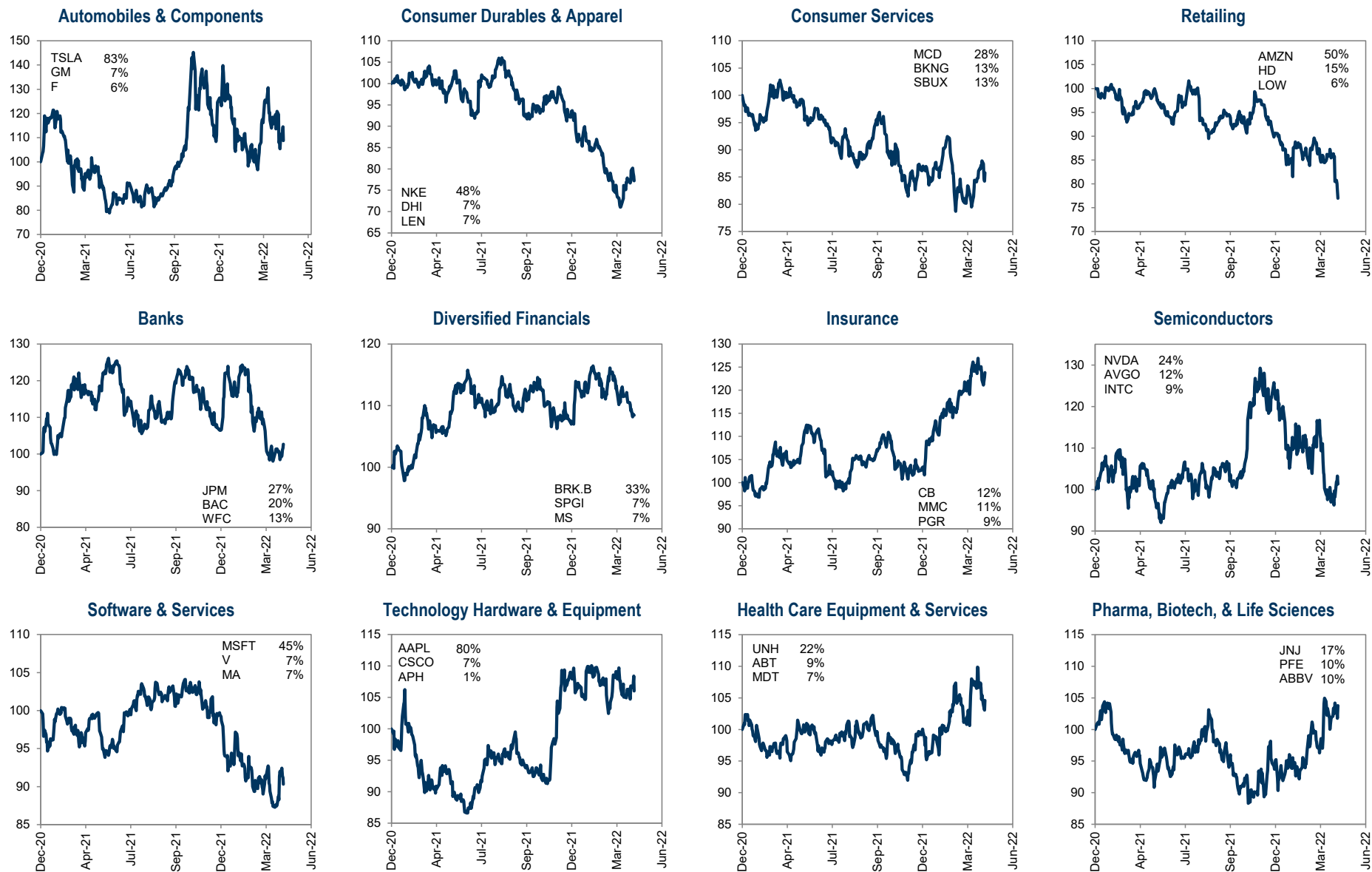


Recommended Sector Positioning			
Sectors	Goldman Sachs Weighting	S&P 500 Wgt	YTD
Energy	Overweight	4%	47 %
Health Care		14	(7)
Info Tech		27	(19)
Materials	Neutral	3	(5)
Industrials		8	(9)
Financials		11	(10)
Real Estate		3	(12)
Cons. Services		2	(15)
Retailing		6	(25)
Cons. Durables	Underweight	1	(27)
Media & Ent.		8	(27)
Telecom Svcs.		1	2
Utilities	Underweight	3	1
Consumer Staples		7	0
Autos & Comp.		3	(20)
S&P 500		100%	(13)%



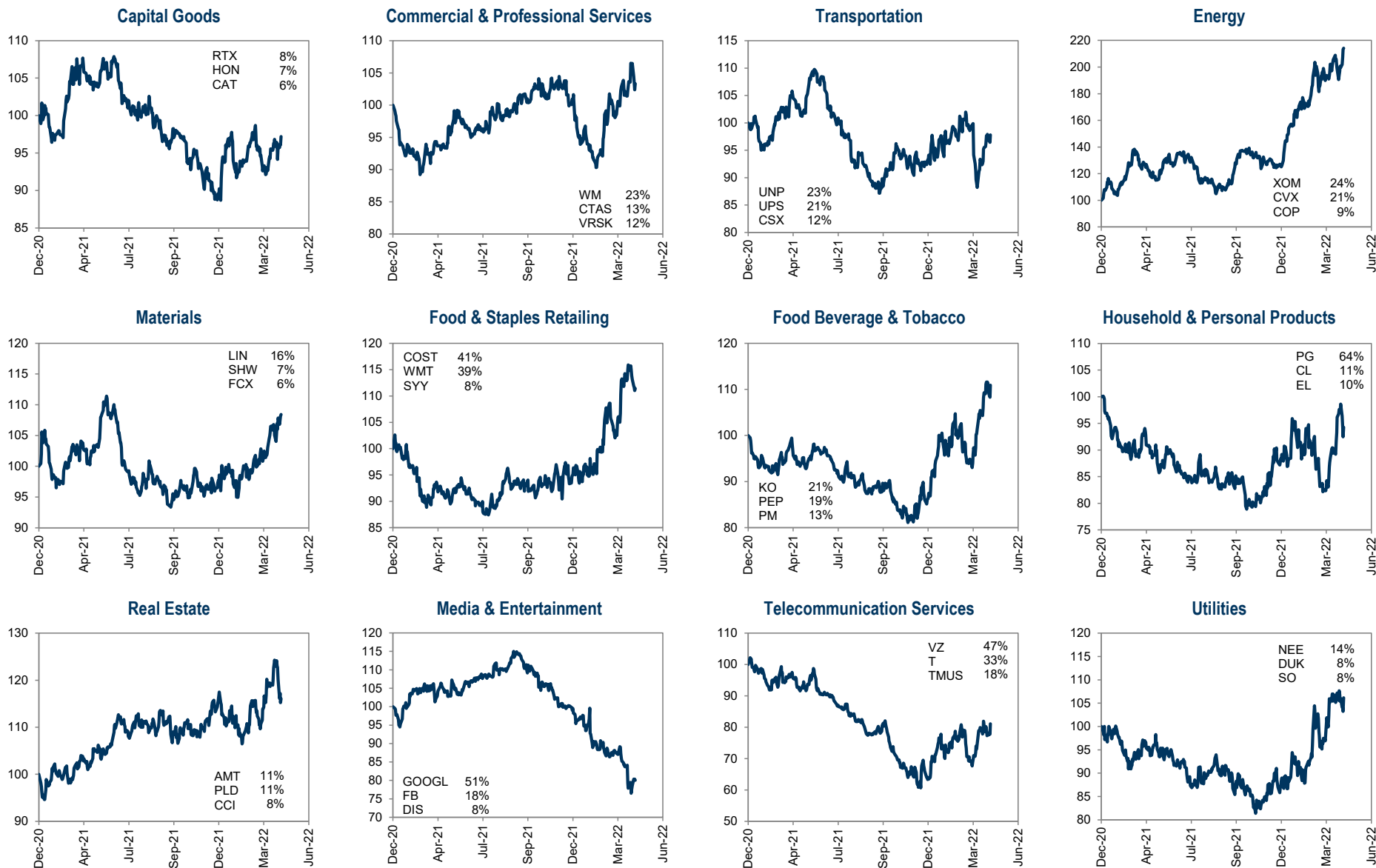
Source: FactSet and Goldman Sachs Global Investment Research.

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 %	(3.3)%	(8.3)%	(8)%	1 %	(13)%		
S E C T O R	Energy	4 %	4.5 %	6.0 %	18 %	62 %	47 %	Top quartile	
	Materials	3	(1.2)	(3.0)	4	1	(5)	Bottom quartile	
	Communication Services	9	(1.3)	(15.1)	(17)	(19)	(24)		
	Industrials	8	(1.6)	(4.4)	(4)	(6)	(9)		
	Financials	11	(2.1)	(7.4)	(12)	(4)	(10)		
	Utilities	3	(2.5)	(5.0)	5	13	1		
	Health Care	14	(2.6)	(5.2)	(1)	7	(7)		
	Consumer Staples	7	(3.9)	0.3	2	15	0		
	Information Technology	27	(4.0)	(10.7)	(11)	4	(19)		
	Real Estate	3	(7.5)	(7.9)	(2)	12	(12)		
Consumer Discretionary		11	(7.9)	(14.9)	(14)	(11)	(23)	Region	Cycle
I N D U S T R Y G R O U P	Energy	4 %	4.5 %	6.0 %	18 %	62 %	47 %	Global	Cyclicals
	Banks	4	0.4	(6.1)	(19)	(13)	(15)	Domestic	Cyclicals
	Telecommunication Services	1	0.0	(1.2)	(1)	(13)	2	Domestic	Defensives
	Automobiles & Components	3	(0.3)	(17.8)	(8)	19	(20)	Global	Cyclicals
	Capital Goods	5	(0.7)	(4.5)	(3)	(7)	(8)	Global	Cyclicals
	Materials	3	(1.2)	(3.0)	4	1	(5)	Global	Cyclicals
	Media & Entertainment	8	(1.5)	(17.1)	(19)	(20)	(27)	Global	Defensives
	Semiconductors & Semiconductor Equipment	6	(1.8)	(12.0)	(13)	6	(24)	Global	Cyclicals
	Pharmaceuticals Biotechnology & Life Sciences	8	(2.1)	(4.1)	0	10	(6)	Global	Defensives
	Food Beverage & Tobacco	3	(2.5)	2.9	4	16	6	Global	Defensives
	Utilities	3	(2.5)	(5.0)	5	13	1	Domestic	Defensives
	Insurance	2	(2.8)	(4.9)	0	12	3	Domestic	Cyclicals
	Transportation	2	(2.9)	(3.2)	(6)	(8)	(10)	Domestic	Cyclicals
	Health Care Equipment & Services	6	(3.2)	(6.6)	(3)	5	(9)	Domestic	Defensives
	Diversified Financials	5	(3.6)	(9.4)	(11)	(2)	(11)	Domestic	Cyclicals
	Technology Hardware & Equipment	9	(3.7)	(9.8)	(9)	17	(13)	Global	Cyclicals
	Consumer Durables & Apparel	1	(4.0)	(5.9)	(15)	(21)	(27)	Global	Cyclicals
	Consumer Services	2	(4.6)	(5.9)	(9)	(10)	(15)	Global	Defensives
	Food & Staples Retailing	2	(4.8)	(4.2)	5	20	(1)	Domestic	Defensives
	Commercial & Professional Services	1	(5.0)	(6.7)	1	6	(11)	Domestic	Cyclicals
	Software & Services	13	(5.1)	(10.8)	(11)	(3)	(19)	Global	Defensives
	Household & Personal Products	2	(5.9)	(0.5)	(6)	8	(9)	Global	Defensives
	Real Estate	3	(7.5)	(7.9)	(2)	12	(12)	Domestic	Defensives
	Retailing	6	(12.3)	(17.5)	(18)	(18)	(25)	Domestic	Defensives

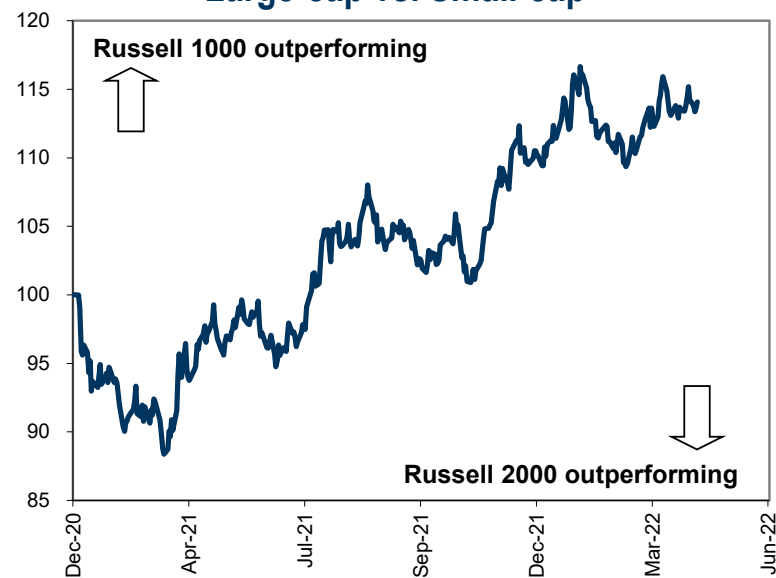
Source: FactSet and Goldman Sachs Global Investment Research.

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)
Energy	5	4	95	24	45	(2,139)
Consumer Staples	(3)	(3)	(7)	3	3	(3)
Technology	(4)	(3)	(37)	(22)	(17)	(427)
Health Care	(3)	(2)	(60)	(17)	(5)	(1,223)
Utilities	(4)	(3)	(123)	(6)	(0)	(602)
Materials	(3)	(1)	(177)	(15)	5	(1,997)
Industrials	(4)	(1)	(271)	(15)	(11)	(430)
Financials	(5)	(2)	(310)	(19)	(9)	(928)
Cons Discretionary	(9)	(2)	(672)	(26)	(14)	(1,272)
Index	(5)	(2)	(277)	(20)	(5)	(1,500)

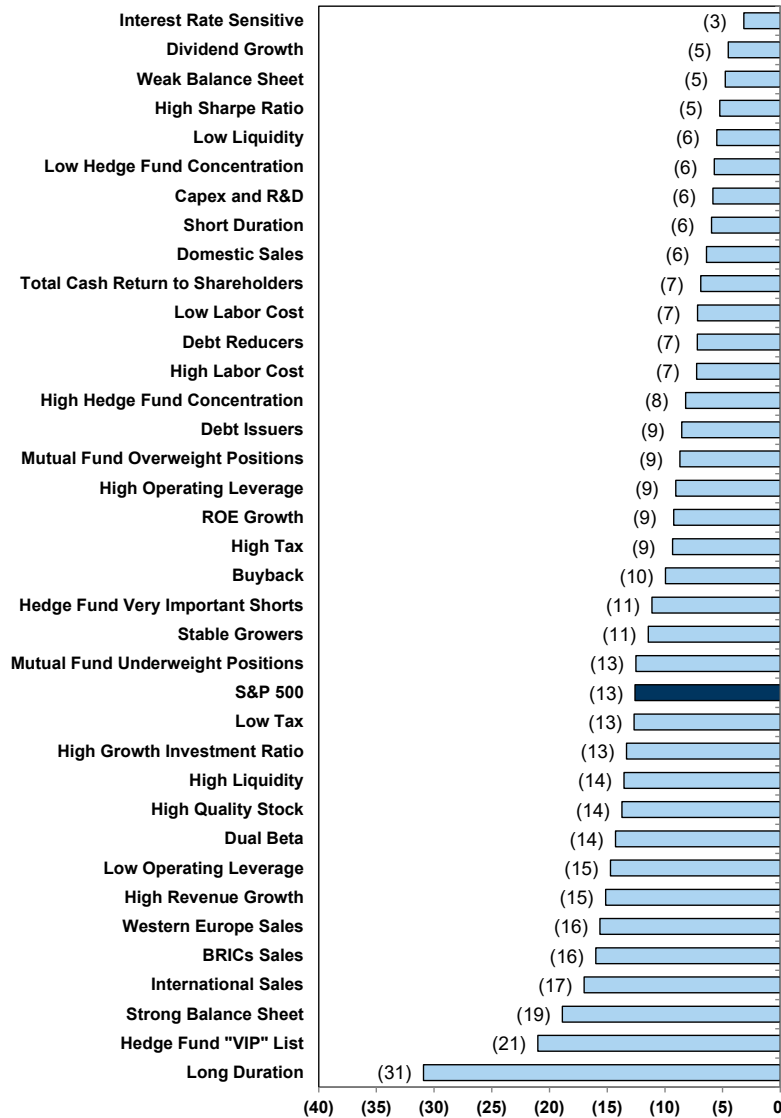
Sectors: Russell 1000 vs. Russell 2000

Russell Sector	1-Week (% Return)			YTD (% Return)		
	R1000	R2000	Δ (bps)	R1000	R2000	Δ (bps)
Consumer Staples	(3)	(6)	252	3	(13)	1,601
Energy	4	2	221	43	37	584
Health Care	(3)	(4)	87	(9)	(30)	2,084
Technology	(4)	(4)	28	(21)	(25)	412
Utilities	(3)	(3)	18	(0)	(4)	371
Financials	(2)	(1)	(57)	(10)	(14)	353
Materials	(2)	(1)	(63)	1	(8)	877
Industrials	(3)	(1)	(222)	(13)	(14)	133
Cons Discretionary	(7)	(3)	(434)	(23)	(20)	(236)
Index	(3)	(2)	(94)	(13)	(16)	299

Source: FactSet and Goldman Sachs Global Investment Research.

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

YTD Performance



			Total Return			P/E	EV/Sales	Div
			1 wk	1 mo	YTD	NTM	NTM	Yield
Macroeconomic	Dual Beta	GSTHBETA	(1.0)%	(8)%	(14)%	19x	3.6x	0.0 %
	Interest Rate Sensitive	GSTHUSTY	(2.0)	(4)	(3)	12	2.0	0.9
	High Tax	GSTHHTAX	(2.2)	(6)	(9)	16	2.5	1.4
	Low Tax	GSTHLTAX	(1.3)	(8)	(13)	18	3.8	0.7
	High Labor Cost	GSTHHLAB	(3.3)	(6)	(7)	17	2.6	1.3
	Low Labor Cost	GSTHLLAB	(1.1)	(5)	(7)	14	1.8	1.3
Geographic Sales	Domestic Sales	GSTHAINT	(3.0)%	(5)%	(6)%	16x	2.9x	1.3 %
	International Sales	GSTHINTL	(1.4)	(6)	(17)	20	3.8	1.2
	BRICs Sales	GSTHBRIC	(0.2)	(7)	(16)	15	3.4	1.1
	Western Europe Sales	GSTHWEUR	(2.0)	(6)	(16)	16	3.0	0.6
Fundamental	High Revenue Growth	GSTHREVG	(2.6)%	(9)%	(15)%	26x	4.3x	0.0 %
	High Operating Leverage	GSTHOPHI	(2.8)	(7)	(9)	20	3.2	0.3
	Low Operating Leverage	GSTHOPLO	(2.1)	(6)	(15)	15	3.6	1.3
	Stable Growers	GSTHSTGR	(3.8)	(8)	(11)	19	3.8	1.7
	ROE Growth	GSTHGROE	(1.5)	(5)	(9)	19	3.3	1.0
	High Quality Stock	GSTHQUAL	(3.6)	(8)	(14)	25	4.1	1.0
	Long Duration	GSTHLDUR	(7.4)	(22)	(31)	34	4.5	0.0
	Short Duration	GSTHSDUR	0.3	(2)	(6)	9	1.5	1.4
	Strong Balance Sheet	GSTHSBAL	(2.4)	(9)	(19)	28	5.9	0.2
	Weak Balance Sheet	GSTHWBAL	(2.9)	(5)	(5)	13	2.8	0.8
Uses of Cash	Capex and R&D	GSTHCAPX	(1.8)%	(4)%	(6)%	11x	2.4x	2.0 %
	Total Cash Return to Shareholders	GSTHCASH	(1.0)	(3)	(7)	13	2.1	2.0
	Buyback	GSTHREPO	(1.8)	(5)	(10)	14	2.3	1.6
	Dividend Growth	GSTHDIVG	(1.3)	(3)	(5)	12	2.8	3.2
	High Growth Investment Ratio	GSTHHGIR	(1.2)	(6)	(13)	21	4.1	0.3
	Debt Issuers	GSTHDISS	(2.9)	(5)	(9)	21	3.8	0.8
Debt Reducers	GSTHDRED	(0.5)	(3)	(7)	12	2.3	2.3	
Risk & Liquidity	High Sharpe Ratio	GSTHSHRP	(2.1)%	(4)%	(5)%	15x	3.3x	0.8 %
	High Liquidity	GSTHHLIQ	(2.9)	(9)	(14)	19	3.3	1.6
	Low Liquidity	GSTHLLIQ	(1.5)	(10)	(6)	21	2.9	0.0
Hedge Funds & Mutual Funds	Hedge Fund "VIP" List	GSTHHVIP	(4.9)%	(13)%	(21)%	22x	3.4x	0.0 %
	Hedge Fund Very Important Shorts	GSTHVISP	(2.0)	(6)	(11)	13	2.8	2.6
	High Hedge Fund Concentration	GSTHHFHI	(3.1)	(7)	(8)	12	2.5	0.2
	Low Hedge Fund Concentration	GSTHHFSL	(3.3)	(5)	(6)	21	4.1	2.6
	Mutual Fund Overweight Positions	GSTHMFOW	(2.7)	(7)	(9)	16	3.8	1.3
	Mutual Fund Underweight Positions	GSTHMFUW	(2.9)	(8)	(13)	22	3.3	2.1
S&P 500 Median						21	3.8	1.7

For details and constituents of our baskets see [Anatomy of our US Portfolio Strategy Thematic and Sector Baskets](#), March 30, 2022

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

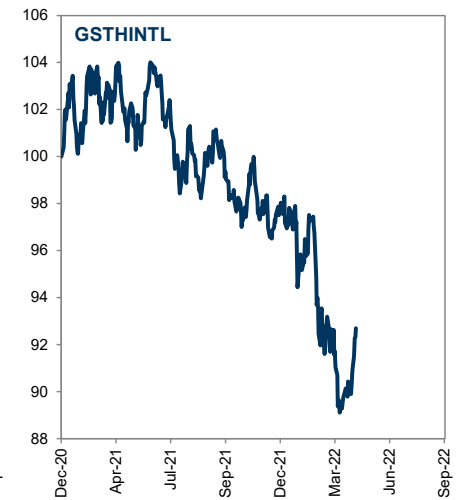


Geographic Sales

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

Revenue Growth



High vs. Low Operating Leverage



ROE Growth



Long vs. Short Duration



High Quality



Strong vs. Weak Balance Sheet



High vs. Low Adjusted FCF



Stable Growers



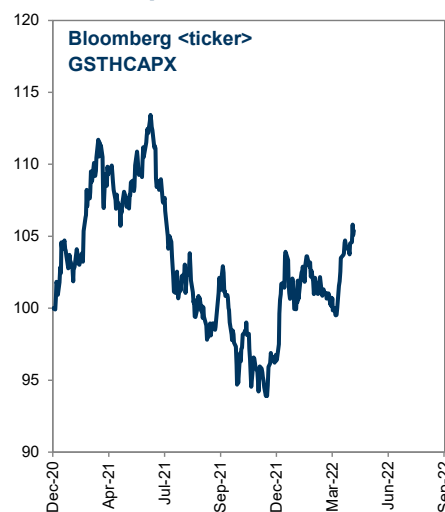
Source: FactSet and Goldman Sachs Global Investment Research.

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

Uses of Cash

Risk & Liquidity

Capex and R&D



High Growth Investment Ratio



Debt Reducers vs. Issuers



High Sharpe Ratio



Total Cash Return



Buybacks



Dividend Growth



Low vs. High Liquidity

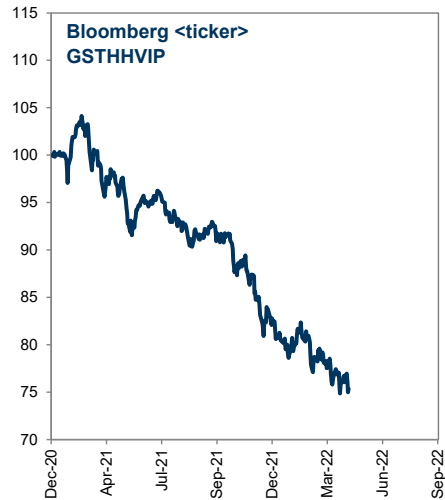


Source: FactSet and Goldman Sachs Global Investment Research.

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

Hedge Fund Ownership

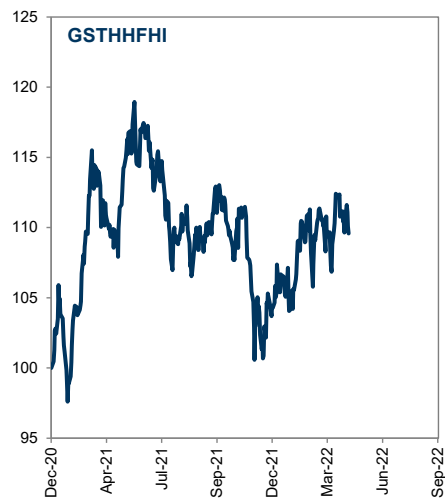
Hedge Fund VIP



Short Positions



High Concentration



Low Concentration

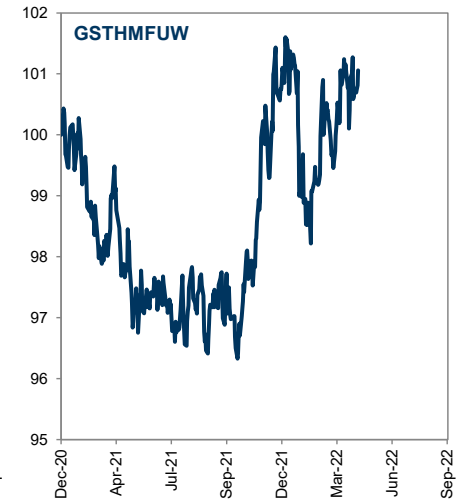


Mutual Fund Ownership

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

	2021A	Adjusted EPS				Adjusted EPS			
		GS Top-Down				Consensus Bottom-Up			
		Contribution	EPS growth			Contribution	EPS growth		
		2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E
Information Technology	\$47	\$50	\$55	7 %	9 %	\$51	\$56	8 %	12 %
Health Care	35	37	37	6	1	37	37	8	(2)
Financials	39	33	36	(16)	11	34	39	(11)	14
Communication Services	23	23	24	0	7	22	25	(3)	14
Consumer Discretionary	15	17	18	9	10	18	22	17	25
Industrials	13	15	17	19	9	17	20	33	19
Consumer Staples	12	12	12	1	2	13	14	4	8
Materials	7	8	7	10	(3)	8	8	16	(6)
Utilities	6	6	6	2	3	6	6	3	6
Real Estate	5	5	5	6	7	6	6	15	7
S&P 500 ex-Energy	200	205	218	2	7	211	233	6	10
Energy	9	16	15	73	(9)	18	16	96	(11)
S&P 500 EPS	\$209	\$221	\$233	5 %	6 %	\$229	\$249	10 %	9 %

Earnings & Sales Revisions (Consensus)

	EPS REVISIONS				SALES REVISIONS			
	1 month		3 month		1 month		3 month	
	22E	23E	22E	23E	22E	23E	22E	23E
Energy	14.3 %	14.4 %	39.6 %	31.5 %	6.7 %	6.8 %	16.6 %	13.7 %
Materials	5.7	3.3	11.1	9.2	3.4	2.7	6.5	6.1
Real Estate	1.7	0.3	2.7	1.3	NM	NM	NM	NM
Financials	0.9	0.6	(0.9)	1.6	NM	NM	NM	NM
Industrials	0.7	0.0	(0.4)	(0.2)	0.7	0.4	0.9	0.7
Utilities	0.3	0.2	(0.6)	(0.3)	NM	NM	NM	NM
S&P 500	0.2	(0.0)	1.3	1.0	0.9	0.7	2.1	1.6
Information Technology	(0.0)	(0.3)	0.7	0.5	0.0	(0.0)	1.0	1.0
Consumer Staples	(0.2)	(0.4)	(0.5)	(1.0)	0.8	0.8	1.6	1.5
S&P 500 ex. Energy	(0.9)	(0.9)	(1.0)	(0.7)	0.2	0.1	0.6	0.4
Health Care	(1.3)	(1.4)	(1.0)	(3.0)	(0.0)	(0.2)	0.2	(0.4)
Communication Services	(3.7)	(3.7)	(3.5)	(3.5)	0.1	(0.2)	(0.3)	(0.7)
Consumer Discretionary	(7.7)	(4.3)	(9.3)	(4.5)	(0.8)	(0.7)	(0.7)	(0.3)

Earnings Growth (consensus bottom-up)

	2022 Earnings Per Share Growth				Annual	
	1QE	2QE	3QE	4QE	2022E	2023E
Energy	282 %	162 %	68 %	26 %	96 %	(11)%
Industrials	30	27	31	44	33	19
Consumer Discretionary	(9)	3	30	46	17	25
Materials	44	15	11	3	16	(6)
Real Estate	14	14	19	12	15	7
S&P 500	11	5	10	12	10	9
Information Technology	14	3	7	10	8	12
Health Care	18	5	4	5	8	(2)
S&P 500 ex. Energy	4	(1)	7	12	6	10
Consumer Staples	7	(1)	3	6	4	8
Utilities	9	(8)	(4)	21	3	6
Communication Services	(5)	(8)	(2)	5	(3)	14
Financials	(18)	(21)	(4)	3	(11)	14

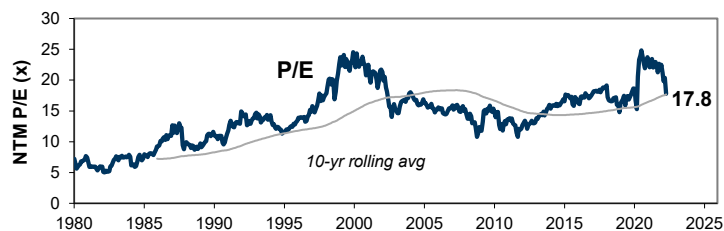
Sales Growth (consensus bottom-up)

	2022E Sales Per Share Growth				Annual	
	1QE	2QE	3QE	4QE	2022E	2023E
Energy	56 %	46 %	31 %	16 %	32 %	(3)%
Communication Services	14	11	13	17	14	8
Consumer Discretionary	10	12	16	14	13	11
Materials	25	16	10	6	13	(1)
Industrials	13	12	14	13	13	6
S&P 500	16	13	12	10	12	5
S&P 500 ex. Energy	13	9	10	10	10	6
Information Technology	13	8	10	10	10	8
Consumer Staples	10	5	6	8	7	4
Health Care	14	7	4	4	7	3

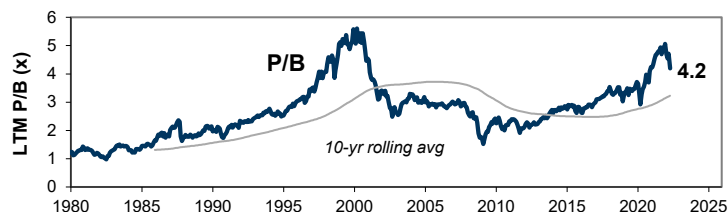
Source: FirstCall, I/B/E/S, FactSet, and Goldman Sachs Global Investment Research.

Valuation: Absolute and Relative

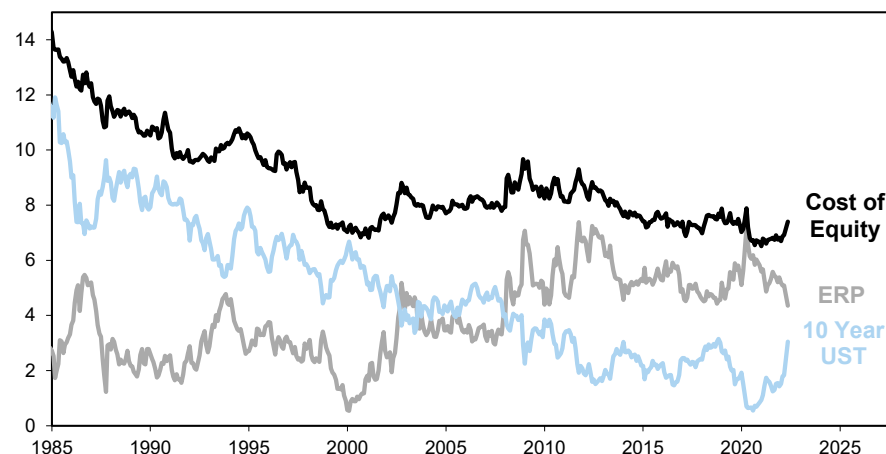
S&P 500 NTM P/E



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	2.8x	13.3x	4.2x	4.1 %	1.3x	17.8x
Energy	1.6	7.7	2.7	8.5	0.5	9.8
Financials	NM	NM	1.5	NM	2.1	12.9
Materials	2.5	9.8	3.2	5.5	1.5	14.6
Health Care	2.0	13.4	5.0	5.4	1.9	16.0
Comm Services	3.3	8.8	3.2	6.0	1.1	16.2
Industrials	2.4	14.3	5.1	3.6	1.1	17.9
Real Estate	NM	NM	4.1	NM	2.5	20.3
Utilities	NM	13.4	2.4	(2.9)	3.2	20.5
Cons Staples	1.9	15.1	6.9	4.3	2.7	21.8
Info Tech	6.2	17.2	9.6	3.9	1.5	22.0
Cons Discr	2.5	16.0	9.0	1.5	1.0	24.9

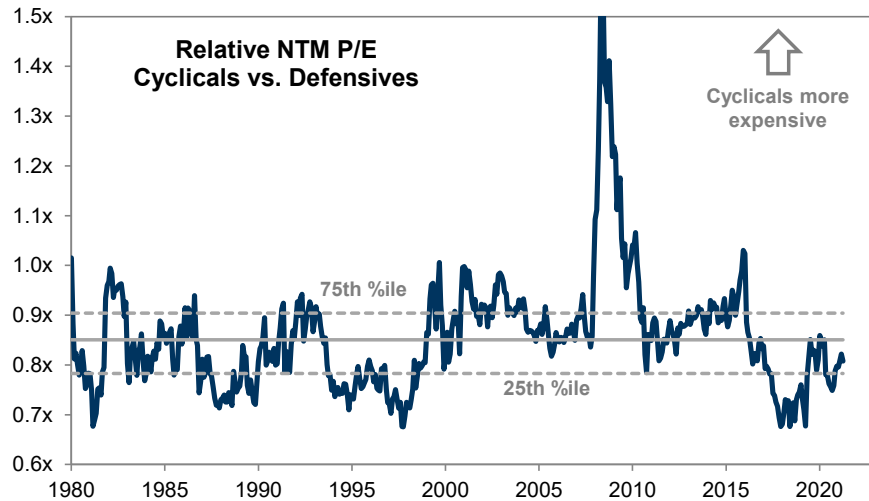
Current relative valuation vs. historical average (Z-score)

	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	1.1	0.3	1.4	0.6	(0.3)	0.1	0.5	0.7
Comm Services	(3.7)	(3.7)	(2.4)	(2.0)	(0.6)	(2.8)	(2.6)	(1.8)
Materials	(1.5)	(1.8)	(1.0)	(2.1)	0.1	(1.4)	(1.5)	(0.8)
Energy	(0.8)	(0.8)	0.3	(2.4)	0.2	(0.9)	(0.8)	(0.9)
Industrials	(1.0)	0.7	(1.1)	0.7	(0.7)	(0.6)	(0.7)	(0.1)
Financials	NM	NM	(1.2)	NM	1.2	(0.4)	(0.4)	(0.5)
Health Care	(1.1)	(0.2)	(0.7)	(0.2)	1.7	(0.2)	(0.2)	(0.8)
Cons Staples	(0.3)	0.4	0.1	0.1	0.5	1.7	0.3	0.0
Cons Discr	0.3	0.5	0.4	3.6	(0.4)	0.4	0.4	1.2
Real Estate	NM	NM	(0.5)	NM	1.5	0.5	0.5	0.6
Utilities	NM	1.0	(0.8)	1.5	(0.1)	3.8	1.0	0.9
Info Tech	1.5	1.6	1.1	1.4	0.6	2.1	1.5	0.5

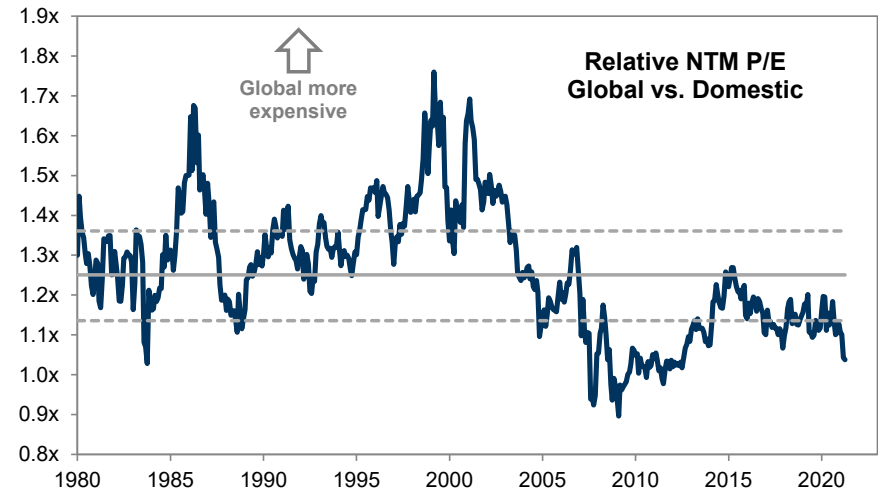
Source: FactSet, I/B/E/S, FirstCall, and Goldman Sachs Global Investment Research.

Valuation: Sector baskets

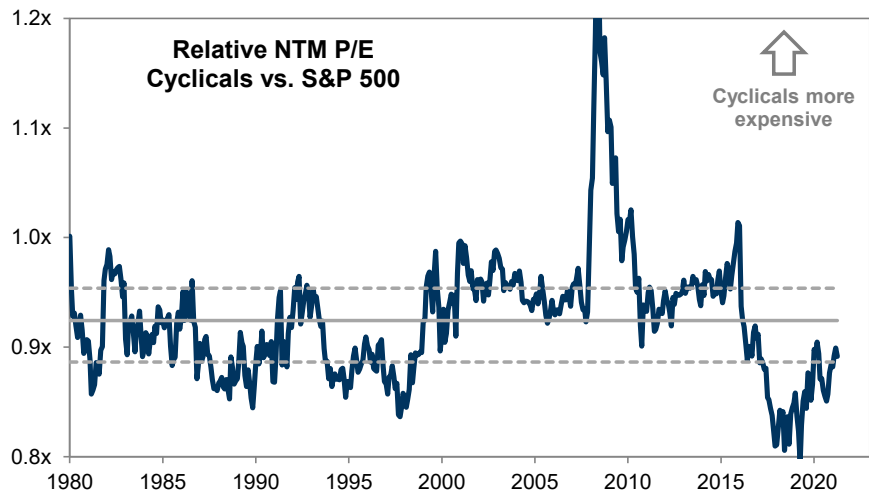
Valuation of Cyclical vs. Defensive



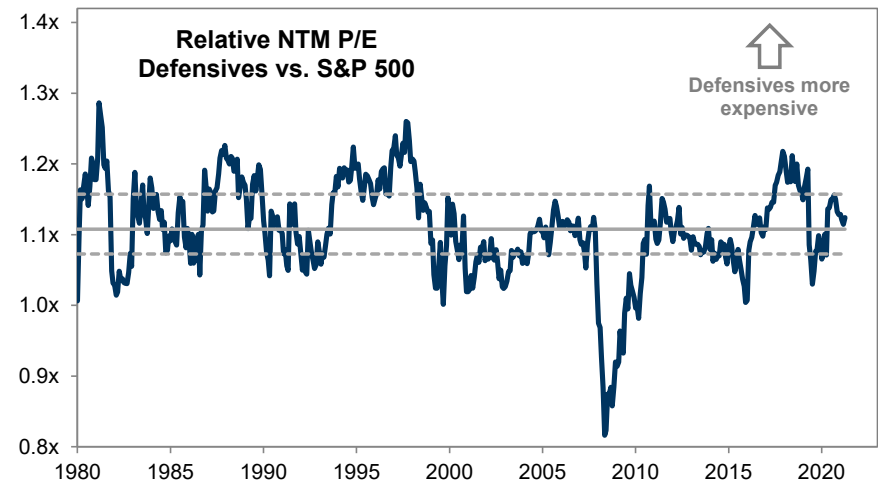
Global vs. Domestic



Cyclicals vs. S&P 500



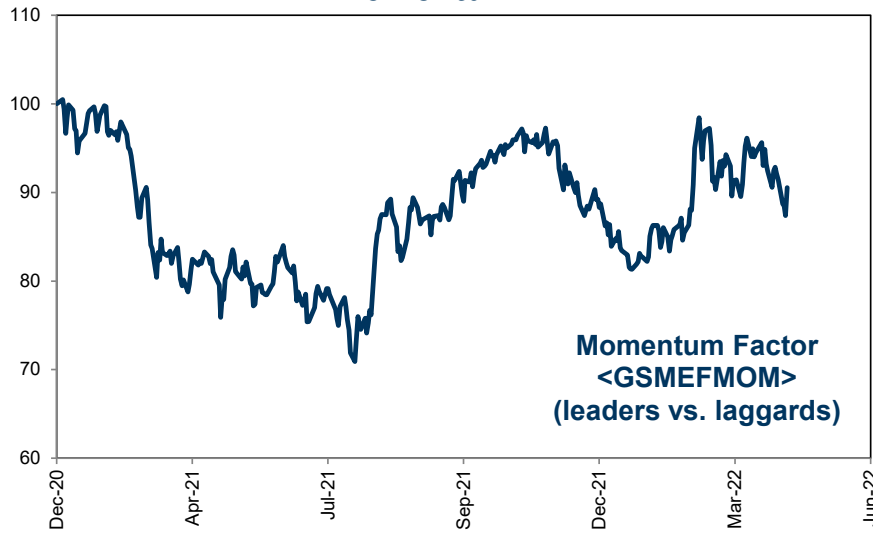
Defensives vs. S&P 500



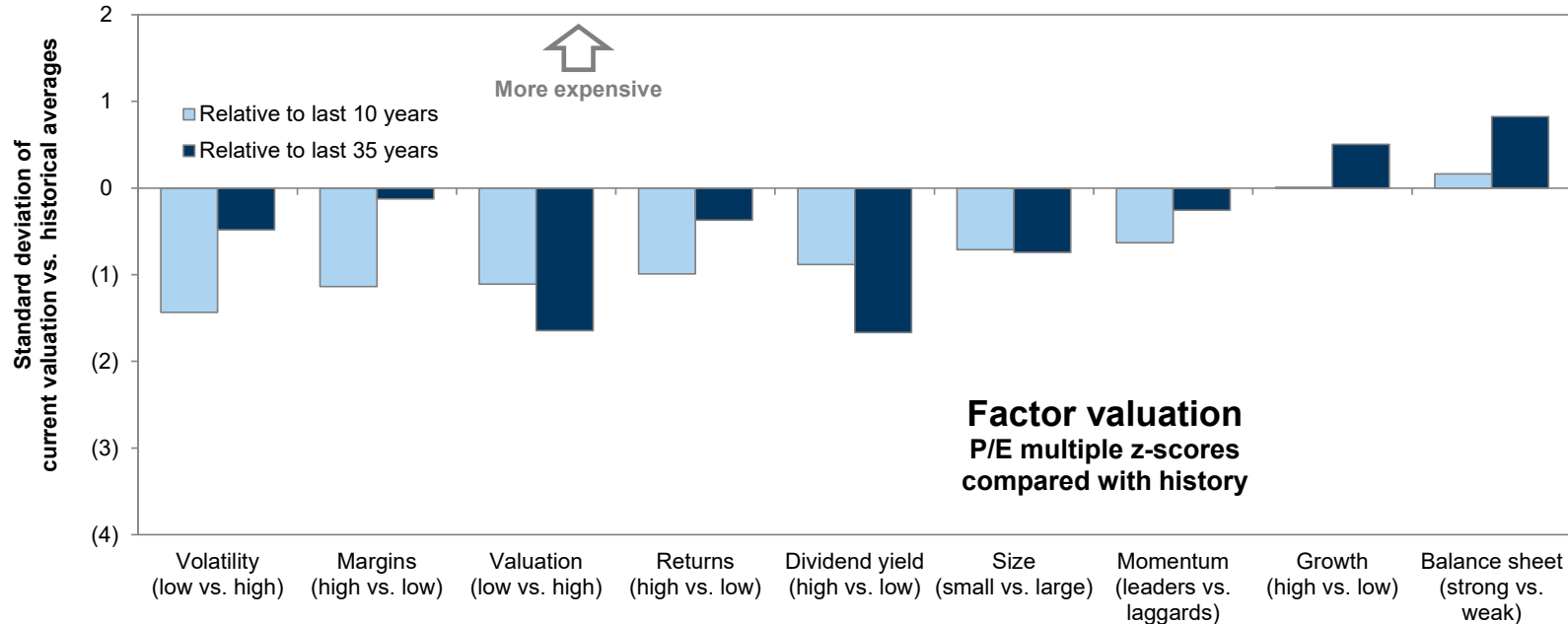
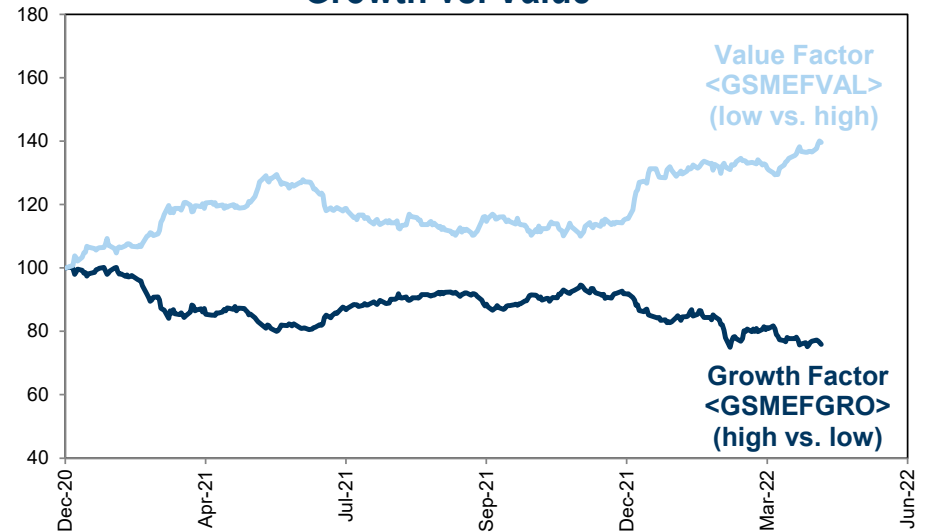
Source: Compustat, FactSet, I/B/E/S, and Goldman Sachs Global Investment Research.

Factors: Performance and Valuation

Momentum



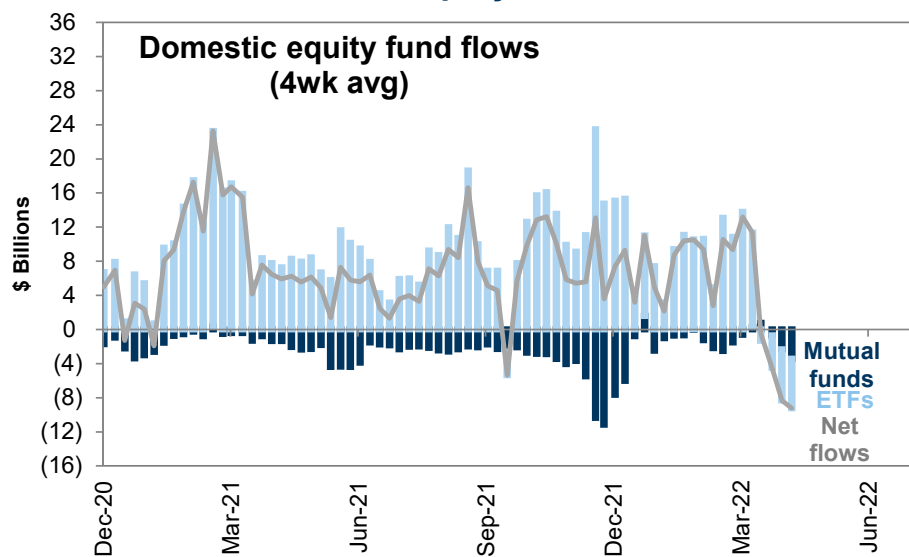
Growth vs. Value



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

Fund Flows, Fund Performance, and Short Interest

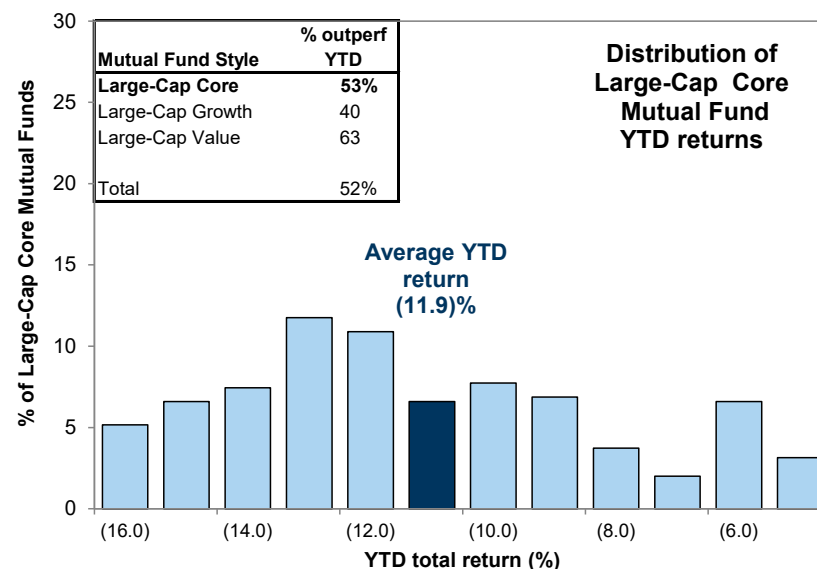
Domestic equity fund flows



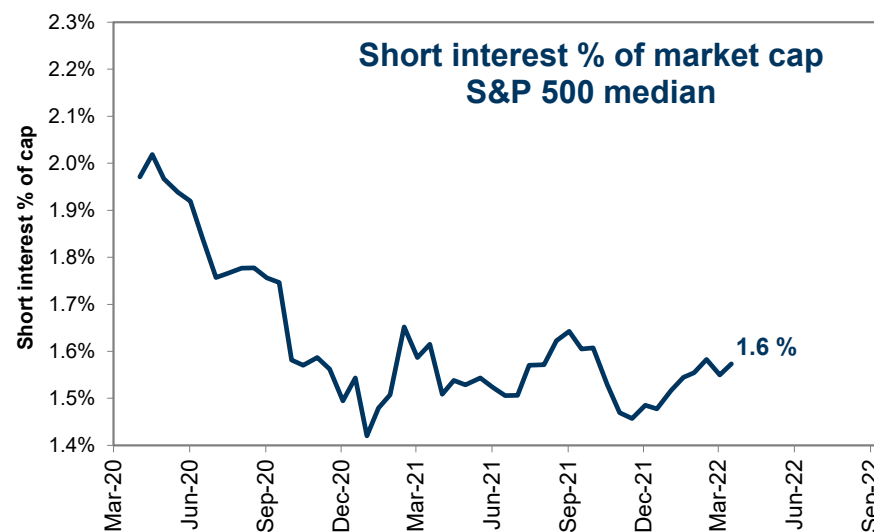
Weekly fund flows

(\$ 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	8,987	(9.6)	(70.8)	7,320	0.9	241.9
U.S. Equity	3,904	(3.4)	(28.7)	4,635	(5.8)	107.6
Equity Income	689	0.3	4.0	451	2.1	35.5
Int'l Equity	4,466	(5.1)	(40.9)	2,101	6.2	114.4
Global	616	(1.1)	(1.2)	584	0.5	19.9
ESG/SRI	1,001	0.7	18.7	294	0.8	22.2
All Bonds	5,151	(14.5)	(177.9)	1,619	5.1	59.6
All Taxable Bond	4,303	(10.4)	(146.7)	1,211	0.2	9.6
Gov't Treasury	355	(1.0)	(2.0)	324	4.3	43.3
Municipal Bond	493	(3.1)	(29.3)	84	0.6	6.7
ESG/SRI	399	(0.5)	0.4	55	0.4	8.1
Money Market	6,641	(14.6)	(280.4)	68	0.9	9.7

Mutual Fund Performance



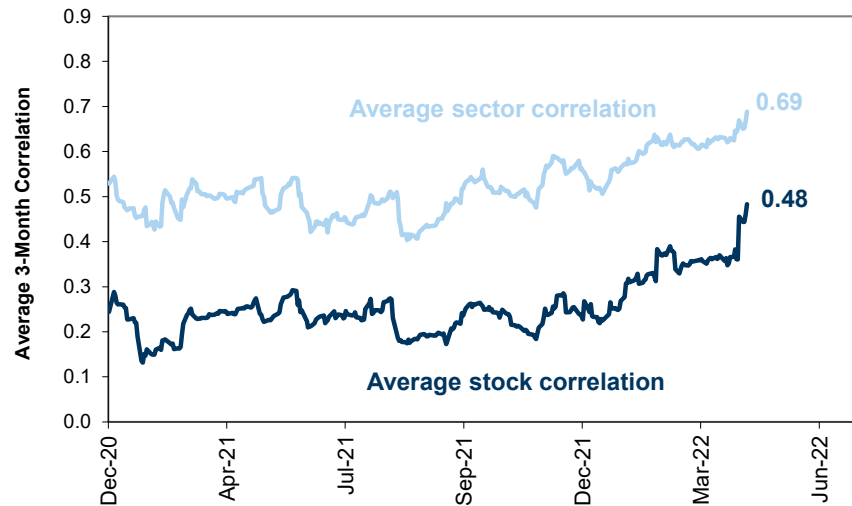
Short Interest



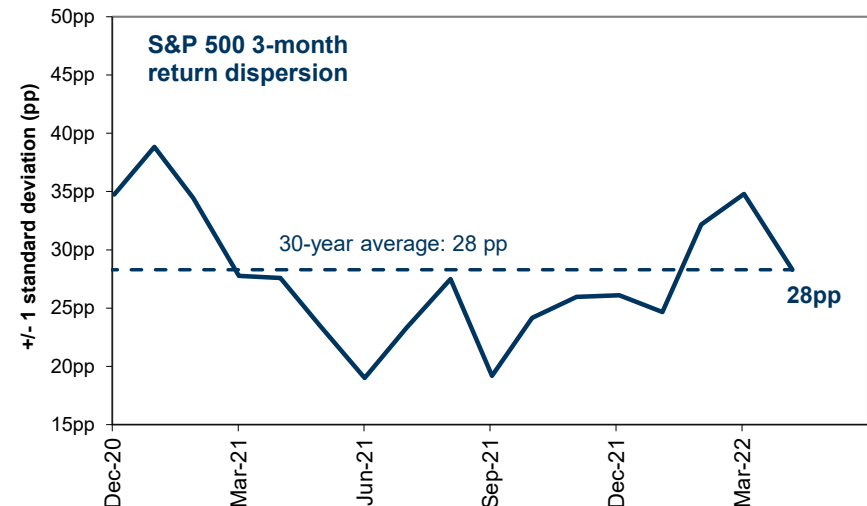
Source: FactSet, EPFR, and Goldman Sachs Global Investment Research.

Correlation, Breadth and Dispersion

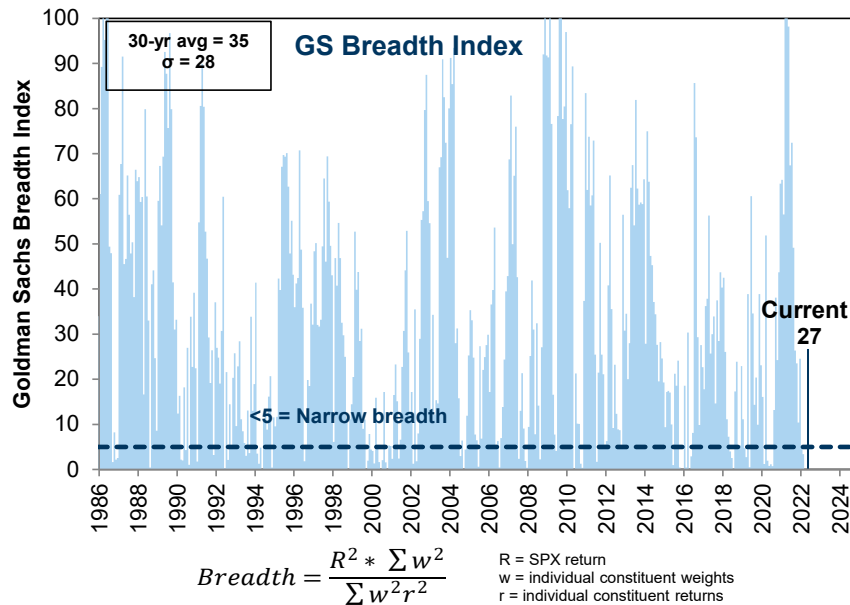
Sector and Stock Correlation



S&P 500 3-month Return Dispersion



Goldman Sachs Breadth Index (GSBI)



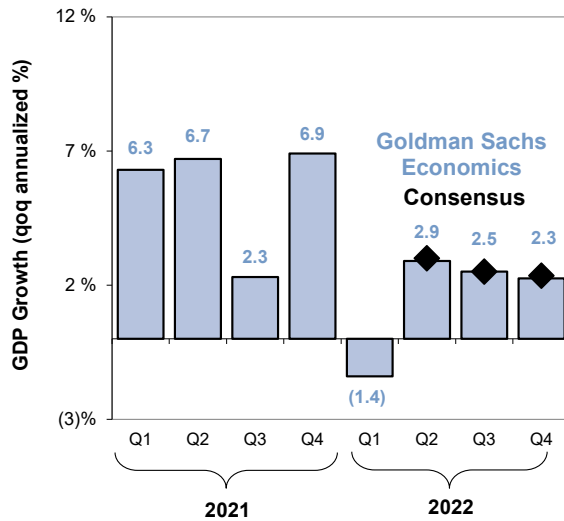
Return Dispersion

	+/- 1 Standard Deviation					
	1-Month Returns			3-Month Returns		
	Current May 5	30-Year Average	Historical %ile	Current May 5	30-Year Average	Historical %ile
S&P 500	18 pp	16 pp	76 %	28 pp	28 pp	67 %
Materials	16 pp	14 pp	75 %	31 pp	25 pp	83 %
Communication Services	25	15	92	36	26	83
Real Estate	11	9	77	19	15	77
Industrials	15	13	70	27	23	76
Financials	13	13	72	22	21	70
Energy	16	14	76	26	25	68
Health Care	17	15	75	26	26	64
Consumer Staples	11	12	36	19	22	42
Utilities	9	10	64	12	17	33
Consumer Discretionary	21	17	84	22	29	17
Information Technology	18	19	56	22	34	13

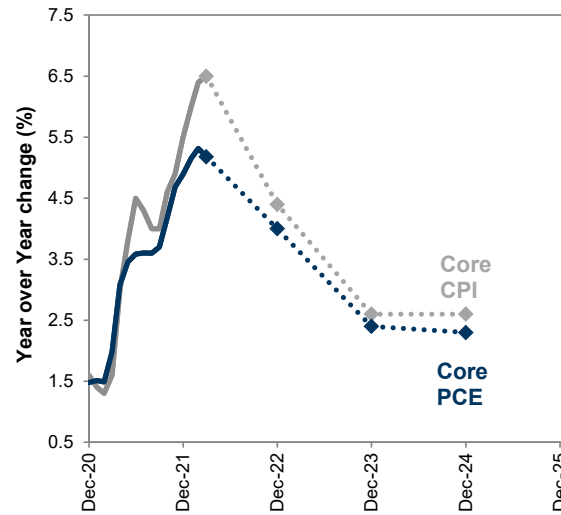
Source: FactSet and Goldman Sachs Global Investment Research.

Economics

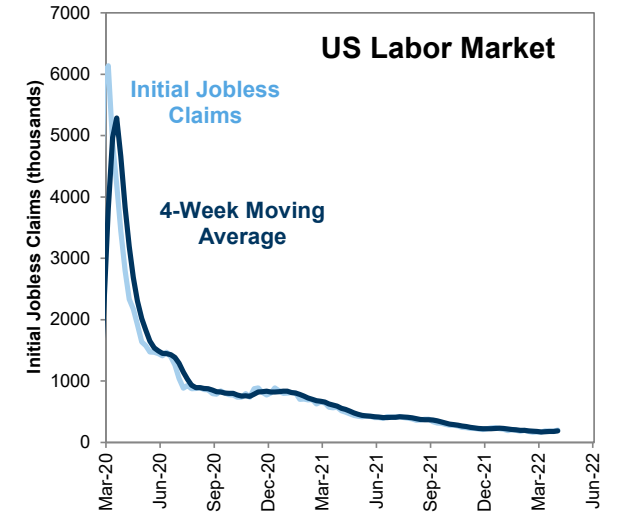
GDP



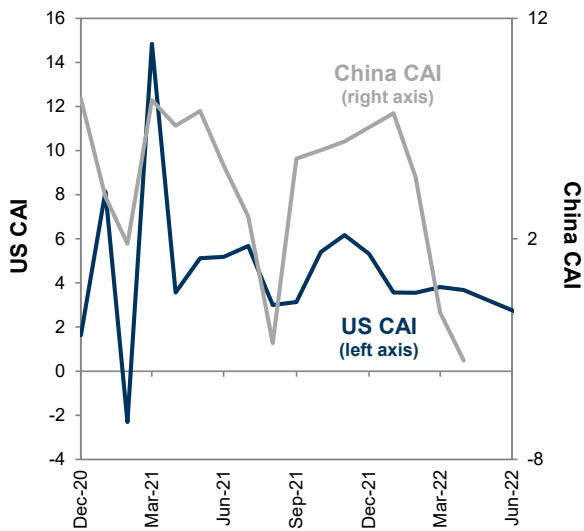
Core PCE and CPI



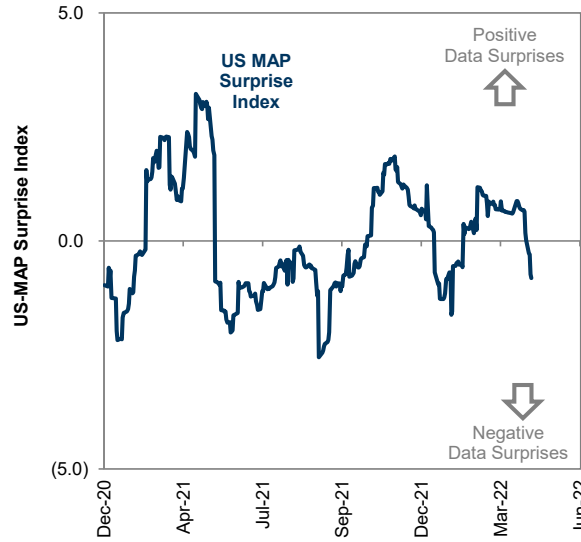
Employment



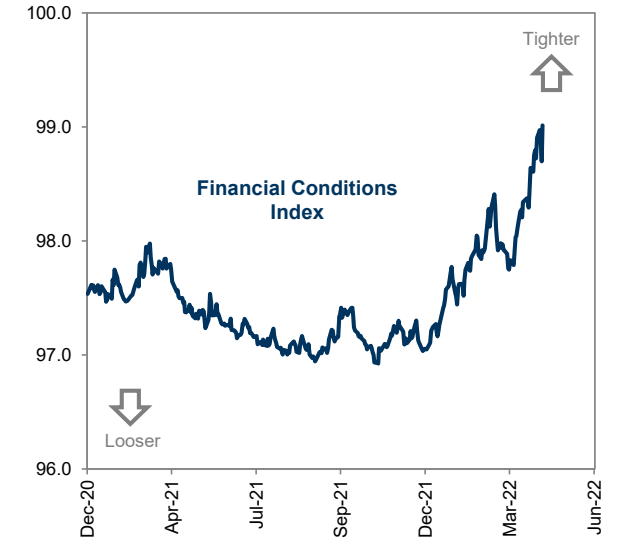
Current Activity (CAI)



Economic Surprise (MAP)



Financial Conditions (FCI)



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						
MXAPJ	level	553	580	620	670	21 %
S&P 500	level	4147	4400	4500	4700	13
TOPIX	level	1898	2000	2050	2150	13
STOXX Europe 600	level	438	470	480	490	12
Ten Year Rates						
Japan	%	0.2	0.3	0.3	0.3	8 bp
Euro Area (Germany)	%	1.0	0.7	0.7	0.9	(16)
US	%	3.1	2.5	2.6	2.8	(32)
Corporate Bonds						
High yield	bp	392	427	455	500	108 bp
Investment grade	bp	134	140	147	151	17
Currencies						
Euro / US Dollar	EUR/\$	1.05	1.05	1.10	1.15	9 %
Sterling / US Dollar	£/\$	1.24	1.22	1.26	1.31	6
US Dollar / Yen	\$/¥	130	128	126	123	(6)
Commodities						
LME Copper	\$/mt	9541	11500	12000	13000	36 %
COMEX Gold	\$/troy oz	1876	2300	2500	2500	33
Brent Crude Oil	\$/bbl	111	125	125	115	4
WTI Crude Oil	\$/bbl	108	119	119	110	2
NYMEX Nat. Gas	\$/mmBtu	9	7	6	4	(57)

	EPS Forecast			EPS Growth		NTM P/E		Div Yield
	2021	2022	2023	2022	2023	Current	YE 2022	
MXAPJ	\$ 41	\$ 44	\$ 49	6 %	11 %	12.1 x	13.8 x	3.1 %
S&P 500	\$ 209	\$ 221	\$ 233	5	6	18.4	20.2	1.6
TOPIX	¥ 141	¥ 145	¥ 153	3	5	12.8	14.1	2.6
STOXX Europe 600	€ 30	€ 30	€ 32	2	6	14.3	15.4	3.4

Goldman Sachs US Economics Forecasts

	Share of GDP	% Annual Change			
		2020	2021	2022E	2023E
OUTPUT AND SPENDING					
Real GDP	100%	(3.4)%	5.7%	2.6%	2.2%
Consumer Spending	70	(3.8)	7.9	3.0	2.1
Total Fixed Investment	20	(2.7)	7.8	3.2	2.8
Business Fixed Investment	15	(5.3)	7.4	4.9	3.4
Structures	2	(12.5)	(8.0)	(4.1)	0.8
Equipment	7	(8.3)	13.1	6.0	2.7
IP Products	6	2.8	10.0	8.2	5.5
Residential Investment	4	6.8	9.2	(1.5)	1.1
Federal Government Spending	7	5.0	0.6	(4.4)	(1.6)
State and Local Government	10	0.9	0.4	0.5	1.0
Net Exports (Bil.)	(8)	(943)	(1,284)	(1,462)	(1,388)
HOUSING MARKET					
Housing Starts (000s)		1,397	1,605	1,699	1,720
New Home Sales (000s)		828	774	811	889
Existing Home Sales (000s)		5,638	6,127	5,843	5,783
Case-Shiller Home Prices (%)		9.5	18.8	8.7	2.7
INFLATION					
Core CPI		1.6	5.5	4.4	2.6
Core PCE		1.5	4.9	4.0	2.4
LABOR MARKET					
Unemployment Rate		6.7	3.9	3.3	3.2
U6 Underemployment Rate		11.7	7.3	6.4	6.1
Payrolls (000s)		(774)	562	268	109
GOVERNMENT FINANCE					
Federal Budget (FY, Bil.)		(3132)	(2775)	(1100)	(1050)
Federal debt-to-GDP ratio (FY, %)		100	99	95	94
FINANCIAL INDICATORS					
Fed Funds Rate		0.1	0.1	2.6	3.1
10-year Treasury Rate		0.9	1.5	2.7	2.8

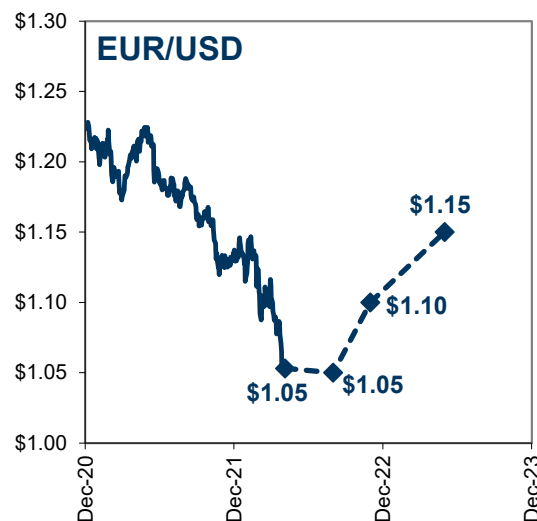
Real GDP

	2020A	2021A	2022E	2023E
China	1.6 %	8.6 %	4.5 %	5.0 %
Spain	(10.8)	5.1	4.2	3.2
UK	(9.3)	7.4	3.9	1.2
Australia	(2.2)	4.7	3.9	3.0
World	(3.3)	6.3	3.3	3.3
France	(8.0)	7.0	3.1	1.9
USA	(3.4)	5.7	2.6	2.2
Euro Area	(6.5)	5.4	2.5	1.9
Italy	(9.1)	6.6	2.4	1.7
Germany	(4.9)	2.9	2.0	2.2
Japan	(4.5)	1.7	1.5	1.8
Brazil	(4.2)	5.0	0.6	1.3
Russia	(2.9)	4.4	(10.0)	2.0

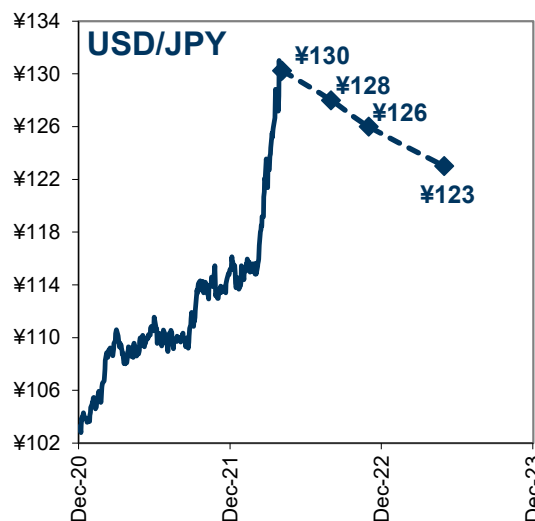
Source: FactSet and Goldman Sachs Global Investment Research.

Goldman Sachs Global Macro Forecasts

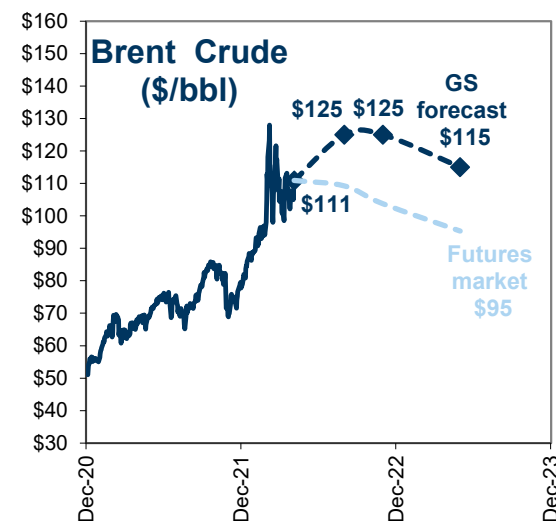
EURO



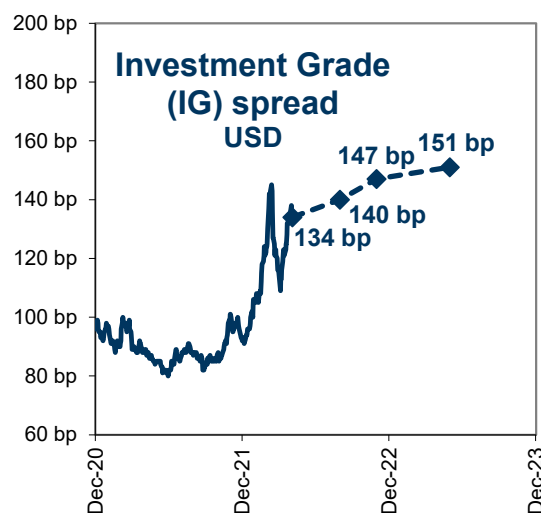
YEN



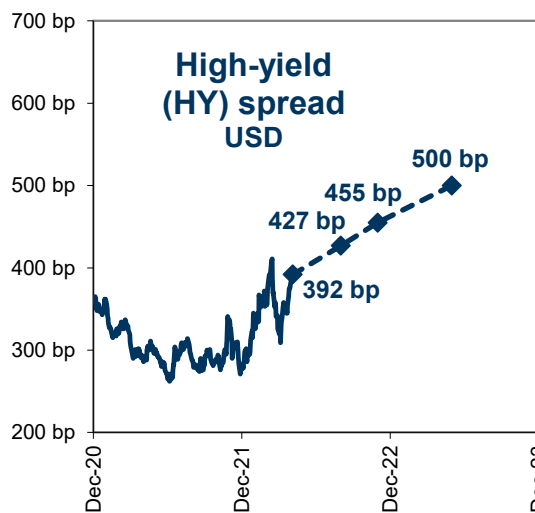
OIL



Investment Grade (IG) spread



High-Yield (HY) spread



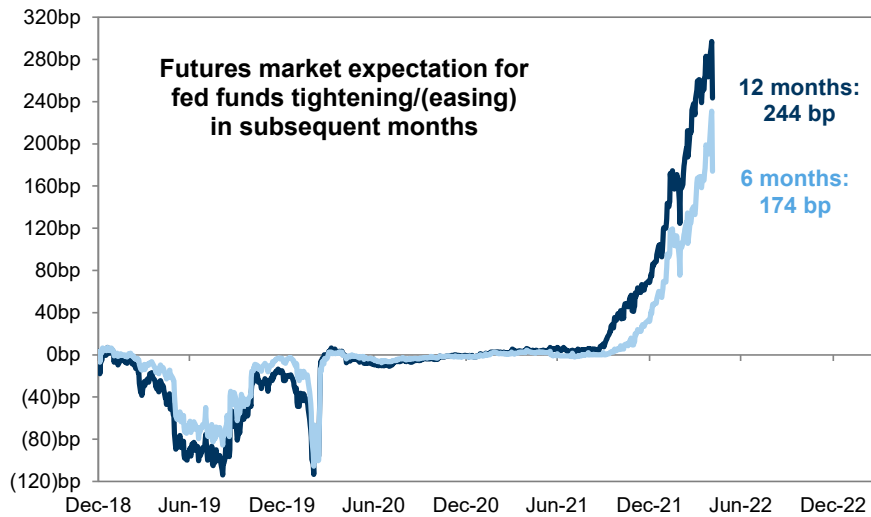
Global Equity Market performance

Market	Price Return (%) US Dollar				Local Currency
	1-Wk	1-Mo	3-Mo	YTD	
Brazil (Bovespa)	(4)%	(18)%	(0)%	12 %	0 %
Australia (ASX 200)	1	(8)	5	(3)	(1)
Mexico (Bolsa)	(2)	(10)	1	(4)	(5)
UK (FTSE 100)	(1)	(7)	(9)	(7)	2
Spain (IBEX 35)	(1)	(6)	(10)	(10)	(3)
U.S. (S&P 500)	(3)	(8)	(8)	(13)	(13)
Korea (KOSPI)	1	(7)	(8)	(16)	(10)
Japan (TOPIX)	1	(8)	(13)	(16)	(5)
Europe (DJ Stoxx 600)	(2)	(9)	(13)	(17)	(10)
France (CAC 40)	(2)	(8)	(16)	(18)	(11)
Germany (Dax)	(0)	(7)	(15)	(19)	(12)
China (MSCI China)	3	(10)	(19)	(20)	(19)
Average	(1)%	(9)%	(9)%	(11)%	(7)%

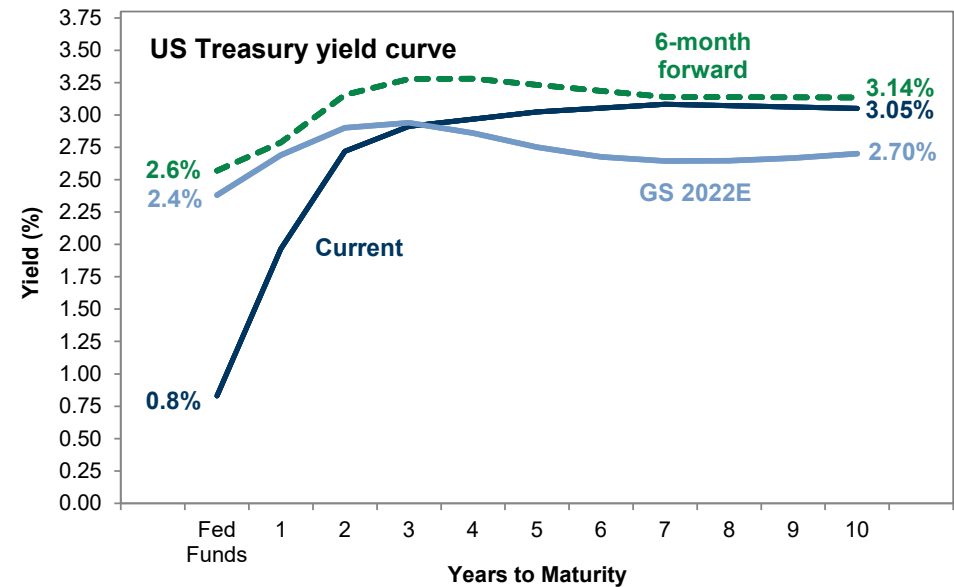
Source: FactSet and Goldman Sachs Global Investment Research.

Politics and policies

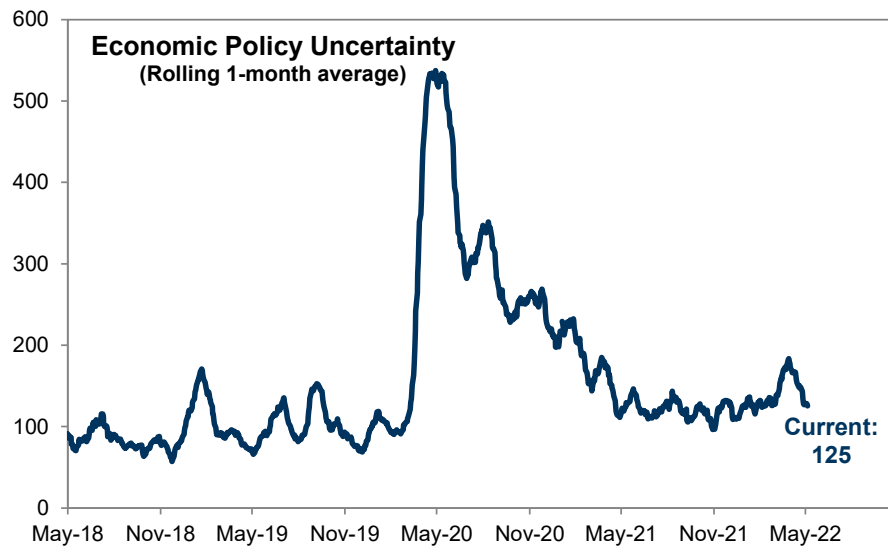
Market-implied change in fed funds rate



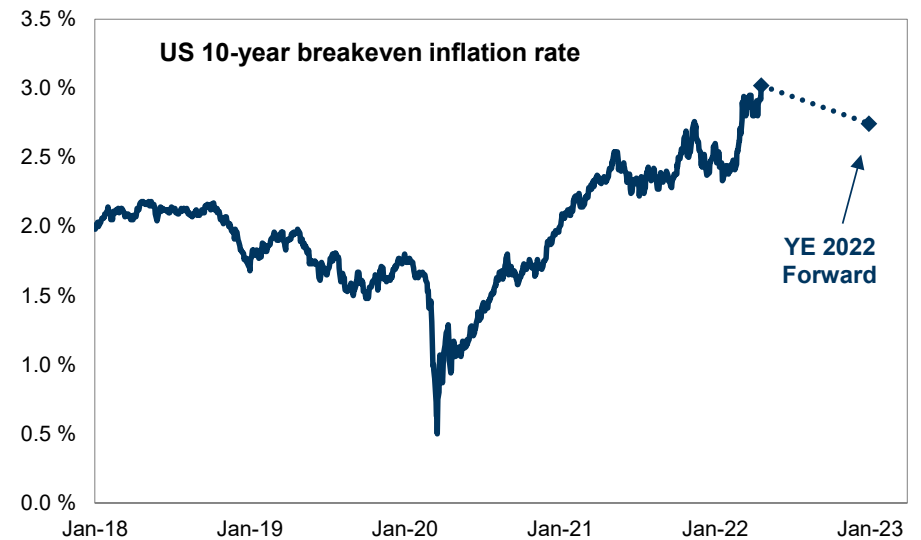
US Treasury yield curve



Economic Policy Uncertainty



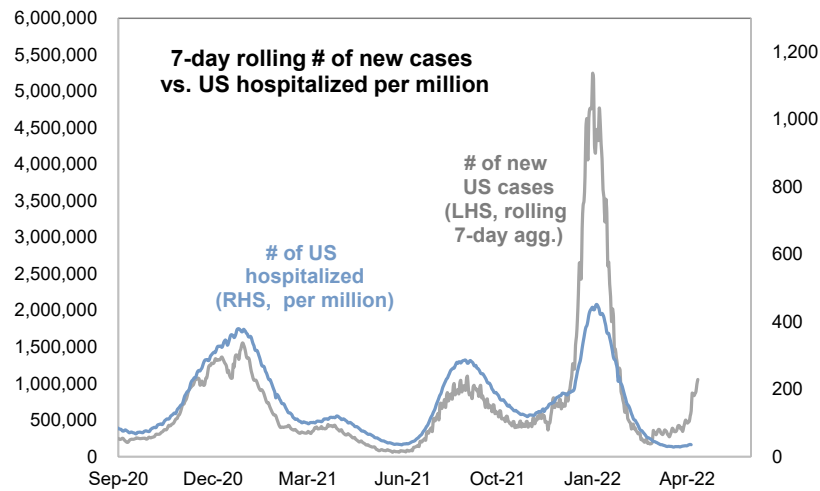
Breakeven inflation



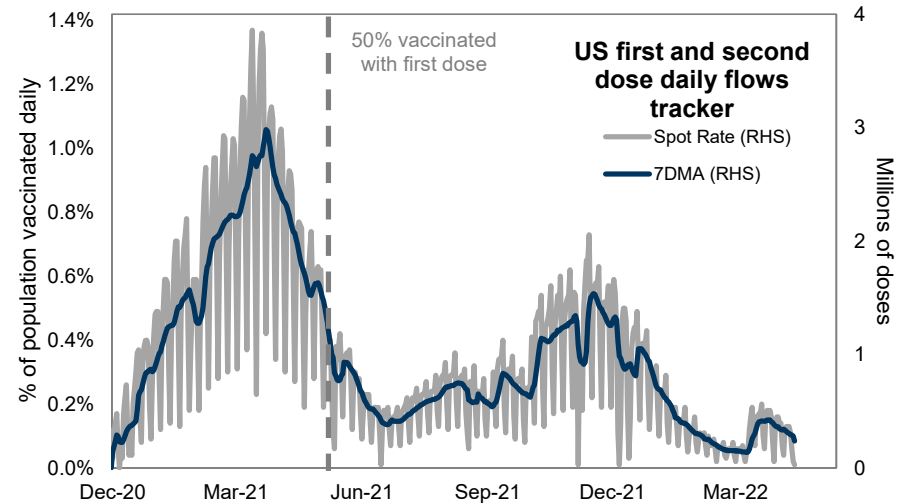
Source: FactSet, PolicyUncertainty.com, Federal Reserve Bank, Haver Analytics, and Goldman Sachs Global Investment Research.

COVID-19 update: Confirmed cases, vaccinations, and equity performance

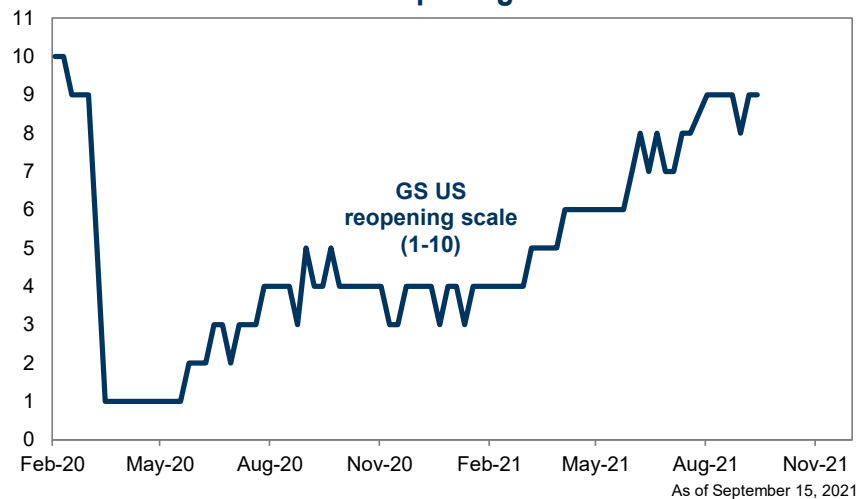
New US cases vs. Americans hospitalized



US vaccination tracker

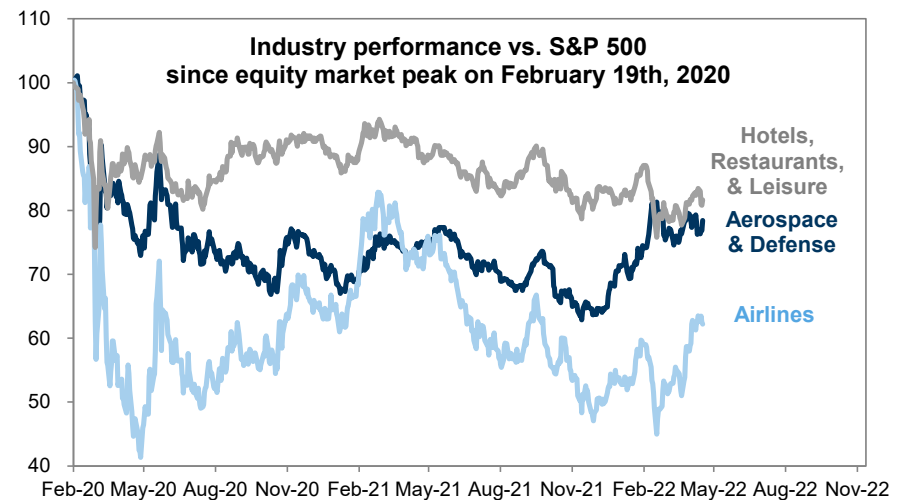


GS US reopening scale



Note: GS US Reopening scale calculates the growth or decline in various "Stay at Home" and "Back to Work" metrics, then uses them to compute a score from 1 to 10. A score of 10 designates 'Fully Open.' 1 implies 'Lockdown.' For methodology, see "Measuring the Reopening of America."

Relative performance of select affected industries



Source: FactSet, JHU CSSE, CDC, and Goldman Sachs Global Investment Research.

Disclosure Appendix

Reg AC

We, David J. Kostin, Ben Snider, Ryan Hammond, Cormac Connors, 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.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

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Basket disclosures

The ability to trade the basket(s) in this report will depend upon market conditions, including liquidity and borrow constraints at the time of trade.

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