SPDR® ETFs Chart Pack

Key Charts to Help Navigate the Market February 2022 Edition

Please see Appendix D for more information on investment terms used in this Chart Pack. For institutional/professional investors use only.

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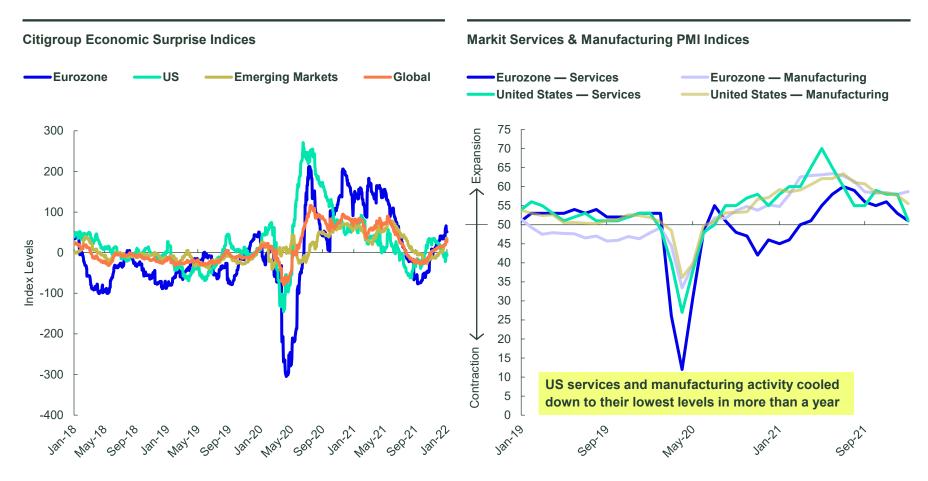
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1. Flows,Fundamentals& Factors

Global Economy

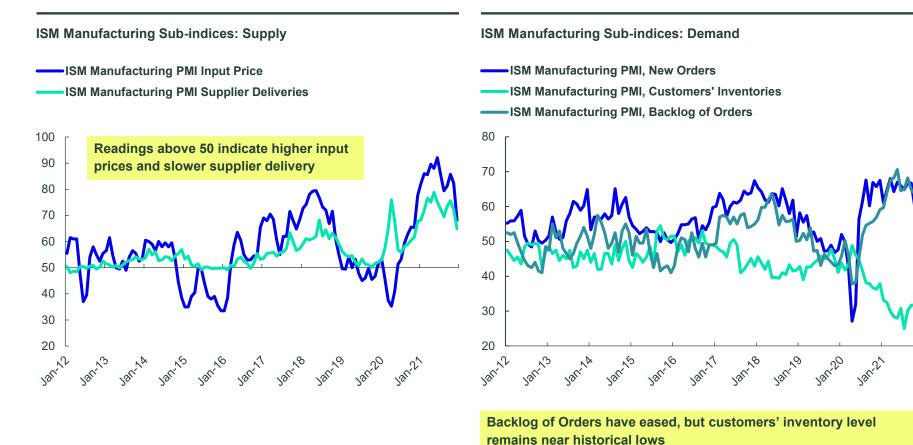
US economic sentiment has weakened recently, diverging from the upward trends in emerging markets and Europe



Source: Bloomberg Finance, L.P., as of 31 January 2022. Past performance is not a guarantee of future results.

Supply Chain Bottlenecks

Input prices and supplier deliveries continue to show easing supply chain constraints, while demand remains strong, potentially leading to more inventory buildup in the next few months



Source: FactSet, as of 31/01/2022.

Global Valuation

While US large-cap growth valuations have come down after the recent selloff, their relative valuations remain most expensive across all segments

Absolute & Relative Valuation Z-Score* and 15-Year Percentile Ranking

Bottom 3	Expensive	Valuation
----------	-----------	-----------

Top 3 Attractive Valuation

		Valuatio	Valuation to Region History (Percentile)			Absolute Valuation Relative to S&P 500 (Percentile) Composite					Relative Valuation
		P/E	NTM P/E	P/B	P/S	Z-Score	P/E	NTM P/E	P/B	P/S	Z-Score
	S&P 500	89%	88%	97%	96%	1.87	-	-	-	-	-
_	S&P MidCap 400 Index	13%	19%	88%	92%	0.12	0%	0%	0%	0%	-2.43
gio	S&P SmallCap 600 Index	8%	4%	50%	70%	-0.34	1%	0%	0%	5%	-2.24
/Re	S&P 500 Value	84%	92%	99%	97%	1.85	27%	20%	22%	18%	-0.75
US/Style/Region	S&P 500 Growth	89%	89%	93%	96%	1.81	73%	89%	88%	92%	1.22
8/8	MSCI EAFE	65%	66%	84%	95%	0.80	9%	1%	2%	6%	-1.73
ے	MSCI Europe	68%	68%	91%	96%	1.04	17%	2%	3%	9%	-1.58
	MSCI EM	55%	56%	68%	85%	0.29	4%	3%	1%	1%	-1.36
	MSCI Canada	39%	37%	88%	97%	0.64	9%	2%	11%	13%	-1.51
	MSCI Japan	25%	36%	65%	92%	0.27	1%	1%	1%	1%	-1.20
es	MSCI Germany	46%	60%	62%	93%	0.51	3%	2%	1%	2%	-1.96
Countries	MSCI France	81%	79%	93%	97%	1.32	37%	3%	12%	34%	-1.04
Cor	MSCI UK	71%	45%	51%	96%	0.47	21%	4%	6%	13%	-1.50
Major	MSCI China	61%	54%	38%	49%	-0.16	22%	13%	1%	1%	-0.93
Ma	MSCI Russia	35%	16%	68%	63%	-0.41	3%	1%	6%	2%	-1.08
	MSCI Brazil	1%	5%	57%	43%	-1.14	2%	4%	2%	2%	-2.06
	MSCI India	86%	90%	72%	91%	1.16	61%	61%	15%	22%	-0.50

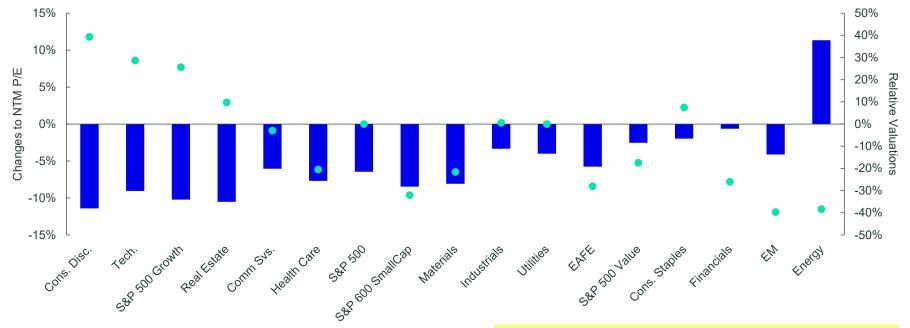
Source: State Street Global Advisors, FactSet, as of 31 January 2022. * The z-score is calculated as the average z-score of valuations based on different metrics. The z-score indicates how many standard deviations an element is from its historical mean. A z-score can be calculated from the following formula. $z = (X - \mu) / \sigma$ where z is the z-score, X is the segment current valuations and σ is the standard deviation of monthly valuations over the past 15 years.

Global Valuations (Continued)

Equity segments with expensive valuations suffered the most last month, as investors repriced growth at a large rate amid a tightening monetary environment

Valuations at the Beginning of the Year vs. the Following P/E Multiple Changes

■YTD Changes to Next Twelve Month P/E • NTM P/E Relative to the S&P 500 as of 12/31/2021



Defensive and value exposures experienced less multiple compression in January

Source: FactSet, as of 31 January 2022.

Global Momentum

US large-cap value moved up the momentum ladder. Meanwhile, India continues to be the bright spot among EM countries

Momentum Scorecard Rankings

- 44	-			
Rottom		Rank	on	Momentum

Top 3 Rank on Momentum

		Pri	ce Momentui	m*		Technicals		Conti	nuous Mome	entum	
		3 Month	6 Month	12 Month	% above 50-Day Moving Average	% above 200-Day Moving Average	% Difference 50- to 200-Day Moving Average	# of Positive Return Days (90-Day Lookback)	# of Positive Return Days (180-Day Lookback)	# of Positive Return Days (12-Month Lookback)	Combined Average Rank
	S&P 500	10.6%	10.9%	26.9%	-2.5%	1.8%	4.5%	51	101	140	5
Suc	S&P MidCap 400 Index	7.6%	5.4%	23.2%	-4.5%	-3.5%	1.0%	49	90	134	9
US/Style/Regions	S&P SmallCap 600	5.3%	2.0%	25.3%	-5.0%	-4.6%	0.5%	46	90	134	10
/Re	S&P 500 Value	7.7%	6.2%	22.2%	0.3%	2.5%	2.3%	51	95	138	6
yle	S&P 500 Growth	13.2%	15.1%	31.0%	-5.1%	0.9%	6.3%	51	106	142	5
/St	MSCI EAFE	2.4%	1.4%	8.8%	-3.0%	-4.2%	-1.3%	45	96	151	11
ns	Euro Stoxx	5.5%	3.5%	13.9%	-1.8%	0.8%	2.6%	52	111	158	6
	MSCI EM	-1.7%	-10.4%	-4.6%	-1.7%	-6.2%	-4.6%	45	87	133	14
	MSCI Canada	6.6%	3.5%	23.5%	0.3%	3.6%	3.2%	54	104	146	5
10	MSCI Japan	-4.2%	-0.4%	-0.1%	-4.2%	-3.2%	1.0%	39	85	125	13
ountries	MSCI Germany	0.5%	-4.0%	2.5%	-1.4%	-1.8%	-0.4%	50	104	145	9
ınt	MSCI France	7.3%	5.1%	18.0%	-0.9%	3.3%	4.2%	50	105	159	5
S	MSCI UK	5.2%	3.2%	14.0%	2.0%	5.2%	3.1%	46	98	141	7
or	MSCI China	-6.1%	-23.6%	-22.8%	-3.7%	-14.2%	-11.0%	40	80	120	16
Major	MSCI Russia	-10.4%	-3.5%	13.3%	-7.0%	-12.4%	-5.8%	46	103	148	12
_	MSCI Brazil	-8.7%	-29.2%	-23.5%	11.3%	-4.9%	-14.6%	44	89	132	14
	MSCI India	-0.6%	11.6%	24.8%	-1.1%	4.2%	5.4%	48	109	152	5

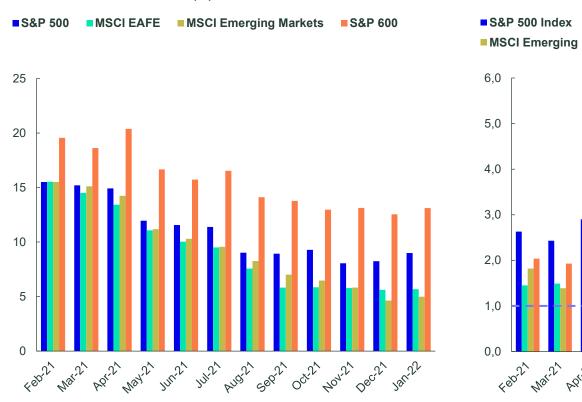
European equities have shown continued strength in momentum

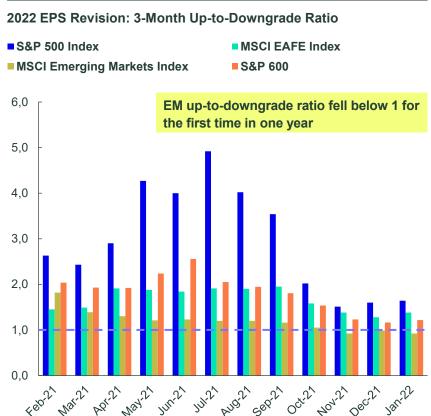
Source: State Street Global Advisors, Bloomberg, as of 31 January 2022. *Momentum is calculated by calculating the 3-month, 6-month and 12-month price performance, not including the most recent month. Past performance is not a guarantee of future results.

Global Earnings

2022 EPS Growth Estimates (%)

Growth estimates were little changed, although earnings sentiment has been much weaker compared to the last three quarters

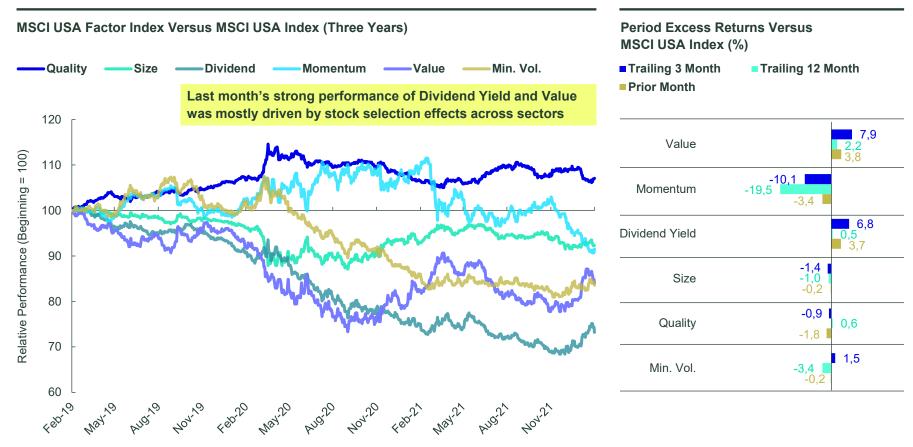




Source: FactSet, as of 31 January 2022. Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. EPS growth estimates are based on Consensus Analyst Estimates compiled by FactSet. Dotted line represents an equal ratio of upgrades and downgrades.

US Factor Trends

Value continues to lead factor performance, while Quality has started the year weaker due to its more expensive valuation

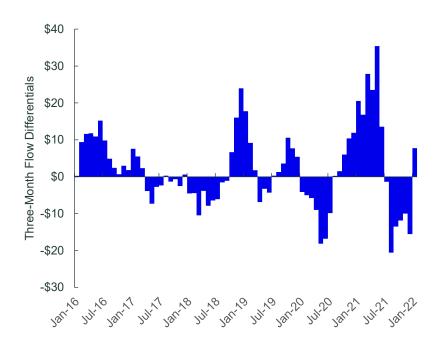


Source: Bloomberg Finance, L.P., as of 31 January 2022. **Past performance is not a guarantee of future results.** Min. Vol = MSCI USA Minimum Volatility Index; Value = MSCI USA Enhanced Value Index; Quality = MSCI USA Quality Index; Size = MSCI USA Equal Weighted Index; Dividend = MSCI USA High Dividend Yield Index; Momentum = MSCI USA Momentum Index. The indexes used above were compared to the MSCI USA Index returns are unmanaged and do not reflect the deduction of any fees or expenses.

Value vs. Growth

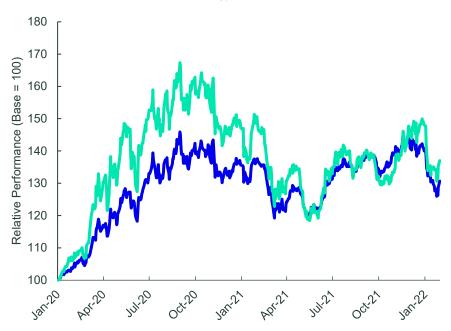
As stretched valuations weighed on growth performance, investors moved away from growth exposures in favor of value

Rolling 3-Month ETF Flow Differential: Value vs. Growth \$ Billions



Growth vs. Value Relative Performance

- Russell 1000 Growth Index / Russell 1000 Value Index
- S&P 500 Information Technology Sector / S&P 500 Financials Sector



The relative performance of Tech. and Financials has driven the relative performance between growth and value

Source: Bloomberg Finance L.P., SPDR Americas Research calculation, as of 31/01/2022.

2. Sectors

Sector Flows & Returns

Despite the risk-off sentiment last month, sector ETFs posted their fourth largest monthly inflows ever, led by Financials and Energy

			Positioning	Returns				
Global Equity Sector Heatmap	Prior Month Flow (\$M)	Trailing Three-Months Flow (\$M)	Trailing 12-Months Flow (\$M)	Current Short Interest (%)	One-Month Prior Short Interest (%)	Prior Month Return (%)	3-Month Return (%)	YTD Return (%)
Consumer Discretionary	-1,794	-727	1,556	9.8	8.5	-9.68	-8.13	-9.68
Consumer Staples	2,522	3,995	2,908	6.2	6.7	-1.37	7.58	-1.37
Energy	3,022	3,703	13,389	11.3	10.9	19.10	16.41	19.10
Financial	5,646	5,177	21,247	8.9	9.6	0.06	-2.54	0.06
Health Care	2,443	5,949	10,482	8.5	8.4	-6.76	-1.43	-6.76
Industrials	-104	-330	205	7.7	8.2	-4.73	-3.17	-4.73
Materials	105	468	3,571	4.8	4.9	-6.85	-0.29	-6.85
Real Estate	1,213	3,512	14,948	3.5	3.6	-8.50	0.00	-8.50
Technology	2,437	5,439	22,394	2.5	2.6	-6.89	0.45	-6.89
Communications	-822	-1,307	1,159	1.2	1.1	-6.21	-8.80	-6.21
Utilities	1,262	1,333	1,048	11.7	13.4	-3.27	4.30	-3.27

Defensive sectors, including Health Care, Cons. Staples and Utilities, took in more than \$6 billion in total — the largest amount since April 2020

Worst-Performing Sector Least Flows in Period Best-Performing Sector Most Flows in Period

Track Sector and Industry Performance

Source: State Street Global Advisors, Bloomberg Finance, L.P., as of 31 January 2022. **Past performance is not a guarantee of future results.** Under Current Short Interest, Cells that are highlighted green have a lower Short Interest level than the Prior Month. Cells that are highlighted Red have a Short Interest higher than the prior month.

Sector Earnings

Tech.'s earnings sentiment has picked up recently on the back of strong Q4 results, while Energy continues to lead on earnings revisions — and by a large margin

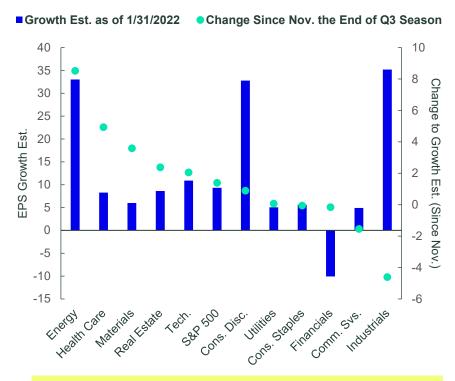
S&P 500 Sector 2022 Earnings Sentiment

Sector	1-Month Changes to 2022 EPS Est.	3-Month Changes to 2022 EPS Est.	2022 EPS Est. 1M Upgrade to Downgrade Ratio	2022 EPS Est. 3M Upgrade to Downgrade Ratio
Consumer Discretionary	0.49	-2.04	0.84	1.61
Consumer Staples	-0.09	0.23	0.80	0.88
Energy	4.06	11.99	6.00	6.00
Financials	-0.22	0.11	1.61	2.00
Health Care	0.88	5.95	1.04	1.48
Industrials	-2.50	-3.51	1.13	1.19
Information Technology	1.78	2.97	1.95	2.62
Materials	1.51	6.71	1.25	1.33
Communication Services	-1.72	-1.10	1.00	0.80
Real Estate	6.33	8.87	2.38	3.83
Utilities	-0.56	-1.28	1.22	1.00
S&P 500	0.48	1.93	1.32	1.64

Despite Materials' strong EPS revision, the breadth of upgrades in the sector is narrow

Source: FactSet, as of 31/01/2022.

2022 EPS Growth Estimates and Changes Since Nov.



Energy, Health Care and Materials led 2022 EPS growth upgrades since the end of Q3 earnings season

Sector Scorecard

Energy has shown strong earnings sentiment and has attractive valuations, contrary to expensive valuations and weak sentiment in Cons. Disc. and Cons. Staples

	Sector Composite Z-Score*								
	Valuation Composite Score	Momentum Composite Score	Earnings Sentiment Composite Score						
Communication Services	0.29	-1.47	0.21						
Consumer Discretionary	-1.19	0.20	-0.16						
Consumer Staples	-0.46	-0.13	-0.55						
Energy	1.37	0.04	1.15						
Financials	0.34	-0.46	-0.07						
Health Care	0.32	0.05	-0.38						
Industrials	-0.03	-0.81	-0.74						
Information Technology	-1.25	1.10	0.58						
Materials	1.18	0.23	-0.99						
Real Estate	-0.12	1.37	0.74						
Utilities	-0.11	-0.12	0.21						

Source: State Street Global Advisors, FactSet, Bloomberg Finance, L.P., as of 31 January 2022. Green shading is top 3, red shading is bottom 3. * The scorecard uses z-score for each metric to standardize numbers across sectors and show relativeness among sectors. Composite score is calculated by equally weighting each metric in the same category. Z-score indicates how many standard deviations an element is from the mean. A z-score can be calculated from the following formula. $z = (X - \mu) / \sigma$ where X is the value of the sector. μ is the mean of the eleven sectors. σ is the standard deviation of eleven sectors. S&P 500 sector indices are used to calculate sector scores. Please refer to Appendix C for the metrics used to measure valuation, momentum and earnings sentiment. Volatility score is not available for the communication services sector due to data availability.

Thematic Sector Flows & Returns

Thematic flows have come under pressure, as investors shied away from growth and unprofitable stocks given a tighter monetary environment

	FI	ow		Perfor		Size		
Thematic NextGen Trends	Prior Month (\$M)	Trailing 3-Mos. (\$M)	Prior Mo. Avg. Return (%)	% of Funds beating S&P 500 (Prior Mo.)	Trailing 3-Mos. Avg. Return (%)	% of Funds beating S&P 500 (Trailing 3-Mos.)	Current AUM (\$M)	# of Funds
Broad Innovation	312	-80	-11.10%	7%	-16.60%	7%	20,657	28
Advanced Health Care	-27	-656	-14.20%	3%	-22.60%	3%	7,638	39
Enhanced Connectivity	-57	-66	-9.80%	0%	-4.20%	40%	2,467	5
Enterprise Collaboration	-320	-232	-11.30%	7%	-18.50%	13%	8,393	15
FinTech	-223	-403	-16.70%	15%	-32.00%	10%	3,960	20
Future Security	-142	374	-11.50%	0%	-15.80%	0%	8,713	7
Future Tech & Communications	-512	-1,051	-11.10%	11%	-16.70%	5%	5,792	19
New Consumer	-23	-258	-9.30%	20%	-16.20%	10%	1,941	20
Robotics & Al	-281	-515	-14.90%	0%	-18.10%	0%	6,762	14
Smart Infrastructure	-31	131	-10.20%	10%	-8.00%	0%	2,772	10
Smart Transportation	255	774	-10.20%	0%	-10.90%	0%	2,658	9
Space Exploration	-35	-77	-9.60%	0%	-14.60%	0%	488	3
Sustainable Environment	-420	-103	-11.40%	17%	-16.60%	4%	29,526	53



Worst-Performing Thematic Sector Least Flows in Period Best-Performing Thematic Sector Most Flows in Period

Source: State Street Global Advisors, Bloomberg Finance, L.P., as of 31 January 2022. Past performance is not a guarantee of future results.

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