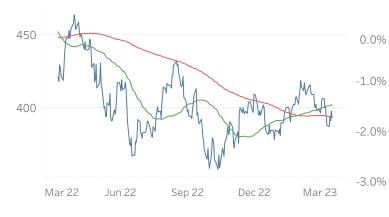
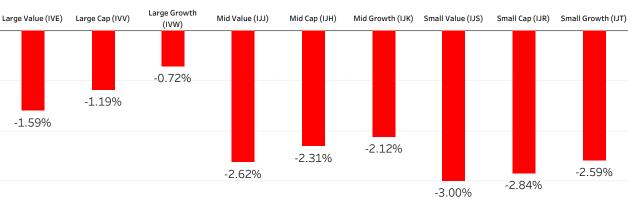


U.S. Size & Style Performance

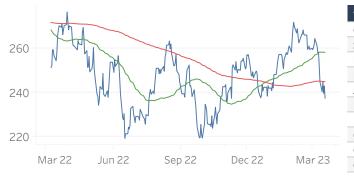
Large Cap Blend (S&P 500) IVV





U.S. Size & Style 1-Day Performance

Mid Cap Blend (S&P 400) IJH



Small Cap Blend (S&P 600) IJR



Size & Style 1-Day Performance Leaders

Ticker	Fund	
ONOF	Global X Adaptive U.S. Risk Management ETF	0.28%
SPC	CrossingBridge Pre-Merger SPAC ETF	0.14%
RPHS	Regents Park Hedged Market Strategy ETF	0.00%
PTNQ	Pacer Trendpilot 100 ETF	-0.13%
JEPQ	J.P. Morgan Nasdaq Equity Premium Income ETF	-0.25%
MGK	Vanguard Mega Cap Growth ETF	-0.31%
IWY	iShares Russell Top 200 Growth ETF	-0.35%
QQQM	Invesco NASDAQ 100 ETF	-0.45%
QQQ	Invesco QQQ Trust	-0.47%
QQH	HCM Defender 100 Index ETF	-0.48%

Size & Style 1-Day Performance Laggards

Ticker	Fund	
SVAL	iShares US Small Cap Value Factor ETF	-3.65%
XSVM	Invesco S&P SmallCap Value with Momentum ETF	-3.51%
XSLV	Invesco S&P SmallCap Low Volatility ETF	-3.48%
FYT	First Trust Small Cap Value AlphaDEX Fund	-3.31%
RZV	Invesco S&P Smallcap 600 Pure Value ETF	-3.29%
XSMO	Invesco S&P SmallCap Momentum ETF	-3.28%
DES	WisdomTree U.S. SmallCap Dividend Fund	-3.20%
VTWV	Vanguard Russell 2000 Value ETF	-3.18%
AVUV	Avantis U.S. Small Cap Value ETF	-3.16%
OMFS	Invesco Russell 2000 Dynamic Multifactor ETF	-3.13%

200 Day Moving Average

Size & Style Most Overbought

	Ticker	Fund	
	SPC	CrossingBridge Pre-Merger SPAC ETF	61.44
	PTNQ	Pacer Trendpilot 100 ETF	59.53
	QQQM	Invesco NASDAQ 100 ETF	59.52
	QQQ	Invesco QQQ Trust	59.46
	JEPQ	J.P. Morgan Nasdaq Equity Premium Income ETF	58.65
	MGK	Vanguard Mega Cap Growth ETF	58.43
_	IWY	iShares Russell Top 200 Growth ETF	57.68
	TMFC	Motley Fool 100 Index ETF	56.26
_	SCHG	Schwab U.S. Large-Cap Growth ETF	56.23
	QQH	HCM Defender 100 Index ETF	55.85

Size & Style Most Oversold

	Ticker	Fund	
%	DIV	Global X SuperDividend US ETF	16.40
.%	SPYD	SPDR Portfolio S&P 500 High Dividend ETF	22.89
%	RPV	Invesco S&P 500 Pure Value ETF	22.92
.%	SPDV	AAM S&P 500 High Dividend Value ETF	23.15
%	DDIV	First Trust Dorsey Wright Momentum & Dividend ETF	23.19
%	RDIV	Invesco S&P Ultra Dividend Revenue ETF	23.74
%	NUMV	Nuveen ESG Mid-Cap Value ETF	24.09
%	FDL	First Trust Morningstar Dividend Leaders Index Fund	25.01
%	SPHD	Invesco S&P 500 High Dividend Low Volatility ETF	25.12
%	VFVA	Vanguard U.S. Value Factor ETF	25.52



U.S. Size & Style Flows

Large-Cap 30-Day Rolling Flows



Mid-Cap 30-Day Rolling Flows



Small-Cap 30-Day Rolling Flows



	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Large Cap, Beta, Beta	25	\$1,225B	\$6.33B	(\$17.79B)	\$6.66B	\$31.51B
Large Cap, Beta, Beta: Growth	10	\$234B	\$1.86B	\$0.77B	\$10.25B	\$21.95B
Large Cap, Beta, Beta: Value	11	\$217B	\$0.45B	\$0.75B	\$2.59B	\$6.43B
Mid Cap, Beta, Beta	10	\$180B	\$1.10B	\$2.46B	\$7.27B	\$11.43B
Mid Cap, Beta, Beta: Growth	6	\$32B	\$0.30B	(\$0.56B)	(\$0.23B)	\$0.52B
Mid Cap, Beta, Beta: Value	6	\$39B	\$0.07B	\$0.13B	\$1.06B	\$0.94B
Small Cap, Beta, Beta	13	\$190B	\$1.76B	\$1.24B	\$7.03B	\$0.63B
Small Cap, Beta, Beta: Growth	7	\$31B	\$0.30B	(\$0.23B)	\$0.72B	\$0.75B
Small Cap, Beta, Beta: Value	7	\$49B	\$0.32B	\$0.58B	\$1.83B	(\$2.29B)

U.S. Size & Style Landscape Flows

U.S. Size & Style Flow Leaders

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
SPY	SPDR S&P 500 ETF Trust	\$8.45B	(\$11.08B)	\$0.23B	(\$1.86B)	\$360.85B
VYM	Vanguard High Dividend Yield Index ETF	\$2.64B	\$2.74B	\$4.13B	\$8.43B	\$50.28B
VIG	Vanguard Dividend Appreciation ETF	\$2.52B	\$1.60B	\$2.95B	\$2.64B	\$65.86B
DVY	iShares Select Dividend ETF	\$2.18B	\$1.97B	\$2.80B	\$2.39B	\$23.67B
VTI	Vanguard Total Stock Market ETF	\$1.66B	\$6.16B	\$12.38B	\$21.16B	\$274.93B
VO	Vanguard Mid-Cap ETF	\$1.25B	\$1.00B	\$1.88B	\$3.05B	\$51.40B
IWM	iShares Russell 2000 ETF	\$1.15B	(\$2.93B)	\$0.72B	(\$3.99B)	\$51.03B
VTV	Vanguard Value ETF	\$0.91B	\$4.67B	\$1.01B	\$5.95B	\$99.76B
V00	Vanguard S&P 500 ETF	\$0.76B	\$3.33B	\$8.10B	\$19.73B	\$274.91B
VB	Vanguard Small-Cap ETF	\$0.73B	\$1.70B	\$1.88B	\$0.05B	\$42.64B

U.S. Size & Style Flow Laggards

Fund	1 Week	3 Month	6 Month	1 Year	AUM
Invesco QQQ Trust	(\$1.98B)	(\$5.90B)	(\$6.83B)	(\$1.58B)	\$162.16B
iShares Core S&P 500 ETF	(\$1.26B)	(\$5.99B)	(\$0.93B)	\$3.60B	\$296.04B
Invesco S&P 500 Equal Weight ETF	(\$0.84B)	\$0.92B	\$2.71B	\$1.64B	\$33.19B
SPDR S&P 400 Mid Cap Value ETF	(\$0.40B)	\$0.12B	\$0.54B	\$0.42B	\$2.39B
SPDR S&P Midcap 400 ETF Trust	(\$0.37B)	(\$0.45B)	\$0.09B	(\$0.08B)	\$17.99B
iShares S&P 500 Value ETF	(\$0.36B)	(\$0.78B)	(\$0.28B)	\$0.08B	\$24.17B
Vanguard Russell 1000 Value ETF	(\$0.22B)	(\$0.21B)	\$0.37B	(\$0.41B)	\$6.32B
iShares S&P Small-Cap 600 Value ETF	(\$0.21B)	\$0.32B	\$0.43B	(\$0.83B)	\$7.20B
iShares MSCI USA Min Vol Factor ETF	(\$0.19B)	(\$1.51B)	(\$0.34B)	\$2.22B	\$27.82B
Invesco S&P 500 Pure Value ETF	(\$0.16B)	(\$0.29B)	(\$0.11B)	(\$0.01B)	\$3.05B
	Invesco QQQ Trust iShares Core S&P 500 ETF Invesco S&P 500 Equal Weight ETF SPDR S&P 400 Mid Cap Value ETF SPDR S&P Midcap 400 ETF Trust iShares S&P 500 Value ETF Vanguard Russell 1000 Value ETF iShares S&P Small-Cap 600 Value ETF iShares MSCI USA Min Vol Factor ETF	Invesco QQQ Trust(\$1.98B)iShares Core S&P 500 ETF(\$1.26B)Invesco S&P 500 Equal Weight ETF(\$0.84B)SPDR S&P 400 Mid Cap Value ETF(\$0.40B)SPDR S&P Midcap 400 ETF Trust(\$0.37B)iShares S&P 500 Value ETF(\$0.36B)Vanguard Russell 1000 Value ETF(\$0.22B)iShares S&P Small-Cap 600 Value ETF(\$0.21B)iShares MSCI USA Min Vol Factor ETF(\$0.19B)	Invesco QQQ Trust (\$1.98B) (\$5.90B) iShares Core S&P 500 ETF (\$1.26B) (\$5.99B) Invesco S&P 500 Equal Weight ETF (\$0.84B) \$0.92B SPDR S&P 400 Mid Cap Value ETF (\$0.40B) \$0.12B SPDR S&P Midcap 400 ETF Trust (\$0.37B) (\$0.45B) iShares S&P 500 Value ETF (\$0.36B) (\$0.78B) Vanguard Russell 1000 Value ETF (\$0.22B) (\$0.21B) iShares S&P Small-Cap 600 Value ETF (\$0.21B) \$0.32B iShares MSCI USA Min Vol Factor ETF (\$0.19B) (\$1.51B)	Invesco QQQ Trust (\$1.98B) (\$5.90B) (\$6.83B) iShares Core S&P 500 ETF (\$1.26B) (\$5.99B) (\$0.93B) Invesco S&P 500 Equal Weight ETF (\$0.84B) \$0.92B \$2.71B SPDR S&P 400 Mid Cap Value ETF (\$0.40B) \$0.12B \$0.54B SPDR S&P Midcap 400 ETF Trust (\$0.37B) (\$0.45B) \$0.09B iShares S&P 500 Value ETF (\$0.36B) (\$0.78B) (\$0.28B) Vanguard Russell 1000 Value ETF (\$0.22B) (\$0.21B) \$0.37B iShares S&P Small-Cap 600 Value ETF (\$0.21B) \$0.43B \$0.43B iShares MSCI USA Min Vol Factor ETF (\$0.19B) (\$1.51B) (\$0.34B)	Invesco QQQ Trust (\$1.98B) (\$5.90B) (\$6.83B) (\$1.58B) iShares Core S&P 500 ETF (\$1.26B) (\$5.99B) (\$0.93B) \$3.60B Invesco S&P 500 Equal Weight ETF (\$0.84B) \$0.92B \$2.71B \$1.64B SPDR S&P 400 Mid Cap Value ETF (\$0.40B) \$0.12B \$0.54B \$0.42B SPDR S&P Midcap 400 ETF Trust (\$0.37B) (\$0.45B) \$0.09B (\$0.08B) iShares S&P 500 Value ETF (\$0.36B) (\$0.78B) (\$0.28B) \$0.08B Vanguard Russell 1000 Value ETF (\$0.22B) (\$0.21B) \$0.37B (\$0.41B) iShares S&P Small-Cap 600 Value ETF (\$0.21B) \$0.32B \$0.43B \$2.22B iShares MSCI USA Min Vol Factor ETF (\$0.19B) (\$1.51B) (\$0.34B) \$2.22B

S&P Sector & Industry 1 Day Performance

Technology (XLK)				-0	.14%
Cons Staples (XLP)				-0.73%	6
Metals & Mining (XME)				-0.78%	þ
Comm Svcs (XLC)			-	0.95%	
Utilities (XLU)			-	0.96%	
Telecom (XTL)			- <u>:</u>	1.01%	
Software & Svcs (XSW)			-2	1.01%	
S&P 500 (SPY)			-1.	16%	
Cons Discretionary (XLY)			-1.2	28%	
Health Care (XLV)			-1.2	29%	
Internet (XWEB)			-1.3	8%	
Semiconductor (XSD)			-1.4	2%	
Homebuilders (XHB)			-1.52	2%	
Materials (XLB)			-1.55	%	
Capital Mkts (KCE)			-1.56	%	
Energy (XLE)			-1.57	%	
Industrial (XLI)			-1.649	%	
Pharmaceuticals (XPH)			-1.77%	5	
Health Care Svcs (XHS)			-1.81%		
Health Care Equipment (XHE)			-1.85%		
Oil & Gas Expl. & Prod (XOP)			-2.15%		
Biotech (XBI)			-2.21%		
Retail (XRT			-2.23%		
Real Estate (XLRE)			-2.29%		
Transportation (XTN)			-2.51%		
Aerospace & Defense (XAR)			-2.54%		
Oil & Gas Equip. & Svcs (XES)		-3.1	6%		
Financials (XLF)		-3.2	2%		
Insurance (KIE)		-4.07%			
Banks (KBE)	-5.57%				
Regional Banking (KRE)	-5.99%				
	-6.0%	-4.0	% -2.	0%	0.0%

Select Sector SPDRs Technicals

Fund Name	% From 52W High	% From 52W Low	% Abv/Below 50 SMA	% Abv/Below 200 SMA	RSI (14D)
Industrial Select Sector SPDR Fund	-6.75%	16.69%	-4.50%	1.50%	35.91
Consumer Staples Select Sector SPDR Fund	-10.50%	8.44%	-1.31%	-1.17%	46.15
Technology Select Sector SPDR Fund	-11.15%	23.08%	4.69%	8.23%	61.12
Health Care Select Sector SPDR Fund	-11.88%	4.98%	-3.95%	-3.52%	39.58
Utilities Select Sector SPDR Fund	-14.27%	8.86%	-1.51%	-4.04%	51.12
SPDR S&P 500 ETF Trust	-14.63%	9.38%	-2.65%	-0.52%	42.94
Materials Select Sector SPDR Fund	-16.61%	12.17%	-7.76%	-2.59%	32.55
Energy Select Sector SPDR Fund	-18.19%	14.05%	-11.20%	-6.60%	28.99
Financial Select Sector SPDR Fund	-19.15%	2.28%	-12.63%	-8.45%	25.02
Communication Services Select Sector SPDR Fund	-22.74%	21.14%	1.37%	4.42%	55.21
Consumer Discretionary Select Sector SPDR Fund	-25.37%	11.94%	-2.18%	-3.17%	44.81
Real Estate Select Sector SPDR Fund	-28.40%	7.28%	-7.20%	-7.87%	35.01

Sector & Industry 1 Day Performance Leaders

Ticker	Fund	
XLK	Technology Select Sector SPDR Fund	-0.14%
IYW	iShares U.S. Technology ETF	-0.20%
FTEC	Fidelity MSCI Information Technology Index ETF	-0.26%
VGT	Vanguard Information Technology ETF	-0.27%
IGV	iShares Expanded Tech-Software Sector ETF	-0.38%
IYZ	iShares U.S. Telecommunications ETF	-0.49%
IETC	iShares U.S. Tech Independence Focused ETF	-0.49%
IGM	iShares Expanded Tech Sector ETF	-0.54%
XNTK	SPDR NYSE Technology ETF	-0.60%
SOXX	iShares Semiconductor ETF	-0.62%

Sector & Industry 1 Day Performance Laggards

Ticker	Fund	
IAT	iShares U.S. Regional Banks ETF	-6.80%
KBWR	Invesco KBW Regional Banking ETF	-6.53%
KRE	SPDR S&P Regional Banking ETF	-5.99%
KBE	SPDR S&P Bank ETF	-5.57%
FTXO	First Trust Nasdaq Bank ETF	-5.20%
KBWB	Invesco KBW Bank ETF	-5.18%
KBWP	Invesco KBW Property & Casualty Insurance ETF	-4.64%
QABA	First Trust NASDAQ ABA Community Bank Index Fund	-4.55%
KIE	SPDR S&P Insurance ETF	-4.07%
IAK	iShares U.S. Insurance ETF	-4.06%

Sector & Industry Most Overbought

Ticker	Fund	
IYW	iShares U.S. Technology ETF	62.12
XLK	Technology Select Sector SPDR Fund	61.12
VGT	Vanguard Information Technology ETF	58.82
IGM	iShares Expanded Tech Sector ETF	57.96
FTEC	Fidelity MSCI Information Technology Index ETF	57.89
SOXQ	Invesco PHLX Semiconductor ETF	57.47
SOXX	iShares Semiconductor ETF	57.19
QTEC	First Trust NASDAQ-100 Technology Sector Index Fund	56.61
XNTK	SPDR NYSE Technology ETF	55.46
IETC	iShares U.S. Tech Independence Focused ETF	55.23

Sector & Industry Most Oversold

6.20
.8.71
8.81
.8.85
9.48
.9.55
9.73
20.68
21.34
21.84

* ETF Landscape represented using the ETF Action classification system**Leaders/Laggards/Overbought/Oversold ETFs must have \$50 million to qualify

0.0%

Ticker

XLI

XLP

XLK

XLV

XLU

SPY

XLB

XLE

XLF

XLC

XLY

XLRE

U.S. Sector Landscape

U.S. Sector & Industry 1-Week Flows

\$2,259M

Banks: Regional					9
Homebuilding			\$252M		
Semiconductors			\$201M		
Software			\$165M		
Banks			\$86M		
Infrastructure			\$82M		
MLPs: C-Corp			\$62M		
Biotech			\$41M		
Health Care Equipment & Supplies			\$16M		
Mortgage REITs			\$11M		
Aerospace & Defense			\$10M		
MLPs: Note			\$6M		
Food & Beverage			\$4M		
Construction & Engineering			\$1M		
Media & Entertainment			\$0M		
BDCs		(\$1M)			
Health Care Providers & Services		(\$1M)			
Leisure & Recreation		(\$3M)			
Midstream		(\$9M)			
Transportation		(\$16M)			
Pharmaceuticals		(\$17M)	1		
Natural Gas		(\$30M)			
Metals & Mining		(\$31M)			
Oil & Gas Equipment & Services		(\$54M)			
Retail		(\$73M)			
Insurance		(\$89M)			
Oil & Gas Exploration & Production	(\$	306M)			
	-1	.в 0	B 1	B	2B
		1 W	eek (Custor	n SQL Que	ry22)

	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Communication Services	7	\$13B	\$3M	(\$293M)	(\$145M)	(\$1,006M)
Consumer Discretionary	12	\$21B	\$7M	(\$241M)	(\$915M)	(\$3,233M)
Consumer Staples	10	\$29B	\$187M	(\$407M)	\$851M	\$4,477M
Energy	32	\$70B	(\$1,105M)	(\$2,677M)	(\$1,678M)	(\$7,894M)
Financials	26	\$56B	\$2,437M	\$2,665M	\$2,872M	(\$12,218M)
Health Care	23	\$89B	\$21M	(\$3,643M)	(\$1,024M)	\$5,362M
Industrial	13	\$31B	(\$484M)	\$1,352M	\$1,616M	(\$1,738M)
Materials	9	\$14B	(\$144M)	\$723M	\$231M	(\$2,616M)
Multi-Sector	19	\$14B	\$346M	\$124M	(\$684M)	(\$3,272M)
Real Estate	25	\$56B	(\$206M)	(\$2,341M)	(\$2,654M)	(\$5,371M)
Technology	23	\$126B	\$1,005M	(\$1,296M)	\$1,483M	\$850M
Utilities	9	\$25B	\$434M	(\$444M)	(\$1,091M)	\$3,755M

U.S. Sector Landscape

U.S. Sector & Industry Flow Leaders

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
KRE	SPDR S&P Regional Banking ETF	\$2,095M	\$1,582M	\$1,590M	(\$312M)	\$4,069M
VGT	Vanguard Information Technology ETF	\$636M	(\$219M)	\$26M	\$1,379M	\$45,094M
XLF	Financial Select Sector SPDR Fund	\$458M	\$496M	\$870M	(\$8,221M)	\$29,869M
XLU	Utilities Select Sector SPDR Fund	\$425M	(\$441M)	(\$776M)	\$2,566M	\$15,543M
FTXN	First Trust Nasdaq Oil & Gas ETF	\$287M	\$323M	\$362M	\$165M	\$1,428M
XHB	SPDR S&P Homebuilders ETF	\$263M	\$104M	\$92M	(\$332M)	\$1,018M
KBE	SPDR S&P Bank ETF	\$228M	(\$8M)	(\$285M)	(\$963M)	\$1,449M
IAT	iShares U.S. Regional Banks ETF	\$175M	\$140M	\$79M	(\$332M)	\$687M
IGV	iShares Expanded Tech-Software Sector ETF	\$168M	\$256M	\$1,018M	\$644M	\$5,085M
XLP	Consumer Staples Select Sector SPDR Fund	\$154M	(\$482M)	\$590M	\$1,595M	\$16,504M

U.S. Sector & Industry Flow Laggards

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUI
XLE	Energy Select Sector SPDR Fund	(\$911M)	(\$2M)	\$138M	(\$2,628M)	\$35,9851
XLI	Industrial Select Sector SPDR Fund	(\$490M)	\$150M	(\$226M)	(\$2,285M)	\$13,412
XOP	SPDR S&P Oil & Gas Exploration & Production E	(\$289M)	(\$976M)	(\$538M)	(\$2,195M)	\$3,219
VNQ	Vanguard Real Estate ETF	(\$173M)	(\$785M)	(\$1,486M)	(\$3,332M)	\$32,669
VFH	Vanguard Financials ETF	(\$146M)	(\$335M)	(\$571M)	(\$2,214M)	\$7,752
KBWB	Invesco KBW Bank ETF	(\$141M)	\$9M	(\$157M)	(\$435M)	\$1,425
XLB	Materials Select Sector SPDR Fund	(\$89M)	\$222M	(\$34M)	(\$1,101M)	\$5,378
VDE	Vanguard Energy ETF	(\$85M)	(\$50M)	(\$174M)	(\$1,118M)	\$7,357
IYG	iShares US Financial Services ETF	(\$75M)	(\$141M)	(\$180M)	(\$831M)	\$1,184
XRT	SPDR S&P Retail ETF	(\$73M)	\$225M	\$367M	\$15M	\$561



U.S. Sector Rolling 30-Day Flows

March 19, 2023







Global Thematic Performance

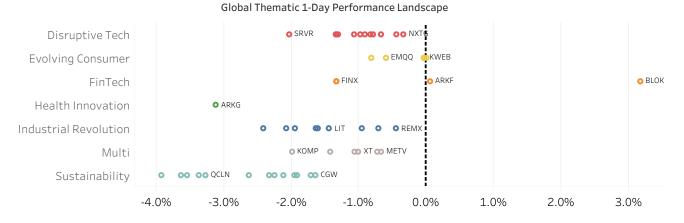
March 19, 2023

Global Thematic Segment 1-Day Performance

3.17%

0.04%

			0.0
	-0.04	1%	
	-0.45	%	
	-0.45	%	
	-0.79%	ό	
	-0.80%	ό	
	-0.82%	ό	
	-0.91%)	
	-0.97%	,	
	-1.01%		
	-1.07%		
	-1.33%		
	-1.34%		
	-1.43%		
	-1.61%		
	-1.64%		
-	1.74%		
-	1.80%		
-	1.96%		
-1	2.01%		
-1	2.03%		
-2	2.08%		
-2	2.25%		
-2	.33%		
-3.1	.3%		
-3.64	%		
-3.93	%		
-5.0	0%	0.0	0%
		-0.459 -0.79% -0.80% -0.82% -0.91% -0.97% -1.01% -1.07% -1.33%	-1.07% -1.33% -1.34% -1.43% -1.61% -1.64% -1.64% -1.74% -1.80% -1.96% -2.01% -2.03% -2.03% -2.03% -2.03% -3.13% -3.64% -3.93%



Global Thematic 1-Day Performance Leaders

Ticker	Fund	
BITQ	Bitwise Crypto Industry Innovators ETF	7.65%
вксн	Global X Blockchain ETF	7.05%
BLOK	Amplify Transformational Data Sharing ETF	3.17%
BLCN	Siren ETF Trust Siren Nasdaq NexGen Economy ETF	1.38%
MJUS	ETFMG U.S. Alternative Harvest ETF	0.61%
ARKF	ARK Fintech Innovation ETF	0.06%
HERO	Global X Video Games & Esports ETF	0.05%
AIQ	Global X Artificial Intelligence & Technology ETF	0.04%
MSOS	AdvisorShares Pure US Cannabis ETF	0.00%
KWEB	KraneShares CSI China Internet ETF	-0.03%

Global Thematic 1-Day Performance Laggards

Ticker	Fund	
CTEC	Global X CleanTech ETF	-4.11%
TAN	Invesco Solar ETF	-3.93%
PBW	Invesco WilderHill Clean Energy ETF	-3.64%
GNOM	Global X Genomics & Biotechnology ETF	-3.59%
CNRG	SPDR S&P Kensho Clean Power ETF	-3.55%
ICLN	iShares Global Clean Energy ETF	-3.38%
QCLN	First Trust Nasdaq Clean Edge Green Energy Index Fund	-3.28%
ARKG	ARK Genomic Revolution ETF	-3.13%
BTEC	Principal Healthcare Innovators ETF	-2.92%
ACES	ALPS Clean Energy ETF	-2.63%

Thematic Most Overbought

Ticker	Fund	
ESPO	VanEck Video Gaming and eSports ETF	58.96
BKCH	Global X Blockchain ETF	58.85
METV	Roundhill Ball Metaverse ETF	58.12
BITQ	Bitwise Crypto Industry Innovators ETF	56.73
TIME	Clockwise Capital Innovation ETF	56.27
TECB	iShares U.S. Tech Breakthrough Multisector ETF	56.06
BLOK	Amplify Transformational Data Sharing ETF	55.65
ARKW	ARK Next Generation Internet ETF	55.15
ARKF	ARK Fintech Innovation ETF	53.27
NXTG	First Trust Indxx NextG ETF	52.83

Thematic Most Oversold

	Ticker	Fund	
6	MJ	ETFMG Alternative Harvest ETFMG Alternative Harvest	25.86
6	KGRN	KraneShares MSCI China Clean Technology Index ETF	27.47
6	ACES	ALPS Clean Energy ETF	28.20
6	ERTH	Invesco MSCI Sustainable Future ETF	28.39
6	PBW	Invesco WilderHill Clean Energy ETF	28.70
6	LIT	Global X Lithium & Battery Tech ETF	28.81
6	REMX	VanEck Rare Earth/Strategic Metals ETF	28.89
6	SAMT	Strategas Macro Thematic Opportunities ETF	29.47
6	RNRG	Global X Renewable Energy Producers ETF	29.86
6	BATT	Amplify Lithium & Battery Technology ETF	29.94

* ETF Landscape represented using the ETF Action classification system**Leaders/Laggards/Overbought/Oversold ETFs must have \$50 million to qualify

5.00%



Global Thematic Flows

Thematic 1 Week Flow Leaders

Ticker	Fund	
ARKK	ARK Innovation ETF	\$502M
ROBO	ROBO Global Robotics & Automation Index ETF	\$21M
PBW	Invesco WilderHill Clean Energy ETF	\$20M
IRBO	iShares Robotics and Artificial Intelligence Multisector ETF	\$6M
MJUS	ETFMG U.S. Alternative Harvest ETF	\$5M
ARKG	ARK Genomic Revolution ETF	\$4M
AIQ	Global X Artificial Intelligence & Technology ETF	\$4M
LEGR	First Trust Indxx Innovative Transaction & Process ETF	\$4M
HJEN	Direxion Hydrogen ETF	\$3M
TIME	Clockwise Capital Innovation ETF	\$3M

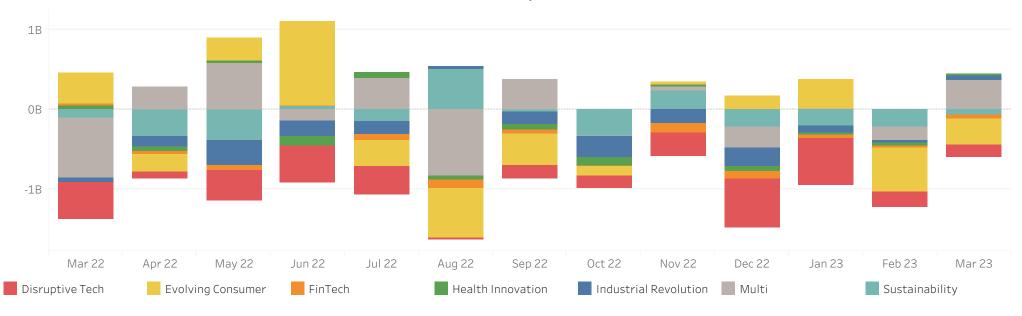
Segment	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Disruptive Tech	34	\$15B	(\$57M)	(\$1,127M)	(\$2,023M)	(\$3,913M)
Evolving Consumer	45	\$9B	(\$80M)	(\$596M)	(\$720M)	(\$273M)
FinTech	19	\$2B	(\$24M)	(\$153M)	(\$362M)	(\$617M)
Health Innovation	19	\$3B	\$3M	(\$58M)	(\$222M)	(\$363M)
Industrial Revolution	31	\$10B	\$0M	(\$168M)	(\$802M)	(\$1,702M)
Multi	41	\$15B	\$493M	\$53M	\$453M	(\$69M)
Sustainability	40	\$17B	(\$17M)	(\$719M)	(\$964M)	(\$1,231M)
Grand Total	229	\$71B	\$317M	(\$2,768M)	(\$4,641M)	(\$8,169M)

Thematic Landscape Assets & Flows

Thematic 1 Week Flow Laggards

Ticker Fund KWEB KraneShares CSI China Internet ETF (\$127M) (\$39M) BOTZ Global X Robotics & Artificial Intelligence ETF ARKF ARK Fintech Innovation ETF (\$23M) iShares Global Clean Energy ETF (\$21M) ICLN (\$16M) LIT Global X Lithium & Battery Tech ETF First Trust NASDAQ Cybersecurity ETF (\$14M) CIBR VPN Global X Data Center REITs & Digital Infrastructure ETF (\$14M) XT iShares Exponential Technologies ETF (\$13M) First Trust Cloud Computing ETF (\$12M) SKYY ARKW ARK Next Generation Internet ETF (\$12M)

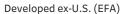
Thematic Monthly Flows



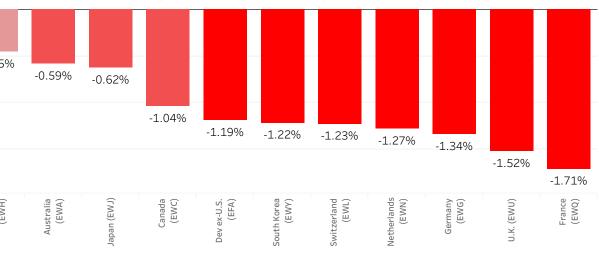


Developed Markets ex-U.S. Performance

March 19, 2023







Developed ex-U.S. 1-Day Performance Top 10 Countries

Developed ex-U.S. 30-Day Rolling Flows



Developed ex-U.S. Monthly Flows

Aug 22

Sep 22 Oct 22 Nov 22 Jan 23 Feb 23 Mar 23

Dec 22

10B

5B

0B

Mar 22

May .. Jun 22 Jul 22

Apr 22

Developed ex-U.S. 1-Day Performance Leaders

Ticker	Fund	
ENZL	iShares MSCI New Zealand ETF	0.83%
BBAX	JPMorgan BetaBuilders Developed Asia Pacific-ex Japan ETF	-0.31%
EDEN	iShares MSCI Denmark ETF	-0.33%
AAXJ	iShares MSCI All Country Asia ex Japan ETF	-0.37%
EFAV	iShares MSCI EAFE Min Vol Factor ETF	-0.37%
AIA	iShares Asia 50 ETF	-0.40%
QLVD	FlexShares Developed Markets ex-US Quality Low Volatility I	-0.41%
EWS	iShares MSCI Singapore ETF	-0.42%
BBJP	JPMorgan BetaBuilders Japan ETF	-0.43%
SCJ	iShares MSCI Japan Small-Cap ETF	-0.44%

Developed ex-U.S. 1-Day Performance Laggards

Ticker	Fund	
EWD	iShares MSCI Sweden ETF	-2.56%
DXJ	WisdomTree Japan Hedged Equity Fund	-2.55%
GREK	Global X MSCI Greece ETF	-2.27%
EWP	iShares MSCI Spain ETF	-2.20%
EWI	iShares MSCI Italy ETF	-2.16%
HEDJ	WisdomTree Europe Hedged Equity Fund	-2.10%
HEZU	iShares Currency Hedged MSCI Eurozone ETF	-2.01%
IEUS	iShares MSCI Europe Small-Cap ETF	-1.79%
EIRL	iShares MSCI Ireland ETF	-1.79%
EFV	iShares MSCI EAFE Value ETF	-1.79%

Developed ex-U.S. Most Overbought

Ticker	Fund	
ENZL	iShares MSCI New Zealand ETF	47.07
EIRL	iShares MSCI Ireland ETF	45.93
SCJ	iShares MSCI Japan Small-Cap ETF	45.50
EFAV	iShares MSCI EAFE Min Vol Factor ETF	45.45
EFG	iShares MSCI EAFE Growth ETF	45.38
DFJ	WisdomTree Japan SmallCap Dividend Fund	44.67
IQDG	WisdomTree International Quality Dividend Growth Fund	44.54
EWY	iShares MSCI South Korea ETF	44.09
EFAD	ProShares MSCI EAFE Dividend Growers ETF	43.88
FLKR	Franklin FTSE South Korea ETF	43.80

Developed ex-U.S. Most Oversold

	Ticker	Fund	
5	NORW	Global X MSCI Norway ETF	27.21
5	FIDI	Fidelity International High Dividend ETF	28.21
ò	IDV	iShares International Select Dividend ETF	29.40
5	FLCA	Franklin FTSE Canada ETF	29.67
5	FDD	First Trust Stoxx European Select Dividend Index Fu	29.72
Ś	DFIV	Dimensional International Value ETF	30.25
ó	EFV	iShares MSCI EAFE Value ETF	30.81
5	AVIV	Avantis International Large Cap Value ETF	31.26
ó	FYLD	Cambria Foreign Shareholder Yield ETF	31.80
Ś	DISV	Dimensional International Small Cap Value ETF	31.82

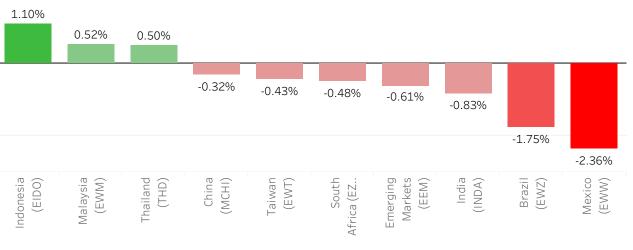


Emerging Markets Performance

March 19, 2023

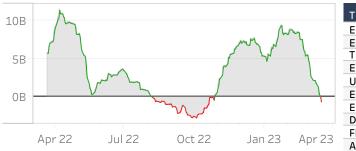
Emerging (EEM)





Emerging 1-Day Performance Top 10 Countries

Emerging 30-Day Rolling Flows



Emerging Monthly Flows

Dec 22 Jan 23 Feb 23 Mar 23

0ct 22 Nov 22

Jul 22 Aug 22 Sep 22

5B

0B

Mar 22

May 22 Jun 22

Apr 22



Ticker	Fund	
EIDO	iShares MSCI Indonesia ETF	1.10%
EWM	iShares MSCI Malaysia ETF	0.52%
THD	iShares MSCI Thailand ETF	0.50%
EPU	iShares MSCI Peru ETF	0.42%
JEVM	VictoryShares Emerging Markets Value Momentum ETF	0.12%
EDIV	SPDR S&P Emerging Markets Dividend ETF	0.08%
EPHE	iShares MSCI Philippines ETF	0.08%
DEM	WisdomTree Emerging Markets High Dividend Fund	0.00%
FNDE	Schwab Fundamental Emerging Markets Large Co. Index	-0.04%
AVES	Avantis Emerging Markets Value ETF	-0.07%

Emerging 1-Day Performance Laggards

Ticker	Fund	
TUR	iShares MSCI Turkey ETF	-2.80%
EWW	iShares MSCI Mexico ETF	-2.36%
FLLA	Franklin FTSE Latin America ETF	-1.99%
ILF	iShares Latin America 40 ETF	-1.82%
FLN	First Trust Latin America AlphaDEX Fund	-1.81%
EPOL	iShares MSCI Poland ETF	-1.77%
EWZ	iShares MSCI Brazil ETF	-1.75%
ECH	iShares MSCI Chile ETF	-1.69%
FLBR	Franklin FTSE Brazil ETF	-1.46%
QAT	iShares MSCI Qatar ETF	-1.35%

Emerging Most Overbought

	Ticker	Fund	
6	EDIV	SPDR S&P Emerging Markets Dividend ETF	50.67
6	TUR	iShares MSCI Turkey ETF	49.31
ó	FLTW	Franklin FTSE Taiwan ETF	48.19
ó	EWT	iShares MSCI Taiwan ETF	45.27
6	VNM	VanEck Vietnam ETF	45.14
6	UEVM	VictoryShares Emerging Markets Value Momentum E	43.12
ó	EWZS	iShares MSCI Brazil Small-Cap ETF	42.68
6	DEM	WisdomTree Emerging Markets High Dividend Fund	41.80
Ś	EEMV	iShares MSCI Emerging Markets Min Vol Factor ETF	41.26
Ś	XCEM	Columbia EM Core ex-China ETF	40.83

Emerging Most Oversold

Ticker	Fund	
ECNS	iShares MSCI China Small-Cap ETF	29.52
EPOL	iShares MSCI Poland ETF	30.22
RAYC	Rayliant Quantamental China Equity ETF	30.63
EWM	iShares MSCI Malaysia ETF	31.42
EYLD	Cambria Emerging Shareholder Yield ETF	32.02
FM	iShares MSCI Frontier and Select EM ETF	32.37
EZA	iShares MSCI South Africa ETF	32.38
CXSE	WisdomTree China ex-State-Owned Enterprises Fund	32.95
EELV	Invesco S&P Emerging Markets Low Volatility ETF	33.80
EWX	SPDR S&P Emerging Markets Small Cap ETF	33.93

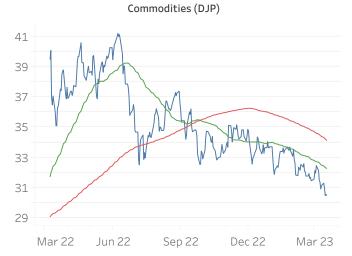


Fixed Income, Commodities & Currencies

March 19, 2023

Fixed Income (AGG)







Fixed Income Performance

Commodities Performance

Currencies Performance

Ticker	Name	1 Day	1 Month	YTD	Ticker	Name	1 Day	1 Month	YTD	Ticker	Name	1 Day	1 Month	YTD
AGG	U.S. Aggregate	0.63%	1.78%	3.09%	DJP	Broad Commodities	-0.26%	-4.03%	-9.52%					
AUG		0.00.00	1		DBE	Energy	-1.49%	-8.16%	-15.00%	UUP	Long Dollar	-0.56%	0.39%	1.40%
SHY	1-3 Year Treasury Bonds	0.50%	1.55%	1.75%	USO	WTI Crude Oil	-2.31%	-12.47%	-16.33%					
					BNO	Brent Crude Oil	-2.51%	-12.03%	-14.92%		Short Dollar		0.22%	0.11%
IEF	7-10 Year Treasury Bonds	1.18%	3.17%	4.07%	UNG	Natural Gas	-6.47%	0.52%	-44.68%	UDN		0.49%		
		1.500/	4.620/	7.000	UGA	Gasoline	-0.25%	-4.70%	-7.41%					
TLT	20+ Year Treasury Bonds	1.50%	4.63%	7.86%	DBP	Precious Metals	3.05%	6.17%	4.75%					
TIP	TIDED	0.21%	1.09%	2.05%	GLD	Gold	2.91%	7.30%	8.33%	FXE	Euro	0.44%	-0.22%	-0.26%
TIP	TIPS Bonds	0.2170	1.0370	2.0370	SLV	Silver	3.56%	3.10%	-6.31%		20.0			
FLOT	Floating Rate Bonds	-0.08%	-1.30%	-0.05%	PPLT	abrdn Physical Platin	-0.21%	5.84%	-9.26%					
					PALL	abrdn Physical Palla	-1.57%	-6.58%	-21.53%	FXB	British Pound Sterling	0.43%	1.15%	1.22%
LQD	Investment Grade Corporate	0.50%	1.25%	3.11%	DBB	Base Metals	0.67%	-5.26%	-0.05%		Britishi ound Sterning	0.1070	1.1070	1.2270
					CPER	Copper	0.68%	-5.23%	2.86%		Swiss Franc		-0.11%	-0.26%
HYG	High Yield Corporate	-0.60%	-1.00%	0.73%	LD	Lead	1.68%	8.61%	-9.21%	FXF		0.44%		
BKLN	Cariantaan	-0.63%	-2.04%	1.16%	ЛЛИ	Nickel	0.52%	-9.65%	-21.53%	FAF				
BKLN	Senior Loan	-0.03%	-2.0470	1.10%	JJU	Aluminum	-0.61%	-5.45%	-5.77%					
PFF	Preferred & Income Securities	-2.36%	-7.73%	-0.02%	JJT	Tin	1.50%	-12.59%	-9.85%	-	Japanese Yen	1 1 00	1.71%	-0.65%
	Treferred & income Securicies				DBA	Agriculture	-0.10%	-3.17%	-1.59%	FXY		1.16%		
MUB	Municipal Bonds	0.31%	1.41%	1.98%	CORN	Corn	0.28%	-7.02%	-8.02%					
					SOYB	Soybeans	-0.98%	-4.34%	-5.01%					
MBB	MBS	0.96%	1.60%	3.06%	WEAT	Wheat	0.99%	-8.10%	-10.40%	FXC	Canadian Dollar -0.17%	-1.73%	-1.12%	
		0.450/	0.020/	0.040/	CANE	Sugar	0.00%	3.86%	11.65%					
EMB	Dollar Denominated EM Bonds	-0.45%	-0.93%	0.34%	BAL	Cotton	-1.78%	-4.64%	-6.62%					
LEMB	Local Currency EM Bond	0.37%	-0.78%	1.14%	NIB	Сосоа	3.01%	-0.85%	6.04%	FXA	Australian Dollar	0.46%	-2.77%	-1.61%
LLIVID	Local currency EW Bolld	0.3770	0.7070	1.1470	JO	Coffee	-1.50%	-4.65%	6.68%					

Definitions & Disclosures

Disclaimer of Warranties

Except for the express warranties set forth in the terms of service, all services, including all ETF Action materials, are provided on an "as is," "where is" basis, and ETF Action and its licensors disclaim all representations or warranties, express or implied as to the services. ETF Action and its licensors specifically disclaim all implied warranties of merchantability, fitness for a particular purpose, title and non-infringement, and all warranties arising from course of dealing, usage or trade practice. Without limiting the foregoing, ETF Action and its licensors make no warranty of any kind that the services or ETF Action materials, or any products or results of the use thereof, will meet customer's or any other person's requirements, operate without interruption, achieve any intended result, be compatible or work with any software, system or other services, or be secure, accurate, complete, timely, free of harmful code or error free. All third-party materials are provided "as is" and any representation or warranty of or concerning any third-party materials is strictly between customer and the third-party owner or distributor of the third-party materials.

Additional Disclaimers

The services are not intended and should not be construed as financial or investment advice, a recommendation or promotion. Neither ETF Action nor its licensors shall be responsible for investment decisions, damages, or other losses *resulting from use of the services*. *Past performance* does not guarantee future performance. Neither ETF Action nor its licensors shall be considered an "expert" under the securities act of 1933. Neither ETF Action nor its licensors warrant that the services comply with the requirements of the NASD or any similar organization or with the securities laws of any jurisdiction. Any information contained in in the services should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

Distribution prohibited without prior permission. Full terms of service, including terms of use, copyrights, and disclaimers are available at https://www.etfaction.com/terms.

© Copyright ETF Action, Inc. All Rights Reserved.

Data Reliability and Definitions

ETF Action, LLC believes the information herein to be accurate (at time of publication) and was obtained from reliable sources, but makes no guarantees with respect to its accuracy. Calculations of fundamental data are based on weighted averages of reported results and consensus estimates of current ETF constituents. Valuation data (price/earnings, price/sales, price/cash flow, price/book value) are calculated using per share data divided by current NAV of corresponding ETF. Performance, risk and technical data (moving averages, relative performance, RSI) calculated for specified periods using ETF market price which may differ from net asset value (NAV).

ETF Action Sector Beta Composites represent ETFs that meet stringent criteria surrounding index methodology, liquidity, assets under management, and management fee.

Source Data & ETF Issuer Information ..

ETF Action is an independent technology and research firm focused on helping advisors build better portfolios, create engaging experiences with their clients, and navigate the vast ETF landscape.

Contact us at:

team@etfaction.com www.etfaction.com