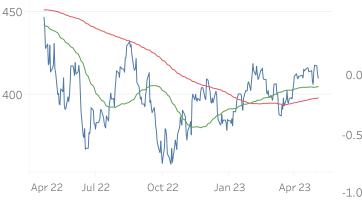


U.S. Size & Style Performance

Large Value (IVE) Large Cap (IVV)

Large Growth

Large Cap Blend (S&P 500) IVV



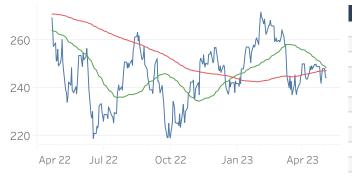
(IVW) 0.21% 0.03% 0.0% -0.03% -0.11% -0.11% -0.20% -0.5% -0.61% -0.72% -0.85% -1.0%

U.S. Size & Style 1-Day Performance

Mid Cap (IJH)

Mid Value (IJJ)

Mid Cap Blend (S&P 400) IJH



Small Cap Blend (S&P 600) IJR



Size & Style 1-Day Performance Leaders

Ticker	Fund	
JSML	Janus Henderson Small Cap Growth Alpha ETF	1.60%
IWC	iShares Micro-Cap ETF	1.06%
VTWG	Vanguard Russell 2000 Growth ETF	0.85%
JSMD	Janus Henderson Small/Mid Cap Growth Alpha ETF	0.78%
IWO	iShares Russell 2000 Growth ETF	0.67%
TMFS	Motley Fool Small-Cap Growth ETF	0.51%
VTWO	Vanguard Russell 2000 ETF	0.40%
VBK	Vanguard Small-Cap Growth ETF	0.40%
VTWV	Vanguard Russell 2000 Value ETF	0.37%
IWM	iShares Russell 2000 ETF	0.37%

Size & Style 1-Day Performance Laggards

Ticker	Fund	
COWZ	Pacer US Cash Cows 100 ETF	-1.20%
QVAL	Alpha Architect US Quantitative Value ETF	-1.20%
CLRG	IQ Chaikin U.S. Large Cap ETF	-1.16%
SPDV	AAM S&P 500 High Dividend Value ETF	-1.16%
PKW	Invesco Buyback Achievers ETF	-1.12%
SPVU	Invesco S&P 500 Enhanced Value ETF	-1.10%
LSAF	LeaderShares AlphaFactor US Core Equity ETF	-1.10%
GVIP	Goldman Sachs Hedge Industry VIP ETF	-1.08%
DUSA	Davis Select U.S. Equity ETF	-1.08%
DHS	WisdomTree U.S. High Dividend Fund	-1.06%

200 Day Moving Average

Size & Style Most Overbought

Mid Growth (IJK) Small Value (IJS) Small Cap (IJR) Small Growth (IJT)

	Ticker	Fund	
ó	SPC	CrossingBridge Pre-Merger SPAC ETF	61.46
6	ABEQ	Absolute Select Value ETF	57.85
<u>б</u>	WINN	Harbor Long-Term Growers ETF	57.75
ó	MGK	Vanguard Mega Cap Growth ETF	56.02
<u>ó</u>	XLG	Invesco S&P 500 Top 50 ETF	55.23
6	IWY	iShares Russell Top 200 Growth ETF	54.80
<u>ю</u>	TMFM	Motley Fool Mid-Cap Growth ETF	54.54
6	TMFC	Motley Fool 100 Index ETF	54.43
ó	JEPQ	J.P. Morgan Nasdaq Equity Premium Income ETF	53.93
6	QLV	FlexShares US Quality Low Volatility Index Fund	53.88

Size & Style Most Oversold

	Ticker	Fund	
%	FCTR	First Trust Lunt U.S. Factor Rotation ETF	27.57
%	DIV	Global X SuperDividend US ETF	30.45
%	DHS	WisdomTree U.S. High Dividend Fund	31.90
%	XSLV	Invesco S&P SmallCap Low Volatility ETF	31.91
%	SVAL	iShares US Small Cap Value Factor ETF	32.19
%	SIXS	ETC 6 Meridian Small Cap Equity ETF	32.60
%	SMLV	SPDR SSGA US Small Cap Low Volatility Index ETF	33.05
%	CDC	VictoryShares US EQ Income Enhanced Volatility Wt	33.09
%	WBIY	WBI Power Factor High Dividend ETF	33.44
%	FDL	First Trust Morningstar Dividend Leaders Index Fund	33.62



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	26	\$1,287B	(\$2.40B)	(\$1.32B)	(\$9.03B)	\$65.07B
Large Cap, Beta, Beta: Growth	10	\$247B	(\$0.10B)	\$3.61B	\$8.37B	\$21.78B
Large Cap, Beta, Beta: Value	11	\$221B	(\$0.03B)	(\$4.60B)	(\$5.83B)	\$2.96B
Mid Cap, Beta, Beta	10	\$181B	(\$0.45B)	\$0.20B	\$4.00B	\$10.16B
Mid Cap, Beta, Beta: Growth	6	\$33B	\$0.03B	\$0.29B	(\$0.04B)	\$1.22B
Mid Cap, Beta, Beta: Value	6	\$39B	\$0.04B	(\$0.69B)	(\$0.81B)	\$0.81B
Small Cap, Beta, Beta	13	\$183B	(\$0.42B)	(\$1.25B)	\$2.50B	\$3.25B
Small Cap, Beta, Beta: Growth	7	\$31B	(\$0.11B)	(\$0.19B)	\$0.23B	\$1.31B
Small Cap, Beta, Beta: Value	7	\$47B	(\$0.10B)	(\$0.96B)	\$0.00B	(\$0.24B)

U.S. Size & Style Landscape Flows

U.S. Size & Style Flow Leaders

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
QQQ	Invesco QQQ Trust	\$3.25B	\$2.97B	(\$0.92B)	\$0.98B	\$172.97B
V00	Vanguard S&P 500 ETF	\$0.62B	\$7.32B	\$6.53B	\$32.87B	\$293.30B
OMFL	Invesco Russell 1000 Dynamic Multifactor ETF	\$0.38B	\$1.01B	\$1.15B	\$1.35B	\$3.51B
IVV	iShares Core S&P 500 ETF	\$0.25B	(\$2.21B)	(\$5.27B)	\$16.59B	\$308.21B
VTI	Vanguard Total Stock Market ETF	\$0.22B	\$2.00B	\$9.07B	\$19.53B	\$285.55B
DFUV	Dimensional US Marketwide Value ETF	\$0.15B	\$0.31B	\$0.51B	\$0.73B	\$8.33B
JEPQ	J.P. Morgan Nasdaq Equity Premium Income	\$0.12B	\$0.88B	\$1.71B	\$2.35B	\$2.45B
LVHD	Franklin U.S. Low Volatility High Dividend Ind	\$0.11B	\$0.26B	\$0.40B	\$0.36B	\$1.23B
SCHD	Schwab US Dividend Equity ETF	\$0.10B	\$2.30B	\$6.99B	\$14.22B	\$45.78B
SPLV	Invesco S&P 500 Low Volatility ETF	\$0.09B	(\$0.17B)	(\$0.15B)	\$0.77B	\$10.25B

U.S. Size & Style Flow Laggards

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
SPY	SPDR S&P 500 ETF Trust	(\$6.66B)	(\$10.83B)	(\$13.43B)	\$1.43B	\$372.95B
USMV	iShares MSCI USA Min Vol Factor ETF	(\$0.50B)	(\$1.86B)	(\$1.66B)	\$1.41B	\$29.01B
VO	Vanguard Mid-Cap ETF	(\$0.37B)	(\$0.55B)	\$0.29B	\$2.30B	\$50.95B
мтим	iShares MSCI USA Momentum Factor ETF	(\$0.22B)	(\$2.26B)	(\$2.32B)	(\$0.79B)	\$9.64B
IJR	iShares Core S&P Small Cap ETF	(\$0.21B)	\$0.16B	\$1.06B	\$2.65B	\$63.53B
IWM	iShares Russell 2000 ETF	(\$0.19B)	(\$2.16B)	(\$1.41B)	(\$2.34B)	\$48.09B
DIA	SPDR Dow Jones Industrial Average ETF Trust	(\$0.19B)	(\$1.90B)	(\$2.06B)	(\$0.94B)	\$28.07B
IWF	iShares Russell 1000 Growth ETF	(\$0.15B)	(\$0.66B)	(\$2.11B)	\$0.49B	\$63.33B
IWO	iShares Russell 2000 Growth ETF	(\$0.10B)	(\$0.31B)	(\$0.35B)	(\$0.07B)	\$9.15B
SPHB	Invesco S&P 500 High Beta ETF	(\$0.09B)	(\$0.06B)	\$0.09B	(\$0.10B)	\$0.51B

S&P Sector & Industry 1 Day Performance



Select Sector SPDRs Technicals

Ticker	Fund Name	% From 52W High	% From 52W Low	% Abv/Below 50 SMA	% Abv/Below 200 SMA	RSI (14D)
XLP	Consumer Staples Select Sector SPDR Fund	-1.08%	15.28%	3.37%	4.31%	59.61
XLK	Technology Select Sector SPDR Fund	-2.18%	27.19%	2.45%	9.49%	52.13
XLC	Communication Services Select Sector SPDR Fund	-3.92%	28.94%	3.69%	10.27%	53.98
XLI	Industrial Select Sector SPDR Fund	-4.40%	19.64%	-0.54%	2.06%	47.66
XLV	Health Care Select Sector SPDR Fund	-4.74%	11.32%	2.58%	1.76%	54.29
SPY	SPDR S&P 500 ETF Trust	-5.05%	14.43%	1.24%	3.03%	48.95
XLB	Materials Select Sector SPDR Fund	-10.52%	17.13%	-1.22%	0.62%	43.39
XLU	Utilities Select Sector SPDR Fund	-12.86%	10.65%	0.98%	-2.30%	45.88
XLF	Financial Select Sector SPDR Fund	-13.62%	5.51%	-2.89%	-5.75%	40.60
XLY	Consumer Discretionary Select Sector SPDR Fund	-15.94%	15.15%	0.55%	-0.61%	48.55
XLE	Energy Select Sector SPDR Fund	-16.04%	17.04%	-5.36%	-6.12%	33.60
XLRE	Real Estate Select Sector SPDR Fund	-20.14%	8.17%	-1.37%	-5.45%	44.49

Sector & Industry 1 Day Performance Leaders

Ticker	Fund	
XBI	SPDR S&P BIOTECH ETF	4.36%
XHE	SPDR S&P Health Care Equipment ETF	1.89%
PTH	Invesco DWA Healthcare Momentum ETF	1.42%
PSCH	Invesco S&P SmallCap Health Care ETF	1.01%
ITB	iShares U.S. Home Construction ETF	0.91%
XTN	SPDR S&P Transportation ETF	0.88%
XPH	SPDR S&P Pharmaceuticals ETF	0.69%
IBB	iShares Biotechnology ETF	0.67%
KBWY	Invesco KBW Premium Yield Equity REIT ETF	0.66%
XHB	SPDR S&P Homebuilders ETF	0.61%

Sector & Industry 1 Day Performance Laggards

Ticker	Fund	
PXE	Invesco Dynamic Energy Exploration & Production ETF	-2.45%
IEO	iShares U.S. Oil & Gas Exploration & Production ETF	-2.30%
IAT	iShares U.S. Regional Banks ETF	-2.18%
PSCE	Invesco S&P SmallCap Energy ETF	-2.18%
FTXN	First Trust Nasdaq Oil & Gas ETF	-2.17%
PXI	Invesco DWA Energy Momentum ETF	-2.15%
IAI	iShares U.S. Broker-Dealers & Securities Exchanges ETF	-1.99%
FENY	Fidelity MSCI Energy Index ETF	-1.98%
PXJ	Invesco Dynamic Oil & Gas Services ETF	-1.97%
FXN	First Trust Energy AlphaDEX Fund	-1.96%

Sector & Industry Most Overbought

Ticker	Fund	
ITB	iShares U.S. Home Construction ETF	67.60
FTXG	First Trust Nasdaq Food & Beverage ETF	66.99
XHB	SPDR S&P Homebuilders ETF	63.24
IYK	iShares U.S. Consumer Staples ETF	62.79
FXG	First Trust Consumer Staples AlphaDEX Fund	61.73
РКВ	Invesco Dynamic Building & Construction ETF	61.66
RHS	Invesco S&P 500 Equal Weight Consumer Staples ETF	61.54
PSL	Invesco DWA Consumer Staples Momentum ETF	61.00
VDC	Vanguard Consumer Staples ETF	60.90
FSTA	FIDELITY COVINGTON TRUST MSCI CONSUMER STAPLES	60.66

Sector & Industry Most Oversold

Ticker	Fund	
QABA	First Trust NASDAQ ABA Community Bank Index Fund	26.59
IGN	iShares North American Tech-Multimedia Networking ETF	29.53
KRE	SPDR S&P Regional Banking ETF	30.18
KBWB	Invesco KBW Bank ETF	30.61
PXJ	Invesco Dynamic Oil & Gas Services ETF	31.29
IAT	iShares U.S. Regional Banks ETF	31.35
KBE	SPDR S&P Bank ETF	31.76
KBWR	Invesco KBW Regional Banking ETF	31.85
PXI	Invesco DWA Energy Momentum ETF	31.89
XSD	SPDR S&P Semiconductor ETF	32.03

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

6.0%

U.S. Sector Landscape

U.S. Sector & Industry 1-Week Flows

Health Care Equipment & Supplies						\$39M
Transportation						\$23M
Homebuilding						\$21M
MLPs: C-Corp						\$8M
Infrastructure						\$7M
BDCs						\$5M
MLPs: Note						\$4M
Leisure & Recreation						\$2M
Mortgage REITs						\$2M
Banks: Regional						\$2M
Construction & Engineering						\$0M
Media & Entertainment						\$0M
Pharmaceuticals						\$0M
Food & Beverage				(\$	51M)	
Natural Gas				(\$	7M)	
Aerospace & Defense				(\$10	(MC	
Midstream				(\$12	1M)	
Oil & Gas Equipment & Services				(\$1	1M)	
Insurance				(\$13	BM)	
Oil & Gas Exploration & Production				(\$16	5M)	
Banks				(\$241	M)	
Health Care Providers & Services				(\$261	M)	
Metals & Mining				(\$69M)		
Semiconductors				(\$80M)		
Retail				(\$85M)		
Software			(\$178M))		
Biotech	(\$32	22M)				
	-40	ОМ	-20	OM	01	N
		:	1 Week (Ci	ustom SQL	Query	22)

	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Communication Services	7	\$15B	\$126M	\$1,213M	\$1,115M	\$970M
Consumer Discretionary	12	\$22B	(\$15M)	\$728M	\$220M	(\$1,432M)
Consumer Staples	10	\$32B	\$452M	\$1,399M	\$2,430M	\$3,754M
Energy	32	\$69B	(\$282M)	(\$5,273M)	(\$7,086M)	(\$9,780M)
Financials	26	\$54B	(\$300M)	\$1,023M	\$880M	(\$6,227M)
Health Care	23	\$92B	\$228M	(\$2,680M)	(\$2,513M)	\$1,690M
Industrial	13	\$31B	\$265M	\$270M	\$1,442M	(\$1,232M)
Materials	9	\$14B	(\$134M)	(\$305M)	\$605M	(\$3,121M)
Multi-Sector	19	\$14B	\$0M	\$169M	(\$262M)	(\$1,947M)
Real Estate	25	\$55B	(\$6M)	(\$2,600M)	(\$2,697M)	(\$6,233M)
Technology	23	\$130B	(\$89M)	(\$270M)	(\$529M)	\$134M
Utilities	9	\$25B	\$130M	\$114M	\$91M	\$1,883M

U.S. Sector Landscape

U.S. Sector & Industry Flow Leaders

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
XLV	Health Care Select Sector SPDR Fund	\$543M	(\$290M)	(\$98M)	\$2,803M	\$40,427M
XLP	Consumer Staples Select Sector SPDR Fund	\$405M	\$1,124M	\$1,673M	\$2,156M	\$18,955M
XLI	Industrial Select Sector SPDR Fund	\$264M	(\$567M)	(\$401M)	(\$1,751M)	\$13,214M
XLU	Utilities Select Sector SPDR Fund	\$131M	\$454M	\$374M	\$1,407M	\$16,116M
FTEC	Fidelity MSCI Information Technology Index ETF	\$79M	\$129M	\$159M	\$56M	\$6,049M
FCOM	Fidelity MSCI Communication Services Index ETF	\$70M	\$122M	\$90M	(\$38M)	\$658M
XLC	Communication Services Select Sector SPDR Fu	\$69M	\$1,128M	\$1,112M	\$1,279M	\$11,145M
XLK	Technology Select Sector SPDR Fund	\$67M	(\$1,663M)	(\$1,946M)	(\$1,762M)	\$42,953M
XLY	Consumer Discretionary Select Sector SPDR Fu	\$59M	\$0M	(\$417M)	(\$1,151M)	\$14,360M
ITB	iShares U.S. Home Construction ETF	\$56M	\$21M	\$174M	(\$16M)	\$1,801M

U.S. Sector & Industry Flow Laggards

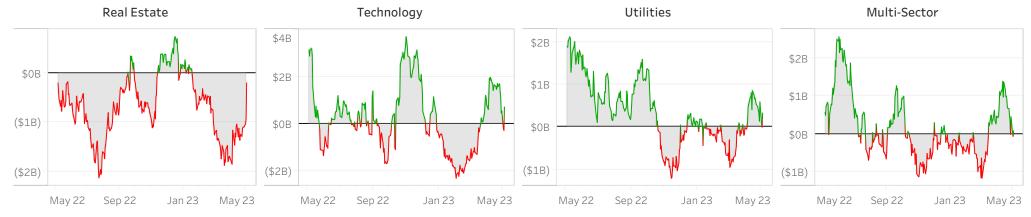
Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
XLE	Energy Select Sector SPDR Fund	(\$231M)	(\$1,491M)	(\$2,263M)	(\$2,622M)	\$36,104M
XBI	SPDR S&P BIOTECH ETF	(\$230M)	(\$1,473M)	(\$1,050M)	(\$93M)	\$6,185M
XLF	Financial Select Sector SPDR Fund	(\$229M)	\$422M	\$1,454M	(\$2,538M)	\$31,029M
IGV	iShares Expanded Tech-Software Sector ETF	(\$178M)	(\$207M)	(\$314M)	\$642M	\$5,016M
XRT	SPDR S&P Retail ETF	(\$85M)	(\$41M)	(\$81M)	(\$137M)	\$283M
IBB	iShares Biotechnology ETF	(\$85M)	(\$525M)	(\$560M)	(\$452M)	\$7,842M
XME	SPDR S&P Metals & Mining ETF	(\$69M)	(\$261M)	\$135M	(\$745M)	\$1,902M
XSD	SPDR S&P Semiconductor ETF	(\$63M)	\$214M	\$286M	\$246M	\$1,343M
XLRE	Real Estate Select Sector SPDR Fund	(\$36M)	(\$466M)	(\$435M)	(\$208M)	\$4,402M
ХНВ	SPDR S&P Homebuilders ETF	(\$35M)	(\$110M)	(\$72M)	(\$437M)	\$897M



U.S. Sector Rolling 30-Day Flows

May 3, 2023







Global Thematic Performance

May 3, 2023

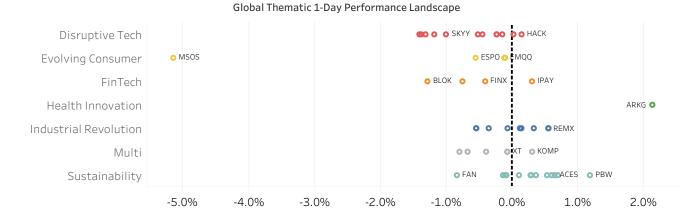
Global Thematic Segment 1-Day Performance

4.23%

2.12%

1.18%

Biotech		
Genomics (ARKG)		2.2
Clean Energy (PBW)		1.189
Space (UFO)		0.82%
Robotics & AI (ROBO)		0.55%
Advanced Materials (REMX)		0.54%
3D Printing (PRNT)		0.48%
Digital Payments (IPAY)		0.30%
Water (PHO)		0.28%
Cyber Security (HACK)		0.14%
Smart Infrastructure (GRID)	-0.09%	ĺ.
Clean Energy: Solar (TAN)	-0.15%	
Evolving Consumer (SOCL)	-0.21%	
Digital Infrastructure (SRVR)	-0.24%	
Online Retail (IBUY)	-0.25%	
Big Data (AIQ)	-0.34%	
NextGen Transportation (DRIV)	-0.36%	
Multi-Theme (ARKK)	-0.40%	
FinTech (FINX)	-0.41%	
Casinos & Gaming (BETZ)	-0.47%	
Industrial Revolution (ARKQ)	-0.55%	
eSports & Video Games (ESPO	-0.56%	
Clean Energy: Wind (FAN)	-0.84%	
Cannabis (MJ)	-0.92%	
Cloud Computing (SKYY)	-1.01%	
Connectivity (FIVG)	-1.19%	
Blockchain (BLOK)	-1.29%	
Disruptive Tech (ARKW)	-1.38%	
	0.0	0%



Global Thematic 1-Day Performance Leaders

Ticker	Fund	
SBIO	ALPS Medical Breakthroughs ETF	4.23%
BTEC	Principal Healthcare Innovators ETF	3.39%
GNOM	Global X Genomics & Biotechnology ETF	2.73%
ARKG	ARK Genomic Revolution ETF	2.12%
IDNA	iShares Genomics Immunology and Healthcare ETF	2.11%
HTEC	ROBO Global Healthcare Technology and Innovation ETF	1.64%
PBW	Invesco WilderHill Clean Energy ETF	1.18%
EDOC	Global X Telemedicine & Digital Health ETF Registered	1.04%
PAWZ	ProShares Pet Care ETF	0.78%
PIO	Invesco Global Water ETF	0.69%

Global Thematic 1-Day Performance Laggards

Ticker	Fund	
MSOS	AdvisorShares Pure US Cannabis ETF	-5.15%
MJUS	ETFMG U.S. Alternative Harvest ETF	-3.43%
BITQ	Bitwise Crypto Industry Innovators ETF	-2.23%
вксн	Global X Blockchain ETF	-2.10%
BJK	VanEck Gaming ETF	-1.88%
BLCN	Siren ETF Trust Siren Nasdaq NexGen Economy ETF	-1.84%
CLOU	Global X Cloud Computing ETF	-1.41%
ARKW	ARK Next Generation Internet ETF	-1.38%
WCLD	WisdomTree Cloud Computing Fund	-1.32%
BLOK	Amplify Transformational Data Sharing ETF	-1.29%

Thematic Most Overbought

Ticker	Fund	
SBIO	ALPS Medical Breakthroughs ETF	63.68
AGNG	Global X Aging Population ETF	63.59
BETZ	Roundhill Sports Betting & iGaming ETF	61.36
BTEC	Principal Healthcare Innovators ETF	59.31
GDOC	Goldman Sachs Future Health Care Equity ETF	58.64
PAWZ	ProShares Pet Care ETF	57.20
PIO	Invesco Global Water ETF	56.70
PHO	Invesco Water Resources ETF	55.35
CGW	Invesco S&P Global Water Index ETF	54.76
FIW	First Trust Water ETF	54.31

Thematic Most Oversold

	Ticker	Fund	
6	CIBR	First Trust NASDAQ Cybersecurity ETF	27.01
6	IHAK	iShares Cybersecurity & Tech ETF	28.26
6	BUG	Global X Cybersecurity ETF	29.43
6	НАСК	ETFMG Prime Cyber Security ETFMG Prime Cyber Securit	29.61
6	SNSR	Global X Internet of Things ETF	30.46
6	WCLD	WisdomTree Cloud Computing Fund	30.75
6	CLOU	Global X Cloud Computing ETF	30.96
6	QCLN	First Trust Nasdaq Clean Edge Green Energy Index Fund	30.98
6	ARKW	ARK Next Generation Internet ETF	32.09
%	CTEC	Global X CleanTech ETF	32.14

* 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	
GRID	First Trust Nasdaq Clean Edge Smart GRID Infrastructure Index	\$14M
AIQ	Global X Artificial Intelligence & Technology ETF	\$10M
BUG	Global X Cybersecurity ETF	\$7M
ARKQ	ARK Autonomous Technology & Robotics ETF	\$7M
TARK	AXS 2X Innovation ETF	\$5M
ROBT	First Trust Nasdaq Artificial Intelligence & Robotics ETF	\$4M
KOMP	SPDR S&P Kensho New Economies Composite ETF	\$4M
AGNG	Global X Aging Population ETF	\$3M
IPAY	ETFMG Prime Mobile Payments ETFMG Prime Mobile Payments F	\$2M
MSOS	AdvisorShares Pure US Cannabis ETF	\$1M

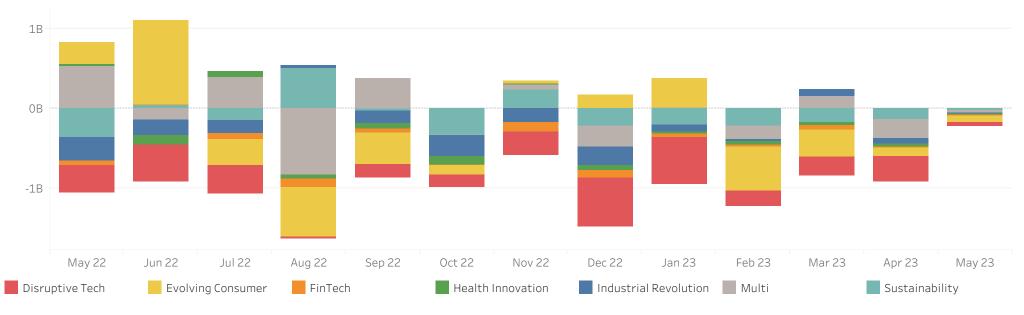
Segment	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Disruptive Tech	34	\$14B	(\$61M)	(\$767M)	(\$2,224M)	(\$3,774M)
Evolving Consumer	44	\$8B	(\$137M)	(\$1,095M)	(\$535M)	(\$660M)
FinTech	18	\$2B	(\$9M)	(\$108M)	(\$328M)	(\$641M)
Health Innovation	18	\$3B	(\$20M)	(\$156M)	(\$201M)	(\$467M)
Industrial Revolution	31	\$10B	(\$17M)	(\$1M)	(\$487M)	(\$1,557M)
Multi	41	\$13B	(\$29M)	(\$340M)	(\$320M)	(\$140M)
Sustainability	40	\$16B	(\$44M)	(\$495M)	(\$704M)	(\$1,028M)
Grand Total	226	\$67B	(\$317M)	(\$2,962M)	(\$4,800M)	(\$8,266M)

Thematic Landscape Assets & Flows

Thematic 1 Week Flow Laggards

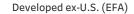
Ticker	Fund	
KWEB	KraneShares CSI China Internet ETF (\$150	DM)
ARKK	ARK Innovation ETF (\$79	θM)
TAN	Invesco Solar ETF (\$40)M) 🛚 🛛
ARKG	ARK Genomic Revolution ETF (\$36	5M)
CIBR	First Trust NASDAQ Cybersecurity ETF (\$21	LM)
PBW	Invesco WilderHill Clean Energy ETF (\$16	5M) S
BOTZ	Global X Robotics & Artificial Intelligence ETF (\$15	5M)
LIT	Global X Lithium & Battery Tech ETF (\$15	5M)
SNSR	Global X Internet of Things ETF (\$14	1M) C
FIVG	Defiance Next Gen Connectivity ETF (\$12	2M)

Thematic Monthly Flows

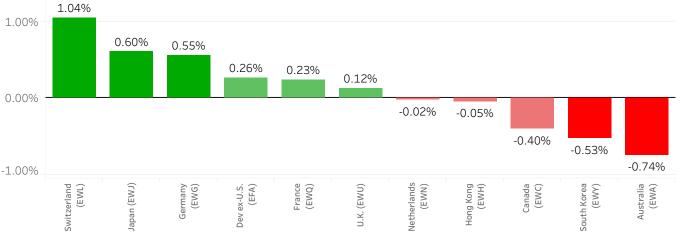




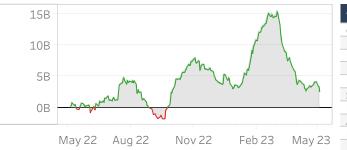
Developed Markets ex-U.S. Performance







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



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

Ticker	Fund	
GREK	Global X MSCI Greece ETF	1.41%
FSZ	First Trust Switzerland AlphaDEX Fund	1.22%
FLSW	Franklin FTSE Switzerland ETF	1.19%
EWL	iShares MSCI Switzerland ETF	1.04%
EWI	iShares MSCI Italy ETF	0.93%
SCJ	iShares MSCI Japan Small-Cap ETF	0.92%
FLJP	Franklin FTSE Japan ETF	0.66%
JPXN	iShares JPX-Nikkei 400 ETF	0.65%
EWJ	iShares MSCI Japan ETF	0.60%
EFAD	ProShares MSCI EAFE Dividend Growers ETF	0.58%

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

Ticker	Fund	
EIRL	iShares MSCI Ireland ETF	-0.91%
EWA	iShares MSCI Australia ETF	-0.74%
DXJ	WisdomTree Japan Hedged Equity Fund	-0.57%
HSCZ	iShares Currency Hedged MSCI EAFE Small-Cap ETF	-0.55%
EWY	iShares MSCI South Korea ETF	-0.53%
BBAX	JPMorgan BetaBuilders Developed Asia Pacific-ex Japan E	-0.51%
HEWJ	iShares Currency Hedged MSCI Japan ETF	-0.51%
IMOM	Alpha Architect International Quantitative Momentum ETF	-0.51%
EPP	iShares MSCI Pacific ex-Japan ETF	-0.48%
DBJP	Xtrackers MSCI Japan Hedged Equity ETF	-0.41%

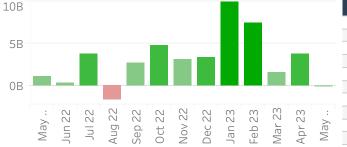
Developed ex-U.S. Most Overbought

Ticker	Fund	
EWL	iShares MSCI Switzerland ETF	73.39
FLSW	Franklin FTSE Switzerland ETF	72.46
EUDG	WisdomTree Europe Quality Dividend Growth Fund	65.61
EFAV	iShares MSCI EAFE Min Vol Factor ETF	65.38
IQDG	WisdomTree International Quality Dividend Growth Fund	63.44
FSZ	First Trust Switzerland AlphaDEX Fund	62.90
QLVD	FlexShares Developed Markets ex-US Quality Low Volatilit	62.49
IMFL	Invesco International Developed Dynamic Multifactor ETF	61.04
BKCI	BNY Mellon Concentrated International ETF	60.72
IHDG	WisdomTree International Hedged Quality Dividend Grow	60.14

Developed ex-U.S. Most Oversold

Ticker	Fund	
AIA	iShares Asia 50 ETF	38.10
MINV	Matthews Asia Innovators Active ETF	38.49
NORW	Global X MSCI Norway ETF	39.75
FYLD	Cambria Foreign Shareholder Yield ETF	39.76
EWA	iShares MSCI Australia ETF	40.67
ISRA	VanEck Israel ETF	40.74
EPP	iShares MSCI Pacific ex-Japan ETF	41.34
IMOM	Alpha Architect International Quantitative Moment	41.42
IVAL	Alpha Architect International Quantitative Value ETF	41.48
AAXJ	iShares MSCI All Country Asia ex Japan ETF	41.93
	AIA MINV NORW FYLD EWA ISRA EPP IMOM IVAL	AIA iShares Asia 50 ETF MINV Matthews Asia Innovators Active ETF NORW Global X MSCI Norway ETF FYLD Cambria Foreign Shareholder Yield ETF EWA iShares MSCI Australia ETF ISRA VanEck Israel ETF EPP iShares MSCI Pacific ex-Japan ETF IMOM Alpha Architect International Quantitative Moment IVAL Alpha Architect International Quantitative Value ETF

Developed ex-U.S. Monthly Flows



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

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

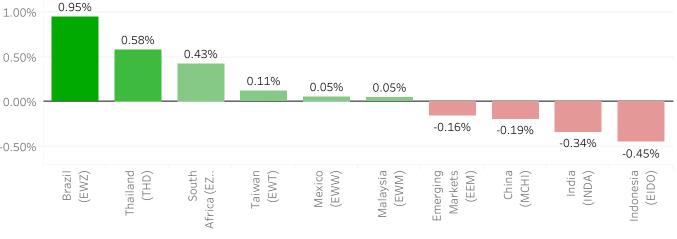


Emerging Markets Performance

May 3, 2023

Emerging (EEM)





Emerging 1-Day Performance Top 10 Countries

Emerging 30-Day Rolling Flows



Emerging Monthly Flows

Nov 22 Dec 22 Jan 23 Feb 23 Mar 23 Apr 23 May 23

Sep 22 Oct 22

5B

0B

May 22

Jul 22 Aug 22

Jun 22

Emerging 1-Day Performance Leaders

Ticker	Fund		Ticker	Fund
FLN	First Trust Latin America AlphaDEX Fund	2.21%	QAT	iShares
QAT	iShares MSCI Qatar ETF	2.10%	SMIN	iShares
ECH	iShares MSCI Chile ETF	1.66%	EPI	Wisdom
FLBR	Franklin FTSE Brazil ETF	1.01%	GLIN	VanEck
EWZ	iShares MSCI Brazil ETF	0.95%	EPOL	iShares
EWZS	iShares MSCI Brazil Small-Cap ETF	0.59%	INDA	iShares
THD	iShares MSCI Thailand ETF	0.58%	FLIN	Franklir
XCEM	Columbia EM Core ex-China ETF	0.56%	INDY	iShares
FLLA	Franklin FTSE Latin America ETF	0.46%	PIN	Invesco
ILF	iShares Latin America 40 ETF	0.46%	NFTY	First Tr

Emerging 1-Day Performance Laggards

Ticker	Fund		Tic
ECNS	iShares MSCI China Small-Cap ETF	-1.03%	TUI
EPU	iShares MSCI Peru and Global Exposure ETF	-0.94%	EC
KSA	iShares MSCI Saudi Arabia ETF	-0.84%	PG.
NFTY	First Trust India NIFTY 50 Equal Weight ETF	-0.82%	FEN
TUR	iShares MSCI Turkey ETF	-0.56%	CXS
HEEM	iShares Currency Hedged MSCI Emerging Markets ETF	-0.52%	FLC
DBEM	Xtrackers MSCI Emerging Markets Hedged Equity ETF	-0.47%	MC
FXI	iShares China Large-Cap ETF	-0.47%	RA
EIDO	iShares MSCI Indonesia ETF	-0.45%	GX
FLCH	Franklin FTSE China ETF	-0.43%	FXI

Franklin FTSE India ETF

Emerging Most Overbought

iShares MSCI Qatar ETF

iShares MSCI Poland ETF

iShares MSCI India ETF

iShares MSCI India Small Cap ETF

WisdomTree India Earnings Fund

VanEck India Growth Leaders ETF

INDYiShares India 50 ETF63.67PINInvesco India ETF63.27NFTYFirst Trust India NIFTY 50 Equal Weight ETF61.50

Emerging Most Oversold

Ticker	Fund	
TUR	iShares MSCI Turkey ETF	26.04
ECNS	iShares MSCI China Small-Cap ETF	32.95
PGJ	Invesco Golden Dragon China ETF	34.91
FEMS	First Trust Emerging Markets Small Cap AlphaDEX F	37.29
CXSE	WisdomTree China ex-State-Owned Enterprises Fund	37.34
FLCH	Franklin FTSE China ETF	38.16
MCHI	iShares MSCI China ETF	38.70
RAYC	Rayliant Quantamental China Equity ETF	39.19
GXC	SPDR S&P China ETF	39.25
FXI	iShares China Large-Cap ETF	39.79

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

72.78

68.39

67.39 67.14

66.03

65.91

65.59



Fixed Income, Commodities & Currencies

Currencies (UUP)

Oct 22

M

Jan 23

Apr 23

30

29

28

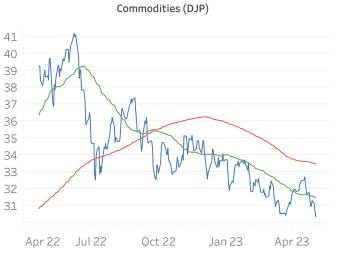
27

26

Apr 22 Jul 22

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	0.44%	0.52%	4.22%	DJP	Broad Commodities	-0.98%	-5.04%	-10.03%					
100	0.5.7.ggregate				DBE	Energy	-3.52%	-12.48%	-18.12%	UUP	Long Dollar	-0.54%	-0.29%	-0.50%
SHY	1-3 Year Treasury Bonds	0.24%	0.48%	2.22%	USO	WTI Crude Oil	-4.35%	-14.17%	-13.98%					
					BNO	Brent Crude Oil	-4.43%	-14.69%	-14.60%			0.58%		
IEF	7-10 Year Treasury Bonds	0.65%	1.11%	5.57%	UNG	Natural Gas	-2.77%	-5.96%	-55.25%	UDN	Short Dollar		0.90%	2.97%
		0.500	0.000	7.050/	UGA	Gasoline	-5.41%	-14.97%	-11.03%					
TLT	20+ Year Treasury Bonds	0.56%	-0.03%	7.85%	DBP	Precious Metals	0.72%	3.37%	10.13%					
TIP	TIPS Bonds	0.46%	0.26%	4.03%	GLD	Gold	0.85%	2.48%	11.48%	FXE	Euro	0.45%	1.48%	3.61%
	TIPS BOILUS	0.4070	0.2070	4.0370	SLV	Silver	0.34%	6.21%	6.40%					
FLOT	Floating Rate Bonds	0.22%	0.80%	1.98%	PPLT	abrdn Physical Platin	-1.51%	5.73%	-2.26%					
					PALL	abrdn Physical Palla	-0.63%	-2.42%	-20.24%	FXB	British Pound Sterling	0.64%	1.27%	4.78%
LQD	Investment Grade Corporate	0.16%	-0.26%	5.01%	DBB	Base Metals	-0.37%	-5.39%	-2.62%	1 AB				
					CPER	Copper	-0.55%	-4.80%	2.12%			0.77%	3.06%	4.27%
HYG	High Yield Corporate	-0.05%	-0.33%	3.31%	LD	Lead	-2.05%	0.84%	-7.48%	FXF	Swiss Franc			
DIGN		-0.14%	0.79%	4.19%	ЛЛИ	Nickel	-0.74%	7.78%	-17.24%	FAF	SWISS FIGIL			
BKLN	Senior Loan	-0.14%	0.79%	4.19%	JJU	Aluminum	-1.48%	-2.80%	-3.85%					
PFF	Preferred & Income Securities	-1.57%	-3.18%	0.53%	JJT	Tin	0.43%	3.39%	7.35%			1.17%	-2.00%	2.0.494
FFF	Freiened & moome Securities				DBA	Agriculture	0.29%	0.73%	2.23%	FXY	Japanese Yen			-3.04%
MUB	Municipal Bonds	0.20%	-0.02%	2.62%	CORN	Corn	1.86%	-7.04%	-12.77%					
	·				SOYB	Soybeans	0.38%	-3.39%	-6.98%					
MBB	MBS	0.65%	0.70%	3.85%	WEAT	Wheat	4.72%	-9.68%	-19.30%	FXC	Canadian Dollar	0.00%	-1.38%	-0.03%
		0.220/	0.200	2.020/	CANE	Sugar	-0.38%	14.41%	39.14%					
EMB	Dollar Denominated EM Bonds	0.32%	-0.36%	2.83%	BAL	Cotton	-2.26%	-3.98%	-4.69%					
LEMB	Local Currency EM Bond	0.43%	0.55%	4.62%	NIB	Сосоа	-0.85%	3.76%	15.19%	FXA	Australian Dollar	0.11%	-1.69%	-1.77%
LEIVIB	Local Currency EM Bond	0.4370	0.55%	4.0270	JO	Coffee	-0.77%	6.17%	13.10%					

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