

U.S. Size & Style Performance

Large Value (IVE) Large Cap (IVV)

Large Growth

Small Cap (IJR) Small Growth (IJT)

Large Cap Blend (S&P 500) IVV



(IVW) 0.86% 0.9% 0.79% 0.75% 0.8% 0.71% 0.7% 0.60% 0.56% 0.55% 0.6% 0.52% 0.5% 0.44% 0.4% 0.3% 0.2% 0.1%

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	
IPO	Renaissance IPO ETF	2.28%
FFTY	Innovator IBD 50 ETF	1.87%
AIEQ	AI Powered Equity ETF	1.68%
SPHD	Invesco S&P 500 High Dividend Low Volatility ETF	1.57%
RDIV	Invesco S&P Ultra Dividend Revenue ETF	1.55%
DJD	Invesco Dow Jones Industrial Average Dividend ETF	1.48%
FYC	First Trust Small Cap Growth AlphaDEX Fund	1.46%
FPX	First Trust US Equity Opportunities ETF	1.45%
WBIY	WBI Power Factor High Dividend ETF	1.39%
VFMO	Vanguard U.S. Momentum Factor ETF	1.38%

Size & Style 1-Day Performance Laggards

Ticker	Fund	
CWS	AdvisorShares Focused Equity ETF	-0.59%
SVAL	iShares US Small Cap Value Factor ETF	-0.39%
QARP	Xtrackers Russell 1000 US Quality at a Reasonable Price	-0.27%
MOAT	VanEck Morningstar Wide Moat ETF	-0.11%
OSCV	Opus Small Cap Value ETF	-0.10%
SPC	CrossingBridge Pre-Merger SPAC ETF	-0.02%
CSF	VictoryShares US Discovery Enhanced Volatility Wtd ETF	0.02%
QVAL	Alpha Architect US Quantitative Value ETF	0.03%
LSAT	Leadershares Alphafactor Tactical Focused ETF	0.05%
COWZ	Pacer US Cash Cows 100 ETF	0.10%

200 Day Moving Average

Size & Style Most Overbought

Mid Growth (IJK) Small Value (IJS)

	Ticker	Fund	
5	SPC	CrossingBridge Pre-Merger SPAC ETF	58.68
Ś	IPO	Renaissance IPO ETF	47.57
<u>.</u>	JEPQ	J.P. Morgan Nasdaq Equity Premium Income ETF	46.21
ó	SPMO	Invesco S&P 500 Momentum ETF	46.17
5	PTNQ	Pacer Trendpilot 100 ETF	45.70
5	MTUM	iShares MSCI USA Momentum Factor ETF	45.54
5	WINN	Harbor Long-Term Growers ETF	45.36
ó	IWY	iShares Russell Top 200 Growth ETF	45.25
ó	MGK	Vanguard Mega Cap Growth ETF	44.82
ó	QQQM	Invesco NASDAQ 100 ETF	44.63

Size & Style Most Oversold

	Ticker	Fund	
%	CWS	AdvisorShares Focused Equity ETF	31.18
%	NUSC	Nuveen ESG Small-Cap ETF	31.90
%	RPV	Invesco S&P 500 Pure Value ETF	32.02
%	IWC	iShares Micro-Cap ETF	32.04
%	SMDV	ProShares Russell 2000 Dividend Growers ETF	32.23
%	CZA	Invesco Zacks Mid-Cap ETF	32.37
%	VSDA	VictoryShares Dividend Accelerator ETF	32.37
%	SMLV	SPDR SSGA US Small Cap Low Volatility Index ETF	32.38
%	AIVL	WisdomTree U.S. AI Enhanced Value Fund	32.45
%	NUMV	Nuveen ESG Mid-Cap Value ETF	32.47

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

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	\$1,405B	\$5.97B	\$29.20B	\$73.98B	\$70.20B
Large Cap, Beta, Beta: Growth	10	\$274B	\$0.20B	\$6.54B	\$7.83B	\$17.21B
Large Cap, Beta, Beta: Value	11	\$209B	\$0.24B	\$1.16B	(\$2.50B)	(\$6.07B)
Mid Cap, Beta, Beta	10	\$179B	(\$0.59B)	\$4.32B	\$5.34B	\$10.43B
Mid Cap, Beta, Beta: Growth	6	\$33B	(\$0.05B)	(\$0.26B)	\$0.54B	\$0.23B
Mid Cap, Beta, Beta: Value	6	\$35B	(\$0.12B)	(\$0.68B)	(\$1.72B)	(\$2.03B)
Small Cap, Beta, Beta	11	\$180B	(\$0.51B)	\$0.72B	\$5.16B	\$8.21B
Small Cap, Beta, Beta: Growth	7	\$30B	\$0.04B	\$0.09B	\$0.29B	\$0.68B
Small Cap, Beta, Beta: Value	7	\$44B	(\$0.05B)	(\$0.83B)	(\$1.30B)	(\$0.69B)

U.S. Size & Style Landscape Flows

U.S. Size & Style Flow Leaders

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
IVV	iShares Core S&P 500 ETF	\$2.76B	\$17.54B	\$28.70B	\$24.61B	\$342.26B
OEF	iShares S&P 100 ETF	\$2.03B	\$2.42B	\$2.40B	\$1.75B	\$10.39B
SPY	SPDR S&P 500 ETF Trust	\$1.58B	(\$4.25B)	\$0.79B	(\$8.05B)	\$390.40B
VTI	Vanguard Total Stock Market ETF	\$0.32B	\$5.68B	\$11.89B	\$19.62B	\$299.11B
MDY	SPDR S&P Midcap 400 ETF Trust	\$0.24B	\$0.02B	(\$0.45B)	(\$0.11B)	\$17.46B
QUAL	iShares MSCI USA Quality Factor ETF	\$0.23B	\$1.20B	\$1.29B	\$9.47B	\$30.95B
CALF	Pacer US Small Cap Cash Cows 100 ETF	\$0.19B	\$1.17B	\$1.68B	\$2.60B	\$3.79B
SPLG	SPDR Portfolio S&P 500 ETF	\$0.18B	\$1.26B	\$2.43B	\$3.96B	\$19.44B
XMHQ	Invesco S&P MidCap Quality ETF	\$0.16B	\$0.60B	\$1.03B	\$1.26B	\$1.61B
cowz	Pacer US Cash Cows 100 ETF	\$0.15B	\$1.97B	\$1.71B	\$6.59B	\$15.31B

U.S. Size & Style Flow Laggards

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
USMV	iShares MSCI USA Min Vol Factor ETF	(\$1.13B)	(\$1.13B)	(\$2.08B)	(\$2.81B)	\$26.40B
IJH	iShares Core S&P Mid-Cap ETF	(\$0.83B)	\$2.99B	\$3.67B	\$6.72B	\$66.26B
IWM	iShares Russell 2000 ETF	(\$0.66B)	(\$1.36B)	(\$0.64B)	(\$2.30B)	\$46.48B
DIA	SPDR Dow Jones Industrial Average ETF Trust	(\$0.43B)	(\$1.97B)	(\$0.72B)	(\$1.46B)	\$27.00B
V00	Vanguard S&P 500 ETF	(\$0.42B)	\$8.88B	\$24.92B	\$33.00B	\$319.82B
IWB	iShares Russell 1000 ETF	(\$0.37B)	(\$0.62B)	(\$0.49B)	(\$1.33B)	\$28.65B
DFAC	Dimensional U.S. Core Equity 2 ETF	(\$0.17B)	\$0.70B	\$1.94B	\$4.54B	\$20.50B
SDY	SPDR S&P Dividend ETF	(\$0.11B)	(\$0.84B)	(\$1.44B)	(\$1.34B)	\$19.03B
IUSG	iShares Core S&P U.S. Growth ETF	(\$0.10B)	\$0.27B	\$0.23B	\$0.96B	\$13.20B
MDYV	SPDR S&P 400 Mid Cap Value ETF	(\$0.08B)	(\$0.03B)	\$0.03B	(\$0.08B)	\$1.97B

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

S&P Sector & Industry 1 Day Performance

2.57%

2.49%

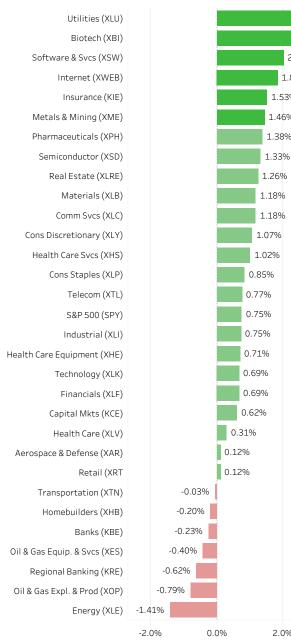
2.03%

1.85%

1.53%

1.46%

1.38%



Ticker	Fund Name	% From 52W High	% From 52W Low	% Abv/Below 50 SMA	% Abv/Below 200 SMA	RSI (14D)
XLC	Communication Services Select Sector SPDR Fund	-1.67%	47.21%	1.41%	9.55%	54.26
XLE	Energy Select Sector SPDR Fund	-6.94%	14.31%	-2.27%	3.01%	43.05
SPY	SPDR S&P 500 ETF Trust	-7.46%	13.23%	-3.03%	-0.02%	39.68
XLK	Technology Select Sector SPDR Fund	-8.32%	36.62%	-2.00%	4.38%	43.89
XLV	Health Care Select Sector SPDR Fund	-8.89%	2.82%	-2.77%	-2.83%	38.15
XLI	Industrial Select Sector SPDR Fund	-10.63%	3.56%	-4.69%	-3.68%	37.46
XLB	Materials Select Sector SPDR Fund	-12.11%	1.18%	-5.56%	-6.51%	36.26
XLP	Consumer Staples Select Sector SPDR Fund	-12.63%	2.25%	-3.55%	-7.51%	43.49
XLF	Financial Select Sector SPDR Fund	-12.92%	4.00%	-4.51%	-4.64%	35.32
XLY	Consumer Discretionary Select Sector SPDR Fund	-13.27%	21.57%	-6.38%	-2.07%	35.90
XLU	Utilities Select Sector SPDR Fund	-18.78%	5.04%	-3.81%	-9.99%	46.44
XLRE	Real Estate Select Sector SPDR Fund	-21.40%	1.26%	-6.68%	-11.28%	36.43

Select Sector SPDRs Technicals

Sector & Industry 1 Day Performance Leaders

Ticker	Fund	
PTH	Invesco Dorsey Wright Healthcare Momentum ETF	3.60%
XLU	Utilities Select Sector SPDR Fund	2.57%
XBI	SPDR S&P BIOTECH ETF	2.49%
VPU	Vanguard Utilities ETF	2.45%
FUTY	Fidelity MSCI Utilities Index ETF	2.41%
RSPU	Invesco S&P 500 Equal Weight Utilities ETF	2.31%
IDU	iShares U.S. Utilities ETF	2.26%
IYZ	iShares U.S. Telecommunications ETF	2.25%
XSW	SPDR S&P Software & Services ETF	2.03%
FXU	First Trust Utilities AlphaDEX Fund	1.90%

Sector & Industry 1 Day Performance Laggards

Ticker	Fund	
XLE	Energy Select Sector SPDR Fund	-1.41%
IYE	iShares U.S. Energy ETF	-1.31%
FENY	Fidelity MSCI Energy Index ETF	-1.31%
VDE	Vanguard Energy ETF	-1.23%
IEZ	iShares U.S. Oil Equipment & Services ETF	-1.15%
RSPG	Invesco S&P 500 Equal Weight Energy ETF	-1.13%
QABA	First Trust NASDAQ ABA Community Bank Index Fund	-1.03%
IEO	iShares U.S. Oil & Gas Exploration & Production ETF	-1.03%
FTXN	First Trust Nasdaq Oil & Gas ETF	-0.95%
ХОР	SPDR S&P Oil & Gas Exploration & Production ETF	-0.79%

Sector & Industry Most Overbought

Ticker	Fund	
MLPA	Global X MLP ETF	56.46
AMLP	Alerian MLP ETF	56.16
XLC	Communication Services Select Sector SPDR Fund	54.26
KBWP	Invesco KBW Property & Casualty Insurance ETF	52.99
VOX	Vanguard Communication Services ETF	52.71
FCOM	Fidelity MSCI Communication Services Index ETF	52.67
FCG	First Trust Natural Gas ETF	51.18
PXE	Invesco Energy Exploration & Production ETF	50.50
PXJ	Invesco Oil & Gas Services ETF	49.84
IAK	iShares U.S. Insurance ETF	49.67

Sector & Industry Most Oversold

Ticker	Fund	
KBWD	Invesco KBW High Dividend Yield Financial ETF	23.64
REM	iShares Mortgage Real Estate ETF	26.62
INDS	Pacer Industrial Real Estate ETF	27.05
MORT	VanEck Mortgage REIT Income ETF	27.17
XPH	SPDR S&P Pharmaceuticals ETF	27.30
FBT	First Trust NYSE Arca Biotechnology Index Fund	30.34
XHE	SPDR S&P Health Care Equipment ETF	30.55
RSPH	Invesco S&P 500 Equal Weight Health Care ETF	30.58
KBWB	Invesco KBW Bank ETF	31.12
IAI	iShares U.S. Broker-Dealers & Securities Exchanges ETF	31.65
	KBWD REM INDS MORT XPH FBT XHE RSPH KBWB	KBWD Invesco KBW High Dividend Yield Financial ETF REM iShares Mortgage Real Estate ETF INDS Pacer Industrial Real Estate ETF MORT VanEck Mortgage REIT Income ETF XPH SPDR S&P Pharmaceuticals ETF FBT First Trust NYSE Arca Biotechnology Index Fund XHE SPDR S&P Health Care Equipment ETF RSPH Invesco S&P 500 Equal Weight Health Care ETF KBWB Invesco KBW Bank ETF

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2.0%

U.S. Sector Landscape

U.S. Sector & Industry 1-Week Flows

\$202M \$160M

Oil & Gas Exploration & Production				\$2
Semiconductors			\$	1601
Aerospace & Defense			\$118	3M
Biotech			\$101	М
Homebuilding			\$38M	
Oil & Gas Equipment & Services			\$34M	
Infrastructure			\$33M	
Insurance			\$19M	
MLPs: C-Corp			\$10M	
BDCs			\$5M	
Media & Entertainment			\$0M	
Natural Gas			\$0M	
Pharmaceuticals			\$0M	
Construction & Engineering		(\$1M)	ſ	
Food & Beverage		(\$3M)		
Leisure & Recreation		(\$3M)		
Health Care Providers & Services		(\$5M)		
Mortgage REITs		(\$8M)		
MLPs: Note		(\$17M)		
Banks		(\$25M)		
Metals & Mining		(\$31M)		
Health Care Equipment & Supplies		(\$53M)		
Transportation		(\$59M)		
Midstream		(\$68M)		
Retail	(\$11	.5M)		
Banks: Regional	(\$188M)			
Software	(\$236M)			
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	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Communication Services	7	\$19B	\$129M	\$120M	\$1,795M	\$3,061M
Consumer Discretionary	12	\$24B	(\$129M)	\$384M	\$1,446M	\$1,822M
Consumer Staples	10	\$26B	(\$242M)	(\$2,058M)	(\$2,212M)	\$412M
Energy	31	\$76B	\$937M	\$3,896M	(\$477M)	(\$6,518M)
Financials	26	\$50B	(\$964M)	(\$5,990M)	(\$3,923M)	(\$2,107M)
Health Care	23	\$81B	(\$422M)	(\$3,117M)	(\$3,874M)	(\$5,116M)
Industrial	13	\$32B	\$4M	(\$500M)	\$1,083M	\$3,003M
Materials	9	\$11B	(\$120M)	(\$1,270M)	(\$2,229M)	(\$1,610M)
Multi-Sector	18	\$17B	(\$53M)	(\$463M)	\$2,262M	\$2,177M
Real Estate	25	\$48B	\$138M	(\$324M)	(\$10M)	(\$2,567M)
Technology	23	\$144B	\$797M	\$2,327M	\$1,542M	\$1,139N
Utilities	9	\$20B	(\$100M)	(\$1,220M)	(\$1,082M)	(\$1,294M)

U.S. Sector Landscape

U.S. Sector & Industry Flow Leaders

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
XLE	Energy Select Sector SPDR Fund	\$734M	\$3,074M	(\$154M)	(\$1,859M)	\$39,807M
IYW	iShares U.S. Technology ETF	\$703M	\$655M	(\$482M)	\$374M	\$11,554M
XOP	SPDR S&P Oil & Gas Exploration & Production E	\$211M	(\$172M)	(\$129M)	(\$1,045M)	\$3,824M
IYR	iShares U.S. Real Estate ETF	\$168M	(\$204M)	\$34M	(\$446M)	\$2,522M
SOXX	iShares Semiconductor ETF	\$165M	\$603M	\$213M	\$537M	\$8,299M
XLK	Technology Select Sector SPDR Fund	\$155M	\$181M	\$450M	(\$1,504M)	\$47,606M
XLC	Communication Services Select Sector SPDR Fu	\$87M	(\$33M)	\$1,365M	\$2,559M	\$13,997M
XBI	SPDR S&P BIOTECH ETF	\$86M	(\$259M)	(\$378M)	(\$1,072M)	\$4,852M
XHB	SPDR S&P Homebuilders ETF	\$71M	(\$214M)	\$138M	\$102M	\$1,101M
PPA	Invesco Aerospace & Defense ETF	\$50M	\$184M	\$198M	\$411M	\$2,059M

U.S. Sector & Industry Flow Laggards

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUN
XLF	Financial Select Sector SPDR Fund	(\$444M)	(\$3,813M)	(\$2,065M)	\$167M	\$28,893N
/FH	Vanguard Financials ETF	(\$301M)	(\$656M)	(\$126M)	(\$718M)	\$7,441N
XLV	Health Care Select Sector SPDR Fund	(\$290M)	(\$1,273M)	(\$1,001M)	(\$927M)	\$37,123N
IGV	iShares Expanded Tech-Software Sector ETF	(\$236M)	(\$832M)	(\$518M)	(\$880M)	\$5,522N
XLP	Consumer Staples Select Sector SPDR Fund	(\$206M)	(\$381M)	(\$569M)	\$1,285M	\$15,623N
<re< td=""><td>SPDR S&P Regional Banking ETF</td><td>(\$182M)</td><td>(\$881M)</td><td>(\$613M)</td><td>(\$167M)</td><td>\$2,192N</td></re<>	SPDR S&P Regional Banking ETF	(\$182M)	(\$881M)	(\$613M)	(\$167M)	\$2,192N
YH	iShares U.S. Healthcare ETF	(\$121M)	(\$92M)	(\$161M)	(\$147M)	\$2,927N
FUTY	Fidelity MSCI Utilities Index ETF	(\$117M)	(\$363M)	(\$488M)	(\$459M)	\$1,286N
FDN	First Trust Dow Jones Internet Index Fund	(\$117M)	(\$295M)	\$1,002M	\$570M	\$5,196N
XRT	SPDR S&P Retail ETF	(\$115M)	(\$86M)	(\$34M)	(\$82M)	\$278N

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U.S. Sector Rolling 30-Day Flows

October 24, 2023



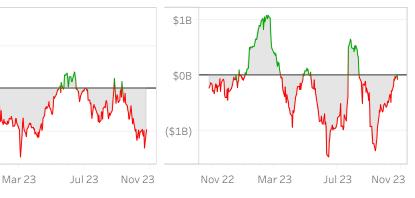








Materials





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Global Thematic Performance

October 24, 2023



Global Thematic 1-Day Performance Landscape

Global Thematic 1-Day Performance Leaders

Ticker	Fund	
вксн	Global X Blockchain ETF	8.63%
BITQ	Bitwise Crypto Industry Innovators ETF	7.36%
BLOK	Amplify Transformational Data Sharing ETF	4.94%
KWEB	KraneShares CSI China Internet ETF	4.17%
REMX	VanEck Rare Earth/Strategic Metals ETF	4.16%
MJ	ETFMG Alternative Harvest ETFMG Alternative Harvest	4.05%
ARKW	ARK Next Generation Internet ETF	3.48%
BLCN	Siren ETF Trust Siren Nasdaq NexGen Economy ETF	3.38%
SOCL	Global X Social Media ETF	3.01%
ARKK	ARK Innovation ETF	2.94%

Global Thematic 1-Day Performance Laggards

Ticker	Fund	
MJUS	ETFMG U.S. Alternative Harvest ETF	-1.92%
EVX	VanEck Environmental Services ETF	-0.26%
PHO	Invesco Water Resources ETF	-0.24%
PIO	Invesco Global Water ETF	-0.22%
FIW	First Trust Water ETF	-0.08%
ARKX	ARK Space Exploration & Innovation ETF	0.08%
PRNT	3D Printing ETF	0.16%
SAMT	Strategas Macro Thematic Opportunities ETF	0.18%
MSOS	AdvisorShares Pure US Cannabis ETF	0.31%
KLDW	Knowledge Leaders Developed World ETF	0.38%

Thematic Most Overbought

	Ticker	Fund	
5	BLOK	Amplify Transformational Data Sharing ETF	59.24
>	BKCH	Global X Blockchain ETF	59.06
5	BITQ	Bitwise Crypto Industry Innovators ETF	59.04
5	BLCN	Siren ETF Trust Siren Nasdaq NexGen Economy ETF	51.06
)	ARKW	ARK Next Generation Internet ETF	49.37
5	METV	Roundhill Ball Metaverse ETF	49.32
)	KWEB	KraneShares CSI China Internet ETF	48.35
>	ESPO	VanEck Video Gaming and eSports ETF	47.81
)	HERO	Global X Video Games & Esports ETF	47.26
b	SOCL	Global X Social Media ETF	47.00

Thematic Most Oversold

	Ticker	Fund	
6	EVX	VanEck Environmental Services ETF	25.93
6	IZRL	ARK Israel Innovative Technology ETF	26.62
6	HTEC	ROBO Global Healthcare Technology and Innovation ETF	27.63
6	EDOC	Global X Telemedicine & Digital Health ETF Registered	27.73
6	PBW	Invesco WilderHill Clean Energy ETF	27.80
%	PIO	Invesco Global Water ETF	27.90
%	KLDW	Knowledge Leaders Developed World ETF	28.29
%	IDNA	iShares Genomics Immunology and Healthcare ETF	28.48
%	GRID	First Trust Nasdaq Clean Edge Smart GRID Infrastructure	29.28
%	ROBO	ROBO Global Robotics & Automation Index ETF	29.34

Global Thematic Segment 1-Day Performance

4.94%

4.16%

4.05%

3.48%

3.01%

2.94%

2.89%

2.60%

2.33% 2.27%

1.88%

1.83%

1.60%

1.59%

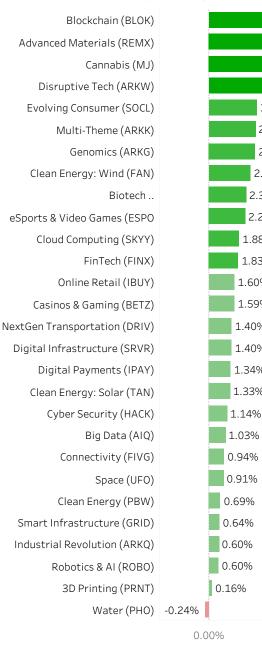
1.40%

1.40%

1.34% 1.33%

5.00%

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Ticker Fund

GRID

ICLN

LIT

ARKK ARK Innovation ETF

 KWEB
 KraneShares CSI China Internet ETF

 SRVR
 Pacer Data & Infrastructure Real Estate ETF

BOTZ Global X Robotics & Artificial Intelligence ETF

Global X Lithium & Battery Tech ETF

EMQQ EMQQ The Emerging Markets Internet & Ecommerce ETF

iShares Global Clean Energy ETF

SKYY First Trust Cloud Computing ETF

ARKW ARK Next Generation Internet ETF

Global Thematic Flows

Thematic 1 Week Flow Leaders

Ticker	Fund	
AIQ	Global X Artificial Intelligence & Technology ETF	\$18M
MSOS	AdvisorShares Pure US Cannabis ETF	\$13M
CIBR	First Trust NASDAQ Cybersecurity ETF	\$12M
PBW	Invesco WilderHill Clean Energy ETF	\$10M
CNCR	Range Cancer Therapeutics ETF	\$3M
WTAI	WisdomTree Artificial Intelligence and Innovation Fund	\$3M
WGMI	Valkyrie Bitcoin Miners ETF	\$2M
ROBT	First Trust Nasdaq Artificial Intelligence & Robotics ETF	\$2M
FMIL	Fidelity New Millennium ETF	\$2M
ВКСН	Global X Blockchain ETF	\$1M

Segment	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Disruptive Tech	33	\$15B	(\$59M)	(\$422M)	(\$509M)	(\$2,732M)
Evolving Consumer	38	\$8B	(\$37M)	\$351M	\$104M	(\$222M)
FinTech	17	\$2B	(\$7M)	(\$196M)	(\$248M)	(\$593M)
Health Innovation	18	\$2B	(\$1M)	(\$109M)	(\$134M)	(\$326M)
Industrial Revolution	30	\$9B	(\$37M)	(\$636M)	\$106M	(\$441M)
Multi	37	\$13B	(\$40M)	(\$657M)	(\$932M)	(\$1,127M)
Sustainability	40	\$12B	(\$53M)	(\$592M)	(\$899M)	(\$1,584M)
Grand Total	213	\$62B	(\$235M)	(\$2,261M)	(\$2,512M)	(\$7,025M)

Thematic Landscape Assets & Flows

Thematic 1 Week Flow Laggards

First Trust Nasdaq Clean Edge Smart GRID Infrastructure Index

(\$90M) (\$45M)

(\$29M) (\$27M)

(\$26M)

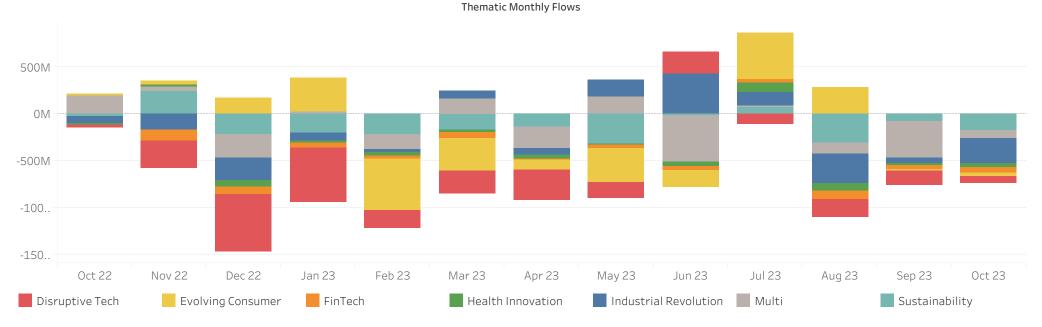
(\$20M)

(\$16M)

(\$16M)

(\$16M)

(\$14M)



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

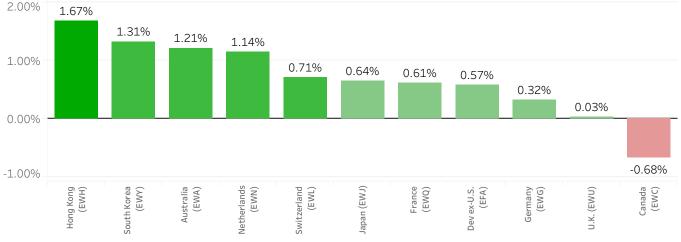


Developed Markets ex-U.S. Performance

October 24, 2023

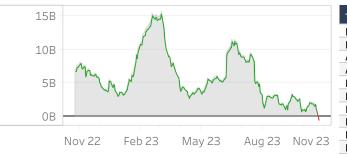
Developed ex-U.S. (EFA)





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

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



Developed ex-U.S. Monthly Flows

Mar 23

Apr 23 May .. Jun 23 Jul 23 Aug 23 Sep 23 Oct 23

10B

5B

0B

Oct 22 Nov 22 Dec 22 Jan 23 Feb 23 Developed ex-U.S. 1-Day Performance Leaders

Ticker	Fund	
MINV	Matthews Asia Innovators Active ETF	1.77%
EWH	iShares MSCI Hong Kong ETF	1.67%
AIA	iShares Asia 50 ETF	1.59%
AAXJ	iShares MSCI All Country Asia ex Japan ETF	1.47%
FLKR	Franklin FTSE South Korea ETF	1.45%
EPP	iShares MSCI Pacific ex-Japan ETF	1.41%
IHDG	WisdomTree International Hedged Quality Dividend Growth	1.39%
EWY	iShares MSCI South Korea ETF	1.31%
EWS	iShares MSCI Singapore ETF	1.31%
DXJS	WisdomTree Japan Hedged SmallCap Equity Fund	1.30%

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

Ticker	Fund	
FLCA	Franklin FTSE Canada ETF	-0.82%
EWC	iShares MSCI Canada ETF	-0.68%
BBCA	JPMorgan BetaBuilders Canada ETF	-0.62%
EWD	iShares MSCI Sweden ETF	-0.29%
EWO	iShares MSCI Austria ETF	-0.20%
EWP	iShares MSCI Spain ETF	-0.19%
FEP	First Trust Europe AlphaDEX Fund	0.00%
FICS	First Trust International Developed Capital Strength ETF	0.00%
EWU	iShares MSCI United Kingdom ETF	0.03%
DFIV	Dimensional International Value ETF	0.06%

Developed ex-U.S. Most Overbought

Ticker	Fund	
GREK	Global X MSCI Greece ETF	54.92
DXJS	WisdomTree Japan Hedged SmallCap Equity Fund	46.68
AIA	iShares Asia 50 ETF	46.27
MINV	Matthews Asia Innovators Active ETF	45.68
EWH	iShares MSCI Hong Kong ETF	44.99
DXJ	WisdomTree Japan Hedged Equity Fund	43.67
DBJP	Xtrackers MSCI Japan Hedged Equity ETF	43.32
EPP	iShares MSCI Pacific ex-Japan ETF	43.30
TTAI	FCF International Quality ETF	43.05
AAXJ	iShares MSCI All Country Asia ex Japan ETF	42.91

Developed ex-U.S. Most Oversold

	Ticker	Fund	
6	EIS	iShares MSCI Israel ETF	20.66
ó	SCZ	iShares MSCI EAFE Small-Cap ETF	30.63
6	IEUS	iShares MSCI Europe Small-Cap ETF	31.77
6	EFAD	ProShares MSCI EAFE Dividend Growers ETF	31.78
6	SCHC	Schwab International Small-Cap Equity ETF	31.79
ó	PDN	Invesco FTSE RAFI Developed Markets ex-US Small	32.26
6	FDD	First Trust Stoxx European Select Dividend Index Fu	32.28
6	FEP	First Trust Europe AlphaDEX Fund	32.44
6	DFIS	Dimensional International Small Cap ETF	32.63
6	RODM	Hartford Multifactor Developed Markets (ex-US) ETF	32.65

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

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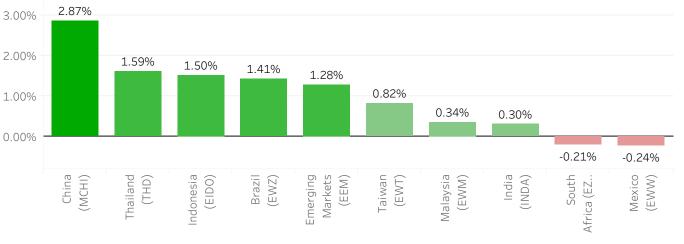


Emerging Markets Performance

October 24, 2023



Emerging (EEM)



Emerging 1-Day Performance Top 10 Countries

Emerging 30-Day Rolling Flows



Emerging Monthly Flows

Apr 23

May 23 Jun 23 Jul 23 Aug 23 Sep 23 Oct 23

5B

0B

0ct 22

Nov 22 Dec 22 Jan 23 Feb 23 Mar 23 Emerging 1-Day Performance Leaders

Ticker	Fund	
PGJ	Invesco Golden Dragon China ETF	3.72%
CXSE	WisdomTree China ex-State-Owned Enterprises Fund	3.36%
FXI	iShares China Large-Cap ETF	3.21%
ECNS	iShares MSCI China Small-Cap ETF	2.92%
мсні	iShares MSCI China ETF	2.87%
TUR	iShares MSCI Turkey ETF	2.84%
GXC	SPDR S&P China ETF	2.73%
FLCH	Franklin FTSE China ETF	2.72%
FEMS	First Trust Emerging Markets Small Cap AlphaDEX Fund	2.16%
EWZS	iShares MSCI Brazil Small-Cap ETF	2.08%

Emerging 1-Day Performance Laggards

Ticker	Fund	_
QAT	iShares MSCI Qatar ETF	-1.45%
NFTY	First Trust India NIFTY 50 Equal Weight ETF	-0.35%
EWW	iShares MSCI Mexico ETF	-0.24%
EZA	iShares MSCI South Africa ETF	-0.21%
EPHE	iShares MSCI Philippines ETF	0.00%
FLIN	Franklin FTSE India ETF	0.06%
PIN	Invesco India ETF	0.13%
INDY	iShares India 50 ETF	0.18%
SMIN	iShares MSCI India Small Cap ETF	0.19%
INDA	iShares MSCI India ETF	0.30%

Emerging Most Overbought

	Ticker	Fund	
Ś	EPOL	iShares MSCI Poland ETF	59.72
ó	FLBR	Franklin FTSE Brazil ETF	48.66
5	EWZ	iShares MSCI Brazil ETF	47.95
5	FXI	iShares China Large-Cap ETF	47.24
5	EYLD	Cambria Emerging Shareholder Yield ETF	45.94
5	EWZS	iShares MSCI Brazil Small-Cap ETF	45.69
Ś	CXSE	WisdomTree China ex-State-Owned Enterprises Fund	45.62
Ś	MCHI	iShares MSCI China ETF	45.48
ò	ECNS	iShares MSCI China Small-Cap ETF	45.10
ó	TUR	iShares MSCI Turkey ETF	44.99

Emerging Most Oversold

	Ticker	Fund	
ò	QAT	iShares MSCI Qatar ETF	28.68
5	EIDO	iShares MSCI Indonesia ETF	29.56
ò	EWW	iShares MSCI Mexico ETF	32.00
S	EEMV	iShares MSCI Emerging Markets Min Vol Factor ETF	33.22
Ś	KBA	KraneShares Bosera MSCI China A 50 Connect Index	33.42
Ś	DGS	WisdomTree Emerging Markets SmallCap Dividend F	34.23
ò	RAYC	Rayliant Quantamental China Equity ETF	34.29
Ś	JPEM	JPMorgan Diversified Return Emerging Markets Equ	35.37
ó	CNYA	iShares MSCI China A ETF	35.58
ó	ASHR	Xtrackers Harvest CSI 300 China A-Shares ETF	35.59

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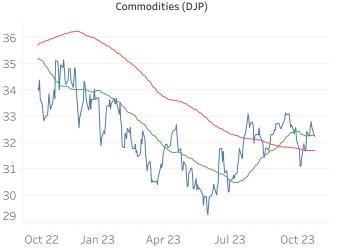


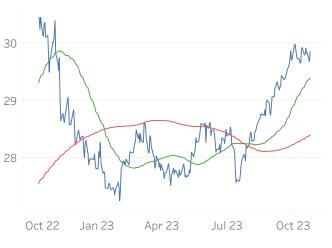
Fixed Income, Commodities & Currencies

October 24, 2023

Fixed Income (AGG)







Currencies Performance

Currencies (UUP)

Fixed Income Performance

Commodities Performance Ticker Name 1 Month YTD Ticker Name 1 Day 1 Month YTD Ticker Name 1 Month 1 Day 1 Day -0.20% -1.39% -4.38% DJP Broad Commodities 0.36% -2.21% -2.18% AGG U.S. Aggregate 0.57% 1.12% Long Dollar 7.37% UUP DBE Energy -1.94% -4.21% 0.22% SHY 1-3 Year Treasury Bonds -0.02% 0.35% 1.88% USO WTI Crude Oil -2.48% -4.59% 9.73% IEF 7-10 Year Treasury Bonds 0.18% -2.33% -3.98% -0.57% -0.33% -0.54% UDN Short Dollar BNO Brent Crude Oil -2.28% -3.84% 8.98% -6.35% 20+ Year Treasury Bonds 1.32% -12.14% UNG 2.20% 3.88% -50.64% TLT Natural Gas -2.58% -10.07% UGA Gasoline 6.52% -0.21% -0.66% 0.23% FXE Euro -1.43% -1.25% TIP **TIPS Bonds** 0.09% DBP Precious Metals -0.06% 1.39% 4.75% 0.04% 0.47% 5.29% FLOT Floating Rate Bonds -0.01% 2.42% GLD Gold 7.85% FXB British Pound Sterling -0.65% -0.38% 2.95% 0.56% -3.32% -2.20% LQD Investment Grade Corporate -4.54% SLV Silver -0.14% -2.59% abrdn Physical Platin. PPLT -0.89% -4.10% -17.33% HYG High Yield Corporate 0.51% -1.39% 3.08% FXF -0.20% 1.58% 3.24% Swiss Franc PALL abrdn Physical Palla. -0.28% -10.00% -37.19% -0.19% 9.10% 0.10% BKLN Senior Loan 1.33% -2.20% DBB Base Metals -6.32% 0.91% -4.43% -0.88% PFF Preferred & Income Securities -0.19% -1.02% -12.85% FXY CPER Copper 1.35% -1.09% -2.17% Japanese Yen 0.08% -2.22% -1.96% -0.09% 0.23% MUB Municipal Bonds DBA 8.73% Agriculture CORN Corn -1.46% 1.64% -17.12% FXC Canadian Dollar -0.28% -1.64% 0.26% 0.58% -3.39% -4.07% MBS MBB 0.49% 0.50% -3.88% SOYB Soybeans -2.63% -0.33% 0.79% EMB Dollar Denominated EM Bonds WEAT Wheat -1.53% 0.17% -27.19% FXA Australian Dollar 0.38% -1.17% -5.79% 0.12% -3.09% -1.15% LEMB Local Currency EM Bond CANE Sugar 0.53% 1.53% 60.44%

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