

U.S. Size & Style Performance

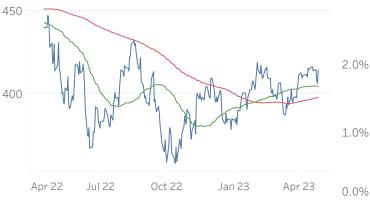
Large Growth

U.S. Size & Style 1-Day Performance

Mid Cap (IJH)

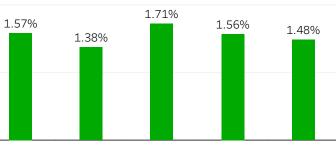
Mid Value (IJJ)

Large Cap Blend (S&P 500) IVV



(IVW) 2.22% 1.98% 1.69% 1.69%

Large Value (IVE) Large Cap (IVV)



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

Mid Cap Blend (S&P 400) IJH



Small Cap Blend (S&P 600) IJR



Size & Style 1-Day Performance Leaders

Ticker	Fund	
DUSA	Davis Select U.S. Equity ETF	3.23%
QQH	HCM Defender 100 Index ETF	3.09%
BUZZ	VanEck Social Sentiment ETF	2.82%
PTNQ	Pacer Trendpilot 100 ETF	2.77%
QQQM	Invesco NASDAQ 100 ETF	2.74%
QQQ	Invesco QQQ Trust	2.72%
LCG	Sterling Capital Focus Equity ETF	2.69%
CGGR	Capital Group Growth ETF	2.63%
MGK	Vanguard Mega Cap Growth ETF	2.61%
SCHG	Schwab U.S. Large-Cap Growth ETF	2.58%

Size & Style 1-Day Performance Laggards

Ticker	Fund	
FFTY	Innovator IBD 50 ETF	-0.87%
QMOM	Momentumshares US Quantitative Momementum ETF	-0.19%
CSF	VictoryShares US Discovery Enhanced Volatility Wtd ETF	-0.02%
SPC	CrossingBridge Pre-Merger SPAC ETF	0.00%
CDC	VictoryShares US EQ Income Enhanced Volatility Wtd ETF	0.28%
IWC	iShares Micro-Cap ETF	0.32%
FPX	First Trust US Equity Opportunities ETF	0.48%
FDL	First Trust Morningstar Dividend Leaders Index Fund	0.48%
DHS	WisdomTree U.S. High Dividend Fund	0.57%
HDV	iShares Core High Dividend ETF	0.61%

200 Day Moving Average

Size & Style Most Overbought

	Ticker	Fund	
6	SPC	CrossingBridge Pre-Merger SPAC ETF	71.67
6	JEPQ	J.P. Morgan Nasdaq Equity Premium Income ETF	64.33
6	XLG	Invesco S&P 500 Top 50 ETF	63.18
6	ABEQ	Absolute Select Value ETF	63.16
6	TMFC	Motley Fool 100 Index ETF	62.40
6	FDLO	Fidelity Low Volatility Factor ETF	61.93
6	MGK	Vanguard Mega Cap Growth ETF	61.65
б	IWY	iShares Russell Top 200 Growth ETF	61.04
6	OEF	iShares S&P 100 ETF	61.02
6	SPUS	SP Funds S&P 500 Sharia Industry Exclusions ETF	60.82

Size & Style Most Oversold

	Ticker	Fund	
%	AIEQ	AI Powered Equity ETF	35.84
%	SVAL	iShares US Small Cap Value Factor ETF	36.63
%	XSLV	Invesco S&P SmallCap Low Volatility ETF	36.88
%	FDM	First Trust Dow Jones Select MicroCap Index Fund	37.47
%	FCTR	First Trust Lunt U.S. Factor Rotation ETF	37.49
%	QMOM	Momentumshares US Quantitative Momementum E	37.81
%	IWC	iShares Micro-Cap ETF	38.54
%	XSVM	Invesco S&P SmallCap Value with Momentum ETF	38.57
%	SMLV	SPDR SSGA US Small Cap Low Volatility Index ETF	38.65
%	FPX	First Trust US Equity Opportunities ETF	38.91



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	\$1,267B	\$4.71B	\$4.27B	(\$8.27B)	\$69.57B
Large Cap, Beta, Beta: Growth	10	\$241B	\$0.26B	\$3.28B	\$8.93B	\$22.53B
Large Cap, Beta, Beta: Value	11	\$218B	\$0.03B	(\$2.47B)	(\$4.79B)	\$3.60B
Mid Cap, Beta, Beta	10	\$181B	\$0.12B	\$1.12B	\$4.76B	\$11.69B
Mid Cap, Beta, Beta: Growth	6	\$33B	\$0.03B	\$0.13B	(\$0.03B)	\$1.14B
Mid Cap, Beta, Beta: Value	6	\$39B	(\$0.03B)	(\$0.61B)	(\$0.79B)	\$0.89B
Small Cap, Beta, Beta	13	\$184B	\$0.85B	\$0.82B	\$3.19B	\$3.64B
Small Cap, Beta, Beta: Growth	7	\$31B	(\$0.02B)	(\$0.08B)	\$0.30B	\$1.46B
Small Cap, Beta, Beta: Value	7	\$47B	(\$0.07B)	(\$0.58B)	\$0.45B	(\$0.20B)

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	\$5.14B	(\$4.25B)	(\$8.72B)	\$10.74B	\$376.55B
IWM	iShares Russell 2000 ETF	\$0.93B	(\$0.83B)	(\$1.46B)	(\$1.76B)	\$49.21B
V00	Vanguard S&P 500 ETF	\$0.32B	\$6.98B	\$7.38B	\$32.52B	\$285.77B
SPYG	SPDR Portfolio S&P 500 Growth ETF	\$0.17B	\$1.06B	\$2.63B	\$4.23B	\$16.06B
DFAC	Dimensional U.S. Core Equity 2 ETF	\$0.16B	\$1.31B	\$2.56B	\$4.27B	\$18.40B
SPYV	SPDR Portfolio S&P 500 Value ETF	\$0.14B	(\$1.34B)	\$0.84B	\$1.10B	\$14.50B
PABU	iShares Paris-Aligned Climate MSCI USA ETF	\$0.13B	\$0.32B	\$0.39B	\$0.66B	\$1.23B
VYM	Vanguard High Dividend Yield Index ETF	\$0.13B	\$0.62B	\$0.88B	\$6.12B	\$49.40B
QQQ	Invesco QQQ Trust	\$0.12B	\$1.80B	(\$5.00B)	(\$1.71B)	\$165.64B
XMHQ	Invesco S&P MidCap Quality ETF	\$0.10B	\$0.23B	\$0.32B	\$0.31B	\$0.65B

U.S. Size & Style Flow Laggards

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
IVV	iShares Core S&P 500 ETF	(\$0.78B)	(\$2.97B)	(\$5.89B)	\$15.28B	\$303.60B
VTI	Vanguard Total Stock Market ETF	(\$0.19B)	\$2.05B	\$7.56B	\$19.70B	\$278.91B
IJR	iShares Core S&P Small Cap ETF	(\$0.14B)	\$0.53B	\$1.67B	\$2.82B	\$64.03B
VLUE	iShares MSCI USA Value Factor ETF	(\$0.10B)	(\$0.52B)	(\$1.03B)	(\$4.46B)	\$6.69B
SCHX	Schwab U.S. Large-Cap ETF	(\$0.09B)	(\$0.58B)	(\$0.44B)	\$0.90B	\$30.49B
VTV	Vanguard Value ETF	(\$0.09B)	\$2.21B	(\$1.48B)	\$4.20B	\$101.36B
ESGU	iShares ESG Aware MSCI USA ETF	(\$0.07B)	(\$6.39B)	(\$7.41B)	(\$9.18B)	\$13.30B
VSDA	VictoryShares Dividend Accelerator ETF	(\$0.07B)	\$0.02B	\$0.04B	(\$0.06B)	\$0.24B
DIA	SPDR Dow Jones Industrial Average ETF Trust	(\$0.07B)	(\$1.31B)	(\$1.63B)	(\$0.77B)	\$28.21B
IWN	iShares Russell 2000 Value ETF	(\$0.07B)	(\$0.29B)	(\$0.43B)	(\$0.64B)	\$10.72B

RSI (14D)

68.42

56.87

61.09

57.13

47.65

51.05

47.31 46.61

50.34

53.58

54.74

52.78

S&P Sector & Industry 1 Day Performance

5.81%

Ticker

XLP

XLK

XLC SPY

XLI

XLV

XLB

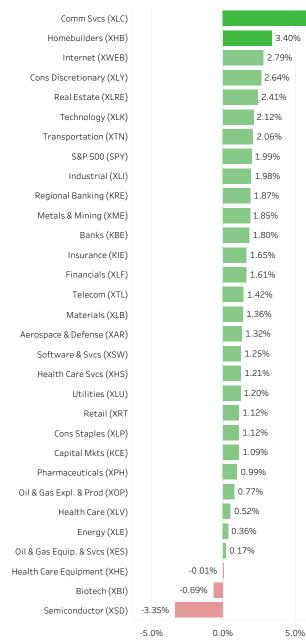
XLE

XLF

XLU

XLY

XLRE



Fund Name	% From 52W High	% From 52W Low	% Abv/Below 50 SMA	% Abv/Below 200 SMA
Consumer Staples Select Sector SPDR Fund	-0.35%	15.83%	4.29%	4.92%
Technology Select Sector SPDR Fund	-1.55%	28.01%	3.79%	10.41%
Communication Services Select Sector SPDR Fund	-2.54%	30.79%	5.86%	12.00%
SPDR S&P 500 ETF Trust	-4.02%	15.66%	2.53%	4.23%
Industrial Select Sector SPDR Fund	-4.47%	19.56%	-0.77%	2.17%
Health Care Select Sector SPDR Fund	-5.50%	10.43%	1.94%	1.00%
Materials Select Sector SPDR Fund	-9.65%	18.27%	-0.34%	1.72%
Energy Select Sector SPDR Fund	-10.89%	24.21%	0.25%	-0.16%

-11.41%

-11.57%

-14.74%

-18.41%

8.22%

12.29%

16.81%

10.51%

Select Sector SPDRs Technicals

Sector & Industry 1 Day Performance Leaders

Consumer Discretionary Select Sector SPDR Fund

Financial Select Sector SPDR Fund

Utilities Select Sector SPDR Fund

Real Estate Select Sector SPDR Fund

Ticker	Fund	
XLC	Communication Services Select Sector SPDR Fund	5.81%
VOX	Vanguard Communication Services ETF	5.03%
FCOM	Fidelity MSCI Communication Services Index ETF	5.00%
IYZ	iShares U.S. Telecommunications ETF	3.93%
EWCO	Invesco S&P 500 Equal Weight Communication Ser	3.73%
PNQI	Invesco NASDAQ Internet ETF	3.67%
XHB	SPDR S&P Homebuilders ETF	3.40%
REM	iShares Mortgage Real Estate ETF	3.12%
FDN	First Trust Dow Jones Internet Index Fund	3.07%
MORT	VanEck Mortgage REIT Income ETF	3.02%

Sector & Industry 1 Day Performance Laggards

Fund	
SPDR S&P Semiconductor ETF	-3.35%
Invesco Dynamic Semiconductors ETF	-1.29%
Invesco DWA Technology Momentum ETF	-0.97%
SPDR S&P BIOTECH ETF	-0.69%
Invesco Dynamic Oil & Gas Services ETF	-0.21%
Invesco Dynamic Pharmaceuticals ETF	-0.11%
SPDR S&P Health Care Equipment ETF	-0.01%
iShares U.S. Oil & Gas Exploration & Production ETF	0.05%
Invesco S&P SmallCap Information Technology ETF	0.09%
Invesco DWA Healthcare Momentum ETF	0.13%
	SPDR S&P Semiconductor ETF Invesco Dynamic Semiconductors ETF Invesco DWA Technology Momentum ETF SPDR S&P BIOTECH ETF Invesco Dynamic Oil & Gas Services ETF Invesco Dynamic Pharmaceuticals ETF SPDR S&P Health Care Equipment ETF iShares U.S. Oil & Gas Exploration & Production ETF Invesco S&P SmallCap Information Technology ETF

Sector & Industry Most Overbought

-1.20%

2.58%

1.90%

0.33%

-3.35%

-0.90%

0.74%

-3.67%

Ticker	Fund	
VDC	Vanguard Consumer Staples ETF	69.32
IYK	iShares U.S. Consumer Staples ETF	69.12
RHS	Invesco S&P 500 Equal Weight Consumer Staples ETF	68.80
FSTA	FIDELITY COVINGTON TRUST MSCI CONSUMER STAPLES	68.55
XLP	Consumer Staples Select Sector SPDR Fund	68.42
PSL	Invesco DWA Consumer Staples Momentum ETF	67.42
FTXG	First Trust Nasdaq Food & Beverage ETF	66.36
ITB	iShares U.S. Home Construction ETF	65.91
FXG	First Trust Consumer Staples AlphaDEX Fund	63.38
PBJ	Invesco Dynamic Food & Beverage ETF	62.28

Sector & Industry Most Oversold

	T :-1	Frond .	
	Ticker	Fund	
6	XSD	SPDR S&P Semiconductor ETF	27.38
б	PSCT	Invesco S&P SmallCap Information Technology ETF	29.53
6	PSI	Invesco Dynamic Semiconductors ETF	30.52
6	IGN	iShares North American Tech-Multimedia Networking ETF	31.05
6	XTL	SPDR S&P Telecom ETF	33.91
6	PTF	Invesco DWA Technology Momentum ETF	35.37
6	FTXL	First Trust Nasdaq Semiconductor ETF	35.91
6	QABA	First Trust NASDAQ ABA Community Bank Index Fund	36.26
6	SOXX	iShares Semiconductor ETF	37.52
6	KBWY	Invesco KBW Premium Yield Equity REIT ETF	38.17

U.S. Sector Landscape

U.S. Sector & Industry 1-Week Flows



	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Communication Services	7	\$14B	(\$4M)	\$1,169M	\$1,265M	\$835M
Consumer Discretionary	12	\$22B	(\$192M)	\$875M	\$147M	(\$1,366M)
Consumer Staples	10	\$32B	(\$158M)	\$747M	\$2,607M	\$3,638M
Energy	32	\$72B	(\$460M)	(\$5,759M)	(\$6,465M)	(\$9,097M)
Financials	26	\$55B	\$329M	\$2,684M	\$968M	(\$6,595M)
Health Care	23	\$92B	\$61M	(\$3,057M)	(\$1,802M)	\$1,305M
Industrial	13	\$31B	(\$239M)	\$504M	\$1,732M	(\$1,327M)
Materials	9	\$14B	\$33M	(\$28M)	\$554M	(\$3,017M)
Multi-Sector	19	\$14B	(\$12M)	\$320M	(\$265M)	(\$1,800M)
Real Estate	25	\$55B	(\$45M)	(\$2,674M)	(\$2,734M)	(\$6,355M)
Technology	23	\$126B	(\$100M)	\$494M	(\$782M)	\$366M
Utilities	9	\$26B	\$25M	(\$144M)	(\$264M)	\$2,093M

U.S. Sector Landscape

U.S. Sector & Industry Flow Leaders

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
XLF	Financial Select Sector SPDR Fund	\$422M	\$1,939M	\$1,572M	(\$2,941M)	\$31,585M
XLV	Health Care Select Sector SPDR Fund	\$101M	(\$876M)	(\$188M)	\$2,187M	\$40,019M
IYM	iShares U.S. Basic Materials ETF	\$79M	\$140M	(\$14M)	(\$107M)	\$898M
XLK	Technology Select Sector SPDR Fund	\$65M	(\$1,657M)	(\$2,017M)	(\$1,852M)	\$41,439M
XLU	Utilities Select Sector SPDR Fund	\$52M	\$245M	\$77M	\$1,633M	\$16,304M
FDN	First Trust Dow Jones Internet Index Fund	\$42M	(\$154M)	(\$486M)	(\$698M)	\$3,809M
FXD	First Trust Consumer Discretionary AlphaDEX F	\$21M	\$893M	\$856M	\$625M	\$1,246M
ITA	iShares U.S. Aerospace & Defense ETF	\$17M	\$720M	\$1,611M	\$1,752M	\$5,895M
IHI	iShares U.S. Medical Devices ETF	\$17M	(\$142M)	(\$527M)	(\$1,187M)	\$6,279M
FXZ	First Trust Materials AlphaDEX Fund	\$16M	\$183M	\$224M	\$76M	\$1,625M

U.S. Sector & Industry Flow Laggards

Ticker	Fund	1 Week	3 Month	6 Month	1 Year	AUM
XLE	Energy Select Sector SPDR Fund	(\$380M)	(\$1,719M)	(\$1,874M)	(\$1,858M)	\$38,441M
XLI	Industrial Select Sector SPDR Fund	(\$267M)	(\$437M)	(\$171M)	(\$1,521M)	\$13,243M
XLY	Consumer Discretionary Select Sector SPDR Fu	(\$154M)	\$25M	(\$411M)	(\$835M)	\$14,179M
XLP	Consumer Staples Select Sector SPDR Fund	(\$153M)	\$635M	\$1,845M	\$1,883M	\$18,459M
SOXX	iShares Semiconductor ETF	(\$82M)	\$321M	\$299M	(\$297M)	\$7,075M
KRE	SPDR S&P Regional Banking ETF	(\$75M)	\$1,277M	\$309M	(\$348M)	\$2,727M
VNQ	Vanguard Real Estate ETF	(\$73M)	(\$802M)	(\$1,129M)	(\$4,033M)	\$31,843M
XME	SPDR S&P Metals & Mining ETF	(\$55M)	(\$252M)	\$137M	(\$608M)	\$2,013M
IBB	iShares Biotechnology ETF	(\$53M)	(\$681M)	(\$129M)	(\$353M)	\$7,992M
XOP	SPDR S&P Oil & Gas Exploration & Production E	(\$49M)	(\$568M)	(\$1,023M)	(\$1,942M)	\$3,336M



U.S. Sector Rolling 30-Day Flows

April 27, 2023

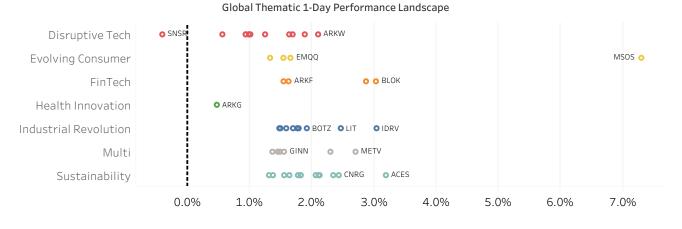






Global Thematic Performance

April 27, 2023



Global Thematic Segment 1-Day Performance

6.05%

3.51%

3.03%

2.87%

2.47%

2.38%

2.17%

2.12%

2.11% 2.10% 2.07%

2.06% 1.99%

1.88% 1.82% 1.82% 1.76% 1.69% 1.69% 1.59%

5.00%

	Cannabis (MJ)		
	Evolving Consumer (SOCL)	3	3.
	Blockchain (BLOK)	3.	С
	FinTech (FINX)	2.	8
	Casinos & Gaming (BETZ)	2.4	7
	Big Data (AIQ)	2.3	3
	Space (UFO)	2.17	70
	Smart Infrastructure (GRID)	2.12	20
	Water (PHO)	2.11	9
	Disruptive Tech (ARKW)	2.10)9
	Online Retail (IBUY)	2.07	9
	Clean Energy (PBW)	2.06	,9
	3D Printing (PRNT)	1.99	%
	Cloud Computing (SKYY)	1.88	%
	Clean Energy: Solar (TAN)	1.82	%
	Clean Energy: Wind (FAN)	1.82	%
	Robotics & AI (ROBO)	1.769	%
	extGen Transportation (DRIV)	1.699	%
	Digital Infrastructure (SRVR)	1.699	%
	Industrial Revolution (ARKQ)	1.59%	6
	Digital Payments (IPAY)	1.54%	6
	Advanced Materials (REMX)	1.47%	ó
	Multi-Theme (ARKK)	1.36%	נ
	eSports & Video Games (ESPO	1.33%	נ
	Cyber Security (HACK)	1.25%	,
0	Connectivity (FIVG)	0.93%	
0.4	Genomics (ARKG)	0.47%	
-0.78%	Biotech		
0.00%		0% 5).

Global Thematic 1-Day Performance Leaders

Ticker	Fund	
MSOS	AdvisorShares Pure US Cannabis ETF	7.29%
MJ	ETFMG Alternative Harvest ETFMG Alternative Harvest	6.05%
MJUS	ETFMG U.S. Alternative Harvest ETF	5.76%
вксн	Global X Blockchain ETF	3.85%
SOCL	Global X Social Media ETF	3.51%
ONLN	ProShares Online Retail ETF	3.40%
BITQ	Bitwise Crypto Industry Innovators ETF	3.38%
ACES	ALPS Clean Energy ETF	3.19%
IDRV	iShares Self-driving EV & Tech ETF	3.04%
BLOK	Amplify Transformational Data Sharing ETF	3.03%

Global Thematic 1-Day Performance Laggards

Ticker	Fund	
SBIO	ALPS Medical Breakthroughs ETF	-0.78%
SNSR	Global X Internet of Things ETF	-0.41%
BTEC	Principal Healthcare Innovators ETF	-0.09%
GDOC	Goldman Sachs Future Health Care Equity ETF	0.02%
IDNA	iShares Genomics Immunology and Healthcare ETF	0.04%
AGNG	Global X Aging Population ETF	0.18%
EDOC	Global X Telemedicine & Digital Health ETF Registered	0.34%
IZRL	ARK Israel Innovative Technology ETF	0.42%
GNOM	Global X Genomics & Biotechnology ETF	0.44%
HTEC	ROBO Global Healthcare Technology and Innovation E	0.46%

Thematic Most Overbought

Ticker	Fund	
AGNG	Global X Aging Population ETF	62.89
BETZ	Roundhill Sports Betting & iGaming ETF	61.02
PAWZ	ProShares Pet Care ETF	58.00
GBUY	Goldman Sachs Future Consumer Equity ETF	57.68
BJK	VanEck Gaming ETF	57.18
KLDW	Knowledge Leaders Developed World ETF	56.81
MILN	Global X Millennial Consumer ETF	56.51
SBIO	ALPS Medical Breakthroughs ETF	56.03
BITQ	Bitwise Crypto Industry Innovators ETF	55.78
BOTZ	Global X Robotics & Artificial Intelligence ETF	54.89

Thematic Most Oversold

	Ticker	Fund	
ó	SNSR	Global X Internet of Things ETF	32.48
ó	QCLN	First Trust Nasdaq Clean Edge Green Energy Index Fund	34.05
6	FIVG	Defiance Next Gen Connectivity ETF	34.99
ó	IHAK	iShares Cybersecurity & Tech ETF	36.05
б	BUG	Global X Cybersecurity ETF	36.26
б	CIBR	First Trust NASDAQ Cybersecurity ETF	36.57
б	ARKK	ARK Innovation ETF	37.59
б	PBW	Invesco WilderHill Clean Energy ETF	37.80
б	ARKQ	ARK Autonomous Technology & Robotics ETF	38.30
5	XITK	SPDR FactSet Innovative Technology ETF	38.83



Global Thematic Flows

Thematic 1 Week Flow Leaders

Ticker	Fund	
PBW	Invesco WilderHill Clean Energy ETF	\$9M
GRID	First Trust Nasdaq Clean Edge Smart GRID Infrastructure Index	\$5M
ROBT	First Trust Nasdag Artificial Intelligence & Robotics ETF	\$4M
FIW	First Trust Water ETF	\$4M
BJK	VanEck Gaming ETF	\$3M
FIVG	Defiance Next Gen Connectivity ETF	\$3M
AIQ	Global X Artificial Intelligence & Technology ETF	\$2M
QTUM	Defiance Quantum ETF	\$2M
TARK	AXS 2X Innovation ETF	\$2M
THNQ	ROBO Global Artificial Intelligence ETF	\$2M

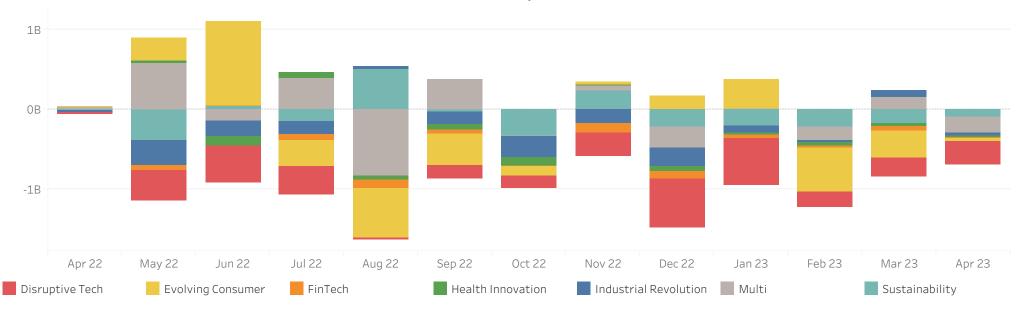
Segment	Funds	AUM	1 Week	3 Month	6 Month	1 Year
Disruptive Tech	34	\$14B	(\$69M)	(\$760M)	(\$2,217M)	(\$3,764M)
Evolving Consumer	44	\$8B	(\$25M)	(\$840M)	(\$361M)	(\$488M)
FinTech	18	\$2B	(\$6M)	(\$95M)	(\$349M)	(\$641M)
Health Innovation	18	\$3B	(\$28M)	(\$97M)	(\$174M)	(\$430M)
Industrial Revolution	31	\$10B	(\$32M)	\$21M	(\$520M)	(\$1,566M)
Multi	41	\$13B	(\$188M)	(\$175M)	(\$365M)	\$27M
Sustainability	40	\$17B	(\$75M)	(\$491M)	(\$668M)	(\$994M)
Grand Total	226	\$68B	(\$424M)	(\$2,436M)	(\$4,653M)	(\$7,855M)

Thematic Landscape Assets & Flows

Thematic 1 Week Flow Laggards

Ticker Fund ARKK ARK Innovation ETF (\$222M) (\$52M) Invesco S&P Global Water Index ETF CGW CIBR First Trust NASDAQ Cybersecurity ETF (\$50M) (\$24M) LIT Global X Lithium & Battery Tech ETF KWEB KraneShares CSI China Internet ETF (\$16M) GNOM Global X Genomics & Biotechnology ETF (\$14M) TAN Invesco Solar ETF (\$12M) ARKG ARK Genomic Revolution ETF (\$9M) (\$7M) First Trust Nasdaq Clean Edge Green Energy Index Fund QCLN SKYY First Trust Cloud Computing ETF (\$6M)

Thematic Monthly Flows





Developed ex-U.S. (EFA)

Developed Markets ex-U.S. Performance

April 27, 2023

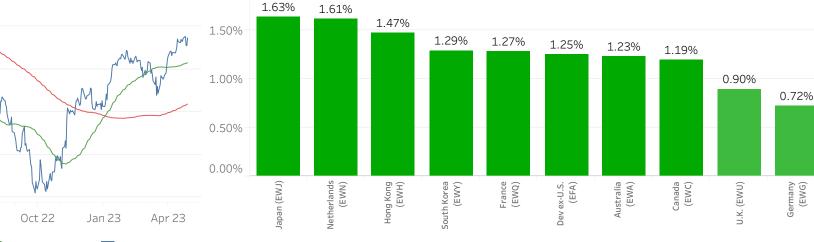
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Switzerland (EWL)

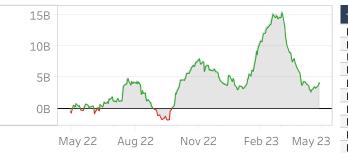
Germany (EWG)



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



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



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

Ticker	Fund	
EWD	iShares MSCI Sweden ETF	2.83%
EIS	iShares MSCI Israel ETF	2.64%
ISRA	VanEck Israel ETF	2.61%
DBJP	Xtrackers MSCI Japan Hedged Equity ETF	2.20%
EDEN	iShares MSCI Denmark ETF	2.18%
DXJ	WisdomTree Japan Hedged Equity Fund	2.02%
HEWJ	iShares Currency Hedged MSCI Japan ETF	1.86%
EWI	iShares MSCI Italy ETF	1.79%
FJP	First Trust Japan AlphaDEX Fund	1.76%
EWP	iShares MSCI Spain ETF	1.76%

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

Ticker	Fund	_
EIRL	iShares MSCI Ireland ETF	0.06%
EWL	iShares MSCI Switzerland ETF	0.19%
FLSW	Franklin FTSE Switzerland ETF	0.21%
EWS	iShares MSCI Singapore ETF	0.36%
FSZ	First Trust Switzerland AlphaDEX Fund	0.41%
IDLV	Invesco S&P International Developed Low Volatility ETF	0.60%
EFAV	iShares MSCI EAFE Min Vol Factor ETF	0.67%
GREK	Global X MSCI Greece ETF	0.70%
EWG	iShares MSCI Germany ETF	0.72%
FYLD	Cambria Foreign Shareholder Yield ETF	0.76%

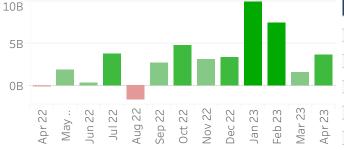
Developed ex-U.S. Most Overbought

Ticker	Fund	
EFAV	iShares MSCI EAFE Min Vol Factor ETF	70.07
EUDG	WisdomTree Europe Quality Dividend Growth Fund	69.51
QLVD	FlexShares Developed Markets ex-US Quality Low Volatilit	68.68
IDLV	Invesco S&P International Developed Low Volatility ETF	68.25
EWL	iShares MSCI Switzerland ETF	68.02
IHDG	WisdomTree International Hedged Quality Dividend Grow	67.14
FLSW	Franklin FTSE Switzerland ETF	67.08
IQDG	WisdomTree International Quality Dividend Growth Fund	66.76
IMFL	Invesco International Developed Dynamic Multifactor ETF	66.51
EWQ	iShares MSCI France ETF	65.64

Developed ex-U.S. Most Oversold

	Ticker	Fund	
ó	MINV	Matthews Asia Innovators Active ETF	41.66
Ś	AIA	iShares Asia 50 ETF	42.57
Ś	AAXJ	iShares MSCI All Country Asia ex Japan ETF	45.58
ó	ISRA	VanEck Israel ETF	46.70
ó	EWY	iShares MSCI South Korea ETF	47.14
ó	FLKR	Franklin FTSE South Korea ETF	47.19
ó	NORW	Global X MSCI Norway ETF	48.14
Ś	IVAL	Alpha Architect International Quantitative Value ETF	48.56
ò	ENZL	iShares MSCI New Zealand ETF	48.67
5	EIS	iShares MSCI Israel ETF	49.09

Developed ex-U.S. Monthly Flows



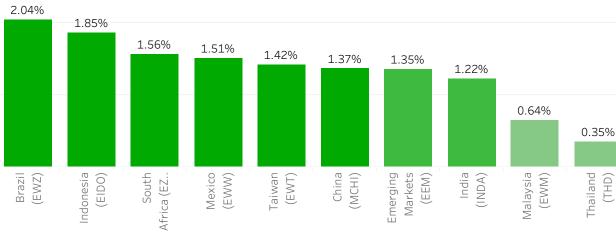


Emerging Markets Performance

April 27, 2023

Emerging (EEM)





Ticker Fund

iShares MSCI Poland ETF

Franklin FTSE India ETF

iShares MSCI India ETF

iShares India 50 ETF iShares MSCI Kuwait ETF

Invesco India ETF

iShares MSCI Saudi Arabia ETF

WisdomTree India Earnings Fund

First Trust India NIFTY 50 Equal Weight ETF

iShares MSCI Indonesia ETF

EPOL

KSA

EIDO

FLIN

INDA

INDY

KWT NFTY

PIN

EPI

Emerging 1-Day Performance Top 10 Countries

Emerging 30-Day Rolling Flows



Emerging Monthly Flows

Nov 22 Dec 22 Jan 23 Feb 23

Aug 22 Sep 22 0ct 22

5B

0B

Apr 22

Jun 22 Jul 22

Vlay 22

Emerging 1-Day Performance Leaders

Ticker	Fund	
EPOL	iShares MSCI Poland ETF	4.51%
EWZS	iShares MSCI Brazil Small-Cap ETF	2.78%
FRDM	Freedom 100 Emerging Markets ETF	2.42%
EWZ	iShares MSCI Brazil ETF	2.04%
EPHE	iShares MSCI Philippines ETF	1.90%
FEMS	First Trust Emerging Markets Small Cap AlphaDEX Fund	1.89%
CXSE	WisdomTree China ex-State-Owned Enterprises Fund	1.86%
EIDO	iShares MSCI Indonesia ETF	1.85%
FLBR	Franklin FTSE Brazil ETF	1.83%
ILF	iShares Latin America 40 ETF	1.76%

Emerging 1-Day Performance Laggards

Ticker	Fund	
TUR	iShares MSCI Turkey ETF	0.28%
THD	iShares MSCI Thailand ETF	0.35%
EPU	iShares MSCI Peru and Global Exposure ETF	0.36%
EWM	iShares MSCI Malaysia ETF	0.64%
EYLD	Cambria Emerging Shareholder Yield ETF	0.67%
KSA	iShares MSCI Saudi Arabia ETF	0.79%
HEEM	iShares Currency Hedged MSCI Emerging Markets ETF	0.80%
EEMV	iShares MSCI Emerging Markets Min Vol Factor ETF	0.84%
PIN	Invesco India ETF	0.89%
EWX	SPDR S&P Emerging Markets Small Cap ETF	0.90%

Emerging Most Oversold

Emerging Most Overbought

Ticker	Fund	
TUR	iShares MSCI Turkey ETF	36.26
PGJ	Invesco Golden Dragon China ETF	37.64
FLTW	Franklin FTSE Taiwan ETF	40.21
ECNS	iShares MSCI China Small-Cap ETF	40.43
EWT	iShares MSCI Taiwan ETF	40.55
ASHR	Xtrackers Harvest CSI 300 China A-Shares ETF	41.52
CNYA	iShares MSCI China A ETF	41.58
EWM	iShares MSCI Malaysia ETF	41.83
CXSE	WisdomTree China ex-State-Owned Enterprises Fund	41.88
RAYC	Rayliant Quantamental China Equity ETF	42.03

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

Mar 23 Apr 23 74.44

72.79

70.65

67.73 67.49

67.24

66.49

65.52

65.35

65.12

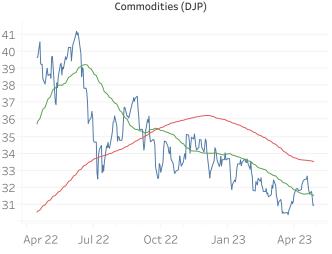


Fixed Income, Commodities & Currencies

April 27, 2023









Currencies Performance

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 0.10% -0.11% -8.10% DJP **Broad Commodities** -0.36% 0.63% 3.30% AGG U.S. Aggregate 0.09% -2.13% -12.31% 0.04% -0.82% -0.36% DBE Energy UUP Long Dollar 0.69% 2.59% -6.13% US0 WTI Crude Oil SHY -0.19% 0.12% 1.75% 1-3 Year Treasury Bonds 0.73% 1.43% -7.14% BNO Brent Crude Oil IEF 7-10 Year Treasury Bonds -0.65% 0.53% 3.99% UNG Natural Gas 1.78% -2.69% -51.21% 0.00% 1.66% 2.81% UDN Short Dollar -0.33% -3.97% -3.62% UGA Gasoline -0.99% 0.67% 6.03% TLT 20+ Year Treasury Bonds DBP Precious Metals 0.17% 3.01% 7.67% 0.01% 1.54% 8.91% GLD Gold -0.06% 2.24% 3.32% FXE Euro -0.34% 1.04% 3.51% TIP **TIPS Bonds** 3.95% 0.26% 7.87% SLV Silver PPLT abrdn Physical Platin. -0.68% 10.69% 0.73% 0.54% 1.37% 1.88% FLOT Floating Rate Bonds PALL abrdn Physical Palla. -1.46% 5.42% -16.41% FXB British Pound Sterling 0.28% 1.88% 4.22% -0.37% 1.16% 4.47% DBB Base Metals 0.37% -4.78% -1.75% LQD Investment Grade Corporate 0.93% -4.60% 3.20% CPFR Copper HYG High Yield Corporate 0.33% 2.67% 3.50% 0.39% LD -1.10% -8.21% Lead -0.34% 2.44% 3.24% FXF Swiss Franc 2.22% 1.99% -19.44% JJN Nickel 0.34% 4.39% 2.31% BKLN Senior Loan JJU 0.07% -1.87% -3.90% Aluminum JJT Tin 0.24% 0.86% 3.83% 0.82% 3.55% 3.91% PFF Preferred & Income Securities -0.17% -1.74% -2.18% FXY Japanese Yen -0.19% 4.12% 4.12% DBA Agriculture -2.66% -7.13% -12.92% CORN Corn -0.22% -0.02% 1.88% MUB Municipal Bonds -0.53% -1.35% -8.25% SOYB Soybeans Canadian Dollar 0.36% 0.81% 0.25% -0.30% 0.26% 2.61% -1.70% -10.42% -20.30% FXC MBS WEAT Wheat MBB 2.67% 28.60% 45.33% CANE Sugar 2.14% 0.02% 0.81% EMB Dollar Denominated EM Bonds BAL 2.18% 1.17% -2.96% Cotton -1.19% 4.33% 17.90% FXA Australian Dollar 0.48% -0.14% -2.41% NIB Cocoa 0.04% 1.45% 3.87% LEMB Local Currency EM Bond JO -1.41% 8.29% 15.38% Coffee

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