

U.S. Size & Style Performance

Large Growth

Large Cap Blend (S&P 500) IVV



Mid Value (IJJ) Large Value (IVE) Large Cap (IVV) (IVW) 2.15% 2.0% 1.49% 1.15% 1.0% 0.80%



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

U.S. Size & Style 1-Day Performance

Mid Cap (IJH)

Mid Cap Blend (S&P 400) IJH



Size & Style 1-Day Performance Leaders

| Ticker | Fund | |
|--------|---|-------|
| EQRR | ProShares Equities for Rising Rates ETF | 2.71% |
| GUSA | Goldman Sachs MarketBeta U.S. 1000 Equity ETF | 2.65% |
| WINN | Harbor Long-Term Growers ETF | 2.48% |
| MGK | Vanguard Mega Cap Growth ETF | 2.37% |
| TMFC | Motley Fool 100 Index ETF | 2.34% |
| LCG | Sterling Capital Focus Equity ETF | 2.15% |
| SPYG | SPDR Portfolio S&P 500 Growth ETF | 2.15% |
| IVW | iShares S&P 500 Growth ETF | 2.15% |
| VOOG | Vanguard S&P 500 Growth ETF | 2.14% |
| IWY | iShares Russell Top 200 Growth ETF | 2.14% |
| | | |

Small Cap Blend (S&P 600) IJR



Size & Style 1-Day Performance Laggards

| Ticker | Fund | |
|--------|--|--------|
| PTMC | Pacer Trendpilot US Mid Cap ETF | -0.04% |
| PTLC | Pacer Trendpilot US Large Cap ETF | -0.03% |
| LFEQ | VanEck Long/Flat Trend ETF | 0.01% |
| SPC | CrossingBridge Pre-Merger SPAC ETF | 0.02% |
| CSF | VictoryShares US Discovery Enhanced Volatility Wtd ETF | 0.16% |
| AIVL | WisdomTree U.S. AI Enhanced Value Fund | 0.22% |
| SIXL | ETC 6 Meridian Low Beta Equity ETF | 0.24% |
| CDC | VictoryShares US EQ Income Enhanced Volatility Wtd ETF | 0.24% |
| SIXS | ETC 6 Meridian Small Cap Equity ETF | 0.25% |
| SMMV | iShares MSCI USA Small-Cap Min Vol Factor ETF | 0.28% |
| | | |

200 Day Moving Average

Size & Style Most Overbought

| | Ticker | Fund | |
|---|--------|--|-------|
| 6 | GUSA | Goldman Sachs MarketBeta U.S. 1000 Equity ETF | 79.34 |
| ó | ACSI | American Customer Satisfaction ETF | 78.91 |
| ó | USNZ | Xtrackers Net Zero Pathway Paris Aligned US Equity ETF | 75.92 |
| 6 | NZUS | SPDR MSCI USA Climate Paris Aligned ETF | 74.16 |
| ó | XSMO | Invesco S&P SmallCap Momentum ETF | 73.89 |
| б | OSCV | Opus Small Cap Value ETF | 73.83 |
| ó | QVMS | Invesco S&P SmallCap 600 QVM Multi-factor ETF | 73.76 |
| 5 | XSLV | Invesco S&P SmallCap Low Volatility ETF | 73.30 |
| ò | XMMO | Invesco S&P MidCap Momentum ETF | 72.05 |
| ó | XMLV | Invesco S&P MidCap Low Volatility ETF | 71.87 |
| | | | |

Size & Style Most Oversold

| | Ticker | Fund | |
|---|--------|---|-------|
| % | LFEQ | VanEck Long/Flat Trend ETF | 46.13 |
| % | PTLC | Pacer Trendpilot US Large Cap ETF | 46.40 |
| % | PTMC | Pacer Trendpilot US Mid Cap ETF | 47.70 |
| % | RUFF | Alpha Dog ETF | 50.32 |
| % | LGH | HCM Defender 500 Index ETF | 51.16 |
| % | QQH | HCM Defender 100 Index ETF | 53.95 |
| % | IPO | Renaissance IPO ETF | 54.25 |
| % | CDC | VictoryShares US EQ Income Enhanced Volatility Wt | 55.70 |
| % | ABEQ | Absolute Core Strategy ETF | 56.82 |
| % | DUSA | Davis Select U.S. Equity ETF | 56.90 |

* 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 Growth, Beta | 25 | \$1,235B | \$0.60B | \$37.13B | \$48.19B | \$123.64B |
| Large Cap, Beta Growth, Beta: Growth | 10 | \$231B | \$0.84B | \$8.66B | \$12.73B | \$16.51B |
| Large Cap, Beta Growth, Beta: Value | 11 | \$216B | \$0.02B | \$4.30B | \$13.46B | \$26.50B |
| Mid Cap, Beta, Beta | 10 | \$177B | \$0.38B | \$2.50B | \$5.42B | \$12.91B |
| Mid Cap, Beta, Beta: Growth | 6 | \$32B | \$0.09B | \$0.61B | \$0.15B | \$0.70B |
| Mid Cap, Beta, Beta: Value | 6 | \$40B | \$0.34B | \$0.36B | (\$0.07B) | \$1.22B |
| Small Cap, Beta, Beta | 13 | \$192B | \$0.30B | (\$2.72B) | (\$4.80B) | \$7.12B |
| Small Cap, Beta, Beta: Growth | 7 | \$32B | \$0.39B | \$0.99B | \$1.16B | \$1.71B |
| Small Cap, Beta, Beta: Value | 7 | \$50B | (\$0.31B) | (\$1.02B) | (\$4.58B) | (\$2.57B) |

U.S. Size & Style Landscape Flows

U.S. Size & Style Flow Leaders

| Ticker | Fund | 1 Week | 3 Month | 6 Month | 1 Year | AUM |
|--------|--|---------|----------|-----------|-----------|-----------|
| SDY | SPDR S&P Dividend ETF | \$1.49B | \$0.01B | \$1.40B | \$2.44B | \$23.41B |
| SPYD | SPDR Portfolio S&P 500 High Dividend ETF | \$1.46B | \$3.29B | \$3.46B | \$4.18B | \$9.39B |
| VOO | Vanguard S&P 500 ETF | \$1.17B | \$14.84B | \$25.11B | \$44.48B | \$267.50B |
| SPHD | Invesco S&P 500 High Dividend Low Volatility | \$0.75B | \$1.24B | \$0.88B | \$1.15B | \$4.70B |
| IJR | iShares Core S&P Small Cap ETF | \$0.70B | \$0.55B | \$0.80B | \$5.34B | \$67.55B |
| SPYG | SPDR Portfolio S&P 500 Growth ETF | \$0.45B | \$1.52B | \$1.94B | \$2.26B | \$14.08B |
| IJJ | iShares S&P Mid-Cap 400 Value ETF | \$0.38B | \$0.00B | (\$0.55B) | (\$0.76B) | \$7.61B |
| IJT | iShares S&P Small-Cap 600 Growth ETF | \$0.38B | \$0.41B | \$0.32B | \$0.10B | \$5.65B |
| VTI | Vanguard Total Stock Market ETF | \$0.37B | \$4.21B | \$10.36B | \$35.26B | \$265.64B |
| SPLV | Invesco S&P 500 Low Volatility ETF | \$0.33B | \$1.34B | \$1.69B | \$2.87B | \$10.86B |

U.S. Size & Style Flow Laggards

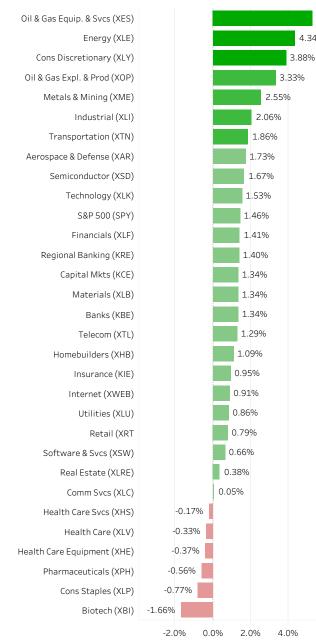
| Ticker | Fund | 1 Week | 3 Month | 6 Month | 1 Year | AUM |
|--------|--|-----------|-----------|-----------|-----------|-----------|
| SPY | SPDR S&P 500 ETF Trust | (\$0.61B) | \$1.20B | (\$6.52B) | \$15.45B | \$367.92B |
| IWM | iShares Russell 2000 ETF | (\$0.55B) | (\$1.92B) | (\$4.46B) | (\$2.75B) | \$53.21B |
| ΙΤΟΤ | iShares Core S&P Total U.S. Stock Market ETF | (\$0.42B) | \$2.59B | \$2.72B | \$5.29B | \$42.89B |
| QQQ | Invesco QQQ Trust | (\$0.40B) | \$3.40B | \$8.80B | \$18.56B | \$171.21B |
| IJS | iShares S&P Small-Cap 600 Value ETF | (\$0.31B) | \$0.14B | (\$0.84B) | (\$0.96B) | \$7.35B |
| IWB | iShares Russell 1000 ETF | (\$0.24B) | \$0.90B | \$0.76B | \$0.19B | \$27.97B |
| VIG | Vanguard Dividend Appreciation ETF | (\$0.24B) | \$0.65B | \$2.11B | \$4.35B | \$63.47B |
| VLUE | iShares MSCI USA Value Factor ETF | (\$0.17B) | (\$2.51B) | (\$3.59B) | (\$5.82B) | \$9.12B |
| IWD | iShares Russell 1000 Value ETF | (\$0.12B) | \$0.49B | (\$0.62B) | \$1.22B | \$53.04B |
| HDV | iShares Core High Dividend ETF | (\$0.11B) | \$3.05B | \$4.83B | \$5.07B | \$12.44B |

* 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

5.27%

4.34%



| Ticker | Fund Name | % From 52W High | % From 52W Low | % Abv/Below 50 SMA | % Abv/Below 200 SMA | RSI (14D) |
|--------|--|--------------------|-------------------|-----------------------|------------------------|-----------|
| XLU | Utilities Select Sector SPDR Fund | -3.91% | 16.35% | 4.78% | 5.46% | 69.15 |
| XLV | Health Care Select Sector SPDR Fund | -7.30% | 10.43% | 2.95% | 0.13% | 59.22 |
| XLP | Consumer Staples Select Sector SPDR Fund | -7.55% | 8.27% | 2.60% | -0.02% | 61.13 |
| XLI | Industrial Select Sector SPDR Fund | -10.72% | 11.86% | 6.26% | -3.05% | 71.41 |
| SPY | SPDR S&P 500 ETF Trust | -13.76% | 12.61% | 5.34% | -4.81% | 66.81 |
| XLB | Materials Select Sector SPDR Fund | -13.77% | 10.15% | 0.24% | -7.20% | 61.89 |
| XLRE | Real Estate Select Sector SPDR Fund | -14.42% | 14.13% | 5.96% | -3.81% | 71.21 |
| XLE | Energy Select Sector SPDR Fund | -15.02% | 71.26% | 0.83% | 12.24% | 62.09 |
| XLK | Technology Select Sector SPDR Fund | -18.36% | 16.79% | 8.16% | -4.91% | 66.99 |
| XLF | Financial Select Sector SPDR Fund | -18.61% | 9.66% | 2.93% | -8.84% | 62.57 |
| XLY | Consumer Discretionary Select Sector SPDR Fund | -22.98% | 20.95% | 11.35% | -7.66% | 68.46 |
| XLC | Communication Services Select Sector SPDR Fund | -34.49% | 6.20% | -0.29% | -16.64% | 51.00 |

Select Sector SPDRs Technicals

Sector & Industry 1 Day Performance Leaders

| Ticker | Fund | |
|--------|--|-------|
| XES | SPDR S&P Oil & Gas Equipment & Services ETF | 5.27% |
| PSCE | Invesco S&P SmallCap Energy ETF | 4.41% |
| XLE | Energy Select Sector SPDR Fund | 4.34% |
| VDE | Vanguard Energy ETF | 4.31% |
| FENY | Fidelity MSCI Energy Index ETF | 4.27% |
| IYE | iShares U.S. Energy ETF | 4.26% |
| XLY | Consumer Discretionary Select Sector SPDR Fund | 3.88% |
| VCR | Vanguard Consumer Discretionary ETF | 3.79% |
| FTXN | First Trust Nasdaq Oil & Gas ETF | 3.71% |
| FDIS | Fidelity MSCI Consumer Discretionary Index ETF | 3.70% |

Sector & Industry 1 Day Performance Laggards

| Ticker | Fund | |
|--------|--|--------|
| XBI | SPDR S&P BIOTECH ETF | -1.66% |
| IYZ | iShares U.S. Telecommunications ETF | -1.08% |
| IYK | iShares U.S. Consumer Staples ETF | -0.96% |
| IHI | iShares U.S. Medical Devices ETF | -0.94% |
| XLP | Consumer Staples Select Sector SPDR Fund | -0.77% |
| FSTA | FIDELITY COVINGTON TRUST MSCI CONSUMER STAPL | -0.60% |
| VDC | Vanguard Consumer Staples ETF | -0.58% |
| XPH | SPDR S&P Pharmaceuticals ETF | -0.56% |
| PSCH | Invesco S&P SmallCap Health Care ETF | -0.54% |
| IHE | iShares U.S. Pharmaceuticals ETF | -0.43% |
| | | |

Sector & Industry Most Overbought

| Ticker | Fund | |
|--------|---|-------|
| AIRR | First Trust RBA American Industrial Renaissance ETF | 77.22 |
| IGN | iShares North American Tech-Multimedia Networking E | 76.01 |
| PAVE | Global X U.S. Infrastructure Development ETF | 75.94 |
| NURE | Nuveen Short-Term REIT ETF | 74.74 |
| PSCI | Invesco S&P SmallCap Industrials ETF | 74.38 |
| PRN | Invesco DWA Industrials Momentum ETF | 74.33 |
| REZ | iShares Residential and Multisector Real Estate ETF | 74.22 |
| JPRE | JPMorgan Realty Income ETF | 73.90 |
| FRI | First Trust S&P REIT Index Fund | 73.41 |
| IFRA | iShares U.S. Infrastructure ETF | 73.40 |

Sector & Industry Most Oversold

| | Ticker | Fund | |
|---|--------|--|-------|
| 6 | KBWP | Invesco KBW Property & Casualty Insurance ETF | 39.70 |
| 6 | IYZ | iShares U.S. Telecommunications ETF | 47.74 |
| 6 | PJP | Invesco Dynamic Pharmaceuticals ETF | 49.17 |
| 6 | IHE | iShares U.S. Pharmaceuticals ETF | 49.39 |
| 6 | XLC | Communication Services Select Sector SPDR Fund | 51.00 |
| 6 | FCOM | Fidelity MSCI Communication Services Index ETF | 51.01 |
| 6 | VOX | Vanguard Communication Services ETF | 51.37 |
| 6 | IAK | iShares U.S. Insurance ETF | 51.42 |
| 6 | XPH | SPDR S&P Pharmaceuticals ETF | 51.48 |
| 6 | XBI | SPDR S&P BIOTECH ETF | 53.26 |

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

6.0%

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U.S. Sector Landscape

U.S. Sector & Industry 1-Week Flows

\$180M

200M

| | | | | <u> </u> | | |
|------------------------------------|---------|--------|-----------|----------|-------------|---|
| Homebuilding | | | | | | 9 |
| Banks | | | | | \$48M | |
| MLPs: C-Corp | | | | | \$47M | |
| Natural Gas | | | | | \$23M | |
| Oil & Gas Equipment & Services | | | | | \$21M | |
| Mortgage REITs | | | | | \$18M | |
| Insurance | | | | | \$4M | |
| Food & Beverage | | | | | \$4M | |
| MLPs: Note | | | | | \$4M | |
| Health Care Providers & Services | | | | | \$3M | |
| BDCs | | | | | \$2M | |
| Media & Entertainment | | | | | \$0M | |
| Midstream | | | | | \$0M | |
| Construction & Engineering | | | (\$3 | M) | | |
| Pharmaceuticals | | | (\$3 | M) | | |
| Transportation | | | (\$5 | M) | | |
| Leisure & Recreation | | | (\$7 | M) | | |
| Metals & Mining | | | (\$26M |) | | |
| Health Care Equipment & Supplies | | | (\$35M |) | | |
| Banks: Regional | | | (\$36M |) | | |
| Retail | | | (\$40M) | | | |
| Infrastructure | | | (\$51M) | | | |
| Semiconductors | | (5 | \$87M) | | | |
| Oil & Gas Exploration & Production | | (\$ | 97M) | | | |
| Aerospace & Defense | | (\$1 | 06M) | | | |
| Biotech | | (\$130 | DM) | | | |
| Software | (\$256M |) | | | | |
| | -400M | -20 | ОM | 0N | 1 20 | C |
| | | 1 W | eek (Cust | om SC | QL Query22) | |

| | Funds | AUM | 1 Week | 3 Month | 6 Month | 1 Year |
|------------------------|-------|--------|----------|-------------|-------------|------------|
| Communication Services | 9 | \$14B | (\$17M) | (\$285M) | (\$582M) | (\$595M) |
| Consumer Discretionary | 13 | \$23B | (\$47M) | (\$2,209M) | (\$4,666M) | (\$5,129M) |
| Consumer Staples | 12 | \$28B | \$65M | (\$59M) | \$3,038M | \$5,261M |
| Energy | 34 | \$72B | \$645M | (\$4,644M) | (\$2,741M) | \$1,331M |
| Financials | 28 | \$57B | \$304M | (\$10,127M) | (\$18,323M) | (\$9,098M) |
| Health Care | 26 | \$94B | \$229M | \$3,276M | \$7,471M | \$13,034M |
| Industrial | 14 | \$28B | (\$245M) | (\$2,967M) | (\$2,664M) | (\$5,870M) |
| Materials | 10 | \$14B | (\$73M) | (\$2,466M) | (\$431M) | (\$1,625M) |
| Multi-Sector | 19 | \$15B | \$91M | (\$328M) | (\$4,617M) | (\$3,533M) |
| Real Estate | 24 | \$70B | (\$210M) | (\$3,097M) | (\$5,226M) | \$2,313M |
| Technology | 24 | \$125B | \$201M | (\$256M) | (\$111M) | \$4,377M |
| Utilities | 10 | \$27B | (\$306M) | \$1,580M | \$3,720M | \$4,960M |

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 | \$793M | (\$1,271M) | (\$2,207M) | \$49M | \$35,485M |
| XLK | Technology Select Sector SPDR Fund | \$481M | (\$78M) | \$762M | \$1,727M | \$42,670M |
| XLF | Financial Select Sector SPDR Fund | \$274M | (\$6,478M) | (\$11,093M) | (\$5,908M) | \$29,779M |
| XLV | Health Care Select Sector SPDR Fund | \$237M | \$2,473M | \$5,481M | \$7,980M | \$40,077M |
| ITB | iShares U.S. Home Construction ETF | \$102M | \$64M | (\$659M) | (\$518M) | \$1,549M |
| XHB | SPDR S&P Homebuilders ETF | \$78M | (\$64M) | (\$746M) | (\$375M) | \$1,121M |
| VGT | Vanguard Information Technology ETF | \$74M | \$620M | \$1,417M | \$2,053M | \$45,327M |
| VHT | Vanguard Health Care ETF | \$73M | (\$301M) | \$235M | \$1,264M | \$16,755M |
| IYH | iShares U.S. Healthcare ETF | \$55M | \$190M | \$122M | \$337M | \$3,085M |
| AMLP | Alerian MLP ETF | \$46M | \$33M | \$369M | \$419M | \$6,540M |

U.S. Sector & Industry Flow Laggards

| Ticker | Fund | 1 Week | 3 Month | 6 Month | 1 Year | AUN |
|--------|---|----------|------------|------------|------------|-----------|
| XLU | Utilities Select Sector SPDR Fund | (\$270M) | \$1,023M | \$2,352M | \$3,032M | \$16,598N |
| IGV | iShares Expanded Tech-Software Sector ETF | (\$254M) | \$187M | (\$354M) | \$1,321M | \$4,469N |
| IYE | iShares U.S. Energy ETF | (\$133M) | (\$1,538M) | (\$1,270M) | (\$1,264M) | \$2,084N |
| XLI | Industrial Select Sector SPDR Fund | (\$120M) | (\$1,369M) | (\$2,943M) | (\$5,247M) | \$12,791N |
| ITA | iShares U.S. Aerospace & Defense ETF | (\$111M) | \$105M | \$1,391M | \$1,043M | \$3,756N |
| SOXX | iShares Semiconductor ETF | (\$101M) | (\$370M) | (\$36M) | \$1,049M | \$7,114N |
| XBI | SPDR S&P BIOTECH ETF | (\$99M) | \$1,128M | \$1,888M | \$3,466M | \$7,718N |
| ХОР | SPDR S&P Oil & Gas Exploration & Production E | (\$93M) | (\$1,156M) | (\$796M) | (\$961M) | \$4,422N |
| IYR | iShares U.S. Real Estate ETF | (\$85M) | (\$492M) | (\$2,106M) | (\$662M) | \$4,296N |
| VNQ | Vanguard Real Estate ETF | (\$85M) | (\$2,108M) | (\$2,179M) | \$701M | \$40,838N |

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



U.S. Sector Rolling 30-Day Flows

July 30, 2022

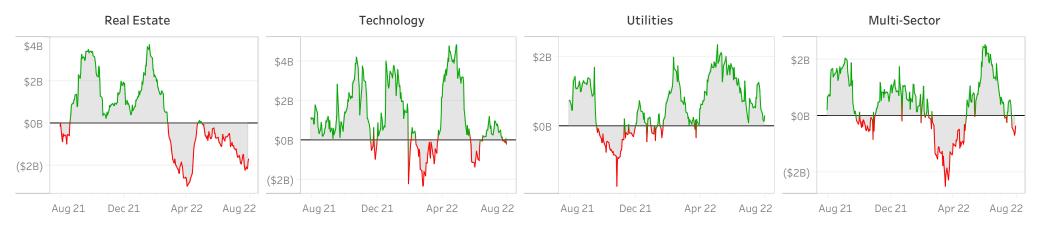












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Global Thematic Performance

July 30, 2022

Global Thematic Segment 1-Day Performance

2.74%

1.56%

1.45%

1.40%

1.39%

1.38%

1.18%

1.16% 1.08% 1.07%

1.04% 0.96%

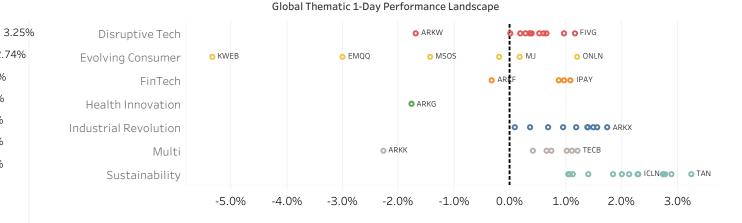
0.96% 0.87% 0.81% 0.81% 0.65% 0.61% 0.36%

0.26%

0.17%

0.00%

| Clean Energy: Solar (TAN) | | |
|-------------------------------|--------|-----|
| Clean Energy (PBW) | | |
| Industrial Revolution (ARKQ) | | |
| 3D Printing (PRNT) | | |
| Smart Infrastructure (GRID) | | |
| NextGen Transportation (DRI | | |
| Robotics & AI (ROBO) | | |
| Advanced Materials (REMX) | | |
| Connectivity (FIVG) | | |
| Digital Payments (IPAY) | | |
| Water (PHO) | | |
| Clean Energy: Wind (FAN) | | |
| Blockchain (BLOK) | | |
| Cloud Computing (SKYY) | | |
| FinTech (FINX) | | |
| Space (UFO) | | |
| Big Data (AIQ) | | |
| Cyber Security (HACK) | | |
| Online Retail (IBUY) | | |
| Digital Infrastructure (SRVR) | | |
| Casinos & Gaming (BETZ) | | |
| Cannabis (MJ) | | |
| eSports & Video Games (ESPO | -0. | 20% |
| Evolving Consumer (SOCL) | -0.3 | 86% |
| Disruptive Tech (ARKW) | -1.70% | |
| Genomics (ARKG) | -1.77% | |
| Biotech | -1.79% | |
| Multi-Theme (ARKK) | -2.27% | |
| | -5.00% | 0.0 |



Global Thematic 1-Day Performance Leaders

| Ticker | Fund | |
|--------|---|-------|
| TAN | Invesco Solar ETF | 3.25% |
| QCLN | First Trust Nasdaq Clean Edge Green Energy Index Fund | 2.89% |
| CTEC | Global X CleanTech ETF | 2.80% |
| CNRG | SPDR S&P Kensho Clean Power ETF | 2.77% |
| ACES | ALPS Clean Energy ETF | 2.74% |
| PBW | Invesco WilderHill Clean Energy ETF | 2.74% |
| ICLN | iShares Global Clean Energy ETF | 2.29% |
| PBD | Invesco Global Clean Energy ETF | 2.28% |
| ERTH | Invesco MSCI Sustainable Future ETF | 2.13% |
| CGW | Invesco S&P Global Water Index ETF | 2.00% |
| | | |

Global Thematic 1-Day Performance Laggards

| Ticker | Fund | |
|--------|---|--------|
| KWEB | KraneShares CSI China Internet ETF | -5.34% |
| EMQQ | EMQQ The Emerging Markets Internet & Ecommerce E | -3.01% |
| ARKK | ARK Innovation ETF | -2.27% |
| KSTR | KraneShares SSE STAR Market 50 Index ETF | -2.08% |
| IDNA | iShares Genomics Immunology and Healthcare ETF Ge | -1.83% |
| SBIO | ALPS Medical Breakthroughs ETF | -1.79% |
| ARKG | ARK Genomic Revolution ETF | -1.77% |
| ARKW | ARK Next Generation Internet ETF | -1.70% |
| MSOS | AdvisorShares Pure US Cannabis ETF | -1.44% |
| вксн | Global X Blockchain ETF | -1.13% |
| | | |

Thematic Most Overbought

| Ticker | Fund | |
|--------|---|-------|
| FIW | First Trust Water ETF | 75.44 |
| CGW | Invesco S&P Global Water Index ETF | 74.98 |
| PHO | Invesco Water Resources ETF | 74.90 |
| GRID | First Trust Nasdaq Clean Edge Smart GRID Infrastructure | 74.61 |
| ICLN | iShares Global Clean Energy ETF | 73.45 |
| TAN | Invesco Solar ETF | 73.27 |
| CNRG | SPDR S&P Kensho Clean Power ETF | 72.55 |
| EVX | VanEck Environmental Services ETF | 72.37 |
| PIO | Invesco Global Water ETF | 72.35 |
| ACES | ALPS Clean Energy ETF | 72.22 |

Thematic Most Oversold

| | Ticker | Fund | |
|---|--------|--|-------|
| % | KWEB | KraneShares CSI China Internet ETF | 38.76 |
| % | KGRN | KraneShares MSCI China Clean Technology Index ETF | 41.96 |
| % | EMQQ | EMQQ The Emerging Markets Internet & Ecommerce ETF | 42.85 |
| % | MJ | ETFMG Alternative Harvest ETF | 46.37 |
| % | YOLO | AdvisorShares Pure Cannabis ETF | 46.67 |
| % | SOCL | Global X Social Media ETF | 46.88 |
| % | MSOS | AdvisorShares Pure US Cannabis ETF | 47.08 |
| % | POTX | Global X Cannabis ETF | 47.89 |
| % | BUG | Global X Cybersecurity ETF | 48.47 |
| % | ХІТК | SPDR FactSet Innovative Technology ETF | 50.24 |
| | | | |

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

5.00%

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Global Thematic Flows

Thematic 1 Week Flow Leaders

| Fund | | S |
|--|---|---|
| First Trust Water ETF | \$12M | |
| Global X Cybersecurity ETF | \$11M | D |
| iShares Global Clean Energy ETF | \$9M | _ |
| iShares Robotics and Artificial Intelligence Multisector ETF | \$6M | |
| SPDR S&P Kensho New Economies Composite ETF | \$6M | E |
| Global X Robotics & Artificial Intelligence ETF | \$5M | |
| AXS 2X Innovation ETF | \$4M | |
| Invesco Water Resources ETF | \$3M | F |
| First Trust Nasdaq Clean Edge Green Energy Index Fund | \$3M | F |
| SPDR S&P Kensho Future Security ETF | \$1M | |
| | First Trust Water ETF Global X Cybersecurity ETF iShares Global Clean Energy ETF iShares Robotics and Artificial Intelligence Multisector ETF SPDR S&P Kensho New Economies Composite ETF Global X Robotics & Artificial Intelligence ETF AXS 2X Innovation ETF Invesco Water Resources ETF First Trust Nasdaq Clean Edge Green Energy Index Fund | First Trust Water ETF \$12M Global X Cybersecurity ETF \$11M iShares Global Clean Energy ETF \$9M iShares Robotics and Artificial Intelligence Multisector ETF \$6M SPDR S&P Kensho New Economies Composite ETF \$6M Global X Robotics & Artificial Intelligence ETF \$6M Soldal X Robotics & Artificial Intelligence ETF \$5M AXS 2X Innovation ETF \$4M Invesco Water Resources ETF \$3M First Trust Nasdaq Clean Edge Green Energy Index Fund \$3M |

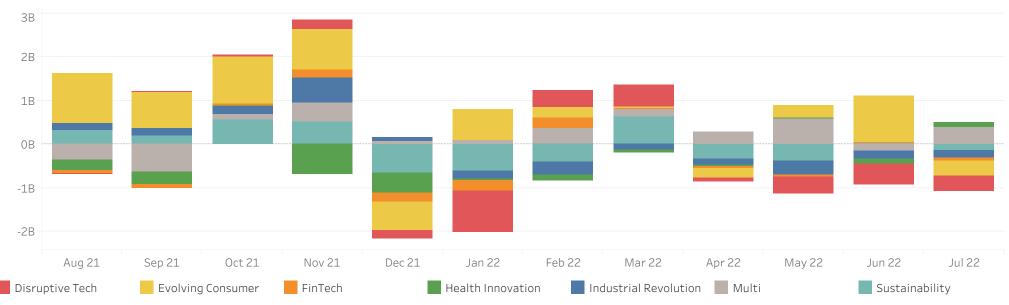
| Segment | Funds | AUM | 1 Week | 3 Month | 6 Month | 1 Year |
|-----------------------|-------|-------|----------|------------|------------|------------|
| Disruptive Tech | 35 | \$18B | (\$42M) | (\$1,193M) | (\$384M) | (\$1,278M) |
| Evolving Consumer | 48 | \$12B | (\$200M) | \$1,016M | \$1,054M | \$5,117M |
| FinTech | 24 | \$3B | (\$56M) | (\$134M) | \$81M | (\$284M) |
| Health Innovation | 19 | \$4B | (\$102M) | \$3M | (\$231M) | (\$1,907M) |
| Industrial Revolution | 32 | \$12B | (\$28M) | (\$679M) | (\$1,259M) | (\$287M) |
| Multi | 42 | \$17B | (\$79M) | \$847M | \$1,688M | \$1,404M |
| Sustainability | 42 | \$19B | \$11M | (\$481M) | (\$573M) | (\$230M) |
| Grand Total | 242 | \$86B | (\$496M) | (\$622M) | \$377M | \$2,535M |

Thematic Landscape Assets & Flows

Thematic 1 Week Flow Laggards

| In | | · Fund | Ticker |
|----|----------|--|--------|
| | (\$177M) | KraneShares CSI China Internet ETF | KWEB |
| | (\$101M) | ARK Genomic Revolution ETF | ARKG |
| M | (\$79M) | ARK Innovation ETF | ARKK |
| | (\$38M) | ETFMG Prime Mobile Payments ETF | IPAY |
| | (\$18M) | WisdomTree Cloud Computing Fund | WCLD |
| Su | (\$17M) | Global X FinTech ETF | FINX |
| | (\$14M) | ARK Next Generation Internet ETF | ARKW |
| | (\$14M) | Invesco Solar ETF | TAN |
| Gr | (\$13M) | Amplify Online Retail ETF | IBUY |
| | (\$13M) | VanEck Rare Earth/Strategic Metals ETF | REMX |

Thematic 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

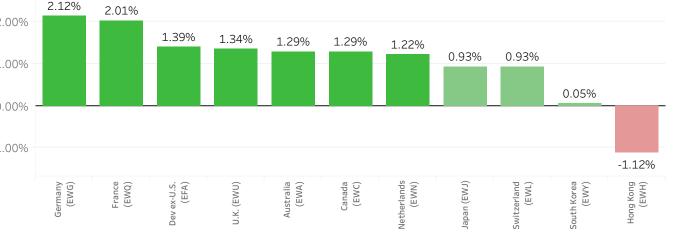


Developed Markets ex-U.S. Performance

July 30, 2022

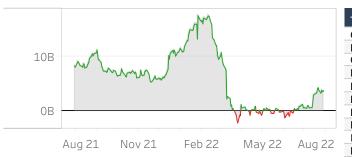
Developed ex-U.S. (EFA)





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

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



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

| Ticker | Fund | |
|--------|---|-------|
| GSID | Goldman Sachs MarketBeta International Equity ETF | 3.92% |
| EWD | iShares MSCI Sweden ETF | 2.97% |
| CIL | VictoryShares International Volatility Wtd ETF | 2.88% |
| EWI | iShares MSCI Italy ETF | 2.71% |
| EWO | iShares MSCI Austria ETF | 2.26% |
| EWG | iShares MSCI Germany ETF | 2.12% |
| EWQ | iShares MSCI France ETF | 2.01% |
| EZU | iShares MSCI Eurozone ETF | 1.95% |
| IEUS | iShares MSCI Europe Small-Cap ETF | 1.92% |
| FDD | First Trust Stoxx European Select Dividend Index Fund | 1.87% |

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

| Ticker | Fund | |
|--------|---|--------|
| AIA | iShares Asia 50 ETF | -2.16% |
| EWH | iShares MSCI Hong Kong ETF | -1.12% |
| AAXJ | iShares MSCI All Country Asia ex Japan ETF | -0.80% |
| EWS | iShares MSCI Singapore ETF | -0.32% |
| PTIN | Pacer Trendpilot International ETF | -0.12% |
| FLKR | Franklin FTSE South Korea ETF | 0.00% |
| EWY | iShares MSCI South Korea ETF | 0.05% |
| DBJP | Xtrackers MSCI Japan Hedged Equity ETF | 0.07% |
| BBAX | JPMorgan BetaBuilders Developed Asia Pacific-ex Japan E | 0.34% |
| LVHI | Franklin International Low Volatility High Dividend Index | 0.35% |

Developed ex-U.S. Most Overbought

| Ticker | Fund | |
|--------|--|-------|
| DFJ | WisdomTree Japan SmallCap Dividend Fund | 71.15 |
| SCJ | iShares MSCI Japan Small-Cap ETF | 70.69 |
| IHDG | WisdomTree International Hedged Quality Dividend Grow | 68.64 |
| ISVL | iShares International Developed Small Cap Value Factor E | 68.64 |
| EFG | iShares MSCI EAFE Growth ETF | 68.02 |
| BBJP | JPMorgan BetaBuilders Japan ETF | 67.59 |
| ENZL | iShares MSCI New Zealand ETF | 67.49 |
| FLJP | Franklin FTSE Japan ETF | 67.41 |
| IMOM | Alpha Architect International Quantitative Momentum ETF | 67.20 |
| WPS | iShares International Developed Property ETF | 67.05 |

Developed ex-U.S. Most Oversold

| | Ticker | Fund | |
|-------------|--------|---|-------|
| 6 | AIA | iShares Asia 50 ETF | 42.58 |
| 6 | EWH | iShares MSCI Hong Kong ETF | 44.06 |
| 6 | AAXJ | iShares MSCI All Country Asia ex Japan ETF | 48.47 |
| 6 | PTIN | Pacer Trendpilot International ETF | 48.84 |
| 6 | EWP | iShares MSCI Spain ETF | 51.96 |
| 6 | IDOG | ALPS International Sector Dividend Dogs ETF | 52.72 |
| 6 | EWO | iShares MSCI Austria ETF | 54.16 |
| 6 | FDD | First Trust Stoxx European Select Dividend Index Fu | 54.67 |
| 6 | FIDI | Fidelity International High Dividend ETF | 54.93 |
| 6 | EWG | iShares MSCI Germany ETF | 55.07 |
| % % % | FIDI | Fidelity International High Dividend ETF | 54.93 |

Developed ex-U.S. Monthly Flows

10B 5B 0B Mar 22 Apr 22 Aug 21 Nov 21 Jan 22 Feb 22 May .. Jun 22 Jul 22 Dec 21 Sep 21 21 Oct

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



Emerging Markets Performance

July 30, 2022

Emerging (EEM)



0.66% 0.57% 0.36% 0.06% 0.00% -0.23% -0.47% -0.98% -3.16% Emerging Markets (EEM) Thailand (THD) Malaysia (EWM) China (MCHI) Brazil (EWZ) Taiwan (EWT) (EIDO) Mexico (EWW) South Indonesia Africa (EZ..

Emerging 1-Day Performance Top 10 Countries

Emerging 30-Day Rolling Flows



Emerging 1-Day Performance Leaders

| Ticker | Fund | |
|--------|---|-------|
| EPOL | iShares MSCI Poland ETF | 3.52% |
| NFTY | First Trust India NIFTY 50 Equal Weight ETF | 3.05% |
| TUR | iShares MSCI Turkey ETF | 1.80% |
| EPU | iShares MSCI Peru ETF | 1.61% |
| INDA | iShares MSCI India ETF | 1.51% |
| EPI | WisdomTree India Earnings Fund | 1.49% |
| FLIN | Franklin FTSE India ETF | 1.43% |
| INDY | iShares India 50 ETF | 1.40% |
| PIN | Invesco India ETF | 1.35% |
| SMIN | iShares MSCI India Small Cap ETF | 1.23% |

Emerging Most Overbought

| | Ticker | Fund | |
|---|--------|---|-------|
| Ś | NFTY | First Trust India NIFTY 50 Equal Weight ETF | 70.47 |
| 5 | PIN | Invesco India ETF | 70.16 |
| Ś | FLIN | Franklin FTSE India ETF | 68.56 |
| Ś | INDY | iShares India 50 ETF | 68.38 |
| ò | INDA | iShares MSCI India ETF | 68.00 |
| Ś | QAT | iShares MSCI Qatar ETF | 66.25 |
| 5 | EPI | WisdomTree India Earnings Fund | 64.67 |
| Ś | SMIN | iShares MSCI India Small Cap ETF | 64.33 |
| Ś | KSA | iShares MSCI Saudi Arabia ETF | 63.84 |
| Ś | EIDO | iShares MSCI Indonesia ETF | 63.15 |





Emerging 1-Day Performance Laggards

| Ticker | Fund | |
|--------|--|--------|
| FXI | iShares China Large-Cap ETF | -3.25% |
| CXSE | WisdomTree China ex-State-Owned Enterprises Fund | -3.19% |
| мсні | iShares MSCI China ETF | -3.16% |
| FLCH | Franklin FTSE China ETF | -2.98% |
| PGJ | Invesco Golden Dragon China ETF | -2.91% |
| GXC | SPDR S&P China ETF | -2.79% |
| ECNS | iShares MSCI China Small-Cap ETF | -1.81% |
| RAYC | Rayliant Quantamental China Equity ETF | -1.76% |
| FNI | First Trust Chindia ETF | -1.70% |
| BKF | iShares MSCI BIC ETF | -1.58% |
| | | |

Emerging Most Oversold

| Ticker | Fund | |
|--------|--|-------|
| FLCH | Franklin FTSE China ETF | 34.45 |
| CXSE | WisdomTree China ex-State-Owned Enterprises Fund | 34.57 |
| GXC | SPDR S&P China ETF | 34.64 |
| MCHI | iShares MSCI China ETF | 34.91 |
| RAYC | Rayliant Quantamental China Equity ETF | 34.94 |
| ECNS | iShares MSCI China Small-Cap ETF | 35.81 |
| FXI | iShares China Large-Cap ETF | 36.50 |
| KBA | KraneShares Bosera MSCI China A 50 Connect Index | 37.43 |
| ASHR | Xtrackers Harvest CSI 300 China A-Shares ETF | 38.09 |
| CNYA | iShares MSCI China A ETF | 38.99 |

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Commodities (DJP)

July 30, 2022



Fixed Income (AGG)





Currencies Performance

Fixed Income Performance

Commodities Performance

Jul 22

Ticker Name 1 Month YTD Ticker Name 1 Day 1 Month YTD Ticker Name 1 Month 1 Day 1 Day 0.92% 0.17% 26.20% DJP **Broad Commodities** -7.88% 0.01% 3.00% AGG U.S. Aggregate -0.04% -5.47% 49.71% -0.39% 0.86% 10.38% DBE Energy UUP Long Dollar 1.19% -5.91% 43.58% US0 WTI Crude Oil SHY 1-3 Year Treasury Bonds -0.01% 0.60% -2.59% 1.31% -3.29% 54.85% BNO Brent Crude Oil IEF 7-10 Year Treasury Bonds 0.04% 3.75% -7.91% UNG Natural Gas 0.99% 30.86% 129.14% 0.33% -0.74% -10.03% UDN Short Dollar -0.95% -11.36% 51.95% UGA Gasoline -19.98% 20+ Year Treasury Bonds -0.27% 3.33% TLT -3.16% DBP Precious Metals 0.61% -6.76% 0.28% -3.18% -4.01% GLD Gold 0.33% -2.23% -10.70% FXE Euro 4.21% -5.12% TIP **TIPS Bonds** 0.50% 1.47% -13.06% -2.30% SLV Silver -2.61% -7.65% PPLT abrdn Physical Platin. 0.63% 0.04% 0.30% -0.70% FLOT Floating Rate Bonds PALL abrdn Physical Palla. 1.72% 7.70% 11.69% FXB British Pound Sterling 0.08% 0.50% -10.08% 0.24% 4.76% -12.35% DBB Base Metals 2.39% -2.29% -11.64% LQD Investment Grade Corporate CPER 3.24% -4.82% -20.25% Copper HYG High Yield Corporate 0.30% 6.64% -7.99% LD 0.49% 3.25% -12.87% Lead 0.27% 0.19% -4.89% FXF Swiss Franc 10.16% 15.71% JJN Nickel 0.10% 2.90% -3.18% BKLN Senior Loan JJU 1.30% -1.93% -11.83% Aluminum JJT Tin 1.00% -6.34% -35.26% 1.22% 6.08% -9.85% PFF Preferred & Income Securities 0.75% 2.39% -13.89% FXY Japanese Yen 0.30% -2.46% 2.23% DBA Agriculture 0.77% -4.76% 16.06% CORN Corn 0.08% 2.66% -5.76% MUB Municipal Bonds 1.75% -0.15% 20.35% SOYB Soybeans -10.76% Canadian Dollar 0.10% 0.70% -1.50% 0.14% 3.76% -5.69% -0.47% 14.48% FXC WEAT Wheat MBB MBS -1.47% -6.13% -5.11% CANE Sugar -17.41% 0.39% 4.02% EMB Dollar Denominated EM Bonds -2.86% 1.18% 3.26% BAL Cotton -0.36% -2.66% -14.66% FXA Australian Dollar 0.08% 1.54% -4.07% NIB Cocoa 0.59% 0.03% -13.05% LEMB Local Currency EM Bond JO -0.55% -4.22% -3.21% Coffee

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