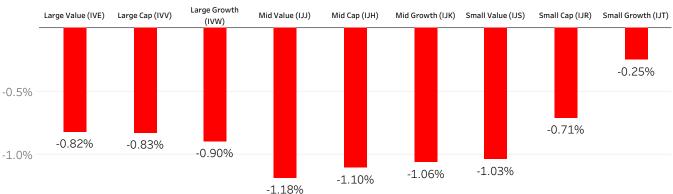






U.S. Size & Style 1-Day Performance



Mid Cap Blend (S&P 400) IJH



Size & Style 1-Day Performance Leaders

| Ticker | Fund | |
|--------|--|--------|
| XSLV | Invesco S&P SmallCap Low Volatility ETF | 0.70% |
| SMDV | ProShares Russell 2000 Dividend Growers ETF | 0.08% |
| XSMO | Invesco S&P SmallCap Momentum ETF | 0.06% |
| PTLC | Pacer Trendpilot US Large Cap ETF | 0.05% |
| SPC | CrossingBridge Pre-Merger SPAC ETF | 0.05% |
| ISMD | Inspire Small/Mid Cap ETF | 0.03% |
| CSF | VictoryShares US Discovery Enhanced Volatility Wtd ETF | 0.02% |
| SIXS | ETC 6 Meridian Small Cap Equity ETF | -0.01% |
| ONOF | Global X Adaptive U.S. Risk Management ETF | -0.07% |
| SIXL | ETC 6 Meridian Low Beta Equity ETF | -0.10% |

Size & Style Most Overbought

| Ticker | Fund | |
|--------|--|-------|
| PTLC | Pacer Trendpilot US Large Cap ETF | 63.56 |
| SPC | CrossingBridge Pre-Merger SPAC ETF | 62.73 |
| ONOF | Global X Adaptive U.S. Risk Management ETF | 50.56 |
| DURA | VanEck Durable High Dividend ETF | 47.64 |
| ALTL | Pacer Lunt Large Cap Alternator ETF | 46.85 |
| LVHD | Franklin U.S. Low Volatility High Dividend Index ETF | 46.62 |
| SPLV | Invesco S&P 500 Low Volatility ETF | 45.52 |
| XRLV | Invesco S&P 500 ex-Rate Sensitive Low Volatility ETF | 45.24 |
| CGDV | Capital Group Dividend Value ETF | 44.89 |
| HUSV | First Trust Horizon Managed Volatility Domestic ETF | 44.79 |

Small Cap Blend (S&P 600) IJR



Size & Style 1-Day Performance Laggards

| Ticker | Fund | |
|--------|--|--------|
| NZUS | SPDR MSCI USA Climate Paris Aligned ETF | -5.77% |
| QVML | Invesco S&P 500 QVM Multi-factor ETF | -3.44% |
| IPO | Renaissance IPO ETF | -2.73% |
| PABU | iShares Paris-Aligned Climate MSCI USA ETF | -2.35% |
| JSML | Janus Henderson Small Cap Growth Alpha ETF | -2.20% |
| LCG | Sterling Capital Focus Equity ETF | -2.20% |
| VBK | Vanguard Small-Cap Growth ETF | -2.02% |
| DWAS | Invesco DWA SmallCap Momentum ETF | -2.02% |
| IWC | iShares Micro-Cap ETF | -2.02% |
| FPX | First Trust US Equity Opportunities ETF | -1.93% |
| | | |

Size & Style Most Oversold

| Ticker | Fund | |
|--------|---|-------|
| LSAT | Leadershares Alphafactor Tactical Focused ETF | 25.83 |
| QVML | Invesco S&P 500 QVM Multi-factor ETF | 27.62 |
| ACSI | American Customer Satisfaction ETF | 27.62 |
| FFTY | Innovator IBD 50 ETF | 28.71 |
| XSVM | Invesco S&P SmallCap Value with Momentum ETF | 28.92 |
| JMEE | JPMorgan Market Expansion Enhanced Equity ETF | 29.14 |
| NZUS | SPDR MSCI USA Climate Paris Aligned ETF | 29.31 |
| PTMC | Pacer Trendpilot US Mid Cap ETF | 30.44 |
| FPX | First Trust US Equity Opportunities ETF | 30.81 |
| NUMV | Nuveen ESG Mid-Cap Value ETF | 30.88 |

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

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Large-Cap 30-Day Rolling Flows



U.S. Size & Style Landscape Flows

| | Funds | AUM | 1 Week | 3 Month | 6 Month | 1 Year |
|--------------------------------------|-------|----------|-----------|----------|----------|-----------|
| Large Cap, Beta Growth, Beta | 25 | \$1,200B | (\$9.31B) | \$24.05B | \$39.04B | \$79.23B |
| Large Cap, Beta Growth, Beta: Growth | 10 | \$217B | \$0.97B | \$9.60B | \$15.57B | \$20.97B |
| Large Cap, Beta Growth, Beta: Value | 11 | \$224B | \$6.16B | \$6.32B | \$6.62B | \$24.20B |
| Mid Cap, Beta, Beta | 10 | \$178B | (\$0.89B) | \$5.38B | \$6.14B | \$12.12B |
| Mid Cap, Beta, Beta: Growth | 6 | \$32B | \$0.21B | \$0.44B | \$1.07B | \$0.77B |
| Mid Cap, Beta, Beta: Value | 6 | \$41B | \$0.22B | \$1.77B | \$1.75B | \$2.24B |
| Small Cap, Beta, Beta | 13 | \$188B | \$2.66B | \$6.31B | \$3.22B | \$2.36B |
| Small Cap, Beta, Beta: Growth | 7 | \$30B | \$0.16B | \$0.90B | \$0.62B | \$1.20B |
| Small Cap, Beta, Beta: Value | 7 | \$50B | \$1.45B | \$2.46B | \$0.34B | (\$0.92B) |

Mid-Cap 30-Day Rolling Flows



U.S. Size & Style Flow Leaders

| Ticker | Fund | 1 Week | 3 Month | 6 Month | 1 Year | AUM |
|--------|----------------------------------|---------|-----------|-----------|-----------|-----------|
| SPYV | SPDR Portfolio S&P 500 Value ETF | \$4.54B | \$6.20B | \$6.28B | \$6.70B | \$19.31B |
| IWM | iShares Russell 2000 ETF | \$2.30B | \$3.99B | (\$0.42B) | (\$2.02B) | \$53.86B |
| RPV | Invesco S&P 500 Pure Value ETF | \$1.17B | \$1.32B | \$1.09B | \$2.09B | \$4.74B |
| SLYV | SPDR S&P 600 Small Cap Value ETF | \$1.03B | \$1.06B | \$1.10B | \$1.28B | \$4.95B |
| COWZ | Pacer US Cash Cows 100 ETF | \$1.02B | \$3.33B | \$4.82B | \$10.06B | \$11.16B |
| VTI | Vanguard Total Stock Market ETF | \$0.81B | \$6.85B | \$11.86B | \$25.35B | \$262.67B |
| VTV | Vanguard Value ETF | \$0.77B | (\$3.27B) | (\$2.05B) | \$11.54B | \$99.02B |
| MDYV | SPDR S&P 400 Mid Cap Value ETF | \$0.59B | \$1.00B | \$1.49B | \$1.50B | \$2.95B |
| IWF | iShares Russell 1000 Growth ETF | \$0.53B | \$2.63B | \$2.91B | \$3.05B | \$59.63B |
| SPHQ | Invesco S&P 500 Quality ETF | \$0.49B | \$0.60B | \$0.06B | \$1.25B | \$4.09B |

Small-Cap 30-Day Rolling Flows



U.S. Size & Style Flow Laggards

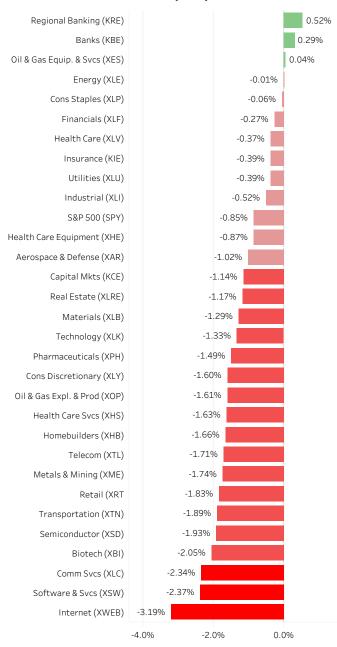
| Ticker | Fund | 1 Week | 3 Month | 6 Month | 1 Year | AUM |
|--------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|
| SPY | SPDR S&P 500 ETF Trust | (\$4.45B) | \$13.28B | \$10.07B | (\$0.24B) | \$367.97B |
| QQQ | Invesco QQQ Trust | (\$3.39B) | (\$3.23B) | (\$1.46B) | (\$0.18B) | \$149.85B |
| VO | Vanguard Mid-Cap ETF | (\$1.31B) | \$1.33B | \$0.84B | \$3.63B | \$51.02B |
| IVV | iShares Core S&P 500 ETF | (\$0.91B) | \$5.19B | \$7.41B | \$23.78B | \$292.73B |
| SPLG | SPDR Portfolio S&P 500 ETF | (\$0.53B) | \$0.81B | \$1.97B | \$3.42B | \$14.89B |
| VOE | Vanguard Mid-Cap Value ETF | (\$0.49B) | \$0.44B | (\$0.19B) | \$1.79B | \$16.28B |
| IWB | iShares Russell 1000 ETF | (\$0.32B) | \$0.95B | \$0.99B | \$1.56B | \$27.23B |
| PKW | Invesco Buyback Achievers ETF | (\$0.26B) | \$0.35B | \$0.23B | \$0.18B | \$1.53B |
| VXF | Vanguard Extended Market ETF | (\$0.11B) | \$0.19B | (\$0.05B) | \$0.33B | \$13.11B |
| VLUE | iShares MSCI USA Value Factor ETF | (\$0.09B) | (\$0.48B) | (\$1.50B) | (\$6.30B) | \$7.66B |

^{*}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

Select Sector SPDRs Technicals



| Ticker | Fund Name | % From 52W High | % From 52W Low | % Abv/Below 50 SMA | % Abv/Below 200 SMA | RSI (14D) |
|--------|--|--------------------|-------------------|-----------------------|------------------------|-----------|
| XLV | Health Care Select Sector SPDR Fund | -5.85% | 12.16% | 1.07% | 2.70% | 44.08 |
| XLP | Consumer Staples Select Sector SPDR Fund | -7.81% | 11.70% | 1.43% | 0.72% | 44.03 |
| XLI | Industrial Select Sector SPDR Fund | -9.28% | 17.24% | 1.25% | 3.04% | 43.06 |
| XLU | Utilities Select Sector SPDR Fund | -10.87% | 13.18% | 2.63% | -2.40% | 46.80 |
| XLE | Energy Select Sector SPDR Fund | -11.26% | 50.43% | -5.23% | 3.85% | 37.98 |
| XLB | Materials Select Sector SPDR Fund | -14.41% | 15.20% | 0.18% | -2.01% | 40.23 |
| XLF | Financial Select Sector SPDR Fund | -19.36% | 10.27% | -2.14% | -2.16% | 35.75 |
| SPY | SPDR S&P 500 ETF Trust | -20.45% | 6.58% | -1.78% | -5.22% | 38.36 |
| XLK | Technology Select Sector SPDR Fund | -28.54% | 7.60% | -1.98% | -7.83% | 40.34 |
| XLRE | Real Estate Select Sector SPDR Fund | -29.28% | 8.50% | -1.20% | -12.18% | 39.08 |
| XLY | Consumer Discretionary Select Sector SPDR Fund | -37.52% | 0.00% | -6.58% | -14.72% | 30.62 |
| XLC | Communication Services Select Sector SPDR Fund | -40.16% | 3.08% | -4.78% | -16.31% | 35.75 |
| | | | | | | |

Sector & Industry 1 Day Performance Leaders

Sector & Industry Most Overbought

| Ticker | Fund | | Ticker | Fund | |
|--------|---|-------|--------|--|-------|
| KBWR | Invesco KBW Regional Banking ETF | 0.70% | ITB | iShares U.S. Home Construction ETF | 53.13 |
| KRE | SPDR S&P Regional Banking ETF | 0.52% | FBT | First Trust NYSE Arca Biotechnology Index Fund | 49.41 |
| QABA | First Trust NASDAQ ABA Community Bank Index F | 0.31% | XAR | SPDR S&P Aerospace & Defense ETF | 48.53 |
| KBE | SPDR S&P Bank ETF | 0.29% | ITA | iShares U.S. Aerospace & Defense ETF | 48.20 |
| PBJ | Invesco Dynamic Food & Beverage ETF | 0.21% | FXH | First Trust Health Care AlphaDEX Fund | 48.03 |
| REM | iShares Mortgage Real Estate ETF | 0.17% | XLU | Utilities Select Sector SPDR Fund | 46.80 |
| MORT | VanEck Mortgage REIT Income ETF | 0.16% | RYU | Invesco S&P 500 Equal Weight Utilities ETF | 46.78 |
| IEZ | iShares U.S. Oil Equipment & Services ETF | 0.15% | FUTY | Fidelity MSCI Utilities Index ETF | 46.74 |
| IHE | iShares U.S. Pharmaceuticals ETF | 0.15% | VPU | Vanguard Utilities ETF | 46.70 |
| FTXO | First Trust Nasdaq Bank ETF | 0.12% | RYH | Invesco S&P 500 Equal Weight Health Care ETF | 46.68 |

Sector & Industry 1 Day Performance Laggards

Sector & Industry Most Oversold

| Ticker | Fund | | Ticker | Fund | |
|--------|--|--------|--------|--|-------|
| PTH | Invesco DWA Healthcare Momentum ETF | -2.71% | KBWR | Invesco KBW Regional Banking ETF | 26.50 |
| XSW | SPDR S&P Software & Services ETF | -2.37% | KRE | SPDR S&P Regional Banking ETF | 27.54 |
| XLC | Communication Services Select Sector SPDR Fund | -2.34% | KBE | SPDR S&P Bank ETF | 28.81 |
| FBT | First Trust NYSE Arca Biotechnology Index Fund | -2.21% | QABA | First Trust NASDAQ ABA Community Bank Index Fund | 29.28 |
| FDN | First Trust Dow Jones Internet Index Fund | -2.19% | JPRE | JPMorgan Realty Income ETF | 29.45 |
| FCOM | Fidelity MSCI Communication Services Index ETF | -2.19% | XLY | Consumer Discretionary Select Sector SPDR Fund | 30.62 |
| MLPA | Global X MLP ETF | -2.08% | FTXO | First Trust Nasdaq Bank ETF | 31.05 |
| VOX | Vanguard Communication Services ETF | -2.06% | IAT | iShares U.S. Regional Banks ETF | 31.35 |
| XBI | SPDR S&P BIOTECH ETF | -2.05% | PFI | Invesco DWA Financial Momentum ETF | 31.99 |
| PNQI | Invesco NASDAQ Internet ETF | -2.00% | VCR | Vanguard Consumer Discretionary ETF | 32.22 |

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

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U.S. Sector & Industry 1-Week Flows

Biotech \$473M Aerospace & Defense \$83M \$75M Semiconductors \$75M Homebuilding \$30M Infrastructure \$12M Midstream \$10M Insurance \$10M MLPs: Note \$7M Food & Beverage BDCs \$3M Pharmaceuticals \$0M \$0M Construction & Engineering Mortgage REITs (\$1M) (\$1M) Media & Entertainment (\$1M) Health Care Providers & Services (\$4M) Leisure & Recreation (\$9M) Natural Gas MLPs: C-Corp (\$10M) (\$11M) Oil & Gas Equipment & Services Health Care Equipment & Supplies (\$23M) (\$25M) Banks: Regional (\$27M) Transportation (\$40M) Metals & Mining (\$59M) Retail (\$142M) (\$146M) Oil & Gas Exploration & Production (\$177M) Software OM 500M

1 Week (Custom SQL Query22)

U.S. Sector Landscape

| | Funds | AUM | 1 Week | 3 Month | 6 Month | 1 Year |
|------------------------|-------|--------|----------|----------|------------|-------------|
| Communication Services | | \$11B | (\$51M) | \$43M | (\$26M) | (\$1,210M) |
| Consumer Discretionary | 12 | \$20B | \$26M | (\$770M) | (\$1,087M) | (\$6,027M) |
| Consumer Staples | 10 | \$30B | (\$53M) | \$1,213M | \$2,845M | \$8,391M |
| Energy | 33 | \$78B | (\$248M) | \$731M | (\$3,403M) | \$370M |
| Financials | 26 | \$58B | (\$267M) | \$351M | (\$1,324M) | (\$10,701M) |
| Health Care | 23 | \$97B | \$278M | \$2,643M | \$4,147M | \$12,801M |
| Industrial | 13 | \$30B | \$140M | \$621M | (\$507M) | (\$2,156M) |
| Materials | 9 | \$13B | (\$32M) | (\$389M) | (\$3,063M) | (\$1,224M) |
| Multi-Sector | 19 | \$13B | (\$17M) | (\$780M) | (\$2,154M) | (\$6,476M) |
| Real Estate | 25 | \$60B | \$255M | (\$377M) | (\$1,788M) | (\$3,082M) |
| Technology | 23 | \$114B | \$58M | \$2,776M | \$1,539M | (\$368M) |
| Utilities | 9 | \$26B | \$157M | (\$713M) | \$1,157M | \$5,501M |

U.S. Sector & Industry Flow Leaders

| Ticker | Fund | 1 Week | 3 Month | 6 Month | 1 Year | AUM |
|--------|--|--------|----------|----------|------------|-----------|
| IYR | iShares U.S. Real Estate ETF | \$510M | \$275M | (\$112M) | (\$955M) | \$3,955M |
| XBI | SPDR S&P BIOTECH ETF | \$439M | \$1,228M | \$1,291M | \$3,825M | \$8,226M |
| XLK | Technology Select Sector SPDR Fund | \$286M | \$751M | \$1,233M | \$1,498M | \$39,755M |
| XLU | Utilities Select Sector SPDR Fund | \$116M | (\$415M) | \$801M | \$3,759M | \$16,827M |
| ITB | iShares U.S. Home Construction ETF | \$103M | \$99M | (\$159M) | (\$1,017M) | \$1,407M |
| XLI | Industrial Select Sector SPDR Fund | \$95M | \$11M | (\$851M) | (\$2,542M) | \$13,722M |
| XLY | Consumer Discretionary Select Sector SPDR Fu | \$80M | (\$768M) | (\$712M) | (\$2,678M) | \$13,496M |
| SOXX | iShares Semiconductor ETF | \$74M | (\$77M) | (\$431M) | (\$314M) | \$6,114M |
| ITA | iShares U.S. Aerospace & Defense ETF | \$72M | \$447M | \$389M | \$1,843M | \$4,528M |
| XLRE | Real Estate Select Sector SPDR Fund | \$64M | \$203M | \$421M | \$735M | \$5,095M |

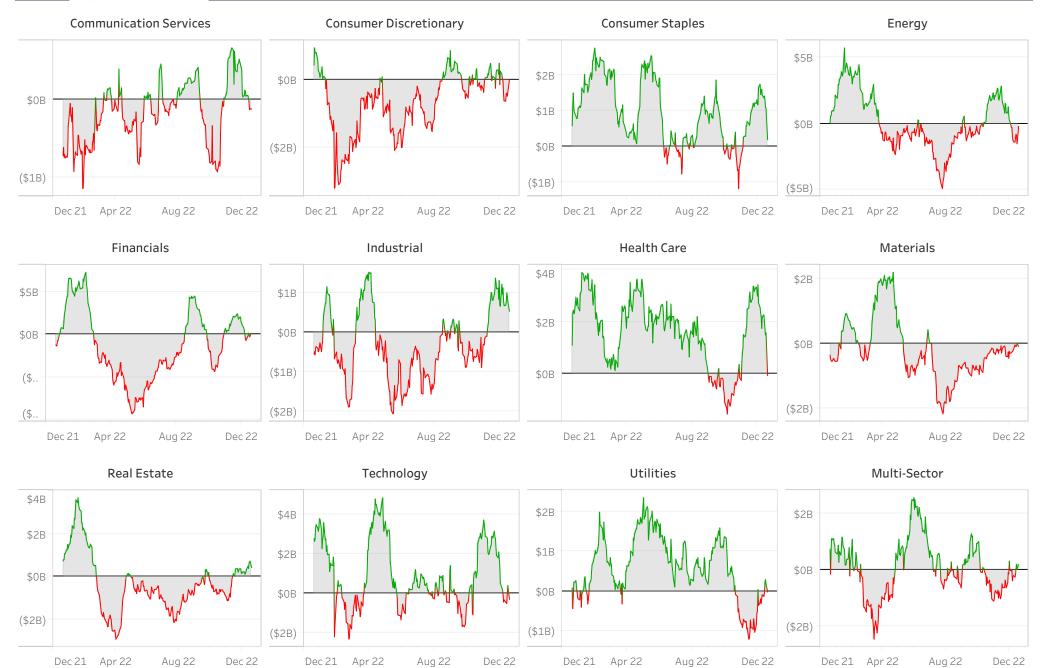
U.S. Sector & Industry Flow Laggards

| Ticker | Fund | 1 Week | 3 Month | 6 Month | 1 Year | AUM |
|--------|---|----------|----------|------------|------------|-----------|
| VNQ | Vanguard Real Estate ETF | (\$380M) | (\$718M) | (\$1,648M) | (\$2,095M) | \$34,099M |
| XLV | Health Care Select Sector SPDR Fund | (\$233M) | \$1,015M | \$1,339M | \$7,899M | \$42,379M |
| IGV | iShares Expanded Tech-Software Sector ETF | (\$179M) | \$660M | \$185M | (\$7M) | \$4,257M |
| XOP | SPDR S&P Oil & Gas Exploration & Production E | (\$144M) | (\$1M) | (\$232M) | (\$455M) | \$4,277M |
| IYZ | iShares U.S. Telecommunications ETF | (\$126M) | (\$98M) | (\$99M) | (\$154M) | \$227M |
| FDN | First Trust Dow Jones Internet Index Fund | (\$115M) | (\$358M) | (\$345M) | (\$2,612M) | \$3,716M |
| IYW | iShares U.S. Technology ETF | (\$109M) | \$1,932M | \$1,851M | \$987M | \$7,980M |
| KBE | SPDR S&P Bank ETF | (\$108M) | (\$215M) | (\$542M) | (\$876M) | \$1,716M |
| XLP | Consumer Staples Select Sector SPDR Fund | (\$87M) | \$1,089M | \$1,931M | \$4,839M | \$17,602M |
| XLF | Financial Select Sector SPDR Fund | (\$61M) | \$665M | (\$397M) | (\$5,387M) | \$31,519M |

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



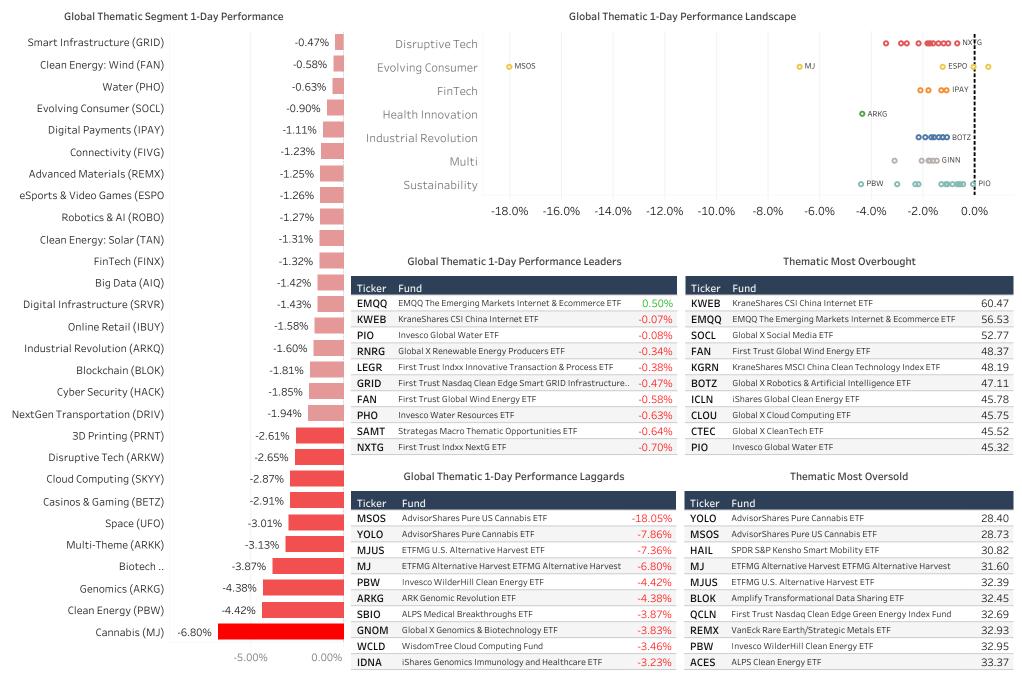




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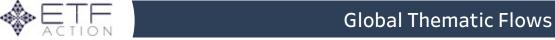






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| Thematic 1 | Week | Flow | Leaders |
|------------|------|------|---------|
| | | | |

| Ticker | Fund | |
|--------|--|--------|
| PHO | Invesco Water Resources ETF | \$108M |
| PBW | Invesco WilderHill Clean Energy ETF | \$50M |
| ARKG | ARK Genomic Revolution ETF | \$11M |
| REMX | VanEck Rare Earth/Strategic Metals ETF | \$9M |
| XT | iShares Exponential Technologies ETF | \$8M |
| GNOM | Global X Genomics & Biotechnology ETF | \$4M |
| TARK | AXS 2X Innovation ETF | \$4M |
| TIME | Clockwise Capital Innovation ETF | \$3M |
| METV | Roundhill Ball Metaverse ETF | \$3M |
| BJK | VanEck Gaming ETF | \$2M |

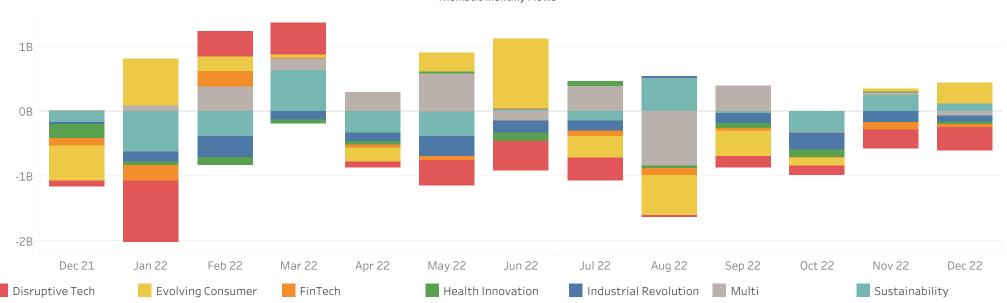
Thematic 1 Week Flow Laggards

| Ticker | Fund | |
|--------|---|---------|
| CIBR | First Trust NASDAQ Cybersecurity ETF | (\$58M) |
| ARKK | ARK Innovation ETF | (\$45M) |
| KWEB | KraneShares CSI China Internet ETF | (\$39M) |
| NXTG | First Trust Indxx NextG ETF | (\$35M) |
| KOMP | SPDR S&P Kensho New Economies Composite ETF | (\$32M) |
| LIT | Global X Lithium & Battery Tech ETF | (\$26M) |
| SKYY | First Trust Cloud Computing ETF | (\$22M) |
| TAN | Invesco Solar ETF | (\$19M) |
| SRVR | Pacer Data & Infrastructure Real Estate ETF | (\$17M) |
| QCLN | First Trust Nasdaq Clean Edge Green Energy Index Fund | (\$14M) |

Thematic Landscape Assets & Flows

| Segment | Funds | AUM | 1 Week | 3 Month | 6 Month | 1 Year |
|-----------------------|-------|-------|----------|------------|------------|------------|
| Disruptive Tech | 35 | \$15B | (\$121M) | (\$846M) | (\$1,460M) | (\$2,430M) |
| Evolving Consumer | 46 | \$10B | (\$43M) | (\$51M) | (\$640M) | \$454M |
| FinTech | 22 | \$2B | (\$14M) | (\$209M) | (\$408M) | (\$579M) |
| Health Innovation | 19 | \$3B | \$6M | (\$157M) | (\$298M) | (\$798M) |
| Industrial Revolution | 32 | \$10B | (\$29M) | (\$597M) | (\$904M) | (\$2,077M) |
| Multi | 41 | \$13B | (\$56M) | \$416M | (\$53M) | \$1,294M |
| Sustainability | 40 | \$19B | \$139M | (\$138M) | \$557M | (\$852M) |
| Grand Total | 235 | \$73B | (\$118M) | (\$1,581M) | (\$3,205M) | (\$4,987M) |

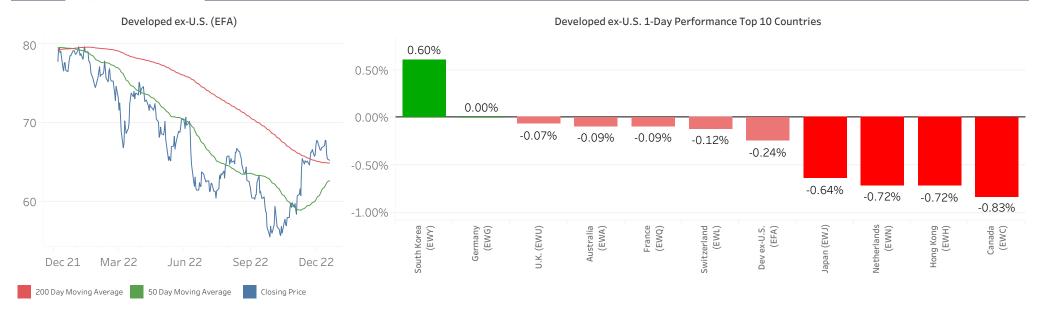
Thematic Monthly Flows



^{*}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 ex-U.S. 30-Day Rolling Flows

10B

Mar 22 Jun 22 Sep 22 Dec 22

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

| Ticker | Fund | |
|--------|--|-------|
| FLKR | Franklin FTSE South Korea ETF | 1.00% |
| EWY | iShares MSCI South Korea ETF | 0.60% |
| IVAL | Alpha Architect International Quantitative Value ETF | 0.47% |
| FSZ | First Trust Switzerland AlphaDEX Fund | 0.28% |
| FLSW | Franklin FTSE Switzerland ETF | 0.21% |
| IEUS | iShares MSCI Europe Small-Cap ETF | 0.20% |
| IDOG | ALPS International Sector Dividend Dogs ETF | 0.20% |
| AIA | iShares Asia 50 ETF | 0.14% |
| FEP | First Trust Europe AlphaDEX Fund | 0.13% |
| ΔΙ\/Ι | WisdomTree International Al Enhanced Value Fund | 0.07% |

Developed ex-U.S. Most Overbought

| | Ticker | Fund | |
|---|--------|---|-------|
| 6 | EWH | iShares MSCI Hong Kong ETF | 60.39 |
| 6 | GREK | Global X MSCI Greece ETF | 60.03 |
| 6 | EDEN | iShares MSCI Denmark ETF | 57.62 |
| 6 | ENZL | iShares MSCI New Zealand ETF | 56.45 |
| 6 | MINV | Matthews Asia Innovators Active ETF | 54.61 |
| 6 | IMFL | Invesco International Developed Dynamic Multifactor ETF | 53.61 |
| 6 | AIA | iShares Asia 50 ETF | 53.60 |
| 6 | DFJ | WisdomTree Japan SmallCap Dividend Fund | 53.18 |
| 6 | DTH | WisdomTree International High Dividend Fund | 53.04 |
| 6 | SCJ | iShares MSCI Japan Small-Cap ETF | 53.03 |
| | | | |

Developed ex-U.S. Monthly Flows



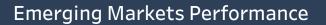
Developed ex-U.S. 1-Day Performance Laggards

| Ticker | Fund | |
|--------|--|--------|
| FJP | First Trust Japan AlphaDEX Fund | -1.32% |
| ISRA | VanEck Israel ETF | -1.19% |
| CIL | VictoryShares International Volatility Wtd ETF | -1.16% |
| GSID | Goldman Sachs MarketBeta International Equity ETF | -1.15% |
| BBCA | JPMorgan BetaBuilders Canada ETF | -0.94% |
| PBDM | Invesco PureBeta FTSE Developed ex-North America ETF | -0.92% |
| TOK | iShares MSCI Kokusai ETF | -0.90% |
| EWC | iShares MSCI Canada ETF | -0.83% |
| FDT | First Trust Developed Markets ex-US AlphaDEX Fund | -0.81% |
| EWH | iShares MSCI Hong Kong ETF | -0.72% |

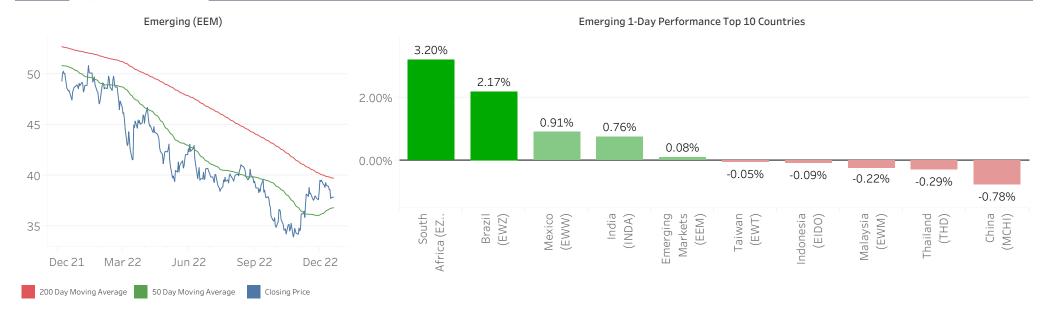
Developed ex-U.S. Most Oversold

| Ticker | Fund | |
|--------|---|-------|
| HEWJ | iShares Currency Hedged MSCI Japan ETF | 14.69 |
| HSCZ | iShares Currency Hedged MSCI EAFE Small-Cap ETF | 19.40 |
| HEFA | iShares Currency Hedged MSCI EAFE ETF | 20.77 |
| DBEF | Xtrackers MSCI EAFE Hedged Equity ETF | 22.84 |
| HEZU | iShares Currency Hedged MSCI Eurozone ETF | 24.36 |
| IHDG | WisdomTree International Hedged Quality Dividend | 25.75 |
| FLCA | Franklin FTSE Canada ETF | 29.93 |
| EWC | iShares MSCI Canada ETF | 32.00 |
| LVHI | Franklin International Low Volatility High Dividend I | 34.20 |
| BBCA | JPMorgan BetaBuilders Canada ETF | 34.57 |
| | | |

^{*}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 30-Day Rolling Flows

10B

5B

0B

Mar 22 Jun 22 Sep 22 Dec 22

| | , | |
|--------|--|-------|
| Ticker | Fund | |
| TUR | iShares MSCI Turkey ETF | 3.85% |
| EZA | iShares MSCI South Africa ETF | 3.20% |
| FLBR | Franklin FTSE Brazil ETF | 2.34% |
| EWZ | iShares MSCI Brazil ETF | 2.17% |
| EWZS | iShares MSCI Brazil Small-Cap ETF | 2.11% |
| ILF | iShares Latin America 40 ETF | 1.65% |
| FLLA | Franklin FTSE Latin America ETF | 1.63% |
| FEMS | First Trust Emerging Markets Small Cap AlphaDEX Fund | 1.11% |
| NFTY | First Trust India NIFTY 50 Equal Weight ETF | 1.09% |
| FLN | First Trust Latin America AlphaDEX Fund | 1.03% |

Emerging 1-Day Performance Leaders

| | Shares MSCI Turkey ETF | 70.74 |
|---------------|---|-------|
| | | 70.74 |
| FEMS F | irst Trust Emerging Markets Small Cap AlphaDEX Fu | 64.64 |
| FEM F | irst Trust Emerging Markets AlphaDEX Fund | 59.22 |
| PGJ Ir | nvesco Golden Dragon China ETF | 57.84 |
| GXC S | PDR S&P China ETF | 57.32 |
| DGS W | VisdomTree Emerging Markets SmallCap Dividend F | 56.73 |
| PIE Ir | nvesco DWA Emerging Markets Momentum ETF | 56.01 |
| MCHI is | Shares MSCI China ETF | 55.96 |
| EYLD C | ambria Emerging Shareholder Yield ETF | 55.90 |
| UEVM V | ictoryShares Emerging Markets Value Momentum E | 55.63 |

Emerging Most Overbought

| | | | | Em | ergin | g Mo | nthl | y Flov | VS | | | | |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6B | | | | | | | | | | | | | |
| 4B | | | | | | | | | | | | | |
| 2B | | | | | | | | | | | | | |
| 0B | | | | | | | | | | | | | |
| -2B | | | | | | | | | | | | | |
| | Dec 21 | Jan 22 | Feb 22 | Mar 22 | Apr 22 | May 22 | Jun 22 | Jul 22 | Aug 22 | Sep 22 | 0ct 22 | Nov 22 | Dec 22 |

| Ticker | Fund | |
|--------|--|--------|
| ECNS | iShares MSCI China Small-Cap ETF | -1.73% |
| CNYA | iShares MSCI China A ETF | -1.68% |
| ASHR | Xtrackers Harvest CSI 300 China A-Shares ETF | -1.48% |
| CXSE | WisdomTree China ex-State-Owned Enterprises Fund | -1.28% |
| RAYC | Rayliant Quantamental China Equity ETF | -1.24% |
| GXC | SPDR S&P China ETF | -1.17% |
| KBA | KraneShares Bosera MSCI China A 50 Connect Index ETF | -1.01% |
| FLCH | Franklin FTSE China ETF | -0.95% |
| FNI | First Trust Chindia ETF | -0.83% |
| PGJ | Invesco Golden Dragon China ETF | -0.82% |

Emerging 1-Day Performance Laggards

| Ticker | Fund | |
|--------|--|-------|
| PIN | Invesco India ETF | 20.04 |
| QAT | iShares MSCI Qatar ETF | 25.62 |
| EWT | iShares MSCI Taiwan ETF | 25.77 |
| KBA | KraneShares Bosera MSCI China A 50 Connect Index | 25.85 |
| KSA | iShares MSCI Saudi Arabia ETF | 27.86 |
| ILF | iShares Latin America 40 ETF | 30.44 |
| FLLA | Franklin FTSE Latin America ETF | 31.83 |
| FLBR | Franklin FTSE Brazil ETF | 32.64 |
| EWZ | iShares MSCI Brazil ETF | 32.94 |
| EWZS | iShares MSCI Brazil Small-Cap ETF | 34.43 |

Emerging Most Oversold

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







Fixed Income Performance

| Ticker | Name | 1 Day | 1 Month | YTD |
|--------|-------------------------------|--------|---------|---------|
| AGG | U.S. Aggregate | -0.61% | 2.26% | -11.46% |
| SHY | 1-3 Year Treasury Bonds | -0.12% | 0.75% | -3.69% |
| IEF | 7-10 Year Treasury Bonds | -0.81% | 2.15% | -13.36% |
| TLT | 20+ Year Treasury Bonds | -1.68% | 6.19% | -27.27% |
| TIP | TIPS Bonds | -0.34% | 1.60% | -11.61% |
| FLOT | Floating Rate Bonds | -0.14% | 0.34% | 0.76% |
| LQD | Investment Grade Corporate | -1.01% | 2.66% | -15.96% |
| HYG | High Yield Corporate | -0.51% | 0.94% | -10.28% |
| BKLN | Senior Loan | -0.31% | 0.15% | -2.08% |
| PFF | Preferred & Income Securities | -0.32% | -0.15% | -16.58% |
| MUB | Municipal Bonds | -0.35% | 1.37% | -7.02% |
| МВВ | MBS | -0.56% | 2.42% | -10.05% |
| EMB | Dollar Denominated EM Bonds | -0.55% | 2.96% | -17.87% |
| LEMB | Local Currency EM Bond | 0.17% | 2.44% | -11.38% |

Commodities Performance

| Ticker | Name | 1 Day | 1 Month | YTD |
|--------|-----------------------|---------|---------|---------|
| DJP | Broad Commodities | -1.10% | -2.86% | 15.85% |
| DBE | Energy | 0.09% | -7.53% | 28.87% |
| USO | WTI Crude Oil | 1.80% | -4.29% | 21.54% |
| BNO | Brent Crude Oil | 1.53% | -7.95% | 26.83% |
| UNG | Natural Gas | -10.45% | -12.45% | 44.12% |
| UGA | Gasoline | 2.42% | -7.01% | 29.27% |
| DBP | Precious Metals | -0.45% | 3.18% | -4.09% |
| GLD | Gold | -0.28% | 2.17% | -2.71% |
| SLV | Silver | -1.17% | 9.71% | -1.81% |
| PPLT | abrdn Physical Platin | -1.49% | -0.21% | 0.96% |
| PALL | abrdn Physical Palla | -3.45% | -14.40% | -12.44% |
| DBB | Base Metals | -0.59% | 0.43% | -11.80% |
| CPER | Copper | -0.22% | 3.51% | -16.46% |
| LD | Lead | -1.06% | -1.69% | -4.55% |
| JJN | Nickel | -5.44% | 5.38% | 31.35% |
| JJU | Aluminum | -0.51% | -2.50% | -16.09% |
| JJT | Tin | -0.49% | 3.36% | -37.09% |
| DBA | Agriculture | 0.03% | -0.62% | 0.08% |
| CORN | Corn | -0.81% | -2.64% | 20.01% |
| SOYB | Soybeans | -0.79% | 1.70% | 20.75% |
| WEAT | Wheat | -1.05% | -8.46% | 2.44% |
| CANE | Sugar | 0.50% | 0.74% | 3.91% |
| BAL | Cotton | 2.74% | 0.88% | -6.64% |
| NIB | Cocoa | 0.96% | 1.60% | -7.76% |
| JO | Coffee | -0.50% | 5.62% | -23.40% |
| | | | | |

Currencies Performance

| Ticker | Name | 1 Day | 1 Month | YTD |
|--------|------------------------|--------|---------|---------|
| UUP | Long Dollar | 0.02% | -1.71% | 10.48% |
| UDN | Short Dollar | 0.10% | 2.21% | -9.05% |
| FXE | Euro | 0.15% | 2.72% | -7.44% |
| FXB | British Pound Sterling | -0.11% | 2.43% | -9.94% |
| FXF | Swiss Franc | 0.49% | 2.52% | -2.84% |
| FXY | Japanese Yen | -0.16% | 2.44% | -16.41% |
| FXC | Canadian Dollar | 0.24% | -1.87% | -7.29% |
| FXA | Australian Dollar | 0.06% | 0.35% | -8.10% |

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Contact us at:

team@etfaction.com www.etfaction.com