

# Democratize Quant Conference



| Date | Time          | Topic                           | Presenter       | Notes                         |
|------|---------------|---------------------------------|-----------------|-------------------------------|
| 5/18 | 09:30 – 09:45 | Introduction                    | Wes Gray        | CEO Alpha Architect           |
| 5/18 | 09:45 – 10:15 | ETF Industry Update             | Eric Balchunas  | Senior ETF Analyst, Bloomberg |
| 5/18 | 10:15 – 10:40 | The Value Factor; Presenter     | Cliff Asness    | CIO, AQR                      |
| 5/18 | 10:40 – 10:50 | The Value Factor; Discussant    | Kai Wu          | CIO, Sparkline Capital        |
| 5/18 | 10:50 – 11:00 | Q&A                             | Audience        |                               |
| 5/18 | 11:00 – 11:10 | Break/Q&A                       | Audience        |                               |
| 5/18 | 11:10 – 11:35 | Reimagined Indexing; Presenter  | Que Nguyen      | CIO, RAFI Equities            |
| 5/18 | 11:35 – 11:45 | Reimagined Indexing; Discussant | Corey Hoffstein | CIO, Newfound Research        |
| 5/18 | 11:45 – 12:00 | Q&A                             | Audience        |                               |
| 5/18 | 12:00 – 12:15 | Conclusion/Event Ends           | Wes Gray        | CEO Alpha Architect           |

# 2023 Outlook:

# The ETF Era Will Be Here a While

- Eric Balchunas, Senior ETF Analyst
- Spring 2023

# The BI ETF Team



**Eric Balchunas**



**Athanasios  
Psarofagis**



**James Seyffart**



**Rebecca Sin**



**Henry Jim**

# AGENDA:

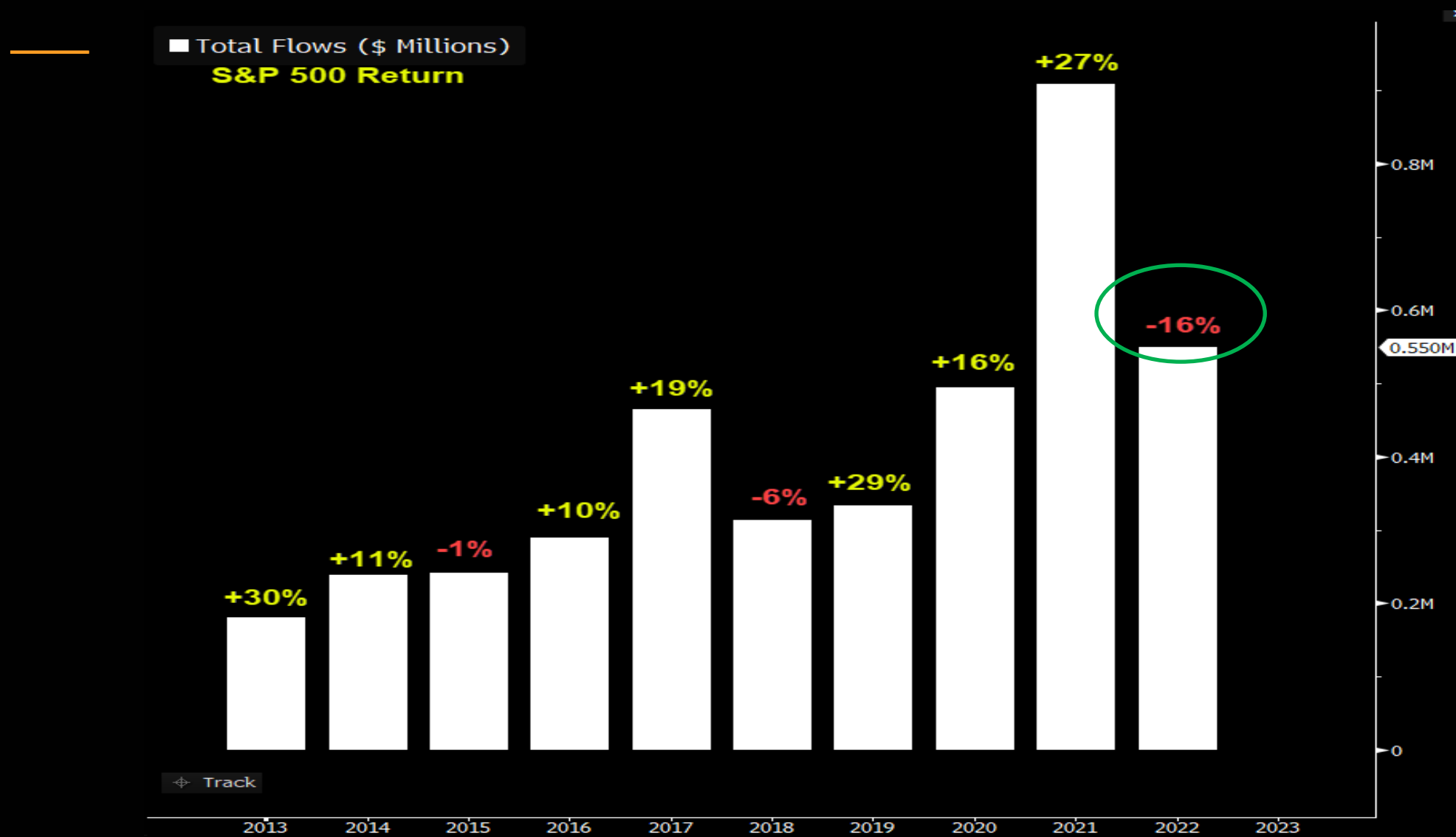
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- ETF Flow/Trends
- Competitive Landscape
- Passive “Worries”
- Active ETFs
- Smart-Beta and Themes
- ESG and Direct Indexing

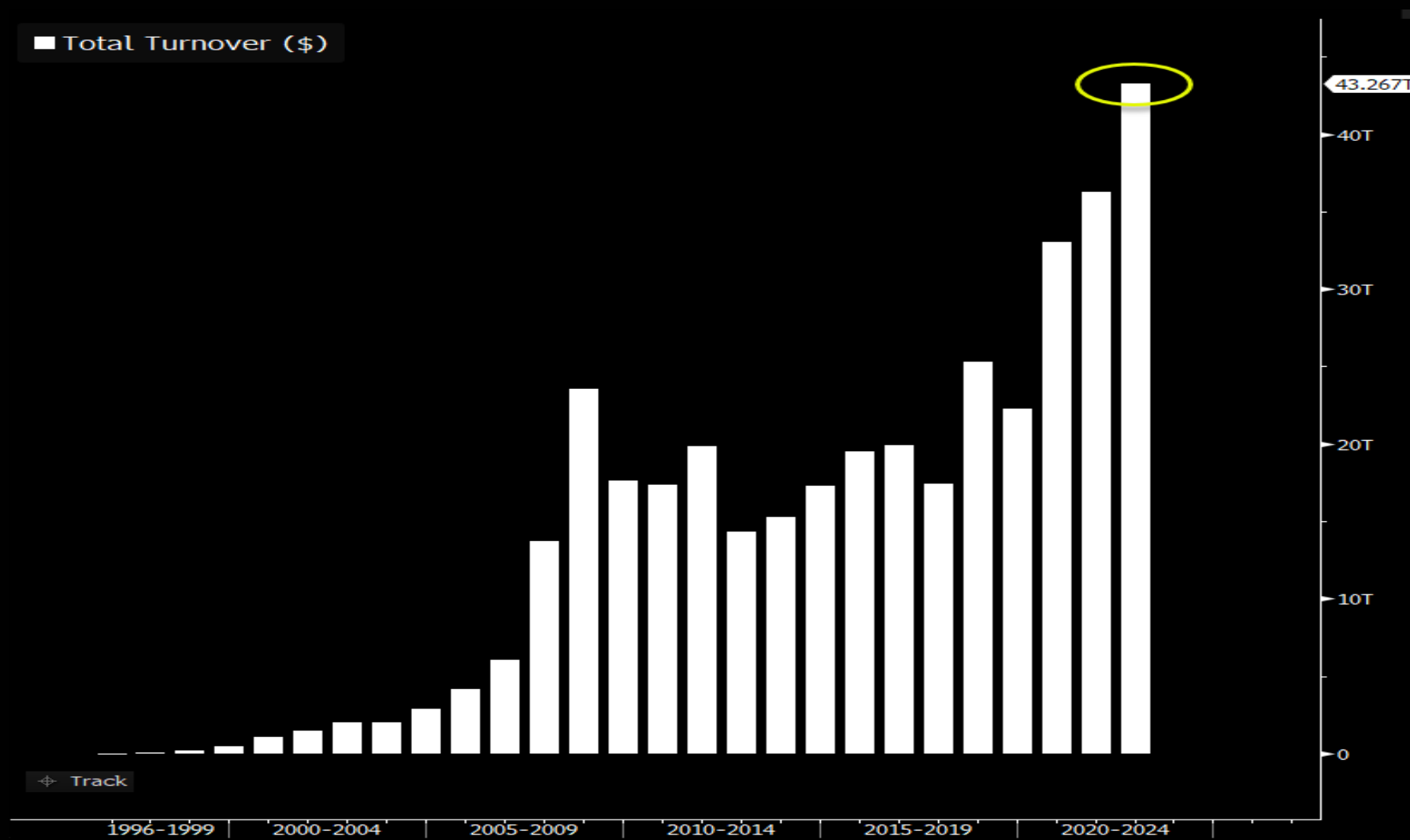
# Inflation Created A Whole New Ballgame

| Biggest Issues Facing Families Right Now |           |           |           |           |
|--|-----------|-----------|-----------|-----------|
| TREND:                                   | June 2022 | Dec. 2021 | July 2021 | Aug. 2020 |
| Inflation                                | 33%       | 14%       | 5%        | n/a       |
| Gas prices                               | 15%       | n/a       | n/a       | n/a       |
| The economy                              | 9%        | 6%        | 11%       | 7%        |
| Everyday bills, groceries, etc.          | 6%        | 15%       | 11%       | 8%        |
| Abortion, reproductive rights            | 5%        | n/a       | n/a       | n/a       |
| Guns, gun ownership                      | 3%        | 0%        | 0%        | 0%        |
| Health care costs                        | 3%        | 5%        | 7%        | 4%        |
| Job security, unemployment               | 3%        | 6%        | 7%        | 10%       |
| College tuition, school costs            | 2%        | 1%        | 2%        | 1%        |
| Housing, mortgage, rent                  | 2%        | 2%        | 3%        | 2%        |
| Safety, crime                            | 2%        | 3%        | 3%        | 3%        |
| Civil rights                             | 1%        | 1%        | 3%        | 1%        |
| Climate change, environment              | 1%        | 2%        | 3%        | 0%        |
| Coronavirus/COVID-19                     | 1%        | 18%       | 17%       | 39%       |

# Huge Inflows Despite Brutal Market, Regime Change



# Record Volume



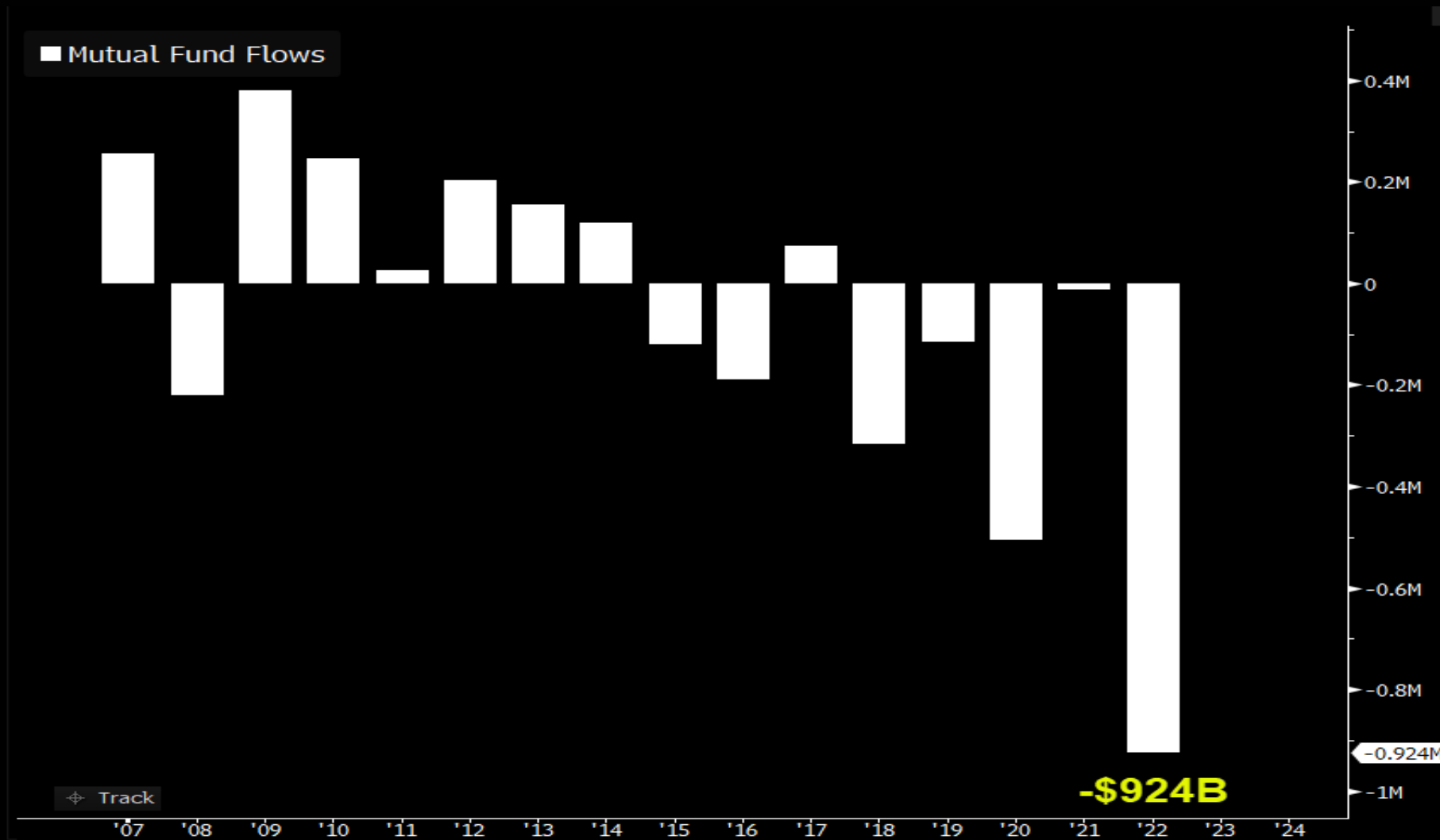
# ETFs Spread vs Basket Spread

| Name (Ticker)                                | ETF Spread | Basket Spread | Spread Improvement (Basket - ETF Spread) |
|--|------------|---------------|--|
| SPDR S&P 500 ETF Trust (SPY)                 | 0.003%     | 0.024%        | 0.022%                                   |
| iShares MSCI EAFE ETF (EFA)                  | 0.014%     | 0.180%        | 0.166%                                   |
| iShares MSCI Emerging Markets ETF (EEM)      | 0.026%     | 0.184%        | 0.158%                                   |
| iShares Russell 2000 ETF (IWM)               | 0.006%     | 0.127%        | 0.121%                                   |
| iShares Core U.S. Aggregate Bond ETF (AGG)   | 0.011%     | 0.232%        | 0.221%                                   |
| iShares iBoxx Inv Grade Corp Bond ETF (LQD)  | 0.009%     | 0.455%        | 0.445%                                   |
| iShares iBoxx High Yield Corp Bond ETF (HYG) | 0.014%     | 0.435%        | 0.421%                                   |

Bloomberg 



# Meanwhile in Mutual Fund Land...

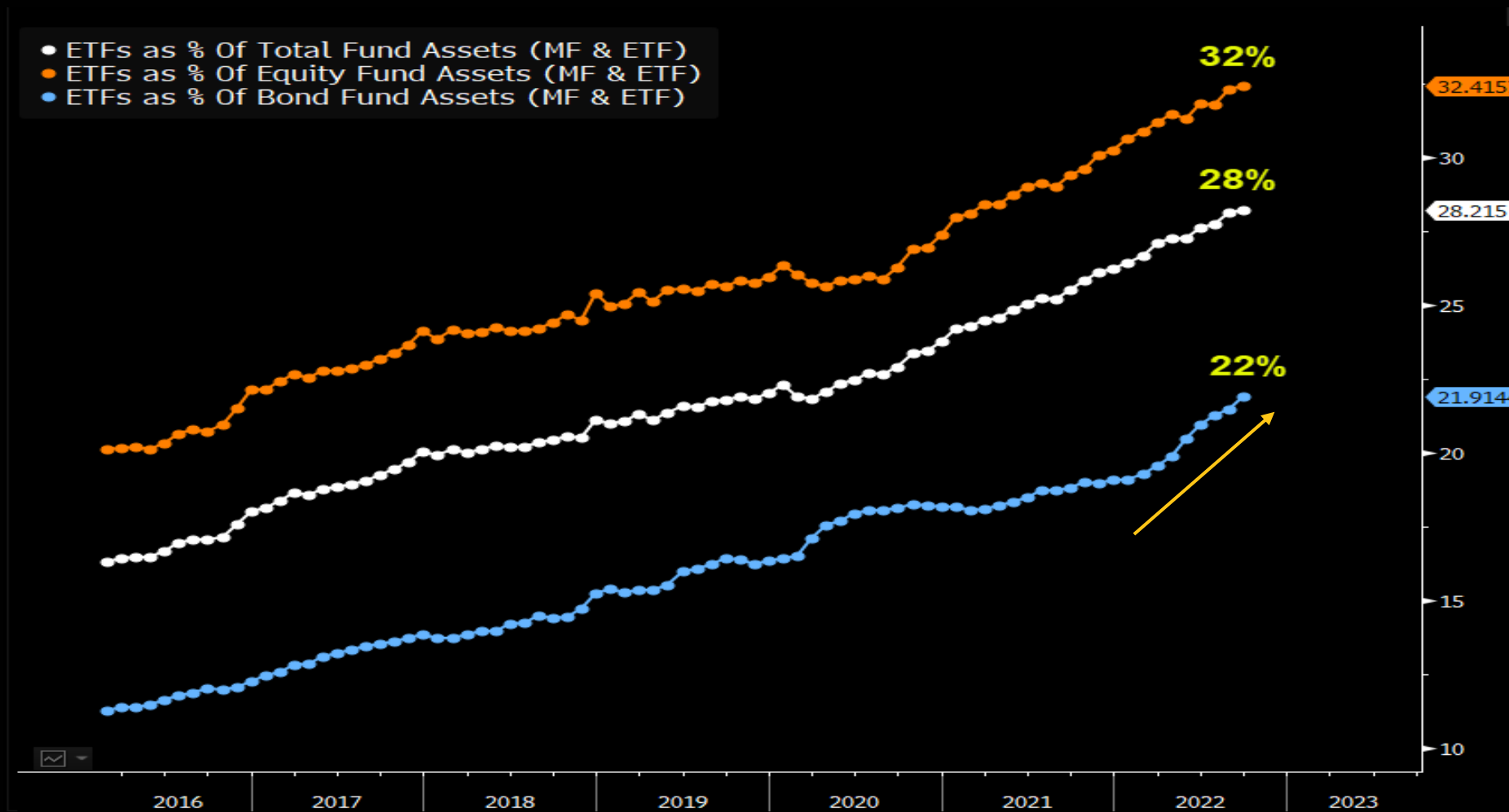


# (Most) ETF Investors are Smart-Money, Strong Hands

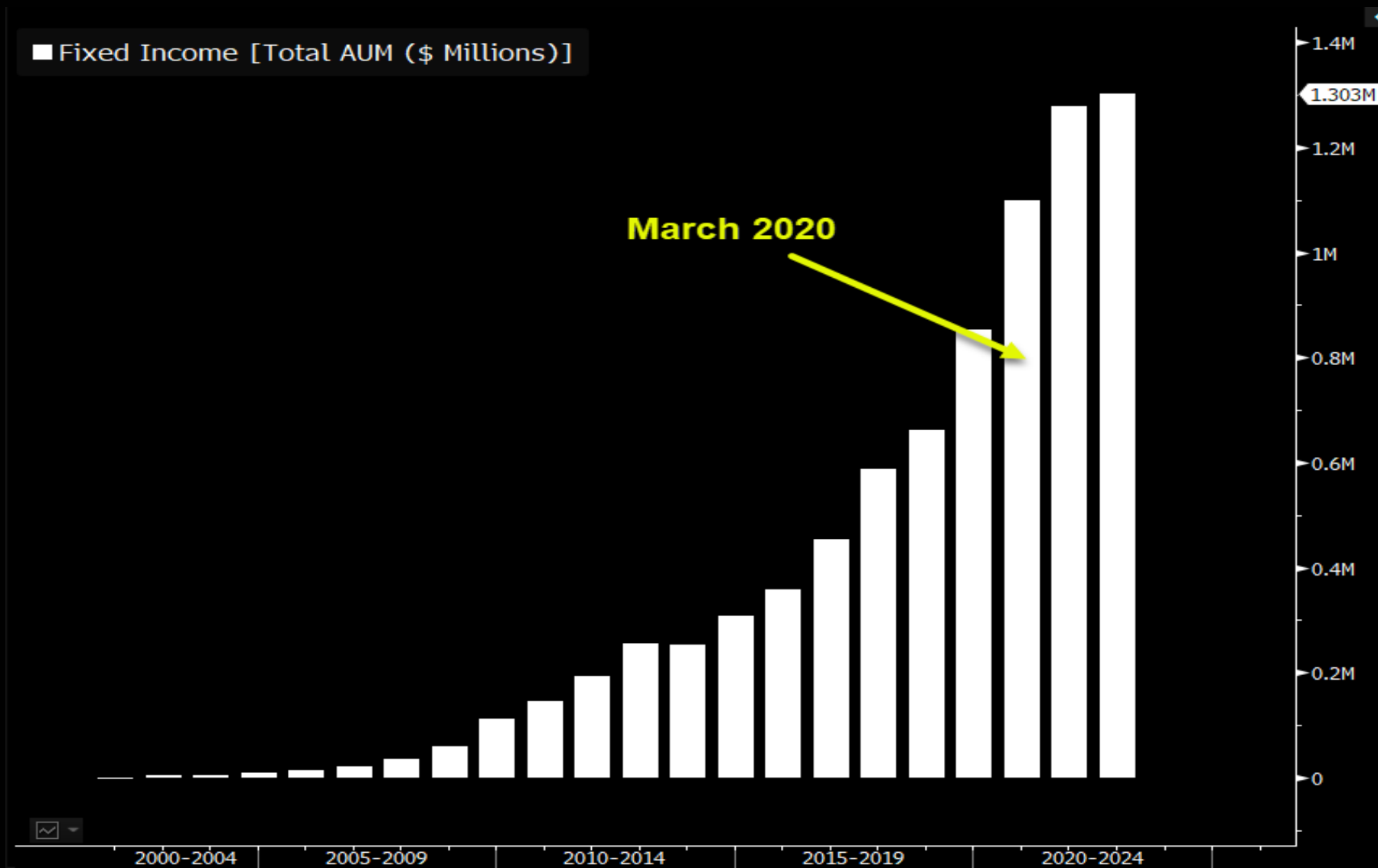
*Passive Inflows Regardless Market Conditions*



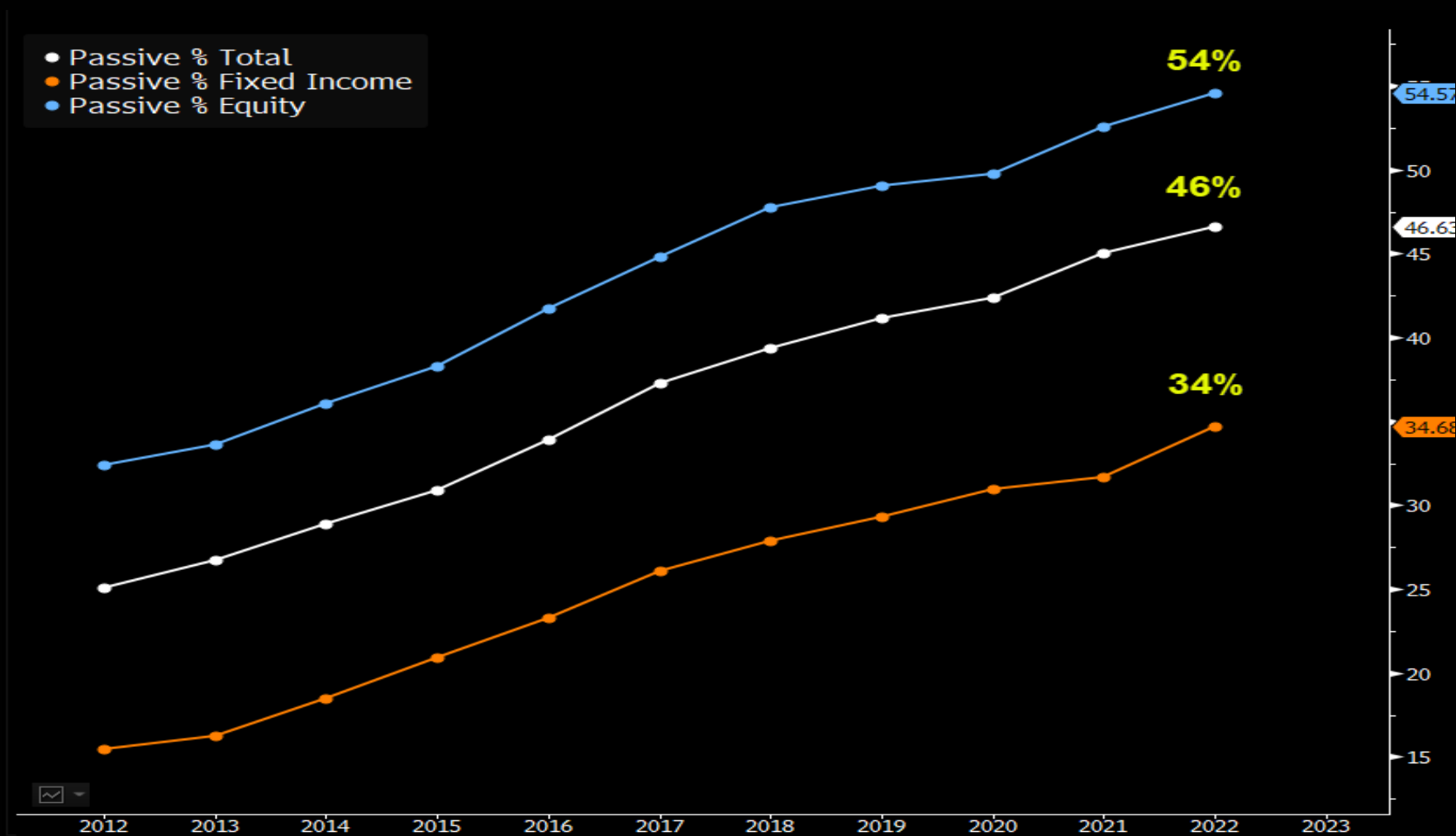
# = ETF Doubling Market Share Growth Rate



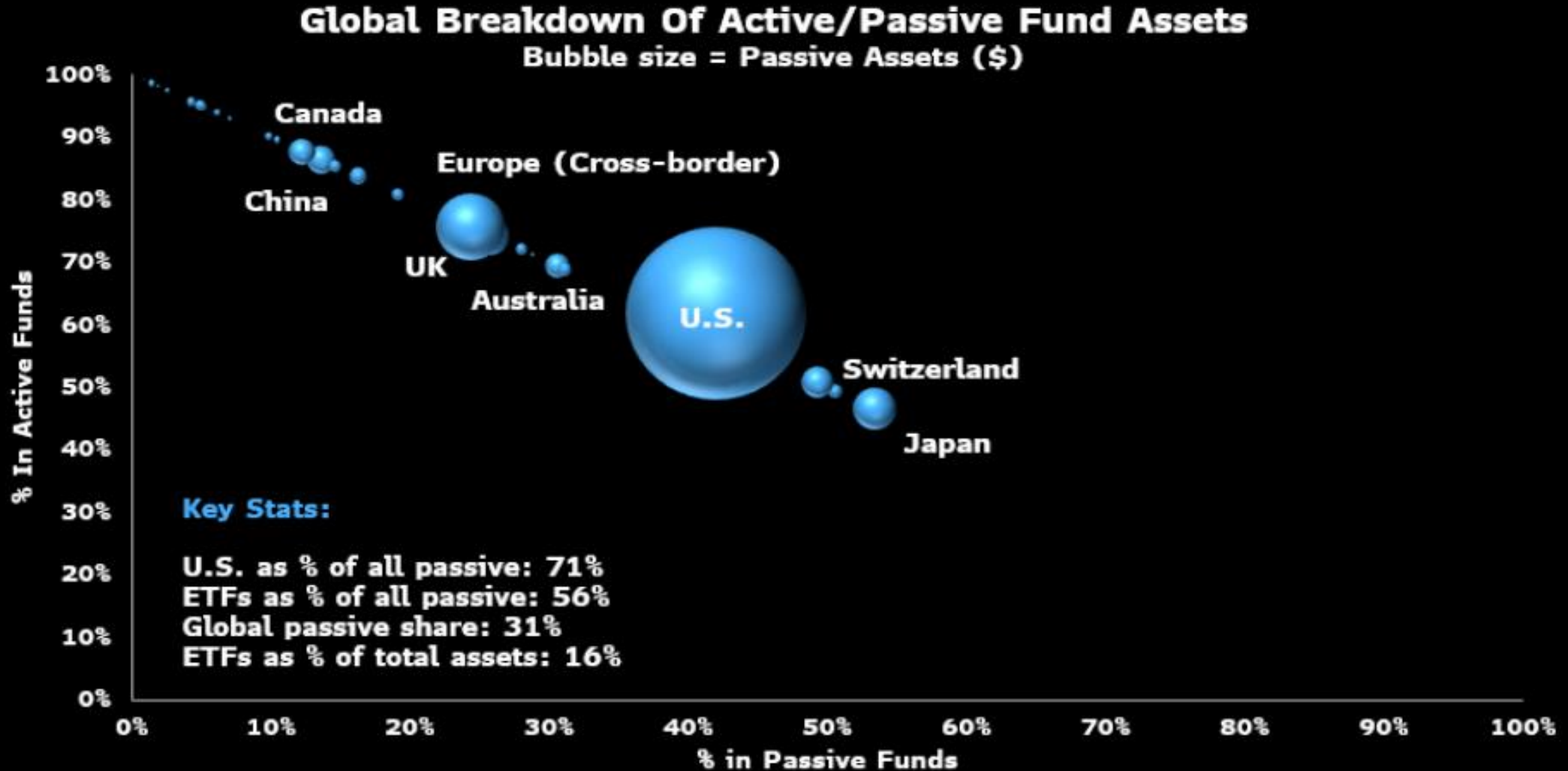
# Bullish Fixed Income ETFs



# = Passive Also Doubling Share Growth Rate

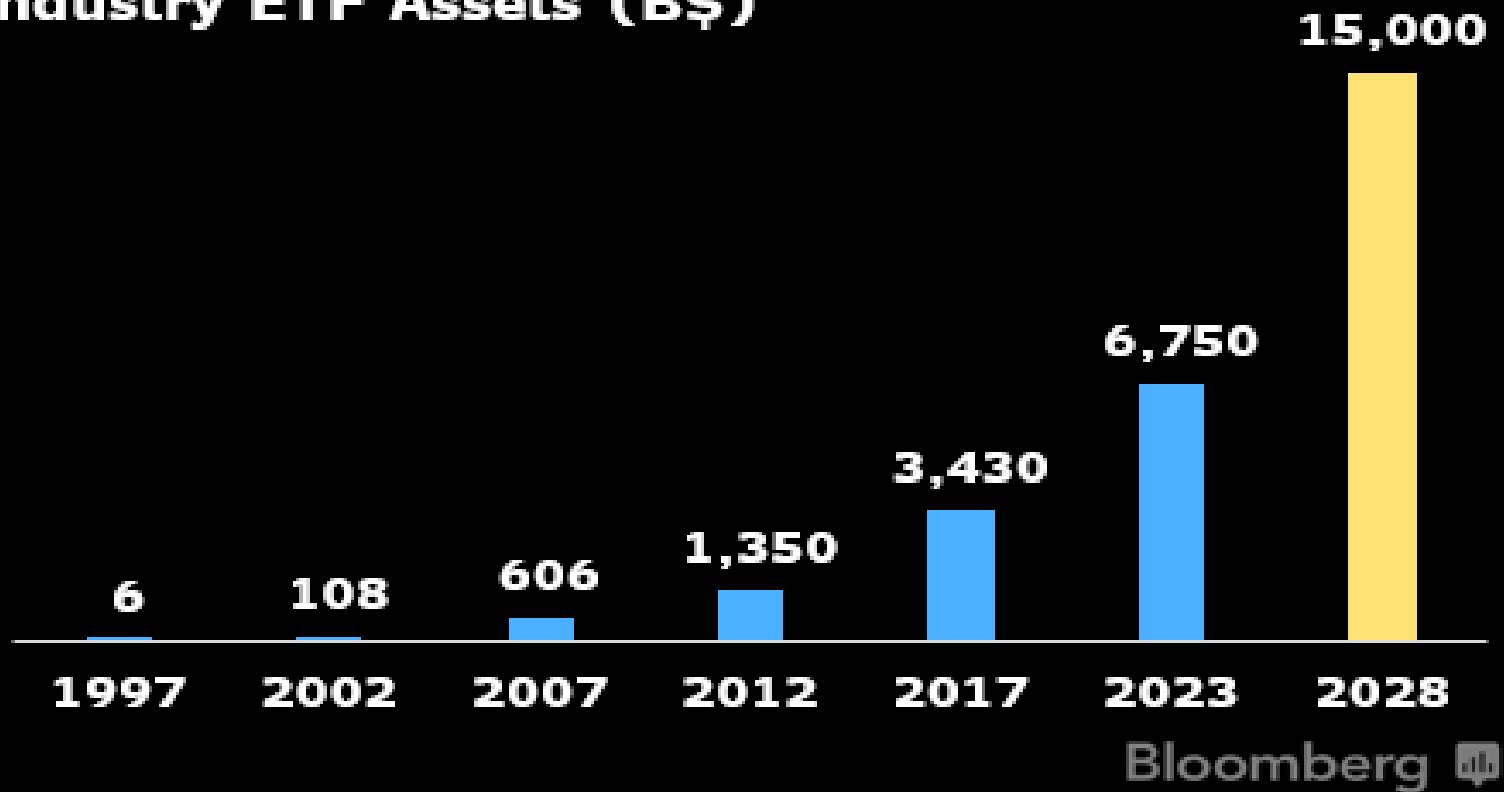


# Passive Will Grow at Different Speeds Throughout World

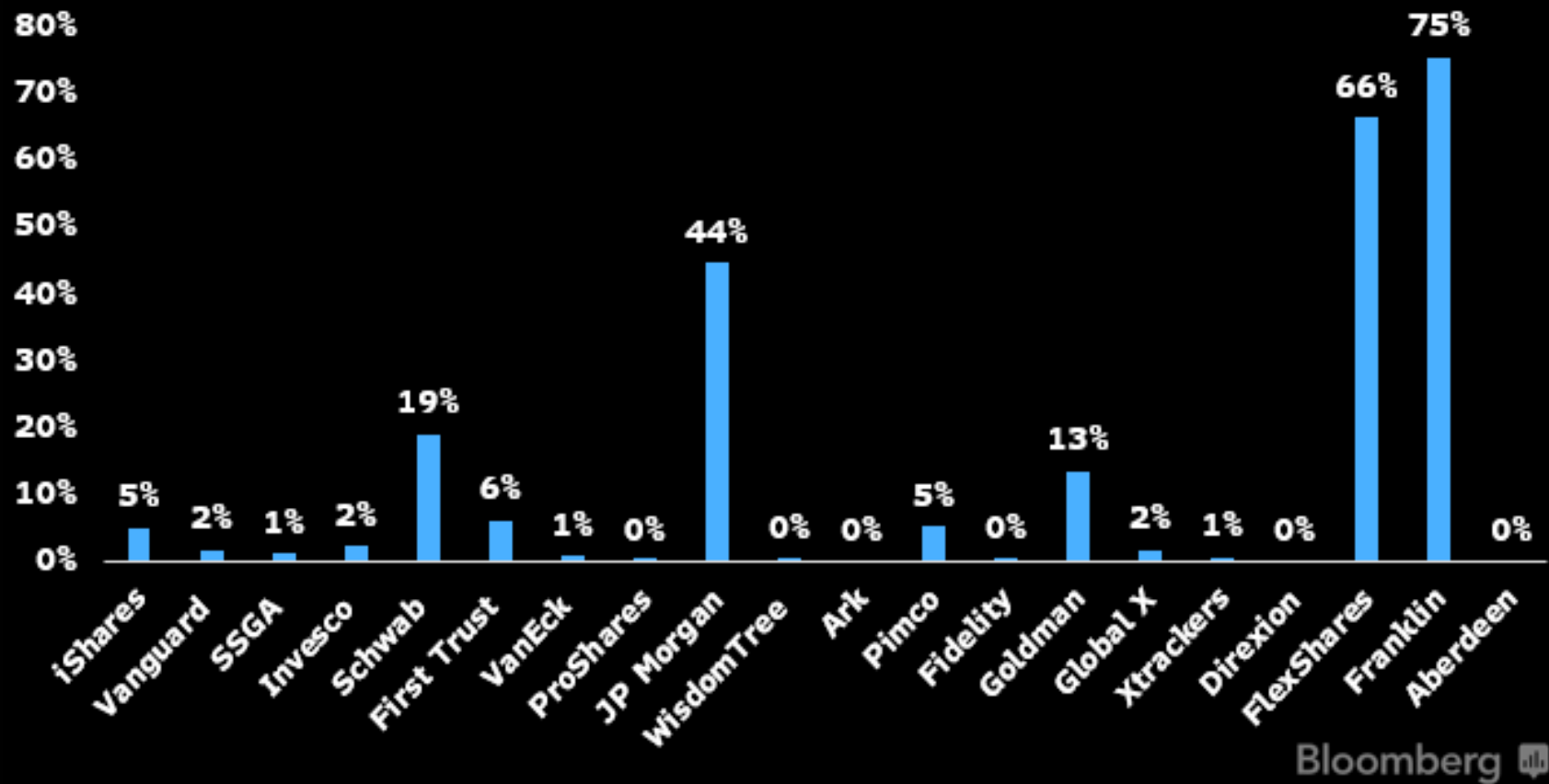


# \$15 Trillion by 2028?

Industry ETF Assets (B\$)



# Bullish BYOA: % of ETF Assets Held Internally



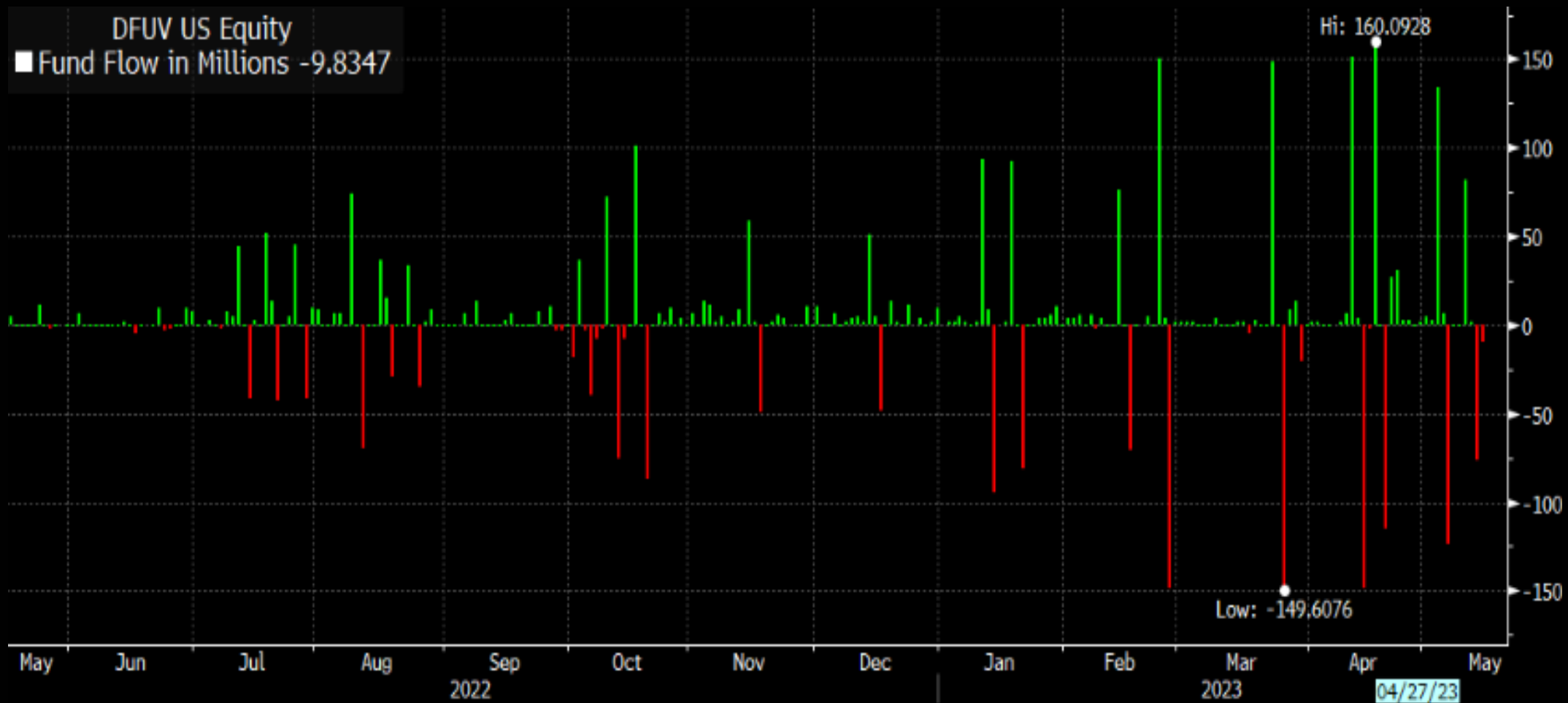
Bloomberg



# Bullish Conversions

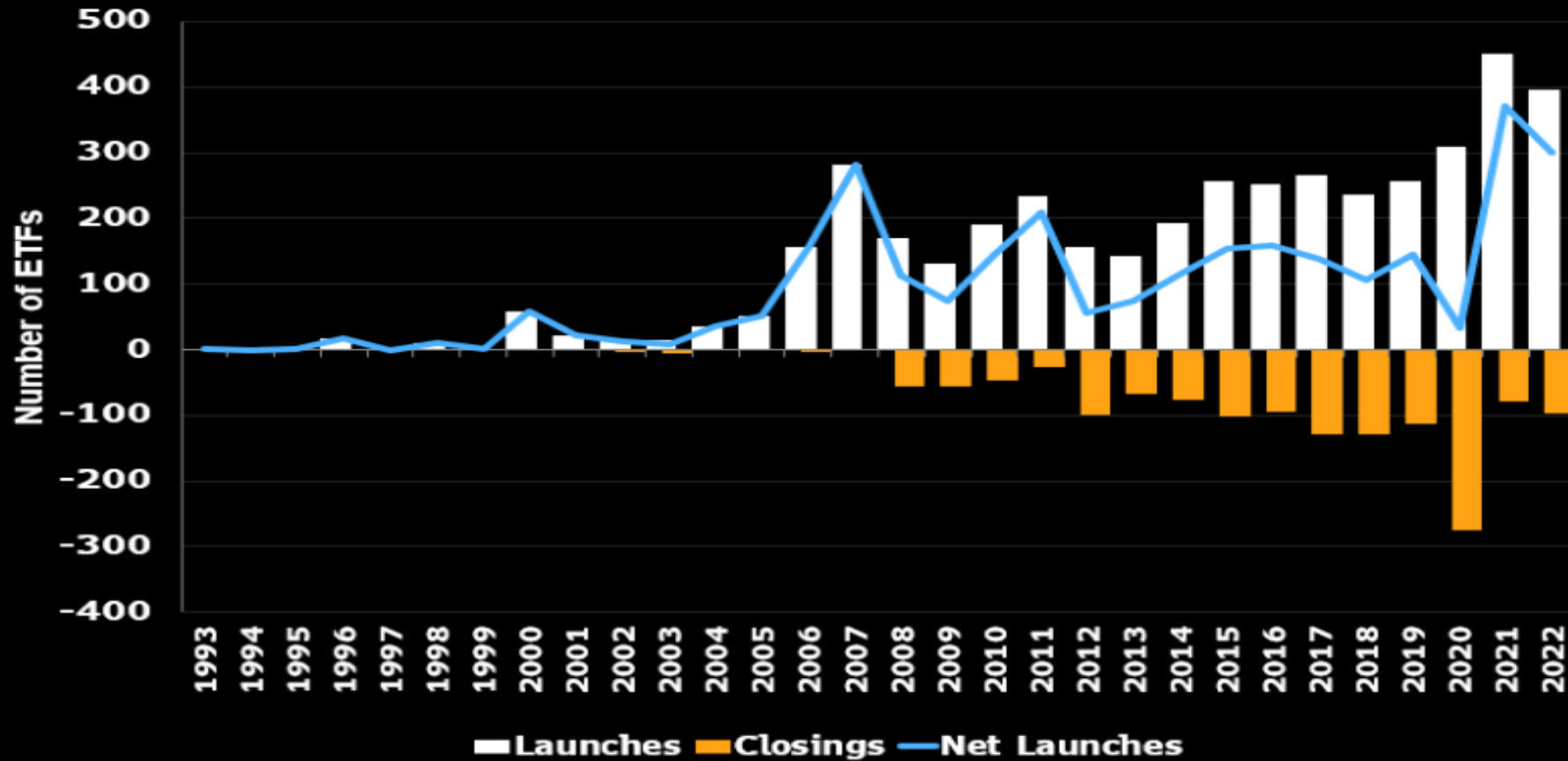
| MF to ETF                      |           | ANTs             |          |
|--------------------------------|-----------|------------------|----------|
| View                           | 12 Months | Select Companies |          |
| Name                           |           |                  | 4/2023   |
| MF to ETF Conversion AUM       |           |                  | 67,259.5 |
| Dimensional US Core Equity 2 E |           |                  | 18,454.4 |
| Dimensional US Marketwide Valu |           |                  | 8,316.2  |
| Dimensional US Targeted Value  |           |                  | 7,655.3  |
| Dimensional US Equity ETF      |           |                  | 6,112.9  |
| Dimensional World EX US Core E |           |                  | 5,659.4  |
| JPMorgan International Researc |           |                  | 5,542.6  |
| Dimensional International Valu |           |                  | 5,268.0  |
| Dimensional US Small Cap ETF   |           |                  | 5,103.3  |
| JPMorgan Market Expansion Enha |           |                  | 805.7    |
| Kovitz Core Equity ETF         |           |                  | 801.6    |
| JPMorgan Inflation Managed Bon |           |                  | 715.1    |
| JPMorgan Realty Income ETF     |           |                  | 441.2    |
| Motley Fool Global Opportuniti |           |                  | 419.7    |
| Neuberger Berman Commodity Str |           |                  | 294.8    |

# “Post-Conversion Tax Purge”

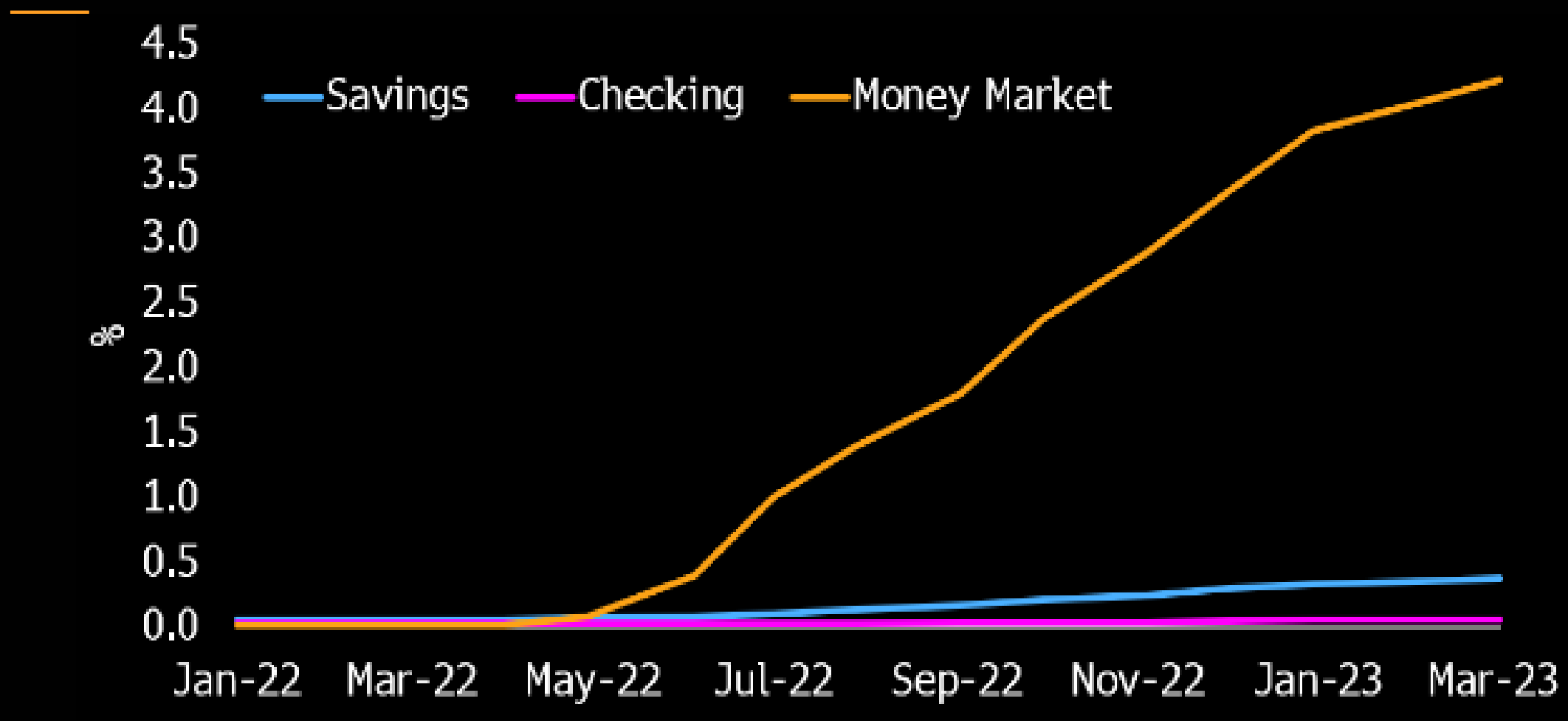


# Over 400 ETF Launches Last Year

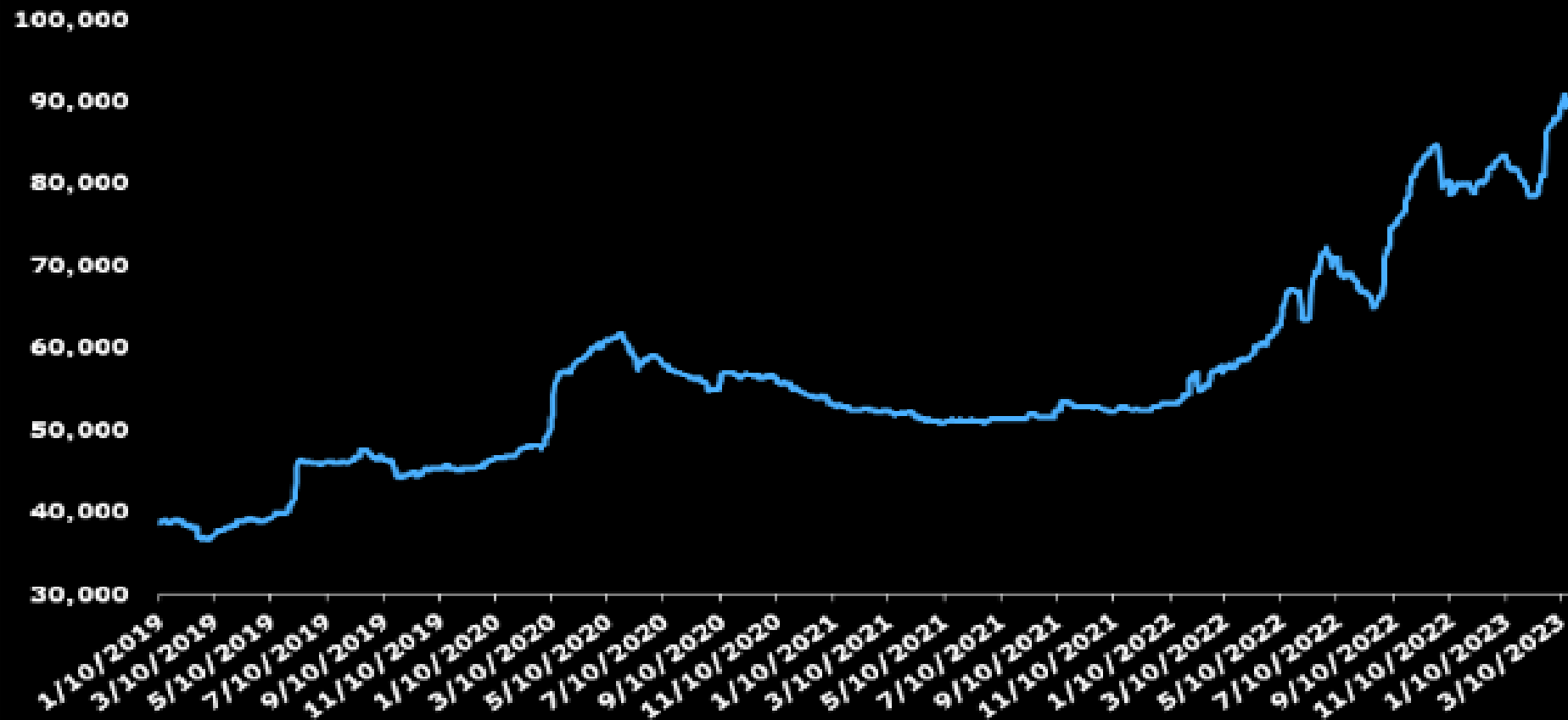
And another 650 were filed!



# Money Market Mutual Fund Boom



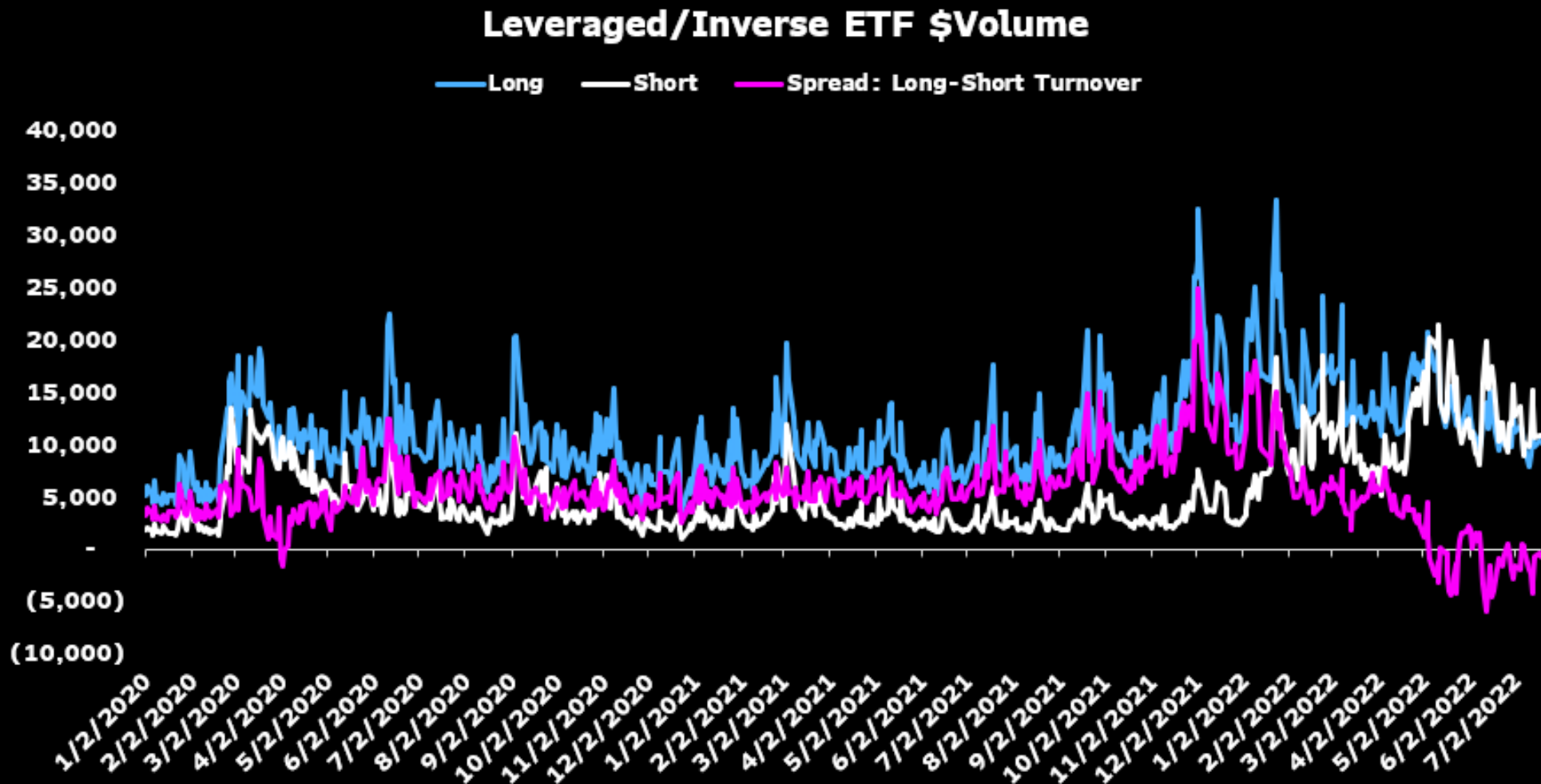
# ...And Cash-Like ETFs



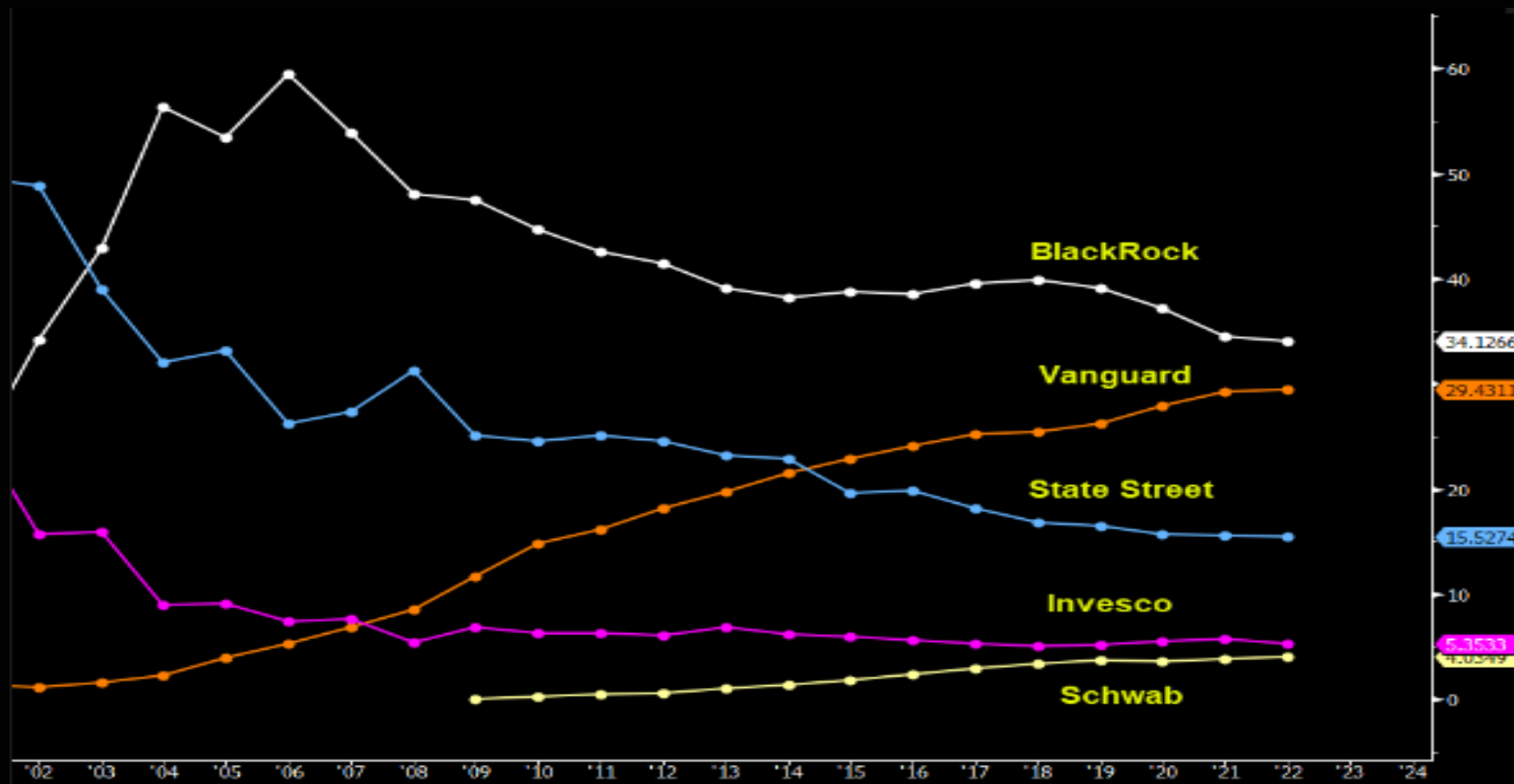
# The FOMO Drought

| All US ETFs by Asset Class |         |                |
|----------------------------|---------|----------------|
| Asset Class                | # Funds | Net Flows (MM) |
| <b>Equity</b>              | 3,451   | 44,675.89      |
| International              | 1,419   | 33,798.42      |
| Domestic (US)              | 1,999   | 10,572.65      |
| <b>Fixed Income</b>        | 874     | 72,518.79      |
| International              | 200     | 11,726.29      |
| Domestic (US)              | 663     | 60,114.75      |

# “Sell The Rip” Is The New “Buy The Dip”



# Bullish the “Big Two”





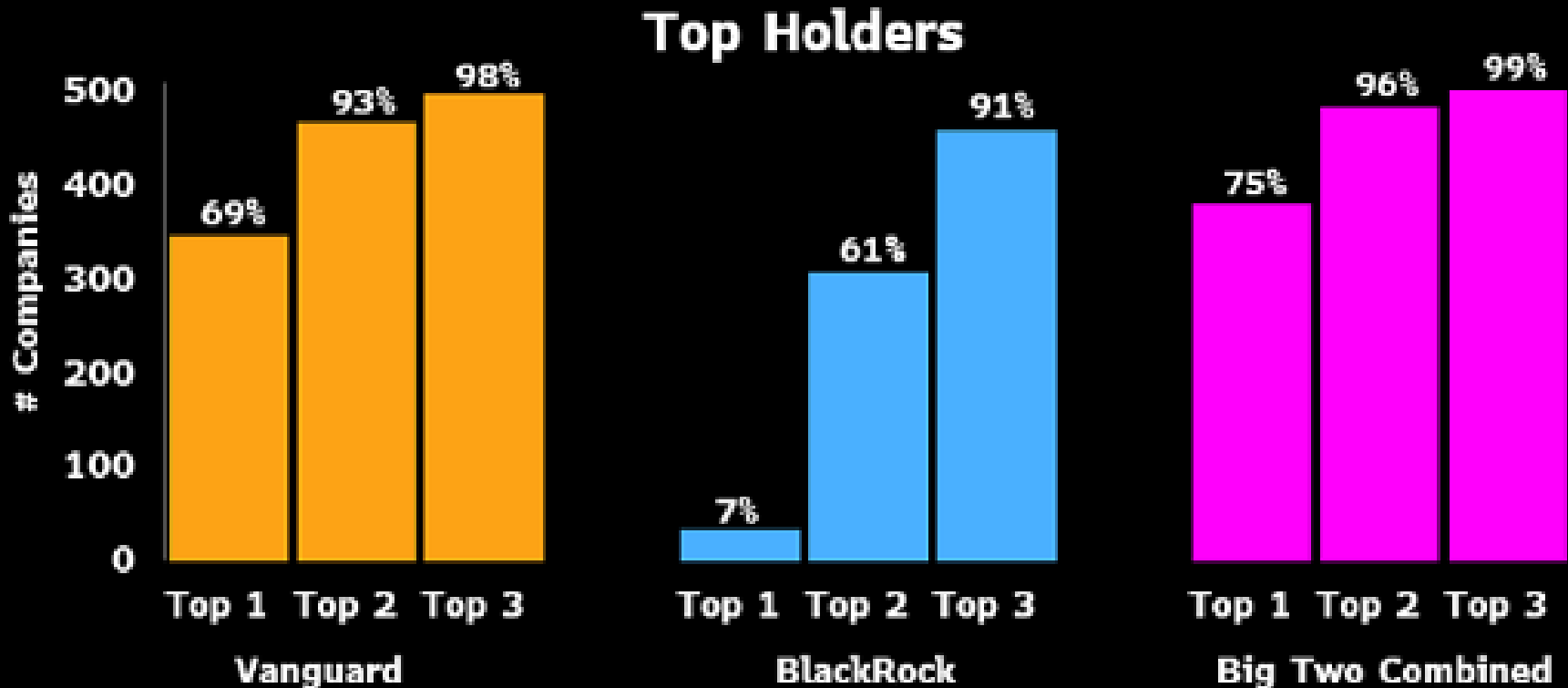
# The ETF Issuer Horse Race by 5 Year Flows

A horizontal bar chart comparing 5-year flows and their percentage of total for 15 different ETF issuers. The chart uses blue bars for flows and orange bars for percentages. The data is as follows:

| Issuer                     | 5Yr flows (\$B) | % of Total |
|----------------------------|-----------------|------------|
| Vanguard                   | 1,037           | 34.8       |
| iShares (Blackrock)        | 938             | 31.5       |
| State Street               | 224             | 7.5        |
| Schwab                     | 166             | 5.6        |
| Invesco                    | 132             | 4.4        |
| First Trust                | 76              | 2.6        |
| JP Morgan                  | 74              | 2.5        |
| ProShares                  | 41              | 1.4        |
| ARK Investment             | 32              | 1.1        |
| DFA                        | 28              | 0.9        |
| Global X                   | 27              | 0.9        |
| VanEck                     | 23              | 0.8        |
| Fidelity                   | 19              | 0.7        |
| Goldman                    | 18              | 0.6        |
| American Century (Avantis) | 17              | 0.6        |

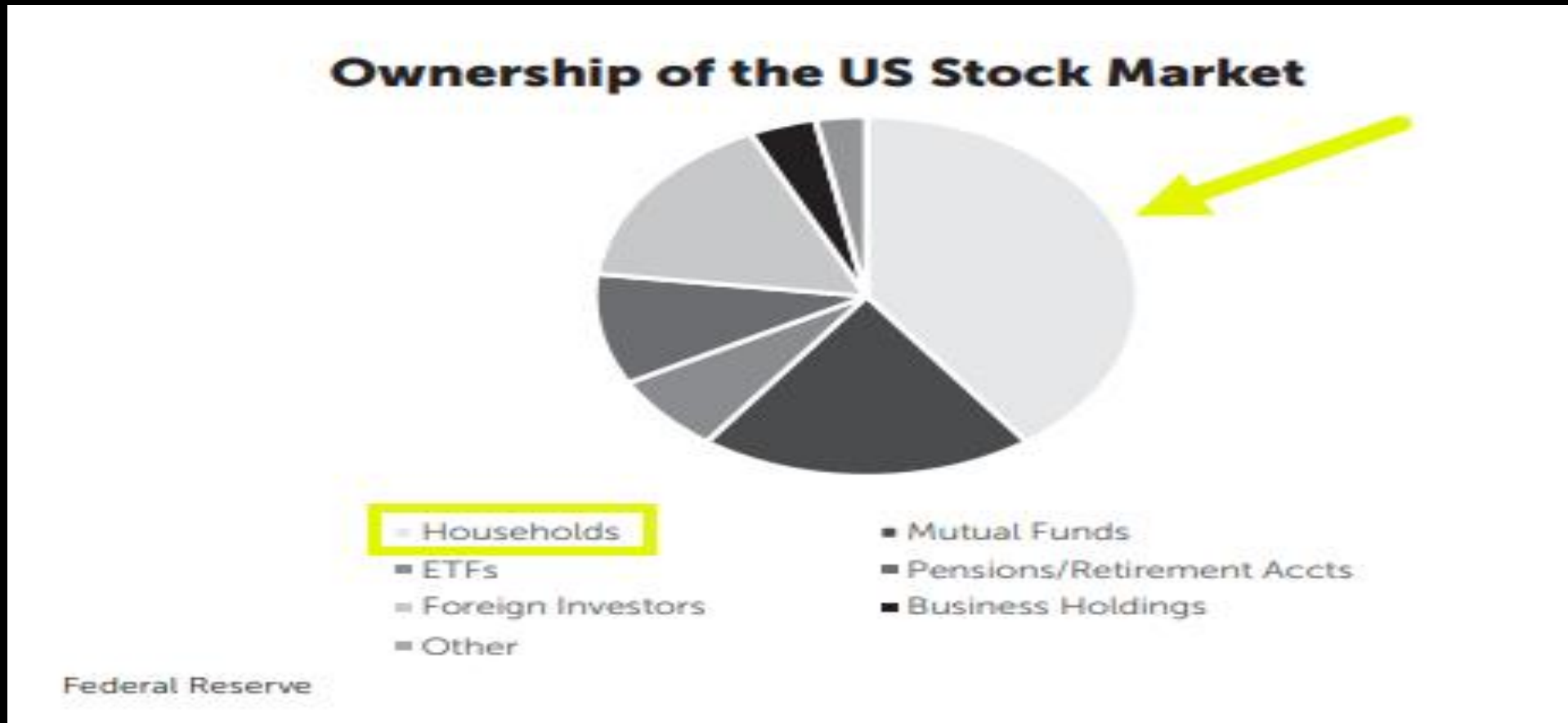
# Vanguard, BlackRock Top Holders of Nearly Every Company in America

## Vanguard, BlackRock Top Holders of S&P 500



# Fund Companies are Minority Owners of Stock Market

*Households are Biggest Owner of Stocks*



# Buffett's Take

## *Public Policy Issue?*

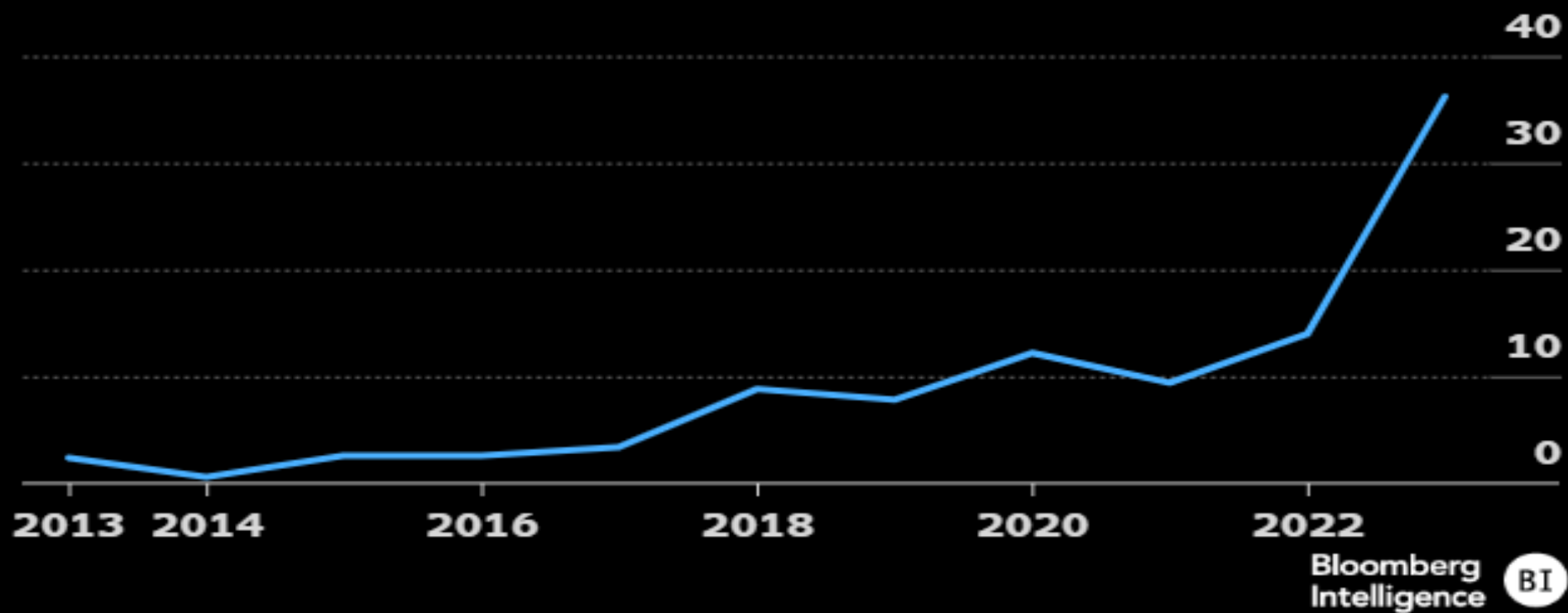
I continue to advise investors to buy an S&P 500 index fund and not to try to pick specialty ETFs or index funds.

If index funds continue to grow, there will be public policy issues down the line, but that's a subject for another day.

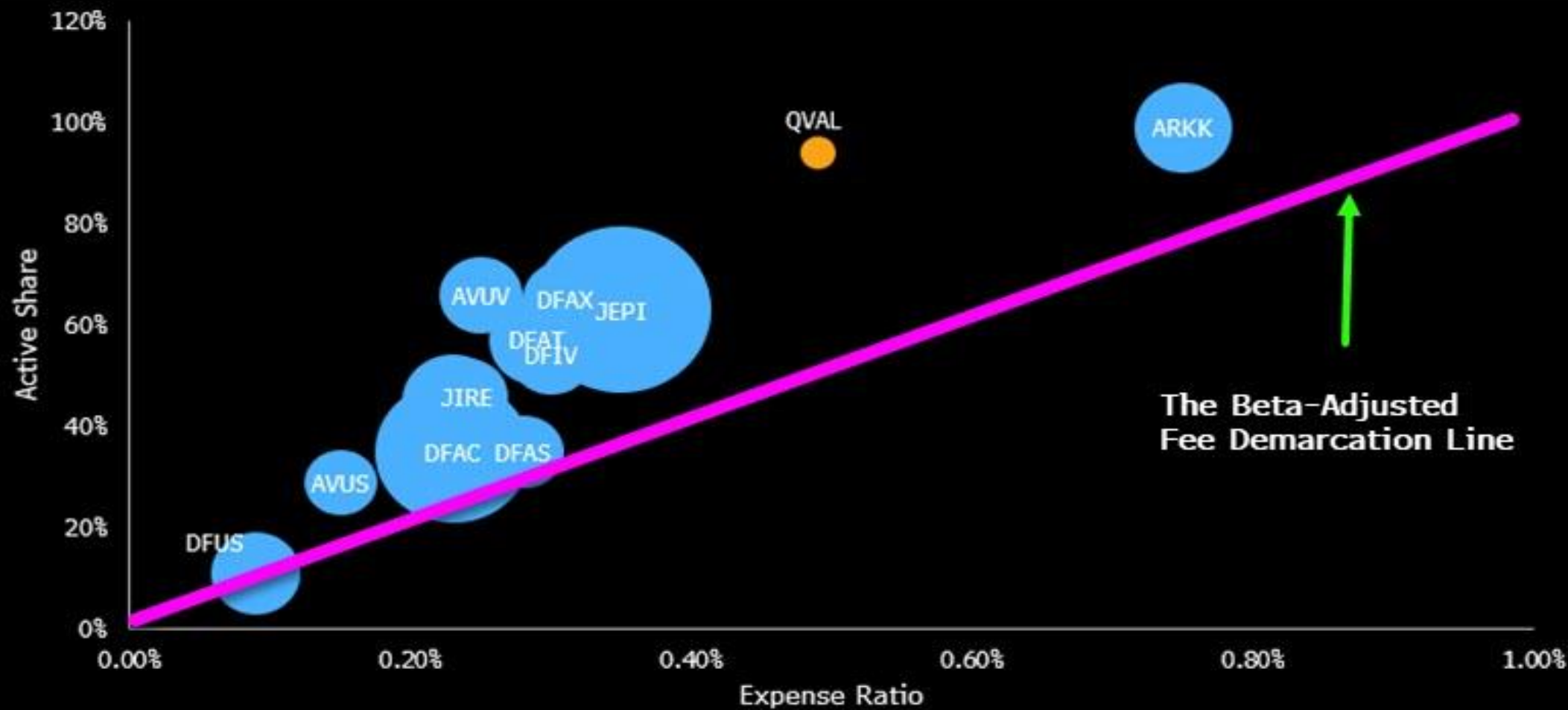
Sincerely,

Warren

# Active ETFs (Finally) Break Through

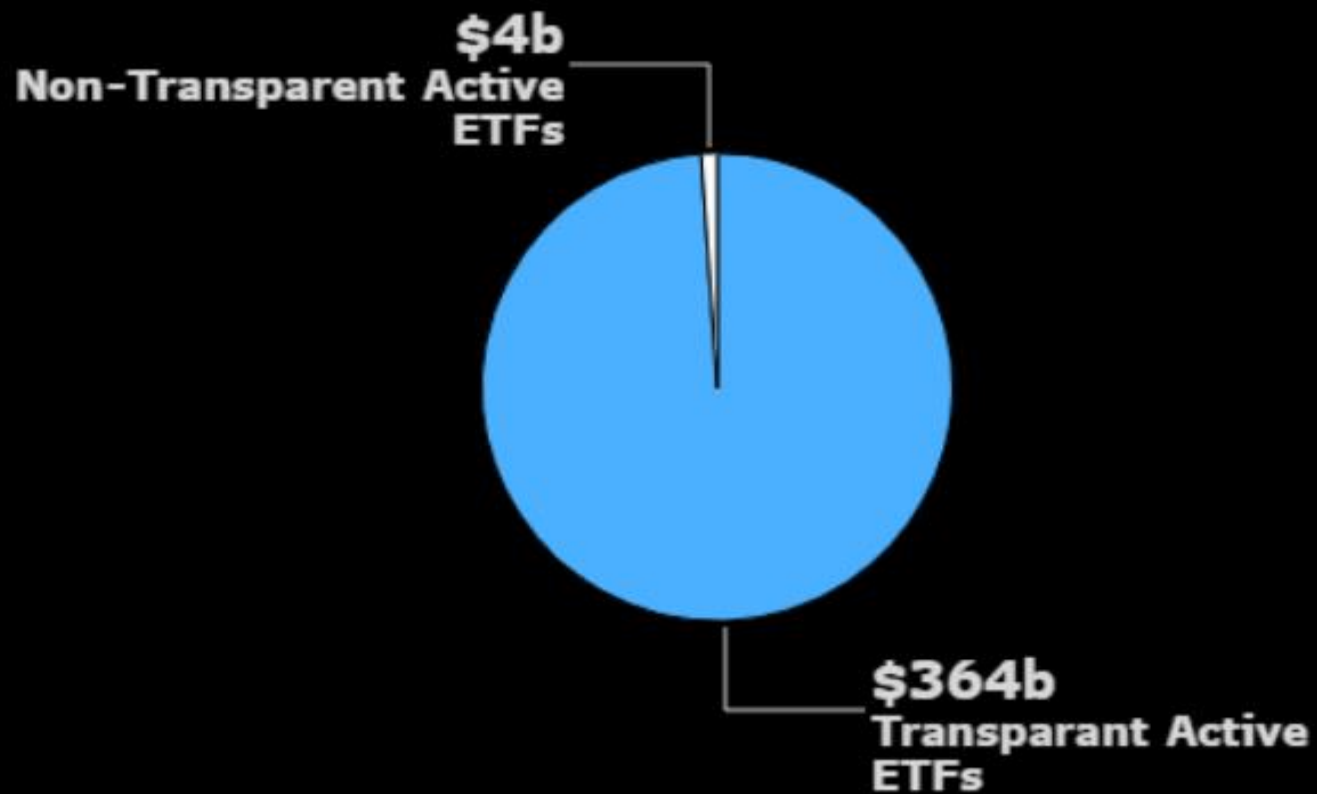


# The Beta-Adjusted Fee Demarcation Line



# Bearish ANTs

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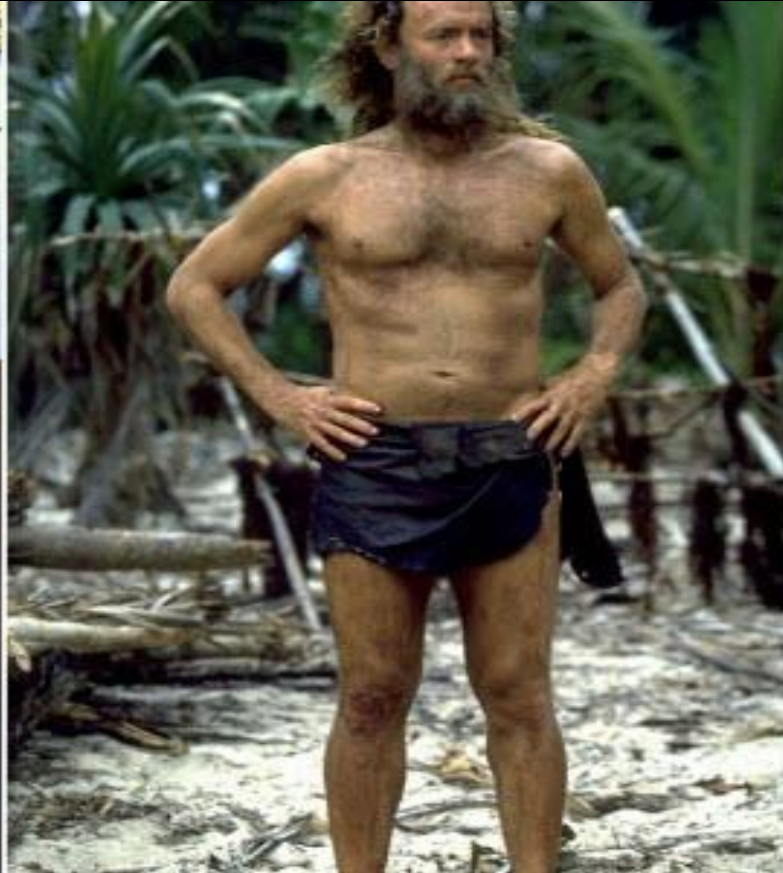


# What the ETF Terrordome Does to Mutual Funds

*Day One of ETF Launch*



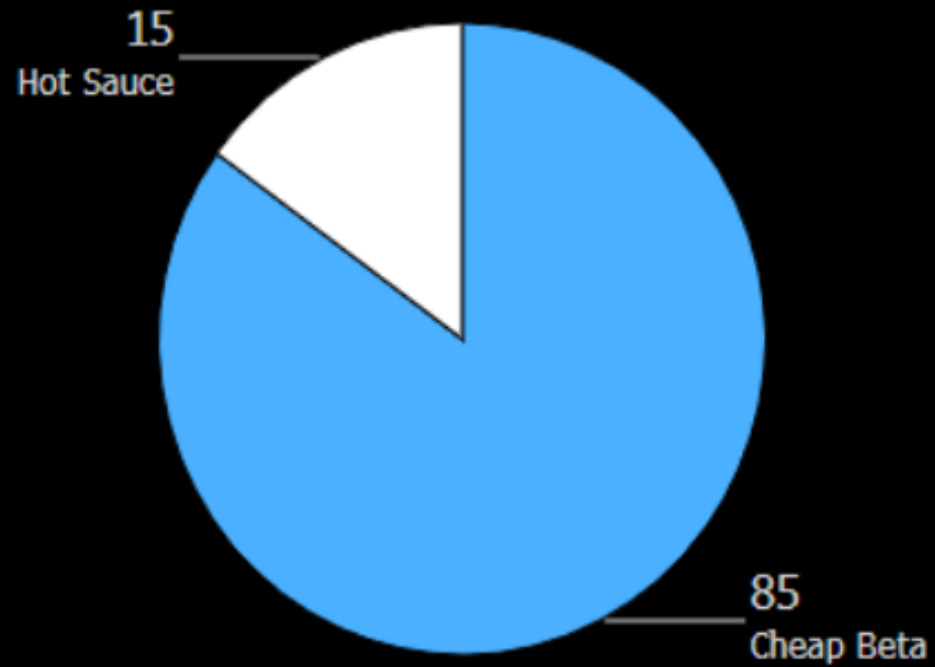
*Three Years Later*



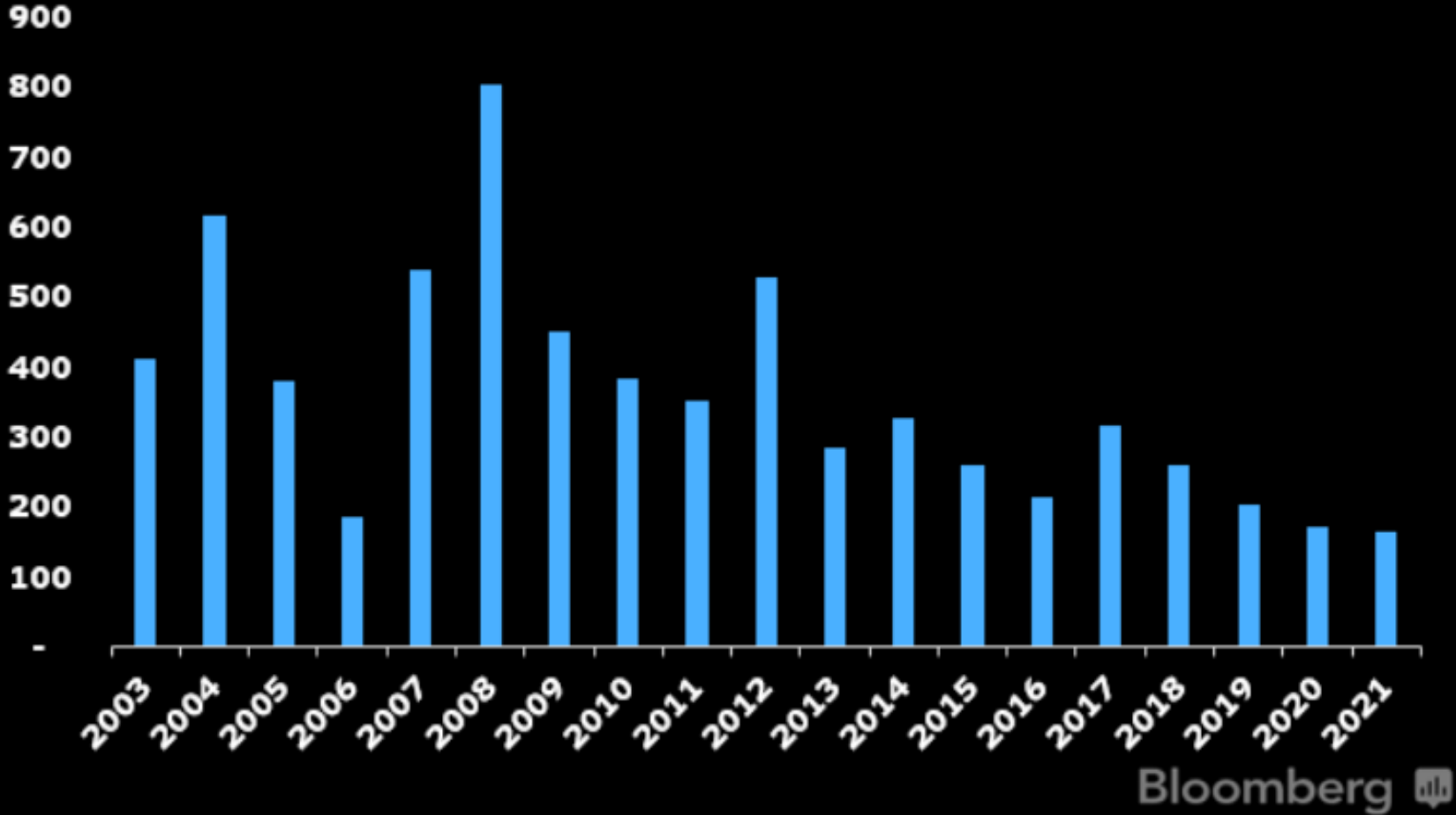


# The Portfolios Are A-Changin'

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# Number of Holdings in New Equity ETFs

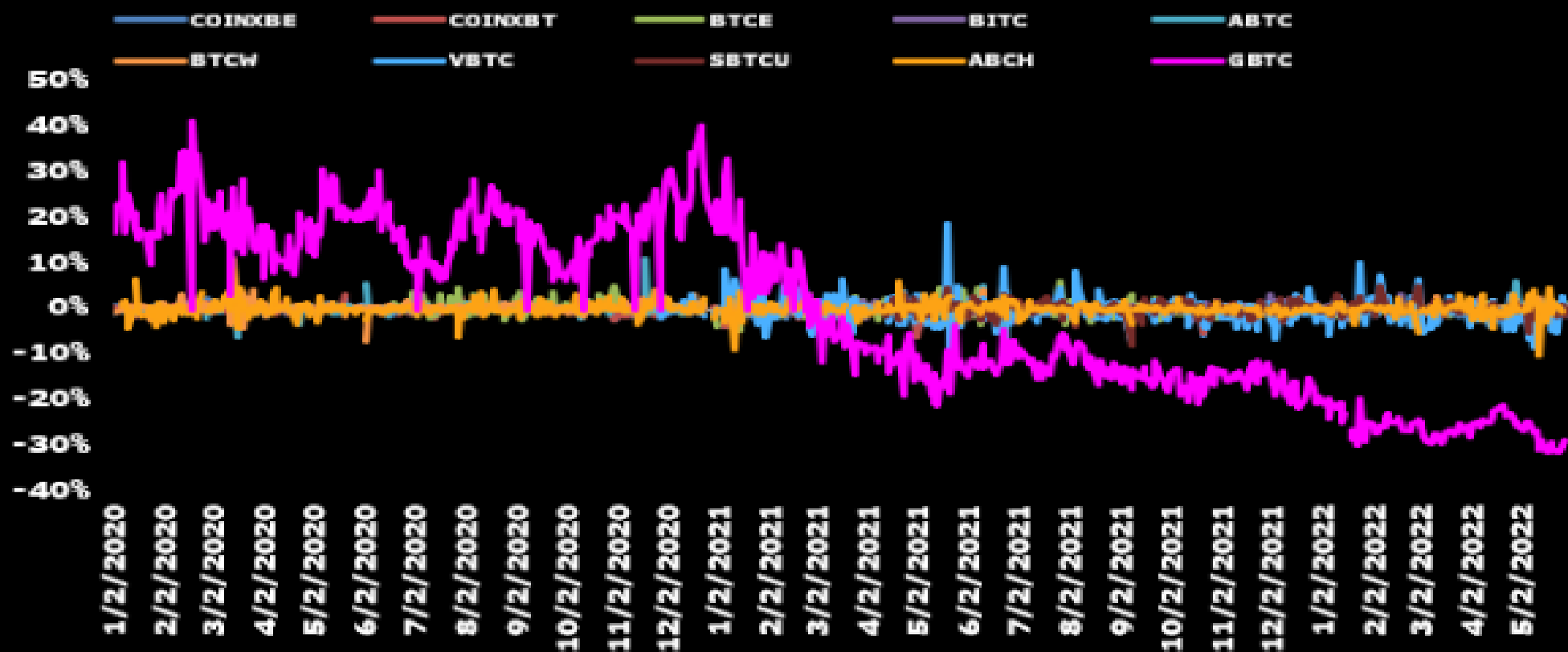


# Single Stock ETFs Really a Tesla Story

| <b>Ticker</b> | <b>Name</b>                         | <b>ADV \$MM</b> | <b>Assets \$MM</b> |
|---------------|-------------------------------------|-----------------|--------------------|
| <b>TSLQ</b>   | <b>AXS TSLA BEAR DAILY ETF</b>      | <b>50.2</b>     | <b>65.9</b>        |
| <b>TSLL</b>   | <b>DIR DAILY TSLA BULL 1.5X ETF</b> | <b>27.3</b>     | <b>117.9</b>       |
| <b>TSLS</b>   | <b>DIR DAILY TSLA BEAR 1X ETF</b>   | <b>12.3</b>     | <b>21.9</b>        |
| <b>AAPD</b>   | <b>DIREXION DAILY AAPL BEAR 1X</b>  | <b>6.0</b>      | <b>22.2</b>        |
| <b>AMZU</b>   | <b>DRX DLY AMZN BULL 1.5X</b>       | <b>1.6</b>      | <b>9.5</b>         |
| <b>AMZD</b>   | <b>DRX DLY AMZN BEAR 1X</b>         | <b>1.4</b>      | <b>8.1</b>         |
| <b>NVDS</b>   | <b>AXS 1.25X NVDA BEAR DAILY</b>    | <b>1.4</b>      | <b>4.5</b>         |
| <b>AAPU</b>   | <b>DIREXION DAILY AAPL BULL 1.5</b> | <b>1.1</b>      | <b>6.8</b>         |
| <b>GGLS</b>   | <b>DIREXION DAILY GOOGL BEAR 1X</b> | <b>0.4</b>      | <b>4.8</b>         |
| <b>MSFD</b>   | <b>DIREXION DAILY MSFT BEAR 1X</b>  | <b>0.4</b>      | <b>4.3</b>         |
| <b>GGLL</b>   | <b>DIREX DAILY GOOGL BULL 1.5X</b>  | <b>0.3</b>      | <b>5.5</b>         |
| <b>MSFU</b>   | <b>DIREXION DAILY MSFT BULL 1.5</b> | <b>0.3</b>      | <b>3.5</b>         |
| <b>NKEQ</b>   | <b>AXS 2X NKE BEAR DAILY</b>        | <b>0.1</b>      | <b>1.2</b>         |
| <b>PYPT</b>   | <b>AXS 1.5X PYPL BULL DAILY</b>     | <b>0.1</b>      | <b>1.4</b>         |
| <b>PYPS</b>   | <b>AXS 1.5X PYPL BEAR DAILY ETF</b> | <b>0.1</b>      | <b>0.9</b>         |
| <b>NKEL</b>   | <b>AXS 2X NKE BULL DAILY</b>        | <b>0.0</b>      | <b>1.1</b>         |
| <b>PFEL</b>   | <b>AXS 2X PFE BULL DAILY ETF</b>    | <b>0.0</b>      | <b>1.3</b>         |
| <b>PFES</b>   | <b>AXS 2X PFE BEAR DAILY ETF</b>    | <b>0.0</b>      | <b>1.0</b>         |

# A Spot Bitcoin ETF Would Do Well

Premium/Discount Of Bitcoin ETPs vs GBTC



# Bearish ESG



**ESG ETFs**

~~Russia~~ is a riddle wrapped in a  
mystery inside an enigma.

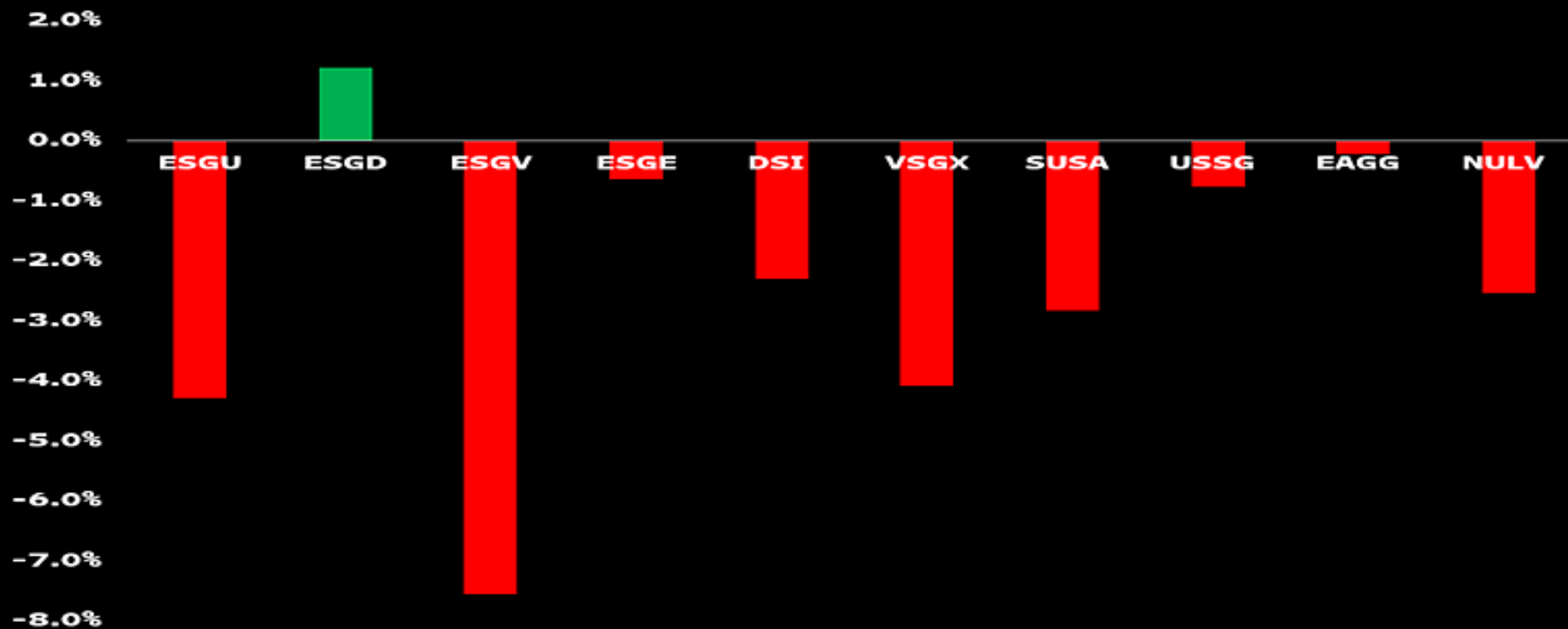
— *Winston Churchill* —


AZ QUOTES

# ESG Exclusionary Baskets

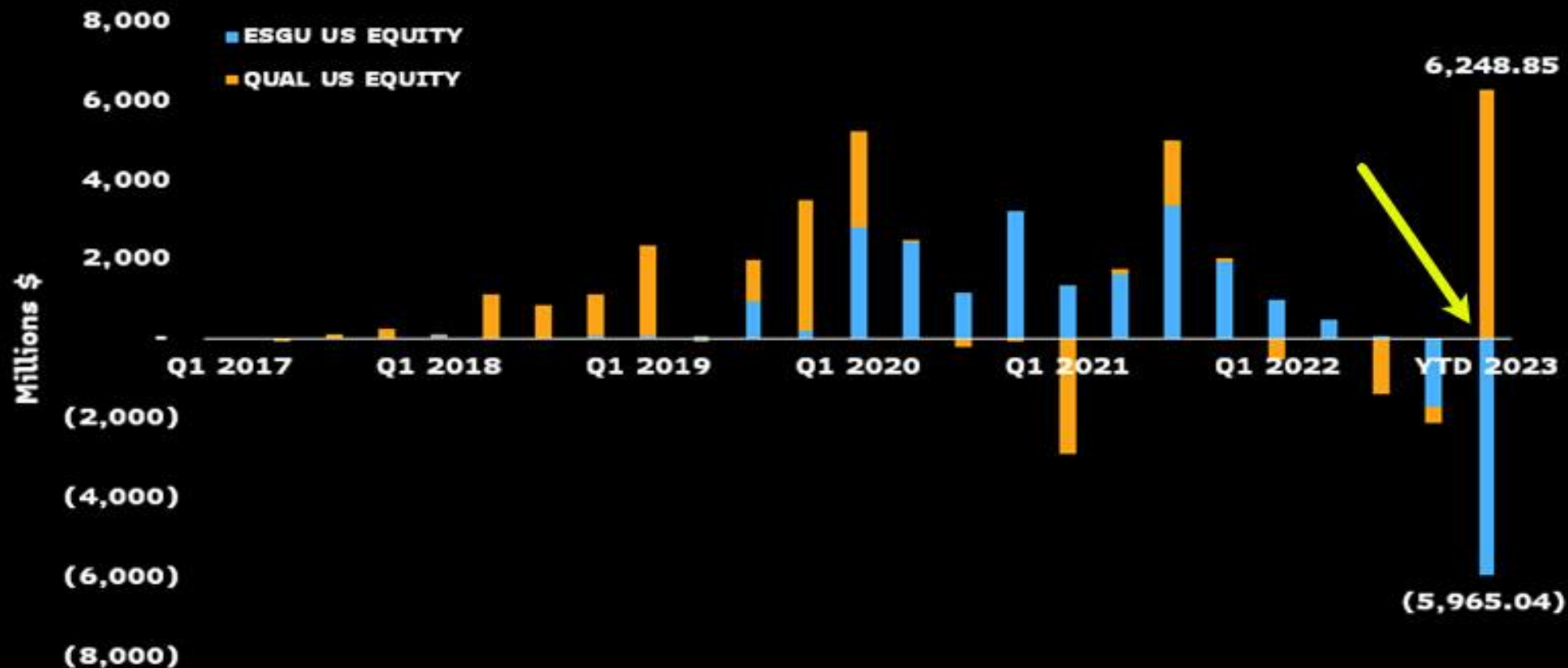
| Ticker<br>Issuer | ESGU<br>iShares | ESGV<br>Vanguard | USSG<br>DWS | SUSL<br>iShares | DSI<br>iShares | SUSA<br>iShares | SPYX<br>SSGA | SNPE<br>DWS | IQSU<br>IndexIQ | ESG<br>FlexShares | EFIV<br>SSGA |
|------------------|-----------------|------------------|-------------|-----------------|----------------|-----------------|--------------|-------------|-----------------|-------------------|--------------|
| 1                | WMT             | JNJ              | AAPL        | AAPL            | AAPL           | AMZN            | TSLA         | TSLA        | AMZN            | GOOGL             | TSLA         |
| 2                | WFC             | BRK/B            | AMZN        | AMZN            | AMZN           | JPM             | XOM          | JNJ         | FB              | JNJ               | JNJ          |
| 3                | PM              | XOM              | FB          | FB              | JPM            | JNJ             | CVX          | BRK/B       | JPM             | V                 | BRK/B        |
| 4                | BA              | WMT              | JPM         | JPM             | JNJ            | UNH             | SQ           | DIS         | BRK/B           | BRK/B             | DIS          |
| 5                | LMT             | CVX              | BRK/B       | BRK/B           | BRK/B          | BAC             | MELI         | PYPL        | NFLX            | PYPL              | PYPL         |
| 6                | MO              | NEE              | PYPL        | PYPL            | UNH            | CMCSA           | ZM           | NFLX        | XOM             | NFLX              | NFLX         |
| 7                | GM              | WFC              | UNH         | UNH             | BAC            | XOM             | COP          | WMT         | WMT             | WMT               | WMT          |
| 8                | DUK             | HON              | BAC         | BAC             | CMCSA          | ABT             | SNAP         | AVGO        | PFE             | PFE               | AVGO         |
| 9                | SO              | PM               | CMCSA       | CMCSA           | NFLX           | T               | UBER         | HON         | CVX             | NKE               | HON          |
| 10               | D               | BA               | NFLX        | NFLX            | XOM            | WMT             | TWLO         | PM          | WFC             | WFC               | PM           |
| 11               | COF             | RTX              | XOM         | XOM             | ABT            | AVGO            | NXPI         | ORCL        | HON             | HON               | ORCL         |
| 12               | FCX             | GE               | ABT         | ABT             | T              | PFE             | ROKU         | BA          | BMY             | UNP               | BA           |
| 13               | BSX             | MMM              | T           | T               | WMT            | CVX             | WDAY         | RTX         | PM              | LIN               | RTX          |
| 14               | ETN             | LMT              | WMT         | WMT             | AVGO           | LLY             | MRNA         | AMAT        | ORCL            | SBUX              | AMAT         |
| 15               | KLAC            | MO               | AVGO        | AVGO            | PFE            | MCD             | BX           | NOW         | BA              | BA                | NOW          |
| 16               | DG              | GM               | PFE         | PFE             | TMO            | NEE             | DOCU         | IBM         | CAT             | UPS               | IBM          |
| 17               | NOC             | COP              | TMO         | TMO             | CVX            | MDT             | VEEV         | SQ          | RTX             | RTX               | SQ           |
| 18               | F               | DUK              | CVX         | CVX             | LLY            | WFC             | MTCH         | MMM         | BLK             | AMAT              | MMM          |
| 19               | VEEV            | NSC              | LLY         | LLY             | QCOM           | DHR             | PINS         | BKNG        | GS              | NOW               | BKNG         |
| 20               | GD              | SO               | QCOM        | QCOM            | COST           | HON             | LULU         | ISRG        | SQ              | SQ                | ISRG         |

# ESG is Victim of the Fed's Rate Hikes



Bloomberg 

# ESGU Part of Biggest Trade in ETF History





# Can You Spot the Difference?

## ESGU

| Security                      | Ticker   |
|-------------------------------|----------|
| 1) Apple Inc                  | AAPL US  |
| 2) Microsoft Corp             | MSFT US  |
| 3) Amazon.com Inc             | AMZN US  |
| 4) Tesla Inc                  | TSLA US  |
| 5) Alphabet Inc Class A       | GOOGL US |
| 6) Alphabet Inc Class C       | GOOG US  |
| 7) NVIDIA Corp                | NVDA US  |
| 8) Meta Platforms Inc Class A | FB US    |
| 9) JPMorgan Chase & Co        | JPM US   |
| 10) Home Depot Inc/The        | HD US    |
| 11) Johnson & Johnson         | JNJ US   |
| 12) Visa Inc Class A          | V US     |

## S&P 500

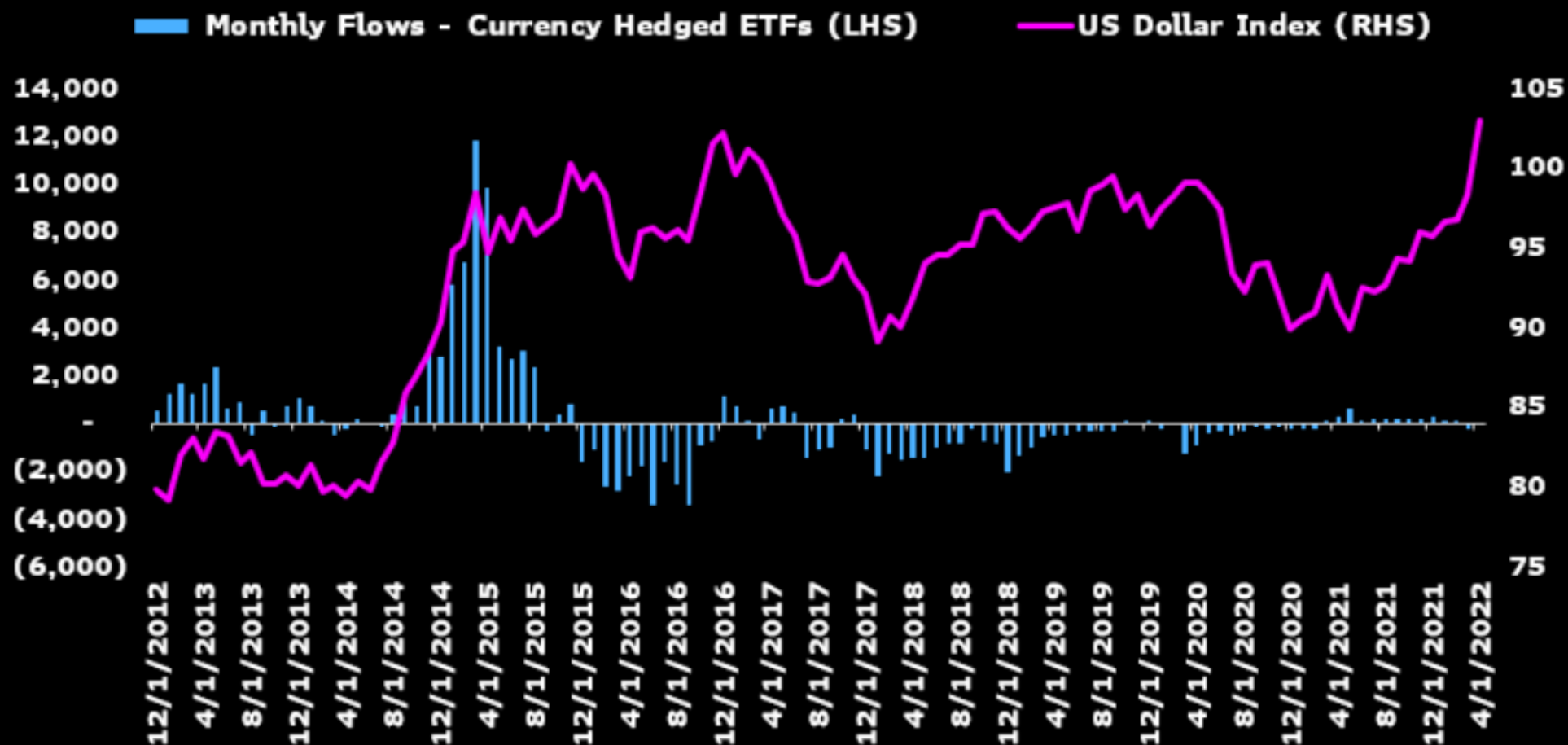
| Security                          | Ticker   |
|-----------------------------------|----------|
| 1) Apple Inc                      | AAPL US  |
| 2) Microsoft Corp                 | MSFT US  |
| 3) Amazon.com Inc                 | AMZN US  |
| 4) Tesla Inc                      | TSLA US  |
| 5) Alphabet Inc Class A           | GOOGL US |
| 6) Alphabet Inc Class C           | GOOG US  |
| 7) Berkshire Hathaway Inc CLASS B | BRK/B US |
| 8) NVIDIA Corp                    | NVDA US  |
| 9) Meta Platforms Inc Class A     | FB US    |
| 10) UnitedHealth Group Inc        | UNH US   |
| 11) Johnson & Johnson             | JNJ US   |
| 12) Procter & Gamble Co/The       | PG US    |

# BI's ESG ETF Scoring System

| Research         | Configure Columns             |   |         |            |         |         |         |     |                |          |                |
|------------------|-------------------------------|---|---------|------------|---------|---------|---------|-----|----------------|----------|----------------|
| Dashbd Home      | Large Cap U.S.                |   |         |            |         |         |         |     |                |          |                |
| Most Read        | Click a Category to drilldown |   |         |            |         |         |         |     |                |          |                |
| Primers          | Type                          | Fund Name                                   | Ticker  | ESG Score↓ | E Score | S Score | G Score | Fee | Assets (\$...) | Category |                |
| Data Library     | ESG ETF                       | PIMCO RAFI ESG US ETF                       | RAFE US | 8.43       | 8.69    | 8.06    | 8.56    | .30 | 27.05          | 3        | Large Cap U.S. |
| League Table     | ESG ETF                       | AVDR US LargeCap ESG ETF                    | AVDG US | 8.11       | 7.60    | 7.91    | 8.81    | .60 | 2.30           | 2        | Large Cap U.S. |
| Fund Flows       | ESG ETF                       | V-Shares US Leadership Diversity ETF        | VDNI US | 7.69       | 8.05    | 6.61    | 8.43    | .29 | 1.17           |          | Large Cap U.S. |
| AUM              | ESG ETF                       | iShares MSCI USA ESG Select ETF             | SUSA US | 7.57       | 8.06    | 5.99    | 8.65    | .25 | 3.92k          | 3        | Large Cap U.S. |
| \$ Volume        | ESG ETF                       | iShares ESG MSCI USA Leaders ETF            | SUSL US | 7.48       | 7.69    | 6.06    | 8.69    | .10 | 3.66k          | 3        | Large Cap U.S. |
| Active/Passive   | ESG ETF                       | Xtrackers MSCI USA ESG Leaders Equity ETF   | USSG US | 7.46       | 7.66    | 6.05    | 8.68    | .10 | 3.13k          | 3        | Large Cap U.S. |
| Cryptos          | ESG ETF                       | SPDR S&P 500 ESG ETF                        | EFIV US | 7.44       | 7.50    | 6.32    | 8.51    | .10 | 416.50         | 3        | Large Cap U.S. |
| BI Tools         | ESG ETF                       | Xtrackers S&P 500 ESG ETF                   | SNPE US | 7.43       | 7.49    | 6.29    | 8.49    | .10 | 862.95         | 3        | Large Cap U.S. |
| Traffic Light    | ESG ETF                       | Nuveen ESG Dividend ETF                     | NUDV US | 7.26       | 6.57    | 6.89    | 8.33    | .35 | 6.21           |          | Large Cap U.S. |
| Theme Scores     | ESG ETF                       | Nuveen ESG Large-Cap Value ETF              | NULV US | 7.25       | 6.92    | 6.52    | 8.32    | .25 | 1.28k          | 2        | Large Cap U.S. |
| Factor Spectr... | ESG ETF                       | iShares Trust - iShares MSCI KLD 400 Soc... | DSI US  | 7.24       | 7.30    | 5.82    | 8.61    | .25 | 3.72k          | 3        | Large Cap U.S. |
| ESG Scores       | ESG ETF                       | IQ Candriam ESG US Equity ETF               | IQSU US | 7.23       | 7.54    | 5.76    | 8.38    | .09 | 456.74         | 3        | Large Cap U.S. |
| Media            | ESG ETF                       | American Century Sustainable Equity ETF     | ESGA US | 7.22       | 7.18    | 6.08    | 8.41    | .39 | 127.17         | 2        | Large Cap U.S. |
| ETF IQ           | ESG ETF                       | Nuveen ESG Large-Cap ETF                    | NULC US | 7.22       | 6.83    | 6.18    | 8.65    | .20 | 27.33          | 2        | Large Cap U.S. |
| Trillions        | ESG ETF                       | American Century Sustainable Growth ETF     | ESGY US | 7.14       | 7.68    | 5.25    | 8.50    | .39 | 6.26           |          | Large Cap U.S. |
| Monitor          | ESG ETF                       | Global X Conscious Companies ETF            | KRMA US | 7.06       | 6.48    | 6.26    | 8.44    | .43 | 632.48         | 2        | Large Cap U.S. |
| ETF Filings      | ESG ETF                       | WisdomTree US ESG Fund                      | RESP US | 7.03       | 6.88    | 5.82    | 8.39    | .28 | 73.98          | 2        | Large Cap U.S. |
| News             | ESG ETF                       | TrueShares ESG Active Opportunities ETF     | ECOZ US | 7.00       | 6.97    | 6.00    | 8.03    | .58 | 8.09           | 1        | Large Cap U.S. |
|                  | ESG ETF                       | iShares ESG Aware MSCI USA ETF              | ESGU US | 6.84       | 6.64    | 5.58    | 8.31    | .15 | 23.24k         | 2        | Large Cap U.S. |
|                  | ESG ETF                       | iShares ESG Screened S&P 500 ETF            | XVV US  | 6.75       | 6.68    | 5.29    | 8.27    | .08 | 205.00         | 2        | Large Cap U.S. |
|                  | ESG ETF                       | Nuveen Winslow Large-Cap Growth ESG ETF     | NwLG US | 6.71       | 6.99    | 5.13    | 8.01    | .64 | 5.33           |          | Large Cap U.S. |
|                  | ESG ETF                       | LGBTQ+ ESG100 ETF                           | LGBT US | 6.71       | 5.56    | 6.01    | 8.57    | .75 | 2.57           |          | Large Cap U.S. |
|                  | ESG ETF                       | iShares ESG Advanced MSCI USA ETF           | USXF US | 6.66       | 6.37    | 5.30    | 8.31    | .10 | 546.74         | 2        | Large Cap U.S. |
|                  | ESG ETF                       | Hartford Schroders ESG US Equity ETF        | HEET US | 6.64       | 6.81    | 4.95    | 8.16    | .39 | 9.57           |          | Large Cap U.S. |
|                  | Benchmark                     | SPDR S&P 500 ETF Trust                      | SPY US  | 6.51       | 5.90    | 5.35    | 8.28    | .09 | 386.95k        | 2        | Large Cap U.S. |
|                  | ESG ETF                       | iShares ESG MSCI USA Min Vol Factor ETF     | ESMV US | 6.41       | 5.52    | 5.59    | 8.11    | .18 | 4.62           |          | Large Cap U.S. |
|                  | ESG ETF                       | Stance Equity ESG Large Cap Core ETF        | STNC US | 6.36       | 4.53    | 6.35    | 8.20    | .95 | 36.76          |          | Large Cap U.S. |
|                  | ESG ETF                       | Invesco US Large Cap Core ESG ETF           | IVLC US | 6.25       | 5.65    | 5.28    | 8.11    | .48 | 6.51           | 2        | Large Cap U.S. |

# Currency Hedged ETFs Didn't Get Second Bite at Apple

Currency-Hedged ETF Flows Flatten



# Bearish on Direct Indexing (Relative to Hype)

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## DI Is Following the Segway's Path

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Eric Balchunas

Team: Strategy

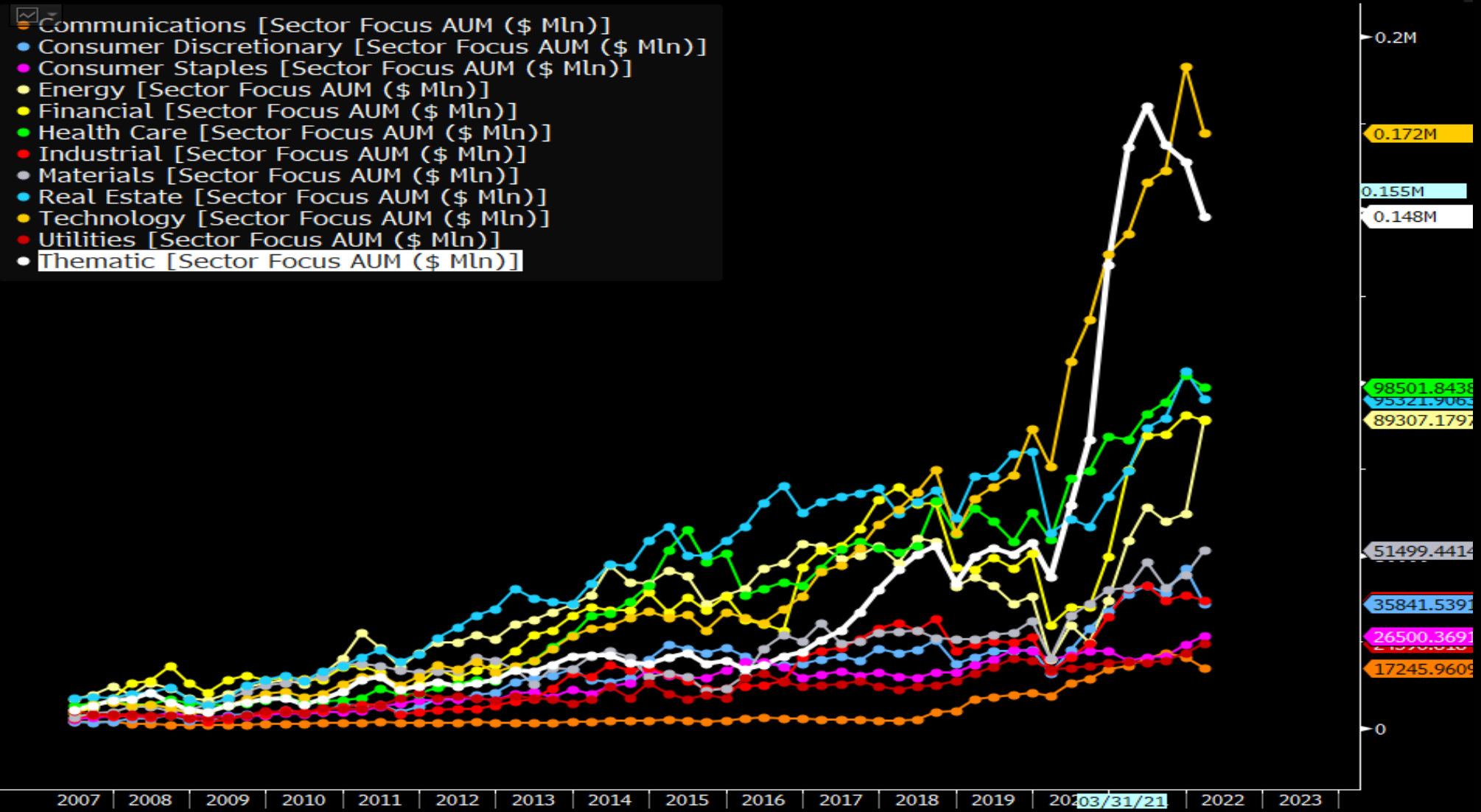
BI Senior ETF Analyst

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## Overhyped Direct Indexing Could Share Same Fate as the Segway

Direct indexing, once hailed as an "ETF killer" that would revolutionize investing, has yet to make much of dent. Like the Segway, which failed to live up to its hype in transportation, direct indexing could find some niche uses, but we don't think it will surpass 2-3% market share given it's more complex, active and expensive than ETFs. (10/05/22)

# Bullish Theme ETFs



Source: Bloomberg Intelligence

# Theme ETF Categories a Bottomless Well

| Name                         |   | 12/2022↓  |
|------------------------------|---|-----------|
| ▼ Sector Focus AUM (\$ Mln)  |    | 760,798.8 |
| ▶ Technology                 |    | 139,473.4 |
| ▼ Thematic                   |    | 115,051.6 |
| ▶ Natural Resources          |    | 16,702.8  |
| ▶ Infrastructure             |    | 15,573.2  |
| ▶ Clean Energy               |    | 15,556.7  |
| ▶ Innovation                 |    | 13,172.2  |
| ▶ Cybersecurity              |    | 7,872.4   |
| ▶ EM Tech                    |    | 7,354.9   |
| ▶ Tech & Communications      |    | 6,709.6   |
| ▶ Electric Car & Battery     |    | 5,692.3   |
| ▶ Robotics & AI              |    | 4,105.8   |
| ▶ Cloud Computing            |    | 4,015.5   |
| ▶ Travel, Vacation & Leisure |    | 3,072.0   |
| ▶ Healthcare                 |    | 2,834.8   |
| ▶ Agriculture                |    | 2,119.3   |
| ▶ Cannabis and Psychedelics  |   | 1,788.8   |
| ▶ FinTech                    |  | 1,722.3   |
| ▶ IPO & SPAC                 |  | 1,552.4   |
| ▶ 5G                         |  | 1,316.0   |
| ▶ Broad/ Other               |  | 955.4     |
| ▶ Metaverse & Video Gaming   |  | 939.7     |
| ▶ Consumer                   |  | 822.4     |
| ▶ Blockchain & Crypto        |  | 787.8     |
| ▶ Space                      |  | 347.1     |
| ▶ Work From Home             |  | 38.2      |

# BI's Thematic Capture Score

1) Configure Columns

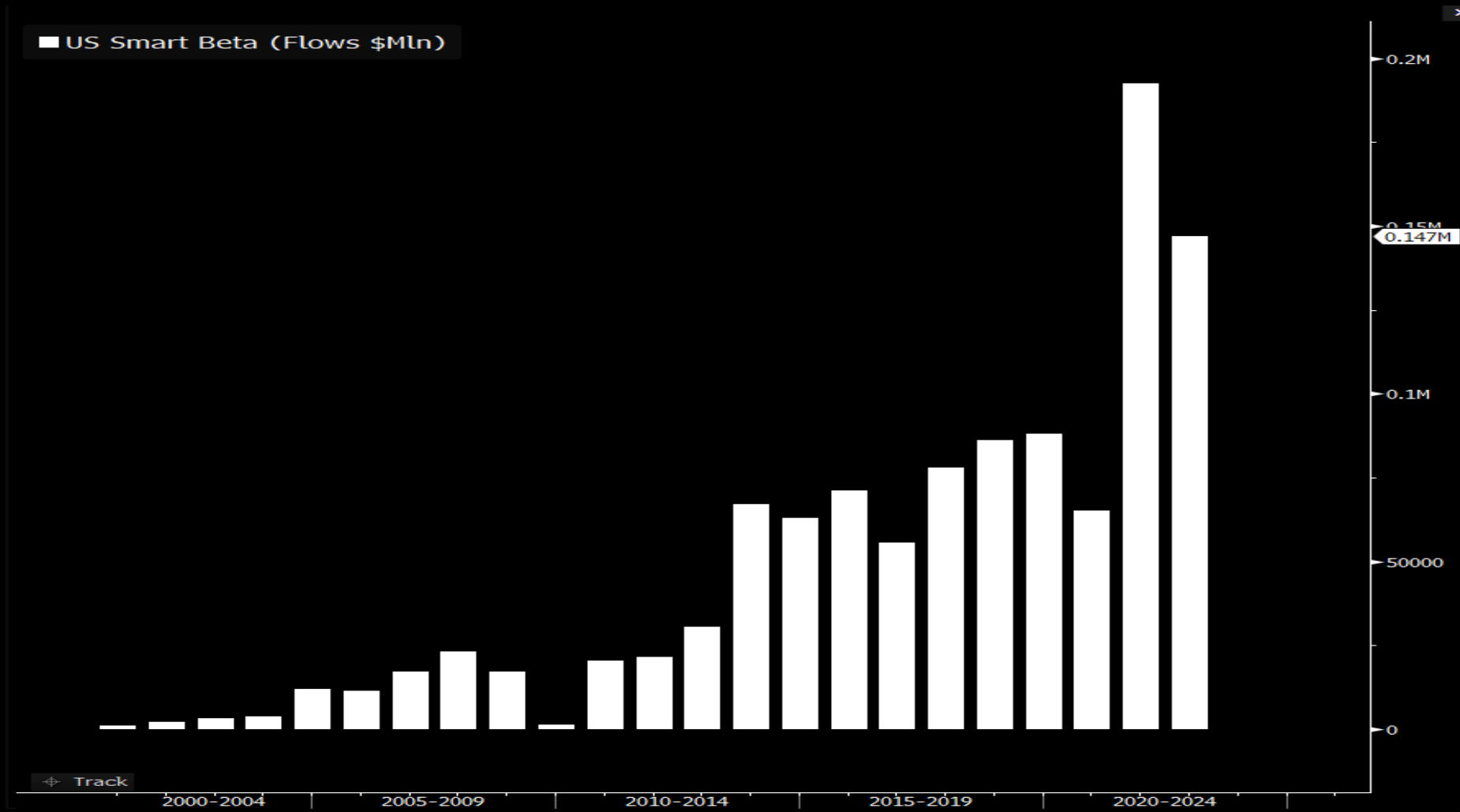
Cannabis

Click a Theme to drilldown

| Theme    | Fund Name                     | Ticker  | Total Score | Purity | Uniqueness | Assets (\$M) | Fee (%) |
|----------|-------------------------------|---------|-------------|--------|------------|--------------|---------|
| Cannabis | Amplify Seymour Cannabis ...  | CNBS US | 96          | 93     | 100        | 4.90         | .75     |
| Cannabis | ETFMG Alternative Harvest ... | MJ US   | 91          | 91     | 90         | 639.70       | .75     |
| Cannabis | Global X Cannabis ETF         | POTX US | 95          | 91     | 100        | 13.40        | .5      |
| Cannabis | The Cannabis ETF              | THCX US | 97          | 95     | 100        | 23.20        | .7      |
| Cannabis | Cambria Cannabis ETF          | TOKE US | 58          | 37     | 90         | 11.80        | .42     |
| Cannabis | AdvisorShares Pure Cannab...  | YOLO US | 99          | 99     | 100        | 52.20        | .74     |



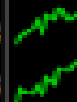

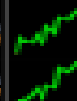

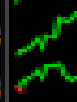

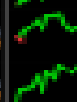
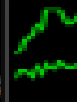

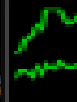





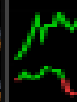









# Bullish Smart-Beta





# Value on Top

| Name   |   |   | 5/2022↓   |
|--|---|---|-----------|
| ▼ SB classification based on docs & issuer in... |   |   | 1.456M    |
| ▼ Equity Smart Beta (AUM \$Mln)                  |    |    | 1.409M    |
| ▶ Value  |    |    | 360,401.4 |
| ▶ Dividend/Yield                                 |    |    | 308,700.1 |
| ▶ Growth   |    |    | 299,018.8 |
| ▶ Multi  |    |    | 136,525.8 |
| ▶ Principle Based                                |   |    | 91,509.1  |
| ▶ Size   |    |    | 88,293.1  |
| ▶ Low Volatility                                 |    |    | 60,439.3  |
| ▶ Quality  |    |    | 33,917.1  |
| ▶ Momentum                                       |    |    | 15,237.7  |
| ▶ Proprietary                                    |   |   | 11,325.0  |
| ▶ Revenue  |  |   | 2,492.4   |
| ▼ Other  |  |  | 719.9     |
| ▶ High Beta                                      |  |  | 676.9     |
| ▶ Liquidity                                      |  |  | 42.9      |

# The Smart-Beta Spectrum

Actions ▾ Directory Export Settings Bloomberg Intelligence

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ETFs Dashboard (BI ETFSG) Global ☆

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- News

1) Configure Columns

Value

Click a Factor to drilldown

| Factor | Fund Name                                 | Ticker     | Factor Intensity Rank↑ | Holdings | Volatility 260d | Load | Assets(\$M) | Fee  |
|--------|---|------------|------------------------|----------|-----------------|------|-------------|------|
| Value  | iShares Focused Value Factor ETF          | FOVL US..  | 1                      | 37       | 46%             | 73%  | 20          | .25% |
| Value  | Roundhill Acquirers Deep Value ETF        | DEEP US..  | 2                      | 20       | 45%             | 69%  | 22.4        | .8%  |
| Value  | Invesco S&P 500 Enhanced Value ETF        | SPVU U...  | 3                      | 101      | 44%             | 75%  | 75.3        | .13% |
| Value  | Alpha Architect US Quantitative Value ETF | QVAL US..  | 4                      | 41       | 42%             | 69%  | 107.3       | .49% |
| Value  | Invesco S&P 500 Pure Value ETF            | RPV US ..  | 5                      | 104      | 46%             | 60%  | 574.8       | .35% |
| Value  | Invesco Russell Top 200 Pure Value ETF    | SPVM U...  | 6                      | 101      | 41%             | 47%  | 34.1        | .39% |
| Value  | First Trust Large Cap Value AlphaDEX Fund | FTA US ... | 7                      | 188      | 43%             | 53%  | 619.3       | .62% |
| Value  | Invesco Dynamic Large Cap Value ETF       | PWV US ..  | 8                      | 51       | 36%             | 38%  | 673.5       | .56% |
| Value  | The Acquirers Fund ETF                    | ZIG US ... | 9                      | 32       | 34%             | 70%  | 17.7        | .94% |
| Value  | First Trust Multi Cap Value AlphaDEX Fund | FAB US ... | 10                     | 674      | 46%             | 55%  | 54.2        | .66% |
| Value  | iShares Edge MSCI USA Value Factor ETF    | VLUE US..  | 11                     | 151      | 39%             | 48%  | 5713.9      | .15% |
| Value  | Vanguard U.S. Value Factor                | VFVA US..  | 12                     | 731      | 46%             | 59%  | 111.3       | .14% |
| Value  | JPMorgan US Value Factor ETF              | JVAL US..  | 13                     | 322      | 36%             | 32%  | 63.3        | .12% |
| Value  | iShares Morningstar Large-Cap Value ETF   | JKF US ... | 14                     | 74       | 34%             | 27%  | 443.9       | .25% |
| Value  | Fidelity Value Factor ETF                 | FVAL US..  | 15                     | 126      | 34%             | 28%  | 188.1       | .29% |
| Value  | AdvisorShares DoubleLine Value Equity ETF | DBLV U...  | 16                     | 49       | 30%             | 25%  | 42.8        | .9%  |
| Value  | SPDR S&P 1500 Value Tilt ETF              | VLU US ... | 17                     | 1,413    | 36%             | 30%  | 21.2        | .12% |
| Value  | iShares S&P 500 Value ETF                 | IVE US ..  | 18                     | 392      | 35%             | 23%  | 15585.3     | .18% |
| Value  | SPDR Portfolio S&P 500 Value ETF          | SPYV U...  | 19                     | 392      | 35%             | 23%  | 5037.6      | .04% |
| Value  | Vanguard Russell 1000 Value               | VONV U...  | 20                     | 767      | 35%             | 24%  | 2532        | .08% |
| Value  | iShares Core S&P U.S. Value ETF           | IUSV US..  | 21                     | 687      | 35%             | 23%  | 6270.9      | .04% |
| Value  | Vanguard Value ETF                        | VTV US ... | 22                     | 335      | 35%             | 22%  | 49068       | .04% |
| Value  | Vanguard S&P 500 Value ETF                | VOOV U...  | 23                     | 424      | 35%             | 23%  | 1179.2      | .1%  |
| Value  | Schwab U.S. Large-Cap Value ETF           | SCHV U...  | 24                     | 415      | 35%             | 20%  | 6614.8      | .04% |
| Value  | Vanguard Mega Cap Value ETF               | MGV US ..  | 25                     | 154      | 34%             | 21%  | 2809.5      | .07% |
| Value  | iShares Russell 1000 Value ETF            | IWD US ... | 26                     | 841      | 36%             | 20%  | 35008       | .19% |

Source: Bloomberg Intelligence

# THANK YOU

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