





# Introduction

In this data report, we analyse Investment Banks/Brokers holdings among active Global Equity Funds. We analyse the latest published filings for all funds and aggregate together as of 11/30/2022. We show the most recent snapshot in positioning, time series data going back to 9/30/2012 and recent allocation shifts by the managers in our analysis. The current fund sample spans 359 active funds with a combined AUM of \$947.16Bn.

For benchmark comparisons, we use the SPDR MSCI ACWI UCITS ETF, proportionally adjusted to remove any cash holdings. All Cash Flow calculations are on a best estimates basis. We use monthly position changes and month end prices to estimate the net buying and selling value for each stock within each fund in our analysis.

For further information on the calculation methodology that we use in the analysis and the classification of fund Styles, please view the Glossary on page 22.

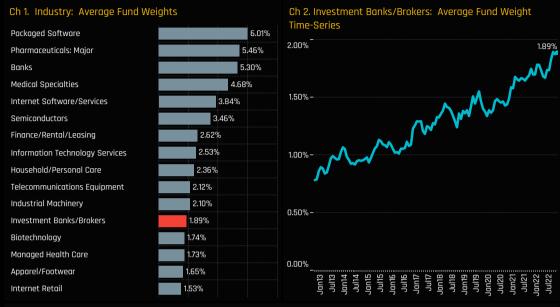
# Peer Group and Time-Series Ownership Data



Chart 1. The equally weighted average fund weight, among active Global managers by Industry Chart 2. The time series of average fund weight for Investment Banks/Brokers stocks

Chart 5. The 'Funds Invested %' measures the percentage of active Global funds with exposure to each Industry. A figure of 100% means that every fund in our analysis has some exposure to that Industry

Chart 6. The time series of funds invested % for Investment Banks/Brokers stocks



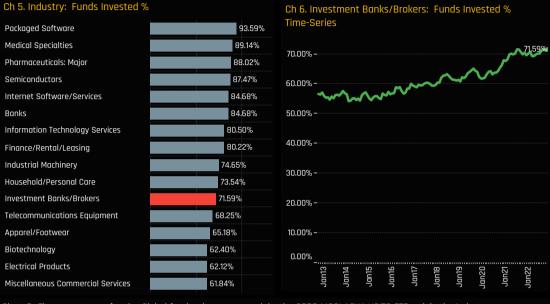
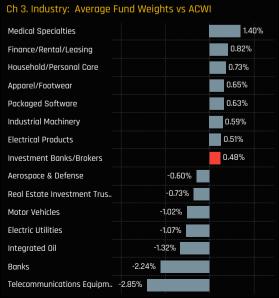


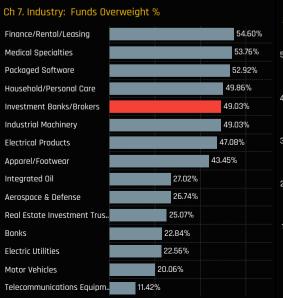
Chart 3. The average fund weight minus the weight in the SPDR MSCI ACWI UCITS ETF, by Industry. A positive value represents an 'overweight' position on average, a negative value represents an 'underweight'.

Chart 4. The time series of average fund weight minus benchmark for Investment Banks/Brokers stocks

Chart 7. The percentage of active Global funds who are overweight the SPDR MSCI ACWI UCITS ETF weight, by Industry Chart 8. The time series of Funds Overweight % for Investment Banks/Brokers stocks









# Fund Holdings



Chart 1. The distribution of Investment Banks/Brokers weights among the 359 active Global funds in our analysis, broken down by fund Style.

Chart 2. The largest 30 Investment Banks/Brokers holders in our analysis, on a portfolio weight basis.

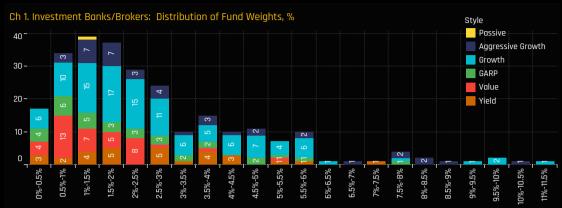
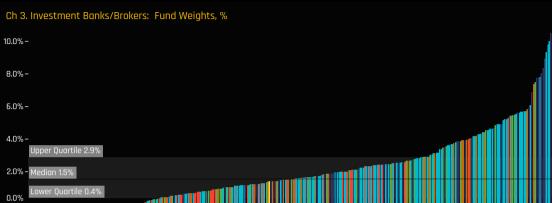


Chart 3. The individual Investment Banks/Brokers fund weights funds in our analysis, ranked by allocation size with Median and Ouartiles.

Chart 4. The largest 30 Investment Banks/Brokers holders in our analysis, on an \$ AUM basis.



## Ch 2. Investment Banks/Brokers: Top Fund Holdings, %

Fund Name
GuardCap UCITS Funds Plc - Global Equity Fund
Liontrust Sustainable Future ICVC - Global Growth Fund
Premier Miton Global Sustainable Growth Fund
Aberdeen Std. OEIC II - ASI Global Uncon. Equity Fund
Aberdeen Standard SICAV II - Global Equities Fund
Skagen Global
T Rowe Price Global Stock Fund
Brown Advisory Global Leaders Fund

Brown Advisory Global Leaders Fund
Delaware Ivy Global Growth Fund
Vontobel Fund - Global Equity
Virtus Vontobel Global Opportunities Fund
Redwheel Funds SICAV - Global Horizon Fund
Fidelity Funds SICAV - Global Dividend Fund
Brown Advisory Funds Plc - Global Leaders
UBS (Lux) Equity SICAV - Long Term Themes (USD)
AB SICAV I - Concentrated Global Equity Portfolio

Aberdeen Std. OEIC II - ASI Global Income Equity Fund
Sarasin IE Global Equity Opportunities (GBP)
Sarasin IE Global Equity Opportunities (USD)

Sarasin Funds ICVC - Thematic Global Equity
PineBridge Global Funds - Global Focus Equity Fund
Wellington Mgmt. Fds. (LU) - Global Quality Growth Fund

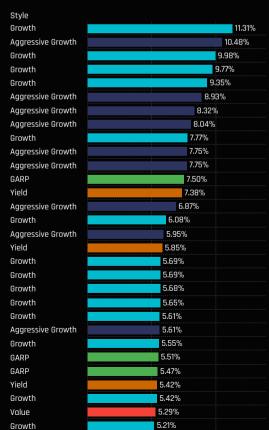
Aviva Invs. - Global Equity Endurance Fund Chautauqua Global Growth Fund

LO Funds - Golden Age

Natixis AM Funds - Seeyond Global MinVol Guinness Asset Mgmt. Fund Plc - Global Equity Income Fund

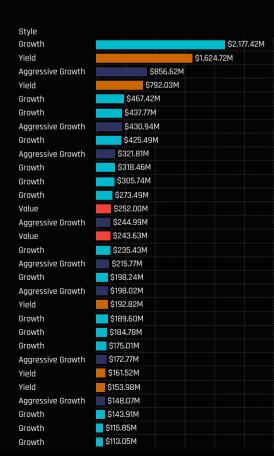
BNY Mellon Investment Fds. - Global Opportunities Fund

Multicooperation SICAV - Julius Baer Equity Fund Special Value Artisan Global Discovery Fund



#### Ch 4. Investment Banks/Brokers: Top Fund Holdings,

Ch 4. Investment Banks/Brokers: Top Fund Holdings, \$
Fund Name
American Funds New Perspective Fund
American Funds Capital World Growth & Income Fund
Morgan Stanley Invt. Fds Global Brands Fund
Fidelity Funds SICAV - Global Dividend Fund
Wellington Mgmt. Fds. (LU) - Global Quality Growth Fund
American Funds New Economy Fund
T Rowe Price Global Stock Fund
SJP Global Quality Fund
Skagen Global
GuardCap UCITS Funds Plc - Global Equity Fund
UBS (Lux) Equity SICAV - Long Term Themes (USD)
DWS Vermoegensbildungsfonds I
Dodge & Cox Global Stock Fund
Vontobel Fund - Global Equity
First Eagle Global Fund
Old Westbury Large Cap Strategies Fund
Liontrust Sustainable Future ICVC - Global Growth Fund
UniFavorit: Aktien
Ninety One Glb. Strat. Fd Global Franchise Fund
Guinness Asset Mgmt. Fund Plc - Global Equity Income Fund
UniGlobal
Artisan Global Opportunities Fund
American Funds Global Insight Fund
Brown Advisory Funds Plc - Global Leaders
BNY Mellon Investment Fds Global Income Fund
Deka - DividendenStrategie
Rothbone Global Opportunities Fund
DWS ESG Akkumula
Folksams LO Varlden
RBC Funds (Lux) - Global Equity Focus Fund



# Aggregate Ownership Changes

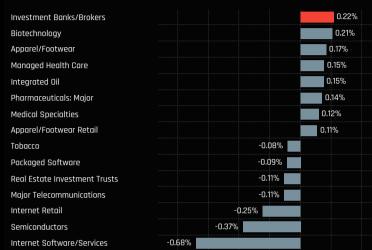


Chart 1. Measures the largest changes in average Industry weight between 5/31/2022 and 11/30/2022.

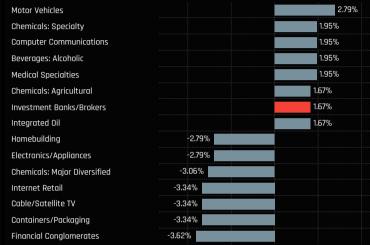
Chart 3. Measures the largest changes in the percentage of funds invested in each Industry between 5/31/2022 and 11/30/2022.

Chart 5. Shows the cumulative fund flows for Investment Banks/Brokers stocks among the 359 active Global funds in our analysis. Monthly fund flows are estimated by multiplying the monthly change in stock position by the stock price for every position in every fund in our analysis.

# Ch 1. Industry: Change in Average Weight 5/31/2022 - 11/30/2022









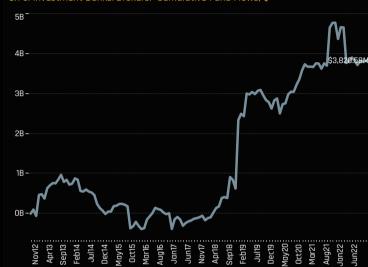
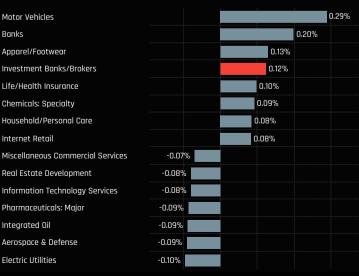


Chart 4. Measures the largest changes in the percentage of funds overweight each Industry compared to the SPDR MSCI ACWI UCITS ETF between 5/31/2022 and 5/31/2022 and 11/30/2022. An increasing figure would indicate more funds are positioning themselves

between 5/31/2022 and 11/30/2022. An increasing figure would indicate an increasing overweight or decreasing underweight.

Chart 2. Measures the largest changes in the average Industry weight vs ACWI





# Ch 4. Industry: Change in the Funds Overweight % 5/31/2022 - 11/30/2022

overweight over the period.

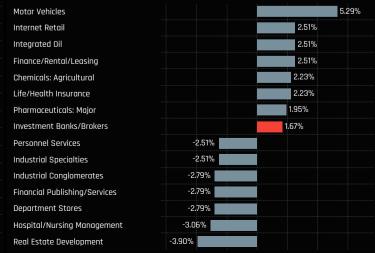
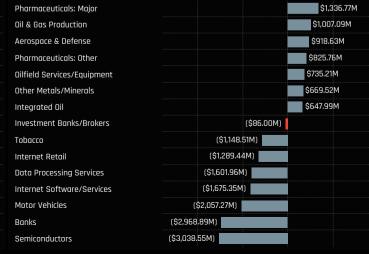


Chart 6. Measures the largest estimated fund flows for each Industry between 5/31/2022 and 11/30/2022.

# Ch 6. Industry: Largest Fund Flows per Industry 5/31/2022 - 11/30/2022



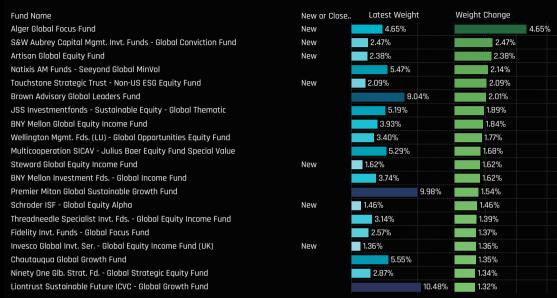
# Fund Holding Changes



Chart 1. The largest fund weight increases in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022. Chart 2. The largest fund weight decreases in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022 Both charts show the current weight and whether the weight change represented a new or closed position.

Chart 3. The largest buyers in US dollar terms in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022. Chart 4. The largest sellers in US dollar terms in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022 Both charts show the current AUM and whether the fund flow represented a new or closed position.

## Ch 1. Investment Banks/Brokers: Largest Increases in Position, %



## Ch 3. Investment Banks/Brokers: Largest Fund Inflows, \$

Fund Name	New or Close	Latest AUM, \$	Fund Flows, \$
American Funds New Perspective Fund		\$2,177.42M	\$203.82M
Morgan Stanley Invt. Fds Global Brands Fund		\$856.62M	\$120.83M
Fidelity Funds SICAV - Global Dividend Fund		\$792.03M	\$100.75M
Dodge & Cox Global Stock Fund		\$252.00M	\$90.68M
BNY Mellon Investment Fds Global Income Fund		\$161.52M	\$68.88M
Guinness Asset Mgmt. Fund Plc - Global Equity Income Fund		\$192.82M	\$58.68M
Morgan Stanley Invt. Fds Global Quality Fund		\$111.88M	\$32.57M
JPMorgan Funds - Global Focus Fund	New	\$28.76M	\$32.37M
Fidelity Series Intrinsic Opportunities Fund		\$56.81M	\$29.80M
JPMorgan Investment Funds - Global Select Equity Fund	New	\$26.29M	\$29.52M
Schroder ISF - Global Equity Alpha	New	\$31.77M	\$26.58M
Vontobel Fund - Global Equity		\$244.99M	\$24.31M
JPMorgan Investment Funds - Global Dividend Fund		\$30.38M	\$23.24M
Vanguard Global Equity Fund		\$85.01M	\$14.34M
Multicooperation SICAV - Julius Baer Equity Fund Special Value		\$75.49M	■ \$14.17M
Ninety One Glb. Strat. Fd Global Strategic Equity Fund		\$40.08M	\$12.45M
JSS Investmentfonds - Sustainable Equity - Global Thematic		\$55.75M	\$11.36M
Touchstone Strategic Trust - Non-US ESG Equity Fund	New	\$11.26M	\$10.80M
Brown Advisory Global Leaders Fund		\$97.32M	\$10.66M
Natixis AM Funds - Seeyond Global MinVol		\$21.19M	\$9.13M

## Ch 2. Investment Banks/Brokers: Largest Decreases in Position, %

Fund Name	New or Clos	e., Latest Weiaht	Weiaht Chanae
American Century Focused Global Growth Fund	11211 01 0103	2.56%	-2.54%
JOHCM Umbrella Fund Plc - Global Select Fund		4.90%	-1.92%
Anima Valore Globale	Close	0.00%	-1.14%
Columbia Select Global Equity Fund		0.80%	-1.02%
GuardCap UCITS Funds Plc - Global Equity Fund		11.	31% -0.93%
DWS Global Growth	Close	0.00%	-0.90%
Old Westbury Large Cap Strategies Fund		1.13%	-0.89%
Robeco Capital Gr. Fds Ql Global Momentum Equities		0.85%	-0.85%
T Rowe Price Global Stock Fund		8.32%	-0.62%
Schoellerbank Aktienfonds Value		1.18%	-0.60%
HSBC GIF - Global Equity Volatility Focused	Close	0.00%	-0.60%
Voya Global High Dividend Low Volatility Fund		0.43%	-0.60%
Fidelity Funds SICAV - Global Demographics Fund		1.22%	-0.58%
Harding Loevner Global Equity Portfolio		1.18%	-0.56%
Schroder ISF - QEP Global Quality		2.23%	-0.56%
GAM Funds - Disruptive Growth		4.28%	-0.45%
Waverton Invt. Fds. Plc - Global Equity Fund		2.52%	-0.38%
BNP Paribas Funds - Sustainable Global Low Vol Equity		3.04%	-0.37%
USAA Capital Growth Fund		1.19%	-0.34%
Robeco Capital Gr. Fds QI Global Conservative Equities		0.96%	-0.33%

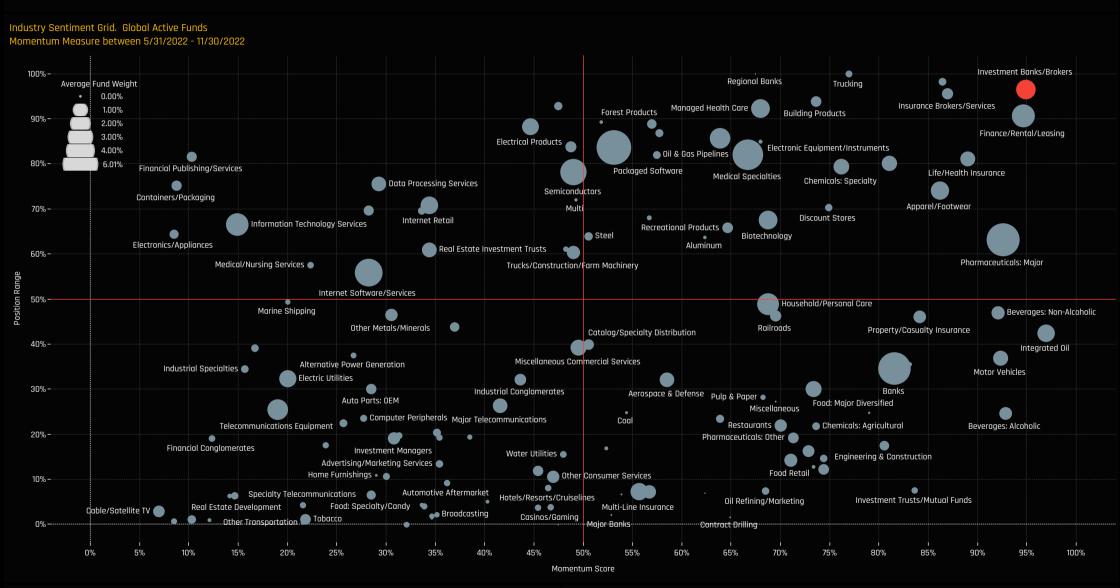
## Ch 4. Investment Banks/Brokers: Largest Fund Outflows, \$

Fund Name	New or Close.	. Latest AUM, \$	Fund Flows, \$
American Funds Capital World Growth & Income Fund		\$1,624.72M	(\$245.38M)
Old Westbury Large Cap Strategies Fund		\$235.43M	(\$187.79M)
Wellington Mgmt. Fds. (LU) - Global Quality Growth Fund		\$467.42M	(\$153.68M)
T Rowe Price Global Stock Fund		\$430.94M	(\$146.52M)
JOHCM Umbrella Fund Plc - Global Select Fund		\$85.43M	(\$62.88M)
Artisan Global Opportunities Fund		\$184.78M	(\$35.15M)
American Funds Global Insight Fund		\$175.01M	(\$18.19M)
Anima Valore Globale	Close		(\$16.70M)
American Century Focused Global Growth Fund		\$15.14M	(\$16.43M)
American Funds New Economy Fund		\$437.77M	(\$13.89M)
Fidelity Funds SICAV - Global Demographics Fund		\$12.30M	(\$12.44M)
LF Liontrust Investment Funds III - Global Focus Fund		\$0.49M	(\$12.39M)
AB SICAV I - Low Volatility Equity Portfolio		\$102.23M	(\$12.28M)
Janus Henderson Global Select Fund		\$62.02M	(\$12.17M)
AB SICAV I - Global Core Equity Portfolio		\$39.73M	(\$11.34M)
Liontrust Sustainable Future ICVC - Global Growth Fund		\$215.77M	(\$10.93M)
KBC Institutional Fund - SRI World Equity		\$28.40M	(\$9.32M)
BNP Paribas Funds - Sustainable Global Low Vol Equity		\$26.65M	(\$9.26M)
DWS Global Growth	Close		(\$9.05M)
RBC Funds (Lux) - Global Equity Focus Fund		\$113.05M	(\$7.86M)

# Industry Sentiment Grid



Z-Score of today's average weight, funds invested % and funds o/w % relative to all monthly observations in our fund history (going back to 9/30/2012). A figure close to 100% would indicate today's positioning is close to its maximum ever level, a figure close to zero, the lowest. The X-axis provides a measure of short-term fund activity, or 'Momentum', by looking at the changes in average weight, funds invested % and funds o/w % between 5/31/2022 and 11/30/2022, relative to each Industry. A figure above 50% means a Industry has seen relative increases in ownership, a figure below 50% indicates a relative decrease in positioning. The size of the bubble represents the average weight of each Industry.



Position Range: Average of: Z-Score Average Weight vs history Z-Score Funds Invested % vs history Z-Score Funds O/W % vs history Momentum Score: Average of: Change in Average Weight (Percentile vs Peers) Change in Funds Invested % (Percentile vs Peers) Change in Funds O/W % (Percentile vs Peers)

# Aggregate Sector Ownership





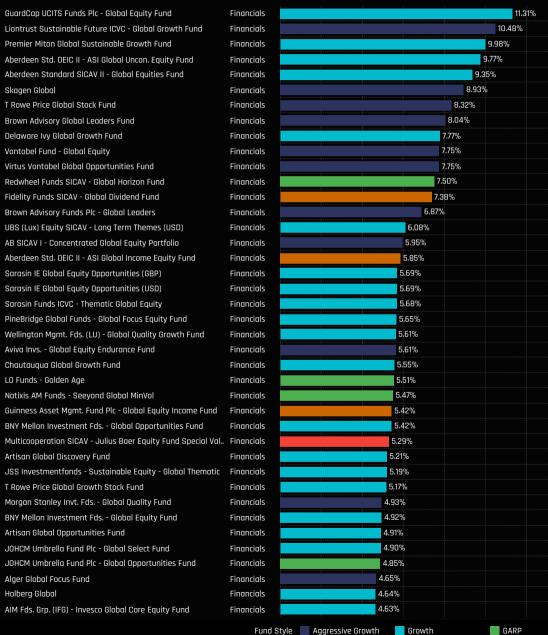
# Fund Level Sector Holdings



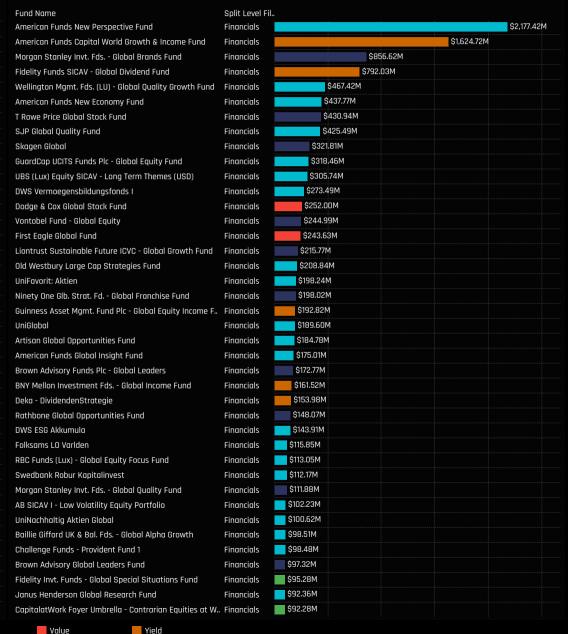
Chart 1. Investment Banks/Brokers: The largest individual fund level Sector holdings by fund weight, coloured by fund Style,

Chart 2. Investment Banks/Brokers: The largest individual fund level Sector holdings by \$ AUM. coloured by fund Style.

## Ch 1. Investment Banks/Brokers: Top Fund level Sector Holdings, %



## Ch 4. Investment Banks/Brokers: Top Fund level Sector Holdings, \$



# Fund Level Sector Changes



Chart 1. The largest Sector level weight increases in Investment Banks/Brokers between 5/31/2022 - 11/30/2022. Chart 2. The largest Sector level weight decreases in Investment Banks/Brokers between 5/31/2022 - 11/30/2022. Both charts show the current weight and whether the weight change represented a new or closed position.

## Ch 1. Investment Banks/Brokers: Largest Increases in Sector Position, %

Fund Name	Split Level Fil	New or Close	Latest Weig	ght	Weight Change
Alger Global Focus Fund	Financials	New	4.65%		4.65%
S&W Aubrey Capital Mgmt. Invt. Funds - Global C	Financials	New	2.47%		2.47%
Artisan Global Equity Fund	Financials	New	2.38%		2.38%
Natixis AM Funds - Seeyond Global MinVol	Financials		5.47%		2.14%
Touchstone Strategic Trust - Non-US ESG Equity	Financials	New	2.09%		2.09%
Brown Advisory Global Leaders Fund	Financials		8.0	4%	2.01%
JSS Investmentfonds - Sustainable Equity - Glob	Financials		5.19%		1.89%
BNY Mellon Global Equity Income Fund	Financials		3.93%		1.84%
Wellington Mgmt. Fds. (LU) - Global Opportunitie	Financials	-	3.40%		1.77%
Multicooperation SICAV - Julius Baer Equity Fund	Financials	1	5.29%		1.68%
Steward Global Equity Income Fund	Financials	New	1.62%		1.62%
BNY Mellon Investment Fds Global Income Fund	Financials		3.74%		1.62%
Premier Miton Global Sustainable Growth Fund	Financials			9.98%	1.54%
Schroder ISF - Global Equity Alpha	Financials	New	1.46%		1.46%
Threadneedle Specialist Invt. Fds Global Equity	Financials	-	3.14%		1.39%
Fidelity Invt. Funds - Global Focus Fund	Financials	)-	2.57%		1.37%
Invesco Global Invt. Ser Global Equity Income F	Financials	New	1.36%		1.36%
Chautauqua Global Growth Fund	Financials		5.55%		1.35%
Ninety One Glb. Strat. Fd Global Strategic Equit	Financials		2.87%		1.34%
Liontrust Sustainable Future ICVC - Global Growt	Financials			10.48%	1.32%

Chart 3. The largest Sector level fund inflows in Investment Banks/Brokers between 5/31/2022 - 11/30/2022. Chart 4. The largest Sector level fund outflows in Investment Banks/Brokers between 5/31/2022 - 11/30/2022. Both charts show the current AUM and whether the fund flow represented a new or closed position.

## Ch 3. Investment Banks/Brokers: Largest Sector Fund Inflows, \$

Fund Name	Split Level Fil	New or Close		Latest AU	М, \$		Fund F	lows, \$
American Funds New Perspective Fund	Financials				\$2,177M			\$204M
Morgan Stanley Invt. Fds Global Brands Fund	Financials			\$857M			\$121M	
Fidelity Funds SICAV - Global Dividend Fund	Financials		9	792M			\$101M	
Dodge & Cox Global Stock Fund	Financials		\$252M			\$	91M	
BNY Mellon Investment Fds Global Income Fund	Financials		\$162M			\$69	М	
Guinness Asset Mgmt. Fund Plc - Global Equity Inco	Financials		\$193M			\$591		
Morgan Stanley Invt. Fds Global Quality Fund	Financials		\$112M			\$33M		
JPMorgan Funds - Global Focus Fund	Financials	New	\$29M			\$32M		
Fidelity Series Intrinsic Opportunities Fund	Financials		\$57M			\$30M		
JPMorgan Investment Funds - Global Select Equity	Financials	New	\$26M			\$30M		
Schroder ISF - Global Equity Alpha	Financials	New	\$32M			\$27M		
Vontobel Fund - Global Equity	Financials		\$245M			\$24M		
JPMorgan Investment Funds - Global Dividend Fund	Financials		\$30M			\$23M		
Vanguard Global Equity Fund	Financials		\$85M			\$14M		
Multicooperation SICAV - Julius Baer Equity Fund S	Financials		\$75M			\$14M		
Ninety One Glb. Strat. Fd Global Strategic Equity	Financials		\$40M			\$12M		
JSS Investmentfonds - Sustainable Equity - Global	Financials		\$56M			\$11M		
Touchstone Strategic Trust - Non-US ESG Equity Fu	Financials	New	\$11M			\$11M		
Brown Advisory Global Leaders Fund	Financials		\$97M			\$11M		
Natixis AM Funds - Seeyond Global MinVol	Financials		\$21M			\$9M		

## Ch 2. Investment Banks/Brokers: Largest Decreases in Sector Position, %

Fund Name	Split Level Fil	New or Close.		Latest Weight	,	Weight Change
American Century Focused Global Growth Fund	Financials		2.56%	6	-2.64%	
JOHCM Umbrella Fund Plc - Global Select Fund	Financials			4.90%	-1.92%	
Anima Valore Globale	Financials	Close	0.00%			-1.14%
Columbia Select Global Equity Fund	Financials		0.80%			-1.02%
GuardCap UCITS Funds Plc - Global Equity Fund	Financials			11.31%		-0.93%
DWS Global Growth	Financials	Close	0.00%			-0.90%
Old Westbury Large Cap Strategies Fund	Financials		1.00%			-0.87%
Robeco Capital Gr. Fds QI Global Momentum Eq	Financials		0.85%			-0.85%
T Rowe Price Global Stock Fund	Financials			8.32%		-0.62%
Schoellerbank Aktienfonds Value	Financials		1.18%			-0.60%
HSBC GIF - Global Equity Volatility Focused	Financials	Close	0.00%			-0.60%
Voya Global High Dividend Low Volatility Fund	Financials		0.43%			-0.60%
Fidelity Funds SICAV - Global Demographics Fund	Financials		1.22%			-0.58%
Harding Loevner Global Equity Portfolio	Financials		1.18%			-0.56%
Schroder ISF - QEP Global Quality	Financials		2.23%			-0.56%
GAM Funds - Disruptive Growth	Financials		4	1.28%		-0.45%
Waverton Invt. Fds. Plc - Global Equity Fund	Financials		2.52%	6		-0.38%
BNP Paribas Funds - Sustainable Global Low Vol	Financials		3.04	1%		-0.37%
USAA Capital Growth Fund	Financials		1.19%			-0.34%
Robeco Capital Gr. Fds QI Global Conservative E	Financials		0.96%			-0.33%

## Ch 4. Investment Banks/Brokers: Largest Sector Fund Outflows, \$

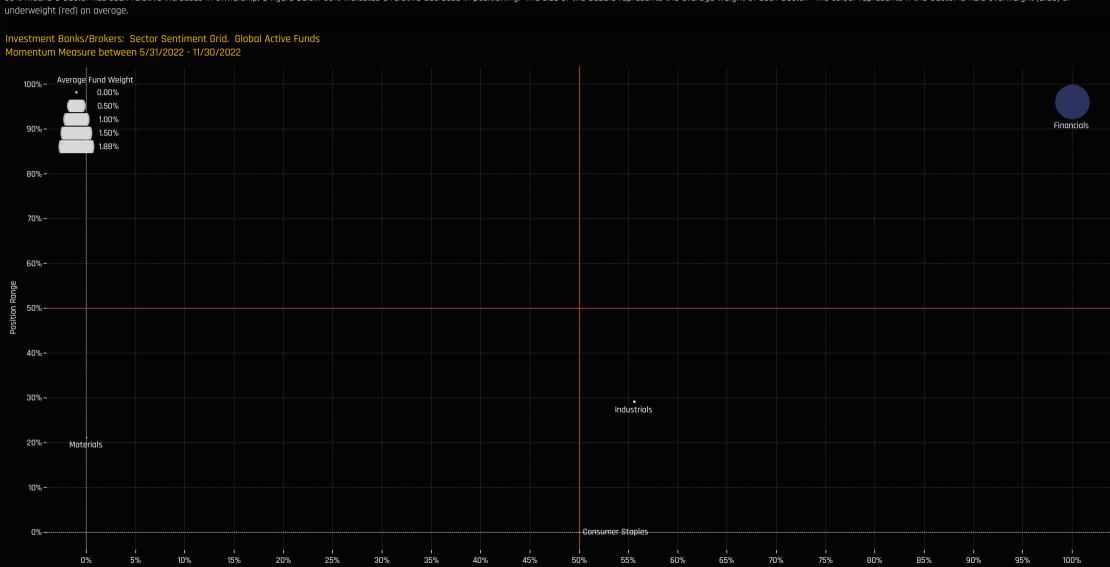
Fund Name	Split Level Fil	New or Close	Latest AUM,	\$	Fund Flows, \$
American Funds Capital World Growth & Income Fu	Financials			\$1,625M (\$245M)	
Old Westbury Large Cap Strategies Fund	Financials		\$209M	(\$180M)	
Wellington Mgmt. Fds. (LU) - Global Quality Growth	Financials		\$467M	(\$154	M)
T Rowe Price Global Stock Fund	Financials		\$431M	(\$14	'M)
JOHCM Umbrella Fund Plc - Global Select Fund	Financials		\$85M		(\$63M)
Artisan Global Opportunities Fund	Financials		\$185M		(\$35M)
American Funds Global Insight Fund	Financials		\$175M		(\$18M)
Anima Valore Globale	Financials	Close			(\$17M)
American Century Focused Global Growth Fund	Financials		\$15M		(\$16M)
American Funds New Economy Fund	Financials		\$438M		(\$14M)
Fidelity Funds SICAV - Global Demographics Fund	Financials		\$12M		(\$12M)
LF Liontrust Investment Funds III - Global Focus Fund	Financials		\$0M		(\$12M)
AB SICAV I - Low Volatility Equity Portfolio	Financials		\$102M		(\$12M)
Janus Henderson Global Select Fund	Financials		\$62M		(\$12M)
AB SICAV I - Global Core Equity Portfolio	Financials		\$40M		(\$11M)
Liontrust Sustainable Future ICVC - Global Growth F	Financials		\$216M		(\$11M)
KBC Institutional Fund - SRI World Equity	Financials		\$28M		(\$9M)
BNP Paribas Funds - Sustainable Global Low Vol Eq	Financials		\$27M		(\$9M)
DWS Global Growth	Financials	Close			(\$9M)
Old Westbury Large Cap Strategies Fund	Industrials		\$27M		(\$8M)

## Investment Banks/Brokers

## Sector Sentiment Grid



Sentiment Grid: Investment Banks/Brokers. We combine the latest Sector positioning, long-term positioning and short-term fund activity in the 'Sentiment Grid', below. The Y-Axis measures where today's ownership levels in each Sector sit relative to the long-term range. We calculate the Z-Score of today's average weight, funds invested % and funds o/w % relative to all monthly observations in our fund history (going back to 9/30/2012). A figure close to 100% would indicate today's positioning is close to its maximum ever level, a figure close to zero, the lowest. The X-axis provides a measure of short-term fund activity, or 'Momentum', by looking at the changes in average weight, funds invested % and funds o/w % between 5/31/2022 and 11/30/2022, relative to each Sector. A figure above 50% means a Sector has seen relative increases in ownership, a figure below 50% indicates a relative decrease in positioning. The size of the bubble represents the average weight of each Sector. The colour represents if the Sector is held overweight (blue) or underweight (red) on average.



Momentum Score

## Investment Banks/Brokers

# Aggregate Stock Holdings



Chart 1. The largest 10 stock holdings in Investment Banks/Brokers, by Average Weight. The chart also shows the average weight as a percentage of the total Investment Banks/Brokers weight, and the cumulative total.

Chart 2. Shows aggregate stock holdings data for Investment Banks/Brokers stocks, ranked by Funds Invested % (most widely

Chart 3. Top 5 overweight and underweight Investment Banks/Brokers stock positions / as a percentage of the total Investment Banks/Brokers weight relative to benchmark.

Charts 4&5. The largest overweight and underweight stock holdings, plus associated aggregate holdings data.

## Ch 1. Investment Banks/Brokers. Top 10 Stock Weights, Percentage of Investment Banks/Brokers Total, Cumulative Percentage Total.

Ticker Stock Name SCHW-US Charles Schwab Corporation ICE-US Intercontinental Exchange, Inc. LSEG-GB London Stock Exchange Group plc CME-US CME Group Inc. Class A DB1-DE Deutsche Boerse AG MS-US Morgan Stanley GS-US Goldman Sachs Group, Inc. NDAO-US Nasdaa. Inc. 388-HK Hong Kong Exchanges & Clearing Ltd. AMP-US Ameriprise Financial, Inc.

Ticker

SCHW-US

Stock Name

Charles Schwab Corporation

Intercontinental Exchange, In



Vs Benchmark

0.16%

0.16%

Fund

\$3,032

\$2.063

Average Weight

0.35%

0.27%

# Ch 3. Investment Banks/Brokers. Top 5 overweight and underweight positions in Investment Banks/Brokers, percentage of



## Ch 2. Investment Banks/Brokers: Aggregate Stock Holdings Data, Ranked by Most Widely Held.

Funds Invested %

19.22%

16.99%

GE-09	intercontinental Extrange, Inc.	10.55%	0,27/6	0.10 /6	\$2,003.33I*I
CME-US	CME Group Inc. Class A	14.21%	0.19%	0.08%	\$2,711.41M
MS-US	Morgan Stanley	13.65%	0.11%		\$1,092.89M
DB1-DE	Deutsche Boerse AG	13.37%	0.18%	0.12%	\$1,535.35M
LSEG-GB	London Stock Exchange Group plc	10.58%	0.19%	0.14%	\$1,699.12M
GS-US	Goldman Sachs Group, Inc.	9.75%	0.10%		\$641.54M
388-HK	Hong Kong Exchanges & Clearing Ltd.	8.91%	0.06%		\$509.57M
NDAQ-US	Nasdaq, Inc.	8.36%	0.07%	0.04%	\$1,139.76M
AMP-US	Ameriprise Financial, Inc.	5.85%	0.05%	0.00%	\$246.25M
S68-SG	Singapore Exchange Ltd.	5.57%	0.02%	0.01%	\$171.07M
CBOE-US	CBOE Holdings, Inc.	4.18%	0.02%		\$28.70M
RJF-US	Raymond James Financial, Inc.	3.90%	0.01%		\$150.90M
LPLA-US	LPL Financial Holdings Inc.	3.34%	0.03%	0.01%	\$327.01M
ASX-AU	ASX Limited	3.34%	0.00%		\$16.42M
PLUS-GB	Plus500 Ltd.	3.06%	0.03%	0.03%	\$13.73M
MKTX-US	MarketAxess Holdings Inc.	3.06%	0.04%	0.03%	\$238.29M
8604-JP	Nomura Holdings, Inc.	3.06%	0.01%		\$24.26M
GG-GB	IG Group Holdings plc	2.51%	0.01%	0.01%	\$10.19M
X-CA	TMX Group Ltd.	2.23%	0.02%	0.02%	\$145.34M
HLI-US	Houlihan Lokey, Inc. Class A	2.23%	0.01%	0.01%	\$73.43M
HL-GB	Hargreaves Lansdown plc	1.67%	0.01%	0.00%	\$66.29M
ENX-FR	Euronext NV	1.67%	0.01%	0.00%	\$70.50M
8697-JP	Japan Exchange Group, Inc.	1.67%	0.00%		\$7.97M
JEF-US	Jefferies Group Inc.	1.39%	0.01%	0.01%	\$24.13M

## Ch 4. Investment Banks/Brokers: Aggregate Stock Holdings Data, Largest Overweight Holdings

AUM, \$	Ticker	Stock Name	Vs Benchmark	Average Weight	Funds Invested %	Fund AUM, \$
32.63M	ICE-US	Intercontinental Exchange, Inc.	0.16%	0.27%	16.99%	\$2,063.33M
3.33M	SCHW-US	Charles Schwab Corporation	0.16%	0.35%	19.22%	\$3,032.63M
711.41M	LSEG-GB	London Stock Exchange Group plc	0.14%	0.19%	10.58%	\$1,699.12M
92.89M	DB1-DE	Deutsche Boerse AG	0.12%	0.18%	13.37%	\$1,535.35M
35.35M	CME-US	CME Group Inc. Class A	0.08%	0.19%	14.21%	\$2,711.41M
99.12M	NDAQ-US	Nasdaq, Inc.	0.04%	0.07%	8.36%	\$1,139.76M
41.54M	PLUS-GB	Plus500 Ltd.	0.03%	0.03%	3.06%	\$13.73M
09.57M	MKTX-US	MarketAxess Holdings Inc.	0.03%	0.04%	3.06%	\$238.29M
39.76M	X-CA	TMX Group Ltd.	0.02%	0.02%	2.23%	\$145.34M
16.25M	AZA-SE	Avanza Bank Holding AB	0.02%	0.02%	0.84%	\$64.85M
71 0714						

## Ch 5. Investment Banks/Brokers: Aggregate Stock Holdings Data, Largest Underweight Holdings

Ticker GS-US	Stock Name Goldman Sachs Group, Inc.	Vs Benchmark -0.12%	Average Weight 0.10%	Funds Invested % 9.75%	Fund AUM, \$ \$641.54M
MS-US	Morgan Stanley		0.11%	13.65%	\$1,092.89M
2885-TW	Yuanta Financial Holding Co. Ltd.		0.00%	0.28%	\$1.36M
RJF-US	Raymond James Financial, Inc.		0.01%	3.90%	\$150.90M
388-HK	Hong Kong Exchanges & Clearing Ltd.		0.06%	8.91%	\$509.57M
8604-JP	Nomura Holdings, Inc.		0.01%	3.06%	\$24.26M
ASX-AU	ASX Limited		0.00%	3.34%	\$16.42M
8697-JP	Japan Exchange Group, Inc.		0.00%	1.67%	\$7.97M
CBOE-US	CBOE Holdings, Inc.		0.02%	4.18%	\$28.70M
600030-CN	CITIC Securities Co. Ltd. Class A		0.00%	0.00%	\$0.29M

# Fund Level Stock Holdings



Chart 1. Investment Banks/Brokers: The largest individual fund level stock holdings by fund weight, coloured by fund Style.

Chart 2. Investment Banks/Brokers: The largest individual fund level stock holdings by \$ AUM. coloured by fund Style.

## Ch 1. Investment Banks/Brokers: Top Fund Holdings, %

Fund Name	Ticker	Stock Name	
GuardCap UCITS Funds Plc - Global Equity Fund	CME-US	CME Group Inc. Class A	6.57%
AB SICAV I - Concentrated Global Equity Portfolio	SCHW-US	Charles Schwab Corporation	5.95%
Aberdeen Std. OEIC II - ASI Global Uncon. Equity Fund	SCHW-US	Charles Schwab Corporation	5.90%
Skagen Global	NDAQ-US	Nasdag, Inc.	5.34%
T Rowe Price Global Stock Fund	SCHW-US	Charles Schwab Corporation	5.09%
GuardCap UCITS Funds Plc - Global Equity Fund	MKTX-US	MarketAxess Holdings Inc.	4.73%
Holberg Global	AZA-SE	Avanza Bank Holding AB	4.64%
AIM Fds. Grp. (IFG) - Invesco Global Core Equity Fund	LSEG-GB	London Stock Exchange Gro	4.63%
Redwheel Funds SICAV - Global Horizon Fund	SCHW-US	Charles Schwab Corporation	4.58%
UBS (Lux) Key Selection SICAV - Global Equities (USD)	AMP-US	Ameriprise Financial, Inc.	4.55%
GAM Star Fund Plc - Worldwide Equity	PLUS-GB	Plus500 Ltd.	4.52%
Frontier MFG Global Plus Fund	ICE-US	Intercontinental Exchange, I	4.41%
Wellington Mgmt. Funds (IE) Plc - Durable Companies Fund	SCHW-US	Charles Schwab Corporation	4.29%
GAM Funds - Disruptive Growth	PLUS-GB	Plus500 Ltd.	4.28%
Aviva Invs Global Equity Endurance Fund	LSEG-GB	London Stock Exchange Gro	4.24%
Brown Advisory Funds Plc - Global Leaders	DB1-DE	Deutsche Boerse AG	4.22%
Brown Advisory Global Leaders Fund	DB1-DE	Deutsche Boerse AG	4.21%
Morgan Stanley Invt. Fds Global Brands Fund	ICE-US	Intercontinental Exchange, I	4.05%
Thornburg Global Opportunities Fund	SCHW-US	Charles Schwab Corporation	4.00%
Fidelity Funds SICAV - Global Dividend Fund	DB1-DE	Deutsche Boerse AG	3.94%
Chautauqua Global Growth Fund	SCHW-US	Charles Schwab Corporation	3.90%
Aberdeen Std. OEIC II - ASI Global Uncon. Equity Fund	X-CA	TMX Group Ltd.	3.88%
Guinness Atkinson Global Innovators Fund	ICE-US	Intercontinental Exchange, I	3.87%
Brown Advisory Global Leaders Fund	SCHW-US	Charles Schwab Corporation	3.83%
Sanlam Universal Fds. Plc - Global High Quality Fund	LSEG-GB	London Stock Exchange Gro	3.78%
PineBridge Global Funds - Global Focus Equity Fund	LPLA-US	LPL Financial Holdings Inc.	3.77%
Vontobel Fund - Global Equity	CME-US	CME Group Inc. Class A	3.77%
Virtus Vontobel Global Opportunities Fund	CME-US	CME Group Inc. Class A	3.76%
Liontrust Sustainable Future ICVC - Global Growth Fund	SCHW-US	Charles Schwab Corporation	3.69%
AB SICAV I - Global Core Equity Portfolio	GS-US	Goldman Sachs Group, Inc.	3.67%
Aberdeen Standard SICAV II - Global Equities Fund	GS-US	Goldman Sachs Group, Inc.	3,62%
Premier Miton Global Sustainable Growth Fund	ICE-US	Intercontinental Exchange, I	3,61%
Multicooperation SICAV - Julius Baer Equity Fund Special Val	SCHW-US	Charles Schwab Corporation	3.61%
Skagen Global	ICE-US	Intercontinental Exchange, I	3,59%
RBC Funds (Lux) - Global Equity Focus Fund	SCHW-US	Charles Schwab Corporation	3.47%
Ariel Global Fund	DB1-DE	Deutsche Boerse AG	3.45%
JSS Investmentfonds - Sustainable Equity - Global Thematic	LSEG-GB	London Stock Exchange Gro	3.34%
UBS (Lux) Equity SICAV - Long Term Themes (USD)	AMP-US	Ameriprise Financial, Inc.	3.25%
T Rowe Price Global Stock Fund	LSEG-GB	London Stock Exchange Gro	3.23%
Guinness Asset Mgmt. Fund Plc - Global Equity Income Fund	DB1-DE	Deutsche Boerse AG	3.22%

Fund Style Aggressive Growt.. Growth

## Ch 2. Investment Banks/Brokers: Top Fund Holdings, \$

	Fund Name	Ticker	Stock Name	
	Morgan Stanley Invt. Fds Global Brands Fund	ICE-US	Intercontinental Exchange, Inc.	\$856.62M
	American Funds New Perspective Fund	CME-US	CME Group Inc. Class A	\$728.06M
	American Funds New Perspective Fund	LSEG-GB	London Stock Exchange Group p	\$689.26M
	American Funds Capital World Growth & Income Fund	CME-US	CME Group Inc. Class A	\$577.45M
	American Funds Capital World Growth & Income Fund	NDAQ-US	Nasdaq, Inc.	\$442.87M
	Fidelity Funds SICAV - Global Dividend Fund	DB1-DE	Deutsche Boerse AG	\$423.33M
	American Funds New Perspective Fund	MS-US	Morgan Stanley	\$302.23M
	T Rowe Price Global Stock Fund	SCHW-US	Charles Schwab Corporation	\$263.80M
	Fidelity Funds SICAV - Global Dividend Fund	CME-US	CME Group Inc. Class A	\$262.38M
	Dodge & Cox Global Stock Fund	SCHW-US	Charles Schwab Corporation	\$252,00M
	First Eagle Global Fund	SCHW-US	Charles Schwab Corporation	\$243.63M
	American Funds Capital World Growth & Income Fund	MS-US	Morgan Stanley	\$234.10M
	American Funds Capital World Growth & Income Fund	ICE-US	Intercontinental Exchange, Inc.	\$218.46M
	UniFavorit: Aktien	SCHW-US	Charles Schwab Corporation	\$198.24M
	Old Westbury Large Cap Strategies Fund	LSEG-GB	London Stock Exchange Group p	\$198.03M
	Ninety One Glb. Strat. Fd Global Franchise Fund	SCHW-US	Charles Schwab Corporation	\$198.02M
	Skagen Global	NDAQ-US	Nasdaq, Inc.	\$192.36M
	UniGlobal	SCHW-US	Charles Schwab Corporation	\$189.60M
	Wellington Mgmt. Fds. (LU) - Global Quality Growth Fund	LPLA-US	LPL Financial Holdings Inc.	\$188.42M
	American Funds New Perspective Fund	388-HK	Hong Kong Exchanges & Clearin	\$185.28M
	GuardCap UCITS Funds Plc - Global Equity Fund	CME-US	CME Group Inc. Class A	\$185.12M
	T Rowe Price Global Stock Fund	LSEG-GB	London Stock Exchange Group p	\$167.14M
	UBS (Lux) Equity SICAV - Long Term Themes (USD)	AMP-US	Ameriprise Financial, Inc.	\$163.65M
	American Funds Capital World Growth & Income Fund	388-HK	Hong Kong Exchanges & Clearin	\$151.84M
	American Funds New Perspective Fund	GS-US	Goldman Sachs Group, Inc.	\$146.89M
	American Funds New Economy Fund	NDAQ-US	Nasdaq, Inc.	\$136.89M
	GuardCap UCITS Funds Plc - Global Equity Fund	MKTX-US	MarketAxess Holdings Inc.	\$133.34M
	Skagen Global	ICE-US	Intercontinental Exchange, Inc.	\$129.44M
	American Funds New Perspective Fund	X-CA	TMX Group Ltd.	\$125.70M
	Wellington Mgmt. Fds. (LU) - Global Quality Growth Fund	SCHW-US	Charles Schwab Corporation	\$119.35M
	Vontobel Fund - Global Equity	CME-US	CME Group Inc. Class A	\$119.01M
	SJP Global Quality Fund	IBKR-US	Interactive Brokers Group, Inc. C	\$118.84M
	SJP Global Quality Fund	SCHW-US	Charles Schwab Corporation	\$117.47M
	Folksams LO Varlden	GS-US	Goldman Sachs Group, Inc.	\$115.85M
	Guinness Asset Mgmt. Fund Plc - Global Equity Income F	DB1-DE	Deutsche Boerse AG	\$114.48M
	Artisan Global Opportunities Fund	FDS1DCSH7	Charles Schwab Corp	\$113.29M
	Fidelity Funds SICAV - Global Dividend Fund	S68-SG	Singapore Exchange Ltd.	\$106.33M
	Brown Advisory Funds Plc - Global Leaders	DB1-DE	Deutsche Boerse AG	\$106.15M
	Wellington Mgmt. Fds. (LU) - Global Quality Growth Fund	RJF-US	Raymond James Financial, Inc.	\$103.46M
	Vontobel Fund - Global Equity	LSEG-GB	London Stock Exchange Group p	\$96.17M
3.0	RP Value Vield			

# Investment Banks/Brokers

# Aggregate Stock Holding Changes

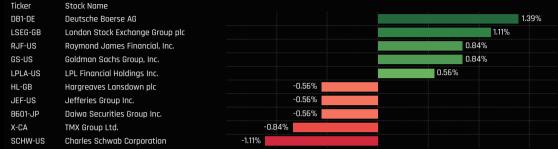


Chart 1. The 10 Investment Banks/Brokers stocks seeing the largest changes in funds invested % between 5/31/2022 - 11/30/2022. A positive figure shows more funds buying in to the stock, a negative figure funds closing out.

Chart 2. The largest increases in funds invested %, together with average weight changes, relative to benchmark changes and combined fund flows.

Chart 3. The 10 Investment Banks/Brokers stocks seeing the largest USD fund flows between 5/31/2022 - 11/30/2022. Chart 4. The largest decreases in funds invested %, together with average weight changes, relative to benchmark changes and combined fund flows.





## Ch 3 Investment Banks/Brokers: Largest Combined Fund Flows in USD.

Ticker	Stock Name			
GS-US	Goldman Sachs Group, Inc.			\$109.01M
RJF-US	Raymond James Financial, I			\$99.92M
FDS1DCSH7	Charles Schwab Corp			\$89.04M
CME-US	CME Group Inc. Class A			\$45.40M
DB1-DE	Deutsche Boerse AG			\$22.93M
MS-US	Morgan Stanley		(\$15.18M)	
LSEG-GB	London Stock Exchange Gro		(\$19.03M)	
NDAQ-US	Nasdaq, Inc.		(\$38.54M)	
388-HK	Hong Kong Exchanges & Cle	(\$147.67M)		
SCHW-US	Charles Schwab Corporation (\$263.74M)			

## ${\it Ch 2. Investment Banks/Brokers: Aggregate Stock Holdings Changes - Largest Increases in Funds Invested \%.}$

				Average Wgt vs		
Ticker	Stock Name	Funds Invested % $\Delta$	Average Weight $\Delta$	Benchmark $\Delta$	Fund Flows, \$	Tic
DB1-DE	Deutsche Boerse AG	1.39%	0.03%	0.02%	\$22.93M	SC
LSEG-GB	London Stock Exchange Group plc	1.11%	0.02%	0.02%		X-I
RJF-US	Raymond James Financial, Inc.	0.84%	0.01%		\$99.92M	86
GS-US	Goldman Sachs Group, Inc.	0.84%	0.03%		\$109.01M	JE
LPLA-US	LPL Financial Holdings Inc.	0.56%	0.00%		\$13.42M	HL
S68-SG	Singapore Exchange Ltd.	0.56%	0.00%		\$1.34M	NE
8697-JP	Japan Exchange Group, Inc.	0.28%	0.00%		\$2.07M	MS
HRHO-EG	Egyptian Financial Group-Hermes Holding Co.	0.28%	0.00%	0.00%	\$0.57M	86
FDS1DCSH7	Charles Schwab Corp	0.28%	0.01%	0.01%	\$89.04M	01
CDSL-IN	Central Depository Services (India) Limited	0.28%	0.00%	0.00%	\$0.55M	09
SQN-CH	Swissquote Group Holding Ltd.	0.28%	0.00%	0.00%	\$0.06M	28
INVP-GB	Investec plc	0.28%	0.00%	0.00%	\$5.34M	54
IGG-GB	IG Group Holdings plc	0.28%	0.00%	0.00%	\$0.28M	FL
BPAC11-BR	Banco BTG Pactual S.A. Units Cons of 1 Sh +	0.28%	0.01%	0.01%	\$0.43M	68
AMP-US	Ameriprise Financial, Inc.	0.28%	0.01%	0.03%		CE
388-HK	Hong Kong Exchanges & Clearing Ltd.	0.28%	0.00%	0.01%	(\$147.67M)	VII
ICE-US	Intercontinental Exchange, Inc.	0.28%	0.04%	0.03%	\$10.40M	
CME-US	CME Group Inc. Class A	0.28%		0.00%	\$45.40M	
WHG-US	Westwood Holdings Group, Inc.	0.00%	0.00%	0.00%		
WGI-GB	W&G Investments Plc	0.00%	0.00%	0.00%		
VNV-SE	Vostok New Ventures Ltd Shs Swedish Depo	0.00%	0.00%	0.00%		
U10-SG	UOB-Kay Hian Holdings Limited	0.00%	0.00%	0.00%	\$0.00M	
TIGR-US	UP Fintech Holding Ltd. Sponsored ADR Clas	0.00%	0.00%	0.00%		
TCAP-GB	TP ICAP plc	0.00%			\$0.00M	
SOFAF-LU	Socfinaf S.A.	0.00%	0.00%	0.00%		

## Ch 4. Investment Banks/Brokers: Aggregate Stock Holdings Changes - Largest Decreases in Funds Invested %.

					Average Wgt vs	
, \$	Ticker	Stock Name	Funds Invested % $\Delta$	Average Weight $\Delta$	Benchmark $\Delta$	Fund Flows, \$
3M	SCHW-US	Charles Schwab Corporation		0.05%	0.04%	
	X-CA	TMX Group Ltd.				
M	8601-JP	Daiwa Securities Group Inc.				
IM	JEF-US	Jefferies Group Inc.		0.00%	0.00%	\$3.54M
2M	HL-GB	Hargreaves Lansdown plc				
M	NDAQ-US	Nasdaq, Inc.		0.01%		(\$38.54M)
′M	MS-US	Morgan Stanley		0.00%		
′M	8604-JP	Nomura Holdings, Inc.		0.00%	0.00%	\$1.25M
M	016360-KR	Samsung Securities Co., Ltd.				
M	092230-KR	KPX Holdings Co., Ltd.				
М	2885-TW	Yuanta Financial Holding Co. Ltd.			0.00%	
М	541179-IN	ICICI Securities Ltd.				
3M	FLOW-NL	Flow Traders NV				
3M	6881-HK	China Galaxy Securities Co., Ltd. Class H				
	CBOE-US	CBOE Holdings, Inc.		0.00%		\$3.51M
	VIRT-US	Virtu Financial, Inc. Class A				
11.4						

# Fund Level Stock Holding Changes



Chart 1. The largest fund weight increases in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022. Chart 2. The largest fund weight decreases in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022 Both charts show the current weight and whether the weight change represented a new or closed position.

## Ch 1. Investment Banks/Brokers: Largest Increases in Position, %

Fund Name	Ticker	Stock Name	New or Close	Latest Weight	Weight Change
Artisan Global Opportunities Fund	FDS1DCSH7	Charles Schwab Corp	New	3.01%	3.01%
Alger Global Focus Fund	LSEG-GB	London Stock Exchange Gro	New	2.59%	2.59%
S&W Aubrey Capital Mgmt. Invt. Funds - Global C	DB1-DE	Deutsche Boerse AG	New	2.47%	2.47%
Artisan Global Equity Fund	ICE-US	Intercontinental Exchange,	New	2.38%	2.38%
Touchstone Strategic Trust - Non-US ESG Equity	LSEG-GB	London Stock Exchange Gro	New	2.09%	2.09%
Alger Global Focus Fund	BPAC11-BR	Banco BTG Pactual S.A. Unit	New	2.07%	2.07%
BNY Mellon Global Equity Income Fund	GS-US	Goldman Sachs Group, Inc.	New	1.87%	1.87%
BNY Mellon Investment Fds Global Income Fund	GS-US	Goldman Sachs Group, Inc.	New	1.85%	1.85%
JSS Investmentfonds - Sustainable Equity - Glob	CME-US	CME Group Inc. Class A	New	1.84%	1.84%
Virtus NFJ Global Sustainability Fund	ICE-US	Intercontinental Exchange,	New	1.83%	1.83%
Brown Advisory Global Leaders Fund	SCHW-US	Charles Schwab Corporation	ĺ	3.83%	1.63%
Steward Global Equity Income Fund	8604-JP	Nomura Holdings, Inc.	New	1.62%	1.62%
Multicooperation SICAV - Julius Baer Equity Fund	. SCHW-US	Charles Schwab Corporation		3.61%	1.52%
Schroder ISF - Global Equity Alpha	SCHW-US	Charles Schwab Corporation	New	1.46%	1.46%
Fidelity Invt. Funds - Global Focus Fund	DB1-DE	Deutsche Boerse AG		2.57%	1.37%
Invesco Global Invt. Ser Global Equity Income F	ICE-US	Intercontinental Exchange,	New	1.36%	1.36%
Candriam Equities L - Global Demography	MS-US	Morgan Stanley	-	2.25%	1.27%
Dodge & Cox Global Stock Fund	SCHW-US	Charles Schwab Corporation		2.41%	1.25%
Wellington Mgmt. Fds. (LU) - Global Quality Grow	RJF-US	Raymond James Financial,	New	1.24%	1.24%
T Rowe Price Global Growth Stock Fund	SCHW-US	Charles Schwab Corporation		2.22%	1.24%

Chart 3. The largest buyers in US dollar terms in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022. Chart 4. The largest sellers in US dollar terms in Investment Banks/Brokers stocks between 5/31/2022 - 11/30/2022 Both charts show the current AUM and whether the fund flow represented a new or closed position.

## Ch 3. Investment Banks/Brokers: Largest Fund Inflows, \$

Fund Name	Ticker	Stock Name	New or Close.	Latest AUN	۹, \$	Fund Flows, \$
American Funds New Perspective Fund	MS-US	Morgan Stanley		\$302M		\$189M
Morgan Stanley Invt. Fds Global Brands Fund	ICE-US	Intercontinental Exchange, I		\$	857M	\$121M
Fidelity Funds SICAV - Global Dividend Fund	CME-US	CME Group Inc. Class A		\$262M		\$120M
Dodge & Cox Global Stock Fund	SCHW-US	Charles Schwab Corporation		\$252M		\$91M
Artisan Global Opportunities Fund	FDS1DCSH7	Charles Schwab Corp	New	\$113M		\$89M
American Funds Capital World Growth & Income Fu	MS-US	Morgan Stanley		\$234M		\$87M
Wellington Mgmt. Fds. (LU) - Global Quality Growth	RJF-US	Raymond James Financial, I	New	\$103M		\$87M
BNY Mellon Investment Fds Global Income Fund	GS-US	Goldman Sachs Group, Inc.	New	\$80M		\$69M
American Funds New Perspective Fund	GS-US	Goldman Sachs Group, Inc.		\$147M		\$55M
Wellington Mgmt. Fds. (LU) - Global Quality Growth	LSEG-GB	London Stock Exchange Gro	New	\$56M		\$53M
Vontobel Fund - Global Equity	388-HK	Hong Kong Exchanges & Cle	New	\$30M		\$35M
American Funds New Economy Fund	NDAQ-US	Nasdaq, Inc.		\$137M		\$33M
Guinness Asset Mgmt. Fund Plc - Global Equity Inco	DB1-DE	Deutsche Boerse AG		\$114M		\$33M
JPMorgan Funds - Global Focus Fund	CME-US	CME Group Inc. Class A	New	\$29M		\$32M
JPMorgan Investment Funds - Global Select Equity	CME-US	CME Group Inc. Class A	New	\$26M		\$30M
Schroder ISF - Global Equity Alpha	SCHW-US	Charles Schwab Corporation	New	\$32M		\$27M
Guinness Asset Mgmt. Fund Plc - Global Equity Inco	CME-US	CME Group Inc. Class A		\$78M		\$26M
Morgan Stanley Invt. Fds Global Quality Fund	ICE-US	Intercontinental Exchange, I		\$73M		\$24M
JPMorgan Investment Funds - Global Dividend Fund	CME-US	CME Group Inc. Class A		\$30M		\$23M
JSS Investment fonds - Sustainable Equity - Global $\mbox{\ensuremath{\mbox{\bf .}}}$	CME-US	CME Group Inc. Class A	New	\$20M		\$23M

## Ch 2. Investment Banks/Brokers: Largest Decreases in Position, %

Fund Name	Ticker
Artisan Global Opportunities Fund	SCHW-US
American Century Focused Global Growth Fund	SCHW-US
JOHCM Umbrella Fund Plc - Global Select Fund	388-HK
Virtus NFJ Global Sustainability Fund	CME-US
Wellington Mgmt. Fds. (LU) - Global Quality Grow	388-HK
Wellington Mgmt. Fds. (LU) - Global Quality Grow	MS-US
T Rowe Price Global Stock Fund	CME-US
Anima Valore Globale	MS-US
Candriam Equities L - Global Demography	SCHW-US
Columbia Select Global Equity Fund	ICE-US
DWS Global Growth	NDAQ-US
Old Westbury Large Cap Strategies Fund	MS-US
JOHCM Umbrella Fund Plc - Global Opportunities	DB1-DE
GuardCap UCITS Funds Plc - Global Equity Fund	CME-US
AB SICAV I - Global Core Equity Portfolio	LSEG-GB
Robeco Capital Gr. Fds Ql Global Momentum Eq.,	CBOE-US
Schoellerbank Aktienfonds Value	LSEG-GB
Fidelity Funds SICAV - Global Demographics Fund	SCHW-US
Harding Loevner Global Equity Portfolio	CME-US
Robeco Capital Gr. Fds QI Global Momentum Eq.,	SF-US

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Stock Name	New or Close	Latest W	eight	Weight Change
Charles Schwab Corporation	Close	0.00%		-2.87%
Charles Schwab Corporation	Close	0.00%		-2.58%
Hong Kong Exchanges & Cle	Close	0.00%		-2.11%
CME Group Inc. Class A	Close	0.00%		-1.48%
Hong Kong Exchanges & Cle	Close	0.00%		-1.29%
Morgan Stanley	Close	0.00%		-1.26%
CME Group Inc. Class A	Close	0.00%		-1.19%
Morgan Stanley	Close	0.00%		-1.14%
Charles Schwab Corporation	Close	0.00%		-1.04%
Intercontinental Exchange, I		0.80%		-1.02%
Nasdaq, Inc.	Close	0.00%		-0.90%
Morgan Stanley		0.01%		-0.88%
Deutsche Boerse AG		2.449	6	-0.82%
CME Group Inc. Class A			6.57%	-0.75%
London Stock Exchange Gro	Close	0.00%		-0.72%
CBOE Holdings, Inc.	Close	0.00%		-0.71%
London Stock Exchange Gro		1.18%		-0.60%
Charles Schwab Corporation		1.22%		-0.58%
CME Group Inc. Class A		1.18%		-0.56%
Stifel Financial Corp.	Close	0.00%		-0.53%

## Ch 4. Investment Banks/Brokers: Largest Fund Outflows, \$

	Fund Name	Fund Name	Ticker
П	Old Westbur	Old Westbury Large Cap Strategies	MS-US
	Wellington M	Wellington Mgmt. Fds. (LU) - Global	388-HK
	Artisan Glob	Artisan Global Opportunities Fund	SCHW-US
	Wellington M	Wellington Mgmt. Fds. (LU) - Global	MS-US
	American Fu	American Funds Capital World Grow	CME-US
	American Fu	American Funds Capital World Grow	SCHW-US
	American Fu	American Funds Capital World Grow	ICE-US
	American Fu	American Funds New Economy Fund	SCHW-US
	T Rowe Price	T Rowe Price Global Stock Fund	CME-US
	T Rowe Price	T Rowe Price Global Stock Fund	SCHW-US
	Wellington M	Wellington Mgmt. Fds. (LU) - Global	SCHW-US
ı	JOHCM Umbr	JOHCM Umbrella Fund Plc - Global S	388-HK
	T Rowe Price	T Rowe Price Global Stock Fund	LSEG-GB
ı	American Fu	American Funds Capital World Grow	388-HK
	American Fu	American Funds New Perspective Fu	CME-US
	Liontrust Su	Liontrust Sustainable Future ICVC	LSEG-GB
	American Fu	American Funds Global Insight Fund	ICE-US
	American Fu	American Funds Capital World Grow	NDAQ-US
	American Fu	American Funds New Perspective Fu	ICE-US
	Fidelity Fund	Fidelity Funds SICAV - Global Divide	DB1-DE

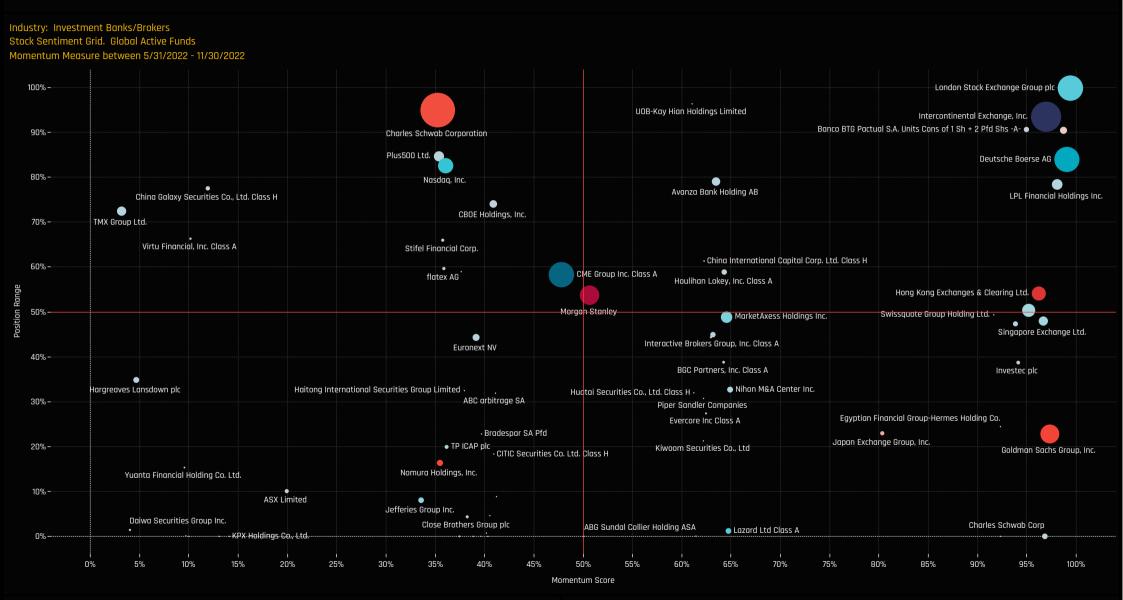
Ç					
ock Name	New or Close	Late	st AUM, \$	Fund F	lows, \$
organ Stanley		\$3M		(\$176M)	
ng Kong Exchanges & Cle	Close			(\$135	M)
arles Schwab Corporation	Close			(\$11	8M)
organ Stanley	Close			(\$11	6M)
ME Group Inc. Class A			\$577M	(\$11	3M)
arles Schwab Corporation	Close			(\$	93M)
ercontinental Exchange, I		\$21	8M	?)	85M)
arles Schwab Corporation		\$42M		(!	\$82M)
1E Group Inc. Class A	Close				(\$70M)
arles Schwab Corporation		\$2	64M		(\$43M)
arles Schwab Corporation		\$1191	4		(\$40M)
ng Kong Exchanges & Cle	Close				(\$36M)
ndon Stock Exchange Gro		\$167	'M		(\$34M)
ng Kong Exchanges & Cle		\$152	М		(\$24M)
ME Group Inc. Class A			\$728M		(\$22M)
ndon Stock Exchange Gro		\$47M			(\$20M
ercontinental Exchange, I		\$43M			(\$18M
ısdaq, Inc.			\$443M		(\$18M
ercontinental Exchange, I	Close				(\$17M
utsche Boerse AG			\$423M		(\$17M

(\$85M) (\$82M) (\$70M) (\$43M) (\$40M) (\$36M) (\$34M) (\$24M) (\$22M) (\$20M) (\$18M) (\$18M) (\$17M) (\$17M)

# Stock Sentiment Grid



the Z-Score of today's average weight, funds invested % and funds o/w % relative to all monthly observations in our fund history (going back to 9/30/2012). A figure close to 100% would indicate today's positioning is close to its maximum ever level, a figure close to zero, the lowest. The X-axis provides a measure of short-term fund activity, or 'Momentum', by looking at the changes in average weight, funds invested % and funds o/w % between 5/31/2022 and 11/30/2022, relative to each stock. A figure above 50% means a stock has seen relative increases in ownership, a figure below 50% indicates a relative decrease in positioning. The size of the bubble represents the average weight of each stock. The colour represents if the stock is held overweight (blue) or underweight (red) on average.



# Holdings by Fund Style



Chart 1. The average weights in Investment Banks/Brokers stocks and the average weights vs the SPDR MSCI ACWI UCITS ETF, split by fund Style.

Charts 2&3. The time series of average fund weights in Investment Banks/Brokers stocks and average weights vs SPDR MSCI ACWI

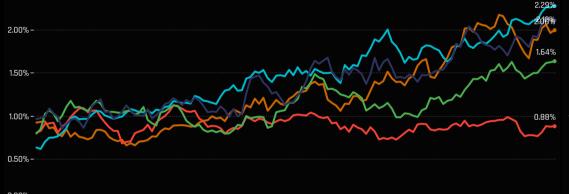
Chart 4. The percentage of funds invested in Investment Banks/Brokers stocks and the percentage of funds overweight, split by fund Style.

Charts 5&6. The time series of the percentage of funds invested in Investment Banks/Brokers stocks and the percentage of funds o



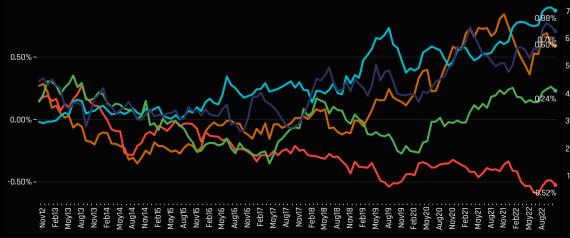


# Ch 2. Investment Banks/Brokers: Average Fund Weights per Style Time-Series



Ch 3. Investment Banks/Brokers: Average Fund Weight vs ACWI per Style Time-Series

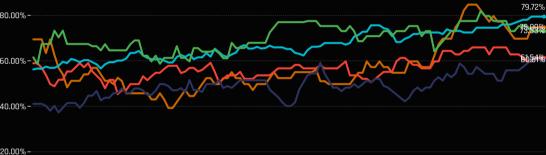
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Nov18
Moy14
Aug14
Nov16
Nov16
Nov16
Nov16
Nov17
Nov17
Nov18

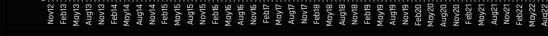


Ch 4. Investment Banks/Brokers: Funds Invested % / Funds Overweight %, per fund Style group.



Ch 5. Investment Banks/Brokers: Funds Invested % per Style Time-Series





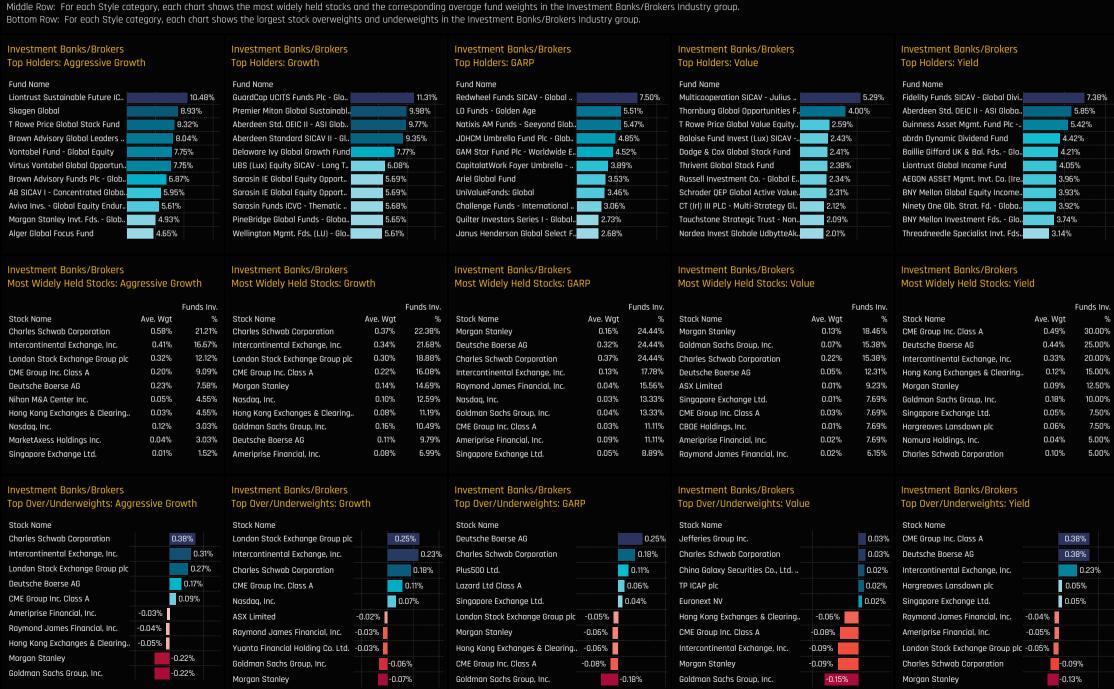
Ch 6. Investment Banks/Brokers: Funds Overweight % per Style Time-Series



# Holdings by Fund Style



Top Row. For each Style category, each chart shows the largest holders in the Investment Banks/Brokers Industry group.



# Aggregate Gap Analysis



Ch1. The blue line shows the total number of funds (out of 359) who have ever owned Investment Banks/Brokers stocks. The green area shows the number of funds invested at any one time and the red line the difference. A download sloping red line means existing investors are closing out positions, a rising red line means previous investors are buying back in.

Chart 3: The Z-Score of current weights versus history for all current and previous holders of Investment Banks/Brokers stocks. A value of 100% means today's weight is the highest on record for that fund, zero the lowest.

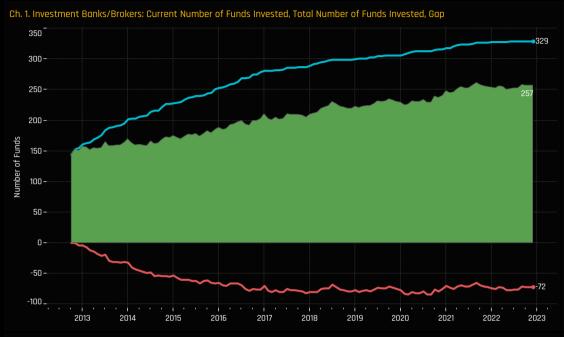
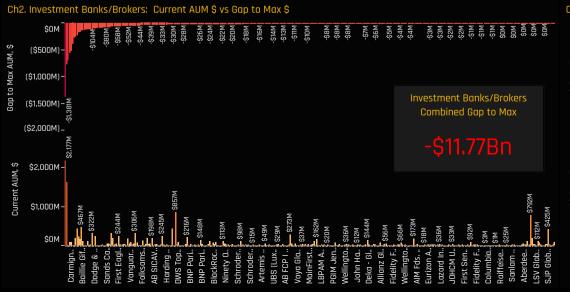
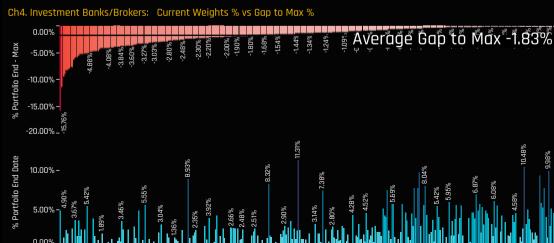


Chart 2: The orange lines show the current AUM in Investment Banks/Brokers stocks for each fund. The red lines show the gap between today's weight and the maximum weight for each fund.

Chart 4. Blue lines show the current weight in Investment Banks/Brokers stocks for each fund. The red lines show the gap between today's weight and the maximum weight for each fund.





# Fund Level Gap Analysis

Difference

-11.39%

-9.44%

-9.02%

-8.27%

-8.22%

-7.90%

-7.69%

-7.67%

-6.28%

-5.89%

-5.86%

-5.57%

-5.32%

-5.30%

-5.26%

-5.24%

-5.22%

-5.05%

-5.02%

20.66% -15.76%



Chart 1: Current fund weight, maximum fund weight and difference for Investment Banks/Brokers stocks. Chart 2: Current fund AUM, maximum fund AUM and \$ difference for Investment Banks/Brokers stocks

0.00%

0.00%

Max Weiaht

11.39%

10.86%

10.65%

10.10%

10,22%

9.56%

7.90%

8.10%

6,28%

7.40%

6.86%

7.77%

7,71%

10.47%

5.26%

5,22%

5.02%

5.42%

9.19%

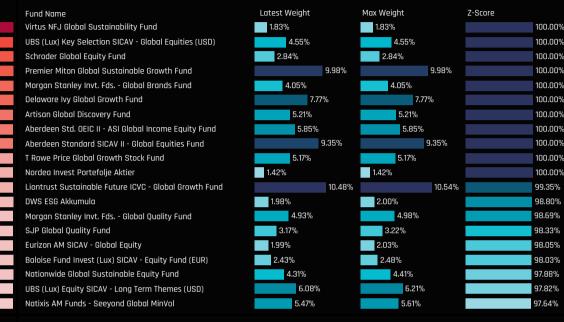
9.02%

Chart 3: Current fund weight, maximum fund weight and Z-Score for Investment Banks/Brokers stocks, ranked by Z-Score Chart 4: Current fund AUM, maximum AUM and Z-Score for Investment Banks/Brokers stocks, ranked by Z-Score.

## Ch. 1: Investment Banks/Brokers: Largest Gap to Max (%)







### Ch. 2: Investment Banks/Brokers: Largest Gap to Max (\$)

Guinness Asset Mamt, Fund Plc - Global Equity Income Fund

PGIM Jennison Global Opportunities Fund

C Worldwide - Global Equities



# Flow Potential

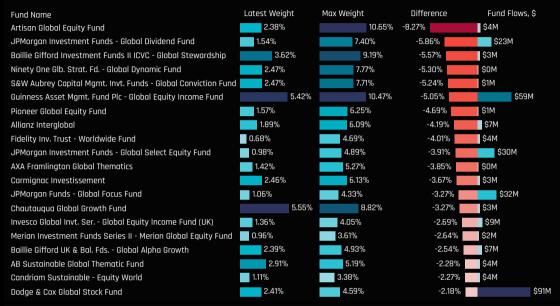


Chart 1: Current fund weight, maximum fund weight and the difference for Investment Banks/Brokers stocks. Filtered for funds that have bought in to Investment Banks/Brokers between 5/31/2022 - 11/30/2022

Chart 2: Current fund AUM, maximum fund AUM and the USD difference for Investment Banks/Brokers stocks. Filtered for funds that have bought in to Investment Banks/Brokers between 5/31/2022 - 11/30/2022

Chart 3: Current fund weight, maximum fund weight and Z-Score for Investment Banks/Brokers stocks, ranked by Z-Score. Filtered for funds that have sold Investment Banks/Brokers between 5/31/2022 - 11/30/2022 and have a % Z-Score of above 50%. Chart 4: Current fund AUM, maximum AUM and Z-Score for Investment Banks/Brokers stocks, ranked by Z-Score. Filtered for funds that have sold Investment Banks/Brokers between 5/31/2022 - 11/30/2022 and have a \$ Z-Score of above 50%.

## Ch. 1: Investment Banks/Brokers: Largest Gap to Max (%) and Buying between 5/31/2022 - 11/30/2022



## Ch. 3: Investment Banks/Brokers: Z-Score (%) > 50% and selling between 5/31/2022 - 11/30/2022

1.83% 5.21% 5.17% 10.48%	1.83% 5.21% 5.17% 10.54%	100.00% 100.00% 100.00% 99.35%	(\$1M)   (\$1M)   (\$2M)   (\$11M) ■
5.17% 10.48% 4.31%	5.17% 10.54%	100.00%	(\$2M)
10.48% 4.31%	10.54%		
4.31%		99.35%	(¢11M)
	4 410/		(۱۱۱۱۹)
	4.41%	97.88%	\$0M
4.58%	4.67%	97.37%	(\$8M)
4.41%	4.56%	96.60%	(\$1M)
4.91%	5.11%	96.12%	(\$35M)
4.16%	4.28%	95.97%	(\$1M)
5.51%	5.75%	95.80%	(\$1M)
3.17%	3.31%	95.66%	(\$3M)
4.63%	4.84%	95.54%	(\$1M)
5.61%	5.89%	95.33%	\$0M
2.73%	2.86%	94.55%	(\$1M)
0.90%	0.96%	93.91%	(\$2M)
1.69%	1.81%	93.62%	(\$14M)
1.54%	1.66%	93.16%	(\$7M)
5.61%	6.04%	92.98%	(\$154M)
3.87%	4.08%	92.52%	\$0M
5.95%	6.26%	91.54%	(\$4M)
	4.91% 4.16% 5.51% 4.63% 5.61% 2.73% 0.90% 1.69% 1.54% 5.61% 3.87%	4.91% 5.11% 4.16% 4.28% 5.51% 5.75% 3.17% 3.31% 4.63% 4.84% 5.61% 5.89% 2.73% 2.86% 0.90% 0.95% 1.69% 1.81% 1.54% 1.66% 5.61% 5.61% 4.08%	4.91%       5.11%       95.12%         4.16%       4.28%       95.97%         5.51%       5.75%       95.80%         3.17%       3.31%       95.66%         4.63%       4.84%       95.54%         5.51%       5.89%       95.33%         2.73%       2.86%       94.55%         0.90%       0.96%       93.91%         1.69%       1.81%       93.62%         1.54%       1.66%       93.16%         5.61%       6.04%       92.98%         3.87%       4.08%       92.52%

## Ch. 2: Investment Banks/Brokers: Largest Gap to Max (\$) and Buying between 5/31/2022 - 11/30/2022

Fund Name	Latest AUM, \$	Max AUM, \$	Difference	Fund Flows, \$
American Funds New Perspective Fund	\$2,177M	\$3,558M	-\$1,381M	\$204M
Carmignac Investissement	\$83M	\$604M	-\$521M	\$3M
Baillie Gifford UK & Bal. Fds Global Alpha Growth	\$99M	\$239M	-\$140M	\$7M
Swedbank Robur Allemansfond Komplett	\$24M	\$140M	-\$116M	\$3M
Dodge & Cox Global Stock Fund	\$252M	\$355M	-\$103M	\$91M
Threadneedle Specialist Invt. Fds Global Equity Income Fund	\$8M	\$98M	-\$91M	\$3M
Schroder QEP Global Active Value Fund	\$13M	\$103M	-\$90M	<b>■</b> \$0M
Fidelity Series Intrinsic Opportunities Fund	\$57M	\$136M	-\$80M	\$30M
Fidelity Inv. Trust - Worldwide Fund	\$15M	\$83M	-\$68M	\$4M
JPMorgan Funds - Global Focus Fund	\$29M	\$82M	-\$53M	\$32M
Allianz Interglobal	\$38M	\$91M	-\$53M	\$7M
Merian Investment Funds Series II - Merian Global Equity Fund	\$6M	\$59M	-\$53M	\$2M
JSS Investmentfonds - Sustainable Equity - Global Thematic	\$56M	\$108M	-\$52M	\$11M
Vanguard Global Equity Fund	\$85M	\$136M	-\$51M	\$14M
Robeco Capital Gr. Fds BP Global Premium Equities	\$61M	\$112M	-\$51M	\$1M
Invesco Global Invt. Ser Global Equity Fund (UK)	\$35M	\$72M	-\$37M	\$8M
KLP AksjeGlobal Flerfaktor	\$12M	\$49M	-\$37M	\$1M
Invesco Global Invt. Ser Global Equity Income Fund (UK)	\$9M	\$45M	-\$36M	\$9M
Vontobel Fund - Global Equity	\$245M	\$280M	-\$35M	\$24M
Morgan Stanley Invt. Fds Global Brands Fund	\$857M	\$887M	-\$30M	\$121M

## Ch. 4: Investment Banks/Brokers: Z-Score (\$) > 50% and selling between 5/31/2022 - 11/30/2022

Fund Name	Latest AUM, \$	Max AUM, \$	Z-Score	Fund Flows, \$
Janus Henderson Global Research Fund	\$92M	\$92M	100.00%	(\$3M)
Trillium ESG Global Equity Fund	\$15M	\$15M	98.08%	\$0M
PineBridge Global Funds - Global Focus Equity Fund	\$25M	\$26M	98.05%	(\$2M)
JOHCM Umbrella Fund Plc - Global Opportunities Fund	\$33M	\$35M	94.14%	(\$1M)
American Funds New Economy Fund	\$438M	\$469M	93.36%	(\$14M)
Artisan Global Discovery Fund	\$14M	\$15M	90.98%	(\$1M)
Liontrust Sustainable Future ICVC - Global Growth Fund	\$216M	\$244M	88.43%	(\$11M)
Lazard Global Equity Select Portfolio	\$4M	\$4M	87.38%	\$0M
RBC Global Opportunities Fund	\$21M	\$24M	87.10%	(\$1M)
Nationwide Global Sustainable Equity Fund	\$2M	\$2M	86.54%	\$0M
SEI Institutional Managed Trust - Global Managed Vol. Fund	\$13M	\$16M	85.04%	\$0M
AIM Fds. Grp. (IFG) - Invesco Global Core Equity Fund	\$26M	\$30M	84.86%	(\$1M)
RBC Funds (Lux) - Global Equity Focus Fund	\$113M	\$135M	83.45%	(\$8M)
Wellington Mgmt. Fds. (LU) - Global Research Equity Fund	\$14M	\$16M	82.44%	(\$1M)
Artisan Global Opportunities Fund	\$185M	\$225M	81.83%	(\$35M)
AB SICAV I - Low Volatility Equity Portfolio	\$102M	\$127M	80.53%	(\$12M)
Baillie Gifford UK & Bal. Fds Global Income Growth	\$44M	\$55M	79.20%	(\$4M)
Fidelity Funds SICAV - Global Focus Fund	\$19M	\$24M	79.15%	(\$2M)
SEI Global Master Fund Plc - Global Managed Volatility	\$11M	\$14M	77.68%	(\$2M)
Wellington Mgmt. Fds. (LU) - Global Quality Growth Fund	\$467M	\$609M	76.74%	(\$154M)



## **Style Classifications**

Each fund is split into a Style category based on the P/E and P/B ratios of their portfolio compared to the benchmark

**Aggressive Growth:** At least 70% of the portfolio in stocks with a higher P/E than the SPDR MSCI ACWI UCITS ETF average, and at least 70% with a higher P/B ratio.

**Growth:** At least 50% of the portfolio in stocks with a higher P/E than the SPDR MSCI ACWI UCITS ETF average, and at least 50% with a higher P/B ratio.

**Value**: Either by the fund description, or at least 50% of the portfolio in stocks with a lower P/E ratio than the SPDR MSCI ACWI UCITS ETF average, and at least 50% with a lower P/B ratio

**Yield**: As per the fund description only (i.e Yield, Dividend, Income funds).

GARP: All other iterations that do not fit under the above classifications.

## **Ownership Calculations**

We track Global Fund ownership across sectors, industries and stocks using a variety of calculations. They are listed below:

**Average Weight**: The sum of all fund weights in any measure (region, country, sector, industry, stock) divided by the total number of funds (359) in the analysis.

**Average Weight vs ACWI**: The average weight minus the weight in the SPDR MSCI ACWI UCITS ETF (cash removed and weights adjusted).

**Funds Invested %**: The total number of funds with any exposure to a measure divided by the total number of funds (359) in the analysis.

**Funds O/W**: The total number of funds overweight a measure versus the ACWI, divided by the total number of funds (359) in the analysis.

**AUM, \$**: The combined AUM allocated to a particular measure across the 359 active Global funds in our analysis, in US Dollars



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