



Poland
Active GEM Fund Ownership Report
3/31/2023



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Introduction

In this data report, we analyse Poland holdings among active GEM Equity Funds. We analyse the latest published filings for all funds and aggregate together as of 3/31/2023. We show the most recent snapshot in positioning, time series data going back to 1/31/2008 and recent allocation shifts by the managers in our analysis. The current fund sample spans 384 active funds with a combined AUM of \$400.95Bn.

For benchmark comparisons, we use the iShares MSCI Emerging Markets 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.

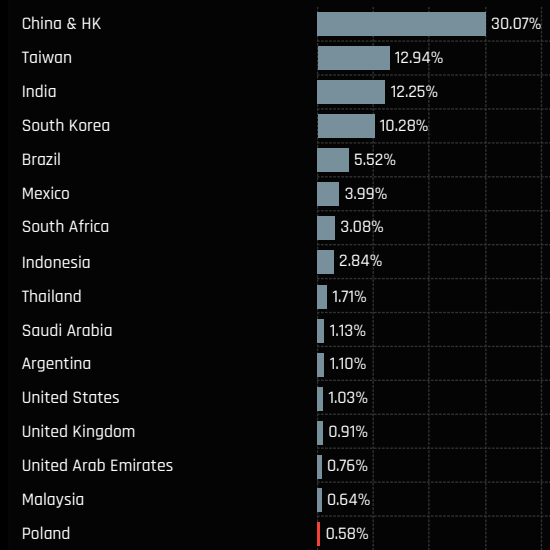
For further information on the calculation methodology that we use in the analysis and the classification of fund Styles, please view the Glossary on page 22.

Poland

Peer Group and Time-Series Ownership Data

Chart 1. The equally weighted average fund weight, among active GEM managers by Country
 Chart 2. The time series of average fund weight for Poland stocks

Ch 1. Country: Average Fund Weights



Ch 2. Poland: Average Fund Weight Time-Series

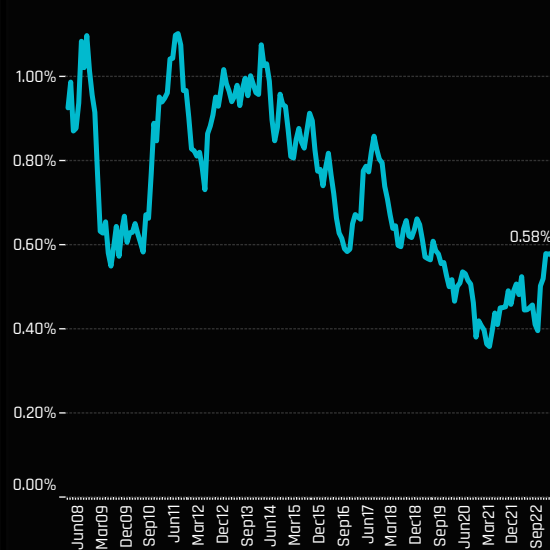
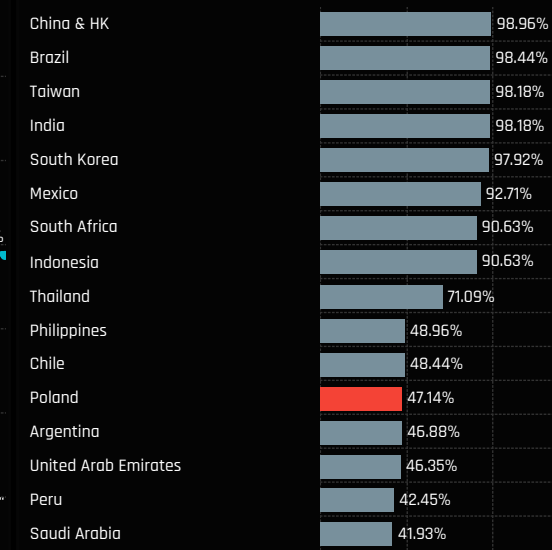


Chart 5. The 'Funds Invested %' measures the percentage of active GEM funds with exposure to each Country. A figure of 100% means that every fund in our analysis has some exposure to that Country
 Chart 6. The time series of funds invested % for Poland stocks

Ch 5. Country: Funds Invested %



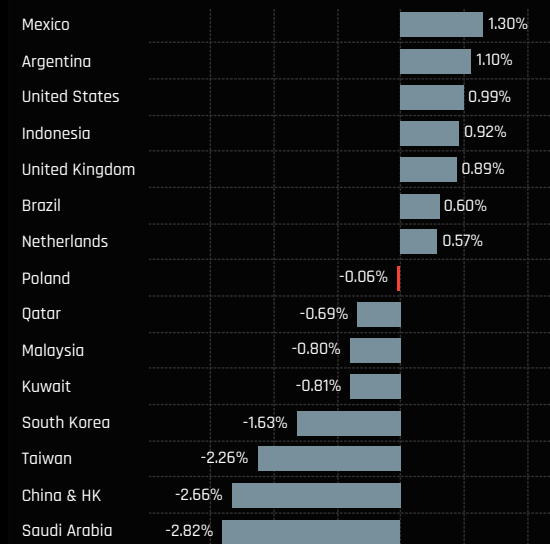
Ch 6. Poland: Funds Invested % Time-Series



Chart 3. The average fund weight minus the weight in the iShares MSCI Emerging Markets ETF, by Country. 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 Poland stocks

Ch 3. Country: Average Fund Weights vs EEM



Ch 4. Poland: Average Weight vs EEM Time-Series

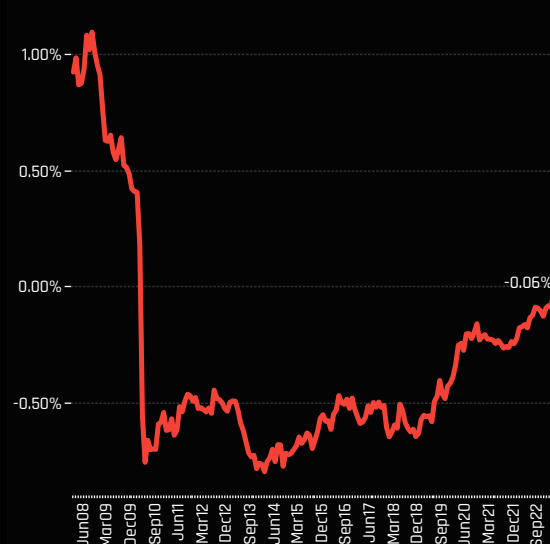
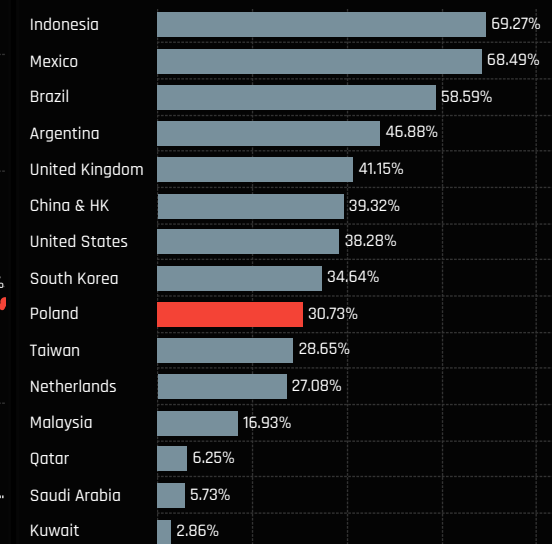
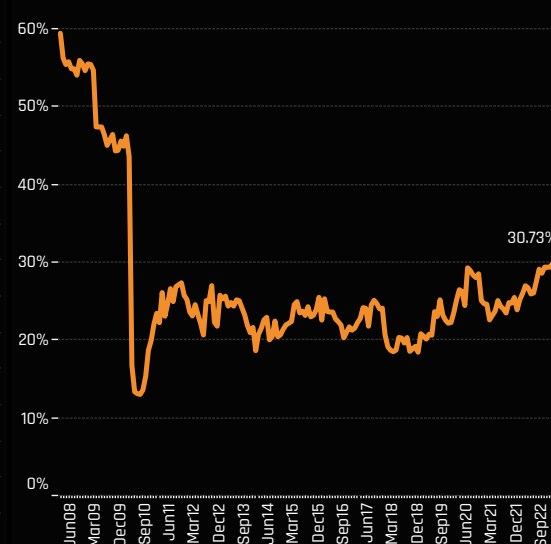


Chart 7. The percentage of active GEM funds who are overweight the iShares MSCI Emerging Markets ETF weight, by Country
 Chart 8. The time series of Funds Overweight % for Poland stocks

Ch 7. Country: Funds Overweight %



Ch 8. Poland: Funds Overweight % Time-Series

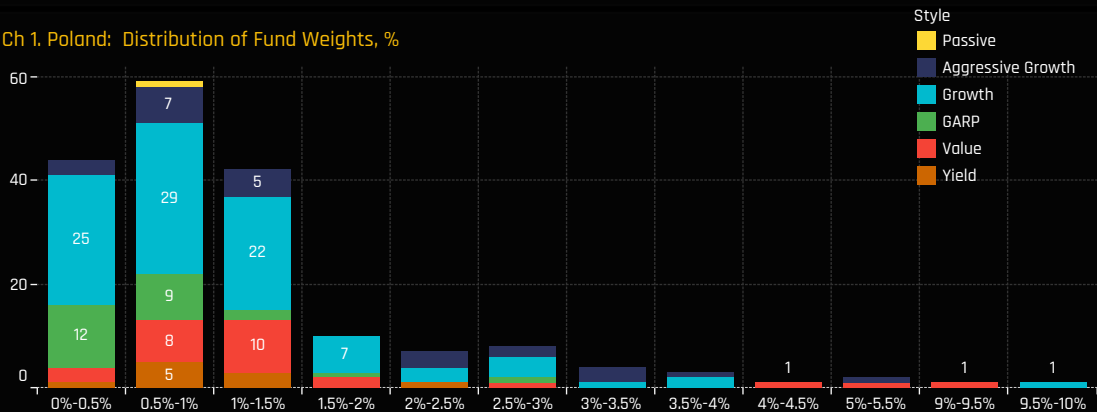


Poland

Fund Holdings

Chart 1. The distribution of Poland weights among the 384 active GEM funds in our analysis, broken down by fund Style.
 Chart 2. The largest 30 Poland holders in our analysis, on a portfolio weight basis.

Ch 1. Poland: Distribution of Fund Weights, %

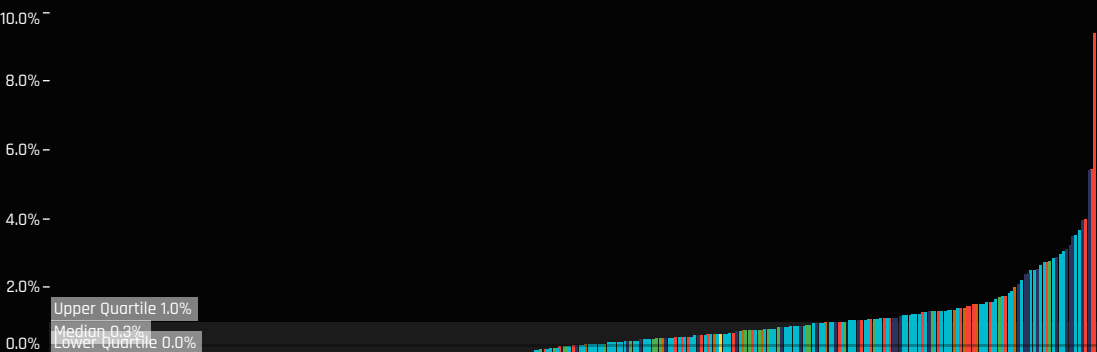


Ch 2. Poland: Top Fund Holdings, %

Fund Name	Style	Weight (%)
Virtus KAR Emerging Markets Small Cap Fund	Growth	9.70%
Global Advantage Funds - Emerging Markets High Value	Value	9.38%
Skyline Umb. Fd. ICAV - ARGA Emerging Market Equity Fund	Value	5.44%
Grandeur Peak Emerging Markets Opportunities Fund	Aggressive Growth	5.40%
BlackRock Strategic Fds. - Emerging Markets Equity Strategies	Value	4.00%
Ashmore SICAV - Emerging Markets Equity ESG Fund	Aggressive Growth	3.94%
LUX IM - ESG Global Emerging Equities	Growth	3.67%
Aberdeen Std. SICAV I - EM Sust. Development Equity Fund	Growth	3.53%
Aubrey Capital Mgmt. Access Fund - Global EM Opportunities Fd.	Aggressive Growth	3.46%
Omnis Portfolio Investments ICVC - Global EM Equity Opp. Fund	Aggressive Growth	3.24%
Polen Emerging Markets Growth Fund	Aggressive Growth	3.10%
JNL Multi-Manager Emerging Markets Equity Fund	Growth	3.03%
Mirabaud - Equities Global Emerging Markets	Growth	2.97%
WCM Focused Emerging Markets Fund	Aggressive Growth	2.88%
Caixabank Master Renta Variable Emergente Advised By, FI	Growth	2.85%
Schroder ISF - Global Emerging Market Opportunities	GARP	2.75%
AB FCP II - Emerging Market Value Portfolio	Value	2.73%
CM-AM Global Emerging Markets	Growth	2.73%
Thornburg Developing World Fund	Growth	2.63%
William Blair Emerging Markets Small Cap Growth Fund	Aggressive Growth	2.52%
Morgan Stanley Inv. Fds. - Sustainable EM Eq. Fds.	Growth	2.50%
Vaughan Nelson Emerging Markets Opportunities Fund	Growth	2.48%
Ashmore Emerging Markets Equity Fund	Aggressive Growth	2.40%
AXA World Funds SICAV - Framlington Emerging Markets	Aggressive Growth	2.35%
JDHCM Emerging Markets Discovery Fund	Growth	2.22%
Neuberger Berman Inv. Funds Plc - EM Sus. Eq. Fd.	Aggressive Growth	2.11%
Seafarer Overseas Growth & Income Fund	Yield	2.03%
Sanford C Bernstein Fund - Emerging Markets Portfolio	Growth	1.89%
Wellington Mgmt. Funds (IE) Plc - Emerging Mkts. Local Eq.	Growth	1.83%
LSV Emerging Markets Equity Fund	Value	1.74%

Chart 3. The individual Poland fund weights funds in our analysis, ranked by allocation size with Median and Quartiles.
 Chart 4. The largest 30 Poland holders in our analysis, on an \$ AUM basis.

Ch 3. Poland: Fund Weights, %



Ch 4. Poland: Top Fund Holdings, \$

Fund Name	Style	AUM (\$)
iShares MSCI Emerging Markets ETF	Passive	\$158.66M
BlackRock Emerging Markets Fund Inc.	Growth	\$82.37M
T Rowe Price Emerging Markets Discovery Stock Fund	GARP	\$74.01M
T Rowe Price Emerging Markets Stock Fund	Aggressive Growth	\$51.86M
Schroder ISF - Emerging Markets	Growth	\$43.51M
WCM Focused Emerging Markets Fund	Aggressive Growth	\$42.86M
Schroder ISF - Global Emerging Market Opportunities	GARP	\$42.68M
Caixabank Master Renta Variable Emergente Advised By, FI	Growth	\$42.27M
St. James's Place Unit Trust - Emerging Markets Equity	Growth	\$40.09M
Seafarer Overseas Growth & Income Fund	Yield	\$39.66M
Fidelity Inv. Trust - Emerging Markets Opportunities Fund	Growth	\$37.36M
BlackRock Global Funds - Emerging Markets Fund	Growth	\$37.05M
GS Funds - Emerging Markets Equity Portfolio	Growth	\$35.58M
Principal Funds Inc. - Origin Emerging Markets Fund	Growth	\$32.52M
JNL Multi-Manager Emerging Markets Equity Fund	Growth	\$31.17M
Candriam Sustainable - Equity Emerging Market	Aggressive Growth	\$30.34M
Thornburg Developing World Fund	Growth	\$26.73M
Virtus KAR Emerging Markets Small Cap Fund	Growth	\$23.58M
Grandeur Peak Emerging Markets Opportunities Fund	Aggressive Growth	\$23.19M
Sanford C Bernstein Fund - Emerging Markets Portfolio	Growth	\$22.30M
JPMorgan Funds - Emerging Markets Opportunities Fund	Growth	\$19.48M
Robeco Capital Gr. Fds. - Emerging Stars Equities	Value	\$18.89M
John Hancock Emerging Markets Equity Fund	Growth	\$18.11M
JPMorgan Trust IV - Emerging Markets Research Enhanced Equity	Growth	\$17.94M
Skyline Umb. Fd. ICAV - ARGA Emerging Market Equity Fund	Value	\$17.04M
Candriam Equities L - Emerging Markets	Aggressive Growth	\$16.98M
BlackRock Strategic Fds. - Emerging Markets Equity Strategies	Value	\$16.54M
GMO Emerging Markets Fund	Value	\$16.17M
Ninety One Glob. Strat. Fd. - Emerging Markets Equity	Growth	\$15.59M
Fidelity Funds SICAV - Emerging Markets Fund	Growth	\$15.00M

Chart 1. Measures the largest changes in average Country weight between 9/30/2022 and 3/31/2023.

Ch 1. Country: Change in Average Weight 9/30/2022 - 3/31/2023

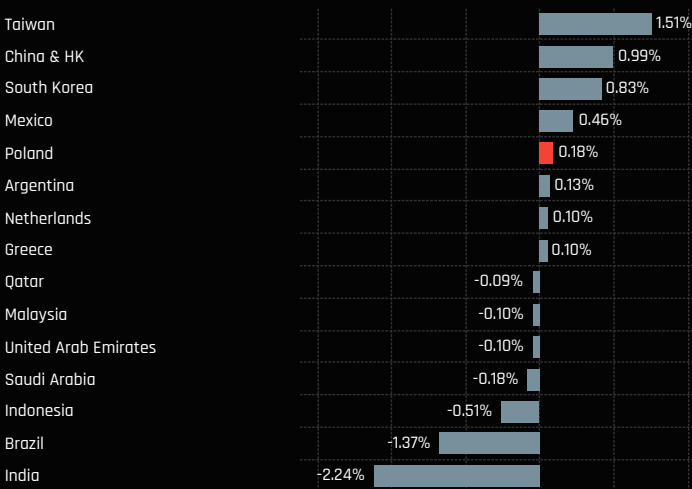


Chart 2. Measures the largest changes in the average Country weight vs EEM between 9/30/2022 and 3/31/2023. An increasing figure would indicate an increasing overweight or decreasing underweight.

Ch 2. Country: Change in Average Fund Weight vs EEM

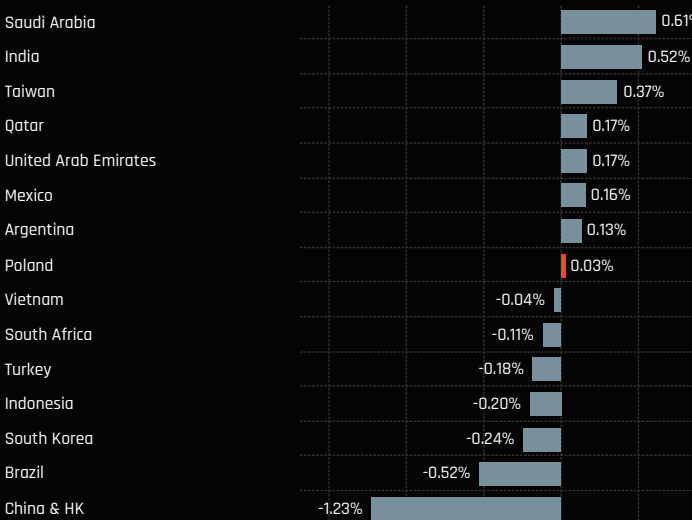


Chart 3. Measures the largest changes in the percentage of funds invested in each Country between 9/30/2022 and 3/31/2023.

Ch 3. Country: Change in Funds Invested % 9/30/2022 - 3/31/2023

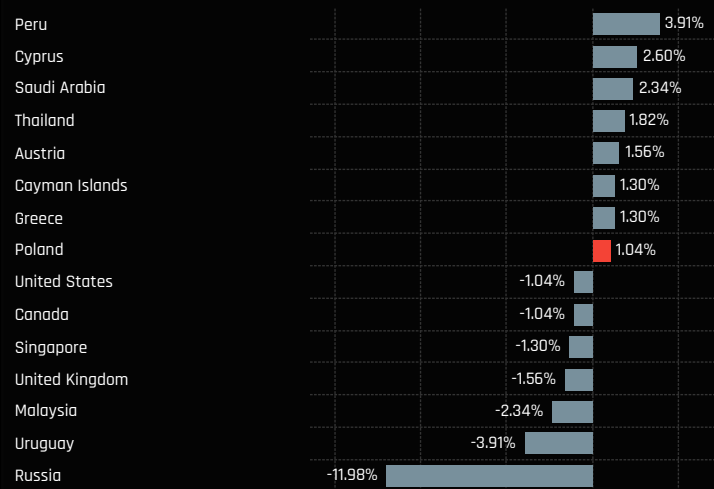


Chart 4. Measures the largest changes in the percentage of funds overweight each Country compared to the iShares MSCI Emerging Markets ETF between 9/30/2022 and 3/31/2023. An increasing figure would indicate more funds are positioning themselves overweight over the period.

Ch 4. Country: Change in the Funds Overweight % 9/30/2022 - 3/31/2023

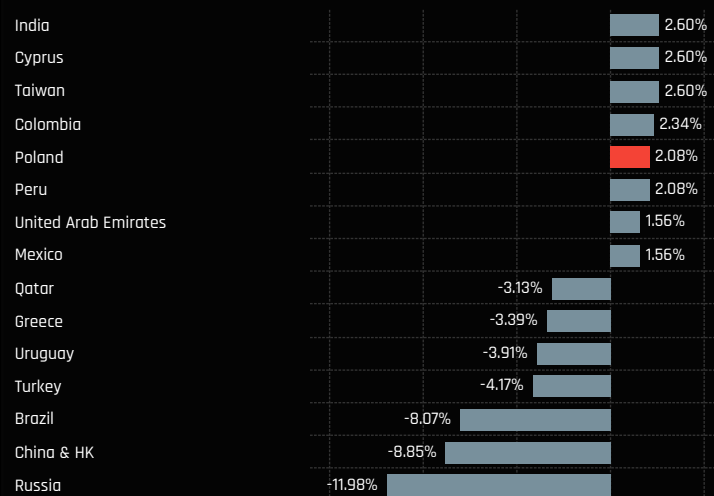


Chart 5. Shows the cumulative fund flows for Poland stocks among the 384 active GEM funds in our analysis. Monthly fund flows are estimated by multiplying the monthly change in stock position by the stock price for every position in every fund in our analysis.

Ch 5. Poland: Cumulative Fund Flows, \$

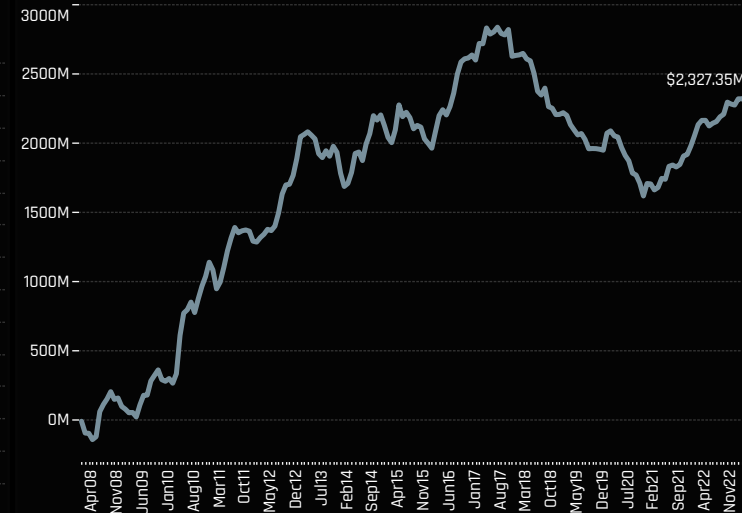
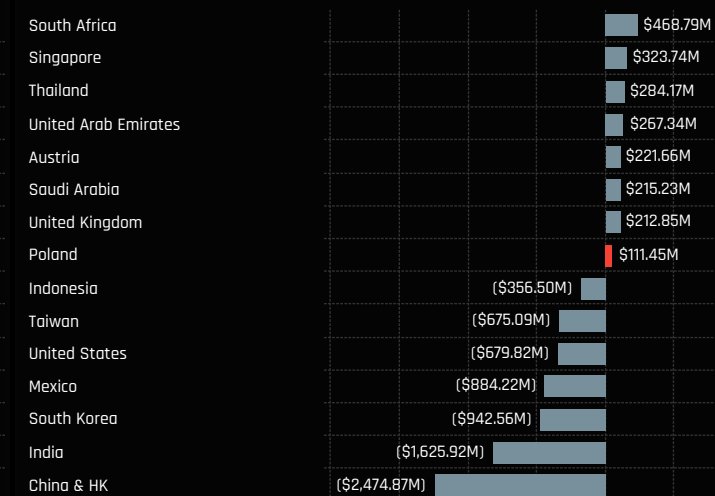


Chart 6. Measures the largest estimated fund flows for each Country between 9/30/2022 and 3/31/2023.

Ch 6. Country: Largest Fund Flows per Country 9/30/2022 - 3/31/2023



Poland

Fund Holding Changes

Chart 1. The largest fund weight increases in Poland stocks between 9/30/2022 - 3/31/2023.

Chart 2. The largest fund weight decreases in Poland stocks between 9/30/2022 - 3/31/2023

Both charts show the current weight and whether the weight change represented a new or closed position.

Ch 1. Poland: Largest Increases in Position, %

Fund Name	New or Close..	Latest Weight	Weight Change
BlackRock Strategic Fds. - Emerging Markets Equity Strategies	New	4.00%	4.00%
Global Advantage Funds - Emerging Markets High Value		9.38%	3.53%
Skyline Umb. Fd. ICAV - ARGA Emerging Market Equity Fund		5.44%	3.43%
LUX IM - ESG Global Emerging Equities		3.67%	3.35%
Polen Emerging Markets Growth Fund	New	3.10%	3.10%
Virtus KAR Emerging Markets Small Cap Fund		9.70%	2.82%
Grandeur Peak Emerging Markets Opportunities Fund		5.40%	1.47%
Schroder ISF - Global Emerging Market Opportunities		2.75%	1.36%
JOHCM Emerging Markets Discovery Fund		2.22%	1.33%
Morgan Stanley Inv. Fds. - Sustainable EM Eq. Fds.		2.50%	1.33%
Vaughan Nelson Emerging Markets Opportunities Fund		2.48%	1.19%
Aubrey Capital Mgmt. Access Fund - Global EM Opportunities Fd.		3.46%	1.06%
JNL Multi-Manager Emerging Markets Equity Fund		3.03%	0.97%
New Capital UCITS Fund Plc - Emerging Mkts. Ftr. Leaders Fd.		1.73%	0.89%
Virtus NFJ Emerging Markets Value Fund		1.47%	0.88%
BNY Mellon Emerging Markets Fund	New	0.85%	0.85%
Robeco Capital Gr. Fds. - QI Emerging Markets Active Equities		1.07%	0.78%
Aberdeen Std. SICAV I - EM Sust. Development Equity Fund		3.53%	0.77%
Boston Partners Emerging Markets Fund	New	0.75%	0.75%
Schroder ISF - QEP Global Emerging Markets		1.21%	0.75%

Ch 2. Poland: Largest Decreases in Position, %

Fund Name	New or Close..	Latest Weight	Weight Change
LO Funds - Emerging High Conviction	Close	0.00%	-0.99%
TCW Developing Markets Equity Fund	Close	0.00%	-0.93%
DNB Global Emerging Markets	Close	0.00%	-0.70%
Artemis Investment Funds ICVC - Global Emerging Markets		0.56%	-0.26%
Swisscanto Sammelstiftung Emerging Market Equity Fund		0.39%	-0.23%
KBI Funds ICAV - Emerging Markets Equity Fund	Close	0.00%	-0.22%
VP Bank Risk Optimised ESG Eq. Fd. - Emerging Markets Equities	Close	0.00%	-0.20%
Goldman Sachs Emerging Markets Equity Insights Fund		0.23%	-0.19%
Morgan Stanley Instl. Fund - Emerging Markets Portfolio		1.32%	-0.15%
Seafarer Overseas Growth & Income Fund		2.03%	-0.14%
Sydinvest Globale EM-aktier		0.65%	-0.14%
Goldman Sachs Funds III - Emerging Markets Equity Income		0.34%	-0.13%
Mercer Emerging Markets Equity Fund		0.38%	-0.13%
Amonis Equity Emerging Markets		1.13%	-0.13%
Swedbank Robur Access Edge Emerging Markets		0.76%	-0.13%
SEB Emerging Marketsfond	Close	0.00%	-0.11%
Allianz Intl. Inv. Fds. - Emerging Markets Equity Fund		0.76%	-0.10%
Putnam Emerging Markets Equity Fund		0.94%	-0.09%
Lazard Emerging Markets Core Equity Portfolio		0.85%	-0.07%
Amundi Funds - New Silk Road		0.29%	-0.03%

Chart 3. The largest buyers in US dollar terms in Poland stocks between 9/30/2022 - 3/31/2023.

Chart 4. The largest sellers in US dollar terms in Poland stocks between 9/30/2022 - 3/31/2023

Both charts show the current AUM and whether the fund flow represented a new or closed position.

Ch 3. Poland: Largest Fund Inflows, \$

Fund Name	New or Close..	Latest AUM, \$	Fund Flows, \$
BlackRock Emerging Markets Fund Inc.		\$82.37M	\$34.06M
BlackRock Strategic Fds. - Emerging Markets Equity Strategies	New	\$16.54M	\$16.49M
T Rowe Price Emerging Markets Stock Fund		\$51.86M	\$13.47M
Schroder ISF - Emerging Markets		\$43.51M	\$13.36M
iShares MSCI Emerging Markets ETF		\$158.66M	\$12.27M
GS Funds - Emerging Markets CORE Equity Portfolio		\$13.14M	\$11.88M
Schroder ISF - Global Emerging Market Opportunities		\$42.68M	\$10.65M
BlackRock Global Funds - Emerging Markets Fund		\$37.05M	\$9.17M
Fidelity Funds SICAV - Sust. Emerging Markets Equity Fund	New	\$8.14M	\$7.58M
LUX IM - ESG Global Emerging Equities		\$8.89M	\$6.87M
Skyline Umb. Fd. ICAV - ARGA Emerging Market Equity Fund		\$17.04M	\$6.77M
Robeco Capital Gr. Fds. - QI Emerging Markets Active Equities		\$8.85M	\$5.86M
Fidelity Funds SICAV - Emerging Markets Fund		\$15.00M	\$5.15M
Fidelity Institutional Funds - Emerging Markets Fund		\$11.77M	\$4.04M
Ninety One Glob. Strat. Fd. - Emerging Markets Equity		\$15.59M	\$3.98M
Robeco QI Inst. Emerging Markets Enhanced Index Eq. Fd.		\$10.20M	\$3.97M
Morgan Stanley Inv. Fds. - Sustainable EM Eq. Fds.		\$8.04M	\$3.26M
GMD Emerging Markets Fund		\$16.17M	\$3.04M
Swedbank Robur Access Edge Emerging Markets		\$14.32M	\$2.75M
SEI Institutional Intl. Trust - Emerging Markets Equity Fund		\$11.75M	\$2.68M

Ch 4. Poland: Largest Fund Outflows, \$

Fund Name	New or Close..	Latest AUM, \$	Fund Flows, \$
DNB Global Emerging Markets	Close		(\$14.00M)
Seafarer Overseas Growth & Income Fund		\$39.66M	(\$7.39M)
John Hancock Emerging Markets Equity Fund		\$18.11M	(\$7.25M)
GS Funds - Emerging Markets Equity Portfolio		\$35.58M	(\$7.14M)
Mercer Emerging Markets Equity Fund		\$6.24M	(\$5.72M)
Goldman Sachs Emerging Markets Equity Insights Fund		\$4.12M	(\$5.01M)
Neuberger Berman Emerging Markets Equity Fund		\$8.65M	(\$4.69M)
Swisscanto Sammelstiftung Emerging Market Equity Fund		\$2.82M	(\$3.94M)
WCM Focused Emerging Markets Fund		\$42.86M	(\$3.82M)
Fidelity Inv. Trust - Emerging Markets Opportunities Fund		\$37.36M	(\$3.62M)
Columbia Emerging Markets Fund		\$11.71M	(\$3.35M)
Baillie Gifford Overseas Growth Fund - Emer. Mkts. Leading Co.		\$14.52M	(\$3.31M)
Advisors Inner Circle - Acadian Emerging Markets Portfolio		\$9.56M	(\$3.14M)
LO Funds - Emerging High Conviction	Close		(\$2.67M)
Morgan Stanley Instl. Fund - Emerging Markets Portfolio		\$6.44M	(\$2.40M)
PIMCO RAE Emerging Markets Fund		\$7.34M	(\$2.15M)
Robeco QI Customized Emerging Markets Enhanced Index Eq. Fd.		\$14.52M	(\$2.01M)
Harding Loevner Institutional Emerging Markets Portfolio		\$8.46M	(\$1.98M)
Artemis Investment Funds ICVC - Global Emerging Markets		\$2.44M	(\$1.44M)
Putnam Emerging Markets Equity Fund		\$3.55M	(\$1.38M)

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 1/31/2008). 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 9/30/2022 and 3/31/2023, relative to each Country. A figure above 50% means a Country 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 Country.

Country Sentiment Grid. GEM Active Funds
Momentum Measure between 9/30/2022 - 3/31/2023

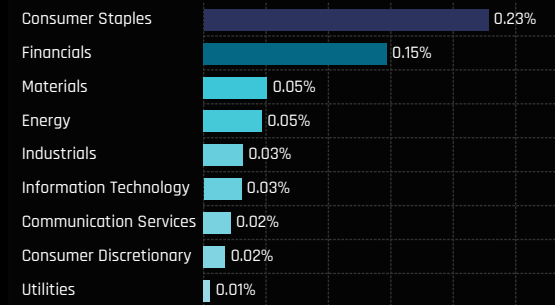


Position Range: Average of:
Z-Score Average Weight vs history
Z-Score Funds Invested % vs history
Z-Score Funds O/W % vs history

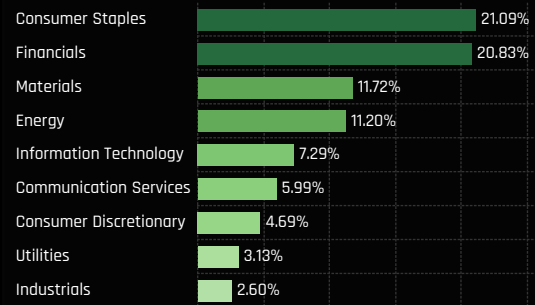
Momentum Score: Average of:
Change in Average Weight (Percentile vs Peers)
Change in Funds Invested % (Percentile vs Peers)
Change in Funds O/W % (Percentile vs Peers)

Chart 1-5. Poland: Key ownership statistics by Sector. As of **3/31/2023**

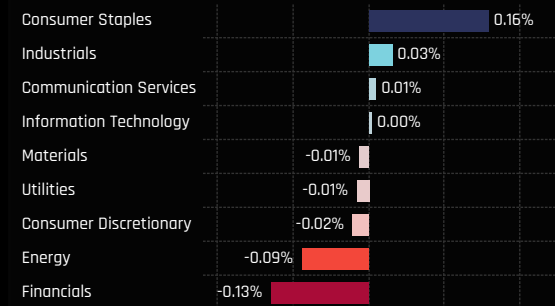
Ch 1. Average Sector Weights



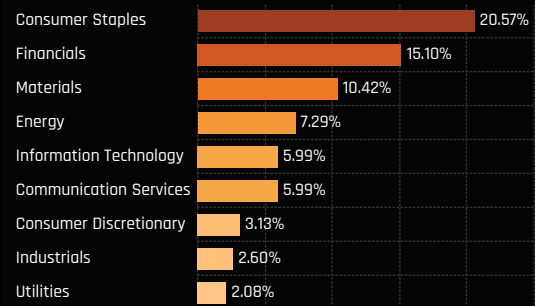
Ch 3. Funds Invested % by Sector



Ch 2. Average Sector Weights vs EEM



Ch 4. Funds O/W % by Sector

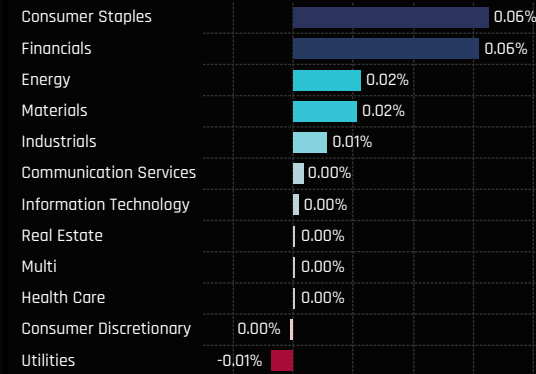


Ch 5. Combined Fund AUM by Sector

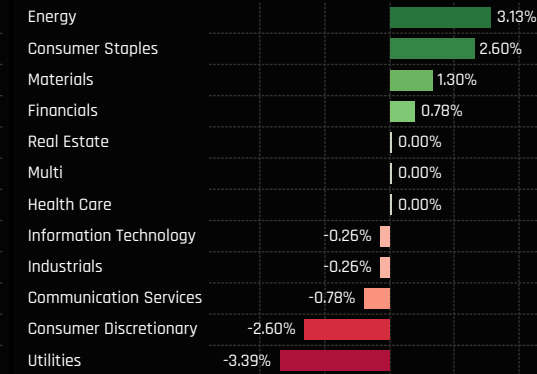


Chart 6-10. Poland: Key ownership activity statistics by Sector between **9/30/2022 - 3/31/2023**

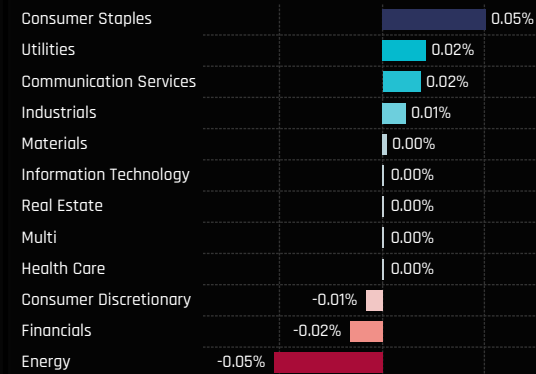
Ch 6. Average Sector Weight Change



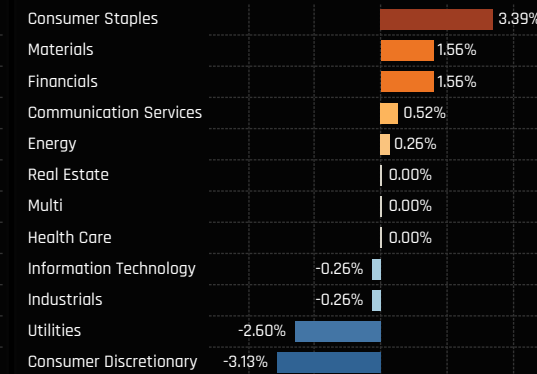
Ch 8. Funds Invested % by Sector Change



Ch 7. Average Sector Weight vs EEM Change



Ch 9. Funds O/W % by Sector Change

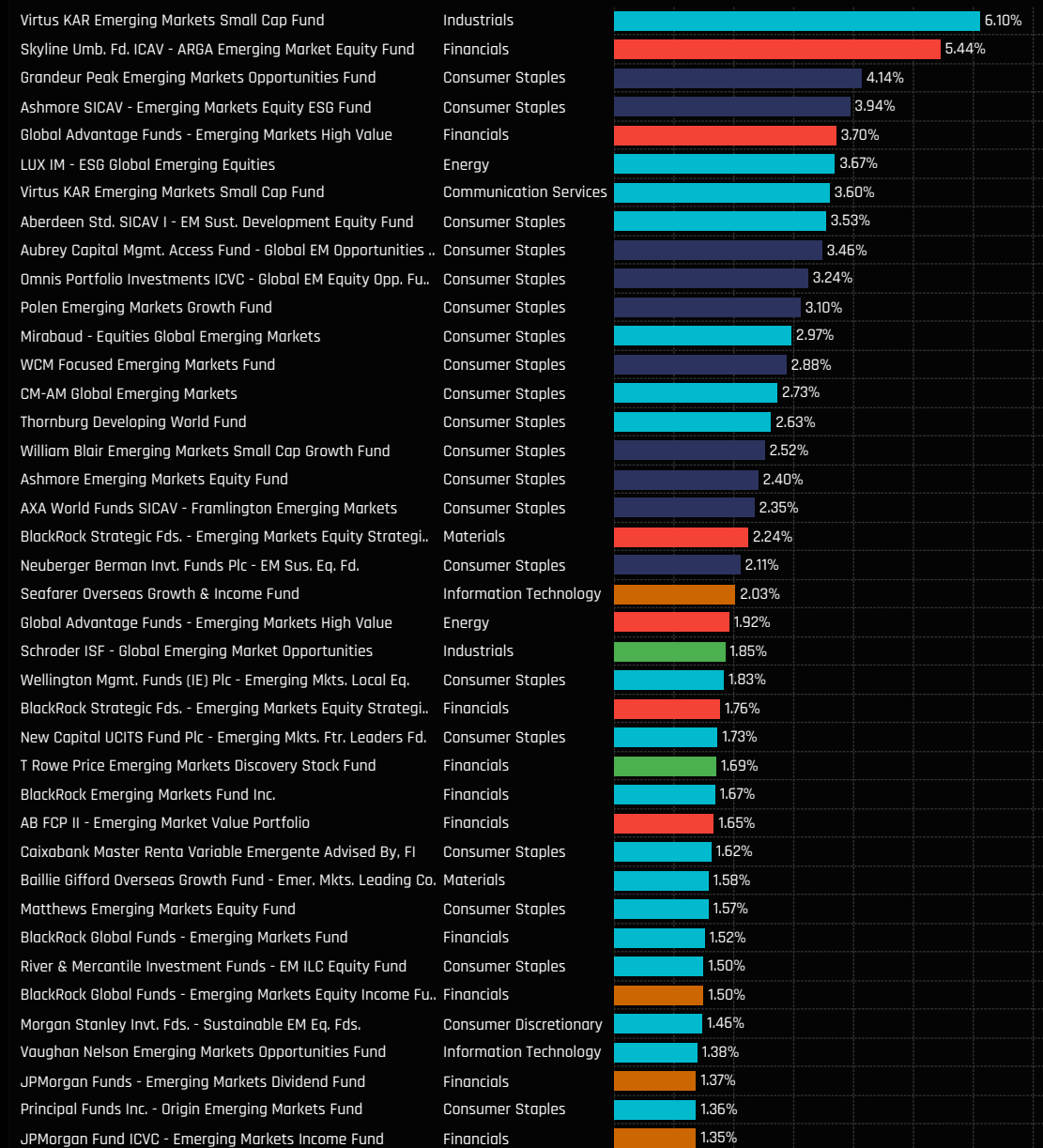


Ch 10. Combined Fund Flows \$ by Sector



Chart 1. Poland: The largest individual fund level Sector holdings by fund weight, coloured by fund Style.

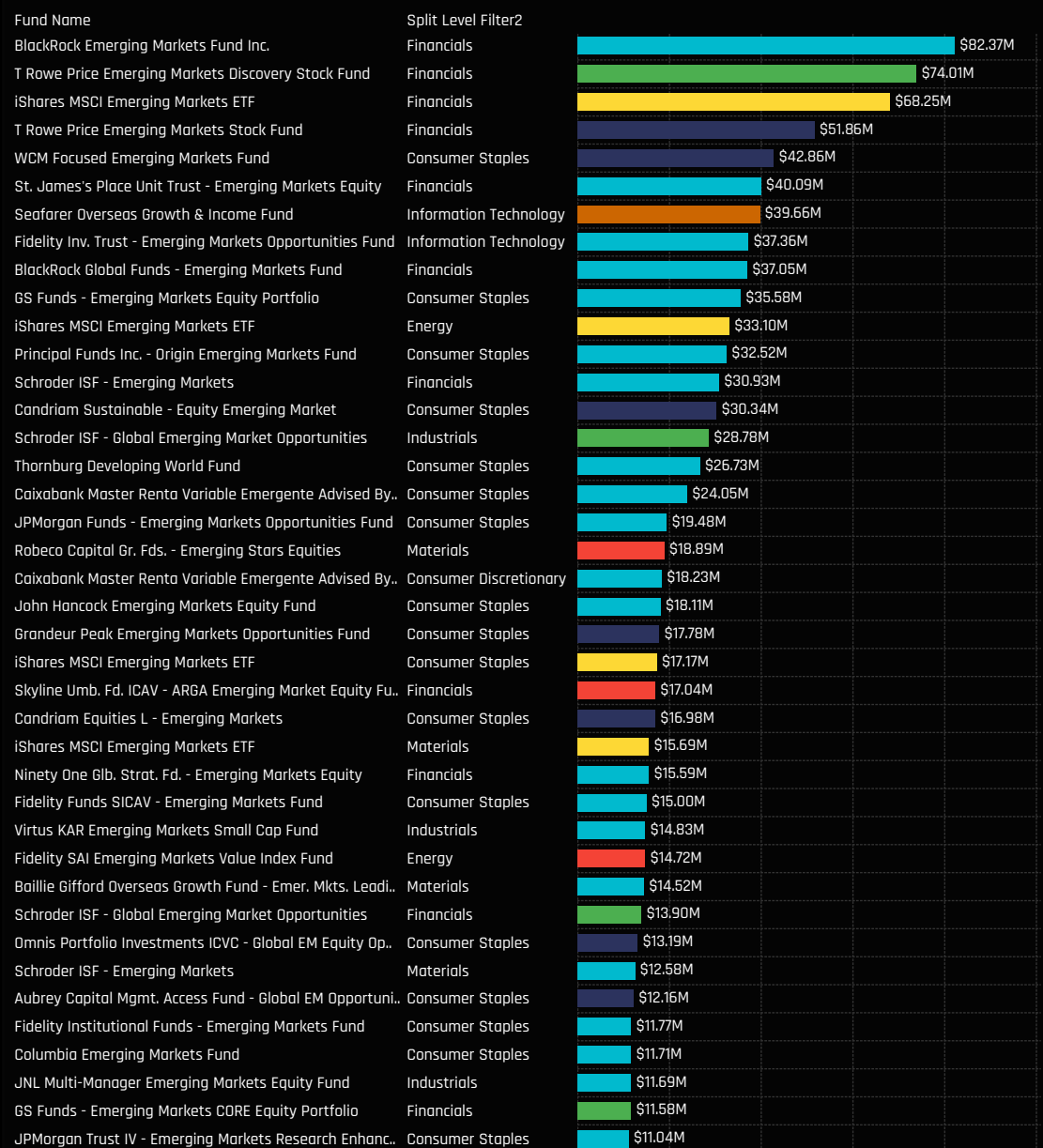
Ch 1. Poland: Top Fund level Sector Holdings, %



Fund Style Aggressive Growth Growth GARP Value Yield

Chart 2. Poland: The largest individual fund level Sector holdings by \$ AUM, coloured by fund Style.

Ch 4. Poland: Top Fund level Sector Holdings, \$



Fund Style Aggressive Growth Growth GARP Value Yield

Chart 1. The largest Sector level weight increases in Poland between 9/30/2022 - 3/31/2023.

Chart 2. The largest Sector level weight decreases in Poland between 9/30/2022 - 3/31/2023.

Both charts show the current weight and whether the weight change represented a new or closed position.

Ch 1. Poland: Largest Increases in Sector Position, %

Fund Name	Sector	Status	Latest Weight	Weight Change
LUX IM - ESG Global Emerging Equities	Energy	New	3.67%	3.67%
Skyline Umb. Fd. ICAV - ARGA Emerging Market E.	Financials		5.44%	3.43%
Polen Emerging Markets Growth Fund	Consumer Staples	New	3.10%	3.10%
Virtus KAR Emerging Markets Small Cap Fund	Industrials		6.10%	2.33%
BlackRock Strategic Fds. - Emerging Markets Equ..	Materials	New	2.24%	2.24%
Global Advantage Funds - Emerging Markets Hig..	Financials		3.70%	1.86%
BlackRock Strategic Fds. - Emerging Markets Equ..	Financials	New	1.76%	1.76%
Global Advantage Funds - Emerging Markets Hig..	Energy		1.92%	1.22%
Grandeur Peak Emerging Markets Opportunities ..	Consumer Staples		4.14%	1.14%
Vaughan Nelson Emerging Markets Opportunitie..	Consumer Staples	New	1.09%	1.09%
Aubrey Capital Mgmt. Access Fund - Global EM O..	Consumer Staples		3.46%	1.06%
Morgan Stanley Invt. Fds. - Sustainable EM Eq. F..	Materials	New	1.04%	1.04%
Schroder ISF - Global Emerging Market Opportuni..	Financials	New	0.90%	0.90%
Virtus NFJ Emerging Markets Value Fund	Consumer Staples	New	0.89%	0.89%
New Capital UCITS Fund Plc - Emerging Mkts. Ftr...	Consumer Staples		1.73%	0.89%
BNY Mellon Emerging Markets Fund	Consumer Staples	New	0.85%	0.85%
Aberdeen Std. SICAV I - EM Sust. Development E..	Consumer Staples		3.53%	0.77%
Boston Partners Emerging Markets Fund	Consumer Staples	New	0.75%	0.75%
JDHCM Emerging Markets Discovery Fund	Financials		1.23%	0.75%
William Blair Emerging Markets Small Cap Growt..	Consumer Staples		2.52%	0.73%

Ch 2. Poland: Largest Decreases in Sector Position, %

Fund Name	Sector	Status	Latest Weight	Weight Change
LO Funds - Emerging High Conviction	Consumer Staples	Close	0.00%	-0.99%
TCW Developing Markets Equity Fund	Consumer Staples	Close	0.00%	-0.93%
DNB Global Emerging Markets	Utilities	Close	0.00%	-0.70%
Robeco Capital Gr. Fds. - QI EM Sust. Active Eq.	Consumer Discretionary		0.06%	-0.59%
Global Advantage Funds - Emerging Markets Hig..	Utilities		0.38%	-0.53%
Morgan Stanley Instl. Fund - Emerging Markets P..	Consumer Staples	Close	0.00%	-0.44%
LSV Emerging Markets Equity Fund	Utilities	Close	0.00%	-0.37%
LUX IM - ESG Global Emerging Equities	Utilities	Close	0.00%	-0.32%
Goldman Sachs Emerging Markets Equity Insight..	Financials		0.10%	-0.32%
Artemis Investment Funds ICVC - Global Emergin..	Financials		0.31%	-0.26%
Swisscanto Sammelstiftung Emerging Market Eq..	Energy		0.10%	-0.24%
KBI Funds ICAV - Emerging Markets Equity Fund	Consumer Discretionary	Close	0.00%	-0.22%
BlackRock Funds I ICAV - Advantage Emerging M..	Financials	Close	0.00%	-0.20%
VP Bank Risk Optimised ESG Eq. Fd. - Emerging M..	Communication Services	Close	0.00%	-0.20%
William Blair Emerging Markets Small Cap Growt..	Financials	Close	0.00%	-0.19%
Allianz Intl. Invt. Fds. - Emerging Markets Equity ..	Materials	Close	0.00%	-0.17%
Goldman Sachs Funds III - Emerging Markets Equ..	Utilities	Close	0.00%	-0.17%
Hartford Emerging Markets Equity Fund	Consumer Discretionary	Close	0.00%	-0.16%
Fidelity SAI Emerging Markets Value Index Fund	Materials	Close	0.00%	-0.15%
Northern Trust Invt. Fds. Plc - EM Multifactor ESG..	Utilities	Close	0.00%	-0.15%

Chart 3. The largest Sector level fund inflows in Poland between 9/30/2022 - 3/31/2023.

Chart 4. The largest Sector level fund outflows in Poland between 9/30/2022 - 3/31/2023.

Both charts show the current AUM and whether the fund flow represented a new or closed position.

Ch 3. Poland: Largest Sector Fund Inflows, \$

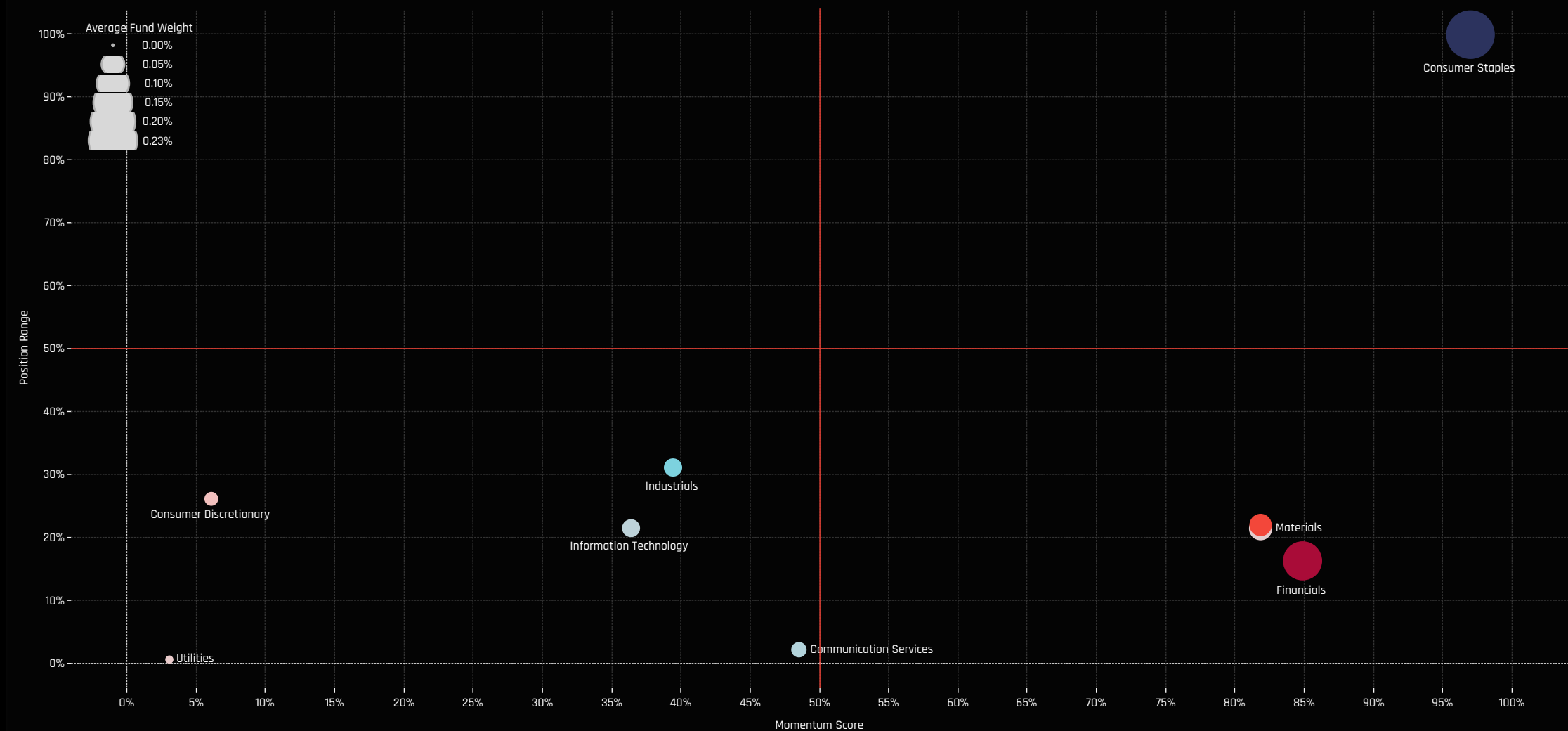
Fund Name	Sector	Status	Latest AUM, \$	Fund Flows, \$
BlackRock Emerging Markets Fund Inc.	Financials		\$82M	\$34M
iShares MSCI Emerging Markets ETF	Energy		\$33M	\$16M
T Rowe Price Emerging Markets Stock Fund	Financials		\$52M	\$13M
Schroder ISF - Emerging Markets	Financials		\$31M	\$11M
Schroder ISF - Global Emerging Market Opportuniti..	Financials	New	\$14M	\$11M
GS Funds - Emerging Markets CORE Equity Portfolio	Financials		\$12M	\$10M
BlackRock Strategic Fds. - Emerging Markets Equity..	Materials	New	\$9M	\$9M
Fidelity SAI Emerging Markets Value Index Fund	Energy		\$15M	\$9M
BlackRock Global Funds - Emerging Markets Fund	Financials		\$37M	\$9M
Fidelity Funds SICAV - Sust. Emerging Markets Equi..	Consumer Staples	New	\$8M	\$8M
LUX IM - ESG Global Emerging Equities	Energy	New	\$9M	\$8M
BlackRock Strategic Fds. - Emerging Markets Equity..	Financials	New	\$7M	\$7M
Skyline Umb. Fd. ICAV - ARGA Emerging Market Equ..	Financials		\$17M	\$7M
Fidelity Funds SICAV - Emerging Markets Fund	Consumer Staples		\$15M	\$5M
Fidelity Institutional Funds - Emerging Markets Fun..	Consumer Staples		\$12M	\$4M
Ninety One Glb. Strat. Fd. - Emerging Markets Equity	Financials		\$16M	\$4M
GMO Emerging Markets Fund	Energy		\$9M	\$4M
Morgan Stanley Invt. Fds. - Sustainable EM Eq. Fds.	Materials	New	\$3M	\$3M
Robeco Capital Gr. Fds. - QI Emerging Markets Activ..	Consumer Staples	New	\$4M	\$3M
iShares MSCI Emerging Markets ETF	Financials		\$68M	\$3M

Ch 4. Poland: Largest Sector Fund Outflows, \$

Fund Name	Sector	Status	Latest AUM, \$	Fund Flows, \$
DNB Global Emerging Markets	Energy			(\$8M)
Seafarer Overseas Growth & Income Fund	Information Technology		\$40M	(\$7M)
John Hancock Emerging Markets Equity Fund	Consumer Staples		\$18M	(\$7M)
GS Funds - Emerging Markets Equity Portfolio	Consumer Staples		\$36M	(\$7M)
Goldman Sachs Emerging Markets Equity Insights F..	Financials		\$2M	(\$7M)
Fidelity SAI Emerging Markets Value Index Fund	Materials	Close		(\$7M)
DNB Global Emerging Markets	Utilities	Close		(\$6M)
iShares MSCI Emerging Markets ETF	Utilities		\$5M	(\$6M)
Neuberger Berman Emerging Markets Equity Fund	Consumer Staples		\$9M	(\$5M)
iShares MSCI Emerging Markets ETF	Communication Services		\$3M	(\$4M)
WCM Focused Emerging Markets Fund	Consumer Staples		\$43M	(\$4M)
Swisscanto Sammelstiftung Emerging Market Equit..	Energy		\$1M	(\$4M)
Fidelity Inv. Trust - Emerging Markets Opportunities ..	Information Technology		\$37M	(\$4M)
Columbia Emerging Markets Fund	Consumer Staples		\$12M	(\$3M)
Baillie Gifford Overseas Growth Fund - Emer. Mkts. L.	Materials		\$15M	(\$3M)
Mercer Emerging Markets Equity Fund	Energy	Close		(\$3M)
LO Funds - Emerging High Conviction	Consumer Staples	Close		(\$3M)
Fidelity SAI Emerging Markets Value Index Fund	Utilities	Close		(\$2M)
Morgan Stanley Instl. Fund - Emerging Markets Port..	Consumer Staples	Close		(\$2M)
Robeco QI Customized Emerging Markets Enhanced ..	Financials		\$8M	(\$2M)

Sentiment Grid: Poland. 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 1/31/2008). 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 9/30/2022 and 3/31/2023, 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.

Poland: Sector Sentiment Grid. GEM Active Funds
Momentum Measure between 9/30/2022 - 3/31/2023



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)

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

Chart 2. Shows aggregate stock holdings data for Poland stocks, ranked by Funds Invested % (most widely held).

Ch 1. Poland.

Top 10 Stock Weights, Percentage of Poland Total, Cumulative Percentage Total.

Ticker	Stock Name	Average Weight	Percentage of Total	Cumulative Percentage Total
DNP-PL	Dino Polska SA	0.23%	39.28%	39.28%
PEO-PL	BANK POLSKA KASA OPIEKI SA	0.05%	9.35%	48.64%
PZU-PL	Powszechny Zaklad Ubezpieczen Spolka Akc..	0.05%	9.06%	57.70%
KGH-PL	KGHM Polska Miedz S.A.	0.05%	8.13%	65.83%
PKN-PL	Polski Koncern Naftowy ORLEN S.A.	0.05%	7.89%	73.72%
PKO-PL	PKO Bank Polski S.A.	0.03%	5.01%	78.72%
GPP-PL	Grupa Pracuj spolka akcyjna	0.02%	4.14%	82.86%
CDR-PL	CD Projekt S.A.	0.01%	2.51%	85.37%
LPP-PL	LPP S.A.	0.01%	2.48%	87.84%
WPL-PL	Wirtualna Polska Holding SA	0.01%	2.10%	89.95%

Ch 2. Poland: Aggregate Stock Holdings Data, Ranked by Most Widely Held.

Ticker	Stock Name	Funds Invested %	Average Weight	Vs Benchmark	Fund AUM, \$
DNP-PL	Dino Polska SA	20.83%	0.23%	0.16%	\$531.98M
PEO-PL	BANK POLSKA KASA OPIEKI SA	11.20%	0.05%	0.00%	\$191.04M
PKN-PL	Polski Koncern Naftowy ORLEN S.A.	10.68%	0.05%	-0.09%	\$103.70M
KGH-PL	KGHM Polska Miedz S.A.	10.68%	0.05%	-0.02%	\$141.85M
PZU-PL	Powszechny Zaklad Ubezpieczen Spolka Akc..	9.90%	0.05%	-0.02%	\$234.70M
PKO-PL	PKO Bank Polski S.A.	7.29%	0.03%	-0.06%	\$152.17M
LPP-PL	LPP S.A.	4.17%	0.01%	-0.02%	\$44.60M
CDR-PL	CD Projekt S.A.	3.91%	0.01%	-0.01%	\$103.76M
SPL-PL	Santander Bank Polska SA	3.65%	0.01%	-0.03%	\$36.01M
OPL-PL	Orange Polska S.A.	3.65%	0.01%	0.01%	\$9.46M
PGE-PL	PGE Polska Grupa Energetyczna S.A.	2.60%	0.00%	-0.02%	\$14.41M
CPS-PL	Cyfrowy Polsat SA	2.08%	0.00%	-0.01%	\$6.02M
ACP-PL	Asseco Poland S.A.	2.08%	0.01%	0.01%	\$7.61M
GPP-PL	Grupa Pracuj spolka akcyjna	1.30%	0.02%	0.02%	\$39.18M
LVC-PL	LIVECHAT Software S.A.	1.04%	0.01%	0.01%	\$6.24M
JSW-PL	Jastrzebska Spolka Weglowa S.A.	1.04%	0.00%	0.00%	\$3.52M
WPL-PL	Wirtualna Polska Holding SA	0.78%	0.01%	0.01%	\$15.65M
TPE-PL	TAURON Polska Energia S.A.	0.78%	0.00%	0.00%	\$2.05M
MBK-PL	mBank SA	0.78%	0.00%	-0.01%	\$5.22M
BHW-PL	Bank Handlowy w Warszawie S.A.	0.78%	0.00%	0.00%	\$0.22M
BDX-PL	Budimex SA	0.78%	0.00%	0.00%	\$2.49M
UNT-PL	UNIMOT SA	0.52%	0.00%	0.00%	\$0.03M
SHO-PL	Shoper Spolka Akcyjna	0.52%	0.00%	0.00%	\$1.77M
KTY-PL	Grupa KETY S.A.	0.52%	0.00%	0.00%	\$3.67M
ENA-PL	ENEA S.A.	0.52%	0.00%	0.00%	\$0.31M

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

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

Ch 3. Poland.

Top 5 overweight and underweight positions in Poland, percentage of total.

Ticker	Stock Name	Average Weight vs EEM	Percentage of Total
DNP-PL	Dino Polska SA	0.16%	-260.9%
GPP-PL	Grupa Pracuj spolka akcyjna	0.02%	-39.5%
WPL-PL	Wirtualna Polska Holding SA	0.01%	-20.1%
LVC-PL	LIVECHAT Software S.A.	0.01%	-12.5%
ACP-PL	Asseco Poland S.A.	0.01%	-10.8%
PZU-PL	Powszechny Zaklad Ubezpie..	-0.02%	36.6%
LPP-PL	LPP S.A.	-0.02%	40.9%
SPL-PL	Santander Bank Polska SA	-0.03%	49.1%
PKO-PL	PKO Bank Polski S.A.	-0.06%	99.8%
PKN-PL	Polski Koncern Naftowy ORL..	-0.09%	144.8%

Ch 4. Poland: Aggregate Stock Holdings Data, Largest Overweight Holdings

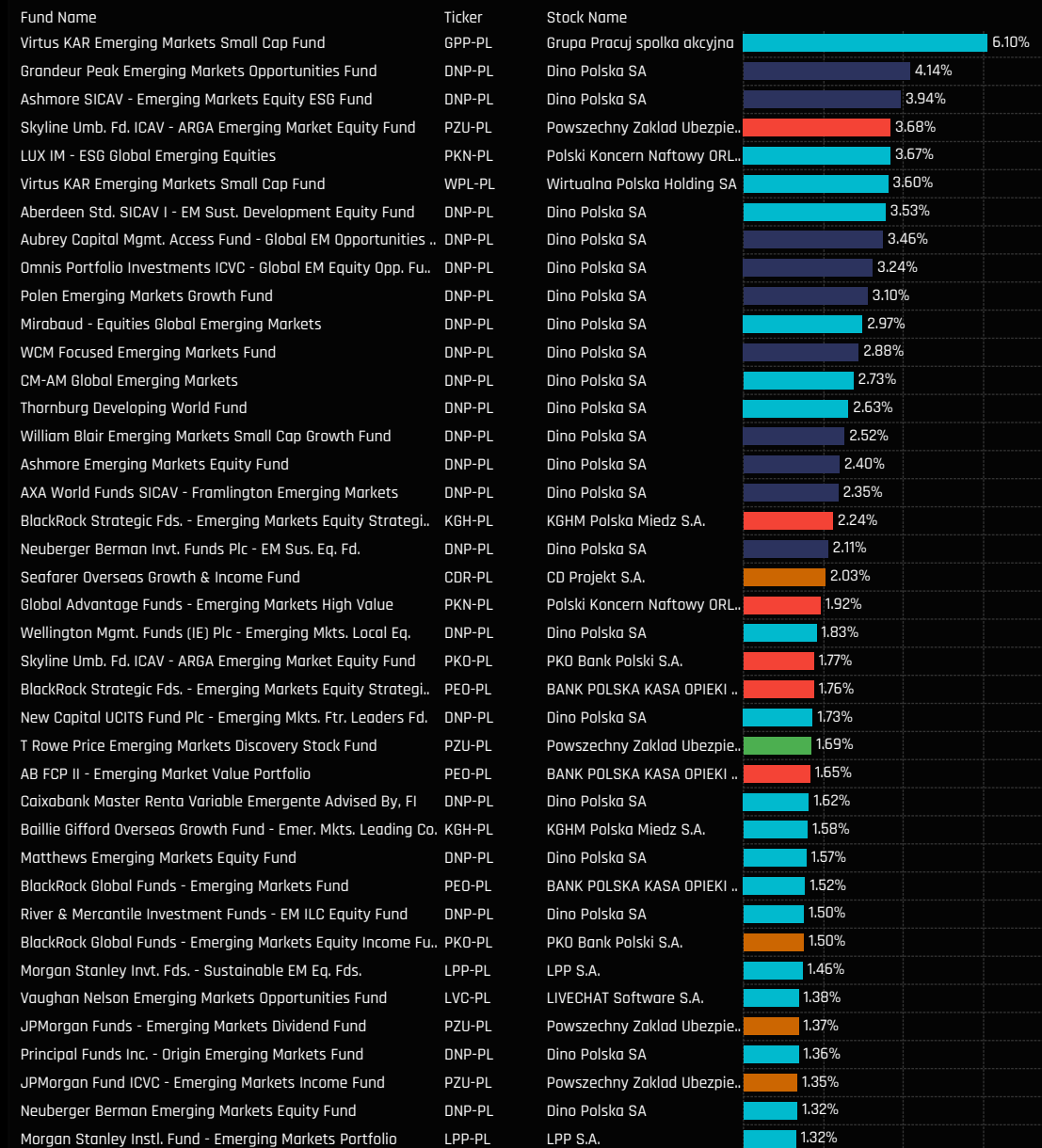
Ticker	Stock Name	Vs Benchmark	Average Weight	Funds Invested %	Fund AUM, \$
DNP-PL	Dino Polska SA	0.16%	0.23%	20.83%	\$531.98M
GPP-PL	Grupa Pracuj spolka akcyjna	0.02%	0.02%	1.30%	\$39.18M
WPL-PL	Wirtualna Polska Holding SA	0.01%	0.01%	0.78%	\$15.65M
LVC-PL	LIVECHAT Software S.A.	0.01%	0.01%	1.04%	\$6.24M
ACP-PL	Asseco Poland S.A.	0.01%	0.01%	2.08%	\$7.61M
OPL-PL	Orange Polska S.A.	0.01%	0.01%	3.65%	\$9.46M
CCC-PL	CCC SA	0.00%	0.00%	0.52%	\$1.16M
KRU-PL	KRUK S.A.	0.00%	0.00%	0.26%	\$19.39M
TIM-PL	TIM SA	0.00%	0.00%	0.26%	\$5.85M
KTY-PL	Grupa KETY S.A.	0.00%	0.00%	0.52%	\$3.67M

Ch 5. Poland: Aggregate Stock Holdings Data, Largest Underweight Holdings

Ticker	Stock Name	Vs Benchmark	Average Weight	Funds Invested %	Fund AUM, \$
PKN-PL	Polski Koncern Naftowy ORLEN S.A.	-0.09%	0.05%	10.68%	\$103.70M
PKO-PL	PKO Bank Polski S.A.	-0.06%	0.03%	7.29%	\$152.17M
SPL-PL	Santander Bank Polska SA	-0.03%	0.01%	3.65%	\$36.01M
LPP-PL	LPP S.A.	-0.02%	0.01%	4.17%	\$44.60M
PZU-PL	Powszechny Zaklad Ubezpieczen Spolka Akc..	-0.02%	0.05%	9.90%	\$234.70M
KGH-PL	KGHM Polska Miedz S.A.	-0.02%	0.05%	10.68%	\$141.85M
PGE-PL	PGE Polska Grupa Energetyczna S.A.	-0.02%	0.00%	2.60%	\$14.41M
MBK-PL	mBank SA	-0.01%	0.00%	0.78%	\$5.22M
CDR-PL	CD Projekt S.A.	-0.01%	0.01%	3.91%	\$103.76M
CPS-PL	Cyfrowy Polsat SA	-0.01%	0.00%	2.08%	\$6.02M

Chart 1. Poland: The largest individual fund level stock holdings by fund weight, coloured by fund Style.

Ch 1. Poland: Top Fund Holdings, %



Fund Style Aggressive Growt. Growth GARP Value Yield

Chart 2. Poland: The largest individual fund level stock holdings by \$ AUM, coloured by fund Style.

Ch 2. Poland: Top Fund Holdings, \$

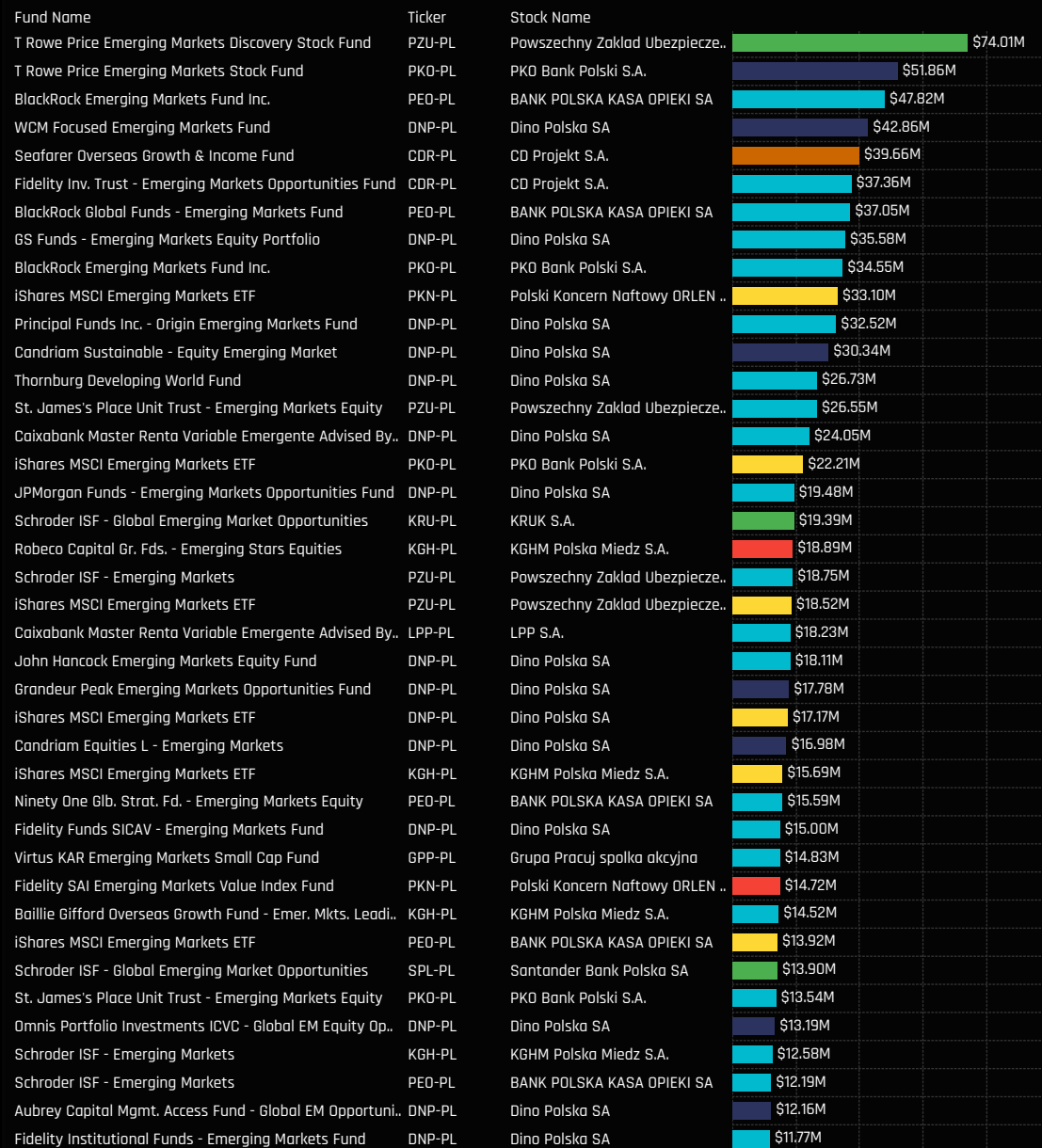


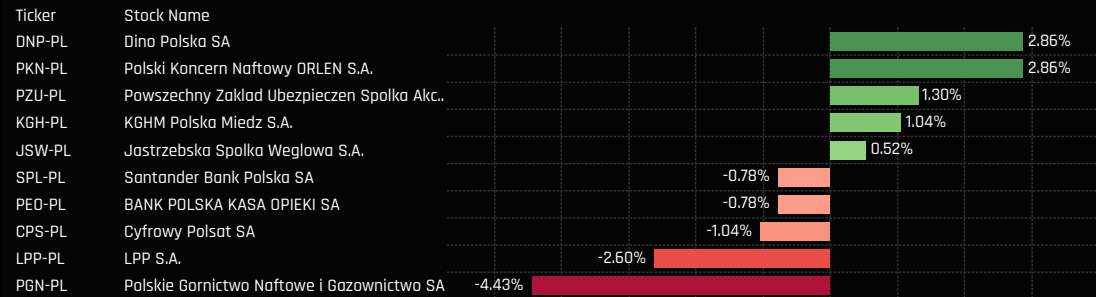
Chart 1. The 10 Poland stocks seeing the largest changes in funds invested % between 9/30/2022 - 3/31/2023. A positive figure shows more funds buying in to the stock, a negative figure funds closing out.

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

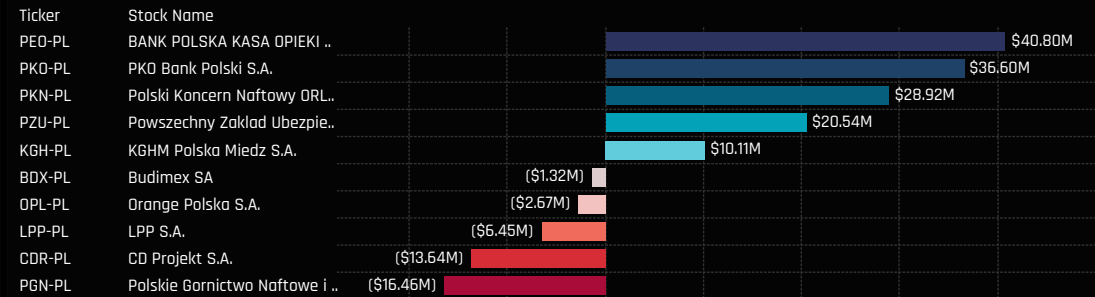
Chart 3. The 10 Poland stocks seeing the largest USD fund flows between 9/30/2022 - 3/31/2023.

Chart 4. The largest decreases in funds invested %, together with average weight changes, relative to benchmark changes and combined fund flows.

Ch 1. Poland: Largest Changes in Funds Invested %



Ch 3 Poland: Largest Combined Fund Flows in USD.



Ch 2. Poland: Aggregate Stock Holdings Changes - Largest Increases in Funds Invested %.

Ticker	Stock Name	Funds Invested % Δ	Average Weight Δ	Average Wgt vs Benchmark Δ	Fund Flows, \$
DNP-PL	Dino Polska SA	2.86%	0.06%	0.05%	\$4.51M
PKN-PL	Polski Koncern Naftowy ORLEN S.A.	2.86%	0.02%	-0.05%	\$28.92M
PZU-PL	Powszechny Zakład Ubezpieczeń Spółka Akc.	1.30%	0.02%	0.00%	\$20.54M
KGH-PL	KGHM Polska Miedz S.A.	1.04%	0.02%	0.00%	\$10.11M
JSW-PL	Jastrzebska Spółka Węglowa S.A.	0.52%	0.00%	0.00%	\$1.22M
OPL-PL	Orange Polska S.A.	0.26%	0.00%	0.01%	(\$2.67M)
BHW-PL	Bank Handlowy w Warszawie S.A.	0.26%	0.00%	0.00%	\$0.04M
XTB-PL	XTB SA	0.26%	0.00%	0.00%	\$0.27M
STH-PL	STS Holding S.A.	0.26%	0.00%	0.00%	\$0.03M
KTY-PL	Grupa KETY S.A.	0.26%	0.00%	0.00%	\$3.54M
CIE-PL	Ciech SA	0.26%	0.00%	0.00%	\$0.03M
ZAP-PL	Grupa Azoty Zakłady Azotowe Pulawy SA	0.00%	0.00%	0.00%	\$0.00M
WWL-PL	Zakłady Przemysłu Cukierniczego Wawel S.A.	0.00%	0.00%	0.00%	\$0.00M
WPL-PL	Wirtualna Polska Holding SA	0.00%	0.00%	0.00%	\$0.00M
WLT-PL	Wielton S.A.	0.00%	0.00%	0.00%	\$0.00M
VRG-PL	VRG S.A.	0.00%	0.00%	0.00%	\$0.00M
UNT-PL	UNIMOT SA	0.00%	0.00%	0.00%	\$0.00M
TVN-PL	TVN S.A.	0.00%	0.00%	0.00%	\$0.00M
TRK-PL	Trakcja Spółka Akcyjna	0.00%	0.00%	0.00%	\$0.00M
TIM-PL	TIM SA	0.00%	0.00%	0.00%	\$0.00M
TEX-PL	Techmex SA	0.00%	0.00%	0.00%	\$0.00M
TEN-PL	Ten Square Games SA	0.00%	0.00%	0.00%	\$0.00M
STS-PL	Satis GROUP Spółka Akcyjna	0.00%	0.00%	0.00%	\$0.00M
STP-PL	Stalprodukt S.A.	0.00%	0.00%	0.00%	\$0.00M
SNS-PL	Synthos S.A.	0.00%	0.00%	0.00%	\$0.00M

Ch 4. Poland: Aggregate Stock Holdings Changes - Largest Decreases in Funds Invested %.

Ticker	Stock Name	Funds Invested % Δ	Average Weight Δ	Average Wgt vs Benchmark Δ	Fund Flows, \$
PGN-PL	Polskie Garnitwo Naftowe i Gazownictwo SA	-4.43%	-0.01%	0.02%	(\$16.45M)
LPP-PL	LPP S.A.	-2.60%	0.00%	-0.01%	(\$6.45M)
CPS-PL	Cyfrowy Polsat SA	-1.04%	0.00%	0.00%	(\$0.76M)
PEO-PL	BANK POLSKA KASA OPIEKI SA	-0.78%	0.02%	0.01%	\$40.80M
SPL-PL	Santander Bank Polska SA	-0.78%	0.00%	-0.01%	\$8.44M
ACP-PL	Asseco Poland S.A.	-0.26%	0.00%	0.00%	(\$0.84M)
ENA-PL	ENEA S.A.	-0.26%	0.00%	0.00%	(\$0.02M)
ING-PL	ING Bank Slaski S.A.	-0.26%	0.00%	0.00%	(\$0.82M)
KRU-PL	KRUK S.A.	-0.26%	0.00%	0.00%	(\$0.16M)
LWB-PL	Lubelski Wegiel BOGDANKA SA	-0.26%	0.00%	0.00%	(\$0.06M)
BDX-PL	Budimex SA	-0.26%	0.00%	0.00%	(\$1.32M)
TPE-PL	TAURON Polska Energia S.A.	-0.26%	0.00%	0.00%	(\$0.29M)
CDR-PL	CD Projekt S.A.	-0.26%	0.00%	0.00%	(\$13.64M)

Poland Fund Level Stock Holding Changes

Chart 1. The largest fund weight increases in Poland stocks between 9/30/2022 - 3/31/2023.

Chart 2. The largest fund weight decreases in Poland stocks between 9/30/2022 - 3/31/2023

Both charts show the current weight and whether the weight change represented a new or closed position.

Ch 1. Poland: Largest Increases in Position, %

Fund Name	Ticker	Stock Name	New or Close..	Latest Weight	Weight Change
LUX IM - ESG Global Emerging Equities	PKN-PL	Polski Koncern Naftowy OR..	New	3.67%	3.67%
Polen Emerging Markets Growth Fund	DNP-PL	Dino Polska SA	New	3.10%	3.10%
Virtus KAR Emerging Markets Small Cap Fund	GPP-PL	Grupa Pracuj spolka akcyjna		6.10%	2.33%
BlackRock Strategic Fds. - Emerging Markets Equi..	KGH-PL	KGHM Polska Miedz S.A.	New	2.24%	2.24%
Skyline Umb. Fd. ICAV - ARGA Emerging Market E..	PKD-PL	PKO Bank Polski S.A.	New	1.77%	1.77%
BlackRock Strategic Fds. - Emerging Markets Equi..	PEO-PL	BANK POLSKA KASA OPIEKI ..	New	1.76%	1.76%
Skyline Umb. Fd. ICAV - ARGA Emerging Market E..	PZU-PL	Powszechny Zaklad Ubezpi..		3.68%	1.67%
Global Advantage Funds - Emerging Markets Hig..	PKN-PL	Polski Koncern Naftowy OR..		1.92%	1.22%
Grandeur Peak Emerging Markets Opportunities ..	DNP-PL	Dino Polska SA		4.14%	1.14%
Vaughan Nelson Emerging Markets Opportunitie..	DNP-PL	Dino Polska SA	New	1.09%	1.09%
Aubrey Capital Mgmt. Access Fund - Global EM O..	DNP-PL	Dino Polska SA		3.46%	1.06%
Morgan Stanley Invt. Fds. - Sustainable EM Eq. F..	KTY-PL	Grupa KETY S.A.	New	1.04%	1.04%
Global Advantage Funds - Emerging Markets Hig..	PKD-PL	PKO Bank Polski S.A.	New	1.00%	1.00%
Schroder ISF - Global Emerging Market Opportuni..	SPL-PL	Santander Bank Polska SA	New	0.90%	0.90%
Virtus NFJ Emerging Markets Value Fund	DNP-PL	Dino Polska SA	New	0.89%	0.89%
New Capital UCITS Fund Plc - Emerging Mkts. Ftr...	DNP-PL	Dino Polska SA		1.73%	0.89%
BNY Mellon Emerging Markets Fund	DNP-PL	Dino Polska SA	New	0.85%	0.85%
Aberdeen Std. SICAV I - EM Sust. Development E..	DNP-PL	Dino Polska SA		3.53%	0.77%
Boston Partners Emerging Markets Fund	DNP-PL	Dino Polska SA	New	0.75%	0.75%
JOHCM Emerging Markets Discovery Fund	PEO-PL	BANK POLSKA KASA OPIEKI ..		1.23%	0.75%

Ch 2. Poland: Largest Decreases in Position, %

Fund Name	Ticker	Stock Name	New or Close..	Latest Weight	Weight Change
LO Funds - Emerging High Conviction	DNP-PL	Dino Polska SA	Close	0.00%	-0.99%
TCW Developing Markets Equity Fund	DNP-PL	Dino Polska SA	Close	0.00%	-0.93%
DNB Global Emerging Markets	PGN-PL	Polskie Gornictwo Naftowe i ..	Close	0.00%	-0.70%
Robeco Capital Gr. Fds. - QI EM Sust. Active Eq.	LPP-PL	LPP S.A.		0.06%	-0.59%
Global Advantage Funds - Emerging Markets Hig..	PGN-PL	Polskie Gornictwo Naftowe i ..	Close	0.00%	-0.52%
Morgan Stanley Instl. Fund - Emerging Markets P..	DNP-PL	Dino Polska SA	Close	0.00%	-0.44%
LSV Emerging Markets Equity Fund	PGN-PL	Polskie Gornictwo Naftowe i ..	Close	0.00%	-0.37%
LUX IM - ESG Global Emerging Equities	PGN-PL	Polskie Gornictwo Naftowe i ..	Close	0.00%	-0.32%
Artemis Investment Funds ICVC - Global Emergin..	PKD-PL	PKO Bank Polski S.A.		0.31%	-0.26%
Swisscanto Sammelstiftung Emerging Market Eq..	PKN-PL	Polski Koncern Naftowy ORL..		0.10%	-0.24%
KBI Funds ICAV - Emerging Markets Equity Fund	LPP-PL	LPP S.A.	Close	0.00%	-0.22%
Goldman Sachs Emerging Markets Equity Insight..	PEO-PL	BANK POLSKA KASA OPIEKI ..	Close	0.00%	-0.20%
VP Bank Risk Optimised ESG Eq. Fd. - Emerging M..	CPS-PL	Cyfrowy Polsat SA	Close	0.00%	-0.20%
WisdomTree Tr. - Emerging Markets Dividend Fun..	PEO-PL	BANK POLSKA KASA OPIEKI ..	Close	0.00%	-0.20%
William Blair Emerging Markets Small Cap Growt..	ING-PL	ING Bank Slaski S.A.	Close	0.00%	-0.19%
Advisors Inner Circle - Acadian Emerging Markets..	PEO-PL	BANK POLSKA KASA OPIEKI ..	Close	0.00%	-0.19%
Allianz Intl. Invt. Fds. - Emerging Markets Equity ..	KGH-PL	KGHM Polska Miedz S.A.	Close	0.00%	-0.17%
Goldman Sachs Funds III - Emerging Markets Equ..	PGN-PL	Polskie Gornictwo Naftowe i ..	Close	0.00%	-0.17%
Robeco Capital Gr. Fds. - QI EM Sust. Active Eq.	PEO-PL	BANK POLSKA KASA OPIEKI ..	Close	0.00%	-0.16%
Hartford Emerging Markets Equity Fund	LPP-PL	LPP S.A.	Close	0.00%	-0.16%

Chart 3. The largest buyers in US dollar terms in Poland stocks between 9/30/2022 - 3/31/2023.

Chart 4. The largest sellers in US dollar terms in Poland stocks between 9/30/2022 - 3/31/2023

Both charts show the current AUM and whether the fund flow represented a new or closed position.

Ch 3. Poland: Largest Fund Inflows, \$

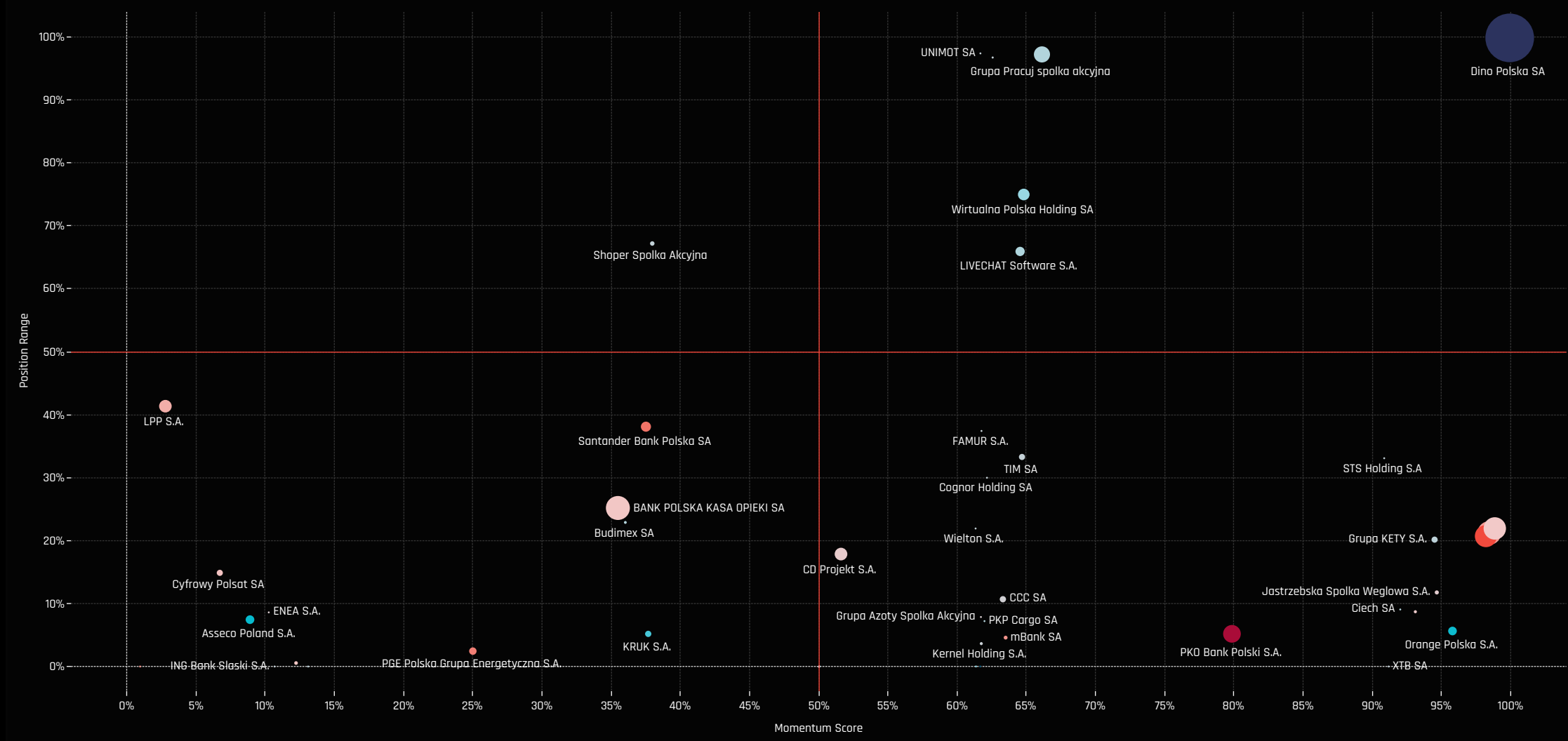
Fund Name	Ticker	Stock Name	New or Close..	Latest AUM, \$	Fund Flows, \$
BlackRock Emerging Markets Fund Inc.	PKD-PL	PKO Bank Polski S.A.		\$35M	\$19M
iShares MSCI Emerging Markets ETF	PKN-PL	Polski Koncern Naftowy ORL..		\$33M	\$15M
BlackRock Emerging Markets Fund Inc.	PEO-PL	BANK POLSKA KASA OPIEKI ..		\$48M	\$15M
T Rowe Price Emerging Markets Stock Fund	PKD-PL	PKO Bank Polski S.A.		\$52M	\$13M
GS Funds - Emerging Markets CORE Equity Portfolio	PZU-PL	Powszechny Zaklad Ubezpie..	New	\$11M	\$11M
Schroder ISF - Emerging Markets	PEO-PL	BANK POLSKA KASA OPIEKI ..	New	\$12M	\$11M
Schroder ISF - Global Emerging Market Opportuniti..	SPL-PL	Santander Bank Polska SA	New	\$14M	\$11M
BlackRock Strategic Fds. - Emerging Markets Equity..	KGH-PL	KGHM Polska Miedz S.A.	New	\$9M	\$9M
Fidelity SAI Emerging Markets Value Index Fund	PKN-PL	Polski Koncern Naftowy ORL..		\$15M	\$9M
BlackRock Global Funds - Emerging Markets Fund	PEO-PL	BANK POLSKA KASA OPIEKI ..		\$37M	\$9M
Fidelity Funds SICAV - Sust. Emerging Markets Equi..	DNP-PL	Dino Polska SA	New	\$8M	\$8M
LUX IM - ESG Global Emerging Equities	PKN-PL	Polski Koncern Naftowy ORL..	New	\$9M	\$8M
BlackRock Strategic Fds. - Emerging Markets Equity..	PEO-PL	BANK POLSKA KASA OPIEKI ..	New	\$7M	\$7M
Fidelity Funds SICAV - Emerging Markets Fund	DNP-PL	Dino Polska SA		\$15M	\$5M
Skyline Umb. Fd. ICAV - ARGA Emerging Market Equ..	PKD-PL	PKO Bank Polski S.A.	New	\$6M	\$4M
Fidelity Institutional Funds - Emerging Markets Fun..	DNP-PL	Dino Polska SA		\$12M	\$4M
Ninety One Glob. Strat. Fd. - Emerging Markets Equity	PEO-PL	BANK POLSKA KASA OPIEKI ..		\$16M	\$4M
GMD Emerging Markets Fund	PKN-PL	Polski Koncern Naftowy ORL..		\$9M	\$4M
Morgan Stanley Invt. Fds. - Sustainable EM Eq. Fds.	KTY-PL	Grupa KETY S.A.	New	\$3M	\$3M
Robeco Capital Gr. Fds. - QI Emerging Markets Activ..	DNP-PL	Dino Polska SA	New	\$4M	\$3M

Ch 4. Poland: Largest Fund Outflows, \$

Fund Name ..	Fund Name	Ticker	Stock Name	New or Close..	Latest AUM, \$	Fund Flows, \$
DNB Global E..	DNB Global Emerging Markets	PKN-PL	Polski Koncern Naftowy ORL..			(\$8M)
Seafarer Ove..	Seafarer Overseas Growth & Incom..	CDR-PL	CD Projekt S.A.		\$40M	(\$7M)
John Hancock..	John Hancock Emerging Markets Eq..	DNP-PL	Dino Polska SA		\$18M	(\$7M)
GS Funds - E..	GS Funds - Emerging Markets Equit..	DNP-PL	Dino Polska SA		\$36M	(\$7M)
Fidelity SAI E..	Fidelity SAI Emerging Markets Value..	KGH-PL	KGHM Polska Miedz S.A.	Close		(\$7M)
iShares MSCI..	iShares MSCI Emerging Markets ETF	PGN-PL	Polskie Gornictwo Naftowe i ..			(\$6M)
DNB Global E..	DNB Global Emerging Markets	PGN-PL	Polskie Gornictwo Naftowe i ..	Close		(\$6M)
Neuberger B..	Neuberger Berman Emerging Marke..	DNP-PL	Dino Polska SA		\$9M	(\$5M)
Goldman Sac..	Goldman Sachs Emerging Markets E..	PEO-PL	BANK POLSKA KASA OPIEKI ..	Close		(\$4M)
WCM Focus..	WCM Focused Emerging Markets Fu..	DNP-PL	Dino Polska SA		\$43M	(\$4M)
Swisscanto ..	Swisscanto Sammelstiftung Emergi..	PKN-PL	Polski Koncern Naftowy ORL..		\$1M	(\$4M)
iShares MSCI..	iShares MSCI Emerging Markets ETF	OPL-PL	Orange Polska S.A.			(\$4M)
Fidelity Inv. T..	Fidelity Inv. Trust - Emerging Market..	CDR-PL	CD Projekt S.A.		\$37M	(\$4M)
Columbia Em..	Columbia Emerging Markets Fund	DNP-PL	Dino Polska SA		\$12M	(\$3M)
Baillie Giffar..	Baillie Gifford Overseas Growth Fun..	KGH-PL	KGHM Polska Miedz S.A.		\$15M	(\$3M)
Mercer Emer..	Mercer Emerging Markets Equity Fu..	PKN-PL	Polski Koncern Naftowy ORL..	Close		(\$3M)
Goldman Sac..	Goldman Sachs Emerging Markets E..	PKD-PL	PKO Bank Polski S.A.	Close		(\$3M)
LO Funds - E..	LO Funds - Emerging High Conviction	DNP-PL	Dino Polska SA	Close		(\$3M)
Fidelity SAI E..	Fidelity SAI Emerging Markets Value..	PGE-PL	PGE Polska Grupa Energetyc..	Close		(\$2M)
Morgan Stan..	Morgan Stanley Instl. Fund - Emergi..	DNP-PL	Dino Polska SA	Close		(\$2M)

average weight, funds invested % and funds o/w % relative to all monthly observations in our fund history (going back to 1/31/2008). 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 9/30/2022 and 3/31/2023, 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.

Country: Poland
 Stock Sentiment Grid. GEM Active Funds
 Momentum Measure between 9/30/2022 - 3/31/2023



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)

Poland

Holdings by Fund Style

Chart 1. The average weights in Poland stocks and the average weights vs the iShares MSCI Emerging Markets ETF, split by fund Style.
 Charts 2&3. The time series of average fund weights in Poland stocks and average weights vs iShares MSCI Emerging Markets ETF, ..

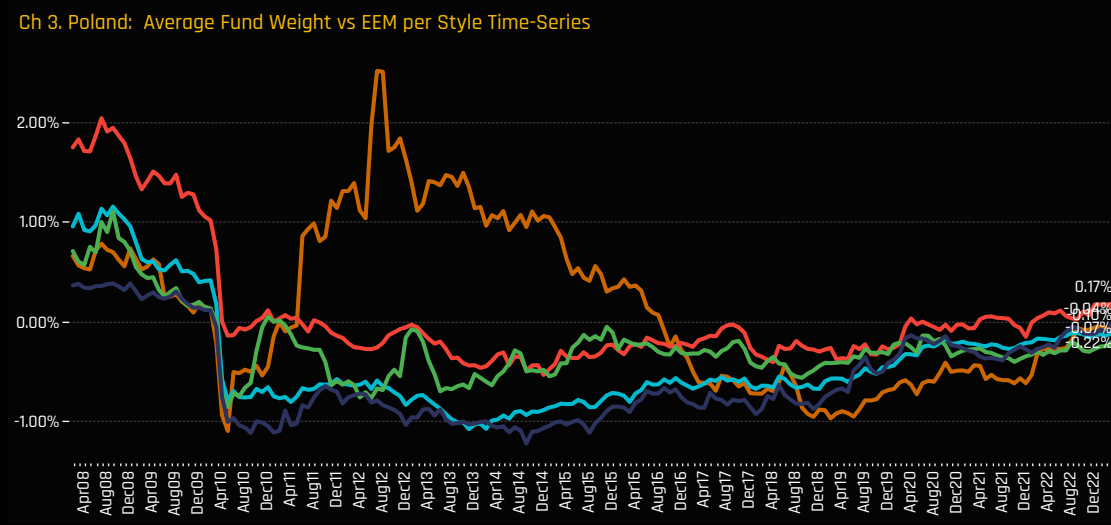
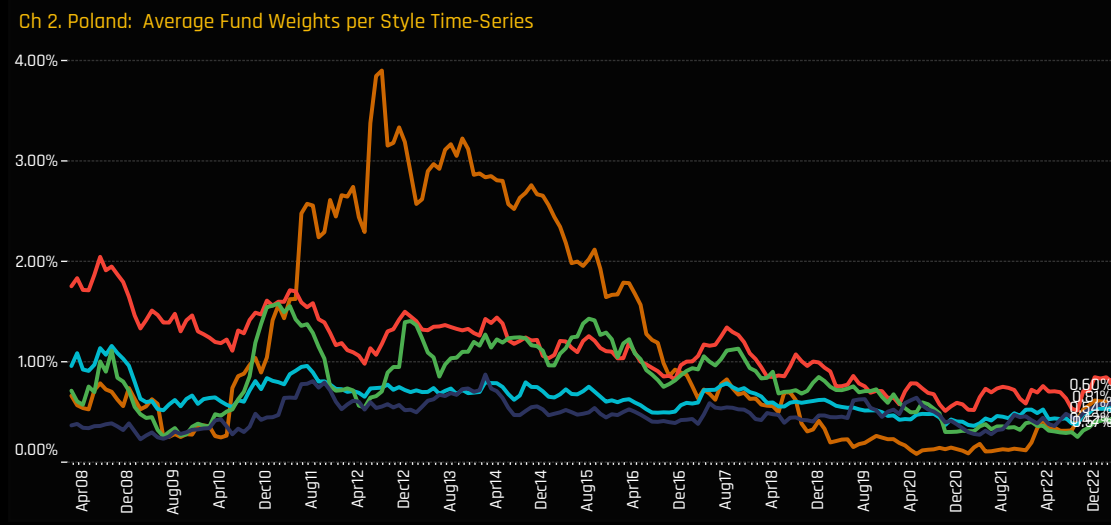
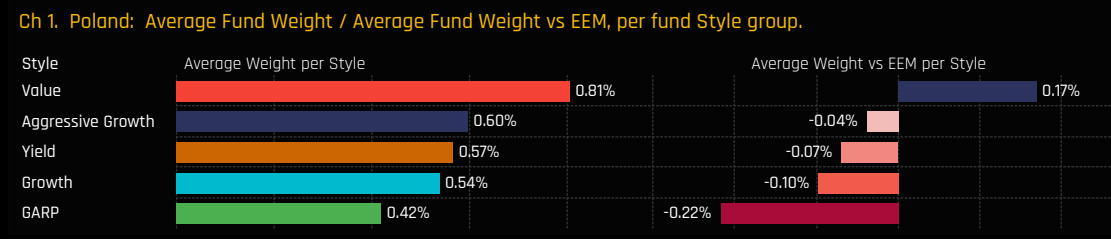
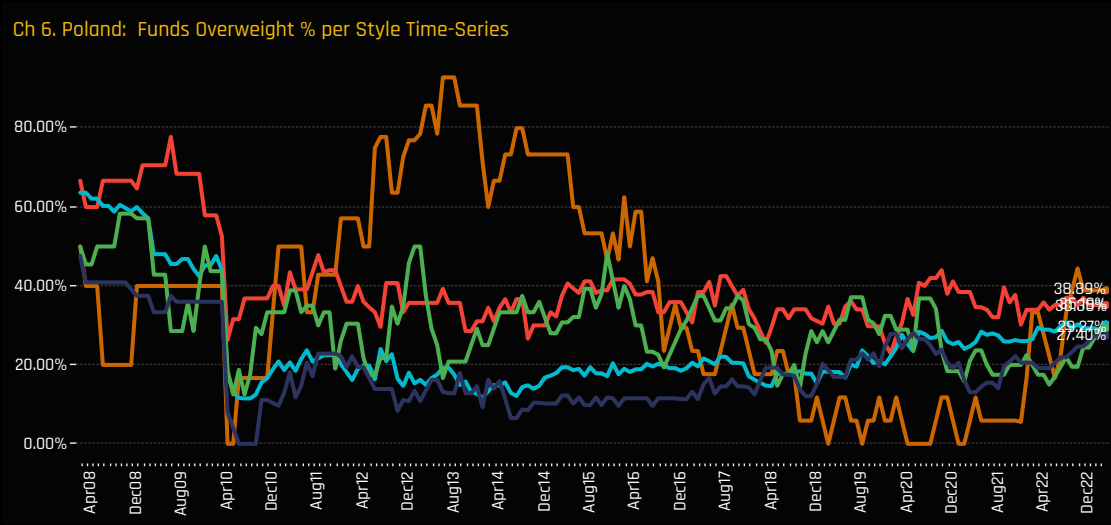
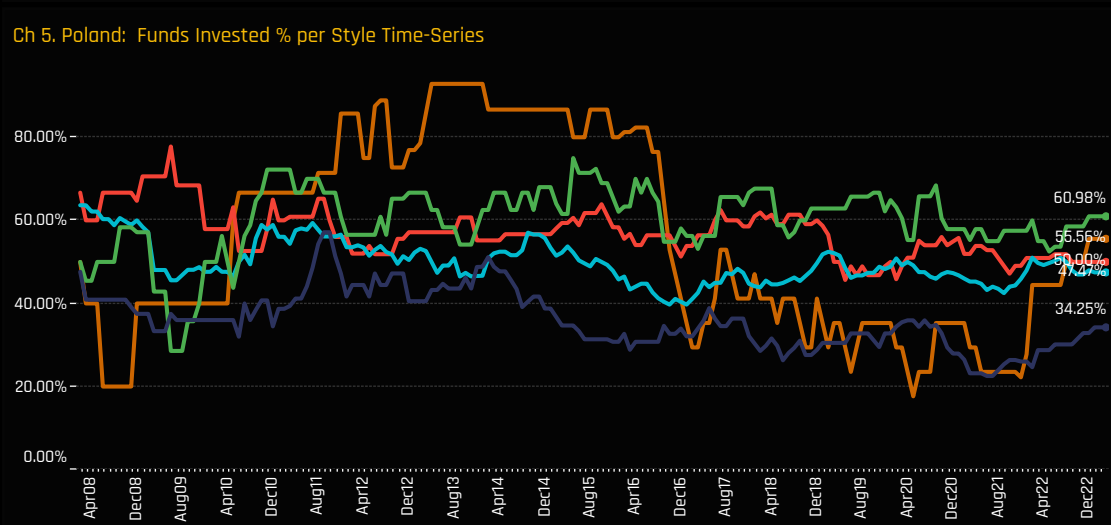
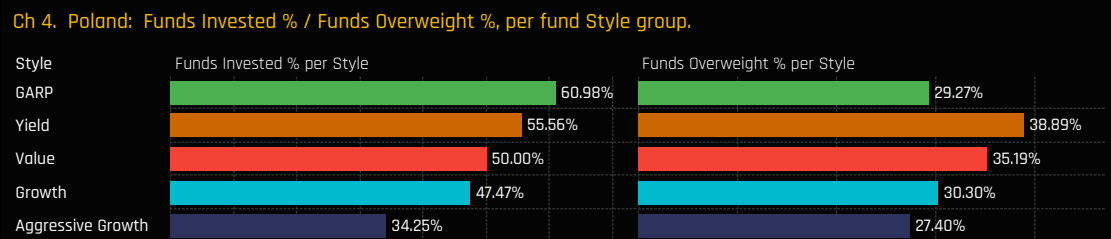


Chart 4. The percentage of funds invested in Poland stocks and the percentage of funds overweight, split by fund Style.
 Charts 5&6. The time series of the percentage of funds invested in Poland stocks and the percentage of funds overweight, split by fund Style.



Top Row: For each Style category, each chart shows the largest holders in the Poland Country group.

Middle Row: For each Style category, each chart shows the most widely held stocks and the corresponding average fund weights in the Poland Country group.

Bottom Row: For each Style category, each chart shows the largest stock overweights and underweights in the Poland Country group.

Poland Top Holders: Aggressive Growth

Fund Name	Weight
Grandeur Peak Emerging Marke..	5.40%
Ashmore SICAV - Emerging Mar..	3.94%
Aubrey Capital Mgmt. Access Fu..	3.46%
Omnis Portfolio Investments ICV..	3.24%
Polen Emerging Markets Growth..	3.10%
WCM Focused Emerging Market..	2.88%
William Blair Emerging Markets ..	2.52%
Ashmore Emerging Markets Equ..	2.40%
AXA World Funds SICAV - Framli..	2.35%
Neuberger Berman Invst. Funds ..	2.11%
First Sentier Investors ICVC - St..	1.29%

Poland Top Holders: Growth

Fund Name	Weight
Virtus KAR Emerging Markets S..	9.70%
LUX IM - ESG Global Emerging E..	3.67%
Aberdeen Std. SICAV I - EM Sust..	3.53%
JNL Multi-Manager Emerging M..	3.03%
Mirabaud - Equities Global Emer..	2.97%
Coixabank Master Renta Variabl..	2.85%
CM-AM Global Emerging Markets	2.73%
Thornburg Developing World Fu..	2.63%
Morgan Stanley Invst. Fds. - Sust..	2.50%
Vaughan Nelson Emerging Mark..	2.48%
JOHCM Emerging Markets Disco..	2.22%

Poland Top Holders: GARP

Fund Name	Weight
Schroder ISF - Global Emerging ..	2.75%
T Rowe Price Emerging Markets ..	1.69%
Robeco Capital Gr. Fds. - QI EM S..	1.29%
Aviva Invs. - Global Emerging Mar..	1.08%
Allianz Global Investors Fund - E..	1.00%
Man Funds Plc - Numeric Emergi..	0.92%
Hartford Emerging Markets Equit..	0.90%
SEI Institutional Invst. Trust - Eme..	0.81%
SEI Global Master Fund Plc - Eme..	0.78%
Allianz Intl. Invst. Fds. - Emerging ..	0.76%
Boston Partners Emerging Marke..	0.75%

Poland Top Holders: Value

Fund Name	Weight
Global Advantage Funds - Emerg..	9.38%
Skyline Umb. Fd. ICAV - ARGA Em..	5.44%
BlackRock Strategic Fds. - Emerg..	4.00%
AB FCP II - Emerging Market Valu..	2.73%
LSV Emerging Markets Equity Fu..	1.74%
AQR Emerging Multi-Style II Fund	1.58%
Polunin Funds - Developing Coun..	1.50%
Advisors Inner Circle - Acadian E..	1.48%
Virtus NFJ Emerging Markets Val..	1.47%
GMO Emerging Markets Fund	1.36%
AQR UCITS Funds - Sustainable E..	1.31%

Poland Top Holders: Yield

Fund Name	Weight
Seafarer Overseas Growth & Inco..	2.03%
BlackRock Global Funds - Emergi..	1.50%
JPMorgan Funds - Emerging Mar..	1.37%
JPMorgan Fund ICVC - Emerging ..	1.35%
WisdomTree Tr. - Emerging Mark..	0.97%
Allianz Global Investors Fund - G..	0.77%
Allianz Global Investors Fund - E..	0.75%
Aviva Investors - Global Emergin..	0.63%
Allspring (Lux) Ww. Fd. - EM Equi..	0.52%
Goldman Sachs Funds III - Emerg..	0.34%

Poland Most Widely Held Stocks: Aggressive Growth

Stock Name	Ave. Wgt	Funds Inv. %
Dino Polska SA	0.55%	28.77%
PKO Bank Polski S.A.	0.01%	1.37%
LIVECHAT Software S.A.	0.02%	1.37%
Grupa Pracuj spolka akcyjna	0.01%	1.37%
CD Projekt S.A.	0.00%	1.37%
CCC SA	0.01%	1.37%

Poland Most Widely Held Stocks: Growth

Stock Name	Ave. Wgt	Funds Inv. %
Dino Polska SA	0.21%	24.75%
KGHM Polska Miedz S.A.	0.04%	11.62%
Powszechny Zaklad Ubezpieczen..	0.04%	11.11%
Polski Koncern Naftowy ORLEN S..	0.04%	11.11%
BANK POLSKA KASA OPIEKI SA	0.04%	11.11%
PKO Bank Polski S.A.	0.02%	8.59%
LPP S.A.	0.02%	6.06%
CD Projekt S.A.	0.01%	5.56%
Santander Bank Polska SA	0.01%	4.04%
Orange Polska S.A.	0.00%	3.54%

Poland Most Widely Held Stocks: GARP

Stock Name	Ave. Wgt	Funds Inv. %
Polski Koncern Naftowy ORLEN S..	0.05%	19.51%
KGHM Polska Miedz S.A.	0.05%	19.51%
Dino Polska SA	0.07%	17.07%
BANK POLSKA KASA OPIEKI SA	0.07%	14.53%
Powszechny Zaklad Ubezpieczen..	0.07%	9.76%
PKO Bank Polski S.A.	0.01%	7.32%
Santander Bank Polska SA	0.02%	4.88%
Orange Polska S.A.	0.01%	4.88%
LPP S.A.	0.00%	4.88%
Jastrzebska Spolka Weglowa S.A.	0.00%	4.88%

Poland Most Widely Held Stocks: Value

Stock Name	Ave. Wgt	Funds Inv. %
BANK POLSKA KASA OPIEKI SA	0.12%	20.37%
Powszechny Zaklad Ubezpieczen..	0.14%	18.52%
Polski Koncern Naftowy ORLEN S..	0.12%	18.52%
KGHM Polska Miedz S.A.	0.14%	18.52%
PKO Bank Polski S.A.	0.07%	11.11%
Asseco Poland S.A.	0.04%	11.11%
PGE Polska Grupa Energetyczna ..	0.03%	9.26%
Orange Polska S.A.	0.01%	7.41%
Santander Bank Polska SA	0.02%	5.56%
Dino Polska SA	0.04%	5.56%

Poland Most Widely Held Stocks: Yield

Stock Name	Ave. Wgt	Funds Inv. %
BANK POLSKA KASA OPIEKI SA	0.15%	22.22%
Powszechny Zaklad Ubezpieczen..	0.15%	11.11%
Santander Bank Polska SA	0.01%	5.56%
Polski Koncern Naftowy ORLEN S..	0.02%	5.56%
PKO Bank Polski S.A.	0.08%	5.56%
Orange Polska S.A.	0.04%	5.56%
CD Projekt S.A.	0.11%	5.56%

Poland Top Over/Underweights: Aggressive Growth

Stock Name	Over/Underweight
Dino Polska SA	0.48%
LIVECHAT Software S.A.	0.02%
CCC SA	0.01%
Grupa Pracuj spolka akcyjna	0.01%
Cyfrowy Polsat SA	-0.01%
BANK POLSKA KASA OPIEKI SA	-0.06%
KGHM Polska Miedz S.A.	-0.06%
Powszechny Zaklad Ubezpieczen..	-0.07%
PKO Bank Polski S.A.	-0.08%
Polski Koncern Naftowy ORLEN S..	-0.13%

Poland Top Over/Underweights: Growth

Stock Name	Over/Underweight
Dino Polska SA	0.14%
Grupa Pracuj spolka akcyjna	0.04%
Wirtualna Polska Holding SA	0.02%
LIVECHAT Software S.A.	0.01%
TIM SA	0.01%
KGHM Polska Miedz S.A.	-0.02%
Santander Bank Polska SA	-0.03%
Powszechny Zaklad Ubezpieczen..	-0.04%
PKO Bank Polski S.A.	-0.07%
Polski Koncern Naftowy ORLEN S..	-0.09%

Poland Top Over/Underweights: GARP

Stock Name	Over/Underweight
KRUK S.A.	0.03%
Grupa Pracuj spolka akcyjna	0.01%
BANK POLSKA KASA OPIEKI SA	0.01%
CCC SA	0.01%
Asseco Poland S.A.	0.01%
PGE Polska Grupa Energetyczna ..	-0.02%
CD Projekt S.A.	-0.02%
LPP S.A.	-0.04%
PKO Bank Polski S.A.	-0.07%
Polski Koncern Naftowy ORLEN S..	-0.08%

Poland Top Over/Underweights: Value

Stock Name	Over/Underweight
KGHM Polska Miedz S.A.	0.08%
BANK POLSKA KASA OPIEKI SA	0.07%
Powszechny Zaklad Ubezpieczen..	0.07%
Asseco Poland S.A.	0.04%
Orange Polska S.A.	0.01%
PKO Bank Polski S.A.	-0.02%
CD Projekt S.A.	-0.02%
Santander Bank Polska SA	-0.02%
Dino Polska SA	-0.03%
LPP S.A.	-0.03%

Poland Top Over/Underweights: Yield

Stock Name	Over/Underweight
BANK POLSKA KASA OPIEKI SA	0.09%
CD Projekt S.A.	0.09%
Powszechny Zaklad Ubezpieczen..	0.08%
Orange Polska S.A.	0.04%
PKO Bank Polski S.A.	-0.01%
Santander Bank Polska SA	-0.03%
LPP S.A.	-0.04%
KGHM Polska Miedz S.A.	-0.06%
Dino Polska SA	-0.07%
Polski Koncern Naftowy ORLEN S..	-0.11%

Ch1. The blue line shows the total number of funds (out of 384) who have ever owned Poland stocks. The green area shows the number of funds invested at any one time and the red line the difference. A downward sloping red line means existing investors are closing out positions, a rising red line means previous investors are buying back in.

Ch. 1. Poland: Current Number of Funds Invested, Total Number of Funds Invested, Gap

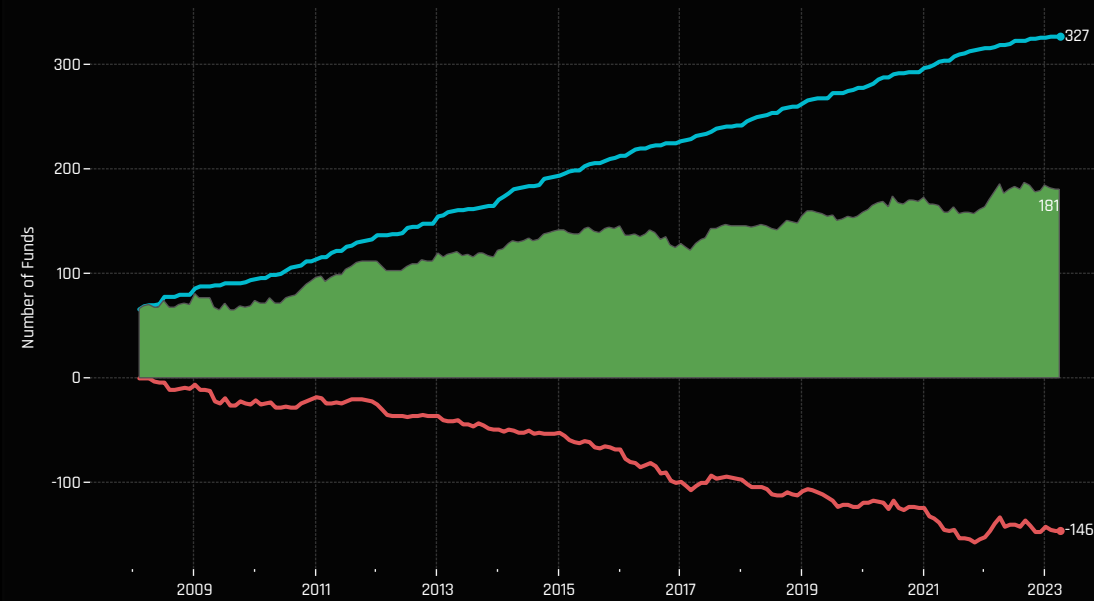


Chart 2: The orange lines show the current AUM in Poland stocks for each fund. The red lines show the gap between today's weight and the maximum weight for each fund.

Ch2. Poland: Current AUM \$ vs Gap to Max \$

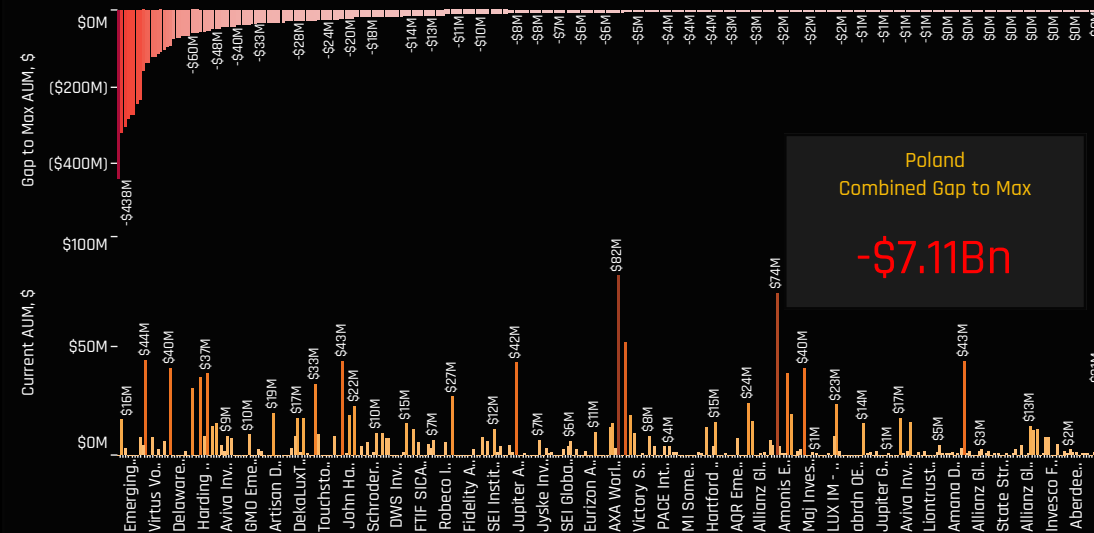


Chart 3: The Z-Score of current weights versus history for all current and previous holders of Poland stocks. A value of 100% means today's weight is the highest on record for that fund, zero the lowest.

Ch. 3. Poland: Portfolio Weight Z-Score

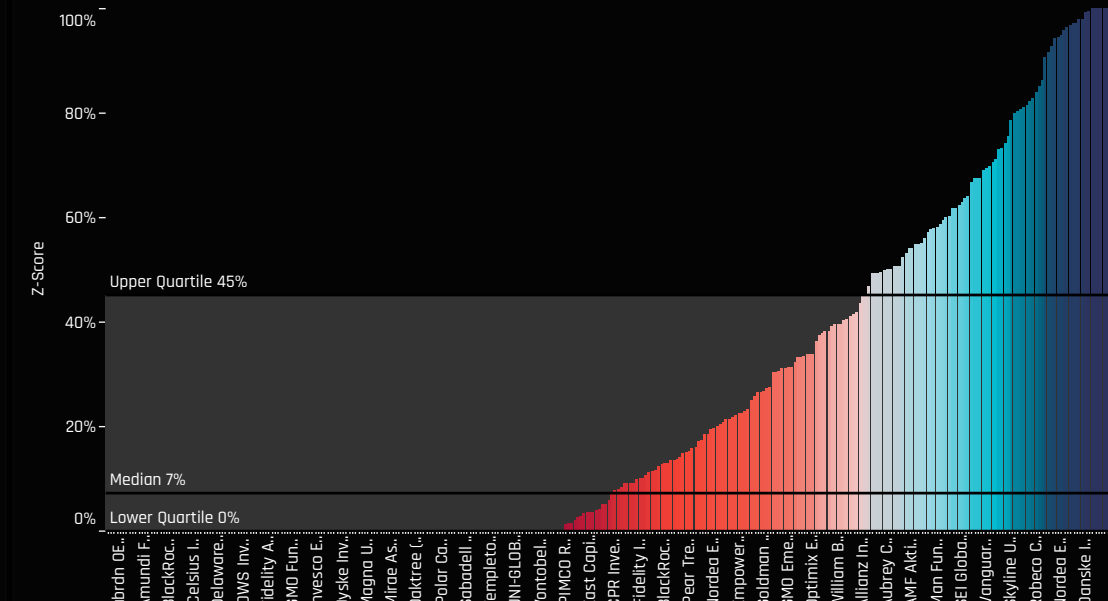


Chart 4: Blue lines show the current weight in Poland stocks for each fund. The red lines show the gap between today's weight and the maximum weight for each fund.

Ch4. Poland: Current Weights % vs Gap to Max %

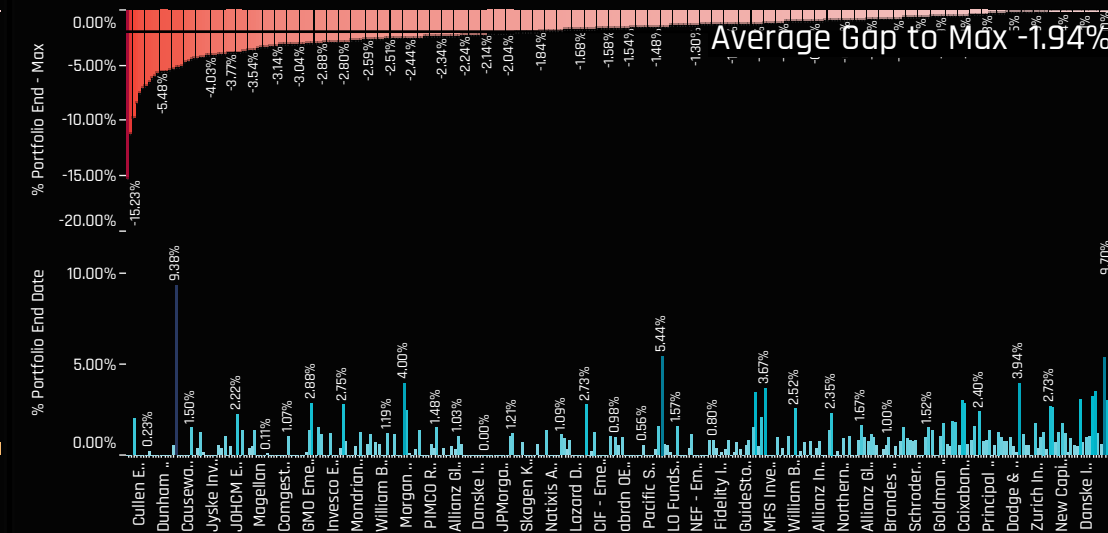


Chart 1: Current fund weight, maximum fund weight and difference for Poland stocks.
 Chart 2: Current fund AUM, maximum fund AUM and \$ difference for Poland stocks

Chart 3: Current fund weight, maximum fund weight and Z-Score for Poland stocks, ranked by Z-Score
 Chart 4: Current fund AUM, maximum AUM and Z-Score for Poland stocks, ranked by Z-Score.

Ch. 1: Poland: Largest Gap to Max (%)

Fund Name	Latest Weight	Max Weight	Difference
Pro Fonds (Lux) - Emerging Markets Fund	0.00%	15.23%	-15.23%
Magna Umbrella Fund Plc - Emerging Markets Dividend Fund	0.00%	11.19%	-11.19%
Seafarer Overseas Growth & Income Fund	2.03%	11.75%	-9.72%
Mobius SICAV - Emerging Markets Fund	0.00%	8.41%	-8.41%
Cullen Emerging Markets High Dividend Fund	0.00%	7.50%	-7.50%
Erste Stock EM Global	0.00%	6.96%	-6.96%
Brown Advisory Emerging Markets Select Fund	0.00%	6.93%	-6.93%
Goldman Sachs Emerging Markets Equity Insights Fund	0.23%	6.75%	-6.52%
MI Somerset Cap. Mgmt. Inv. Fds. ICVC - Gbl. Emer. Mkts. Fd.	0.00%	6.14%	-6.14%
Templeton Emerging Markets Small Cap Fund	0.00%	5.88%	-5.88%
UNI-GLOBAL - Equities Emerging Markets	0.00%	5.62%	-5.62%
St. James's Place Unit Trust - Global Emerging Markets	0.00%	5.58%	-5.58%
Dunham Emerging Markets Stock Fund	0.00%	5.48%	-5.48%
AB SICAV I - Emerging Markets Low Volatility Equity Portfolio	0.00%	5.47%	-5.47%
SEB Emerging Marketsfond	0.00%	5.39%	-5.39%
GS Funds - Emerging Markets CORE Equity Portfolio	0.49%	5.73%	-5.24%
Global Advantage Funds - Emerging Markets High Value	9.38%	14.59%	-5.21%
MI Somerset Cap. Mgmt. Inv. Fds. ICVC - Gbl. EM Screened Fund	0.00%	5.10%	-5.10%
Pictet Global Selection Fund - Global High Yield Emerg. Eq.	0.00%	5.10%	-5.10%
VP Bank Risk Optimised ESG Eq. Fd. - Emerging Markets Equities	0.00%	4.70%	-4.70%

Ch. 2: Poland: Largest Gap to Max (\$)

Fund Name	Latest AUM, \$	Max AUM, \$	Difference
Invesco Developing Markets Fund		\$438M	-\$438M
GMO Emerging Markets Fund	\$16M	\$335M	-\$319M
First Sentier Investors ICVC - Stewart Inv. Gbl. EM Leaders	\$3M	\$306M	-\$303M
abrdn Emerging Markets Fund		\$283M	-\$283M
Emerging Markets Growth Fund Inc.		\$271M	-\$271M
American Funds New World Fund		\$271M	-\$271M
Pictet Global Selection Fund - Global High Yield Emerg. Eq.		\$245M	-\$245M
Global Advantage Funds - Emerging Markets High Value	\$8M	\$243M	-\$235M
Robeco Capital Gr. Fds. - QI Emerging Conservative Equities	\$4M	\$163M	-\$159M
Schroder ISF - Emerging Markets	\$44M	\$182M	-\$138M
CIF - Emerging Markets Growth Fund (LUX)		\$136M	-\$136M
Morgan Stanley Inv. Fds. - Sustainable EM Eq. Fds.	\$8M	\$129M	-\$121M
Virtus Vantabel Emerging Markets Opportunities Fund		\$119M	-\$119M
Fisher Invts. Instl. Fds. Plc - Emerging Markets Equity Fund	\$2M	\$116M	-\$114M
Magellan		\$108M	-\$108M
Morgan Stanley Instl. Fund - Emerging Markets Portfolio	\$6M	\$108M	-\$101M
Causeway Emerging Markets Fund		\$95M	-\$95M
Seafarer Overseas Growth & Income Fund	\$40M	\$131M	-\$91M
Fidelity Inv. Trust - Emerging Markets Fund		\$76M	-\$76M
St. James's Place Unit Trust - Global Emerging Markets		\$70M	-\$70M

Ch. 3: Poland: Highest Ownership Z-Score (%)

Fund Name	Latest Weight	Max Weight	Z-Score
Wellington Mgt. Funds (Ireland) plc - Emer. Mrkt. Dev. Fd.	1.20%	1.20%	100.00%
Virtus KAR Emerging Markets Small Cap Fund	9.70%	9.70%	100.00%
Vaughan Nelson Emerging Markets Opportunities Fund	2.48%	2.48%	100.00%
JNL Multi-Manager Emerging Markets Equity Fund	3.03%	3.03%	100.00%
Grandeur Peak Emerging Markets Opportunities Fund	5.40%	5.40%	100.00%
Fidelity Funds SICAV - Sust. Emerging Markets Equity Fund	0.58%	0.58%	100.00%
Boston Common ESG Impact Emerging Markets Fund	1.19%	1.19%	100.00%
Aberdeen Std. SICAV I - EM Sust. Development Equity Fund	3.53%	3.53%	100.00%
Omnis Portfolio Investments ICVC - Global EM Equity Opp. Fund	3.24%	3.24%	99.96%
Robeco Capital Gr. Fds. - QI EM Sustainable Enhanced Index Eq.	1.04%	1.05%	99.61%
Danske Invest Emerging Markets Equity Fund (FI)	0.98%	0.98%	99.33%
VisionFund SICAV - Emerging Markets Equity	0.66%	0.67%	97.96%
Thornburg Developing World Fund	2.63%	2.68%	97.90%
CM-AM Global Emerging Markets	2.73%	2.79%	97.05%
Ninety One Gbl. Strat. Fd. - Emerging Markets Equity	1.19%	1.22%	97.03%
Swisscanto (LU) - Equity Fund Sustainable Emerging Markets	0.93%	0.96%	96.94%
GW&K Investment Funds Plc - Emerging Markets Equity Fund	1.25%	1.30%	96.34%
New Capital UCITS Fund Plc - Emerging Mkts. Ftr. Leaders Fd.	1.73%	1.78%	95.81%
Nordea Equity Opportunities Fund	0.55%	0.58%	94.85%
Fidelity Funds SICAV - Institutional Emerging Markets Equity	0.43%	0.46%	94.62%

Ch. 4: Poland: Highest Ownership Z-Score (\$)

Fund Name	Latest AUM, \$	Max AUM, \$	Z-Score
Wellington Mgt. Funds (Ireland) plc - Emer. Mrkt. Dev. Fd.	\$6M	\$6M	100.00%
Vaughan Nelson Emerging Markets Opportunities Fund	\$1M	\$1M	100.00%
Fidelity Funds SICAV - Sust. Emerging Markets Equity Fund	\$8M	\$8M	100.00%
Fidelity Funds SICAV - Institutional Emerging Markets Equity	\$1M	\$1M	100.00%
JNL Multi-Manager Emerging Markets Equity Fund	\$31M	\$31M	100.00%
Robeco Capital Gr. Fds. - QI EM Sustainable Enhanced Index Eq.	\$2M	\$2M	99.33%
WCM Focused Emerging Markets Fund	\$43M	\$43M	99.18%
Fidelity Institutional Funds - Emerging Markets Fund	\$12M	\$12M	99.13%
Boston Partners Emerging Markets Fund	\$0M	\$0M	99.10%
JPMorgan Fund ICVC - Emerging Markets Income Fund	\$11M	\$11M	99.01%
JPMorgan Funds - Emerging Markets Dividend Fund	\$8M	\$8M	99.01%
New Capital UCITS Fund Plc - Emerging Mkts. Ftr. Leaders Fd.	\$1M	\$1M	99.00%
CM-AM Global Emerging Markets	\$5M	\$5M	98.84%
Aberdeen Std. SICAV I - EM Sust. Development Equity Fund	\$1M	\$1M	98.83%
Ashmore SICAV - Emerging Markets Equity ESG Fund	\$1M	\$1M	98.66%
First Sentier Investors ICVC - Stewart Inv. Gbl. EM Sus.	\$8M	\$8M	98.49%
Boston Common ESG Impact Emerging Markets Fund	\$0M	\$0M	97.78%
Omnis Portfolio Investments ICVC - Global EM Equity Opp. Fund	\$13M	\$13M	97.47%
VisionFund SICAV - Emerging Markets Equity	\$2M	\$2M	97.47%
T Rowe Price Emerging Markets Discovery Stock Fund	\$74M	\$77M	96.57%

Poland

Chart 1: Current fund weight, maximum fund weight and the difference for Poland stocks. Filtered for funds that have bought in to Poland between 9/30/2022 - 3/31/2023

Chart 2: Current fund AUM, maximum fund AUM and the USD difference for Poland stocks. Filtered for funds that have bought in to Poland between 9/30/2022 - 3/31/2023

Ch. 1: Poland: Largest Gap to Max (%) and Buying between 9/30/2022 - 3/31/2023

Fund Name	Latest Weight	Max Weight	Difference	Fund Flows, \$
GS Funds - Emerging Markets CORE Equity Portfolio	0.49%	5.73%	-5.24%	\$12M
Global Advantage Funds - Emerging Markets High Value	9.38%	14.59%	-5.21%	\$1M
Evli Gem Fund	1.25%	5.49%	-4.24%	\$0M
GAM Multistock - Emerging Markets Equity	0.51%	4.47%	-3.96%	\$1M
Threadneedle Specialist Inv. Fds.-Global Emerging Markets	1.03%	4.98%	-3.96%	\$0M
JOHCM Emerging Markets Discovery Fund	2.22%	5.98%	-3.76%	\$0M
JPMorgan Fund ICVC - Emerging Markets Income Fund	1.35%	5.09%	-3.74%	\$0M
Robeco Capital Gr. Fds. - QI Emerging Markets Active Equities	1.07%	4.17%	-3.11%	\$6M
Robeco Capital Gr. Fds. - QI Emerging Conservative Equities	0.18%	3.18%	-2.99%	\$0M
GMO Emerging Markets Fund	1.36%	4.36%	-2.99%	\$3M
BlackRock Global Funds - Emerging Markets Equity Income Fund	1.50%	4.44%	-2.94%	\$1M
AB FCP I - Emerging Markets Growth Portfolio	1.11%	4.04%	-2.93%	\$1M
Schroder ISF - QEP Global Emerging Markets	1.21%	4.06%	-2.84%	\$0M
Schroder ISF - Global Emerging Market Opportunities	2.75%	5.56%	-2.81%	\$11M
BlackRock Funds I ICAV - Advantage Emerging Markets Equity F.	0.41%	3.16%	-2.75%	\$0M
DekaLuxTeam-EmergingMarkets	0.64%	3.21%	-2.57%	\$1M
Segall Bryant & Hamill Emerging Markets Fund	0.61%	3.18%	-2.56%	\$0M
VALIC Company I - Emerging Economies Fund	1.19%	3.70%	-2.51%	\$0M
BlackRock Strategic Fds. - Emerging Markets Equity Strategies	4.00%	6.46%	-2.46%	\$16M
Morgan Stanley Invnt. Fds. - Sustainable EM Eq. Fds.	2.50%	4.95%	-2.46%	\$3M

Ch. 2: Poland: Largest Gap to Max (\$) and Buying between 9/30/2022 - 3/31/2023

Fund Name	Latest AUM, \$	Max AUM, \$	Difference	Fund Flows, \$
GMO Emerging Markets Fund	\$16M	\$335M	-\$319M	\$3M
Global Advantage Funds - Emerging Markets High Value	\$8M	\$243M	-\$235M	\$1M
Robeco Capital Gr. Fds. - QI Emerging Conservative Equities	\$4M	\$163M	-\$159M	\$0M
Schroder ISF - Emerging Markets	\$44M	\$182M	-\$138M	\$13M
Morgan Stanley Invnt. Fds. - Sustainable EM Eq. Fds.	\$8M	\$129M	-\$121M	\$3M
GS Funds - Emerging Markets CORE Equity Portfolio	\$13M	\$53M	-\$50M	\$12M
Aviva Investors - Global Emerging Markets Core Fund	\$9M	\$51M	-\$42M	\$0M
Fidelity Active Strategy - Emerging Markets Fund	\$2M	\$36M	-\$33M	\$0M
BNY Mellon Emerging Markets Fund	\$3M	\$32M	-\$29M	\$2M
DekaLuxTeam-EmergingMarkets	\$1M	\$29M	-\$28M	\$1M
BlackRock Strategic Fds. - Emerging Markets Equity Strategies	\$17M	\$44M	-\$28M	\$16M
Robeco Capital Gr. Fds. - QI Emerging Markets Active Equities	\$9M	\$32M	-\$23M	\$6M
Schroder ISF - Global Emerging Market Opportunities	\$43M	\$65M	-\$22M	\$11M
BlackRock Global Funds - Emerging Markets Equity Income Fund	\$4M	\$23M	-\$19M	\$1M
Threadneedle Specialist Invnt. Fds.-Global Emerging Markets	\$6M	\$24M	-\$19M	\$0M
Schroder ISF - QEP Global Emerging Markets	\$1M	\$20M	-\$18M	\$0M
Robeco QI Inst. Emerging Markets Enhanced Index Eq. Fd.	\$10M	\$28M	-\$18M	\$4M
AB FCP I - Emerging Markets Growth Portfolio	\$7M	\$25M	-\$18M	\$1M
VALIC Company I - Emerging Economies Fund	\$7M	\$25M	-\$17M	\$0M
GAM Multistock - Emerging Markets Equity	\$1M	\$17M	-\$16M	\$1M

Flow Potential

Chart 3: Current fund weight, maximum fund weight and Z-Score for Poland stocks, ranked by Z-Score. Filtered for funds that have sold Poland between 9/30/2022 - 3/31/2023 and have a % Z-Score of above 50%.

Chart 4: Current fund AUM, maximum AUM and Z-Score for Poland stocks, ranked by Z-Score. Filtered for funds that have sold Poland between 9/30/2022 - 3/31/2023 and have a \$ Z-Score of above 50%.

Ch. 3: Poland: Z-Score (%) > 50% and selling between 9/30/2022 - 3/31/2023

Fund Name	Latest Weight	Max Weight	Z-Score	Fund Flows, \$
JNL Multi-Manager Emerging Markets Equity Fund	3.03%	3.03%	100.00%	(\$1M)
Grandeur Peak Emerging Markets Opportunities Fund	5.40%	5.40%	100.00%	\$0M
Thornburg Developing World Fund	2.63%	2.68%	97.90%	(\$1M)
Allianz Global Investors Fund - Best Styles EM Equity	0.99%	1.07%	91.74%	\$0M
Ashmore Emerging Markets Equity Fund	2.40%	2.78%	86.29%	(\$1M)
Sanford C Bernstein Fund - Emerging Markets Portfolio	1.89%	2.34%	80.74%	(\$1M)
Baillie Gifford Overseas Growth Fund - Emer. Mkts. Leading Co.	1.58%	1.98%	80.11%	(\$3M)
William Blair Emerging Markets Small Cap Growth Fund	2.52%	3.54%	71.18%	(\$1M)
Ohman Emerging Markets	0.78%	0.97%	67.56%	\$0M
John Hancock Emerging Markets Equity Fund	0.99%	1.55%	63.64%	(\$7M)
Baillie Gifford Worldwide Funds Plc - Emer. Mkts. All Cap	0.56%	0.67%	62.31%	\$0M
AB FCP II - Emerging Market Value Portfolio	2.73%	4.41%	61.94%	(\$1M)
T Rowe Price Emerging Markets Discovery Stock Fund	1.69%	2.18%	59.40%	\$0M
Baillie Gifford Overseas Growth Funds ICVC - EM. Growth	0.58%	1.02%	57.11%	\$0M
Columbia Emerging Markets Fund	0.85%	1.51%	56.13%	(\$3M)
Putnam Emerging Markets Equity Fund	0.94%	1.74%	54.05%	(\$1M)
GS Funds - Emerging Markets Equity Portfolio	1.06%	2.10%	50.78%	(\$7M)

Ch. 4: Poland: Z-Score (\$) > 50% and selling between 9/30/2022 - 3/31/2023

Fund Name	Latest AUM, \$	Max AUM, \$	Z-Score	Fund Flows, \$
JNL Multi-Manager Emerging Markets Equity Fund	\$31M	\$31M	100.00%	(\$1M)
WCM Focused Emerging Markets Fund	\$43M	\$43M	99.18%	(\$4M)
T Rowe Price Emerging Markets Discovery Stock Fund	\$74M	\$77M	96.57%	\$0M
Grandeur Peak Emerging Markets Opportunities Fund	\$23M	\$25M	92.26%	\$0M
Ashmore Emerging Markets Equity Fund	\$3M	\$3M	89.73%	(\$1M)
JPMorgan Trust IV - Emerging Markets Research Enhanced Eq.	\$18M	\$23M	74.43%	\$0M
Thornburg Developing World Fund	\$27M	\$39M	69.17%	(\$1M)
AQR Emerging Multi-Style II Fund	\$8M	\$11M	68.90%	\$0M
Dodge & Cox Emerging Markets Stock Fund	\$1M	\$1M	68.27%	\$0M
Robeco QI Customized Emerging Markets Enhanced Index Eq. F.	\$15M	\$20M	64.82%	(\$2M)
Aviva Invs. - Global Emerging Markets Equity Unconstrained Fd.	\$2M	\$3M	64.23%	\$0M
William Blair Emerging Markets Small Cap Growth Fund	\$8M	\$13M	63.94%	(\$1M)
Northern Trust Invnt. Fds. Plc - EM Quality Low Carbon Fund	\$13M	\$18M	62.67%	(\$1M)
Sanford C Bernstein Fund - Emerging Markets Portfolio	\$22M	\$42M	52.60%	(\$1M)

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 iShares MSCI Emerging Markets 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 iShares MSCI Emerging Markets 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 iShares MSCI Emerging Markets 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 GEM 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 (384) in the analysis.

Average Weight vs EEM: The average weight minus the weight in the iShares MSCI Emerging Markets 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 (384) in the analysis.

Funds O/W: The total number of funds overweight a measure versus the EEM, divided by the total number of funds (384) in the analysis.

AUM, \$: The combined AUM allocated to a particular measure across the 384 active GEM funds in our analysis, in US Dollars



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