

FLOW OF FUNDS REPORT

TUYID Q4-2021



December 2021

Dear Readers,

We are happy to present the Flow of Funds Report for the final quarter of 2021. Our report offers a detailed insight into the institutional ownership by investment type and regions as well as top buyers and sellers in the Turkish market. We also provide key investor hubs for roadshows and trust the Report will be an important asset in IR planning and investor targeting.

After what was a tough three quarters for Turkey, the BIST 100 rebounded strongly to finish the quarter in positive territory. The BIST was up +25.8% for year at the end of Q4. After being a laggard behind its peer indices for the majority of the year, the BIST surged upwards in the final quarter of 2021 to finish top of the peer group. The Poland WIG20 was the worst performer over the year in review with a return of +14.3%. The Hungary BUX was up +20.5%, MSCI Europe +19.2%, MSCI EFM Europe Mid East Africa +18.6% with the Russian RTS just edging Poland as the second worst performer (+15.1%).

Net outflows were witnessed during the quarter with Russia experiencing the largest outflows. After receiving net inflows in Q321, this trend was reversed in Q4 with a decrease of above 10% coming from Russia. **Capital World Investors, Invesco Advisers, Inc. GQG Partners, LLC & Dodge & Cox** were amongst the investors driving the outflows in the region.

Active investors were bearish across all sectors within the Turkish Market with the Consumer Services sector being hit the hardest (-\$259M). Overall net outflows of -\$609M came from Active investors while Passive investors followed a similar trend (-\$573M). Passive outflows came primarily from the Basic Materials Sector (-\$616M).

The orientation remains skewed towards passive investors, with 61% of Turkish funds being held by passive investors. Index investors now rank as the largest investor in the Turkish market (previously Agg Gr/Growth) by investment style (\$2753M). Both **BlackRock Fund Advisors & The Vanguard Group, Inc.** contributed strongly to this shift toward passive ownership. Agg Gr/Growth investors were the biggest detractors for the quarter (-\$386M).

London remains the top invested city, despite outflows amounting to (-\$212M) which were mainly attributable to the selling activity of **J.P. Morgan Asset Management (UK), LTD**. Istanbul jumps a rank (previously 5th) based on value invested.

In terms of numbers of investors per city, London remains unchanged and continues to lead the ranking with 68 investors, followed by New York (35) and Boston (12).

This Report is prepared quarterly by IHS Markit, in cooperation with TÜYİD, using IHS Markit's database. We look forward to any feedback you may have.

IHS Markit
Director, Shareholder Intelligence EMEA
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Aslı Selçuk

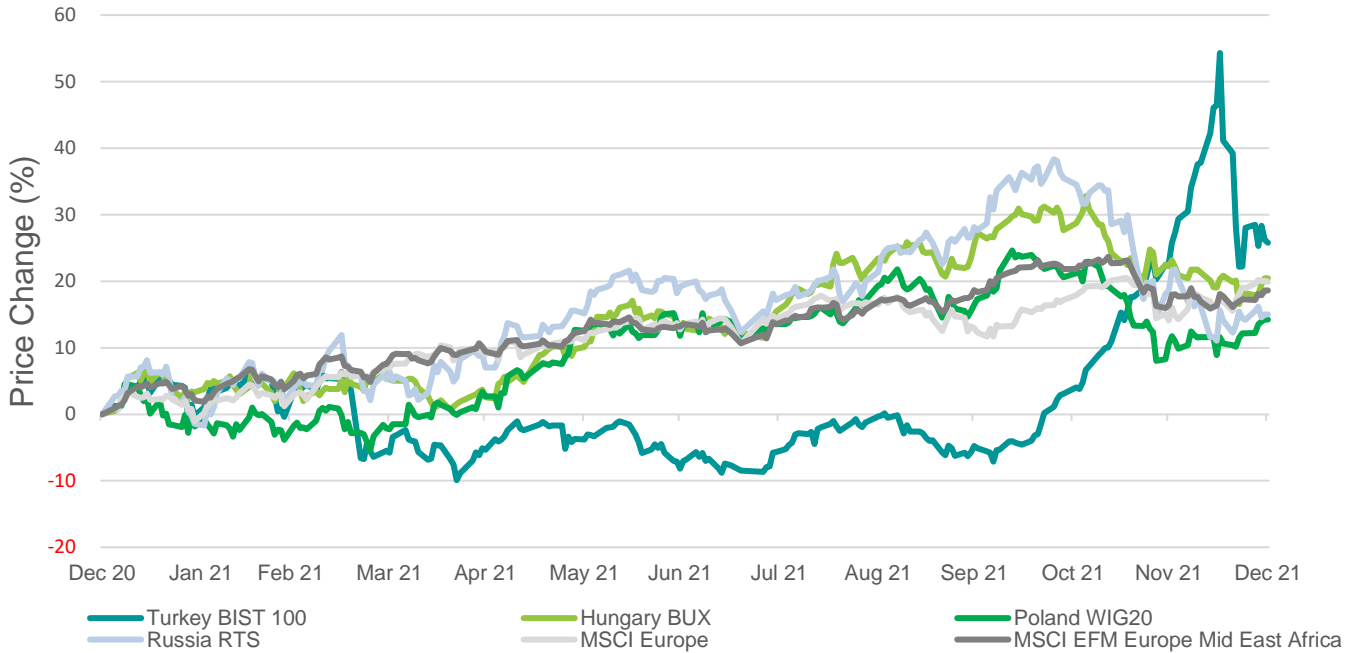
Acknowledgements: We express our gratitude to the IHS Markit Issuer Solutions team and the TÜYİD Turkish IR Society.

Disclaimer: The evaluations and the information in the Report, where you can find significant statistics about the stock exchange, are prepared based on IHS Markit's database. Investment information, comment and advices are not in the enclosure of investment consultancy and do not comprise information for buying and selling decisions in the capital markets. The data and the information in the Report cannot be guaranteed to be correct; the content can be changed without announcing. All the data are taken from the sources thought to be reliable. The data used in this report is sourced from publicly disclosed portfolios/information and due to the reporting periods, there may be discrepancies (data sources used in this report include, but are not limited to, FactSet, Morningstar, SEC filings (13Fs etc.) and news sources). IHS Markit and TÜYİD cannot be taken responsible for the problems that might emerge out of using these sources.



Price performance:

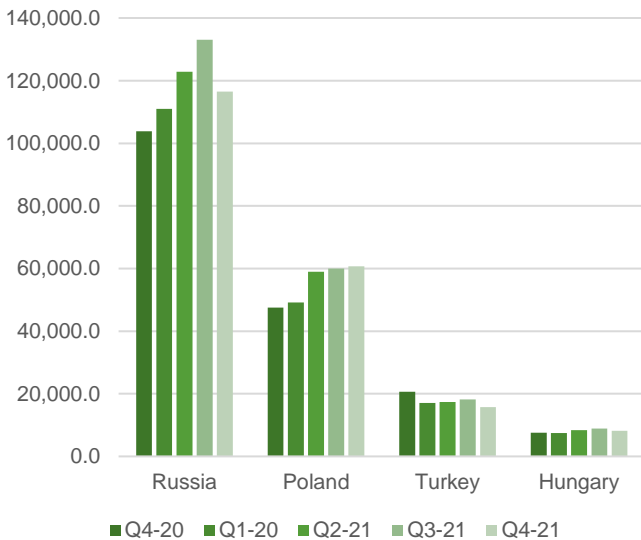
After what was a tough three quarters for Turkey, the BIST 100 rebounded strongly to finish the quarter in positive territory. The BIST was up +25.8% for year at the end of Q4. After being a laggard behind its peer indices for the majority of the year, the BIST surged upwards in the final quarter of 2021 to finish top of the peer group. The Poland WIG20 was the worst performer over the year in review with a return of +14.3%. The Hungary BUX was up +20.5%, MSCI Europe +19.2%, MSCI EFM Europe Mid East Africa +18.6% with the Russian RTS just edging Poland as the second worst performer (+15.1%).



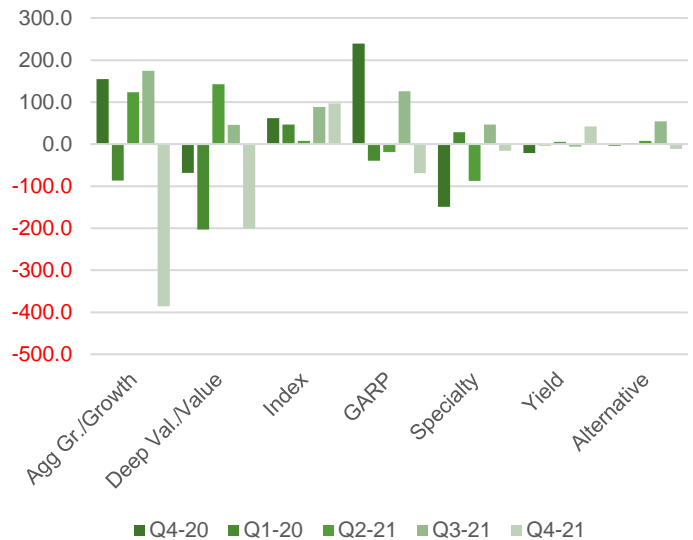
Inflows and Outflows:

Net outflows were witnessed during the quarter with Russia experiencing the largest outflows. After receiving net inflows in Q321, this trend was reversed in Q4 with a decrease of above 10% coming from Russia. **Capital World Investors, Invesco Advisers, Inc. GQG Partners, LLC & Dodge & Cox** were amongst the investors driving the outflows in the region.

Institutional Investment in Region (\$M)



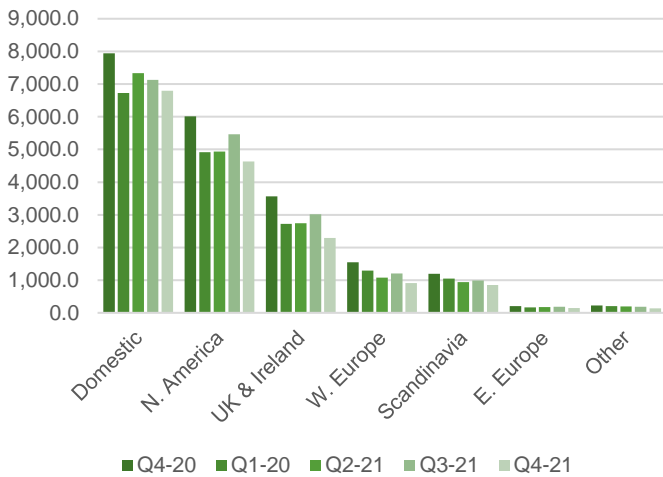
Institutional Investment by Style (\$M Chg)



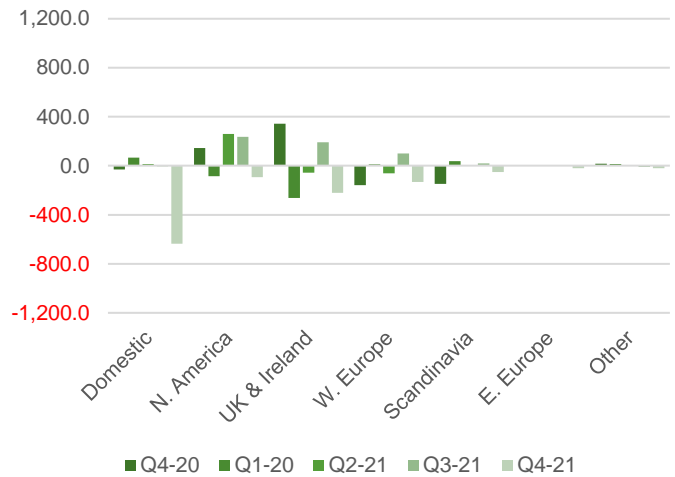
Investment by Investor Region:

The net outflows in the Turkish market are broken down by geographic regions below and were driven primarily by Domestic investors (-\$636M) and UK & Ireland investors (-\$220M). **Azimet Portfoy Yonetimi A.S.** was the largest seller in the former and **J.P. Morgan Asset Management (UK), LTD**, was the largest seller in the latter. Overall net outflows were witnessed across all regions, amounting to (-\$1171M).

Institutional Investment by Region (\$M)



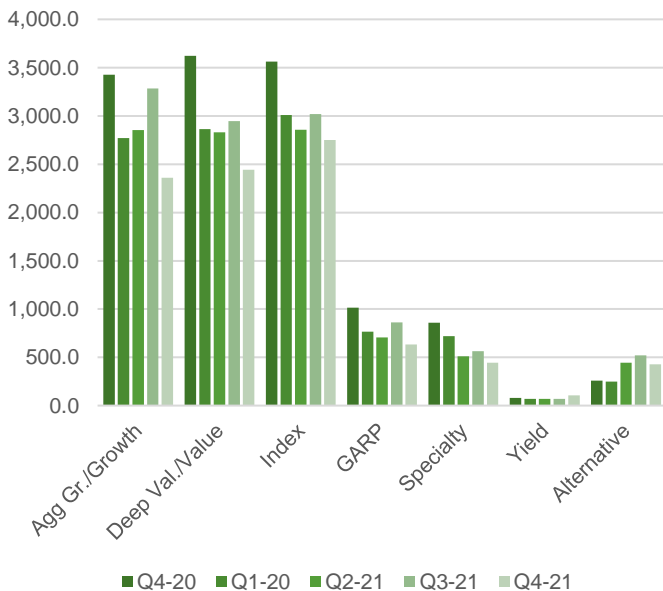
Institutional Investment by Region (\$M Chg)



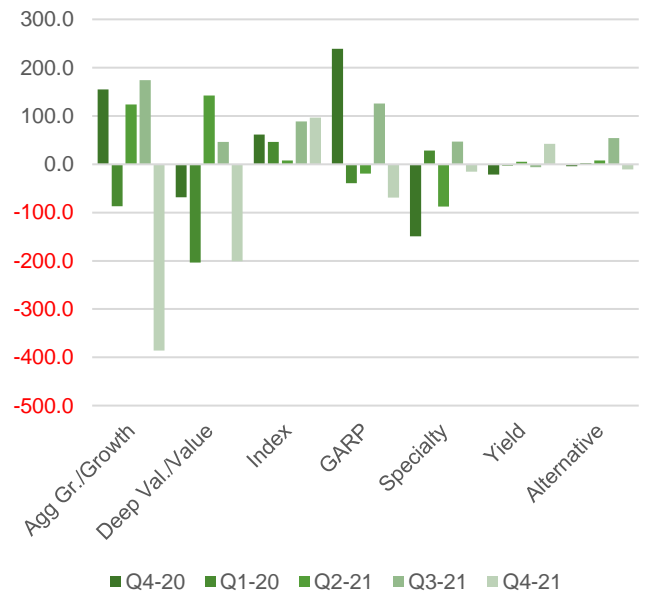
Investment by Style:

Index and Yield investors were the only two groups to contribute to inflows, with all other investment styles detracting. Index investors now rank as the largest investor in the Turkish market (previously Agg Gr/Growth) by investment style (\$2753M). Both **BlackRock Fund Advisors & The Vanguard Group, Inc.** contributed strongly to this shift toward passive ownership.

Institutional Investment by Style (\$M)



Institutional Investment by Style (\$M Chg)





Top Active Holders, Buyers & Sellers

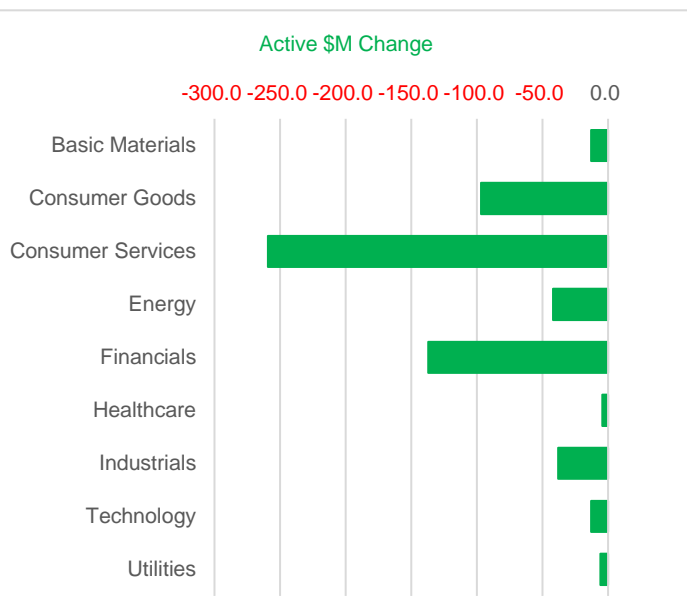
TOP HOLDERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg	
Norges Bank Investment Management (Norway)	Norway	Value	Low	958,569.9	567.5	0.0	0.1	0.0	
Schroder Investment Management, LTD	United Kingdom	GARP	Medium	168,360.2	278.3	40.8	0.2	17.2	
Invesco Advisers, Inc.	United States	Grow th	Low	333,726.7	174.9	-2.9	0.1	-1.6	
Helikon Investments, LTD (United Kingdom)	United Kingdom	Alternative	Medium	734.9	172.6	0.0	23.5	0.0	
California Public Employees Retirement System	United States	Grow th	Low	154,771.1	169.7	0.0	0.1	0.0	
APG Asset Management N.V.	Netherlands	Specialty	Low	179,850.4	168.5	0.0	0.1	0.0	
Sicchester International Investors, LLP	United Kingdom	Value	Low	22,503.3	154.0	0.0	0.7	0.0	
RBC Global Asset Management (UK), LTD	United Kingdom	Grow th	Low	60,933.4	132.9	-0.7	0.2	-0.5	
Ninety One UK, LTD	United Kingdom	Grow th	Low	64,998.4	109.8	-6.2	0.2	-5.3	
Mellon Investments Corporation	United States	Yield	Low	253,602.1	101.3	42.6	0.0	72.6	
					2,029.7	73.6			

TOP BUYERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg	
Mellon Investments Corporation	United States	Yield	Low	253,602.1	101.3	42.6	0.0	72.6	
Schroder Investment Management, LTD	United Kingdom	GARP	Medium	168,360.2	278.3	40.8	0.2	17.2	
Must Asset Management, Inc.	South Korea	Alternative	Very High	308.5	15.2	13.4	4.9	751.3	
BlackRock Investment Management (U.K.), LTD	United Kingdom	Grow th	Low	841,304.3	74.9	12.9	0.0	20.9	
Hosking Partners, LLP	United Kingdom	Value	Low	5,284.8	18.8	9.2	0.4	97.1	
American Century Investment Management, Inc.	United States	Grow th	Medium	178,050.9	38.6	9.1	0.0	30.7	
MFS Investment Management	United States	Value	Low	417,161.7	71.6	7.9	0.0	12.5	
Raiffeisen Kapitalanlagegesellschaft mbH	Austria	GARP	Medium	9,877.9	39.3	6.9	0.4	21.4	
Brandes Investment Partners, L.P.	United States	Deep Value	Low	10,300.1	11.7	5.7	0.1	95.3	
Perea Capital, LLC	United States	Alternative	Unknow n	22.1	16.1	3.5	72.6	28.3	
					665.7	152.2			

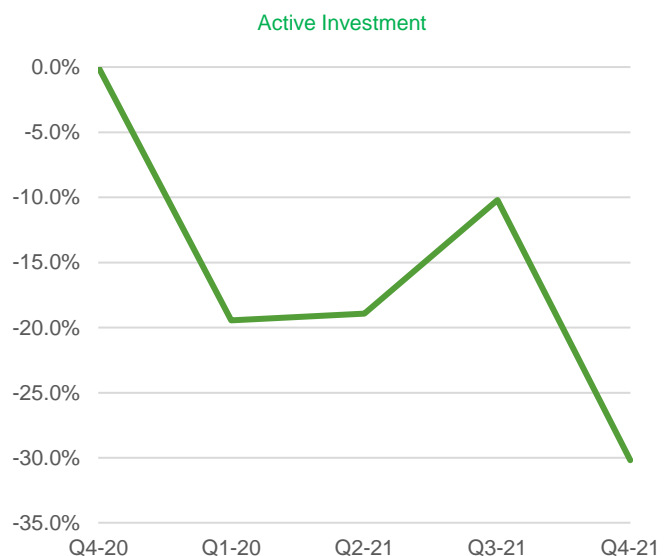
TOP SELLERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg	
J.P. Morgan Asset Management (UK), LTD	United Kingdom	Grow th	Low	143,559.7	79.2	-76.1	0.1	-49.0	
Hermes Investment Management, LTD	United Kingdom	GARP	Low	27,711.4	3.6	-56.4	0.0	-94.0	
Robeco Institutional Asset Management BV	Netherlands	Value	Medium	73,464.2	76.7	-50.1	0.1	-39.5	
GQG Partners, LLC	United States	Value	High	67,672.2	98.7	-44.0	0.1	-30.8	
Goldman Sachs Asset Management International	United Kingdom	Grow th	High	27,154.2	27.0	-36.6	0.1	-57.5	
TIAA-CREF Investment Management, LLC	United States	Grow th	Low	405,514.4	66.7	-32.7	0.0	-32.9	
Wellington Management Company, LLP	United States	Value	Low	694,726.1	44.6	-25.9	0.0	-36.7	
RWC Asset Advisors (US), LLC	United States	Alternative	High	2,987.8	10.2	-22.1	0.3	-68.4	
Driehaus Capital Management, LLC	United States	Agg. Grow th	Very High	13,459.6	0.0	-21.9	0.0	-100.0	
Fiera Capital (UK), LTD	United Kingdom	Grow th	Medium	2,494.7	0.5	-20.8	0.0	-97.6	
					407.3	-386.5			

Includes Investors with EUM greater than \$100M; Excludes Passive/Index Investors

Sector Inflows/Outflows



% Change in Active Investment vs 5 Previous Quarters





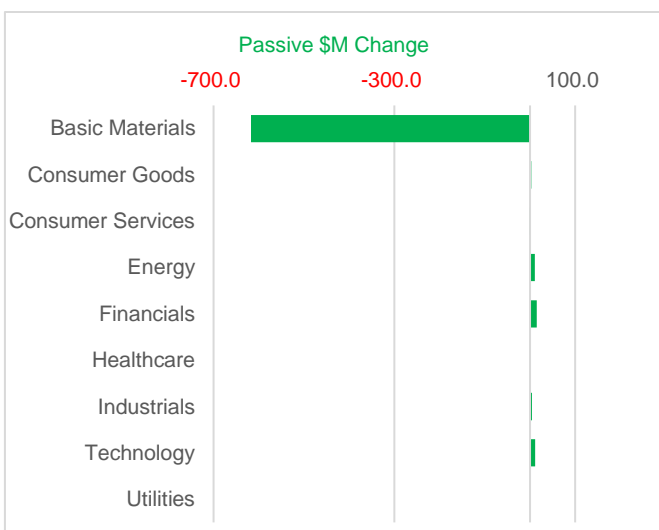
Top Passive Holders, Buyers & Sellers

TOP HOLDERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
The Vanguard Group, Inc.	United States	Index	Low	5,197,677.4	1,115.9	39.7	0.0	3.7
BlackRock Fund Advisors	United States	Index	Low	3,226,731.5	715.3	51.6	0.0	7.8
BlackRock Advisors (U.K.), LTD	United Kingdom	Index	Low	240,151.3	243.5	2.2	0.1	0.9
Acadian Asset Management, LLC	United States	Deep Value	Medium	40,986.1	104.2	-6.3	0.3	-5.7
Charles Schwab Investment Management, Inc.	United States	Index	Low	405,835.7	104.0	2.5	0.0	2.4
Van Eck Associates Corporation	United States	Index	Low	56,274.2	84.2	-9.7	0.1	-10.3
State Street Global Advisors (SSgA)	United States	Index	Low	2,195,953.5	79.8	-5.3	0.0	-6.2
Geode Capital Management, LLC	United States	Index	Low	960,345.6	69.5	4.4	0.0	6.8
Dimensional Fund Advisors, L.P. (U.S.)	United States	Value	Low	394,052.6	67.0	2.7	0.0	4.3
Parametric Portfolio Associates, LLC	United States	GARP	Low	198,122.2	55.2	-3.9	0.0	-6.6
				2,638.7	78.1			

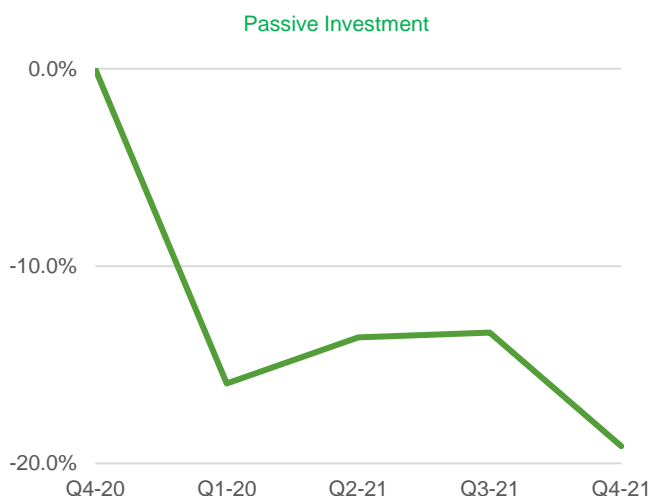
TOP BUYERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
BlackRock Fund Advisors	United States	Index	Low	3,226,731.5	715.3	51.6	0.0	7.8
The Vanguard Group, Inc.	United States	Index	Low	5,197,677.4	1,115.9	39.7	0.0	3.7
Global X Management Company, LLC	United States	Index	Medium	42,270.0	10.0	7.2	0.0	258.6
Geode Capital Management, LLC	United States	Index	Low	960,345.6	69.5	4.4	0.0	6.8
ALPS Advisors, Inc.	United States	Index	Low	9,540.4	4.5	4.0	0.0	859.2
Legal & General Investment Management, LTD	United Kingdom	Index	Low	420,615.9	30.5	3.5	0.0	13.2
Dimensional Fund Advisors, L.P. (U.S.)	United States	Value	Low	394,052.6	67.0	2.7	0.0	4.3
Invesco Capital Management, LLC	United States	Index	Low	331,716.8	24.8	2.6	0.0	11.9
Charles Schwab Investment Management, Inc.	United States	Index	Low	405,835.7	104.0	2.5	0.0	2.4
BlackRock Advisors (U.K.), LTD	United Kingdom	Index	Low	240,151.3	243.5	2.2	0.1	0.9
				2,385.0	120.6			

TOP SELLERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
TOBAM	France	Specialty	Medium	4,597.5	1.0	-12.3	0.0	-92.7
Quoniam Asset Management GmbH	Germany	Value	High	7,220.3	0.6	-11.1	0.0	-94.8
Van Eck Associates Corporation	United States	Index	Low	56,274.2	84.2	-9.7	0.1	-10.3
Acadian Asset Management, LLC	United States	Deep Value	Medium	40,986.1	104.2	-6.3	0.3	-5.7
State Street Global Advisors (SSgA)	United States	Index	Low	2,195,953.5	79.8	-5.3	0.0	-6.2
Research Affiliates, LLC	United States	Index	Medium	2,620.0	18.1	-5.1	0.7	-22.0
Parametric Portfolio Associates, LLC	United States	GARP	Low	198,122.2	55.2	-3.9	0.0	-6.6
Alberta Investment Management Corporation	Canada	Value	High	17,510.4	0.0	-3.9	0.0	-100.0
First Trust Advisors, L.P.	United States	Index	Medium	109,520.5	26.9	-3.4	0.0	-11.3
State Street Global Advisors France S.A.	France	Index	Low	11,267.7	15.3	-1.6	0.1	-9.4

Sector Inflows/Outflows



% Change in Passive Investment vs 5 Previous Quarters





Road show:

London remains the top invested city, despite outflows amounting to (-\$212M) which were mainly attributable to the selling activity of **J.P. Morgan Asset Management (UK), LTD.** Istanbul jumps a rank (previously 5th) based on value invested.

In terms of numbers of investors per city, London remains unchanged and continues to lead the ranking with 68 investors, followed by New York (35) and Boston (12).

Most Invested

Country / City	Total Equity Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms
United Kingdom (London)	2,515,355.7	1,804.7	-212.3	68
Norway (Oslo)	1,014,921.8	574.6	0.6	3
United States (Boston)	3,527,355.8	403.4	18.5	12
Turkey (Istanbul)	374.2	325.1	-2.4	8
United States (New York)	3,296,511.1	272.0	-46.2	35
United States (Atlanta)	351,918.6	179.5	-2.9	2
Netherlands (Amsterdam)	183,718.2	170.2	-0.1	4
United States (Sacramento)	154,771.1	169.7	0.0	1
Germany (Stuttgart)	6,268.2	166.8	0.0	1
Sweden (Stockholm)	371,023.6	125.4	-20.5	8
United States (Los Angeles)	640,094.3	107.5	-6.2	4
United States (Fort Lauderdale)	75,400.1	99.1	-44.0	3
Netherlands (Rotterdam)	94,271.0	80.2	-49.7	2
Canada (Montreal)	111,737.2	78.8	0.2	3
Austria (Vienna)	21,496.8	77.6	2.5	5
Germany (Frankfurt)	461,186.8	77.0	-23.5	7
Denmark (Copenhagen)	139,995.2	76.3	-0.3	4
United States (San Antonio)	119,663.2	75.2	-10.0	2
Netherlands (The Hague)	11,726.5	60.3	-3.8	1
Poland (Warsaw)	19,564.7	58.9	-12.4	10
Excludes Passive/Index Investors		4,982.2	-412.5	183

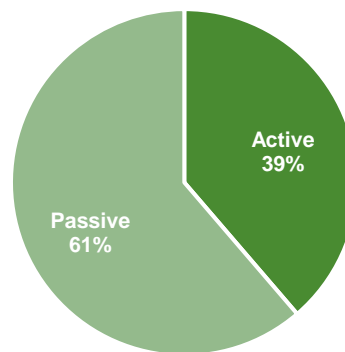
Most Investors

Country / City	Total Equity Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms
United Kingdom (London)	2,515,355.7	1,804.7	-212.3	68
United States (New York)	3,296,511.1	272.0	-46.2	35
United States (Boston)	3,527,355.8	403.4	18.5	12
Switzerland (Zürich)	573,057.0	58.8	-0.7	11
South Korea (Seoul)	53,316.3	17.0	12.2	11
Poland (Warsaw)	19,564.7	58.9	-12.4	10
Finland (Helsinki)	34,221.7	36.3	-12.2	10
Japan (Tokyo)	1,039,846.6	30.0	-0.1	10
United States (Chicago)	337,616.0	20.6	-0.9	9
Turkey (Istanbul)	374.2	325.1	-2.4	8
Sweden (Stockholm)	371,023.6	125.4	-20.5	8
Singapore (Singapore)	59,997.8	32.4	-9.0	8
Ireland (Dublin)	65,382.4	31.3	-0.6	8
Canada (Toronto)	472,405.7	12.5	-7.5	8
Germany (Frankfurt)	461,186.8	77.0	-23.5	7
France (Paris)	305,947.2	42.8	1.7	7
Switzerland (Geneva)	8,480.8	16.6	-0.2	6
South Africa (Cape Town)	22,579.4	8.4	-9.9	6
Austria (Vienna)	21,496.8	77.6	2.5	5
Taiwan (Taipei)	3,721.4	5.2	0.0	5
Excludes Passive/Index Investors		3,456.0	-323.5	252

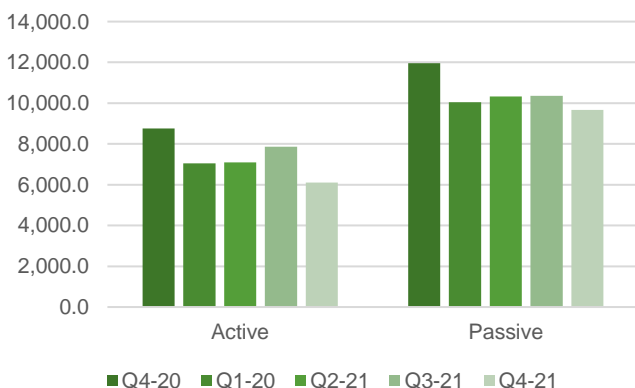
Active vs. Passive investors

Orientation shifted slightly towards passive ownership (+1%). Both Active and Passive investors contributed to outflows.

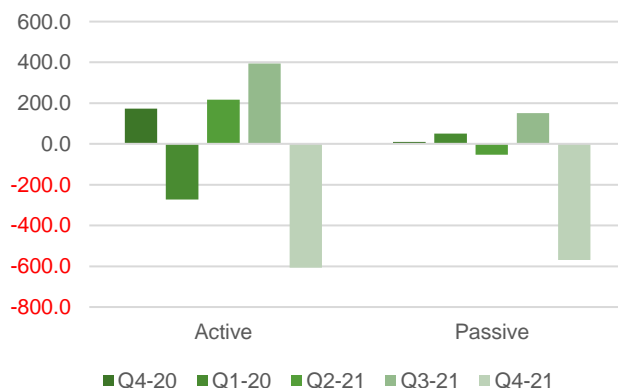
Active vs Passive Split



Active vs Passive (\$M)



Active vs Passive (\$M Chg)





Top Holders, Buyers & Sellers – Corporate Debt

TOP HOLDERS	Country	City	Turnover	FI Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	Portfolio Chg %
Amundi (U.K.), LTD	United Kingdom	London	High	24,992.2	356.8	21.1	1.4	6.3
Goldman Sachs Asset Management International	United Kingdom	London	Very High	114,515.9	321.4	-4.4	0.3	-1.4
TIAA-CREF Investment Management, LLC	United States	New York	Very High	319,195.0	200.3	-0.7	0.1	-0.3
Lord, Abbett & Co., LLC (Asset Management)	United States	Jersey City	High	175,286.4	195.0	-13.8	0.1	-6.6
Ninety One UK, LTD	United Kingdom	London	Medium	14,930.4	193.7	-17.8	1.3	-8.4
Pictet Asset Management, LTD	United Kingdom	London	Medium	9,702.7	166.1	-72.6	1.7	-30.4
Union Investment Privatfonds GmbH	Germany	Frankfurt	Low	54,470.3	124.6	-16.8	0.2	-11.9
Neuberger Berman Europe, LTD (Netherlands)	Netherlands	The Hague	Medium	8,667.4	112.2	-8.3	1.3	-6.9
Eurizon Capital SGR S.p.A.	Italy	Milan	High	59,665.8	105.4	-3.0	0.2	-2.7
AIG Asset Management (U.S.), LLC	United States	New York	Low	184,450.3	102.6	0.0	0.1	0.0
				1,878.1	-116.2			

TOP BUYERS	Country	City	Turnover	FI Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	Portfolio Chg %
Dimensional Fund Advisors, L.P. (U.S.)	United States	Austin	Medium	106,941.3	100.2	100.2	0.1	Buy-in
Amundi (U.K.), LTD	United Kingdom	London	High	24,992.2	356.8	21.1	1.4	6.3
Fidelity Management & Research Company, LLC	United States	Boston	High	993,524.6	26.6	15.3	0.0	136.7
Eaton Vance Management	United States	Boston	Medium	108,623.3	50.1	15.1	0.0	43.0
Legal & General Investment Management, LTD	United Kingdom	London	Medium	90,814.3	50.0	12.0	0.1	31.6
Azimet Portfoy Yonetimi A.S.	Turkey	Istanbul	Very High	30.9	21.9	10.1	70.8	85.5
Bank J. Safra Sarasin AG	Switzerland	Zürich	Medium	2,098.1	15.3	9.1	0.7	145.4
City National Rochdale, LLC	United States	New York	Medium	9,875.5	35.0	5.4	0.4	18.1
Anaxis Asset Management	France	Paris	Medium	563.5	6.4	4.2	1.1	199.1
TFIBGZ BNP Paribas S.A.	Poland	Warsaw	Medium	1,240.7	3.6	3.6	0.3	Buy-in
				665.8	196.1			

TOP SELLERS	Country	City	Turnover	FI Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	Portfolio Chg %
Pictet Asset Management, LTD	United Kingdom	London	Medium	9,702.7	166.1	-72.6	1.7	-30.4
Candriam (London)	United Kingdom	London	Very High	1,270.7	0.0	-46.6	0.0	-100.0
Ashmore Investment Management, LTD	United Kingdom	London	Medium	15,457.7	43.8	-42.5	0.3	-49.3
TCW Investment Management Company, LLC	United States	Los Angeles	Very High	136,836.9	10.3	-40.6	0.0	-79.8
Edmond de Rothschild (Suisse) S.A.	Switzerland	Geneva	Medium	1,051.3	53.3	-36.0	5.1	-40.3
T. Rowe Price Associates, Inc.	United States	Baltimore	Low	196,387.1	21.6	-33.0	0.0	-60.5
Franklin Advisers, Inc.	United States	San Mateo	Very High	193,770.1	5.1	-29.2	0.0	-85.1
MainFirst Affiliated Fund Managers (Switzerland) AG	Switzerland	Zürich	Very High	596.1	18.0	-27.9	3.0	-60.8
AcomeA SGR S.p.A.	Italy	Milan	High	2,420.8	46.8	-27.0	1.9	-36.6
BlueBay Asset Management, LLP	United Kingdom	London	Very High	32,067.5	46.1	-24.2	0.1	-34.4
				411.0	-379.7			

Corporate Debt – City Analysis

Most Invested					Most Investors					
Country / City	Total FI Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms	Country / City	Total FI Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms	
United Kingdom (London)	1,202,764.7	1,726.1	-265.0	42	United Kingdom (London)	1,202,764.7	1,726.1	-265.0	42	
United States (New York)	2,522,776.6	654.8	-32.4	27	United States (New York)	2,522,776.6	654.8	-32.4	27	
Switzerland (Zürich)	320,514.8	285.4	-36.7	17	Switzerland (Zürich)	320,514.8	285.4	-36.7	17	
Germany (Frankfurt)	241,448.1	271.0	-25.6	11	Spain (Madrid)	66,404.9	13.8	-0.9	15	
United States (Boston)	1,765,037.7	256.9	-23.7	9	France (Paris)	318,470.8	143.3	-18.2	14	
Italy (Milan)	116,242.0	237.2	-31.5	11	Germany (Frankfurt)	241,448.1	271.0	-25.6	11	
United States (Jersey City)	175,286.4	195.0	-13.8	1	Italy (Milan)	116,242.0	237.2	-31.5	11	
France (Paris)	318,470.8	143.3	-18.2	14	Singapore (Singapore)	39,577.7	103.3	-2.2	10	
Netherlands (The Hague)	8,667.4	112.2	-8.3	1	United States (Boston)	1,765,037.7	256.9	-23.7	9	
Singapore (Singapore)	39,577.7	103.3	-2.2	10	Switzerland (Geneva)	31,357.1	74.1	-40.6	8	
United States (Austin)	106,941.3	100.2	100.2	1	Luxembourg (Luxembourg)	13,038.7	35.0	-9.1	8	
United States (Charlotte)	177,272.5	86.1	0.0	2	Austria (Vienna)	29,979.7	29.6	-9.7	8	
Switzerland (Geneva)	31,357.1	74.1	-40.6	8	Switzerland (Lugano)	3,697.0	47.7	-0.2	7	
Poland (Warsaw)	7,632.5	71.3	6.0	5	United States (Chicago)	198,659.9	56.3	3.1	6	
United States (Chicago)	198,659.9	56.3	3.1	6	Poland (Warsaw)	7,632.5	71.3	6.0	5	
United States (San Francisco)	620,044.2	55.7	-1.2	3	Germany (Munich)	30,296.2	31.8	-0.1	5	
Spain (Barcelona)	3,424.4	54.5	2.4	3	Ireland (Dublin)	29,905.8	28.5	-0.9	4	
United States (New port Beach)	969,290.5	49.3	0.0	2	Canada (Toronto)	71,025.8	19.1	-1.4	4	
United States (Whippany)	365,712.5	48.3	-2.8	1	Finland (Helsinki)	18,227.2	14.6	1.3	4	
United States (Bloomfield)	6,493.2	47.9	0.0	1	Japan (Tokyo)	16,648.9	11.4	-0.7	4	
				4,629.0	-390.3	175				
							4,111.4	-488.6	219	



GLOSSARY

Institutional Investment Styles

Aggressive Growth – Investors in this category invest in companies that have very high revenue, EPS growth rates and multiples relative to the overall market. These companies usually do not pay any dividends and are at the early stages of growth. Aggressive Growth investors exhibit a higher portfolio turnover than other styles of investors.

Alternative – Primarily used to classify hedge funds that use various strategies that fall outside the traditional investment strategies that can be categorized as the above. A catch-all for lightly regulated investment vehicles that have the ability to "go-anywhere" and invest long or short in any type of security – equity, debt, commodity, options, currency, etc. Hedge funds seek to earn above market returns for their clients while at the same time controlling risk factors. Hedge funds have grown in prominence over the years as their returns net of fees (typically 2% management, 20% incentive) have outperformed mutual fund and pension managers performance. Recently, many hedge funds have gained notoriety as "activists" demanding change (leadership or strategic) at companies in North America, Europe and Asia.

Asset Allocation – Asset allocation managers allocate their investments among stocks, bonds, and cash equivalents, among others. It is primarily dictated by the various needs of clients and used by many smaller firms and banks.

Deep Value – Investors in this category employ an extreme style of value investing where they invest in companies with very low valuations versus their own historic valuation, and in relation to the overall market. Usually the companies or the industries they are in have been out of favour in the marketplace for an extended period of time.

GARP – These institutions seek to add growth stocks to their portfolios, but will not pay a premium price to obtain the securities. Thus, investors of this type are categorized as GARP, or "growth at a reasonable price," investors. Investors utilizing this investment approach will use methodologies and indicators favoured by both growth and value investors, but neither of the aforementioned styles dominates the process.

Growth – These institutions place the greatest emphasis in their selection process on the growth prospects of a company's earnings. Growth investors prefer companies where bottom line growth will average at least 15% annually and are willing to pay above market average multiples for a stock. At the first sign of an earnings slow-down, however, growth investors are often the quickest to sell.

Index – These institutions strive to match the performance of an equity index such as the MSCI EAFE Index or the S&P 500 Index, while at the same time keeping trading costs at a minimum. An institution accomplishes this by holding the stocks that comprise the index in its portfolio at the same proportion as the index. Indexing is a passive style of investing; stocks are bought and sold based upon their inclusion in an index and not on their fundamentals. Please note, index investors are not familiar with the companies in which they have made investments and are therefore considered investor relations immune.

Other – This style is applied to companies that are not investment firms, such as public companies.

Private Equity – This style is applied to firms that are private equity investors and their public equity holdings are the result of pre-IPO holdings.

Specialty – Applied to firms with investment strategies that cannot be categorized due to the specific nature of their focus. Industry or sector specific focus is the most common example of a Specialty investor.

Value – Value-oriented institutions prefer stocks that are trading at undervalued levels relative to some valuation such as a stock's intrinsic value or a company's free cash flow. Value investors tend to have longer-term investment horizons than their growth counterparts as they wait for the convergence of value and price.

Venture Capital – This style is applied to firms that are venture capital investors and their public equity holdings are the result of pre-IPO holdings.

Yield – Yield investors are sensitive to a high dividend yield and invest in companies with yield levels very high compared to the market yield, and have a history of paying and increasing dividends over time.

Orientation

Active – Indicates that the final investment decision making process at an institution is enacted by a portfolio manager or analyst. While computer screening models may be used in the investment process they are not utilized to make the final investment decision.

Passive – This category primarily captures index and quantitative investors. These investors utilize computer models to define an investable universe and make final portfolio decisions. Investor relations officers cannot influence these investment decisions.



GLOSSARY

Turnover

Portfolio Equity Turnover is the measure of how frequently a portfolio buys or sells securities over a 12 month period. It is calculated as the sum of the dollar values of buys and sells over a given period, divided by the sum of the beginning and ending equity assets over the same period, reported as an annualized percentage.

A portfolio with a turnover rate of 100% replaces its entire portfolio throughout the course of a 12-month period, whereas, a portfolio with a turnover rate of 50% replaces half of its holdings during the same time.

- Low Turnover (0-33.3% per year)
- Medium Turnover (33.3 -66.6% per year)
- High Turnover (66.6-100% per year)
- Very High Turnover (Over 100% per year)

Equity Assets (\$M) – The market value of all current publicly disclosed ownership of equity securities held by an account/institution as identified by IHS Markit, expressed in millions of USD.

Value (\$M) – Total value invested in a company/country/region by an institution

Equation: $(\sum \text{All Shares Held Owned Over Period} \times \text{End-of-Period Security Price})$

Change (\$M) - Measures the actual buying/selling activity of institutions (excluding changes in the price of the underlying security). Throughout the report, Net Buy/Sell Activity may be displayed as a value or on a percent change .

Equation: $[(\sum \text{All Shares Bought Over Period} \times \text{End-of-Period Security Price}) - (\sum \text{All Shares Sold Over Period} \times \text{End-of-Period Security Price})]$

% Portfolio - The % of a Buy side institution's position in a company/country/region based on an institution's total portfolio value (Equity Assets (\$M)).

% Portfolio Change – The % change of the institution in the company/country/region

Equation: $[(\sum \text{Value} (\$M)) / ((\sum \text{Value} (\$M)) - (\sum \text{Change} (\$M)) \times 100)]$

IHS Markit's institutional ownership data is based on publicly-disclosed information, collected from such sources as regulatory ownership filings (including SEC forms 13F/D/G), disclosures made by mutual funds / pension funds to their beneficiaries, registration statements, news releases, and other sources. It should be noted that regulatory filings and other ownership sources vary widely country-by-country as to their completeness and timeliness. When an institutional investor's complete ownership is not disclosed by requirement, IHS Markit aggregates and sums the publicly-filed portfolio information from the investor to arrive at a disclosed total equity figure. Data for the beginning and end of Q1-2021 can be considered a snapshot of the most current positions.