

FLOW OF FUNDS REPORT

TUYID Q3-2021

September 2021

Dear Readers,

We are happy to present the Flow of Funds Report for the third 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.

The BIST 100 index saw a (+2.9%) return during the third quarter of 2021, after a decline of -2.5% in the prior quarter, thus eliminating some of the negative performance. The BIST 100 ended in positive territory, yielding a return of (+23.0%) on an annual basis. The strongest performing index on an annual basis was the Hungary BUX returning (+57.0%), followed by Russia RTS, (+51.4%), Poland WIG20 (+36.4%), MSCI EFM Europe Mid East Africa (+29.7%), MSCI Europe (+23,8%). As witnessed in the previous report, Turkey was once again the weakest performer of the group.

Net inflows were relatively flat across all regions apart from Russia which received a 7.8% increase in flows when compared to Q221. These inflows were driven primarily by GQG Partners, LLC, Invesco Advisers, Inc as well as ETF managers The Vanguard Group, Inc. and BlackRock Fund Advisors.

The Financials sector was the most sold amongst active investors, who in turn preferred the Consumer Services and to a lesser extent the Energy sector. Amongst the passive investors, all sectors received inflows, with Financials and Consumer Services sectors receiving the bulk of the inflows.

The orientation remains skewed towards passive investors, with 60% of Turkish funds being held by passive investors. Aggressive Growth/Growth investors drove inflows for the quarter with London based Genesis Investment Management being the primary contributor. For the third quarter of 2021, Growth-orientated investors remain the most prominent in the Turkish market, led by above mentioned Genesis Investment Management, who accounted for (\$132M). Index investors retain the second position, with The Vanguard Group once again being the largest index holder.

London remains the top invested city, with inflows amounting to (+\$228M) which is mainly attributable to the buying activity of Genesis Investment Management. Istanbul remained ranked fifth based on value invested, with a net increase of (+\$13.2M). Atlanta was the top detractor (-\$95.4M) driven by Invesco Advisers, Inc.

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

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Chairperson
Aslı Selçuk

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

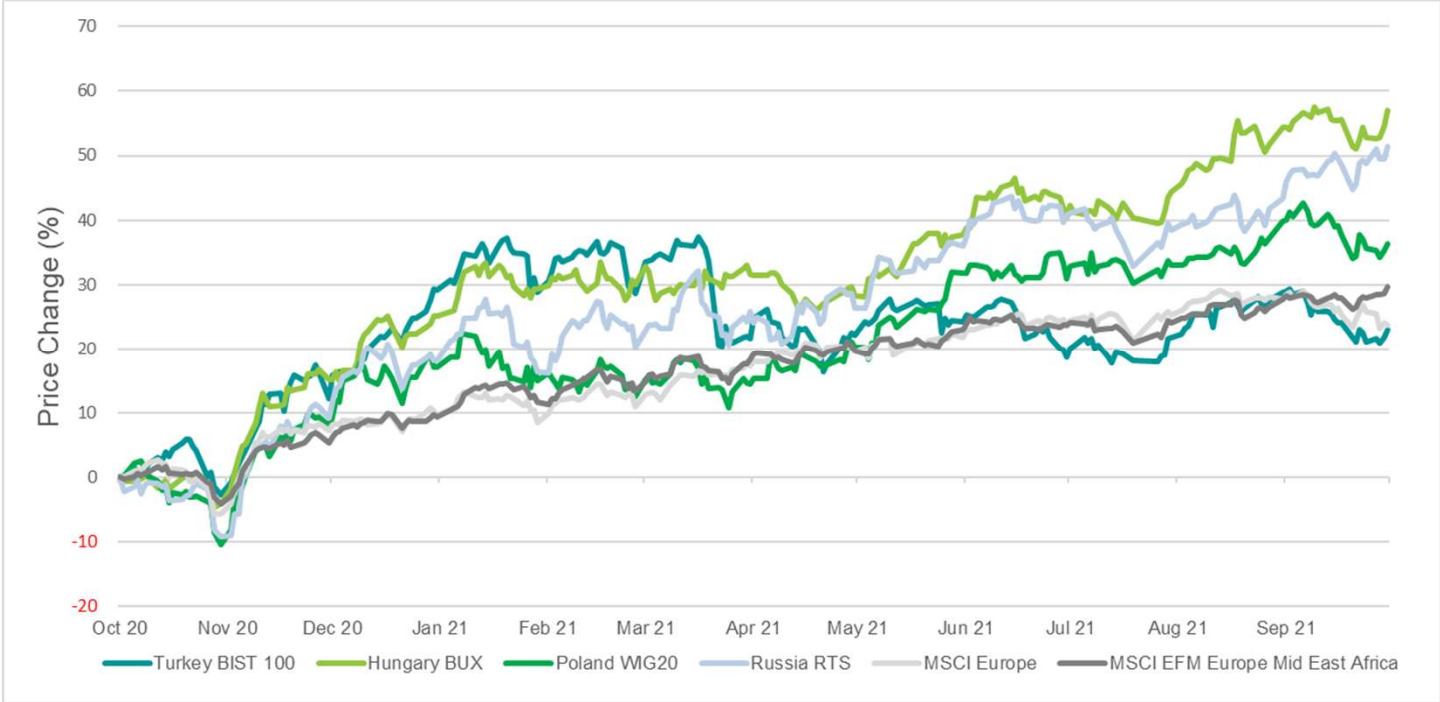
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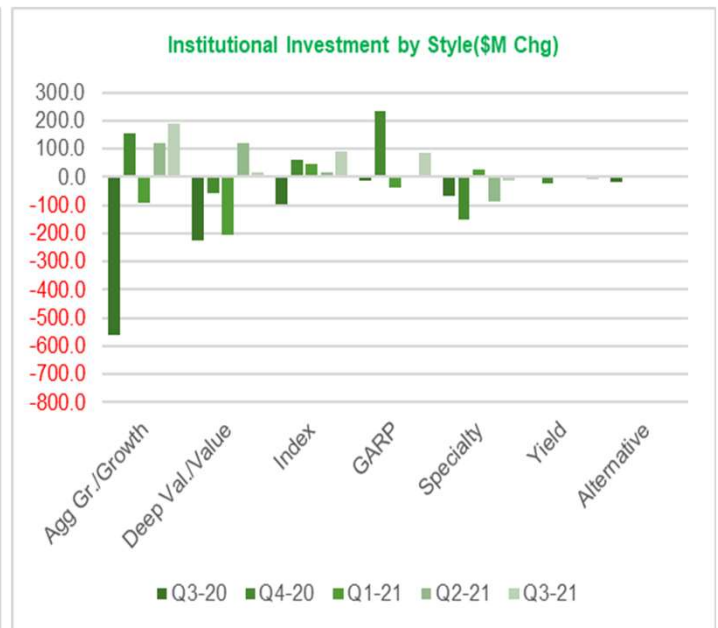
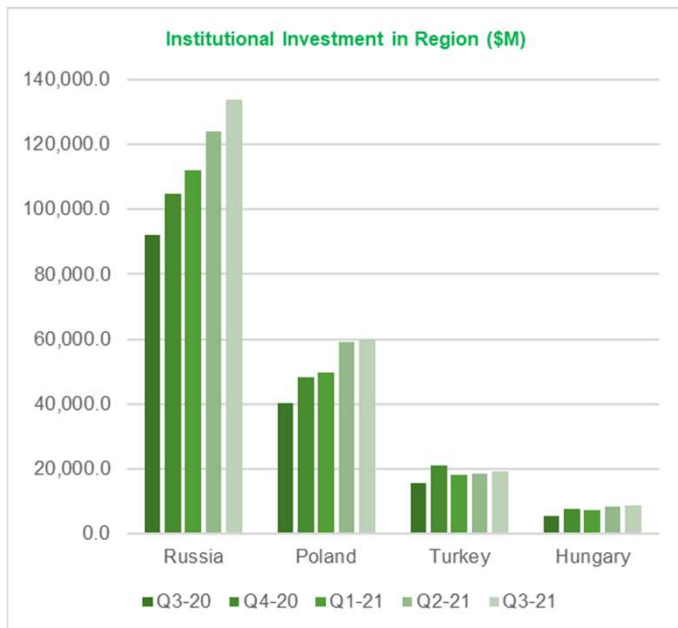
Price performance:

The BIST 100 index saw a (+2.9%) return during Q3 2021, after a negative net performance in the previous quarter. The index ended the quarter up 23.0% on an annual basis. Emerging markets have recovered at a slower pace following the covid-19 pandemic when compared to developed markets, it is predicted that emerging markets may outperform in 2022. The strongest performing index on an annual basis was the Hungary BUX returning (+57.0%), followed by Russia RTS, (+51.4%), Poland WIG20 (+36.4%), MSCI EFM Europe Mid East Africa (+29.7%), MSCI Europe (+23,8%). As witnessed in the previous quarter, Turkey was once again the weakest performer of the group.



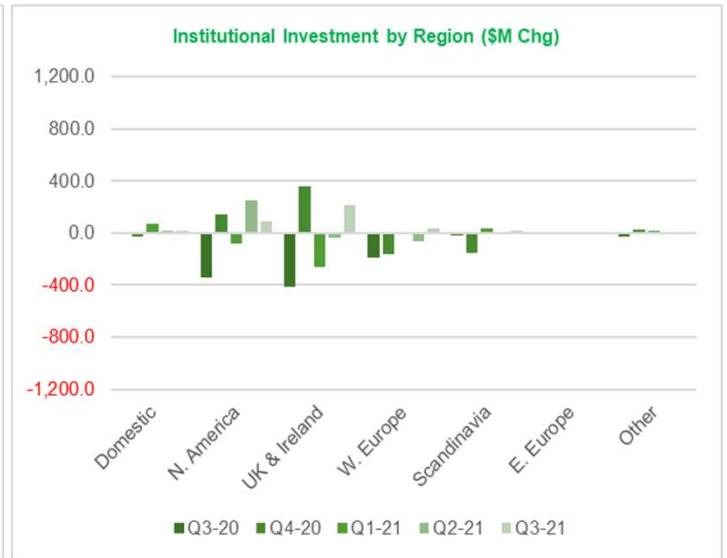
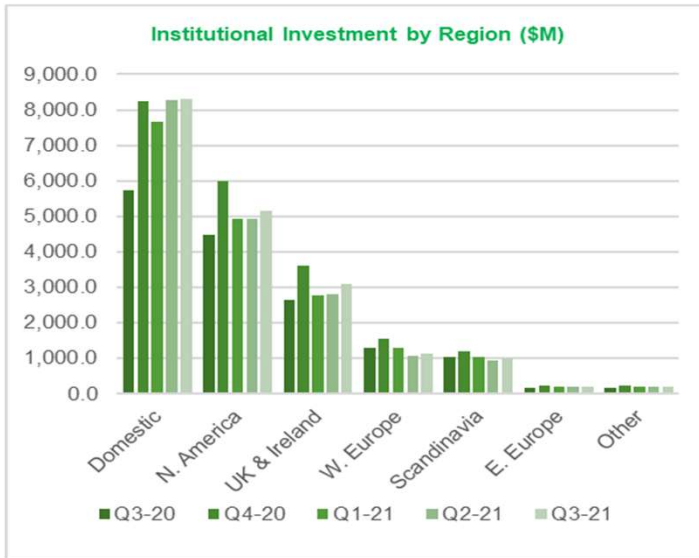
Inflows and Outflows:

Net inflows were relatively flat across all regions apart from Russia which received a 7.8% increase in flows when compared to Q221. These inflows were driven primarily by GQG Partners, LLC, Invesco Advisers, Inc., The Vanguard Group, Inc. and BlackRock Fund Advisors.



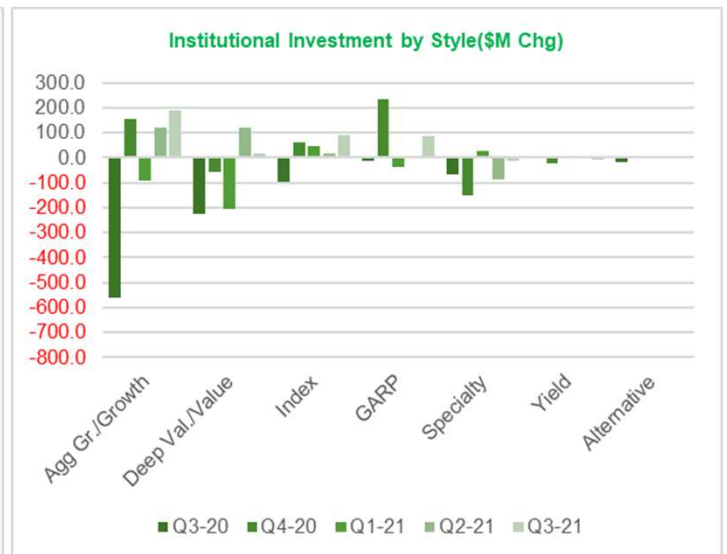
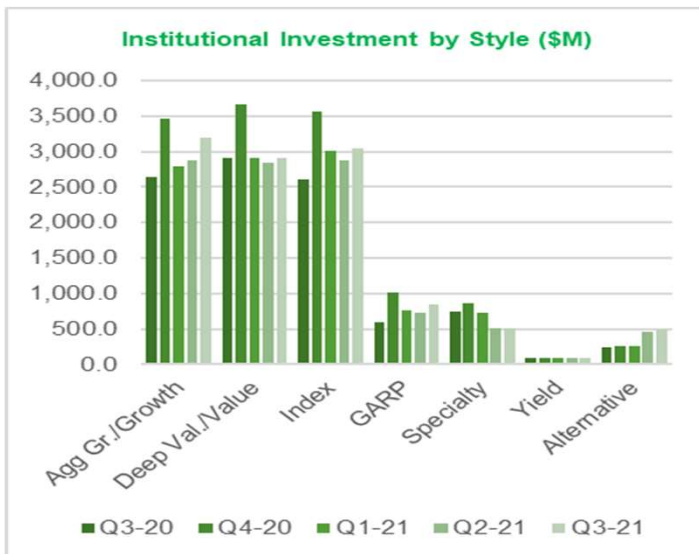
Investment by Investor Region:

The net inflows in the Turkish market are broken down by geographic regions below and were driven primarily by UK & Ireland (+\$217M) and North American (+\$91M) investors. Genesis Investment Management was the largest buyer in the former and T. Rowe Price Associates, was the largest buyer in the latter. Overall net inflows were recorded from all regions, amounting to (+\$376M).



Investment by Style:

Aggressive Growth/Growth investors drove inflows for the quarter with London based Genesis Investment Management being the primary contributor. For the third quarter of 2021, Growth-orientated investors remain the most prominent in the Turkish market, led by above mentioned Genesis Investment Management, who account for (\$132M). Index investors retain the second position, with The Vanguard Group once again being the largest index holder.





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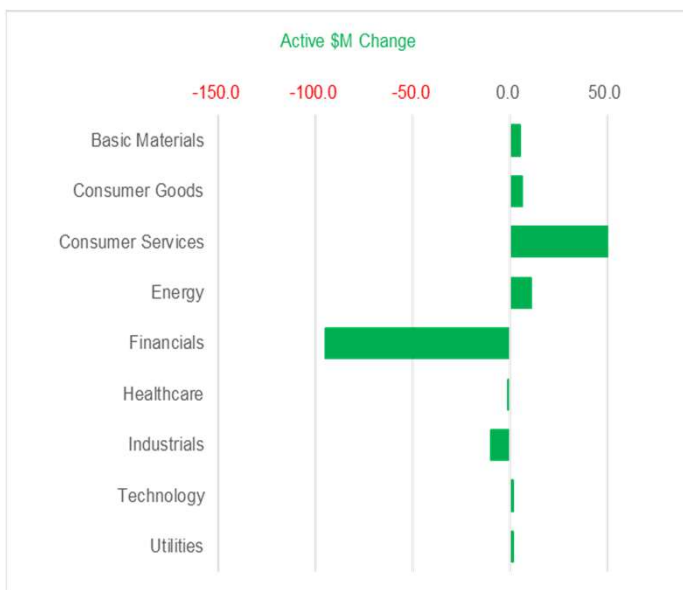
Top Active Holders, Buyers & Sellers

| TOP HOLDERS | Country | Style | Turnover | Equity Assets (\$M) | Value (\$M) | Change (\$M) | % Portfolio | % Portfolio Chg |
|---|----------------|-------------|----------|---------------------|-------------|--------------|-------------|-----------------|
| Norges Bank Investment Management (Norway) | Norway | Value | Low | 938,798.0 | 618.7 | 0.0 | 0.1 | 0.0 |
| Schroder Investment Management, LTD | United Kingdom | GARP | Medium | 160,766.3 | 274.6 | -6.2 | 0.2 | -2.2 |
| J.P. Morgan Asset Management (UK), LTD | United Kingdom | Growth | Medium | 143,639.0 | 234.2 | -1.8 | 0.2 | -0.8 |
| Helikon Investments, LTD (United Kingdom) | United Kingdom | Alternative | Medium | 827.5 | 210.7 | -10.6 | 25.5 | -4.8 |
| Invesco Advisers, Inc. | United States | Growth | Low | 334,455.7 | 197.9 | -95.4 | 0.1 | -32.5 |
| Silchester International Investors, LLP | United Kingdom | Value | Low | 22,008.4 | 190.4 | 0.0 | 0.9 | 0.0 |
| Polunin Capital Partners, LTD | United Kingdom | Value | High | 2,757.4 | 189.6 | 68.0 | 6.9 | 55.9 |
| California Public Employees Retirement System | United States | Growth | Low | 139,801.7 | 169.7 | 0.0 | 0.1 | 0.0 |
| APG Asset Management N.V. | Netherlands | Specialty | Medium | 184,090.4 | 155.7 | 0.0 | 0.1 | 0.0 |
| Robeco Institutional Asset Management BV | Netherlands | Value | Medium | 73,677.8 | 149.1 | 29.9 | 0.2 | 25.1 |
| | | | | 2,390.6 | | -16.0 | | |

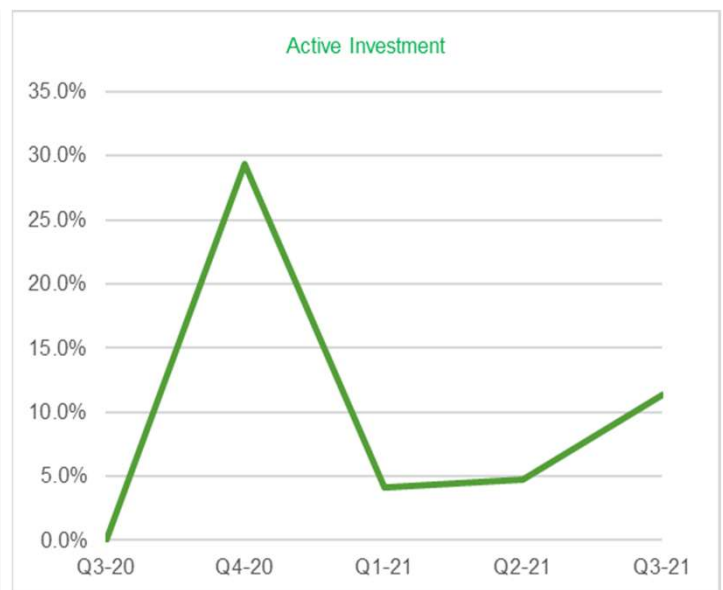
| TOP BUYERS | Country | Style | Turnover | Equity Assets (\$M) | Value (\$M) | Change (\$M) | % Portfolio | % Portfolio Chg |
|--|----------------|--------|-----------|---------------------|-------------|--------------|-------------|-----------------|
| Genesis Investment Management, LLP | United Kingdom | Growth | Low | 7,244.2 | 132.0 | 89.9 | 1.8 | 213.3 |
| Polunin Capital Partners, LTD | United Kingdom | Value | High | 2,757.4 | 189.6 | 68.0 | 6.9 | 55.9 |
| T. Rowe Price Associates, Inc. | United States | Growth | Low | 1,147,622.3 | 36.2 | 32.3 | 0.0 | 811.0 |
| BlackRock Investment Management (U.K.), LTD | United Kingdom | Growth | Low | 774,304.8 | 89.0 | 31.8 | 0.0 | 55.7 |
| Capital Research Global Investors (U.S.) | United States | GARP | Low | 590,135.5 | 88.5 | 30.3 | 0.0 | 52.0 |
| Robeco Institutional Asset Management BV | Netherlands | Value | Medium | 73,677.8 | 149.1 | 29.9 | 0.2 | 25.1 |
| Goldman Sachs Asset Management International | United Kingdom | Growth | High | 28,054.1 | 73.6 | 16.4 | 0.3 | 28.7 |
| TT International Asset Management, LTD | United Kingdom | Growth | Very High | 3,430.0 | 29.2 | 15.4 | 0.9 | 112.2 |
| J.P. Morgan Private Bank | United States | GARP | Low | 165,391.4 | 15.1 | 15.1 | 0.0 | Buy-in |
| Baring Asset Management (Asia), LTD | Hong Kong SAR | GARP | Medium | 6,184.8 | 12.0 | 12.0 | 0.2 | Buy-in |
| | | | | 814.3 | | 341.1 | | |

| TOP SELLERS | Country | Style | Turnover | Equity Assets (\$M) | Value (\$M) | Change (\$M) | % Portfolio | % Portfolio Chg |
|--|----------------|-------------|----------|---------------------|-------------|---------------|-------------|-----------------|
| Invesco Advisers, Inc. | United States | Growth | Low | 334,455.7 | 197.9 | -95.4 | 0.1 | -32.5 |
| AllianceBernstein, L.P. (U.S.) | United States | Value | Low | 278,202.4 | 34.2 | -19.6 | 0.0 | -36.4 |
| Nuveen Asset Management, LLC | United States | Value | High | 24,751.2 | 13.2 | -17.9 | 0.1 | -57.6 |
| Eaton Vance Management | United States | Value | Low | 77,982.7 | 0.5 | -16.5 | 0.0 | -97.2 |
| Grantham Mayo Van Otterloo & Co., LLC | United States | Value | Medium | 34,360.8 | 82.0 | -14.9 | 0.2 | -15.4 |
| U.S. Global Investors, Inc. (Asset Management) | United States | Specialty | High | 4,146.7 | 76.8 | -13.3 | 1.9 | -14.7 |
| Mobius Capital Partners, LLP | United Kingdom | Value | High | 185.6 | 0.0 | -12.8 | 0.0 | -100.0 |
| Pzena Investment Management, LLC | United States | Deep Value | Low | 30,165.4 | 25.8 | -10.6 | 0.1 | -29.1 |
| Helikon Investments, LTD (United Kingdom) | United Kingdom | Alternative | Medium | 827.5 | 210.7 | -10.6 | 25.5 | -4.8 |
| Artemis Fund Managers, LTD | United Kingdom | Growth | Medium | 30,910.4 | 42.8 | -10.2 | 0.1 | -19.2 |
| <i>Includes Investors with EUM greater than \$100M; Excludes Passive/Index Investors</i> | | | | 684.0 | | -221.8 | | |

Sector Inflows/Outflows



% Change in Active Investment vs 5 Previous Quarters





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FLOW OF FUNDS REPORT: TUYID Q3-2021



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 | 4,825,477.6 | 1,216.4 | 30.9 | 0.0 | 2.6 |
| BlackRock Fund Advisors | United States | Index | Low | 3,001,357.5 | 762.9 | 20.0 | 0.0 | 2.7 |
| BlackRock Advisors (U.K.), LTD | United Kingdom | Index | Low | 213,194.7 | 275.3 | 9.0 | 0.1 | 3.4 |
| Acadian Asset Management, LLC | United States | Deep Value | Medium | 41,838.5 | 119.8 | -4.1 | 0.3 | -3.3 |
| Van Eck Associates Corporation | United States | Index | Low | 53,669.8 | 116.3 | 5.8 | 0.2 | 5.3 |
| Charles Schwab Investment Management, Inc. | United States | Index | Low | 369,125.1 | 114.1 | 5.3 | 0.0 | 4.8 |
| State Street Global Advisors (SSgA) | United States | Index | Low | 1,983,696.8 | 95.4 | 16.0 | 0.0 | 20.2 |
| Dimensional Fund Advisors, L.P. (U.S.) | United States | Value | Low | 361,712.2 | 73.6 | 15.3 | 0.0 | 26.3 |
| Geode Capital Management, LLC | United States | Index | Low | 864,151.9 | 73.0 | 8.8 | 0.0 | 13.8 |
| Parametric Portfolio Associates, LLC | United States | GARP | Low | 180,825.8 | 66.3 | 29.6 | 0.0 | 80.9 |
| | | | | 2,913.0 | 136.7 | | | |

| TOP BUYERS | Country | Style | Turnover | Equity Assets (\$M) | Value (\$M) | Change (\$M) | % Portfolio | Portfolio Chg % |
|--|----------------|-------|----------|---------------------|--------------|--------------|-------------|-----------------|
| The Vanguard Group, Inc. | United States | Index | Low | 4,825,477.6 | 1,216.4 | 30.9 | 0.0 | 2.6 |
| Parametric Portfolio Associates, LLC | United States | GARP | Low | 180,825.8 | 66.3 | 29.6 | 0.0 | 80.9 |
| BlackRock Fund Advisors | United States | Index | Low | 3,001,357.5 | 762.9 | 20.0 | 0.0 | 2.7 |
| State Street Global Advisors (SSgA) | United States | Index | Low | 1,983,696.8 | 95.4 | 16.0 | 0.0 | 20.2 |
| Dimensional Fund Advisors, L.P. (U.S.) | United States | Value | Low | 361,712.2 | 73.6 | 15.3 | 0.0 | 26.3 |
| Quoniam Asset Management GmbH | Germany | Value | High | 7,624.5 | 12.9 | 10.5 | 0.2 | 432.7 |
| BlackRock Advisors (U.K.), LTD | United Kingdom | Index | Low | 213,194.7 | 275.3 | 9.0 | 0.1 | 3.4 |
| Geode Capital Management, LLC | United States | Index | Low | 864,151.9 | 73.0 | 8.8 | 0.0 | 13.8 |
| Van Eck Associates Corporation | United States | Index | Low | 53,669.8 | 116.3 | 5.8 | 0.2 | 5.3 |
| Charles Schwab Investment Management, Inc. | United States | Index | Low | 369,125.1 | 114.1 | 5.3 | 0.0 | 4.8 |
| | | | | 2,806.2 | 151.4 | | | |

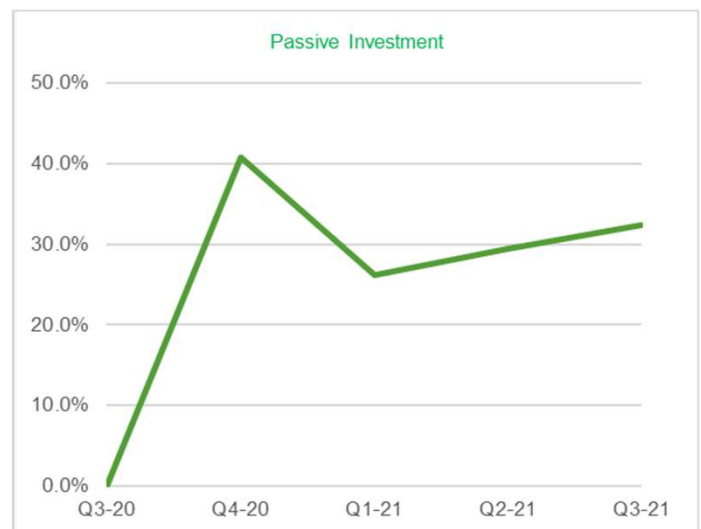
| TOP SELLERS | Country | Style | Turnover | Equity Assets (\$M) | Value (\$M) | Change (\$M) | % Portfolio | Portfolio Chg % |
|-----------------------------------|----------------|-------------|-----------|---------------------|--------------|--------------|-------------|-----------------|
| State Street Global Advisors, LTD | United Kingdom | Index | Low | 116,062.4 | 31.1 | -4.4 | 0.0 | -12.5 |
| Acadian Asset Management, LLC | United States | Deep Value | Medium | 41,838.5 | 119.8 | -4.1 | 0.3 | -3.3 |
| Stewart Investors (U.K.) | United Kingdom | Growth | Low | 1,233.1 | 37.3 | -3.3 | 3.0 | -8.1 |
| Invesco Capital Management, LLC | United States | Index | Low | 118,107.3 | 25.1 | -2.6 | 0.0 | -9.5 |
| PGIM Quantitative Solutions, LLC | United States | Index | Medium | 69,186.7 | 19.5 | -2.6 | 0.0 | -11.6 |
| First Trust Advisors, L.P. | United States | Index | Medium | 98,666.9 | 31.1 | -1.8 | 0.0 | -5.6 |
| TOBAM | France | Specialty | Medium | 5,029.1 | 19.3 | -1.6 | 0.4 | -7.7 |
| Aperio Group, LLC | United States | Index | Low | 41,804.9 | 4.4 | -0.9 | 0.0 | -16.8 |
| AQR Capital Management, LLC | United States | Alternative | Medium | 69,790.4 | 8.5 | -0.3 | 0.0 | -3.5 |
| Exchange Traded Concepts, LLC | United States | Index | Very High | 5,010.0 | 0.8 | -0.2 | 0.0 | -20.4 |
| | | | | 296.8 | -21.9 | | | |

Includes Investors with EUM greater than \$100M; Excludes Active Investors

Sector Inflows/Outflows



% Change in Passive Investment vs 5 Previous Quarters





Road show:

London remains the top invested city, with inflows amounting to (+\$228M) which is mainly attributable to the buying activity of Genesis Investment Management. Istanbul remained ranked fifth based on value invested, with a net increase of (+\$13.2M). Atlanta was the top detractor (-\$95.4M) driven by Invesco Advisers, Inc..

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

Most Invested

| Country / City | Total Equity Assets (\$M) | Value (\$M) | Activity (\$M) | # Firms |
|---|---------------------------|-------------|----------------|---------|
| United Kingdom (London) | 2,360,658.2 | 2,555.0 | 228.2 | 68 |
| Norway (Oslo) | 992,837.9 | 625.9 | -0.3 | 3 |
| United States (Boston) | 3,424,938.9 | 433.9 | -18.9 | 12 |
| United States (New York) | 3,100,259.1 | 382.5 | 7.1 | 35 |
| Turkey (Istanbul) | 396.4 | 351.0 | 13.1 | 8 |
| United States (Atlanta) | 352,521.1 | 202.5 | -95.4 | 2 |
| Germany (Stuttgart) | 5,706.9 | 191.1 | 0.0 | 1 |
| United States (Sacramento) | 139,801.7 | 169.7 | 0.0 | 1 |
| Sweden (Stockholm) | 383,161.4 | 157.4 | 5.4 | 8 |
| Netherlands (Amsterdam) | 187,549.0 | 157.4 | 0.1 | 4 |
| Netherlands (Rotterdam) | 73,677.8 | 149.1 | 29.9 | 1 |
| Germany (Frankfurt) | 428,553.5 | 121.9 | -0.2 | 7 |
| United States (Los Angeles) | 676,440.2 | 104.6 | 27.5 | 6 |
| United States (San Antonio) | 113,406.8 | 95.7 | -12.7 | 2 |
| Estonia (Tallinn) | 1,873.0 | 92.4 | 6.6 | 3 |
| Denmark (Copenhagen) | 135,347.4 | 88.9 | 2.7 | 5 |
| Canada (Montreal) | 112,622.8 | 88.2 | 0.0 | 3 |
| Austria (Vienna) | 19,076.8 | 86.2 | 0.3 | 5 |
| United States (Fort Lauderdale) | 69,633.1 | 79.8 | 5.3 | 3 |
| Poland (Warsaw) | 18,902.7 | 78.6 | -1.4 | 10 |
| <i>Excludes Passive/Index Investors</i> | | 6,212.0 | 197.2 | 187 |

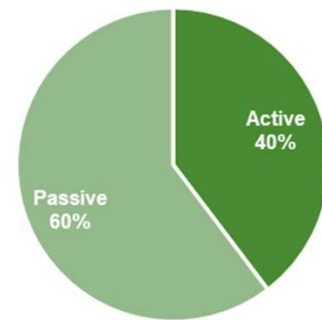
Most Investors

| Country / City | Total Equity Assets (\$M) | Value (\$M) | Activity (\$M) | # Firms |
|---|---------------------------|-------------|----------------|---------|
| United Kingdom (London) | 2,360,658.2 | 2,555.0 | 228.2 | 68 |
| United States (New York) | 3,100,259.1 | 382.5 | 7.1 | 35 |
| United States (Boston) | 3,424,938.9 | 433.9 | -18.9 | 12 |
| Switzerland (Zürich) | 545,967.5 | 67.2 | -1.9 | 11 |
| Singapore (Singapore) | 70,655.2 | 58.7 | -4.4 | 11 |
| South Korea (Seoul) | 47,606.5 | 9.9 | 6.4 | 11 |
| Poland (Warsaw) | 18,902.7 | 78.6 | -1.4 | 10 |
| Finland (Helsinki) | 35,332.7 | 50.3 | 7.5 | 10 |
| Japan (Tokyo) | 1,095,922.5 | 37.7 | -2.9 | 10 |
| United States (Chicago) | 351,999.6 | 33.9 | -6.4 | 9 |
| Turkey (Istanbul) | 396.4 | 351.0 | 13.1 | 8 |
| Sweden (Stockholm) | 383,161.4 | 157.4 | 5.4 | 8 |
| France (Paris) | 291,977.5 | 46.3 | 0.2 | 8 |
| Canada (Toronto) | 315,417.0 | 22.2 | -0.2 | 8 |
| Germany (Frankfurt) | 428,553.5 | 121.9 | -0.2 | 7 |
| Ireland (Dublin) | 50,424.7 | 34.8 | 1.1 | 7 |
| United States (Los Angeles) | 676,440.2 | 104.6 | 27.5 | 6 |
| South Africa (Cape Town) | 22,208.8 | 27.2 | 3.5 | 6 |
| Switzerland (Geneva) | 6,232.6 | 14.8 | 0.0 | 6 |
| Taiwan (Taipei) | 8,538.5 | 5.2 | -0.0 | 6 |
| <i>Excludes Passive/Index Investors</i> | | 4,593.3 | 263.8 | 257 |

Active vs. Passive investors

Orientation remained stable at 60% Passive vs 40% Active split in Q3-2021, with both Active and Passive investors contributing to inflows..

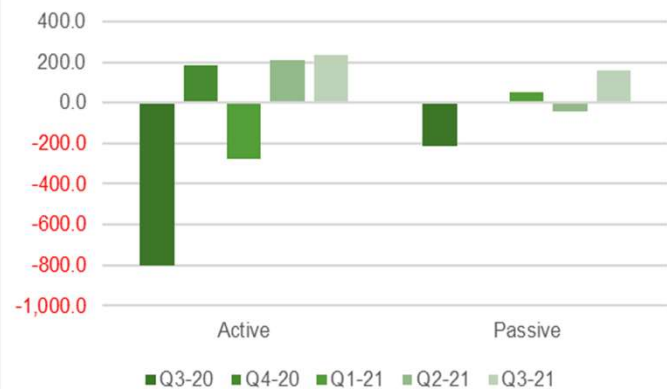
Active vs Passive Split



Active vs Passive (\$M)



Active vs Passive (\$M Chg)





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FLOW OF FUNDS REPORT: TUYID Q3-2021



Top Holders, Buyers & Sellers – Corporate Debt

| TOP HOLDERS | Country | City | Turnover | FI Assets (\$M) | Value (\$M) | Change (\$M) | % Portfolio | Portfolio Chg % |
|--|----------------|-------------|-----------|-----------------|----------------|---------------|-------------|-----------------|
| Goldman Sachs Asset Management International | United Kingdom | London | Very High | 130,718.4 | 329.1 | -72.8 | 0.3 | -18.1 |
| Pictet Asset Management, LTD | United Kingdom | London | High | 10,192.2 | 209.1 | 4.8 | 2.1 | 2.3 |
| TIAA-CREF Investment Management, LLC | United States | New York | Very High | 315,947.9 | 205.6 | 0.1 | 0.1 | 0.1 |
| Ninety One UK, LTD | United Kingdom | London | Medium | 16,329.1 | 195.9 | 0.5 | 1.2 | 0.2 |
| Lord, Abnett & Co., LLC (Asset Management) | United States | Jersey City | High | 168,014.6 | 174.7 | -121.4 | 0.1 | -41.0 |
| Amundi Asset Management (U.K.) | United Kingdom | London | Medium | 2,836.8 | 155.8 | 2.4 | 5.5 | 1.5 |
| Union Investment Privatfonds GmbH | Germany | Frankfurt | Low | 57,432.4 | 144.2 | -32.2 | 0.3 | -18.3 |
| Neuberger Berman Europe, LTD (Netherlands) | Netherlands | The Hague | High | 8,871.4 | 128.1 | 0.0 | 1.4 | 0.0 |
| Amundi (U.K.), LTD | United Kingdom | London | High | 16,699.6 | 126.5 | -3.8 | 0.8 | -2.9 |
| AIG Asset Management (U.S.), LLC | United States | New York | Low | 185,740.5 | 120.6 | 0.0 | 0.1 | 0.0 |
| | | | | | 1,789.6 | -222.4 | | |

| 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 | High | 101,722.4 | 37.0 | 37.0 | 0.0 | Buy-in |
| Carmignac Gestion | France | Paris | High | 30,864.7 | 39.9 | 35.4 | 0.1 | 778.1 |
| Bankinvest Asset Management | Denmark | Copenhagen | Medium | 6,484.4 | 29.8 | 16.5 | 0.5 | 124.7 |
| Epsilon Associati SGR S.p.A. | Italy | Milan | High | 14,577.5 | 29.8 | 9.4 | 0.2 | 45.8 |
| DWS Investment GrmbH | Germany | Frankfurt | Medium | 90,368.0 | 63.2 | 5.2 | 0.1 | 8.9 |
| Hermes Investment Management, LTD | United Kingdom | London | Low | 3,886.2 | 39.2 | 5.0 | 1.0 | 14.5 |
| Pictet Asset Management, LTD | United Kingdom | London | High | 10,192.2 | 209.1 | 4.8 | 2.1 | 2.3 |
| Anaxis Asset Management | France | Paris | Medium | 566.4 | 6.4 | 4.2 | 1.1 | 199.1 |
| TFI BGZ BNP Paribas S.A. | Poland | Warsaw | Medium | 1,241.9 | 3.6 | 3.6 | 0.3 | Buy-in |
| BlackRock Fund Advisors | United States | San Francisco | High | 647,175.2 | 49.9 | 3.6 | 0.0 | 7.8 |
| | | | | | 507.9 | 124.6 | | |

| TOP SELLERS | Country | City | Turnover | FI Assets (\$M) | Value (\$M) | Change (\$M) | % Portfolio | Portfolio Chg % |
|--|----------------|-------------|-----------|-----------------|----------------|---------------|-------------|-----------------|
| Lord, Abnett & Co., LLC (Asset Management) | United States | Jersey City | High | 168,014.6 | 174.7 | -121.4 | 0.1 | -41.0 |
| T. Rowe Price Associates, Inc. | United States | Baltimore | Low | 238,643.7 | 76.5 | -97.7 | 0.0 | -56.1 |
| Goldman Sachs Asset Management International | United Kingdom | London | Very High | 130,718.4 | 329.1 | -72.8 | 0.3 | -18.1 |
| Ashmore Investment Management, LTD | United Kingdom | London | Medium | 17,310.6 | 94.5 | -45.8 | 0.5 | -32.6 |
| Union Investment Privatfonds GmbH | Germany | Frankfurt | Low | 57,432.4 | 144.2 | -32.2 | 0.3 | -18.3 |
| Azmut Investments S.A. | Luxembourg | Luxembourg | High | 7,457.8 | 23.0 | -31.5 | 0.3 | -57.7 |
| TCW Investment Management Company, LLC | United States | Los Angeles | Very High | 148,087.9 | 50.7 | -25.4 | 0.0 | -33.4 |
| Eurizon Capital SGR S.p.A. | Italy | Milan | High | 61,831.2 | 109.6 | -12.4 | 0.2 | -10.2 |
| Loomis Sayles & Company, L.P. | United States | Boston | High | 65,192.4 | 65.2 | -12.3 | 0.1 | -15.9 |
| Amundi Asset Management S.A.S. | France | Paris | High | 121,699.8 | 8.0 | -11.6 | 0.0 | -59.0 |
| | | | | | 1,075.6 | -463.1 | | |

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) | 1,267,452.9 | 1,906.8 | -135.9 | 47 | United Kingdom (London) | 1,267,452.9 | 1,906.8 | -135.9 | 47 |
| United States (New York) | 2,492,241.4 | 668.3 | -16.1 | 24 | United States (New York) | 2,492,241.4 | 668.3 | -16.1 | 24 |
| Switzerland (Zürich) | 313,888.1 | 327.3 | -3.9 | 15 | Switzerland (Zürich) | 313,888.1 | 327.3 | -3.9 | 15 |
| Germany (Frankfurt) | 243,009.0 | 315.9 | -28.1 | 11 | France (Paris) | 287,720.8 | 162.6 | 30.0 | 14 |
| Italy (Milan) | 130,524.0 | 274.2 | -26.2 | 12 | Spain (Madrid) | 62,111.5 | 14.3 | -1.1 | 14 |
| United States (Boston) | 1,689,451.7 | 192.9 | -11.7 | 9 | Italy (Milan) | 130,524.0 | 274.2 | -26.2 | 12 |
| United States (Jersey City) | 168,014.6 | 174.7 | -121.4 | 1 | Germany (Frankfurt) | 243,009.0 | 315.9 | -28.1 | 11 |
| France (Paris) | 287,720.8 | 162.6 | 30.0 | 14 | United States (Boston) | 1,689,451.7 | 192.9 | -11.7 | 9 |
| Netherlands (The Hague) | 8,871.4 | 128.1 | 0.0 | 1 | Austria (Vienna) | 30,175.2 | 38.9 | -3.2 | 9 |
| Switzerland (Geneva) | 31,590.9 | 117.3 | -0.5 | 7 | Switzerland (Geneva) | 31,590.9 | 117.3 | -0.5 | 7 |
| United Kingdom (Edinburgh) | 101,937.5 | 101.6 | -8.8 | 3 | Singapore (Singapore) | 32,269.9 | 93.6 | 0.0 | 7 |
| United Kingdom (Tadworth) | 43,697.4 | 96.7 | -11.1 | 1 | Switzerland (Lugano) | 3,508.3 | 71.8 | -2.1 | 7 |
| Singapore (Singapore) | 32,269.9 | 93.6 | 0.0 | 7 | United States (Chicago) | 192,796.2 | 43.5 | -0.3 | 6 |
| United States (Charlotte) | 171,997.7 | 78.7 | 0.0 | 1 | Luxembourg (Luxembourg) | 13,641.3 | 43.5 | -32.1 | 6 |
| United States (Baltimore) | 238,643.7 | 76.5 | -97.7 | 1 | Poland (Warsaw) | 7,991.2 | 75.9 | 6.0 | 5 |
| Poland (Warsaw) | 7,991.2 | 75.9 | 6.0 | 5 | Malaysia (Kuala Lumpur) | 4,272.7 | 29.5 | 0.0 | 5 |
| Switzerland (Lugano) | 3,508.3 | 71.8 | -2.1 | 7 | Ireland (Dublin) | 29,456.0 | 29.2 | 0.1 | 4 |
| United States (San Francisco) | 649,454.5 | 55.8 | 4.2 | 3 | Japan (Tokyo) | 17,846.3 | 12.2 | -0.1 | 4 |
| United States (Whippany) | 363,518.7 | 55.3 | -0.2 | 1 | Finland (Helsinki) | 18,976.7 | 12.0 | -2.5 | 4 |
| United States (Los Angeles) | 168,184.7 | 52.7 | -26.0 | 2 | Germany (Munich) | 24,517.7 | 7.4 | -6.0 | 4 |
| | | 5,026.4 | -449.5 | 172 | | | 4,436.8 | -233.7 | 214 |

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.