

FLOW OF FUNDS REPORT

TUYID Q1-2018

May, 2018

Dear Readers,

We are happy to present the Flow of Funds Report for the first quarter of 2018. Our report offers detailed insight on the funds flow by investment type and regions as well as top buyers and sellers in the Turkish market. We also provide key investor hubs for road shows and trust the Report will be an important asset in IR planning and investor targeting.

Investment in Turkey remained positive for the fifth consecutive quarter, while all other regions in this comparison experienced at least one quarter of negative sentiment over the same time frame. Regionally, UK & Ireland offered the most support to Turkey with net increases of \$315.6M, while reducing their exposure to Russia (-\$218.0M) and remaining relatively flat in Poland and Hungary with purchases of just \$25.6M and \$7.9M respectively. Style wise, growth investors (now second in size behind value) were the largest buyers of Turkish equities with investments of \$105.9M or +1.15%, whilst also offering support to Russia but reducing their aggregated portfolios in Poland and Hungary.

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

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Price performance:

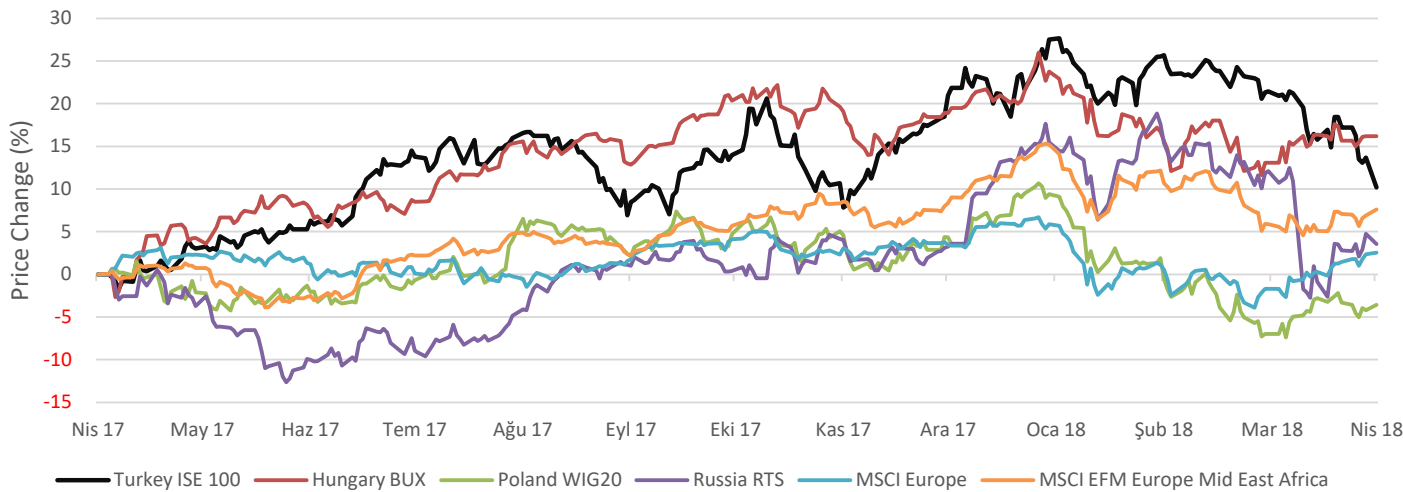
The Turkey ISE 100 index finished the twelve months to end of April with a 10.17% increase – making it the second highest performing index within the basket behind the Hungary BUX which rose by 16.20% over the same period. The Poland WIG 20 index fell below par with a -3.58% performance making it the only index (from the comparable indices) in negative territory. The Russia RTS and the MSCI Europe performed at similar levels with returns of 3.55% and 2.54% respectively, while the MSCI EFM Europe Mid East Africa index climbed by 7.61%.

“Emerging-market (EM) equities posted modest first-quarter gains in local-currency terms but fell in euro terms due to the common currency’s strength. Nevertheless, they fared better than developed-market stocks in a volatile quarter. Economic optimism that buoyed returns at the start of the year gave way to worries of resurgent US inflation, followed by rising trade tensions as the United States announced a series of protectionist trade measures.

European emerging markets declined over the quarter, but to a lesser extent than broader emerging markets. In Poland, concerns that a strong zloty could hurt exports overshadowed strong economic growth data for the fourth quarter of 2017. Greece retreated despite moving closer toward exiting its bailout programme and passing a package of fiscal, labour and energy reforms. In contrast, Russia and the Czech Republic advanced. Higher oil prices, stronger earnings growth prospects and undemanding valuations supported Russia.”

Templeton Eastern Europe Fund, March 2018

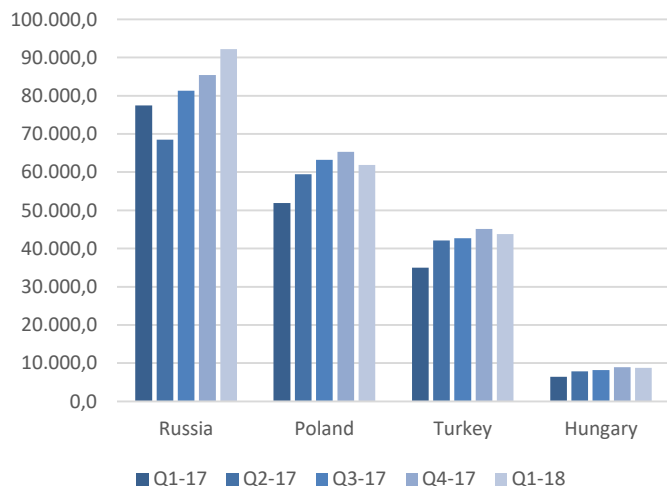
[https://www.franklintempleton.de/download/de-de/common/ibawjvql/Templeton-Eastern-Europe-Fund-Fondskommentar-\(English\)-31-10-17.pdf](https://www.franklintempleton.de/download/de-de/common/ibawjvql/Templeton-Eastern-Europe-Fund-Fondskommentar-(English)-31-10-17.pdf)



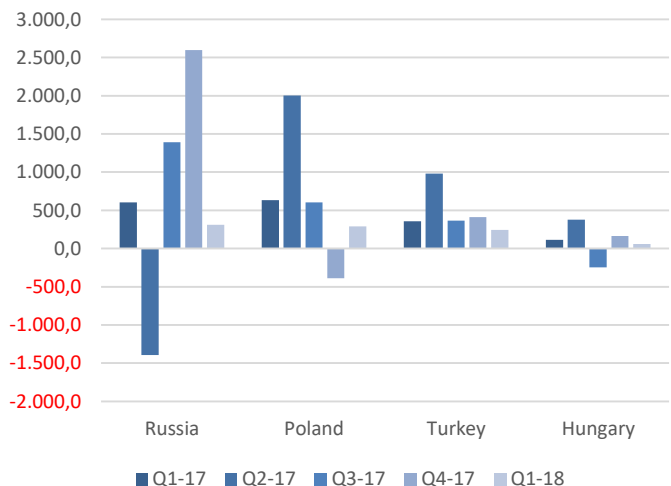
Inflows and Outflows:

Turkish equities continued to see positive sentiment with net investments of \$244.1M. Although lower than the returns experienced in the Russian and Polish markets, Turkey was the only region to see positive returns for five consecutive quarters.

Institutional Investment in Region (\$M)



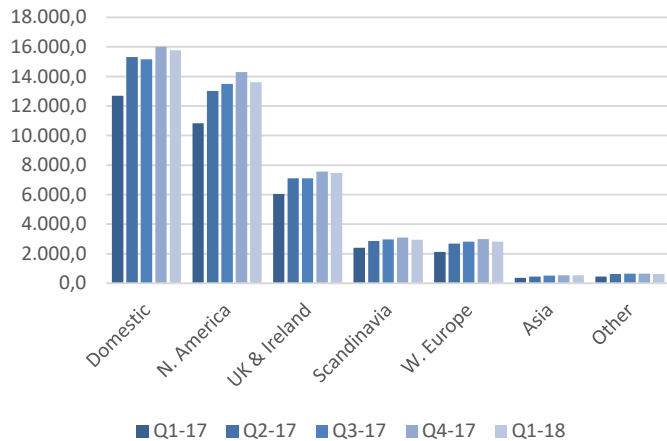
Institutional Investment in Region (\$M Chg)



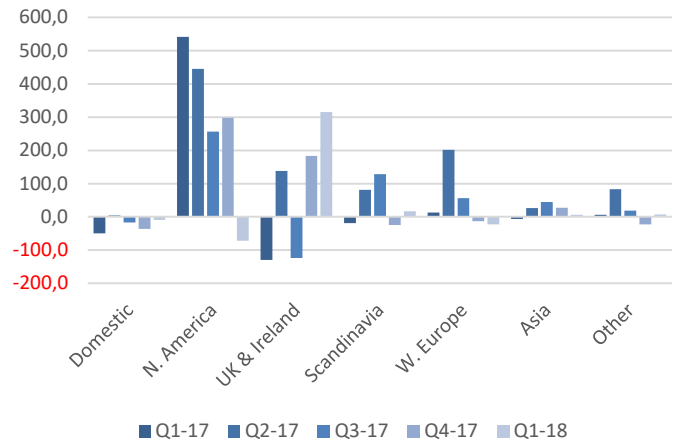
Investment by Investor Region:

While most investor regions were relatively flat in their aggregated change, UK based investors dominated the quarter with net investments of \$315.6M. This was largely led by Mondrian Investment Partners, LTD which recorded net purchases of \$151.3M in the quarter, as well as the UK having another five investors present in the top 10 buyer list.

Institutional Investment by Region (\$M)



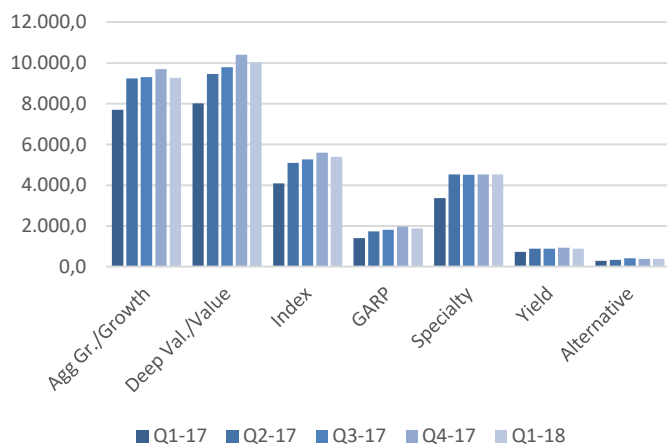
Institutional Investment by Region (\$M Chg)



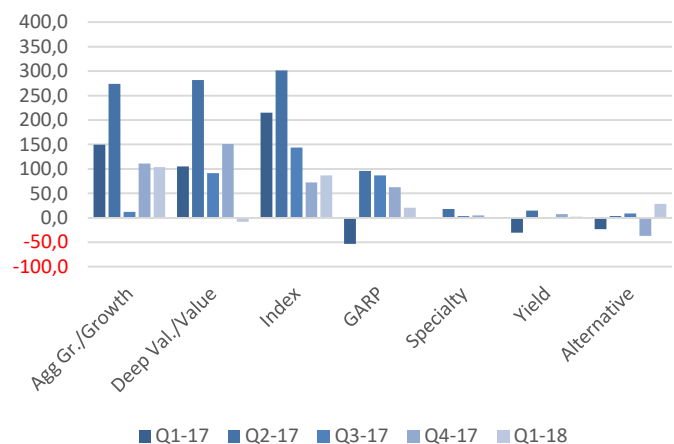
Investment by Style:

While value investors have overtaken growth investors to represent the most ownership in the market, they remained relatively flat in investment terms with a Q1-18 change of just -\$8.8M. Value investors topped both the largest buyers and sellers charts with the top two buyers' investments (Mondrian Investment Partners (+\$151.3M) and Eaton Vance (+\$75.9M)) being offset by the three largest sellers' divestments - Dodge & Cox (-\$161.2M); Capital World (US) (-\$102.4M); and Genesis (-\$59.6M). Growth and index investors offered the most support to the market with net increases of \$105.9M and \$86.6M respectively; with alternative (hedge funds) and GARP investors also showing interest with net purchases of \$28.7M and \$21.3M.

Institutional Investment by Style (\$M)



Institutional Investment by Style (\$M Chg)

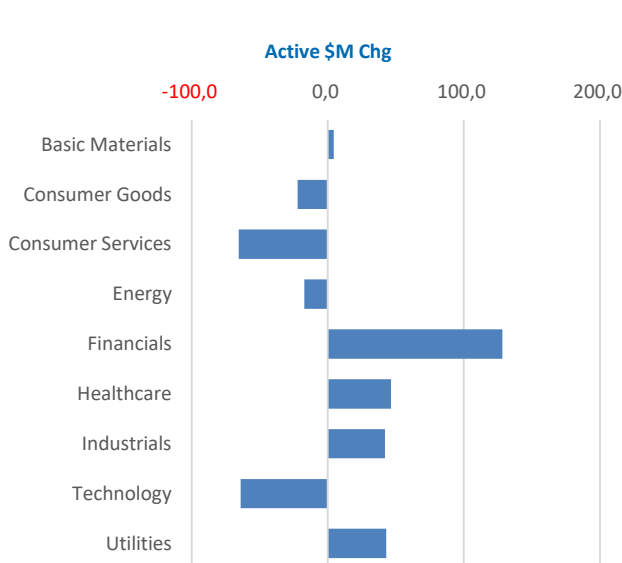


Top Active Holders, Buyers & Sellers

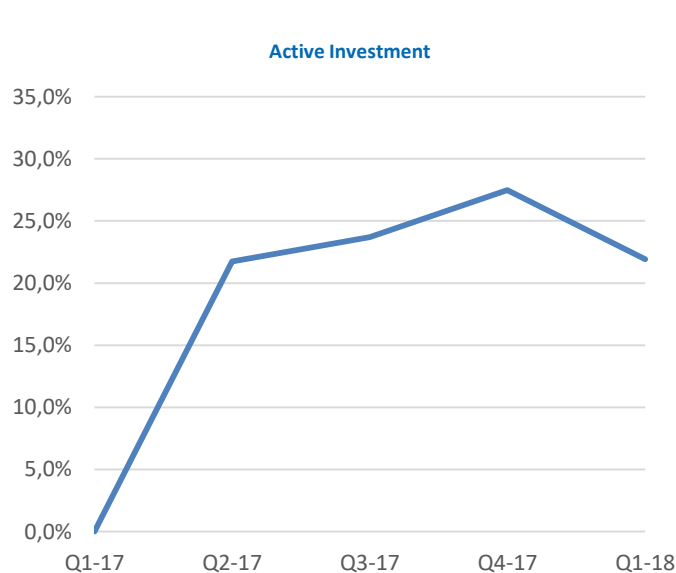
TOP HOLDERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
Norges Bank Investment Management (Norway)	Norway	Value	Low	708,468.9	1,238.2	0.0	0.2	0.0
Aberdeen Asset Managers, LTD (U.K.)	United Kingdom	Growth	Low	100,092.9	1,148.2	-57.8	1.1	-4.8
Lazard Asset Management, LLC (U.S.)	United States	Value	Medium	98,873.8	1,088.0	-59.6	1.1	-5.2
Genesis Investment Management, LLP	United Kingdom	Growth	Low	26,392.0	872.2	44.2	3.3	5.3
APG Asset Management N.V.	Netherlands	Yield	Low	171,901.5	824.7	0.0	0.5	0.0
Fidelity Management & Research Company	United States	Growth	Low	922,398.6	456.4	-9.8	0.0	-2.1
OppenheimerFunds, Inc	United States	Growth	Medium	168,421.8	444.1	-19.0	0.3	-4.1
Invesco Advisers, Inc.	United States	Growth	Low	178,246.1	439.1	29.3	0.2	7.2
Fidelity International Limited - FIL Investment Services (L)	United Kingdom	Growth	Medium	107,360.3	436.0	14.7	0.4	3.5
Silchester International Investors, LLP	United Kingdom	Value	Low	20,318.9	425.1	0.0	2.1	0.0
				7,372.1	-58.0			
TOP BUYERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
Mondrian Investment Partners, LTD	United Kingdom	Value	Low	23,530.1	229.8	151.3	1.0	192.8
Eaton Vance Management	United States	Value	Low	45,013.7	77.1	75.9	0.2	5,877.7
Genesis Investment Management, LLP	United Kingdom	Growth	Low	26,392.0	872.2	44.2	3.3	5.3
Investec Asset Management, LTD (U.K.)	United Kingdom	Growth	Medium	49,464.2	105.8	35.0	0.2	49.4
Invesco Advisers, Inc.	United States	Growth	Low	178,246.1	439.1	29.3	0.2	7.2
Nordea Investment Management (Denmark)	Denmark	Value	Low	74,527.7	382.2	26.1	0.5	7.3
Swedbank Robur Fonder AB	Sweden	Growth	Low	81,048.0	127.0	25.3	0.2	24.9
Aviva Investors Global Services, LTD (U.K.)	United Kingdom	Growth	Low	50,105.9	129.0	24.4	0.3	23.3
Kairos Investment Management, LTD	United Kingdom	Alternative	Very High	2,227.2	136.5	23.0	6.1	20.3
LGM Investments, LTD	United Kingdom	Growth	Low	2,687.7	40.2	17.1	1.5	74.2
				2,539.0	451.5			
TOP SELLERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
Dodge & Cox	United States	Value	Low	182,874.9	126.0	-161.2	0.1	-56.1
Capital World Investors (U.S.)	United States	Value	Low	717,352.1	184.7	-102.4	0.0	-35.7
Lazard Asset Management, LLC (U.S.)	United States	Value	Medium	98,873.8	1,088.0	-59.6	1.1	-5.2
Aberdeen Asset Managers, LTD (U.K.)	United Kingdom	Growth	Low	100,092.9	1,148.2	-57.8	1.1	-4.8
SKAGEN AS	Norway	Value	Medium	7,917.5	237.1	-24.9	3.0	-9.5
SEB Investment Management AB	Sweden	Value	Medium	37,207.4	210.3	-23.9	0.6	-10.2
OppenheimerFunds, Inc	United States	Growth	Medium	168,421.8	444.1	-19.0	0.3	-4.1
Deutsche Asset Management Investment GmbH	Germany	Value	Medium	118,949.3	88.3	-16.8	0.1	-16.0
Robeco Institutional Asset Management BV	Netherlands	Value	Medium	47,581.1	316.3	-15.7	0.7	-4.7
Jyske Bank A/S (Asset Management)	Denmark	GARP	High	4,524.6	19.1	-14.2	0.4	-42.6
				3,862.2	-495.6			

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

Sector Inflows/Outflows



% Change in Active Investment vs 5 Previous Quarters

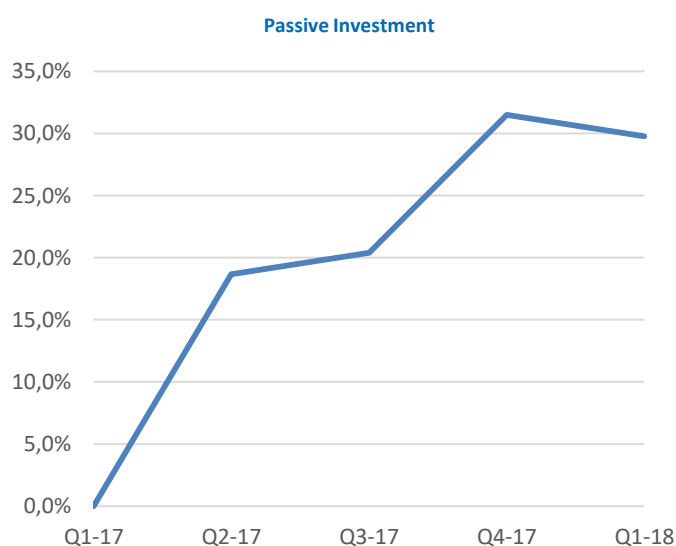
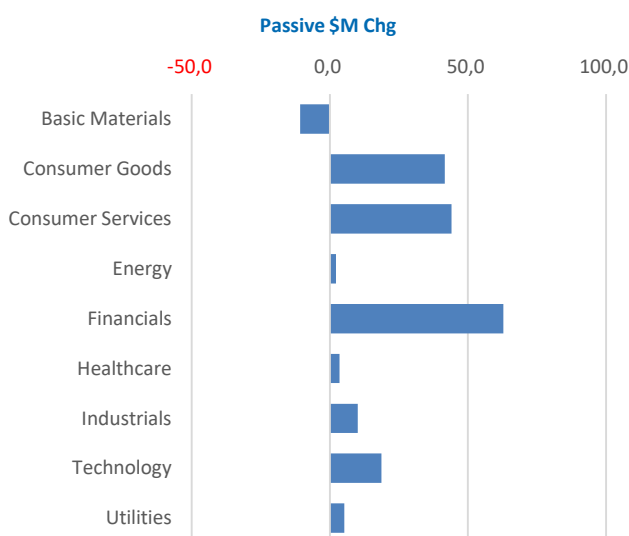


Top Passive Holders, Buyers & Sellers

TOP HOLDERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
The Vanguard Group, Inc.	United States	Index	Low	2,910,680.9	2,228.9	29.4	0.1	1.3
BlackRock Fund Advisors	United States	Index	Low	2,003,111.1	1,359.2	10.4	0.1	0.8
Dimensional Fund Advisors, L.P. (U.S.)	United States	Value	Low	424,334.5	1,140.2	53.2	0.3	4.9
Arrowstreet Capital, L.P.	United States	Deep Value	Very High	54,755.9	672.0	0.3	1.2	0.0
BlackRock Advisors (U.K.), LTD	United Kingdom	Index	Low	150,510.7	347.2	15.3	0.2	4.6
Acadian Asset Management, LLC	United States	Deep Value	Medium	39,769.4	256.5	15.1	0.6	6.3
Parametric Portfolio Associates, LLC	United States	GARP	Low	109,421.1	239.2	-10.8	0.2	-4.3
California Public Employees Retirement System	United States	Index	Low	128,603.8	233.6	0.0	0.2	0.0
BNY Mellon Asset Management North America Corporati	United States	Index	Low	201,533.8	148.2	-1.1	0.1	-0.7
Stewart Investors (U.K.)	United Kingdom	Growth	Low	6,693.1	144.9	0.0	2.2	0.0
				6,769.9	111.8			
TOP BUYERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
Dimensional Fund Advisors, L.P. (U.S.)	United States	Value	Low	424,334.5	1,140.2	53.2	0.3	4.9
The Vanguard Group, Inc.	United States	Index	Low	2,910,680.9	2,228.9	29.4	0.1	1.3
First Trust Advisors, L.P.	United States	Growth	Medium	49,857.9	76.5	19.2	0.2	33.6
BlackRock Advisors (U.K.), LTD	United Kingdom	Index	Low	150,510.7	347.2	15.3	0.2	4.6
Acadian Asset Management, LLC	United States	Deep Value	Medium	39,769.4	256.5	15.1	0.6	6.3
BlackRock Fund Advisors	United States	Index	Low	2,003,111.1	1,359.2	10.4	0.1	0.8
Sjunde AP-Fonden (AP 7)	Sweden	Index	Low	46,294.0	82.1	8.8	0.2	12.0
Global X Management Company, LLC	United States	Index	Medium	9,721.3	19.4	8.4	0.2	75.9
TOBAM	France	Specialty	Medium	6,581.6	52.4	8.0	0.8	18.0
Geode Capital Management, LLC	United States	Index	Low	340,438.5	79.9	7.3	0.0	10.1
				5,642.5	175.1			
TOP SELLERS	Country	Style	Turnover	Equity Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
Parametric Portfolio Associates, LLC	United States	GARP	Low	109,421.1	239.2	-10.8	0.2	-4.3
Vident Investment Advisory, LLC	United States	Index	High	5,003.5	60.9	-8.2	1.2	-11.9
State Street Global Advisors (SSgA)	United States	Index	Low	1,319,598.2	135.9	-7.6	0.0	-5.3
Quoniam Asset Management GmbH	Germany	Value	Medium	6,328.2	42.2	-6.4	0.7	-13.1
Vector Asset Management S.A.	Luxembourg	Specialty	Very High	323.4	1.4	-5.6	0.4	-80.1
State Street Global Advisors, LTD	United Kingdom	Index	Low	103,557.4	68.5	-3.5	0.1	-4.8
Leuthold Weeden Capital Management	United States	Specialty	High	1,044.3	1.6	-1.7	0.2	-50.8
Keppler Asset Management, Inc.	United States	GARP	Low	492.0	9.7	-1.4	2.0	-12.9
BNY Mellon Asset Management North America Corporati	United States	Index	Low	201,533.8	148.2	-1.1	0.1	-0.7
World Asset Management, Inc.	United States	Index	Low	2,140.4	1.5	-0.6	0.1	-29.7
Includes Investors with EUM greater than \$100M; Excludes Active Investors				709.0	-46.8			

Sector Inflows/Outflows

% Change in Passive Investment vs 5 Previous Quarters



Road show:

While London and New York continue to be the dominant investment centres, Boston based investors switched from net sales in Q4-17 to net buyers in Q1-18, led by the aforementioned Eaton Vance with net increases of \$75.9M; however, the total from this centre was reduced by the likes of Fidelity Management & Research reducing their exposure to Turkey by \$9.8M. Los Angeles based investor were the largest net sellers of the market with Capital World being the main contributor of this divestment.

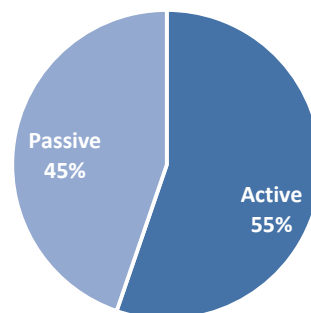
Most Invested				
Country / City	Total Equity Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms
United Kingdom (London)	2,140,875.1	6,432.7	284.9	75
United States (New York)	2,584,315.7	2,476.9	-64.0	47
Norway (Oslo)	740,718.7	1,260.3	0.5	3
United States (Boston)	2,241,764.4	1,040.1	60.9	13
Netherlands (Amsterdam)	177,094.5	829.4	0.0	4
United States (Atlanta)	191,118.3	473.1	29.4	2
Sweden (Stockholm)	209,809.1	431.2	37.4	10
Denmark (Copenhagen)	97,707.1	390.4	27.8	6
United States (Los Angeles)	1,262,070.2	383.1	-101.5	7
Switzerland (Geneva)	103,217.0	327.6	2.8	9
Canada (Toronto)	515,788.9	326.0	0.5	12
Netherlands (Rotterdam)	47,581.1	316.3	-15.7	1
Turkey (Istanbul)	268.7	269.9	-9.7	9
United States (Bridgewater)	41,445.1	266.7	12.5	1
Germany (Frankfurt)	309,917.6	252.3	-9.5	8
Singapore (Singapore)	158,778.0	246.2	1.5	11
Norway (Stavanger)	7,917.5	237.1	-24.9	1
Sweden (Solna)	37,207.4	210.3	-23.9	1
Poland (Warsaw)	21,606.4	193.7	0.0	17
Canada (Victoria)	44,196.4	193.5	0.0	1
Excludes Passive/Index Investors	16,556.9	209.3	238	

Most Investors				
Country / City	Total Equity Assets (\$M)	Value (\$M)	Activity (\$M)	# Firms
United Kingdom (London)	2,140,875.1	6,432.7	284.9	75
United States (New York)	2,584,315.7	2,476.9	-64.0	47
Poland (Warsaw)	21,606.4	193.7	0.0	17
France (Paris)	280,950.7	149.6	-10.5	16
Japan (Tokyo)	737,953.9	113.2	-0.5	14
South Korea (Seoul)	59,829.9	16.9	0.0	14
United States (Boston)	2,241,764.4	1,040.1	60.9	13
United States (Chicago)	319,054.8	140.1	-3.2	13
Canada (Toronto)	515,788.9	326.0	0.5	12
Singapore (Singapore)	158,778.0	246.2	1.5	11
Sweden (Stockholm)	209,809.1	431.2	37.4	10
Switzerland (Geneva)	103,217.0	327.6	2.8	9
Turkey (Istanbul)	268.7	269.9	-9.7	9
Germany (Frankfurt)	309,917.6	252.3	-9.5	8
Hong Kong (Central)	77,569.4	91.8	0.8	8
Taiwan (Taipei)	10,003.6	14.5	0.0	8
United States (Los Angeles)	1,262,070.2	383.1	-101.5	7
Austria (Vienna)	10,309.4	167.7	5.0	7
Switzerland (Zürich)	134,168.2	111.0	8.0	7
Finland (Helsinki)	17,009.9	86.7	10.1	7
Excludes Passive/Index Investors	13,271.1	213.1	312	

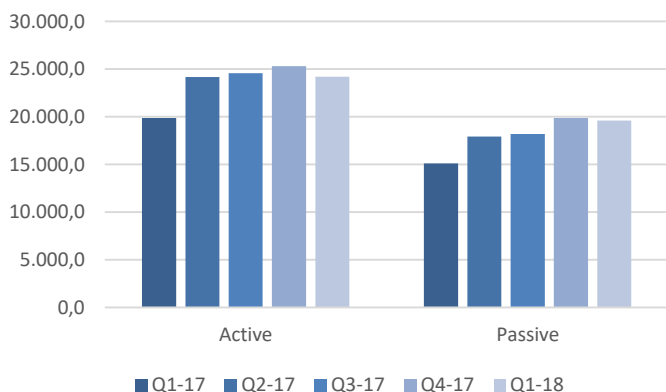
Active vs. Passive investors

The active-to-passive split of ownership stands at a 10% difference. Both orientations of investor made net purchases in the market with active holders increasing by \$70.4M and their passive counterparts increasing their aggregated exposure by \$173.7M – led by US based Dimensional Fund Advisors, The Vanguard Group, and First Trust Advisors which made net purchases of \$53.2M, \$29.4M and \$19.2M respectively.

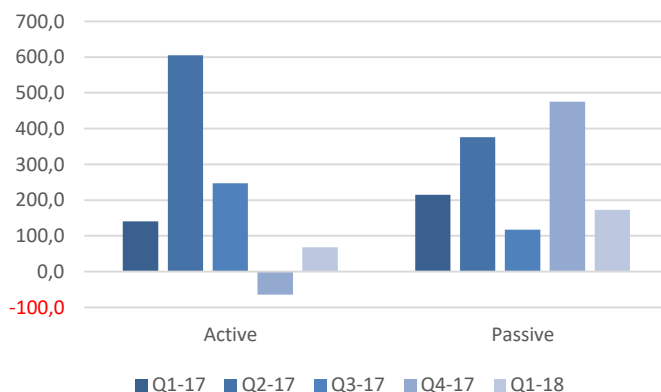
Active vs Passive Split



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
TIAA-CREF Investment Management, LLC	United States	New York	Very High	313,578.6	411.7	12.9	0.1	3.2
Pictet Asset Management, LTD	United Kingdom	London	Medium	25,106.5	365.2	20.2	1.5	5.8
Pioneer Investment Management, LTD (U.K.)	United Kingdom	London	High	9,666.9	334.0	-8.9	3.5	-2.1
Fidelity International Limited - FIL Investment Services (L	United Kingdom	London	Medium	44,590.9	322.7	-33.1	0.7	-9.3
Lord, Abnett & Co., LLC (Asset Management)	United States	Jersey City	High	114,041.1	287.8	37.5	0.3	15.0
Deutsche Asset Management Investment GmbH	Germany	Frankfurt	Medium	80,282.2	222.6	1.8	0.3	0.8
Union Investment Privatfonds GmbH	Germany	Frankfurt	Low	61,819.0	218.1	3.7	0.4	1.7
J.P. Morgan Investment Management, Inc.	United States	New York	Medium	125,410.0	216.7	28.3	0.2	15.0
Neuberger Berman Europe, LTD (Netherlands)	Netherlands	The Hague	Very High	5,766.4	202.3	-0.4	3.5	-0.2
Pioneer Investment Management, LTD (Ireland)	Ireland	Dublin	Medium	22,990.8	201.8	-2.7	0.9	-1.3
					2,782.9	59.2		
TOP BUYERS	Country	City	Turnover	FI Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
AllianceBernstein, L.P. (U.S.)	United States	New York	Medium	167,735.2	198.4	55.7	0.1	39.1
TCW Investment Management Company, LLC	United States	Los Angeles	Very High	114,828.5	79.7	54.0	0.1	210.2
Lord, Abnett & Co., LLC (Asset Management)	United States	Jersey City	High	114,041.1	287.8	37.5	0.3	15.0
Investec Asset Management, LTD (U.K.)	United Kingdom	London	Medium	15,446.8	120.9	31.6	0.8	35.4
Edmond de Rothschild Asset Management (France)	France	Paris	Medium	11,113.2	33.7	29.1	0.3	633.9
J.P. Morgan Investment Management, Inc.	United States	New York	Medium	125,410.0	216.7	28.3	0.2	15.0
Millennium Towarzystwo Funduszy Inwestycyjnych S.A.	Poland	Warsaw	High	749.3	57.7	23.3	7.7	67.7
TwentyFour Asset Management, LLP	United Kingdom	London	Very High	6,438.6	69.2	21.0	1.1	43.5
Pictet Asset Management, LTD	United Kingdom	London	Medium	25,106.5	365.2	20.2	1.5	5.8
Franklin Templeton Investment Management, LTD (U.K.)	United Kingdom	London	Low	5,406.2	44.0	19.2	0.8	77.4
					1,473.3	319.9		
TOP SELLERS	Country	City	Turnover	FI Assets (\$M)	Value (\$M)	Change (\$M)	% Portfolio	% Portfolio Chg
BZ WBK TFI S.A.	Poland	Poznan	Medium	2,775.3	163.6	-94.7	5.9	-36.7
T. Rowe Price Associates, Inc.	United States	Baltimore	Low	200,202.2	0.3	-37.1	0.0	-99.3
Fidelity International Limited - FIL Investment Services (L	United Kingdom	London	Medium	44,590.9	322.7	-33.1	0.7	-9.3
Amundi Pioneer Asset Management, Inc.	United States	Boston	Medium	48,877.1	51.1	-24.1	0.1	-32.0
AIG Asset Management (U.S.), LLC	United States	New York	Low	158,884.0	84.9	-20.4	0.1	-19.4
Morgan Stanley Investment Management Inc.	United States	New York	Low	119,997.9	35.4	-13.9	0.0	-28.2
Kames Capital PLC	United Kingdom	Edinburgh	Medium	20,308.2	23.0	-12.3	0.1	-34.8
Eurizon Capital SGR S.p.A.	Italy	Milan	High	33,625.5	180.5	-12.0	0.5	-6.2
Morgan Stanley Investment Management, LTD (U.K.)	United Kingdom	London	Very High	30,154.6	37.5	-10.8	0.1	-22.5
Newfleet Asset Management, LLC	United States	Hartford	Medium	11,659.3	40.5	-10.3	0.3	-20.2
					939.4	-268.7		

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)	1,147,320.2	2,484.7	101.0	64	United Kingdom (London)	1,147,320.2	2,484.7	101.0	64
United States (New York)	1,988,803.4	1,417.4	96.7	27	United States (New York)	1,988,803.4	1,417.4	96.7	27
Germany (Frankfurt)	221,828.3	632.8	15.3	8	Spain (Madrid)	93,809.7	130.6	18.6	23
Italy (Milan)	144,964.1	409.5	-17.1	11	Taiwan (Taipei)	5,770.1	100.5	4.7	16
United States (Boston)	1,124,356.1	379.6	-6.5	10	Switzerland (Zürich)	143,665.4	350.5	15.0	14
Switzerland (Zürich)	143,665.4	350.5	15.0	14	Italy (Milan)	144,964.1	409.5	-17.1	11
United States (Jersey City)	114,041.1	287.8	37.5	1	Austria (Vienna)	31,256.1	125.3	3.8	11
Poland (Warsaw)	5,904.7	254.0	25.0	9	Switzerland (Lugano)	3,652.5	110.5	1.0	11
Ireland (Dublin)	43,592.8	248.9	1.2	4	United States (Boston)	1,124,356.1	379.6	-6.5	10
Singapore (Singapore)	23,935.9	235.1	3.6	8	Poland (Warsaw)	5,904.7	254.0	25.0	9
Netherlands (The Hague)	24,084.7	206.7	-1.2	2	Switzerland (Geneva)	74,733.8	155.8	6.8	9
Poland (Poznan)	2,775.3	163.6	-94.7	1	Germany (Frankfurt)	221,828.3	632.8	15.3	8
Switzerland (Geneva)	74,733.8	155.8	6.8	9	Singapore (Singapore)	23,935.9	235.1	3.6	8
United States (Charlotte)	142,203.7	155.2	-1.4	2	France (Paris)	155,429.6	49.0	32.1	8
United States (Atlanta)	202,471.7	132.7	-3.3	2	Luxembourg (Luxembourg)	24,743.5	80.7	16.0	7
Spain (Madrid)	93,809.7	130.6	18.6	23	Canada (Toronto)	97,469.7	43.7	1.4	5
Austria (Vienna)	31,256.1	125.3	3.8	11	Germany (Hamburg)	5,480.3	23.6	2.3	5
United States (Newport Beach)	773,956.3	113.0	0.0	2	Germany (Munich)	20,674.0	18.3	0.8	5
Switzerland (Lugano)	3,652.5	110.5	1.0	11	Japan (Tokyo)	25,532.4	4.1	0.3	5
Taiwan (Taipei)	5,770.1	100.5	4.7	16	Ireland (Dublin)	43,592.8	248.9	1.2	4
				8,094.1	205.8	235			
							7,254.5	322.0	260

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.

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)



GLOSSARY

Equity Assets (\$M) – The market value of all current publicly disclosed ownership of equity securities held by an account/institution as identified by Ipreo, 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: $[(\sum \text{Value} (\$M)) / ((\sum \text{Value} (\$M) - (\sum \text{Change} (\$M)) \times 100)]$

Ipreo'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, Ipreo 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 Q3 2017 can be considered a snapshot of the most current positions.