

Kentucky Retirement Systems

Domestic and Global Commissions Report

Quarter Ending: September 30, 2019

Kentucky Retirement Systems
Domestic Equity - Common Stock Commissions
Quarter Ended September 30, 2019

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
B RILEY AND CO LLC, NEW YORK	1,480	59	68,405	0.0400	0.0865%
BARCLAYS	200,630	4,324	6,032,301	0.0216	0.0717%
BERNSTEIN SANFORD C & CO, NEW YORK	412,828	10,492	12,635,367	0.0254	0.0830%
BMO CAPITAL MARKETS CORP, NEW YORK	15,600	624	456,215	0.0400	0.1368%
BTIG LLC, NEW YORK	103,297	3,099	5,751,083	0.0300	0.0539%
CANTOR FITZGERALD & CO INC, NEW YORK	378,360	11,351	10,529,666	0.0300	0.1078%
CITIGROUP	112,191	1,918	9,445,861	0.0171	0.0203%
CREDIT SUISSE	251,435	3,273	12,678,836	0.0130	0.0258%
GOLDMAN SACHS	7,766	311	1,448,655	0.0400	0.0214%
GUGGENHEIM CAPITAL MARKETS LLC, NEW YORK	1,615	65	100,236	0.0400	0.0644%
INSTINET CORP	502,559	10,440	17,159,391	0.0208	0.0608%
INVESTMENT TECH GROUP INC, NEW YORK	158,057	3,612	5,088,652	0.0229	0.0710%
ISI GROUP	75,504	1,023	3,296,947	0.0136	0.0310%
ITG INC, NEW YORK	55,837	558	1,443,993	0.0100	0.0387%
J.P MORGAN SECURITIES INC, NEW YORK	190,921	2,437	4,965,818	0.0128	0.0491%
JMP SECURITIES, SAN FRANCISCO	35,280	1,411	1,568,089	0.0400	0.0900%
JONESTRADING INST SVCS LLC, NEW YORK	43,852	1,114	1,791,489	0.0254	0.0622%
KEEFE BRUYETTE + WOODS INC, NEW YORK	19,080	763	612,148	0.0400	0.1247%
KEYBANC CAPITAL MARKETS INC, NEW YORK	87,572	3,503	2,381,543	0.0400	0.1471%
KNIGHT EQUITY MARKETS LP, NEW YORK	92,973	2,789	5,337,965	0.0300	0.0523%
LEERINK SWANN AND COMPANY, NEW YORK	4,360	174	448,441	0.0400	0.0389%
LIQUIDNET INC, NEW YORK	141,222	3,091	5,183,467	0.0219	0.0596%
LUMINEX TRADING AND ANALYTICS, BOSTON	39,297	1,061	2,595,749	0.0270	0.0409%
MACQUARIE SECURITIES	1,123	45	48,168	0.0400	0.0933%
MERRILL LYNCH	85,627	1,156	4,160,979	0.0135	0.0278%
MKM PARTNERS LLC, GREENWICH	10,760	430	310,777	0.0400	0.1385%
O NEIL WILLIAM CO INC BCC CLRG, NEW YORK	12,183	487	1,254,795	0.0400	0.0388%
OPPENHEIMER & CO INC, NEW YORK	20,390	816	898,177	0.0400	0.0908%
PIPER JAFFRAY & CO., JERSEY CITY	9,486	379	723,092	0.0400	0.0525%
RAYMOND JAMES & ASSOC INC, ST PETERSBURG	96,840	2,762	6,742,409	0.0285	0.0410%
RBC CAPITAL MARKETS	115,394	1,941	2,415,761	0.0168	0.0803%
SCOTIA CAPITAL (USA) INC, NEW YORK	62,988	472	1,208,891	0.0075	0.0391%
STEPHENS INC, LITTLE ROCK	7,375	295	801,121	0.0400	0.0368%
STIFEL NICOLAUS	17,150	686	723,891	0.0400	0.0948%
SUNTRUST CAPITAL MARKETS INC, NEW YORK	13,220	529	2,766,370	0.0400	0.0191%
UBS	2,744,222	18,706	218,335,794	0.0068	0.0086%
WEEDEN and CO	403,283	12,082	18,783,491	0.0300	0.0643%
WELLS FARGO SECURITIES, LLC, NEW YORK	33,100	1,324	2,056,031	0.0400	0.0644%
WILLIAM BLAIR & CO, CHICAGO	20,940	838	612,598	0.0400	0.1367%
WOLFE TRAHAN SECURITIES, NEW YORK	19,370	775	579,637	0.0400	0.1337%

TOTAL DOMESTIC	6,605,167	111,218	373,442,299	0.0168	0.0298%
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Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
NTGI STRUCTURED	55,837	558	1,443,993	0.0100	0.0387%
RIVER ROAD FAV	1,959,169	50,840	68,540,967	0.0259	0.0742%
S&P 500 INDEX	2,587,553	17,531	217,122,606	0.0068	0.0081%
TORTOISE CAP	881,023	7,718	18,919,617	0.0088	0.0408%
WESTFIELD CAPITAL	1,121,585	34,571	67,415,116	0.0308	0.0513%

TOTAL DOMESTIC	6,605,167	111,218	373,442,299	0.0168	0.0298%
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Kentucky Retirement Systems
Global Equity - Common Stock Commissions
Quarter Ended September 30, 2019

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
BARCLAYS	302,366	5,505	8,509,689	0.0182	0.0647%
BERENBERG GOSSLER & CIE, HAMBURG	9,080	8,767	7,314,569	0.9655	0.1199%
BERNSTEIN SANFORD C & CO, NEW YORK	10,150	51	1,974,168	0.0050	0.0026%
BNP PARIBUS	183,864	1,506	2,730,069	0.0082	0.0551%
BOFA SECURITIES, INC, NEW YORK	3,100	133	332,701	0.0429	0.0400%
CANTOR FITZGERALD & CO INC, NEW YORK	12,700	381	789,575	0.0300	0.0483%
CHINA INTL CAP CORP HK SECS, HONG KONG	115,000	664	947,090	0.0058	0.0701%
CITIGROUP	3,577,801	20,938	25,600,941	0.0059	0.0818%
CREDIT LYONNAIS SECS, SINGAPORE	16,600	162	323,221	0.0097	0.0500%
CREDIT SUISSE	2,214,253	19,592	29,338,149	0.0088	0.0668%
DAIWA SECURITIES	84,900	891	1,781,762	0.0105	0.0500%
DEUTSCHE BANK AG, LONDON	27,500,000	23,109	645,695	0.0008	3.5790%
DEUTSCHE SEC ASIA LTD, HONG KONG	700,000	172	171,516	0.0002	0.1002%
EXANE, PARIS (EXANFRPP)	80,389	2,514	4,233,035	0.0313	0.0594%
GOLDMAN SACHS	444,505	18,467	15,526,400	0.0415	0.1189%
HSBC	55,902	126	420,515	0.0023	0.0300%
INSTINET CORP	53,000	206	685,024	0.0039	0.0301%
INVESTEC SECURITIES (331), LONDON	15,000	1,049	703,708	0.0699	0.1490%
INVESTMENT TECHNOLOGY GROUP LTD,DUBLIN	1,023,171	7,940	10,291,628	0.0078	0.0771%
ITG AUSTRALIA LTD, MELBOURNE	107,700	975	1,841,720	0.0090	0.0529%
JEFFERIES & CO INC, NEW YORK	136,209	1,039	3,759,712	0.0076	0.0276%
JEFFERIES & CO LTD, LONDON	241,966	1,883	1,961,286	0.0078	0.0960%
JP MORGAN SECURITIES	898,058	17,770	29,768,210	0.0198	0.0597%
JPMORGAN SECURITIES INC, NEW YORK	38,830	3,087	3,083,576	0.0795	0.1001%
KEPLER EQUITIES, PARIS	46,135	2,060	2,872,631	0.0447	0.0717%
KNIGHT EQUITY MARKETS LP, NEW YORK	800	4	107,813	0.0050	0.0037%
LIQUIDNET CANADA INC, TORONTO	1,400	16	71,522	0.0113	0.0221%
LIQUIDNET EUROPE LIMITED, LONDON	1,948	44	87,487	0.0224	0.0500%
LIQUIDNET INC, NEW YORK	5,944	69	655,272	0.0116	0.0106%
MACQUARIE SECURITIES	612,510	8,420	8,813,171	0.0137	0.0955%
MAINFIRST BANK AG,FRANKFURT AM MAIN	24,133	4,154	3,457,286	0.1721	0.1201%
MERRILL LYNCH	1,901,968	29,046	39,553,496	0.0153	0.0734%
MITSUBISHI SECURITIES	2,900	45	89,155	0.0154	0.0500%
MIZUHO SECURITIES USA INC. NEW YORK	9,100	211	211,664	0.0232	0.0999%
MORGAN STANLEY	1,648,821	26,808	32,280,972	0.0163	0.0830%
NOMURA SECURITIES	13,200	205	410,447	0.0156	0.0500%
NUMIS SECURITIES LTD, LONDON	160,000	6,653	4,442,241	0.0416	0.1498%
ODDO ET CIE, PARIS	52,607	408	818,600	0.0078	0.0498%
PAREL, PARIS	10,876	114	227,293	0.0105	0.0500%
RBC CAPITAL MARKETS	770,611	6,135	9,935,430	0.0080	0.0618%
REDBURN PARTNERS LLP, LONDON	44,473	1,288	1,295,630	0.0290	0.0994%
S G WARBURG, SEOUL	69,190	1,011	2,016,494	0.0146	0.0501%
SANFORD C BERNSTEIN & CO INC, LONDON	149,176	4,087	9,172,844	0.0274	0.0446%
SG SEC (LONDON) LTD, LONDON	98,890	7,571	7,122,376	0.0766	0.1063%
SMBC SECURITIES, INC NEW YORK	33,500	288	576,550	0.0086	0.0500%
SOCIETE GENERALE LONDON BRANCH, LONDON	503,844	6,563	10,958,583	0.0130	0.0599%
SOCIETE GENERALE, PARIS	24,288	2,491	2,165,795	0.1026	0.1150%
UBS	3,206,530	7,604	15,896,830	0.0024	0.0478%
TOTAL GLOBAL	47,217,388	252,221	305,973,541	0.0053	0.0824%

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
AMERICAN CENTURY	4,590,076	111,939	139,466,889	0.0244	0.0803%
FRANKIN TEMPLETON	5,763,200	79,291	82,149,029	0.0138	0.0965%
LAZARD ASSET MGMT	1,794,163	18,765	49,695,982	0.0105	0.0378%
LSV ASSET MANAGEMENT	6,140,488	11,112	23,606,049	0.0018	0.0471%
LSV ASSET MGMT	1,429,400	4,452	9,368,790	0.0031	0.0475%
MANULIFE ASSET MGMT	27,500,061	26,662	1,686,802	0.0010	1.5806%
TOTAL GLOBAL	47,217,388	252,221	305,973,541	0.0053	0.0824%