

Kentucky Retirement Systems

Domestic and Global Commissions Report

Quarter Ending: September 30, 2018

Kentucky Retirement Systems
Domestic Equity - Common Stock Commissions
Quarter Ended September 30, 2018

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
BAIRD, ROBERT W & CO INC, MILWAUKEE	13,980	559	632,829	0.0400	0.0884%
BARCLAYS	75,567	2,810	4,571,272	0.0372	0.0615%
BERNSTEIN SANFORD C & CO, NEW YORK	401,930	10,583	22,966,279	0.0263	0.0461%
BMO CAPITAL MARKETS CORP, NEW YORK	16,820	673	3,135,151	0.0400	0.0215%
BTIG LLC, NEW YORK	145,002	4,412	11,107,565	0.0304	0.0397%
CANTOR FITZGERALD & CO INC, NEW YORK	241,061	4,852	17,470,974	0.0201	0.0278%
CITIGROUP	106,266	2,390	3,345,714	0.0225	0.0714%
COWEN AND CO LLC, NEW YORK	56,265	1,768	1,864,953	0.0314	0.0948%
CREDIT SUISSE	81,489	2,100	5,310,359	0.0258	0.0395%
DEUTSCHE BANK	19,940	765	1,791,537	0.0384	0.0427%
DIRECT TRADING, UNITED STATES	118,100	3,543	3,780,345	0.0300	0.0937%
GOLDMAN SACHS	198,890	3,165	7,571,380	0.0159	0.0418%
GUGGENHEIM CAPITAL MARKETS LLC, NEW YORK	950	38	83,699	0.0400	0.0454%
INSTINET CORP	84,243	1,323	4,401,490	0.0157	0.0301%
INVESTMENT TECH GROUP INC, NEW YORK	1,127,815	14,308	54,363,800	0.0127	0.0263%
ISI GROUP	106,819	3,035	4,812,625	0.0284	0.0631%
ITG INC, NEW YORK	140,135	1,673	4,922,049	0.0119	0.0340%
J.P MORGAN SECURITIES INC, NEW YORK	112,407	1,402	7,025,565	0.0125	0.0200%
JEFFERIES & CO INC, NEW YORK	20,870	827	2,273,339	0.0396	0.0364%
JMP SECURITIES, SAN FRANCISCO	23,320	933	2,131,799	0.0400	0.0438%
JONESTRADING INST SVCS LLC, NEW YORK	12,870	386	1,151,322	0.0300	0.0335%
JP MORGAN SECURITIES	12,488	94	256,956	0.0075	0.0364%
KEEFE BRUYETTE + WOODS INC, NEW YORK	8,910	356	828,023	0.0400	0.0430%
KEYBANC CAPITAL MARKETS INC, NEW YORK	33,885	1,355	1,663,348	0.0400	0.0815%
LIQUIDNET INC, NEW YORK	1,576,170	19,481	70,773,787	0.0124	0.0275%
MERRILL LYNCH	47,630	1,297	3,270,459	0.0272	0.0397%
MKM PARTNERS LLC, GREENWICH	28,470	1,139	611,195	0.0400	0.1863%
NATIONAL FINL SVCS CORP, NEW YORK	2,690	81	259,782	0.0300	0.0311%
NEEDHAM AND CO LLC, NEW YORK	17,360	694	875,689	0.0400	0.0793%
OPPENHEIMER & CO INC, NEW YORK	11,960	478	2,303,035	0.0400	0.0208%
PIPER JAFFRAY & CO., JERSEY CITY	2,470	99	348,885	0.0400	0.0283%
RAYMOND JAMES & ASSOC INC, ST PETERSBURG	59,490	1,772	2,234,841	0.0298	0.0793%
RBC CAPITAL MARKETS	64,819	974	2,089,773	0.0150	0.0466%
SANDLER ONEILL AND PARTNER LP, NEW YORK	26,220	787	1,326,152	0.0300	0.0593%
STEPHENS INC, LITTLE ROCK	4,245	170	857,441	0.0400	0.0198%
STIFEL NICOLAUS	176,202	4,761	8,640,409	0.0270	0.0551%
SUNTRUST CAPITAL MARKETS INC, NEW YORK	8,960	269	638,180	0.0300	0.0421%
UBS	618,869	5,705	38,356,671	0.0092	0.0149%
WEDBUSH MORGAN SECS INC, LOS ANGELES	13,860	554	1,727,193	0.0400	0.0321%
WEEDEN and CO	555,891	16,621	12,210,915	0.0299	0.1361%
WELLS FARGO SECURITIES, LLC, NEW YORK	230,658	3,960	10,552,686	0.0172	0.0375%
WOLFE TRAHAN SECURITIES, NEW YORK	7,870	315	698,055	0.0400	0.0451%
TOTAL DOMESTIC	6,613,856	122,508	325,237,521	0.0185	0.0377%

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
GREEN EQTY INVST V	49,173	492	6,155,844	0.0100	0.0080%
INST VEN PTRN XII	200,831	2,008	4,462,469	0.0100	0.0450%
RIVER ROAD	42,616	1,048	1,385,834	0.0246	0.0757%
RIVER ROAD FAV	1,516,013	39,527	64,042,500	0.0261	0.0617%
S&P 500 INDEX	315,490	1,580	26,089,849	0.0050	0.0061%
SYSTEMATIC	3,258,227	46,182	136,503,657	0.0142	0.0338%
TORTOISE CAP	480,298	6,439	13,265,709	0.0134	0.0485%
WESTFIELD CAPITAL	751,208	25,232	73,331,659	0.0336	0.0344%
TOTAL DOMESTIC	6,613,856	122,508	325,237,521	0.0185	0.0377%

Kentucky Retirement Systems
Global Equity - Common Stock Commissions
Quarter Ended September 30, 2018

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
BANCO SANTANDER, NEW YORK	550,000	1,651	1,648,398	0.0030	0.1001%
BARCLAYS	218,824	442	1,478,662	0.0020	0.0299%
BERNSTEIN SANFORD C & CO, NEW YORK	35,100	303	1,518,090	0.0086	0.0200%
BNP PARIBUS	26,290	368	642,007	0.0140	0.0573%
BNY MELLON CLEARING	110,000	3,793	2,524,931	0.0345	0.1502%
CITIGROUP	999,230	8,135	14,315,256	0.0081	0.0568%
CREDIT LYONNAIS SECS (ASIA), HONG KONG	926,000	8,586	4,920,207	0.0093	0.1745%
CREDIT LYONNAIS SECS, SINGAPORE	78,400	2,276	3,624,394	0.0290	0.0628%
CREDIT SUISSE	2,115,457	13,327	24,555,358	0.0063	0.0543%
DAVY STOCKBROKERS, DUBLIN	5,116	426	558,264	0.0832	0.0763%
DEUTSCHE BANK	100,969	5,175	6,512,541	0.0513	0.0795%
DEUTSCHE MORGAN GRENFELL SEC, SYDNEY	14,000	2,352	2,135,996	0.1680	0.1101%
FIDELITY CLEARING CANADA ULC, TOR (FIDC)	1,300	23	67,030	0.0177	0.0343%
GOLDMAN SACHS	664,890	6,617	9,802,136	0.0100	0.0675%
HSBC	475,309	986	3,299,266	0.0021	0.0299%
INVESTMENT TECHNOLOGY GROUP LTD,DUBLIN	477,203	3,197	4,776,774	0.0067	0.0669%
ITG AUSTRALIA LTD, MELBOURNE	304,700	262	254,943	0.0009	0.1027%
J.P MORGAN SECURITIES INC, NEW YORK	37,549	193	3,329,999	0.0051	0.0058%
JEFFERIES & CO INC, NEW YORK	142,846	3,385	5,712,891	0.0237	0.0592%
JEFFERIES & CO LTD, LONDON	35,000	275	844,609	0.0078	0.0325%
JP MORGAN SECURITIES	410,881	9,841	16,608,286	0.0240	0.0593%
JPMORGAN SECURITIES INC, NEW YORK	99,780	240	556,815	0.0024	0.0431%
LIQUIDNET CANADA INC, TORONTO	13,400	187	419,483	0.0140	0.0447%
LIQUIDNET INC, NEW YORK	104,237	1,042	8,394,278	0.0100	0.0124%
MACQUARIE SECURITIES	5,349,072	7,205	7,958,416	0.0013	0.0905%
MAINFIRST BANK AG,FRANKFURT AM MAIN	14,080	5,384	4,481,556	0.3824	0.1201%
MERRILL LYNCH	1,558,054	22,331	51,017,398	0.0143	0.0438%
MORGAN STANLEY	1,978,785	25,982	24,638,539	0.0131	0.1055%
NESBITT BURNS, TORONTO (NTDT)	355,100	3,232	2,057,905	0.0091	0.1570%
RBC CAPITAL MARKETS	706,500	12,468	13,459,311	0.0176	0.0926%
REDBURN PARTNERS LLP, LONDON	35,372	500	837,179	0.0141	0.0597%
S G WARBURG, SEOUL	10,900	247	493,662	0.0226	0.0500%
SANFORD C BERNSTEIN & CO INC, LONDON	20,850	2,426	2,111,632	0.1163	0.1149%
SCOTIA CAPITAL MKTS, TORONTO	3,200	73	66,996	0.0228	0.1090%
SG SEC (LONDON) LTD, LONDON	79,500	785	1,376,836	0.0099	0.0570%
SMBC SECURITIES, INC NEW YORK	88,050	3,436	3,901,992	0.0390	0.0881%
SOCIETE GENERALE LONDON BRANCH, LONDON	263,289	5,260	10,266,130	0.0200	0.0512%
TORONTO DOMINION SEC, TORONTO	22,122	166	1,275,505	0.0075	0.0130%
UBS	5,023,619	30,003	37,327,886	0.0060	0.0804%
XP INVESTIMENTOS CCTVM SA,RIO DE JANEIRO	510,000	1,360	1,361,728	0.0027	0.0999%
TOTAL GLOBAL	23,964,974	193,938	281,133,285	0.0081	0.0690%

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
AMERICAN CENTURY	10,288,749	79,803	112,403,365	0.0078	0.0710%
COLUMBIA	(12)	2,088	173,430	(174.0383)	1.2042%
FRANKIN TEMPLETON	5,115,854	57,686	71,621,016	0.0113	0.0805%
LAZARD ASSET MGMT	1,479,765	21,672	35,930,547	0.0146	0.0603%
LSV ASSET MANAGEMENT	5,225,204	19,433	42,711,738	0.0037	0.0455%
LSV ASSET MGMT	1,855,120	7,481	16,516,983	0.0040	0.0453%
MANULIFE ASSET MGMT	294	5,774	1,776,206	19.6402	0.3251%
TOTAL GLOBAL	23,964,974	193,938	281,133,285	0.0081	0.0690%