

Kentucky Retirement Systems

Domestic and Global Commissions Report

Quarter Ending: June 30, 2020

Kentucky Retirement Systems
Domestic Equity - Common Stock Commissions
Quarter Ended June 30, 2020

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
BAIRD, ROBERT W & CO INC, MILWAUKEE	4,750	190.00	867,225.00	0.0400	0.0219%
BARCLAYS	297,636	3,329.98	14,444,334.00	0.0112	0.0231%
BERNSTEIN SANFORD C & CO, NEW YORK	179,606	3,592.12	10,900,263.00	0.0200	0.0330%
BNY MELLON CLEARING	20,974	618.04	1,143,833.00	0.0295	0.0540%
BTIG LLC, NEW YORK	765,258	15,497.29	31,070,457.00	0.0203	0.0499%
CANTOR FITZGERALD & CO INC, NEW YORK	1,871,566	30,666.90	67,605,661.00	0.0164	0.0454%
CITIGROUP	471,006	6,562.91	35,566,622.00	0.0139	0.0185%
COWEN AND CO LLC, NEW YORK	9,528	71.46	154,236.00	0.0075	0.0463%
CREDIT SUISSE	165,919	2,334.37	10,712,135.00	0.0141	0.0218%
GOLDMAN SACHS	265,221	5,304.42	5,529,107.00	0.0200	0.0959%
GUGGENHEIM CAPITAL MARKETS LLC, NEW YORK	39,920	1,596.80	2,178,460.00	0.0400	0.0733%
INSTINET CORP	75,166	1,503.32	4,877,697.00	0.0200	0.0308%
INVESTMENT TECH GROUP INC, NEW YORK	38,796	988.55	3,542,608.00	0.0255	0.0279%
INVESTMENT TECHNOLOGY GROUP, NEW YORK	740	14.80	154.00	0.0200	9.6104%
ISI GROUP	692,357	11,060.79	18,739,279.00	0.0160	0.0590%
ITG INC, NEW YORK	4,919,383	36,901.97	110,348,273.00	0.0075	0.0334%
J.P MORGAN SECURITIES INC, NEW YORK	592,731	7,785.10	25,953,077.00	0.0131	0.0300%
JEFFERIES & CO INC, NEW YORK	126,056	1,160.74	3,091,880.00	0.0092	0.0375%
JMP SECURITIES, SAN FRANCISCO	1,880	75.20	739,360.00	0.0400	0.0102%
KEEFE BRUYETTE + WOODS INC, NEW YORK	48,702	1,948.08	2,524,906.00	0.0400	0.0772%
KNIGHT EQUITY MARKETS LP, NEW YORK	60,880	456.61	896,662.00	0.0075	0.0509%
LIQUIDNET INC, NEW YORK	212,982	3,782.05	9,647,441.00	0.0178	0.0392%
LUMINEX TRADING AND ANALYTICS, BOSTON	12,942	349.43	1,477,509.00	0.0270	0.0236%
MERRILL LYNCH	136,465	3,386.30	5,246,683.00	0.0248	0.0645%
MORGAN STANLEY	178,806	1,341.06	1,849,515.00	0.0075	0.0725%
NEEDHAM AND CO LLC, NEW YORK	29,800	1,192.00	1,373,600.00	0.0400	0.0868%
OPPENHEIMER & CO INC, NEW YORK	22,050	882.00	464,331.00	0.0400	0.1900%
PIPER JAFFRAY & CO., JERSEY CITY	192,863	2,182.03	4,075,014.00	0.0113	0.0535%
RBC CAPITAL MARKETS	295,236	3,929.32	7,912,695.00	0.0133	0.0497%
SCOTIA CAPITAL (USA) INC, NEW YORK	33,712	252.85	461,353.00	0.0075	0.0548%
STIFEL NICOLAUS	1,350	54.00	356,601.00	0.0400	0.0151%
UBS	8,212,932	61,749.21	688,496,290.00	0.0075	0.0090%
WELLS FARGO SECURITIES, LLC, NEW YORK	367,724	4,853.05	9,908,949.00	0.0132	0.0490%
WILLIAM BLAIR & CO, CHICAGO	31,023	1,126.32	1,105,945.00	0.0363	0.1018%
TOTAL DOMESTIC	20,375,960	216,739	1,083,262,155	0.0106	0.0200%

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
NTGI STRUCTURED	4,934,797	37,057.76	110,672,707.00	0.0075	0.0335%
RIVER ROAD FAV	3,354,403	60,515.77	127,694,926.00	0.0180	0.0474%
S&P 500 INDEX	8,118,789	60,896.09	685,033,563.00	0.0075	0.0089%
TORTOISE CAP	2,585,132	19,927.21	45,494,388.00	0.0077	0.0438%
WARBURG PINCUS PE X	25,067	250.67	2,544,237.00	0.0100	0.0099%
WESTFIELD CAPITAL	1,357,772	38,091.57	111,822,334.00	0.0281	0.0341%
TOTAL DOMESTIC	20,375,960	216,739	1,083,262,155	0.0106	0.0200%

Kentucky Retirement Systems
Global Equity - Common Stock Commissions
Quarter Ended June 30, 2020

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
BANCO BTG PACTUAL SA, RIO DE JANEIRO	486,600	187.63	375,578.00	0.0004	0.0500%
BANCO ITAU, SAO PAULO	151,000	1,298.46	864,337.00	0.0086	0.1502%
BANCO SANTANDER, NEW YORK	200,000	274.84	275,198.00	0.0014	0.0999%
BARCLAYS	2,182,509	14,070.05	45,806,876.00	0.0064	0.0307%
BERENBERG GOSSLER & CIE, HAMBURG	73,500	4,800.87	3,205,389.00	0.0653	0.1498%
BERNSTEIN SANFORD C & CO, NEW YORK	559,519	2,846.55	13,445,733.00	0.0051	0.0212%
BNP PARIBUS	574,051	3,930.13	4,969,818.00	0.0068	0.0791%
BNY MELLON CLEARING	1,929,469	16,374.31	34,753,874.00	0.0085	0.0471%
BRASIL PLURAL CCTVM SA, SAO PAULO	1,500,600	1,585.92	1,587,982.00	0.0011	0.0999%
CANACCORD GENUITY LTD, LONDON	4,057	30.51	61,046.00	0.0075	0.0500%
CIBC WORLD MKTS INC, TORONTO	200,000	5,393.02	2,880,648.00	0.0270	0.1872%
CITIGROUP	7,039,809	36,250.49	63,907,685.00	0.0051	0.0567%
CREDIT LYONNAIS SECS (ASIA), HONG KONG	752,800	2,334.03	3,281,903.00	0.0031	0.0711%
CREDIT LYONNAIS SECS, SINGAPORE	37,900	601.80	1,204,278.00	0.0159	0.0500%
CREDIT SUISSE	4,129,816	21,547.57	39,326,193.00	0.0052	0.0548%
D CARNEGIE AB, STOCKHOLM	23,037	1,480.04	988,172.00	0.0642	0.1498%
DAIWA SECURITIES	263,400	6,290.93	12,006,694.00	0.0239	0.0524%
EXANE, PARIS (EXANFRPP)	421,665	11,514.11	19,866,863.00	0.0273	0.0580%
GOLDMAN SACHS	1,771,156	21,669.16	53,559,743.00	0.0122	0.0405%
HSBC	730,241	2,465.81	5,177,656.00	0.0034	0.0476%
INSTINET CORP	62,000	251.07	838,041.00	0.0040	0.0300%
INVESTMENT TECHNOLOGY GROUP LTD,DUBLIN	377,603	5,174.79	9,043,561.00	0.0137	0.0572%
ITG AUSTRALIA LTD, MELBOURNE	20,000	486.28	958,232.00	0.0243	0.0507%
ITG INC, NEW YORK	15,000	562.50	1,017,150.00	0.0375	0.0553%
JEFFERIES & CO INC, NEW YORK	111,871	2,169.13	7,245,121.00	0.0194	0.0299%
JEFFERIES & CO LTD, LONDON	112,100	2,082.16	6,406,858.00	0.0186	0.0325%
JEFFERIES HONG KONG LIMITED, HONG KONG	10,400,500	6,165.34	11,272,236.00	0.0006	0.0547%
JP MORGAN SECURITIES	1,104,844	14,001.93	50,816,790.00	0.0127	0.0276%
JPMORGAN SECURITIES INC, NEW YORK	377,793	2,084.35	10,417,983.00	0.0055	0.0200%
KEPLER EQUITIES, PARIS	53,040	1,319.53	2,207,138.00	0.0249	0.0598%
LIQUIDNET CANADA INC, TORONTO	1,300	14.46	20,498.00	0.0111	0.0705%
LIQUIDNET EUROPE LIMITED, LONDON	204,963	2,221.89	4,334,424.00	0.0108	0.0513%
LIQUIDNET INC, NEW YORK	13,132	131.32	786,738.00	0.0100	0.0167%
MACQUARIE SECURITIES	287,700	5,808.45	7,325,709.00	0.0202	0.0793%
MERRILL LYNCH	2,096,020	29,798.78	91,065,899.00	0.0142	0.0327%
MIZUHO SECURITIES USA INC. NEW YORK	238,600	2,274.96	4,550,243.00	0.0095	0.0500%
MORGAN J P SECS INC, NEW YORK	16,305,000	5.97	104,733.00	0.0000	0.0057%
MORGAN STANLEY	8,107,844	44,271.30	97,421,249.00	0.0055	0.0454%
NATIONAL FINL SVCS CORP, NEW YORK	85,700	2,142.50	8,422,746.00	0.0250	0.0254%
NESBITT BURNS, TORONTO (NTDT)	425,000	11,712.69	6,664,449.00	0.0276	0.1757%
NUMIS SECURITIES INC., NEW YORK	87,112	1,368.55	2,282,299.00	0.0157	0.0600%
NUMIS SECURITIES LTD, LONDON	6,747	48.57	97,177.00	0.0072	0.0500%
RBC CAPITAL MARKETS	1,167,917	19,273.79	28,975,091.00	0.0165	0.0665%
REDBURN PARTNERS LLP, LONDON	64,030	869.64	1,454,618.00	0.0136	0.0598%
S G WARBURG, SEOUL	46,600	924.82	1,850,558.00	0.0198	0.0500%
SAMSUNG SECS, SEOUL	13,000	4,229.55	2,105,259.00	0.3254	0.2009%
SANFORD C BERNSTEIN & CO INC, LONDON	199,222	6,204.12	10,205,190.00	0.0311	0.0608%
SCOTIA CAPITAL INC, NEW YORK	512,800	424.32	424,871.00	0.0008	0.0999%
SG SEC (LONDON) LTD, LONDON	234,000	1,411.42	1,767,600.00	0.0060	0.0798%
SKANDINAVISKA ENSKILDA BANKEN, COPENHAGE	21,100	1,148.86	1,915,913.00	0.0544	0.0600%
SMBC SECURITIES, INC NEW YORK	660,800	9,346.79	18,690,752.00	0.0141	0.0500%
SOCIETE GENERALE, PARIS	36,728	922.87	1,852,221.00	0.0251	0.0498%
TORONTO DOMINION SEC, TORONTO	71,324	788.15	1,281,933.00	0.0111	0.0615%
UBS	5,826,391	32231.67	86950272	0.0055	0.0371%
UNION BANK OF SWITZERLAND, ZURICH	40,380	543.67	1811647	0.0135	0.0300%

VIRTU AMERICAS LLC, JERSEY CITY	5,568	167.04	528268	0.0300	0.0316%
WARBURG DILLON READ SEC, MUMBAI	205,000	597.26	1196422	0.0029	0.0499%
TOTAL GLOBAL	72,629,858	368,127	791,855,555	0.0051	0.0465%

Broker/Account	Shares Traded	Commission	Value of Trade	Per Share	% Cost of Trade
AMERICAN CENTURY	14,423,954	116,161.84	318,847,838.00	0.0081	0.0364%
FRANKIN TEMPLETON	8,405,780	129,956.49	189,013,082.00	0.0155	0.0688%
LAZARD ASSET MGMT	10,552,513	65,637.85	171,631,236.00	0.0062	0.0382%
LSV ASSET MANAGEMENT	16,561,622	38,120.14	80,984,474.00	0.0023	0.0471%
LSV ASSET MGMT	6,352,641	12,709.96	27,620,726.00	0.0020	0.0460%
MANULIFE ASSET MGMT	16,333,348	5,540.44	3,758,199.00	0.0003	0.1474%
TOTAL GLOBAL	72,629,858	368,127	791,855,555	0.0051	0.0465%