Date	Open	High	Low	Close	Adj Close	Volume	Returns
2011-01-	01 115.940002	119.220001	115.480003	117.699997	97.554596	4401500	
2011-02-	01 118.480003	123.220001	118.379997	121.779999	100.936302	2761000	3.47%
2011-03-	01 122.279999	122.300003	114.639999	121.239998	100.488731	3866000	-0.44%
2011-04-	01 122.120003	124.879997	118.440002	124.800003	103.90258	2301800	3.40%
2011-05-	01 125.440002	125.440002	120.160004	123.339996	102.687035	2454700	-1.17%
2011-06-	01 123.040001	123.040001	115.540001	120.68	100.47245	2549200	-2.16%
2011-07-	01 120.739998	124.099998	117.440002	118.199997	98.885956	2976900	-1.58%
2011-08-	01 119.779999	119.82	100.919998	111.68	93.43132	9424400	-5.52%
2011-09-	01 111.739998	112.800003	102.379997	103.519997	86.604706	4570600	-7.31%
2011-10-	01 102.82	118.300003	98.239998	114.639999	96.446671	8389800	11.36%
2011-11-	01 111.540001	117.019997	106.300003	114.300003	96.160645	5038200	-0.30%
2011-12-	01 114.139999	118.160004	110.440002	114.900002	96.665436	7915500	0.52%
2012-01-	01 116.900002	122	115.68	120.040001	101.59375	4406100	5.10%
2012-02-	01 121	126.400002	120.860001	125.18	105.943909	5165600	4.28%
2012-03-	01 125.639999	129.839996	122.900002	128.740005	108.956848	10064500	2.84%
2012-04-	01 128.740005	130.119995	124.220001	127.919998	108.74575	9620100	-0.19%
2012-05-	01 127.959999	129.600006	118.559998	120.239998	102.216904	10442700	-6.00%
2012-06-	01 118.339996	125.300003	116.339996	124.559998	105.889374	7559400	3.59%
2012-07-	01 124.900002	127.459999	121.32	126.059998	107.726234	8482500	1.73%
2012-08-	01 126.879997	130.940002	124.080002	129.220001	110.426682	8237400	2.51%
2012-09-	01 129.139999	135.580002	128.240005	131.839996	112.665634	8056700	2.03%
2012-10-	01 132.300003	134.720001	128.539993	129.259995	111.028336	7821100	-1.45%
2012-11-	01 129.720001	131.580002	123.379997	130	111.663948	9390500	0.57%
2012-12-	01 130.740005	133.320007	127.800003	130.380005	111.990364	11729500	0.29%
2013-01-	01 132.940002	138.199997	132.559998	137.119995	118.626495	18928600	5.93%
2013-02-	01 137.979996	140.360001	136.220001	138.940002	120.20105	16918800	1.33%
2013-03-	01 138.320007	143.619995	137.740005	143.279999	123.955711	14609000	3.12%
2013-04-	01 143.399994	146.279999	140.580002	146.279999	127.150978	18848400	2.58%
2013-05-	01 145.919998	154.860001	144.779999	149.679993	130.106323	14065600	2.32%
2013-06-	01 150.059998	152	142.660004	146.679993	127.498665	26008800	-2.00%
2013-07-	01 147.740005	155.619995	146.759995	154.460007	134.941528	16691300	5.84%

2013-08-01	155.679993	156.619995	149.339996	149.699997	130.783035	14859500	-3.08%
2013-09-01	151.320007	159.039993	149.940002	154	134.539658	23482300	2.87%
2013-10-01	154.039993	162.619995	150.720001	160.880005	141.256927	33454000	4.99%
2013-11-01	161.279999	166.509995	160.100006	165.699997	145.489044	26113000	3.00%
2013-12-01	165.949997	169.229996	162.009995	169.149994	148.518234	31082700	2.08%
2014-01-01	168.529999	169.429993	162.070007	163.179993	144.055725	29636000	-3.00%
2014-02-01	163.020004	171.470001	159.179993	170.630005	150.632645	24164200	4.57%
2014-03-01	169.190002	173.190002	168.380005	171.350006	151.268219	24621000	0.42%
2014-04-01	171.869995	173.820007	166.110001	172.589996	153.058502	27491700	1.18%
2014-05-01	172.5	176.690002	170.440002	176.550003	156.570404	20604100	2.29%
2014-06-01	176.830002	180.570007	175.940002	179.429993	159.124405	19356700	1.63%
2014-07-01	179.880005	182.5	176.960007	176.960007	157.640701	18901400	-0.93%
2014-08-01	176.520004	184.169998	174.699997	183.990005	163.903198	23864300	3.97%
2014-09-01	184.300003	185.839996	179.770004	180.589996	160.87439	17064700	-1.85%
2014-10-01	180.339996	185.050003	166.850006	184.929993	165.524948	47152300	2.89%
2014-11-01	185.199997	190.630005	183.449997	190.029999	170.089752	27698100	2.76%
2014-12-01	189.289993	191.630005	181.440002	188.399994	168.630829	49040300	-0.86%
2015-01-01	189.289993	189.720001	182.089996	182.990005	164.70108	51629600	-2.33%
2015-02-01	183.5	194.649994	181.470001	193.199997	173.890625	30737100	5.58%
2015-03-01	193.309998	194.470001	187.149994	189.199997	170.290375	35632400	-2.07%
2015-04-01	189.169998	194.740005	187.470001	191.100006	172.878052	30252000	1.52%
2015-05-01	191.960007	195.949997	189.529999	193.490005	175.040176	25759100	1.25%
2015-06-01	194.229996	195.529999	188.240005	188.839996	170.833527	32509600	-2.40%
2015-07-01	190.649994	195.460007	187.190002	192.949997	175.36763	35084700	2.65%
2015-08-01	193	193.75	168.080002	181.110001	164.606567	75872400	-6.14%
2015-09-01	177.110001	185.990005	171.360001	175.710007	159.698639	57666300	-2.98%
2015-10-01	175.970001	192	173.350006	190.559998	174.116623	38175300	9.03%
2015-11-01	190.979996	194.059998	185.360001	191.369995	174.85675	38629500	0.43%
2015-12-01	192.050003	193.449997	183.309998	186.929993	170.799789	62486000	-2.32%
2016-01-01	183.770004	185.119995	165.960007	177.75	163.379501	82617200	-4.34%
2016-02-01	176.610001	180.360001	166.050003	177.380005	163.039383	54708700	-0.21%

2016-03-01	178.839996	189.720001	178.330002	188.559998	173.315521	50007300	6.30%
2016-04-01	187.399994	193.429993	186.259995	189.220001	174.855621	42415400	0.89%
2016-05-01	189.809998	193.270004	185.970001	192.539993	177.923584	38163000	1.75%
2016-06-01	191.880005	194.949997	182.270004	192.199997	177.60939	61825000	-0.18%
2016-07-01	192.089996	199.600006	189.970001	199.279999	185.07222	41945100	4.20%
2016-08-01	199.330002	201.509995	196.880005	199.520004	185.295105	43949700	0.12%
2016-09-01	199.5	201.149994	194.119995	198.690002	184.524261	44978100	-0.42%
2016-10-01	198.179993	198.949997	193.919998	195.130005	182.027924	33929400	-1.35%
2016-11-01	195.520004	203.690002	191.320007	202.399994	188.809753	52732400	3.73%
2016-12-01	202.679993	209.699997	201.240005	205.309998	191.524384	52301600	1.44%
2017-01-01	206.679993	210.899994	205.559998	208.970001	196.157486	57281100	2.42%
2017-02-01	209.619995	217.899994	208.229996	217.070007	203.760849	35460000	3.88%
2017-03-01	218.899994	220.660004	212.619995	216.350006	203.085007	47641500	-0.33%
2017-04-01	216.509995	219.899994	213.470001	218.600006	206.151413	39168600	1.51%
2017-05-01	219.160004	222.240005	216.130005	221.669998	209.046555	40652300	1.40%
2017-06-01	222.139999	225.770004	220.419998	222.059998	209.414368	43549300	0.18%
2017-07-01	223.089996	227.779999	220.720001	226.639999	214.701614	37712000	2.52%
2017-08-01	227.300003	228.619995	222.119995	227.300003	215.326859	37622400	0.29%
2017-09-01	227.759995	230.899994	224.979996	230.759995	218.604614	33381500	1.52%
2017-10-01	231	236.880005	230.910004	236.130005	224.837509	33049800	2.85%
2017-11-01	237.029999	244.399994	234.820007	243.350006	231.712204	43311300	3.06%
2017-12-01	243.25	248.009995	239.520004	245.289993	233.559418	44190300	0.80%
2018-01-01	246.149994	263.369995	245.740005	258.98999	247.791992	63544700	6.09%
2018-02-01	258.290009	260.119995	232.419998	249.339996	238.559235	88662700	-3.73%
2018-03-01	249.529999	257.709991	237.529999	242.080002	231.613144	63873500	-2.91%
2018-04-01	241.190002	249.220001	233.919998	242.919998	233.479858	57319400	0.81%
2018-05-01	242.449997	251.940002	237.919998	248.789993	239.121719	43981400	2.42%
2018-06-01	250.229996	256.769989	246.630005	249.509995	239.813721	54654400	0.29%
2018-07-01	247.559998	261.25	247.320007	258.399994	249.519852	45574600	4.05%
2018-08-01	258.640015	268.049988	256.480011	266.720001	257.553925	49555700	3.22%
2018-09-01	266.350006	270.670013	263.450012	267.049988	257.872589	48732300	0.12%

2018-10-01	268.459991	269.470001	238.789993	248.789993	241.325638	91439900	-6.42%
2018-11-01	249.630005	258.440002	241.729996	253.479996	245.874939	61115400	1.89%
2018-12-01	257.649994	257.73999	214.830002	229.809998	222.9151	128542800	-9.34%
2019-01-01	226.179993	248.529999	223.970001	248.009995	241.871445	81247700	8.50%
2019-02-01	248.309998	258.609985	246.199997	256.070007	249.731995	57656000	3.25%
2019-03-01	257.809998	262.589996	250.339996	259.540009	253.116058	62970600	1.36%
2019-04-01	261.459991	270.410004	261.190002	270.01001	264.809235	41351400	4.62%
2019-05-01	270.679993	270.869995	252.770004	252.869995	247.999374	72318000	-6.35%
2019-06-01	252.830002	272.790009	250.770004	269.149994	263.96579	48686500	6.44%
2019-07-01	272.459991	277.549988	270.299988	273.079987	269.211731	55490400	1.99%
2019-08-01	273.279999	276.279999	258.700012	268.600006	264.795227	76101400	-1.64%
2019-09-01	266.829987	277.980011	265.679993	272.600006	268.738556	45894200	1.49%
2019-10-01	273.440002	279.690002	261.589996	278.549988	275.911346	52876500	2.67%
2019-11-01	280.049988	289.779999	279.910004	288.649994	285.915649	43686600	3.63%
2019-12-01	289.029999	297.51001	282.100006	295.799988	292.997925	56497300	2.48%

Date		Open	High	Low	Close	Adj Close	Volume	Returns
20	011-01-01	78.5	79.400002	77.25	78.019997	52.395947	474400	
20	011-02-01	77.339996	78.910004	76	78.82	52.933182	602000	1.03%
20	011-03-01	78.169998	80	77.160004	78.220001	52.756104	897600	-0.33%
20	011-04-01	77.879997	80.059998	77	80.050003	54.199394	459000	2.74%
20	011-05-01	79.599998	82.150002	79.57	82.089996	55.821102	644300	2.99%
20	011-06-01	82.190002	82.699997	79.309998	79.959999	54.596409	1189700	-2.19%
20	011-07-01	80.019997	83.120003	79.449997	83.080002	56.94944	841900	4.31%
20	011-08-01	82.849998	89.660004	82.760002	86.949997	59.845455	1556900	5.09%
20	011-09-01	86.699997	94.25	86	91.769997	63.425579	1400600	5.98%
20	011-10-01	92.230003	93.68	87.75	91.269997	63.321053	1406900	-0.16%
20	011-11-01	92.220001	92.900002	89.68	90.160004	62.759563	1593800	-0.89%
20	011-12-01	89.43	93.82	88.589996	92.010002	64.275475	1501900	2.42%
20	012-01-01	91.239998	92.900002	89.510002	92.849998	65.904907	2442800	2.54%
20	012-02-01	92.169998	92.550003	89.699997	91.860001	65.202209	1274700	-1.07%
20	012-03-01	90.870003	91.82	87.230003	88.910004	63.312859	1112300	-2.90%
20	012-04-01	89.019997	91.879997	87.620003	91.489998	65.36853	1158900	3.25%
20	012-05-01	91.5	96.190002	90.82	95.669998	68.719917	1411100	5.13%
20	012-06-01	95.940002	96.980003	93.75	94.949997	68.441315	1332000	-0.41%
20	012-07-01	94.940002	99.660004	94.860001	98.720001	71.390892	1314800	4.31%
20	012-08-01	98.040001	99	93.5	97.720001	70.900696	1601200	-0.69%
20	012-09-01	97.309998	97.540001	92.860001	96.669998	70.366966	1776000	-0.75%
20	012-10-01	96.349998	97.419998	95.190002	96.82	70.708466	1746500	0.49%
20	012-11-01	96.379997	98	95.57	96.889999	70.987198	1372000	0.39%
20	012-12-01	96.110001	97.540001	93.139999	93.870003	68.774567	1221700	-3.12%
20	013-01-01	92.93	93.809998	90.959999	91.139999	67.975426	2757500	-1.16%
20	013-02-01	91.589996	93.099998	90.330002	92.459999	68.959908	1341200	1.45%
20	013-03-01	92.400002	92.57	90.110001	91.650002	68.589081	1027500	-0.54%
20	013-04-01	91.230003	95.089996	91.019997	94.739998	71.123131	1805800	3.69%
20	013-05-01	94.660004	95.25	88.629997	89.010002	67.189522	1637100	-5.53%
20	013-06-01	88.629997	89.720001	82.5	85.160004	64.49099	2260200	-4.02%
20	013-07-01	84.849998	85.709999	82.970001	84.309998	64.071098	2077700	-0.65%

2013-08-01	83.529999	84.080002	80.360001	82.849998	63.191643	1385000	-1.37%
2013-09-01	82.110001	83.559998	80.360001	83.019997	63.567856	2811900	0.60%
2013-10-01	82.529999	85.129997	82.089996	84.620003	65.044197	1283300	2.32%
2013-11-01	84.099998	84.099998	81.449997	82.809998	63.902271	1875700	-1.76%
2013-12-01	82.5	83.269997	81.360001	81.650002	63.245583	1622100	-1.03%
2014-01-01	81.650002	85.760002	81.650002	85.699997	66.904236	1348800	5.78%
2014-02-01	85.550003	86.389999	84.43	86.239998	67.325798	2737100	0.63%
2014-03-01	86.120003	87.349998	84.220001	86.730003	67.962105	2356200	0.95%
2014-04-01	86.019997	88.599998	85.589996	88.480003	69.562508	1181600	2.35%
2014-05-01	88.120003	90.690002	88.019997	90.010002	71.03318	1513100	2.11%
2014-06-01	89.220001	90	88	89.889999	71.179802	1344300	0.21%
2014-07-01	89.190002	91.099998	87.790001	89.57	71.176292	1437800	0.00%
2014-08-01	89.269997	93	88.870003	92.82	74.013306	13564600	3.99%
2014-09-01	91.669998	91.790001	88.510002	90.230003	72.19313	5418500	-2.46%
2014-10-01	90.480003	96.370003	90.370003	91.669998	73.567184	3612100	1.90%
2014-11-01	91.400002	93	90.669998	92.919998	74.813286	1919600	1.69%
2014-12-01	92.889999	94.830002	91.400002	94.269997	76.150253	3895900	1.79%
2015-01-01	94.400002	100.489998	94.309998	100.449997	81.686737	3154500	7.27%
2015-02-01	99.559998	100.18	93.809998	95.970001	78.043587	3183600	-4.46%
2015-03-01	95.879997	97.699997	92.389999	96.32	78.569885	2573400	0.67%
2015-04-01	96.620003	97.25	92.830002	93.550003	76.532845	2549300	-2.59%
2015-05-01	92.580002	92.830002	89.080002	91.029999	74.782585	8709600	-2.29%
2015-06-01	90.699997	90.790001	86.410004	87.610001	72.202972	2944100	-3.45%
2015-07-01	86.709999	90	86.379997	89.989998	74.417877	1679800	3.07%
2015-08-01	89.550003	91.830002	88.440002	88.68	73.588219	7524300	-1.11%
2015-09-01	88.620003	89.75	87.160004	89.339996	74.399651	5485800	1.10%
2015-10-01	89.410004	90.849998	88.790001	89.660004	74.871284	2746800	0.63%
2015-11-01	88.830002	89.190002	86.830002	88.589996	74.215355	4021700	-0.88%
2015-12-01	88.459999	89.339996	86.300003	86.809998	72.969162	2943600	-1.68%
2016-01-01	87.529999	89.279999	86.809998	88.839996	75.311356	2565100	3.21%
2016-02-01	88.699997	91.489998	88.029999	90.410004	76.642273	3478700	1.77%

2016-03-01	90.410004	93.139999	89.150002	93.040001	79.140747	3902600	3.26%
		00.100000	03.130002	33.040001	70.110717	3302000	3.20/0
2016-04-01	93.010002	94.489998	92.18	93.779999	80.019394	4080100	1.11%
2016-05-01	93.309998	94.860001	92.800003	93.550003	80.079643	3132500	0.08%
2016-06-01	93.730003	98.660004	93.269997	98.050003	84.192055	4640800	5.14%
2016-07-01	99.160004	101.239998	97.959999	100.440002	86.514259	9040100	2.76%
2016-08-01	99.379997	100.25	97.660004	99.790001	86.202332	3476200	-0.36%
2016-09-01	98.93	100.169998	95.830002	98.599998	85.461113	6864600	-0.86%
2016-10-01	98.389999	98.519997	94.760002	95.300003	82.850754	3526200	-3.05%
2016-11-01	94.699997	95.339996	88.25	89.019997	77.614677	4879100	-6.32%
2016-12-01	87.830002	89.440002	87.220001	89.129997	77.950226	6697500	0.43%
2017-01-01	88.550003	91.449997	88.5	89.629997	79.055069	4956100	1.42%
2017-02-01	88.949997	91.150002	88.620003	90.949997	80.219315	2526000	1.47%
2017-03-01	89.559998	90.769997	87.370003	90.040001	79.673569	4453600	-0.68%
2017-04-01	89.800003	92.489998	89.800003	91.169998	80.912804	2894400	1.56%
2017-05-01	90.779999	92.809998	89.900002	92.610001	82.457245	2516600	1.91%
2017-06-01	92.029999	95.120003	92	93.139999	83.191971	3810700	0.89%
2017-07-01	93.160004	94.339996	91.849998	93.220001	83.52858	3808600	0.40%
2017-08-01	92.709999	95.010002	92.660004	94.860001	85.255318	3411200	2.07%
2017-09-01	94.209999	95.360001	93.080002	93.769997	84.538651	3929600	-0.84%
2017-10-01	93.769997	94.339996	92.449997	93.5	84.560005	4327300	0.03%
2017-11-01	93.480003	94.959999	92.699997	93.910004	85.192436	3215200	0.75%
2017-12-01	94.269997	95.980003	93.339996	95.080002	86.524971	2719400	1.56%
2018-01-01	94.879997	94.879997	92.440002	93.019997	85.171654	4542200	-1.56%
2018-02-01	92.650002	92.730003	88.690002	89.830002	82.250809	7357400	-3.43%
2018-03-01	89.379997	91.199997	88.790001	90.910004	83.488312	4203900	1.50%
2018-04-01	90.480003	91.339996	87.459999	88.620003	81.632431	2294100	-2.22%
2018-05-01	88.260002	89.980003	86.510002	89.459999	82.806969	4110400	1.44%
2018-06-01	88.519997	89.050003	87.330002	88.639999	82.313599	4058800	-0.60%
2018-07-01	88.440002	89.889999	87.879997	88.720001	82.660469	1714400	0.42%
2018-08-01	87.800003	89.779999	87.629997	88.849998	83.051407	1873500	0.47%
2018-09-01	88.349998	88.470001	86.540001	87.43	81.994904	2062200	-1.27%

2018-10-01	87.110001	87.260002	84.209999	84.339996	79.357773	2509100	-3.22%
2018-11-01	83.769997	84.790001	83.459999	84.389999	79.660866	2978000	0.38%
2018-12-01	84.160004	88.25	84.160004	87.510002	82.891029	12169300	4.05%
2019-01-01	87.589996	89.279999	86.769997	89.139999	84.977432	7038500	2.52%
2019-02-01	88.769997	89.339996	87.949997	88.150002	84.033684	13656900	-1.11%
2019-03-01	87.739998	92.209999	87.389999	92.139999	88.119087	5099500	4.86%
2019-04-01	91.419998	91.660004	90.279999	91.290001	87.597343	11256600	-0.59%
2019-05-01	91.290001	94.82	90.650002	94.800003	91.260529	7049000	4.18%
2019-06-01	94.809998	97.209999	94.059998	97.059998	93.71846	8091000	2.69%
2019-07-01	97.080002	98.040001	95.269997	97.269997	94.203445	7367200	0.52%
2019-08-01	97.900002	106.07	97.580002	104.989998	101.977394	8494700	8.25%
2019-09-01	104.790001	105.470001	98.830002	102.669998	100.020111	5726100	-1.92%
2019-10-01	101.610001	104.18	100.059998	102.089996	99.726738	8072900	-0.29%
2019-11-01	101.940002	102.660004	98.639999	102.129997	100.038635	8864900	0.31%
2019-12-01	100.809998	102.629997	100.220001	100.339996	98.557541	8603600	-1.48%

	Mean	Var	Std	Sharpe	VOO	BLV	Mean	Var	Std	Sharpe	
VOO	1.09%	0.00118	0.03439	0.26215	0%	100%	0.63%	0.00069	2.62%	0.16631	
BLV	0.63%	0.00069	0.02621	0.16631	10%	90%	0.67%	0.00054	2.33%	0.20743	
					20%	80%	0.72%	0.00044	2.09%	0.25265	
Covariance	-0.0001518065111				30%	70%	0.77%	0.00038	1.95%	0.29553	
Correlation	-0.1699778595				40%	60%	0.81%	0.00036	1.91%	0.32623	
					50%	50%	0.86%	0.00039	1.98%	0.33796	
					60%	40%	0.91%	0.00046	2.15%	0.33249	
					70%	30%	0.95%	0.00058	2.40%	0.31701	
					80%	20%	1.00%	0.00074	2.71%	0.29803	
					90%	10%	1.04%	0.00094	3.06%	0.27924	
					100%	0%	1.09%	0.00118	3.44%	0.26215	
										0.222.0	
					1.00% 0.75% \$\frac{\sqrt{\sq}}}}}}}\sqrt{\sq}}}}}}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	0.322 0.2 ×	0.33249 33796 523 × 9553 × 0.25265 × 0.200	.31701 0.29803 x 0.16631	0.27924	0.26215 ×	
					0.00% -						
					1.50	J%	2.00%	2.50%	3.00%	3.50%	
									0.0070	0.0070	4.00
								Risk		0.0070	4.00