DTCC
ADVANCING FINANCIAL MARKETS. TOGETHER.™

ASSET SERVICES SIGMA- AGENT PERFORMANCE REPORT

December 2022

Executive Summary

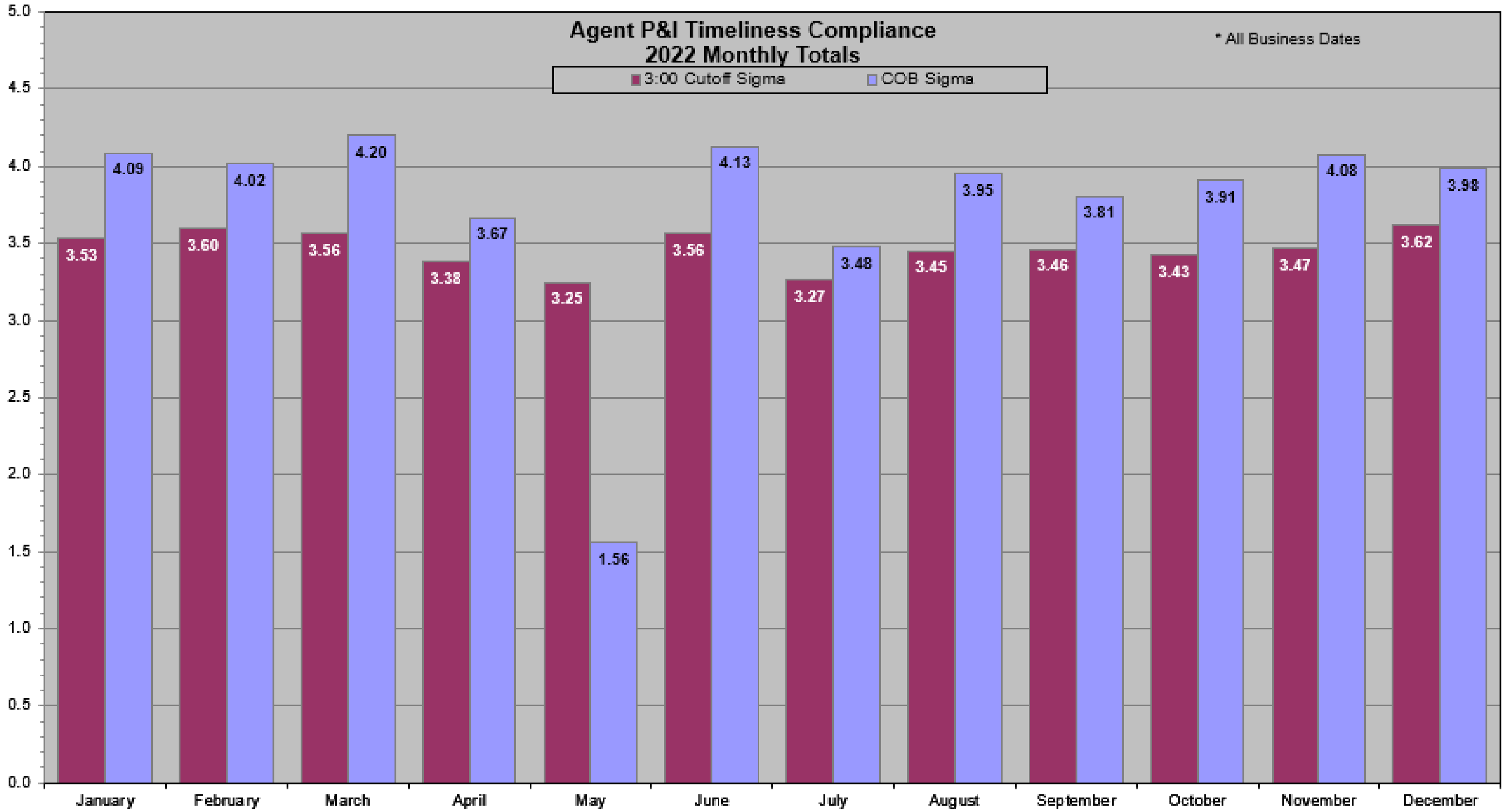
This report highlights the December 2022 performance of the top agents vs. industry targets. This report focuses on the following metrics:

Principal and Interest payment timeliness compliance - percentage of funds received from agents at cut-off (3:00pm ET) and at close of business (6:00pm ET), relative to the total dollars paid for the month. The Agent sigma performance for December 2022 was 3.62σ (98.31)%. This month's performance is below the target of 3.67σ (98.50)%.

Principal and Interest allocations on payable date - percentage of allocated dollars and CUSIPS, relative to the total expected dollars and CUSIPs allocated. The Agent sigma performance for December 2022 was 3.69σ (98.57)%. This month's performance is below the target of 3.83σ (99.00%).

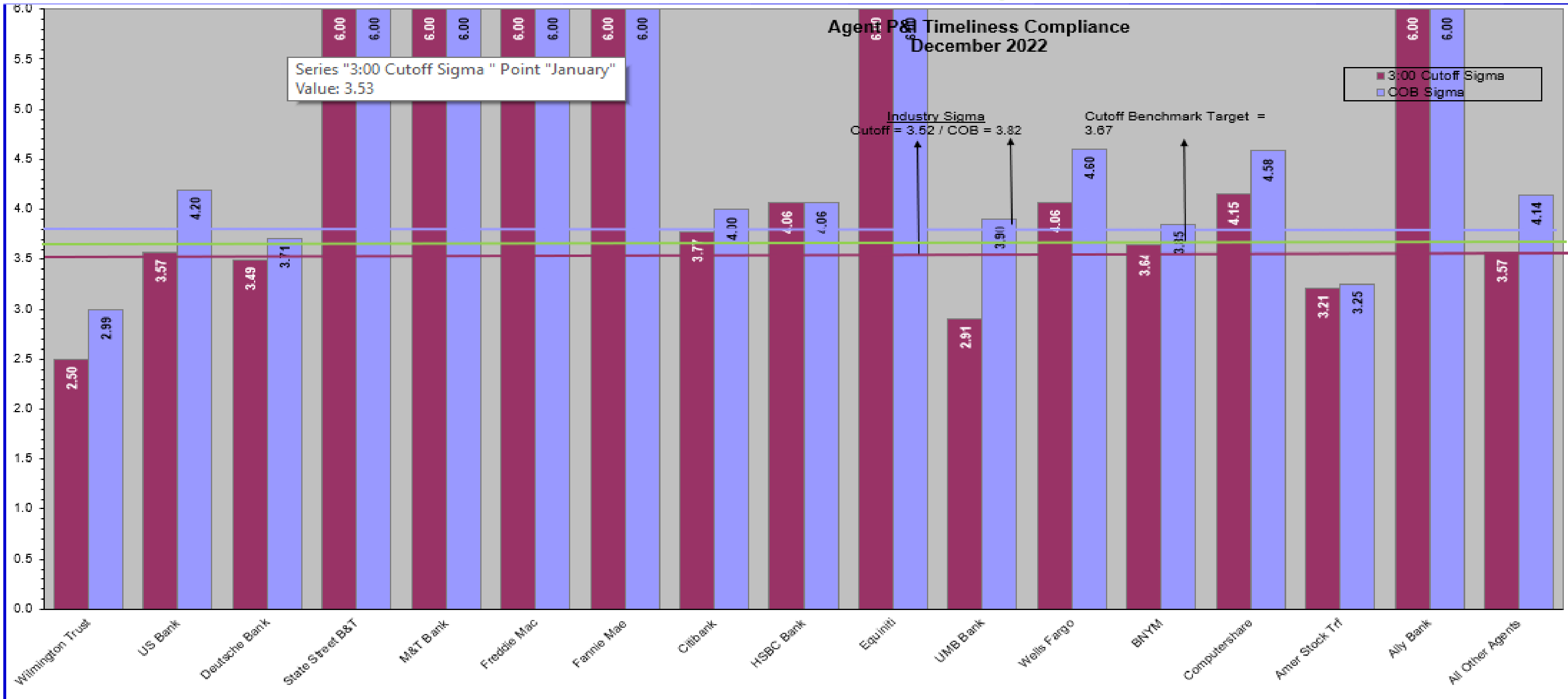
Please visit DTCC's web-site http://dtcc.com/asset-services/asset-services-performance-metrics.aspx for more detailed metric definitions and agent trend charts.

P&I Allocations Monthly Trend



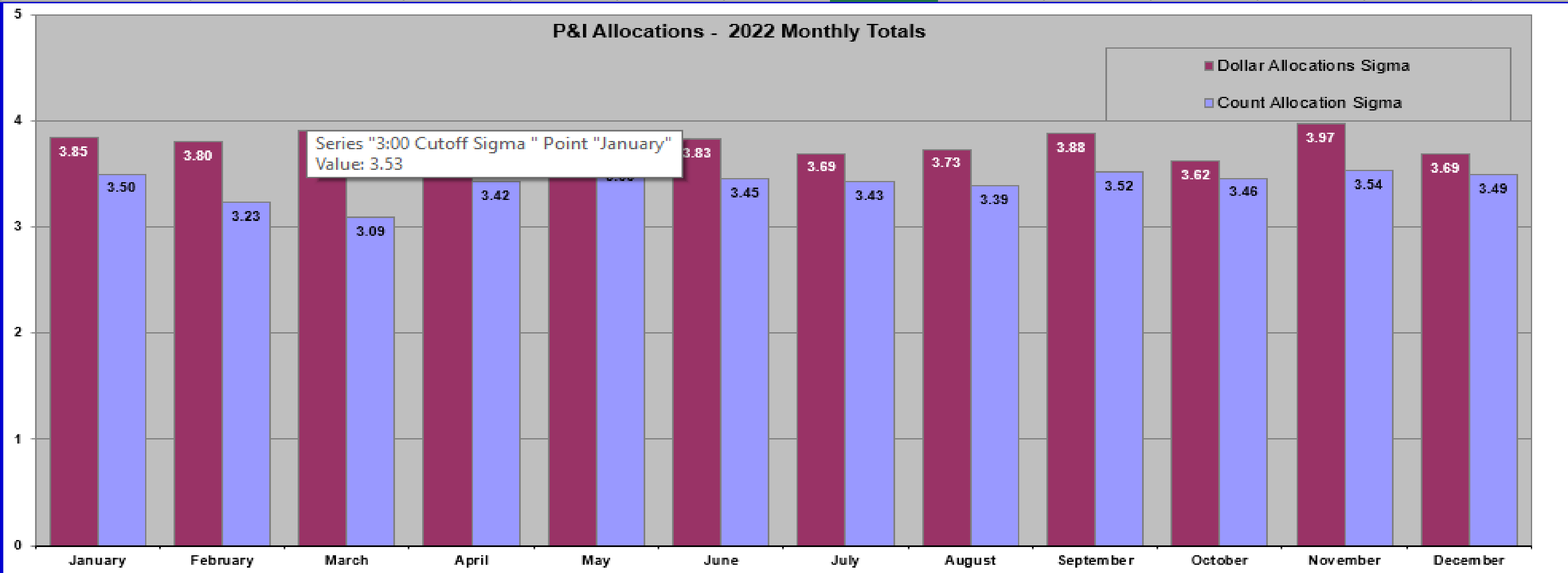
	January	February	March	April	May	June	July	August	September	October	November	December	YTD
Percent by 3:00 Cut-off	97.89%	98.19%	98.04%	97.02%	95.98%	98.04%	96.14%	97.46%	97.51%	97.31%	97.53%	98.31%	97.48%
Cutoff Sigma	3.53	3.60	3.56	3.38	3.25	3.56	3.27	3.45	3.46	3.43	3.47	3.62	3.46
Percent by COB	99.52%	99.42%	99.65%	98.49%	52.29%	99.57%	97.61%	99.29%	98.95%	99.20%	99.50%	99.35%	95.20%
COB Sigma	4.09	4.02	4.20	3.67	1.56	4.13	3.48	3.95	3.81	3.91	4.08	3.98	3.17

P&I Timeliness Compliance – Agent Performance



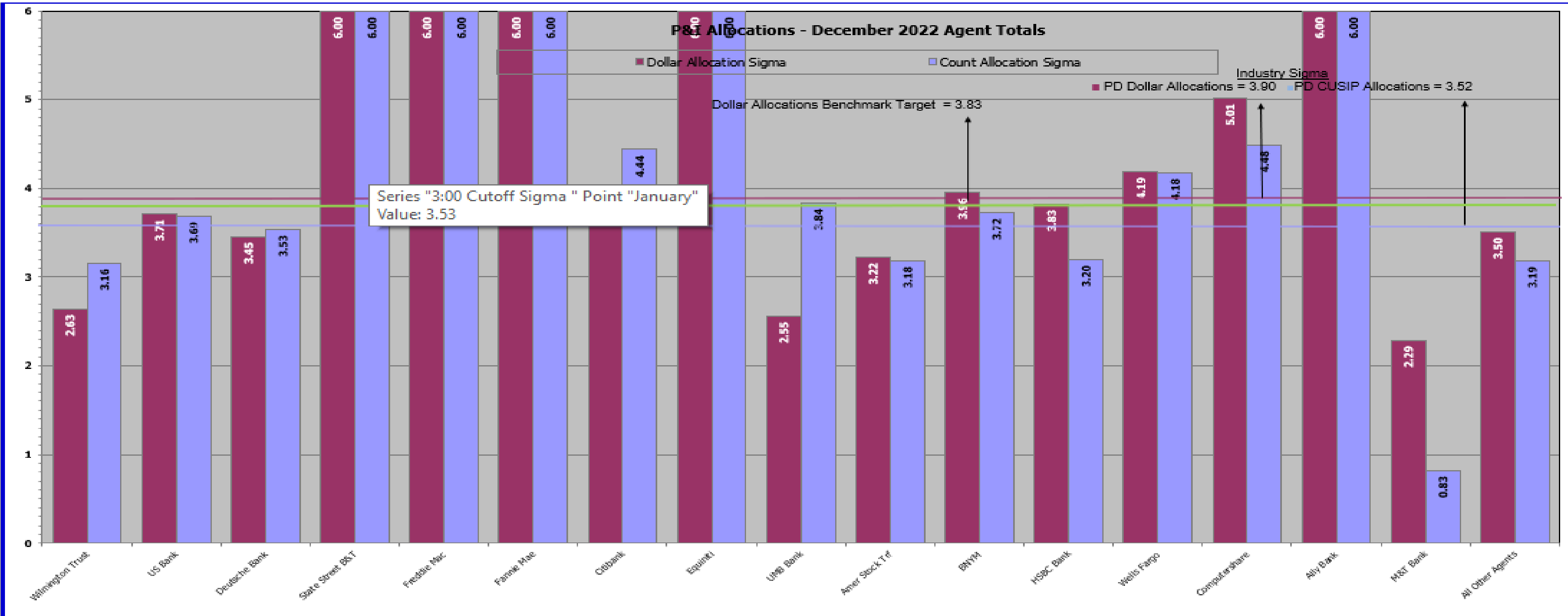
	Wilmington Trust	US Bank	Deutsche Bank	State Street	M&T Bank	Freddie Mac	Fannie Mae	Citibank	HSBC Bank	Equiniti	Wells Fargo	BNYM	Computershare	Amer Stock Trf	Ally Bank	All Other Agents
% of Total Allocations	2.66%	12.89%	2.62%	6.16%	0.00%	1.54%	0.06%	3.81%	0.19%	4.45%	6.68%	19.67%	18.94%	1.99%	0.30%	17.10%
Percent by 3:00 Cut-off	84.23%	98.08%	97.68%	100.00%	100.00%	100.00%	100.00%	98.85%	99.48%	100.00%	99.48%	98.38%	99.60%	95.66%	100.00%	98.09%
Cutoff Sigma	2.50	3.57	3.49	6.00	6.00	6.00	6.00	3.77	4.06	6.00	4.06	3.64	4.15	3.21	6.00	3.57
Variance from Industry Cutoff	-1.12	-0.05	-0.13	2.38	2.38	2.38	2.38	0.15	0.44	2.38	0.44	0.02	0.53	-0.41	2.38	-0.05
Percent by COB	93.25%	99.65%	98.64%	100.00%	100.00%	100.00%	100.00%	99.37%	99.48%	100.00%	99.90%	99.06%	99.90%	96.02%	100.00%	99.59%
COB Sigma	2.99	4.20	3.71	6.00	6.00	6.00	6.00	4.00	4.06	6.00	4.60	3.85	4.58	3.25	6.00	4.14

P&I Allocations Monthly Trend



	January	February	March	April	May	June	July	August	September	October	November	December	YTD
Total Expected Allocations (Billions)	$323.178	$297.874	$355.941	$280.999	$320.382	$371.911	$286.222	$282.510	$360.651	$284.671	$275.905	$352.109	$3792.351
Allocation $ Percent	99.05%	98.94%	99.19%	98.91%	98.52%	99.00%	98.59%	98.73%	99.13%	98.30%	99.33%	98.57%	98.86%
Allocation $ Sigma	3.85	3.80	3.91	3.79	3.68	3.83	3.69	3.73	3.88	3.62	3.97	3.69	3.78
Unallocated Impact (Billions $)	$3.059	$3.162	$2.877	$3.063	$4.733	$3.722	$4.035	$3.598	$3.147	$4.841	$1.845	$4.733	$42.816
Total CUSIP Expected	278,521	378,197	314,794	268,591	271,832	357,011	281,107	378,751	314,944	271,216	265,191	355,145	3,735,300
CUSIP Allocations %	97.71%	95.82%	94.43%	97.29%	98.22%	97.46%	97.30%	97.08%	97.84%	97.51%	97.91%	97.69%	97.14%
CUSIP Allocations Sigma	3.50	3.23	3.09	3.42	3.60	3.45	3.43	3.39	3.52	3.46	3.54	3.49	3.40
Unallocated Impact (Count)	6,370	15,813	17,535	7,290	4,841	9,067	7,583	11,066	6,811	6,763	5,536	7,988	106,663

P&I Allocations – Agent Performance



AGENT	Wilmington Trust	US Bank	Deutsche Bank	State Street B&T	Freddie Mac	Fannie Mae	Citibank	Equiniti	Amer Stock Trf	BNYM	HSBC Bank	Wells Fargo	Computershare	Ally Bank	M&T Bank	All Other Agents
Total Expected / % of Industry	$8.891	$45.077	$9.114	$21.849	$4.729	$0.205	$13.464	$15.819	$7.026	$68.045	$0.359	$23.266	$67.330	$1.053	$0.008	$63.669
	2.52%	12.80%	2.59%	6.21%	1.34%	0.06%	3.82%	4.49%	2.00%	19.33%	0.10%	6.61%	19.12%	0.30%	0.00%	18.08%
Allocation $ Percent	87.15%	98.64%	97.45%	100.00%	100.00%	100.00%	99.15%	100.00%	95.76%	99.30%	99.00%	99.65%	99.98%	100.00%	78.53%	97.74%
Allocation $ Sigma	2.63	3.71	3.45	6.00	6.00	6.00	3.89	6.00	3.22	3.96	3.83	4.19	5.01	6.00	2.29	3.50
Variance from Industry $ Sigma	-1.08	0.00	-0.26	2.29	2.29	2.29	0.17	2.29	-0.49	0.25	0.11	0.48	1.30	2.29	-1.42	-0.21
CUSIP Allocations %	95.13%	98.56%	97.90%	100.00%	100.00%	100.00%	99.84%	100.00%	95.33%	98.69%	95.56%	99.63%	99.86%	100.00%	25.00%	95.42%
CUSIP Allocations Sigma	3.16	3.69	3.53	6.00	6.00	6.00	4.44	6.00	3.18	3.72	3.20	4.18	4.48	6.00	0.83	3.19
Variance from Industry CUSIP Sigma	-0.35	0.18	0.03	2.50	2.50	2.50	0.93	2.50	-0.33	0.22	-0.30	0.67	0.98	2.50	-2.68	-0.32