

Asset Services Sigma- Agent Performance Report

January 2018 Data



Executive Summary

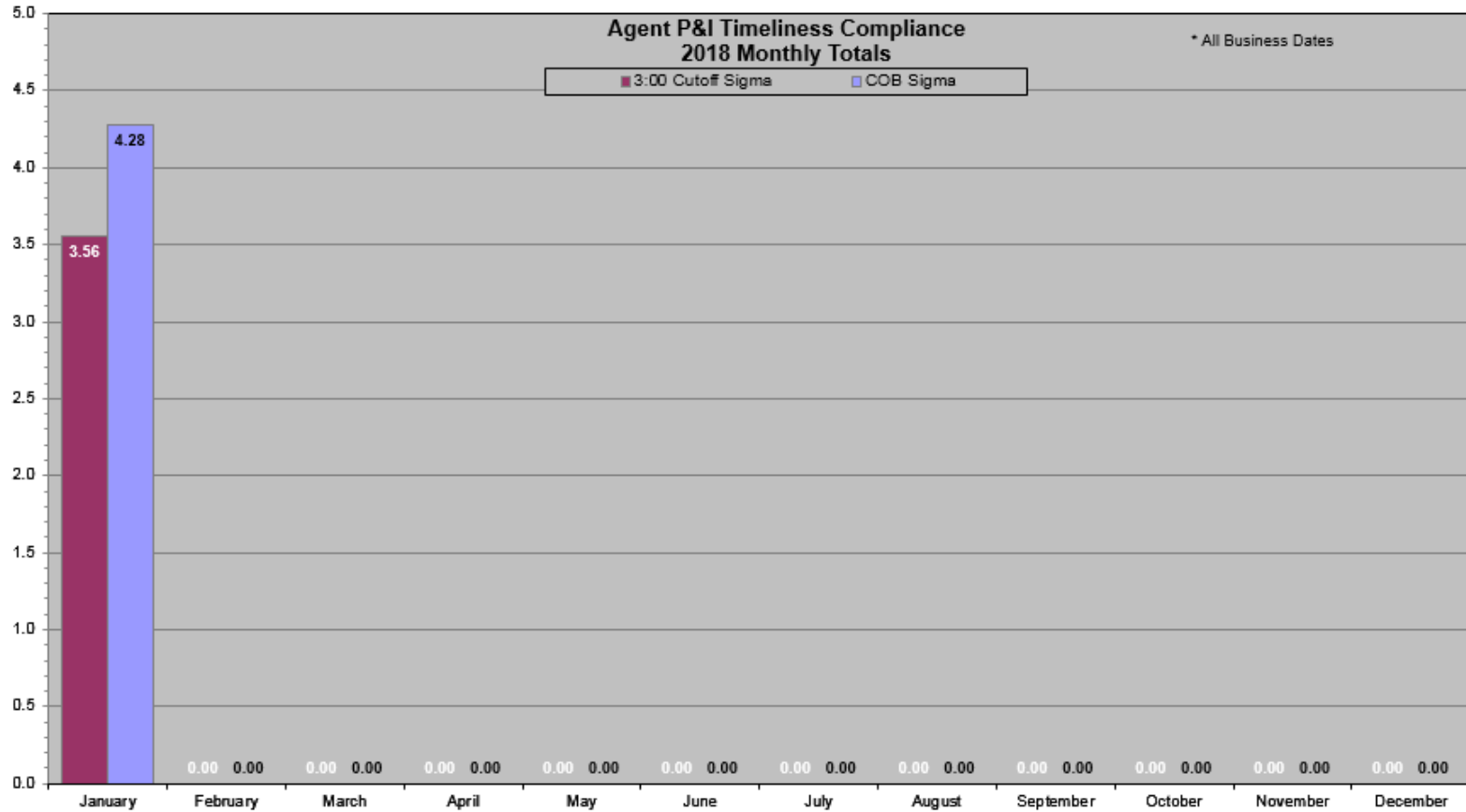
This report highlights the January 2018 performance of the top agents vs. industry targets. This report focuses on the following metrics:

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 January 2018 was 3.56σ (98.03)%. 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 January 2018 was 4.28σ (99.73)%. This month's performance is above the target of 3.83σ (99.00%).

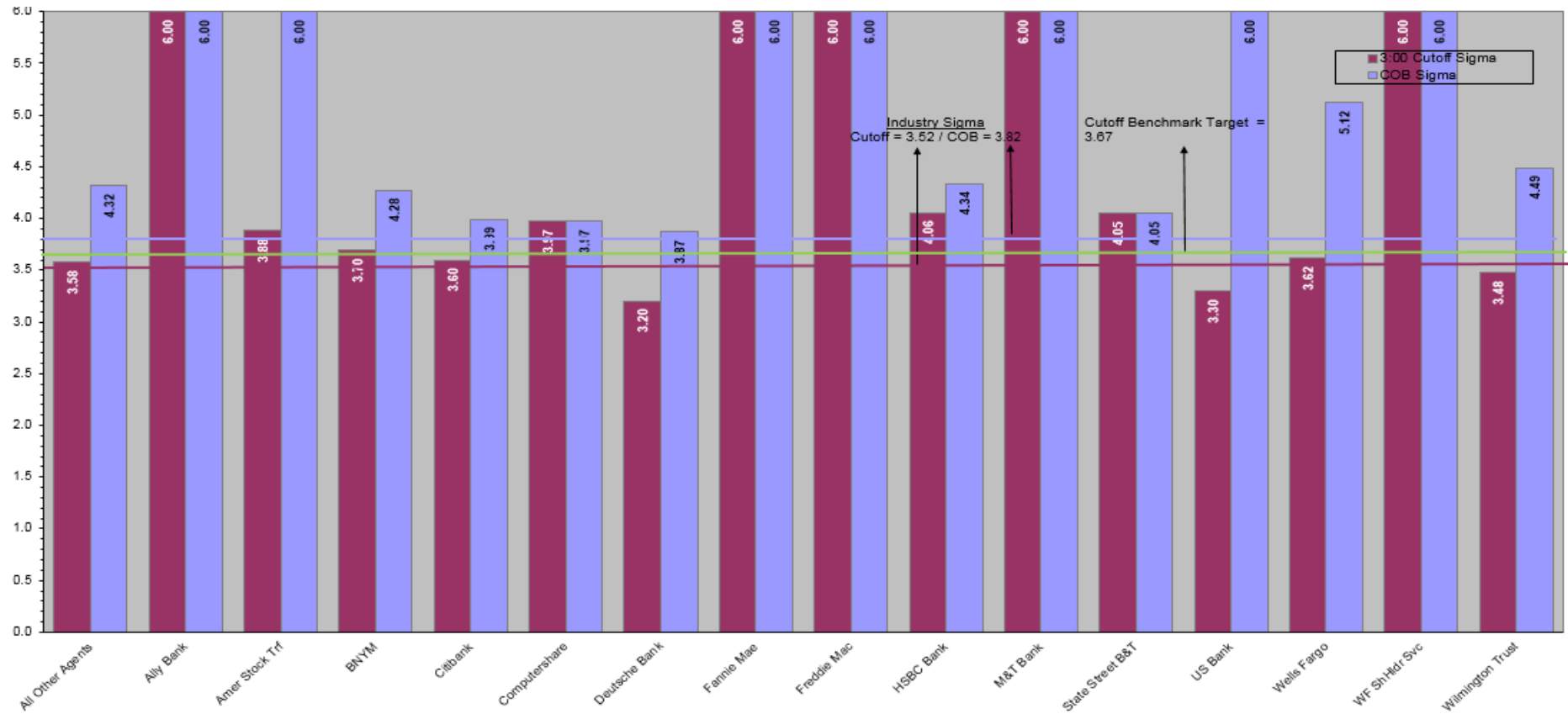
Please visit DTCC's web-site <http://dtcc.com/asset-services/asset-services-performance-metrics.aspx> for more detailed metric definitions and agent trend charts.

P&I Allocations Monthly Trend



	January	February	March	April	May	June	July	August	September	October	November	December	YTD
Percent by 3:00 Cut-off	98.03%												98.03%
Cutoff Sigma	3.56												3.56
Percent by COB	99.73%												99.73%
COB Sigma	4.28												4.28

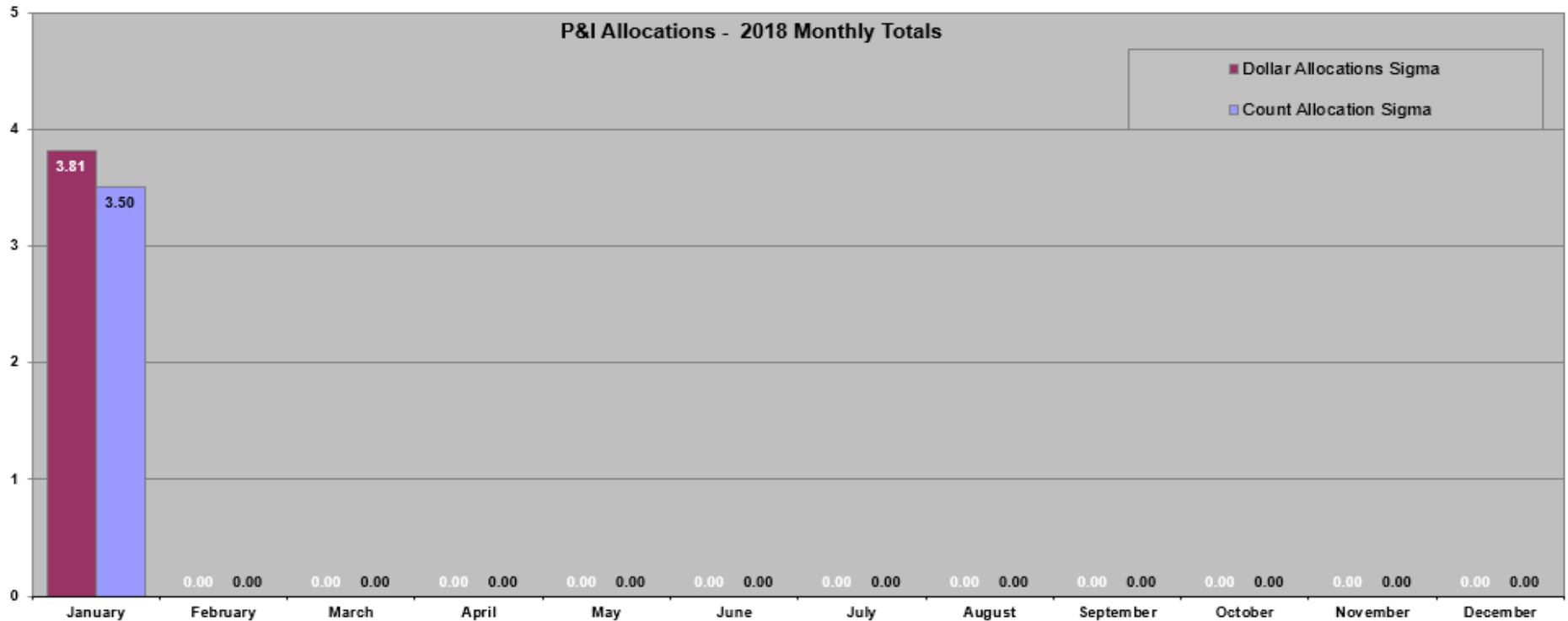
P&I Timeliness Compliance – Agent Performance



	All Other Agents	Ally Bank	Amer Stock Trf	BNYM	Citibank	Computershare	Deutsche Bank	Fannie Mae	Freddie Mac	M&T Bank	HSBC Bank	State Street B&T	US Bank	Wells Fargo	WF ShHldr Svc	Wilmington Trust
% of Total Allocations	10.58%	0.18%	2.11%	32.23%	5.83%	7.50%	6.35%	0.14%	0.86%	0.00%	0.75%	0.73%	17.11%	10.76%	2.75%	2.12%
Percent by 3.00 Cutoff	98.11%	100.00%	99.14%	98.59%	98.20%	99.33%	95.56%	100.00%	100.00%	100.00%	99.47%	99.46%	96.40%	98.29%	100.00%	97.61%
Cutoff Sigma	3.58	6.00	3.88	3.70	3.60	3.97	3.20	6.00	6.00	6.00	4.06	4.05	3.30	3.62	6.00	3.48
Variance from Industry Cutoff	0.02	2.44	0.32	0.14	0.04	0.41	-0.36	2.44	2.44	2.44	0.50	0.49	-0.26	0.06	2.44	-0.08
Percent by COB	99.76%	100.00%	100.00%	99.72%	99.36%	99.33%	99.11%	100.00%	100.00%	100.00%	99.77%	99.46%	100.00%	99.99%	100.00%	99.86%
COB Sigma	4.32	6.00	6.00	4.28	3.99	3.97	3.87	6.00	6.00	6.00	4.34	4.05	6.00	5.12	6.00	4.49

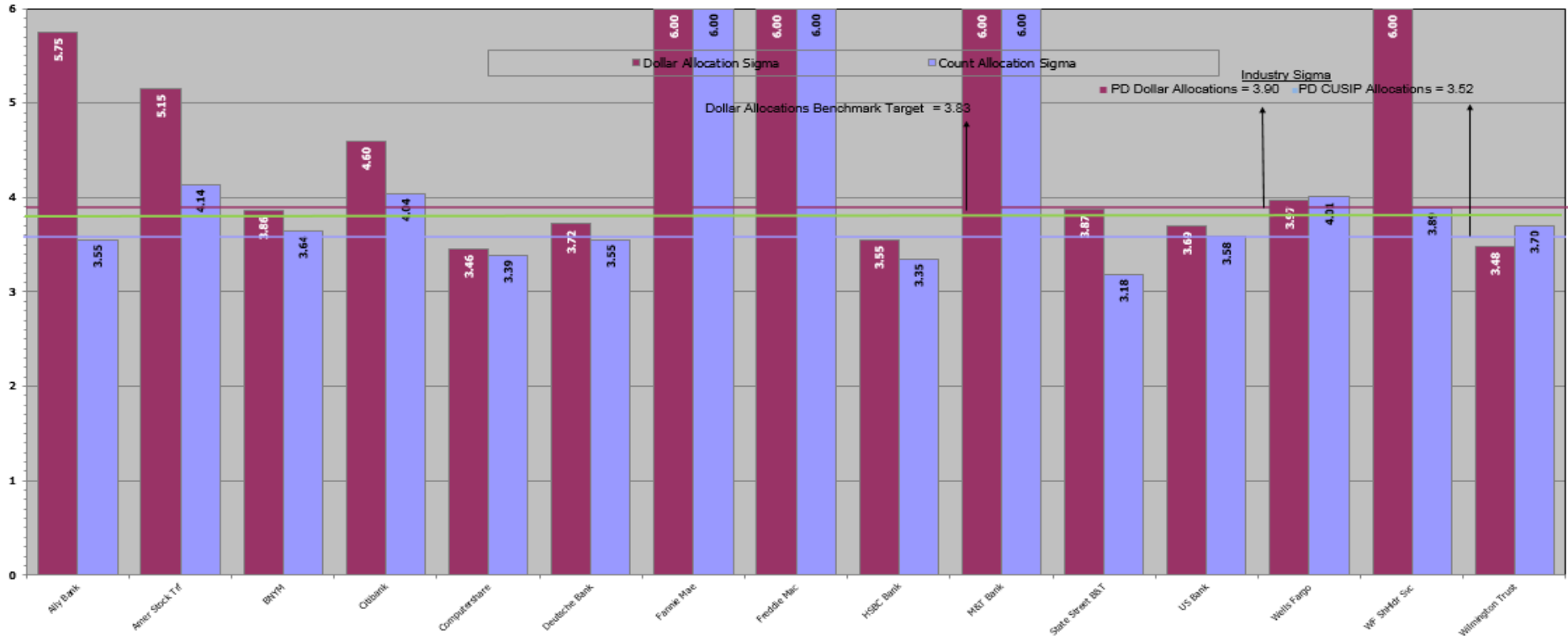
*Please note WF ShHldr Svc is now Equiniti

P&I Allocations Monthly Trend



	January	February	March	April	May	June	July	August	September	October	November	December	YTD
Total Expected Allocations (Billions)	\$299.863												\$299.863
Allocation \$ Percent	98.96%												98.96%
Allocation \$ Sigma	3.81												3.81
Unallocated Impact (Billions \$)	\$3.109												\$3.109
Total CUSIP Expected	282,008												282,008
CUSIP Allocations %	97.75%												97.75%
CUSIP Allocations Sigma	3.50												3.50
Unallocated Impact (Count)	6,344												6,344

P&I Allocations – Agent Performance



AGENT	All Other Agents	Ally Bank	Amer Stock Trf	BNYM	Citibank	Computer share	Deutsche Bank	Fannie Mae	Freddie Mac	HSBC Bank	M&T Bank	State Street B&T	US Bank	Wells Fargo	WF ShHldr Svc	Wilmington Trust
Total Expected / % of Industry	\$33.980	\$0.537	\$6.442	\$98.417	\$17.147	\$23.362	\$18.946	\$0.421	\$2.627	\$0.609	\$0.001	\$2.196	\$48.186	\$32.322	\$8.400	\$6.271
Allocation %	11.33%	0.18%	2.15%	32.82%	5.72%	7.79%	6.32%	0.14%	0.88%	0.20%	0.00%	0.73%	16.07%	10.78%	2.80%	2.09%
Allocation % Sigma	99.17%	100.00%	99.99%	99.09%	99.90%	97.50%	98.68%	100.00%	100.00%	97.97%	100.00%	99.11%	98.59%	99.33%	100.00%	97.63%
Variance from Industry % Sigma	0.08	1.94	1.34	0.05	0.78	-0.35	-0.09	2.19	2.19	-0.26	2.19	0.06	-0.12	0.16	2.19	-0.33
CUSIP Allocations %	95.37%	98.00%	99.59%	98.39%	99.45%	97.03%	98.00%	100.00%	100.00%	96.79%	100.00%	95.37%	98.14%	99.39%	99.16%	98.62%
CUSIP Allocations Sigma	3.18	3.55	4.14	3.64	4.04	3.39	3.55	6.00	6.00	3.35	6.00	3.18	3.58	4.01	3.89	3.70
Variance from Industry CUSIP Sigma	-0.32	0.05	0.63	0.14	0.54	-0.12	0.05	2.50	2.50	-0.15	2.50	-0.32	0.08	0.50	0.39	0.20

*Please note WF ShHldr Svc is now Equiniti