

Asset Services Sigma- Agent Performance Report

July 2018 Data

September 28 ,2018



Executive Summary

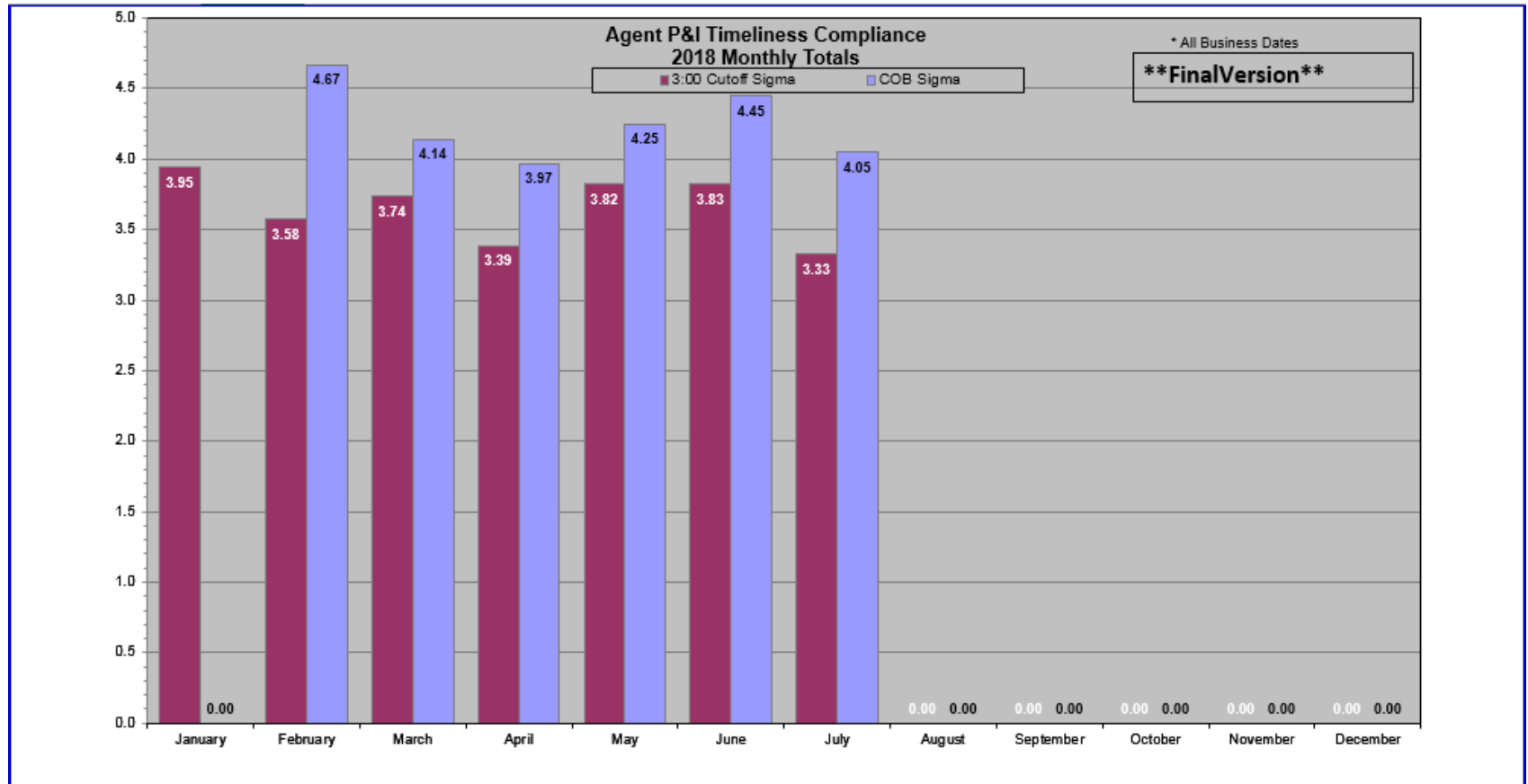
This report highlights the July 2018 performance of the top agents vs. industry targets. This report focuses on the following metrics:

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 July 2018 was 3.33σ (96.63%). 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 July 2018 was 4.05 (99.46%). This month's performance is above the target of 3.83σ (99.00%).

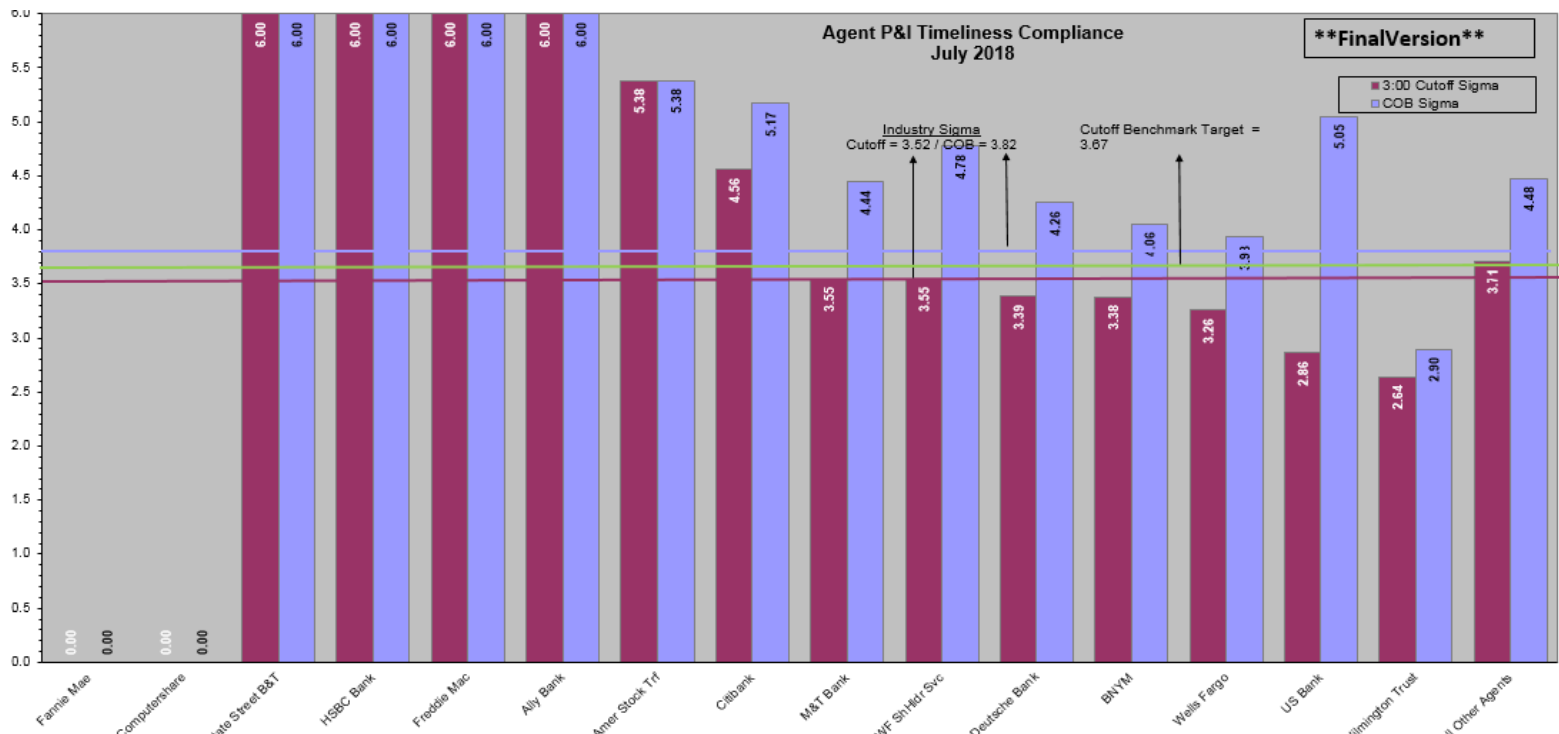
Please visit DTCC's web-site <http://dtcc.com/asset-services/asset-services-performance-metrics.aspx> for more detailed metric definitions and agent trend charts.

P&I Allocations Monthly Trend



	January	February	March	April	May	June	July	August	September	October	November	December	YTD
Percent by 3:00 Cut-off	99.28%	98.12%	98.73%	97.05%	98.99%	99.00%	96.63%						98.24%
Cutoff Sigma	3.95	3.58	3.74	3.39	3.82	3.83	3.33						3.61
Percent by COB	100.00%	99.92%	99.59%	99.32%	99.70%	99.84%	99.46%						99.85%
COB Sigma	6.00	4.67	4.14	3.97	4.25	4.45	4.05						4.48

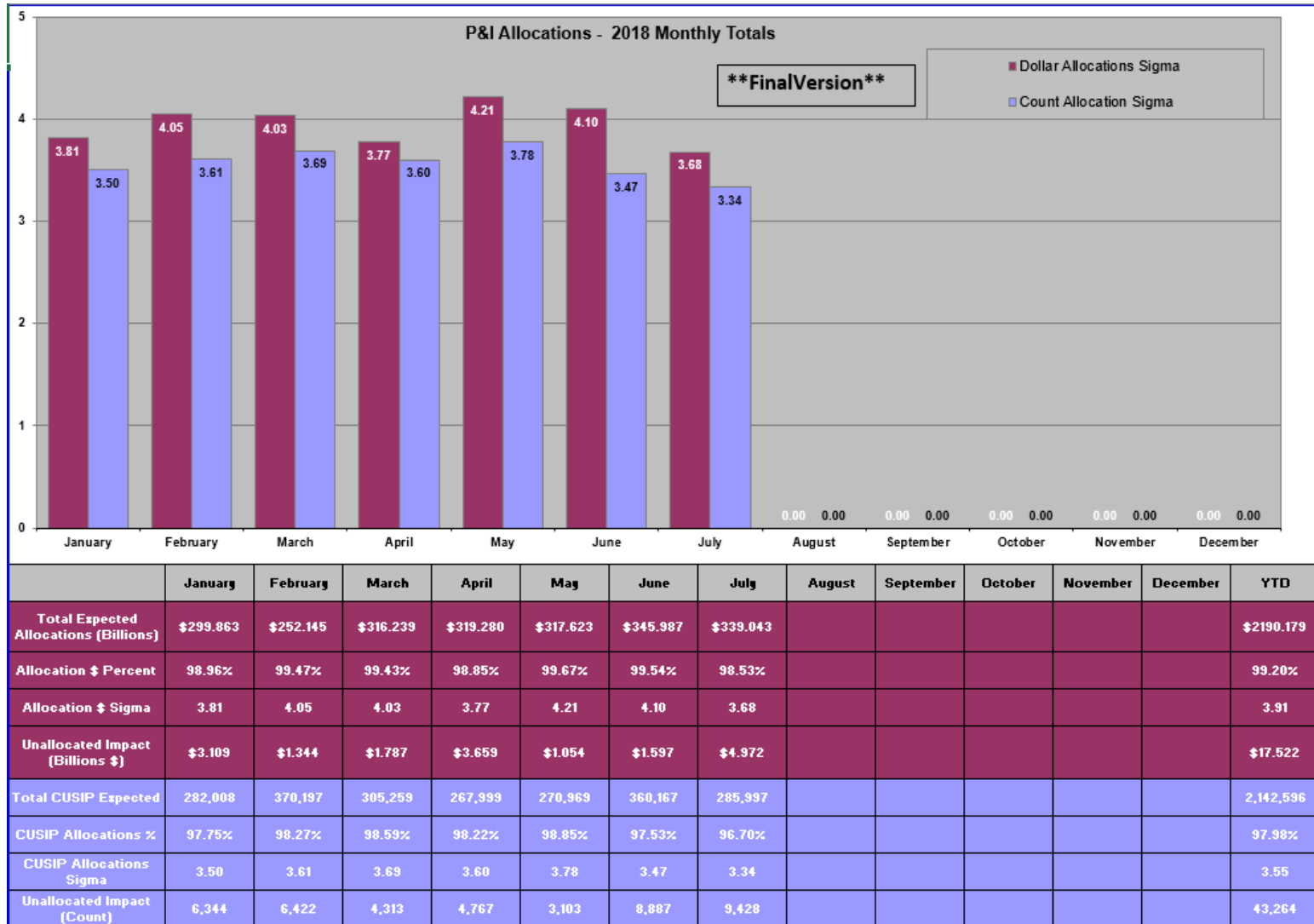
P&I Timeliness Compliance – Agent Performance



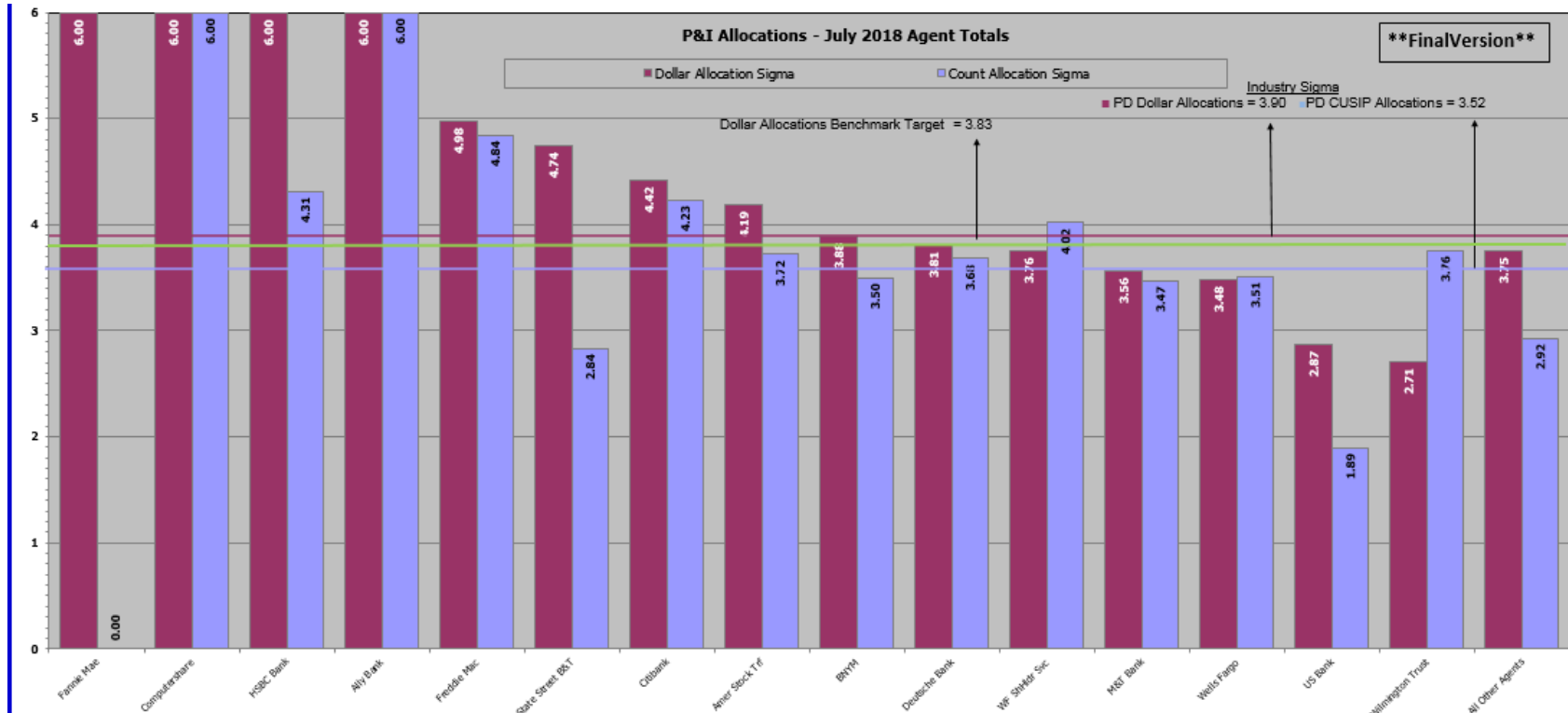
	Fannie Mae	Computershare	State Street B&T	HSBC Bank	Freddie Mac	Ally Bank	Amer Stock Trf	Citibank	M&T Bank	WF ShHldr Svc	Deutsche Bank	BNYM	Wells Fargo	US Bank	Wilmington Trust	All Other Agents
% of Total Allocations	0.00%	14.86%	0.00%	0.97%	0.12%	0.29%	1.90%	6.77%	0.19%	6.39%	7.76%	31.22%	7.78%	2.54%	2.87%	16.33%
Percent by 3:00 Cutoff	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.99%	99.89%	97.98%	97.96%	97.04%	97.00%	96.09%	91.38%	87.31%	98.65%
Cutoff Sigma	6.00	6.00	6.00	6.00	6.00	6.00	5.38	4.56	3.55	3.55	3.39	3.38	3.26	2.86	2.64	3.71
Variance from Industry Cutoff	2.53	2.53	2.53	2.53	2.53	2.53	1.91	1.08	0.07	0.07	-0.09	-0.09	-0.21	-0.61	-0.83	0.24
Percent by COB	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.99%	99.99%	99.84%	99.95%	99.71%	99.47%	99.25%	99.98%	91.90%	99.86%
COB Sigma	6.00	6.00	6.00	6.00	6.00	6.00	5.38	5.17	4.44	4.78	4.26	4.06	3.93	5.05	2.90	4.48

*Please note WF ShHldr Svc is now Equiniti

P&I Allocations Monthly Trend



P&I Allocations – Agent Performance



AGENT	Fannie Mae	Computer share	HSBC Bank	Ally Bank	Freddie Mac	State Street B&T	Citibank	Amer Stock Trf	BNYM	Deutsche Bank	WF ShHldr Svc	M&T Bank	Wells Fargo	US Bank	Wilmington Trust	All Other Agents
Total Expected / % of Industry	\$0.000	\$41.656	\$2.733	\$0.813	\$0.330	\$0.012	\$18.523	\$5.336	\$84.823	\$22.090	\$30.869	\$0.532	\$57.992	\$8.072	\$8.182	\$47.942
Allocation %	0.00%	12.63%	0.83%	0.25%	0.10%	0.00%	5.61%	1.62%	25.71%	6.70%	9.36%	0.16%	17.58%	2.45%	2.48%	14.53%
Allocation % Sigma	100.00%	100.00%	100.00%	100.00%	99.97%	99.94%	99.83%	99.64%	99.14%	98.97%	98.81%	98.02%	97.60%	91.42%	88.75%	98.79%
Variance from Industry % Sigma	6.00	6.00	6.00	6.00	4.98	4.74	4.42	4.19	3.88	3.81	3.76	3.56	3.48	2.87	2.71	3.75
CUSIP Allocations %	100.00%	100.00%	99.75%	100.00%	99.96%	90.91%	99.68%	98.68%	97.70%	98.54%	99.41%	97.58%	97.79%	65.30%	98.79%	92.27%
CUSIP Allocations Sigma	6.00	6.00	4.31	6.00	4.84	2.84	4.23	3.72	3.50	3.68	4.02	3.47	3.51	1.89	3.76	2.92
Variance from Industry CUSIP Sigma	2.66	2.66	0.97	2.66	1.50	-0.50	0.89	0.38	0.16	0.34	0.68	0.14	0.18	-1.44	0.42	-0.41

*Please note WF ShHldr Svc is now Equiniti