ASSET SERVICES SIGMA- AGENT PERFORMANCE REPORT

July 2023

Executive Summary

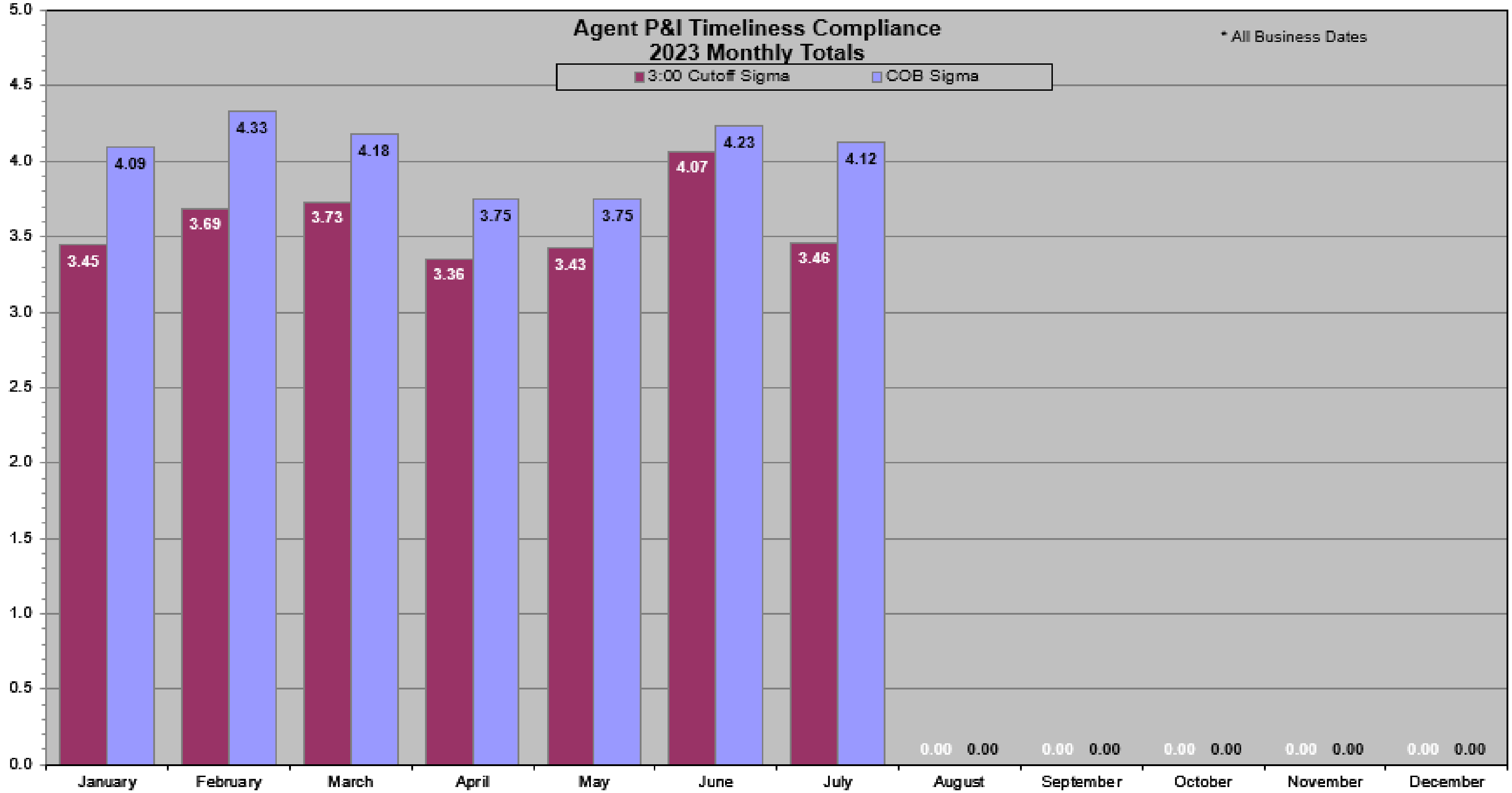
This report highlights the July 2023 performance of the top agents vs. industry targets. This report focuses on the following metrics:

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 2023 was 3.46σ (97.53)%. 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 2023 was 3.73σ (98.71)%. This month's performance is below the target of 3.83σ (99.00%).

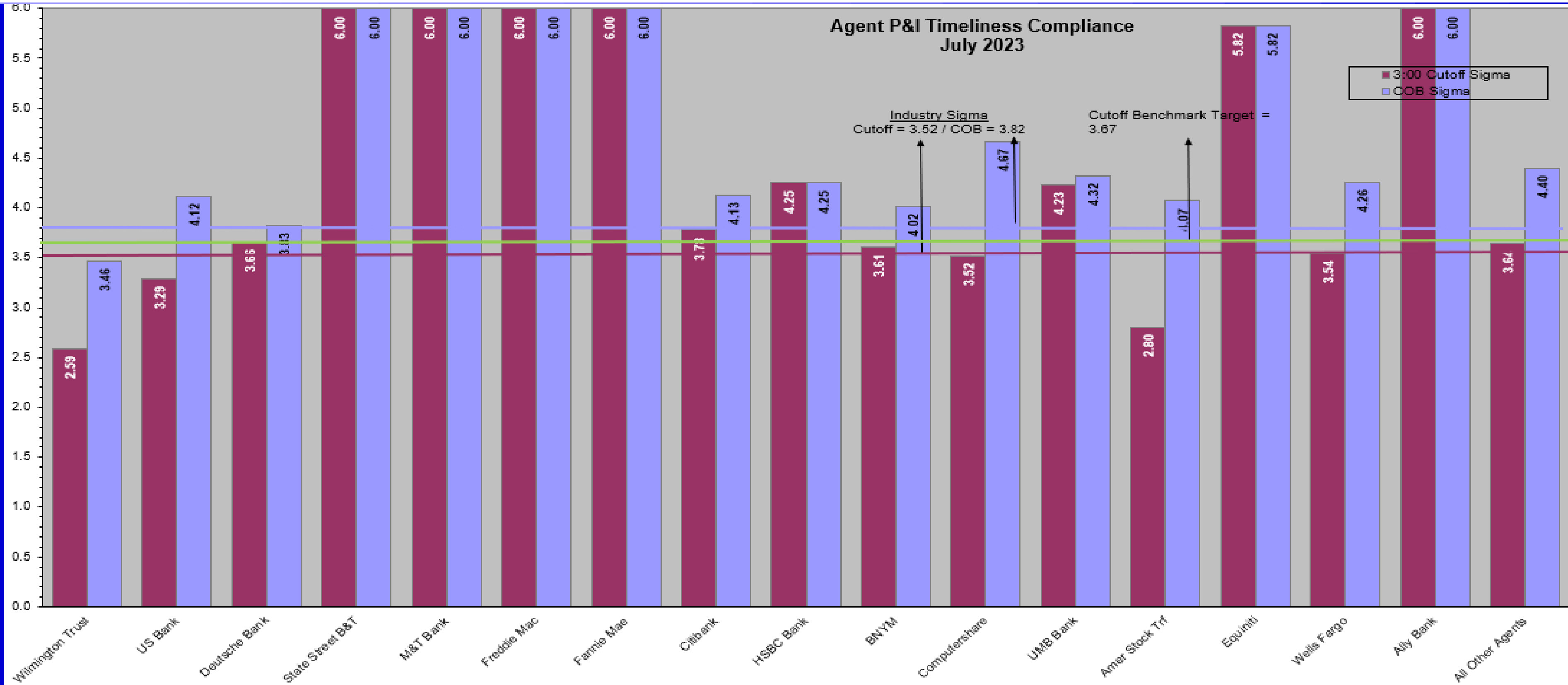
Please visit DTCC's web-site http://dtcc.com/asset-services/asset-services-performance-metrics.aspx for more detailed metric definitions and agent trend charts.

P&I Allocations Monthly Trend



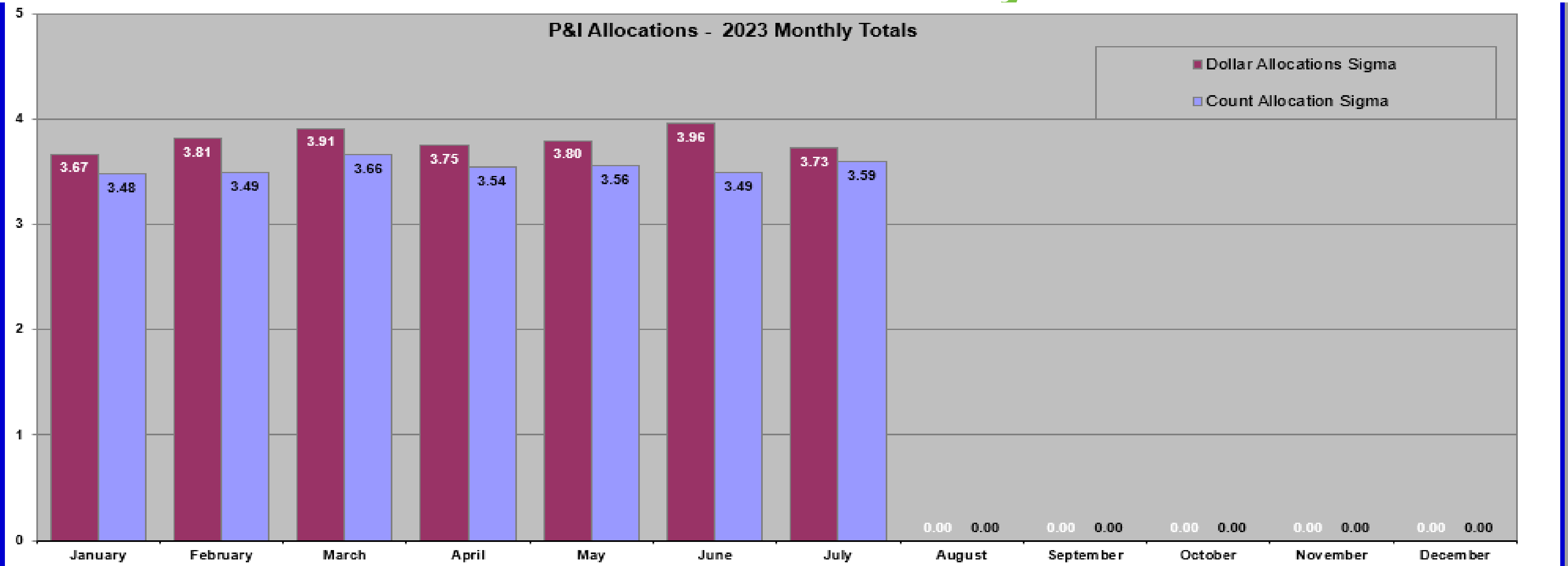
	January	February	March	April	May	June	July	August	September	October	November	December	YTD
Percent by 3:00 Cut-off	97.42%	98.58%	98.72%	96.83%	97.31%	99.49%	97.53%						98.04%
Cutoff Sigma	3.45	3.69	3.73	3.36	3.43	4.07	3.46						3.56
Percent by COB	99.53%	99.77%	99.63%	98.77%	98.77%	99.69%	99.57%						99.40%
COB Sigma	4.09	4.33	4.18	3.75	3.75	4.23	4.12						4.01

P&I Timeliness Compliance – Agent Performance



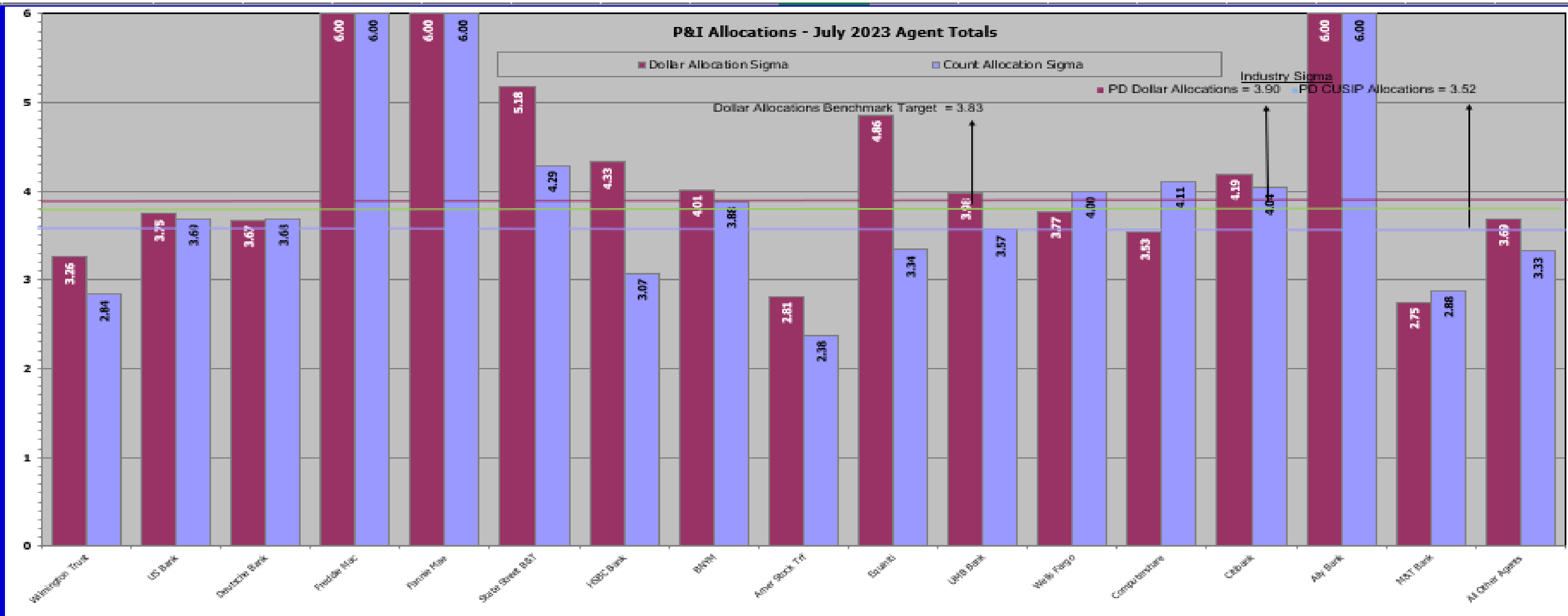
	Wilmington Trust	US Bank	Deutsche Bank	State Street	M&T Bank	Freddie Mac	Fannie Mae	Citibank	HSBC Bank	BNYM	Computershare	Amer Stock Trf	Equiniti	Wells Fargo	Ally Bank	All Other Agents
% of Total Allocations	2.90%	19.08%	3.53%	2.21%	0.00%	1.21%	0.07%	5.50%	0.28%	24.20%	7.58%	1.90%	2.88%	7.13%	0.29%	20.58%
Percent by 3:00 Cut-off	86.20%	96.31%	98.45%	100.00%	100.00%	100.00%	100.00%	98.87%	99.70%	98.25%	97.82%	90.39%	100.00%	97.93%	100.00%	98.40%
Cutoff Sigma	2.59	3.29	3.66	6.00	6.00	6.00	6.00	3.78	4.25	3.61	3.52	2.80	5.82	3.54	6.00	3.64
Variance from Industry Cutoff	-0.87	-0.18	0.19	2.54	2.54	2.54	2.54	0.32	0.79	0.14	0.05	-0.66	2.36	0.08	2.54	0.18
Percent by COB	97.53%	99.56%	99.00%	100.00%	100.00%	100.00%	100.00%	99.57%	99.70%	99.41%	99.92%	99.50%	100.00%	99.71%	100.00%	99.82%
COB Sigma	3.46	4.12	3.83	6.00	6.00	6.00	6.00	4.13	4.25	4.02	4.67	4.07	5.82	4.26	6.00	4.40

P&I Allocations Monthly Trend



	January	February	March	April	May	June	July	August	September	October	November	December	YTD
Total Expected Allocations (Billions)	$310.070	$279.829	$401.819	$305.027	$346.512	$401.739	$345.064						$2390.060
Allocation $ Percent	98.49%	98.96%	99.21%	98.78%	98.92%	99.30%	98.71%						98.93%
Allocation $ Sigma	3.67	3.81	3.91	3.75	3.80	3.96	3.73						3.80
Unallocated Impact (Billions $)	$4.695	$2.901	$3.171	$3.722	$3.741	$2.815	$4.455						$25.500
Total CUSIP Expected	279,519	373,853	314,277	266,052	270,002	351,004	285,362						2,140,069
CUSIP Allocations %	97.63%	97.69%	98.45%	97.95%	98.03%	97.67%	98.18%						97.93%
CUSIP Allocations Sigma	3.48	3.49	3.66	3.54	3.56	3.49	3.59						3.54
Unallocated Impact (Count)	6,618	8,626	4,879	5,467	5,328	8,187	5,197						44,302

P&I Allocations – Agent Performance



AGENT	Wilmington Trust	US Bank	Deutsche Bank	Freddie Mac	Fannie Mae	State Street B&T	HSBC Bank	BNYM	Equiniti	UMB Bank	Wells Fargo	Computershare	Citibank	Ally Bank	M&T Bank	All Other Agents
Total Expected / % of Industry	$9.316	$65.306	$11.984	$3.712	$0.253	$7.584	$0.331	$83.530	$10.074	$1.658	$26.353	$26.498	$18.553	$1.017	$0.057	$72.187
	2.70%	18.93%	3.47%	1.08%	0.07%	2.20%	0.10%	24.21%	2.92%	0.48%	7.64%	7.68%	5.38%	0.29%	0.02%	20.92%
Allocation $ Percent	96.08%	98.77%	98.51%	100.00%	100.00%	99.99%	99.76%	99.40%	99.96%	99.34%	98.85%	97.90%	99.64%	100.00%	89.47%	98.58%
Allocation $ Sigma	3.26	3.75	3.67	6.00	6.00	5.18	4.33	4.01	4.86	3.98	3.77	3.53	4.19	6.00	2.75	3.69
Variance from Industry $ Sigma	-0.47	0.02	-0.06	2.27	2.27	1.45	0.60	0.28	1.13	0.25	0.04	-0.20	0.46	2.27	-0.98	-0.04
CUSIP Allocations %	90.92%	98.58%	98.55%	100.00%	100.00%	99.74%	94.15%	99.14%	96.71%	98.07%	99.38%	99.55%	99.44%	100.00%	91.67%	96.61%
CUSIP Allocations Sigma	2.84	3.69	3.68	6.00	6.00	4.29	3.07	3.88	3.34	3.57	4.00	4.11	4.04	6.00	2.88	3.33
Variance from Industry CUSIP Sigma	-0.76	0.10	0.09	2.41	2.41	0.70	-0.52	0.29	-0.25	-0.02	0.41	0.52	0.45	2.41	-0.71	-0.27