

Securing Today. Shaping Tomorrow.™



Asset Services Sigma- Agent Performance Report

June 2019 Data

Executive Summary

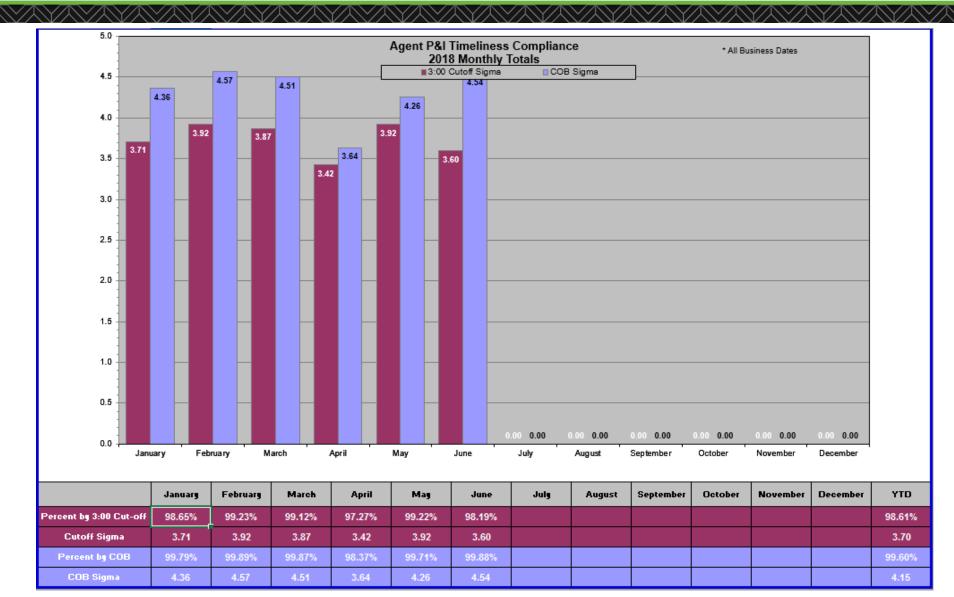
This report highlights the June 2019 performance of the top agents vs. industry targets. This report focuses on the following metrics:

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 June 2019 was 3.60σ 98.19%. 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 June 2019 was 4.03σ 99.42%. This month's performance is above the target of 3.83σ (99.00%).

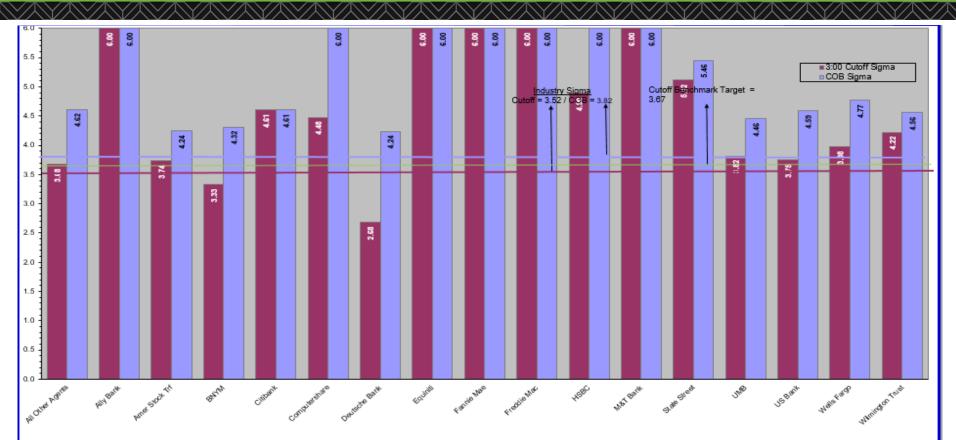
Please visit DTCC's web-site http://dtcc.com/asset-services/asset-services-performancemetrics.aspx for more detailed metric definitions and agent trend charts.

P&I Allocations Monthly Trend



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P&I Timeliness Compliance – Agent Performance

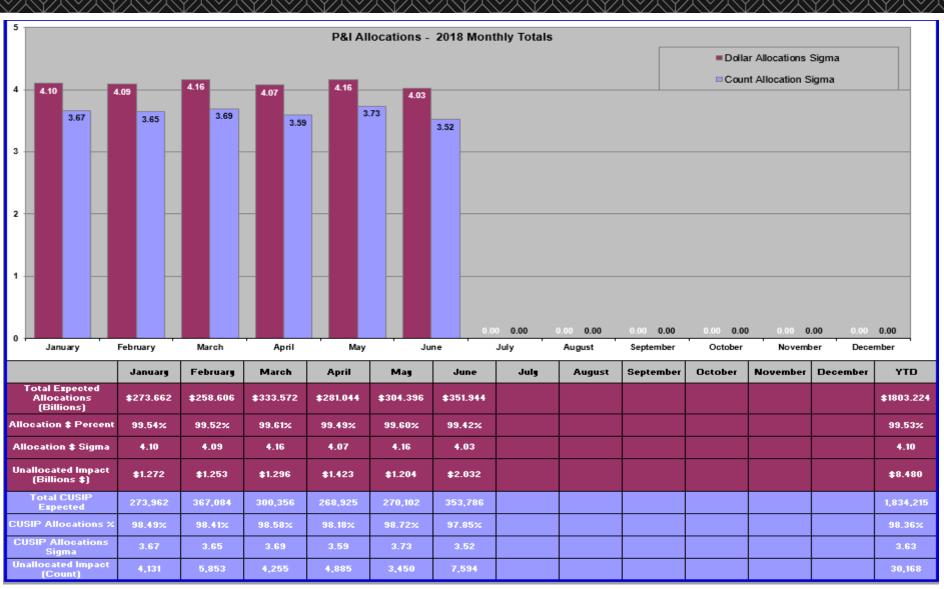


	All Other Agents	Ally Bank	Amer Stock Trf	BNYM	Citibank	Computer share	Deutsche Bank	Equiniti	Fannie Mae	Freddie Mac	HSBC	M&T Bank	State Street	US Bank	¥ells Farqo	Vilmingto n Trest
2 of Total Allocations	16.55%	0.14%	1.60%	18.38%	6.15%	15.63%	5.25%	3.42%	0.09%	0.73%	0.38%	0.25%	4.04%	10.04%	5.66%	2.23%
Percent by 3:00 Cut-off	98.54%	100.00%	98.76%	96.67%	99.91%	99.86%	88.17%	100.00%	100.00%	100.00%	99.97%	100.00%	99.99%	98.76%	99.35%	99.68%
Cutoff Sigma	3.68	6.00	3.74	3.33	4.61	4.48	2.68	6.00	6.00	6.00	4.90	6.00	5.12	3.75	3.98	4.22
Yariance from Industry Cutoff	0.08	2.40	0.14	-0.27	1.01	0.88	-0.92	2.40	2.40	2.40	1.30	2.40	1.52	0.15	0.38	0.63
Percent by COB	99.91%	100.00%	99.69%	99.76%	99.91%	100.00%	99.69%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99,90%	99.95%	99.89%
COB Sigma	4.62	6.00	4.24	4.32	4.61	6.00	4.24	6.00	6.00	6.00	6.00	6.00	5.46	4.59	4.77	4.56

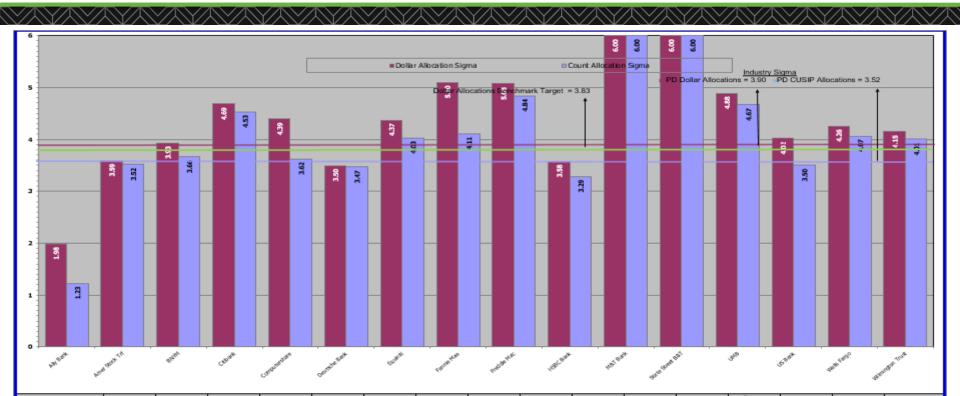
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*Please note WF ShHldr Svc is now Equiniti

P&I Allocations Monthly Trend



P&I Allocations – Agent Performance



AGENT	All Other Agents	Ally Bask	Amer Stock Trf	BNYM	Citibaak	Computer share	Deutsche Bank	Equisiti	Fannie Mae	Freddie Mac	HSBC Bank	M&T Baak	State Street B&T	US Bank	Wells Fargo	Vilmington Trest
Total Expected /	\$62.140	\$0.745	\$5.967	\$65.538	\$22.625	\$56.827	\$17.079	\$12.468	\$0.339	\$2.668	\$0.398	\$14.299	\$1.502	\$47.699	\$30.495	\$7.996
2 of Industry	16.872	0.202	1.622	17.792	6.142	15.422	4.642	3.382	0.092	0.722	0.112	3.882	0.412	12.95%	8.282	2.172
Allocation \$ Percent	99.24%	68.592	98.162	99.25%	99.932	99.812	97.722	99.80 2	99.982	99.98%	98.122	100.00%	100.00%	99.412	99.712	99.60 2
Allocation \$ Sigma	3.93	1.98	3.59	3.93	4.69	4.39	3.50	4.37	5.10	5.08	3.58	6.00	6.00	4.02	4.26	4.15
Variance from Industry \$ Sigma	-0.08	-2.02	-0.41	-0.07	0.68	0.39	-0.50	0.37	1.10	1.07	-0.42	2.00	2.00	0.02	0.26	0.15
CUSIP Allocations &	96.13%	39.26%	97.84%	98.472	99.88%	98.32%	97.56%	99.442	99.54%	99.96%	96.30%	100.00%	100.00%	97.742	99.49%	99.39%
CUSIP Allocations Sigma	3.27	1.23	3.52	3.66	4.53	3.62	3.47	4.03	4.11	4.84	3.29	6.00	6.00	3.50	4.07	4.01
Yariance from Industry CUSIP Sigma	-0.30	-2.34	-0.05	0.09	0.96	0.06	-0.10	0.46	0.54	1.27	-0.28	2.43	2.43	-0.07	0.50	0.44

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