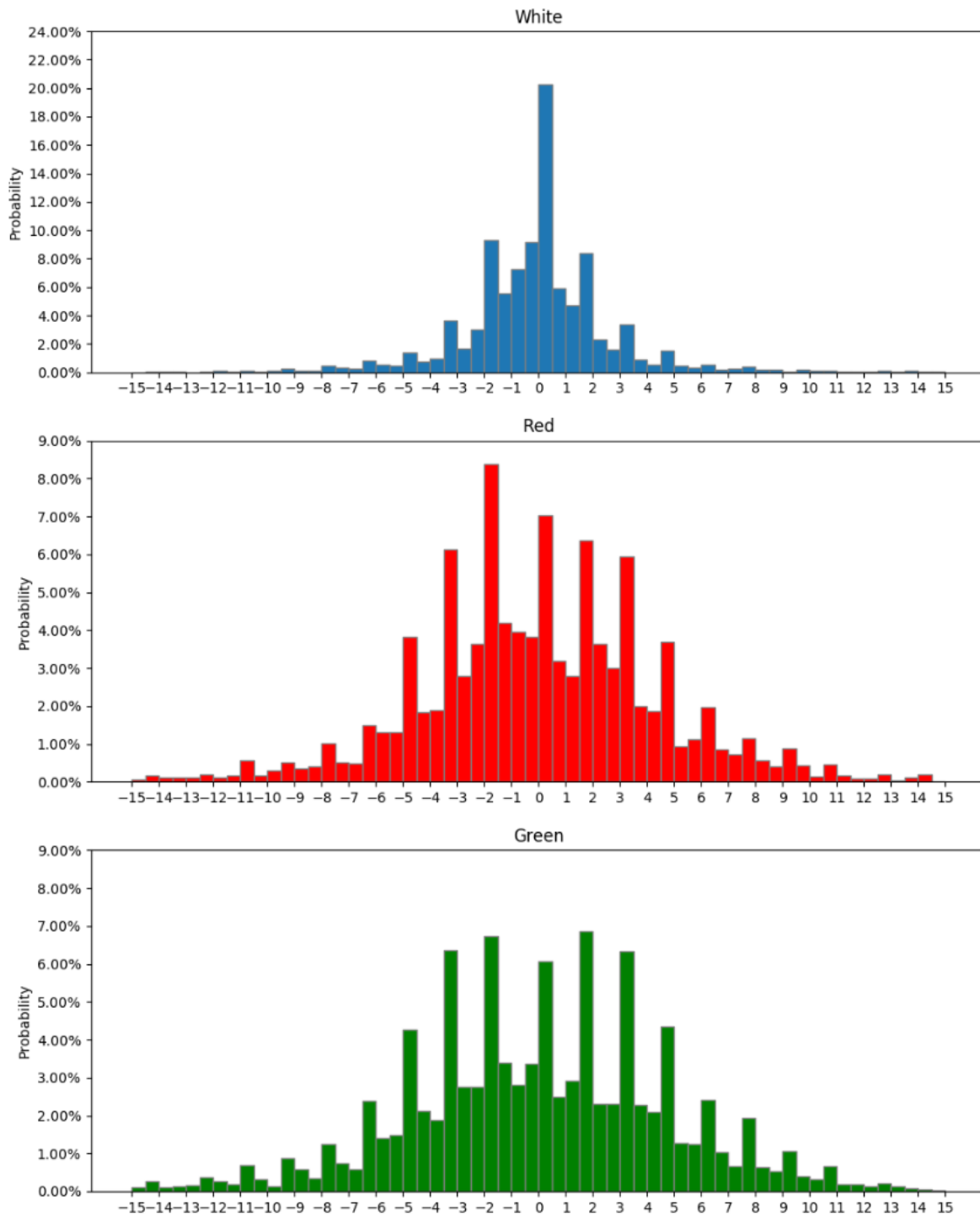


Daily Change in Settlement (Bps)

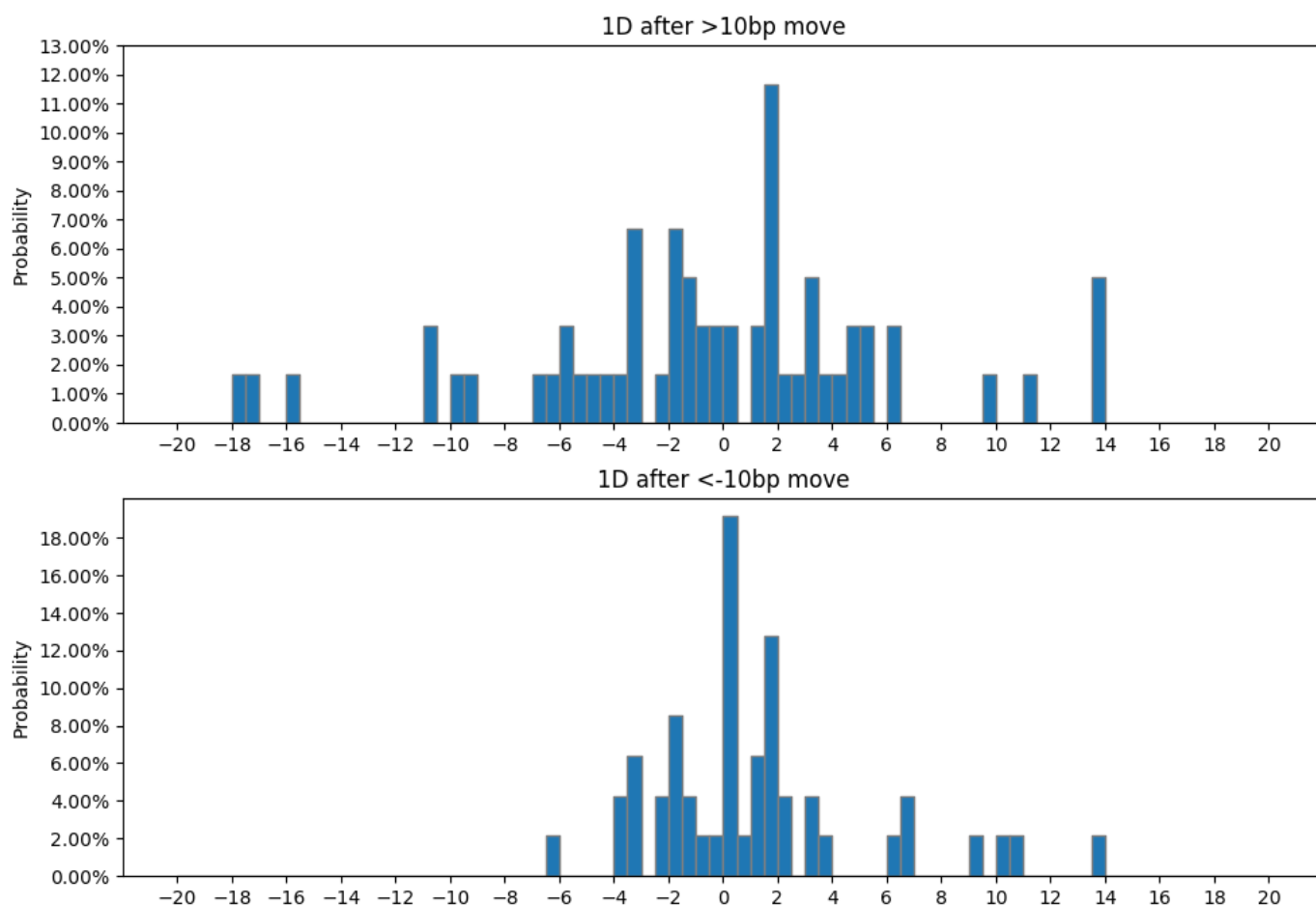
The following histograms illustrate the daily change in settlement of ED futures in the past 5 years.



	>10bp	< -10bp
Between -2bp to 2bp	36.67%	57.45%
Between -5bp to 5bp	65.00%	76.60%
Less than -5bp	21.67%	2.13%
Less than -10bp	10.00%	0.00%
More than 5bp	15.00%	14.89%
More than 10bp	6.67%	6.38%
Average move	-0.86bp	1.16bp

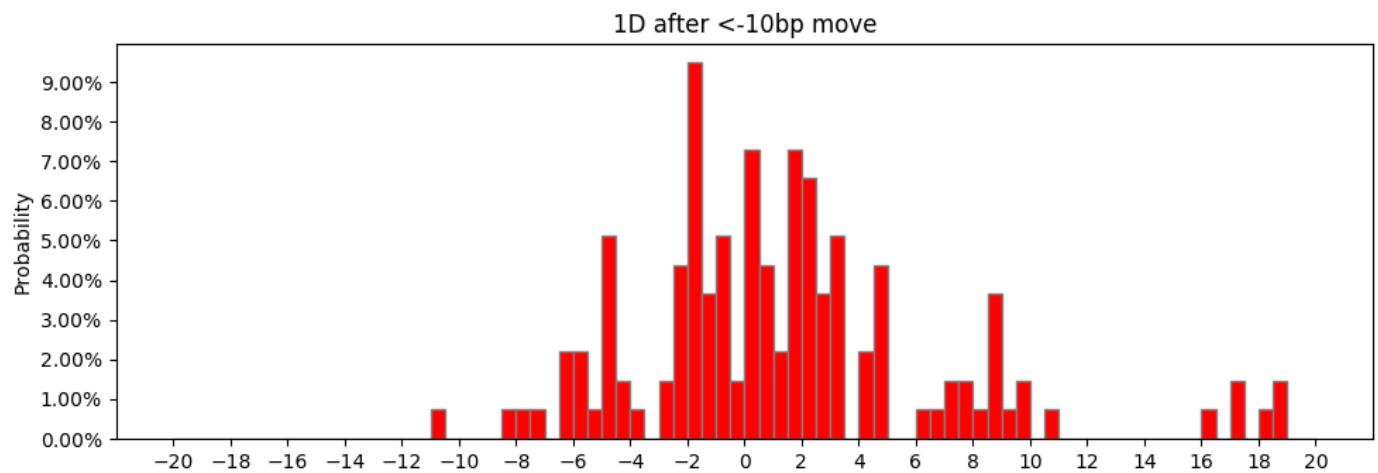
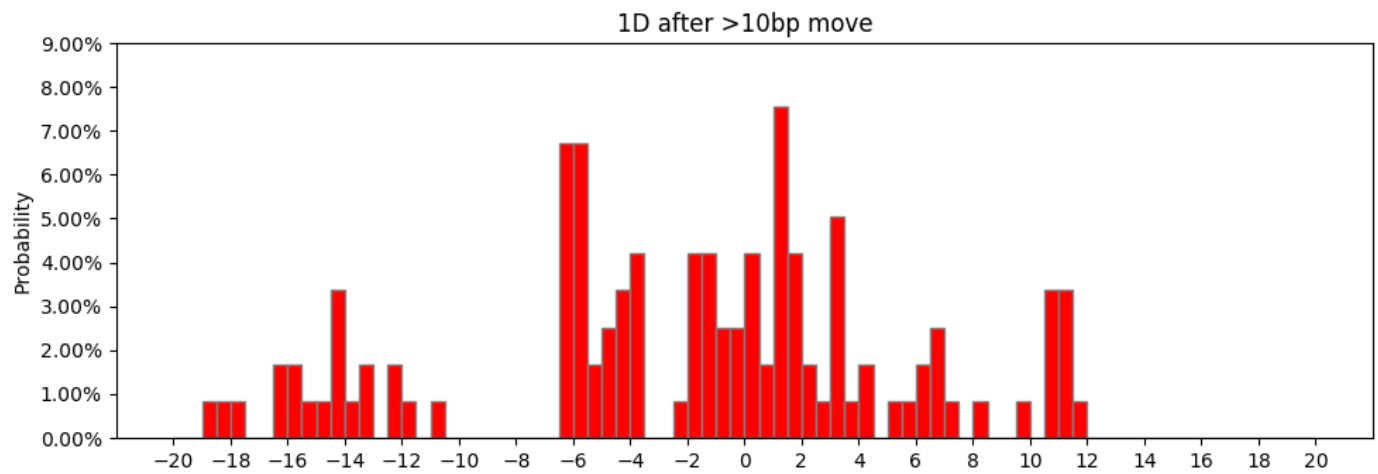
1 Day after a more than 10bp daily move in both direction, rates does not move much in Whites, Reds, and Greens as seen below:

White: Rates move 1 day after more than 10bp and less than -10bp move



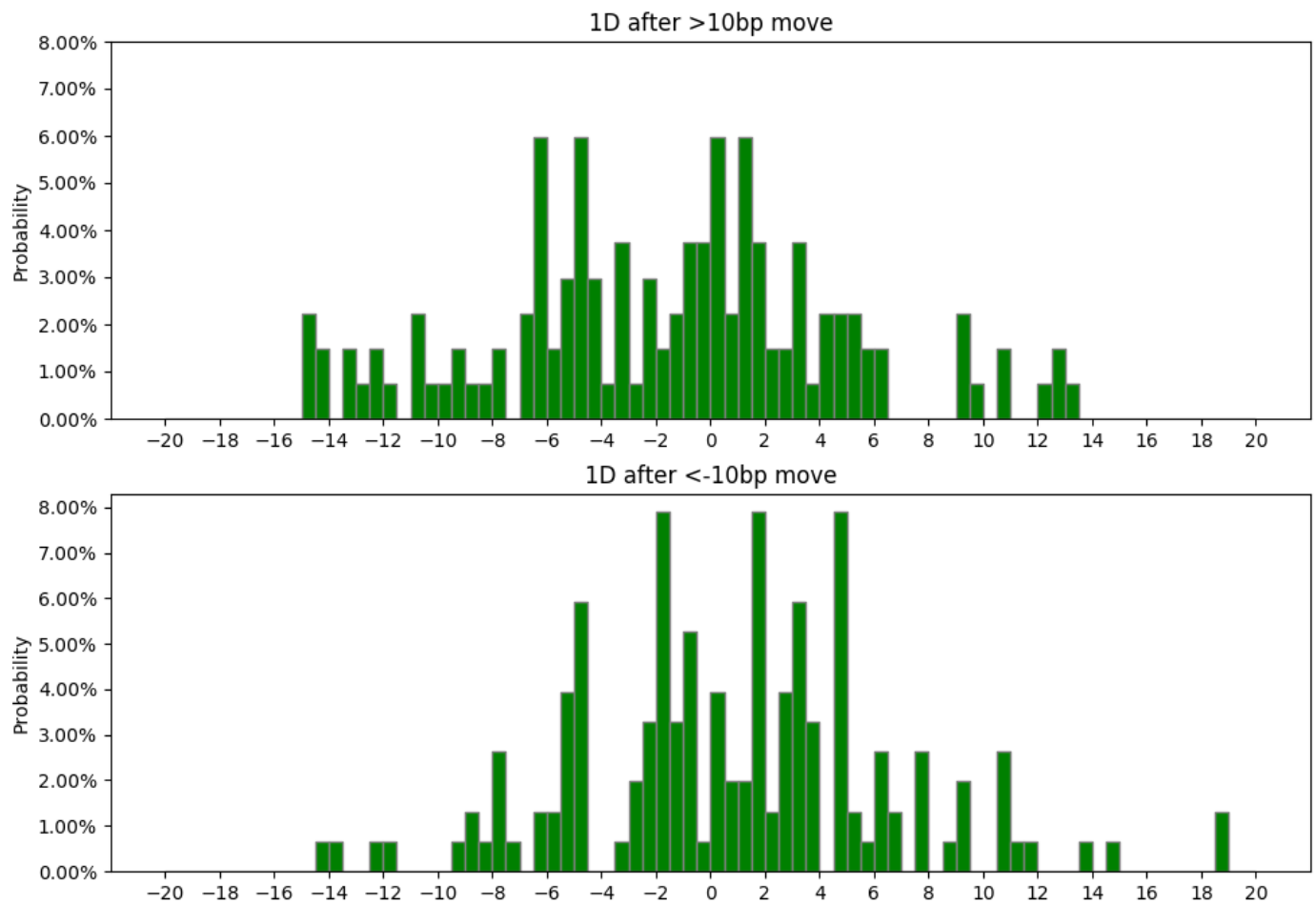
	>10bp	<-10bp
Between -2bp to 2bp	40.00%	57.45%
Between -5bp to 5bp	66.67%	82.98%
Less than -5bp	21.67%	2.13%
More than 5bp	11.67%	14.89%
Less than -10bp	10.00%	0.00%
More than 10bp	6.67%	6.38%
Average move	-0.86bp	-1.16bp

Red: Rates move 1 day after more than 10bp and less than -10bp move



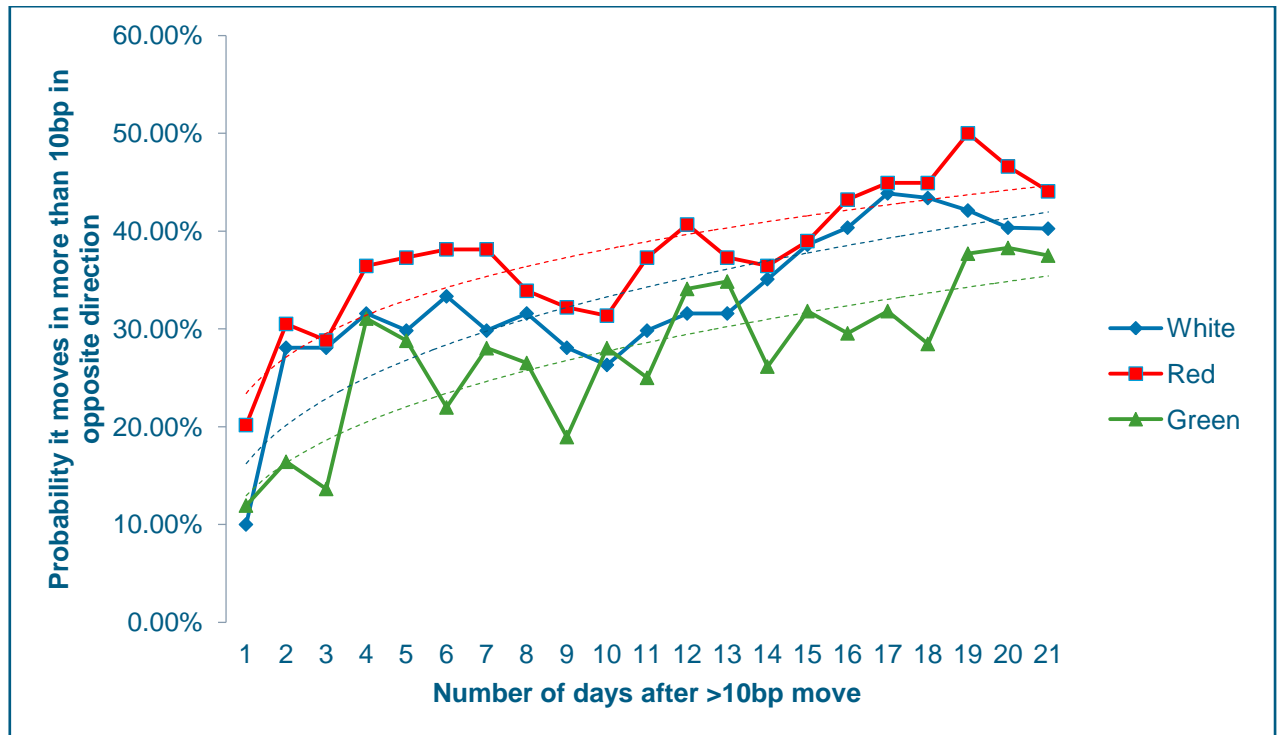
	>10bp	< -10bp
Between -2bp to 2bp	31.93%	41.61%
Between -5bp to 5bp	52.94%	77.37%
Less than -5bp	35.29%	8.03%
More than 5bp	11.76%	14.60%
Less than -10bp	20.17%	0.73%
More than 10bp	7.56%	5.11%
Average move	-2.74bp	1.39bp

Green: Rates move 1 day after more than 10bp and less than -10bp move



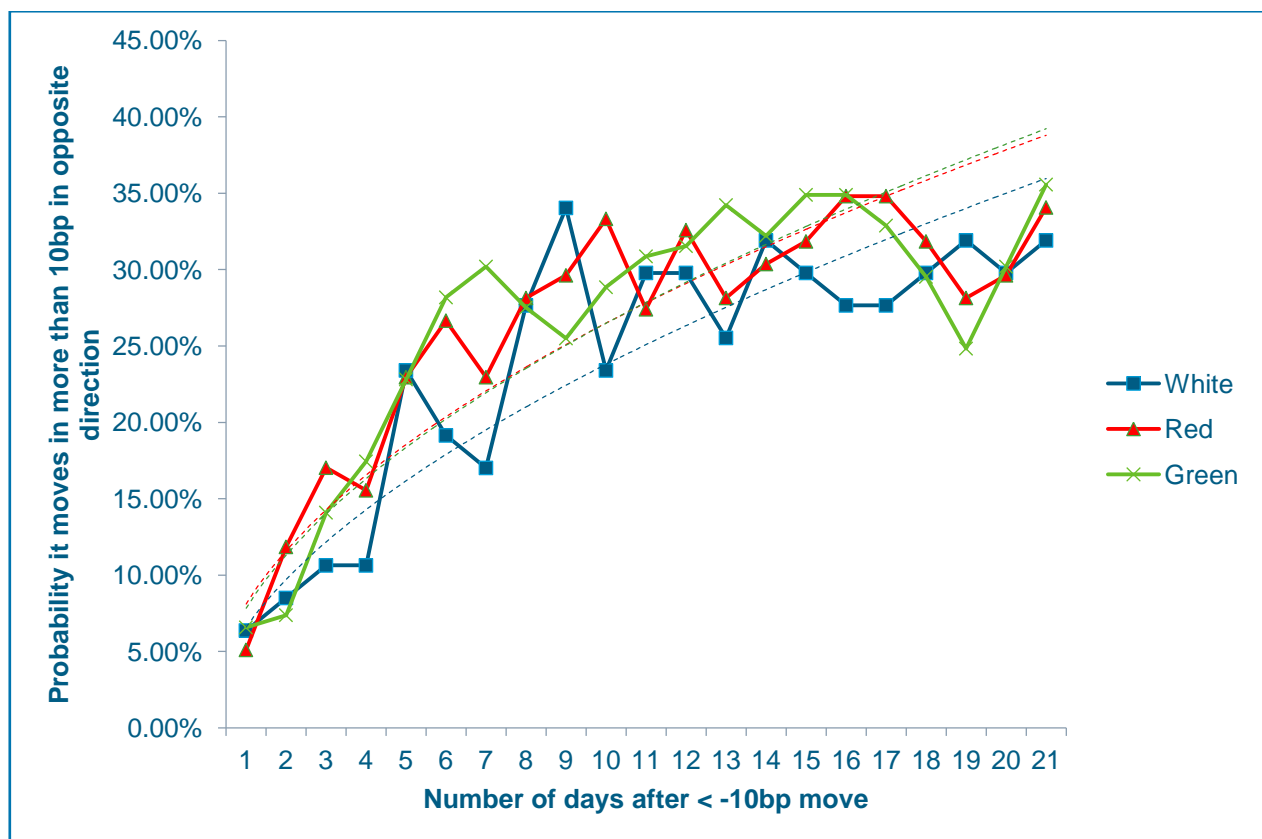
	>10bp	<-10bp
Between -2bp to 2bp	30.60%	32.89%
Between -5bp to 5bp	59.70%	67.11%
Less than -5bp	29.85%	15.13%
More than 5bp	10.45%	17.76%
Less than -10bp	11.94%	2.63%
More than 10bp	4.48%	6.58%
Average move	-1.81bp	0.85bp

When rates move more than 10bps



Probability it moves < -10 bp after a > 10bp move			
Number of days after	White	Red	Green
1	10.00%	20.17%	11.94%
2	28.07%	30.51%	16.42%
3	28.07%	28.81%	13.64%
4	31.57%	36.44%	31.06%
5	29.82%	37.29%	28.79%
6	33.33%	38.14%	21.97%
7	29.82%	38.14%	28.03%
8	31.58%	33.90%	26.52%
9	28.07%	32.20%	18.94%
10	26.32%	31.36%	28.03%
11	29.82%	37.29%	25.00%
12	31.58%	40.68%	34.09%
13	31.58%	37.29%	34.85%
14	35.09%	36.44%	26.15%
15	38.60%	38.98%	31.82%
16	40.35%	43.22%	29.55%
17	43.86%	44.92%	31.82%
18	43.39%	44.92%	28.46%
19	42.11%	50.00%	37.69%
20	40.35%	46.61%	38.28%
21	40.25%	44.07%	37.50%

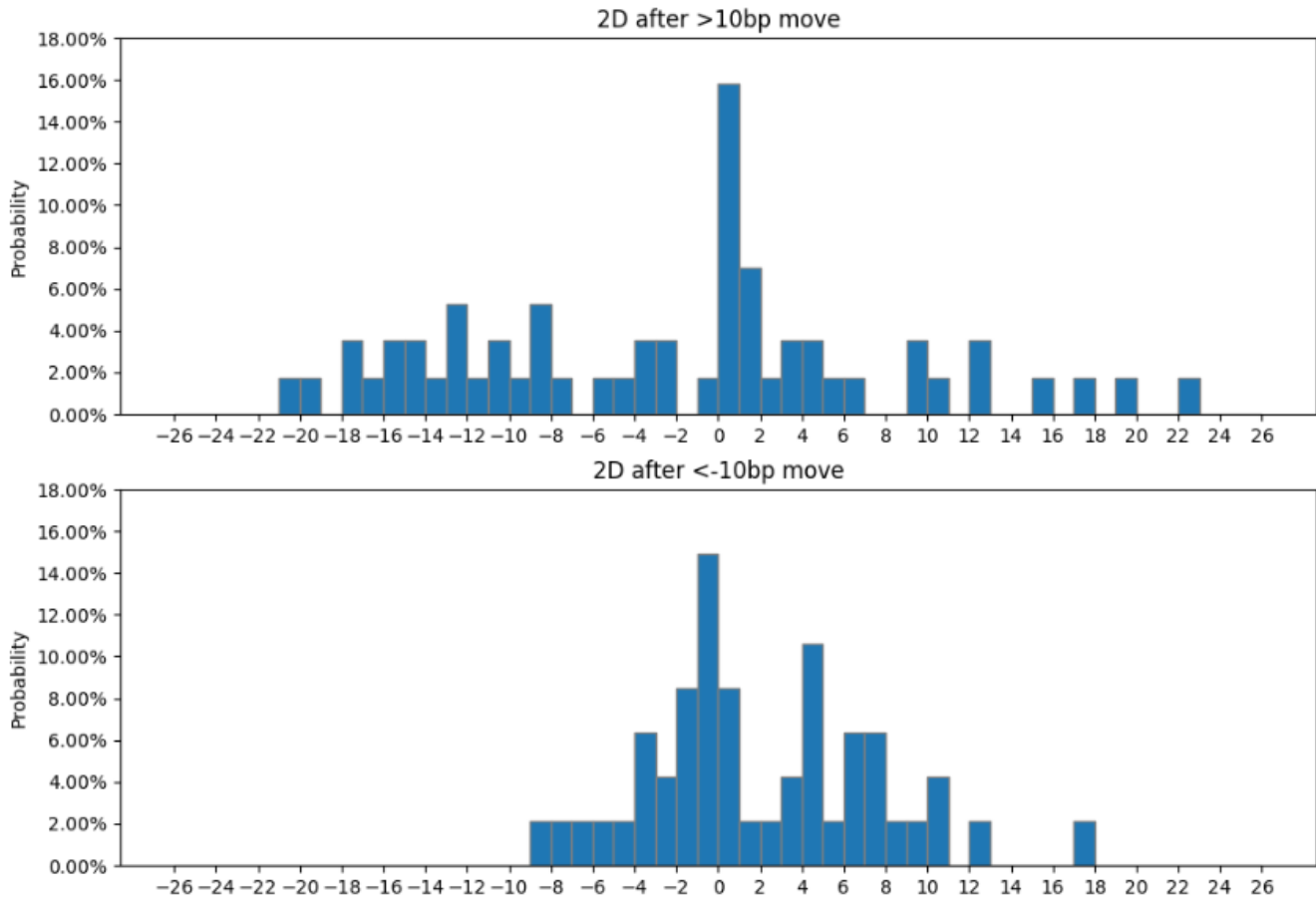
When rates move less than -10bps



Probability it moves > 10 bp after a < -10bp move			
Number of days after	White	Red	Green
1	6.38%	5.11%	6.58%
2	8.51%	11.85%	7.38%
3	10.64%	17.04%	14.09%
4	10.64%	15.56%	17.45%
5	23.40%	22.96%	22.82%
6	19.15%	26.67%	28.19%
7	17.02%	22.96%	30.20%
8	27.66%	28.15%	27.52%
9	34.04%	29.63%	25.50%
10	23.40%	33.33%	28.85%
11	29.79%	27.41%	30.87%
12	29.79%	32.59%	31.54%
13	25.53%	28.15%	34.23%
14	31.91%	30.37%	32.21%
15	29.79%	31.85%	34.90%
16	27.66%	34.81%	34.90%
17	27.66%	34.81%	32.89%
18	29.79%	31.85%	29.53%
19	31.91%	28.15%	24.83%
20	29.79%	29.63%	30.20%
21	31.91%	34.07%	35.57%

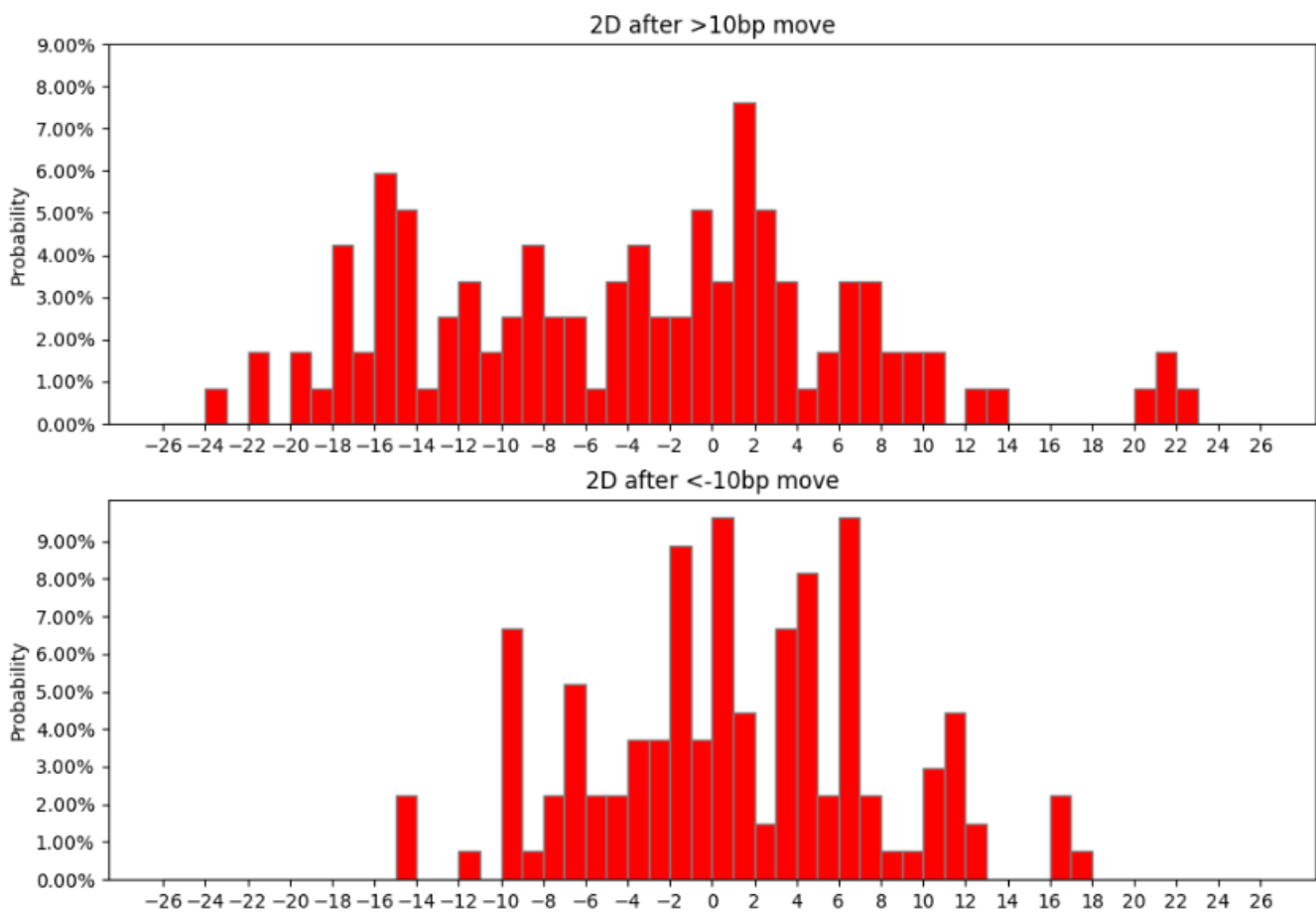
2 days after a more than 10bp daily move in both directions

White:



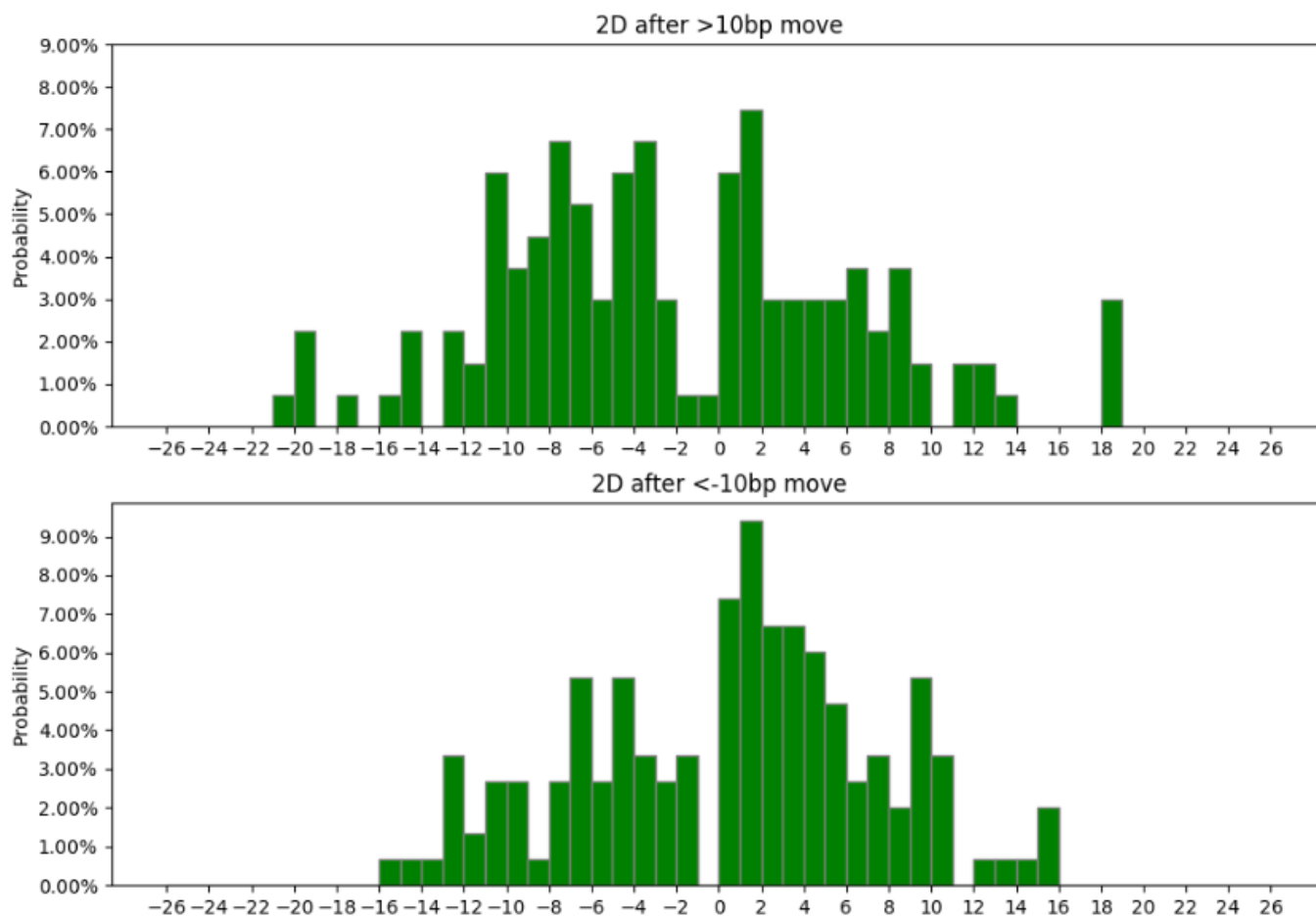
White	>10bp	< -10bp
Between -2bp to 2bp	24.56%	34.04%
Between -5bp to 5bp	42.11%	63.83%
Less than -5bp	38.60%	8.51%
Less than -10bp	28.07%	0.00%
More than 5bp	19.30%	27.66%
More than 10bp	12.28%	8.51%

Red:



	>10bp	< -10bp
Between -2bp to 2bp	18.64%	26.67%
Between -5bp to 5bp	38.14%	52.59%
Less than -5bp	43.22%	20.00%
Less than -10bp	30.51%	2.96%
More than 5bp	18.64%	27.41%
More than 10bp	6.78%	11.85%

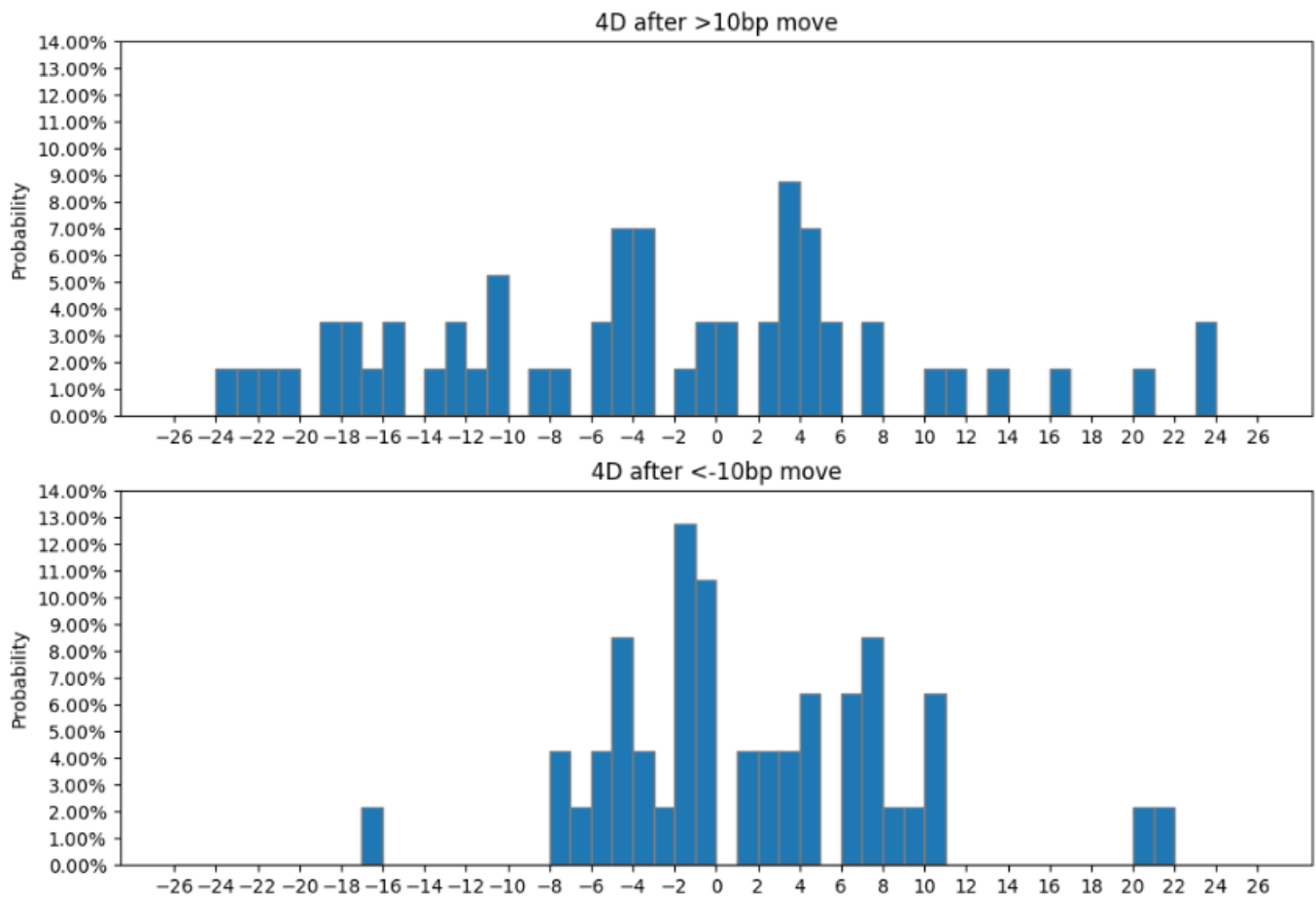
Green:



	>10bp	< -10bp
Between -2bp to 2bp	14.93%	20.13%
Between -5bp to 5bp	39.55%	51.01%
Less than -5bp	39.55%	23.49%
Less than -10bp	16.42%	9.40%
More than 5bp	20.90%	25.50%
More than 10bp	6.72%	7.38%

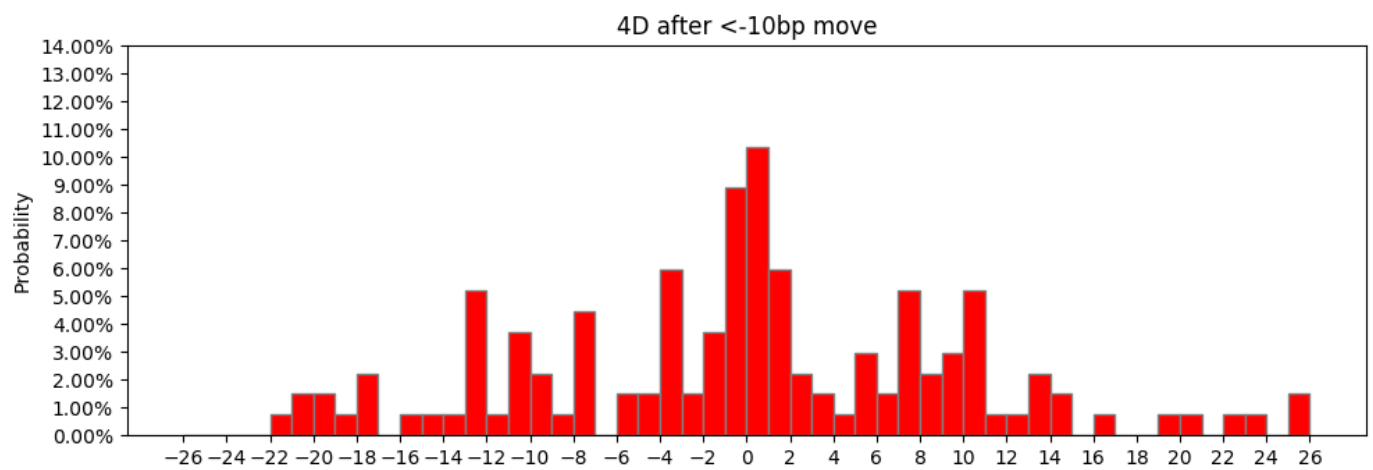
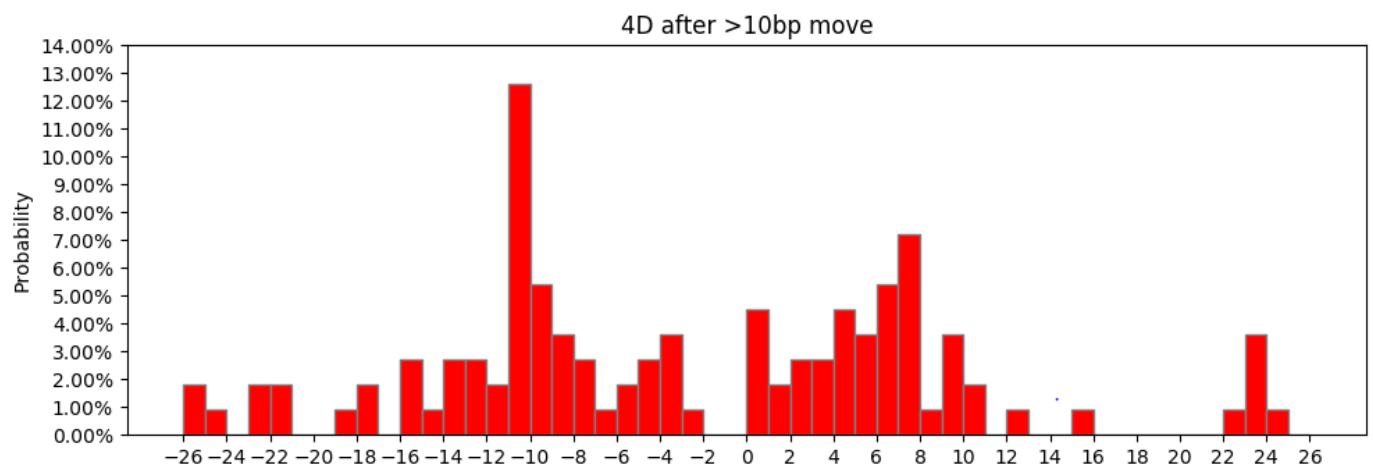
4 days after a more than 10bp daily move in both directions

White:



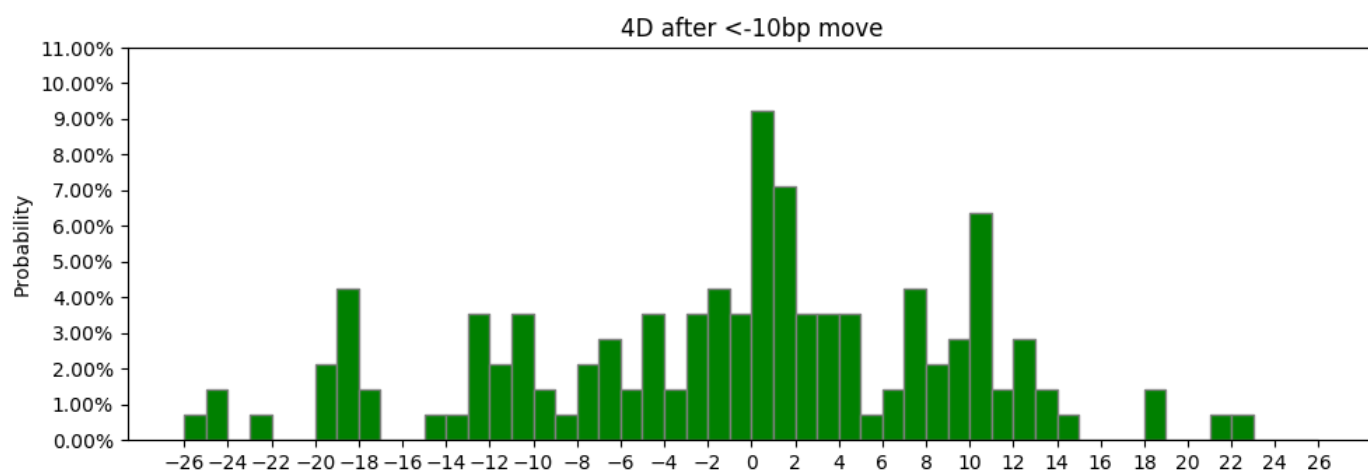
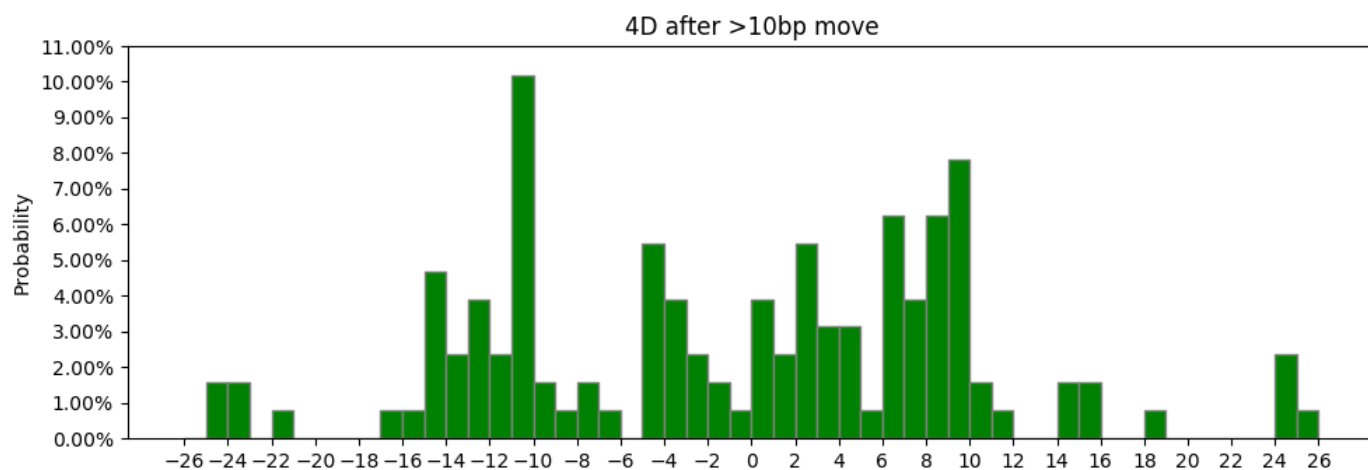
	>10bp	< -10bp
Between -2bp to 2bp	8.77%	27.66%
Between -5bp to 5bp	42.11%	57.45%
Less than -5bp	38.60%	12.77%
Less than -10bp	31.57%	21.28%
More than 5bp	19.30%	29.79%
More than 10bp	12.28%	10.64%

Red:



	>10bp	< -10bp
Between -2bp to 2bp	5.93%	28.89%
Between -5bp to 5bp	22.03%	42.22%
Less than -5bp	50.00%	27.41%
Less than -10bp	36.44%	18.52%
More than 5bp	27.97%	30.37%
More than 10bp	8.47%	15.56%

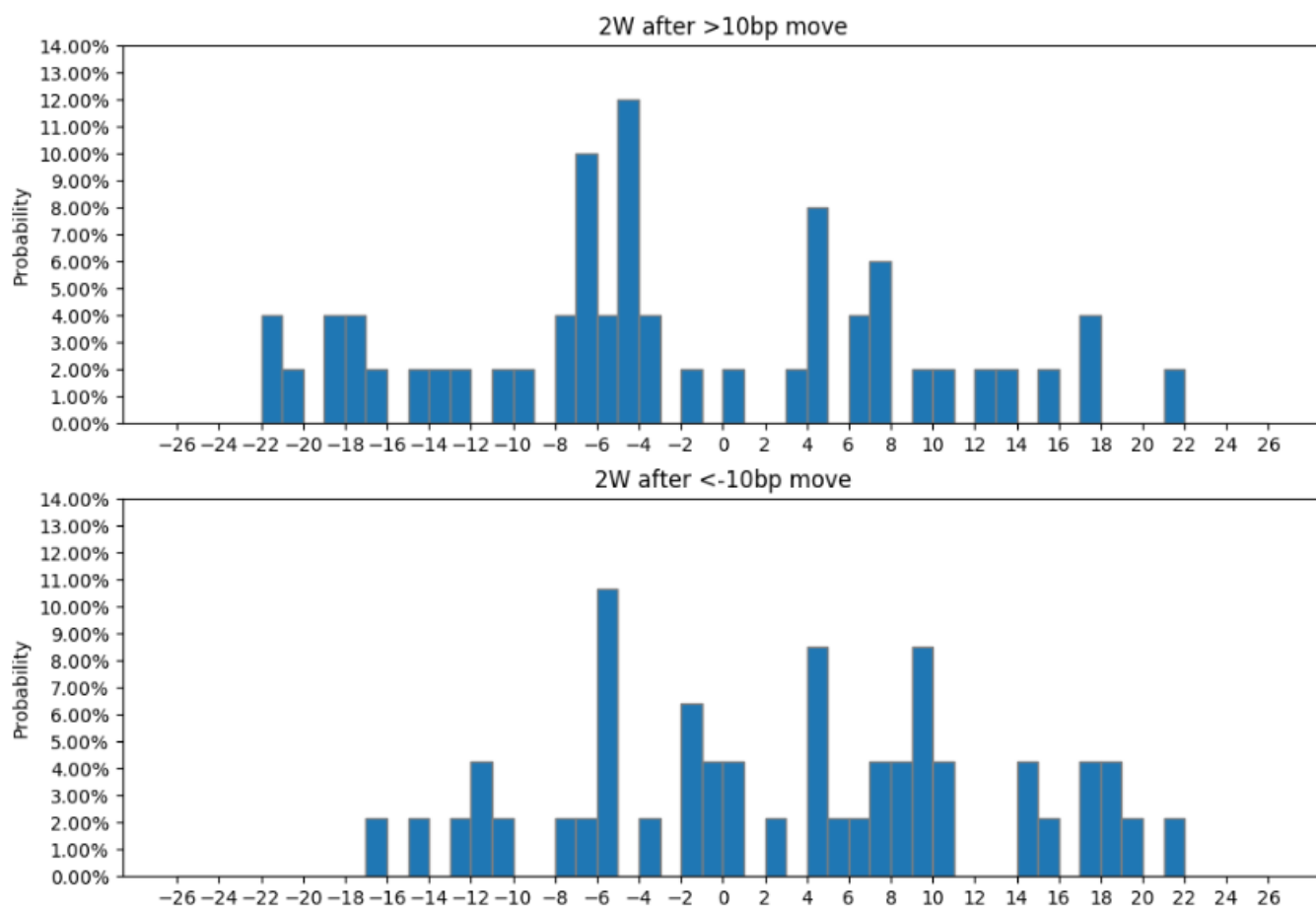
Green:



	>10bp	< -10bp
Between -2bp to 2bp	8.33%	22.82%
Between -5bp to 5bp	31.06%	40.94%
Less than -5bp	35.61%	30.87%
Less than -10bp	31.06%	22.82%
More than 5bp	33.33%	28.19%
More than 10bp	9.09%	17.45%

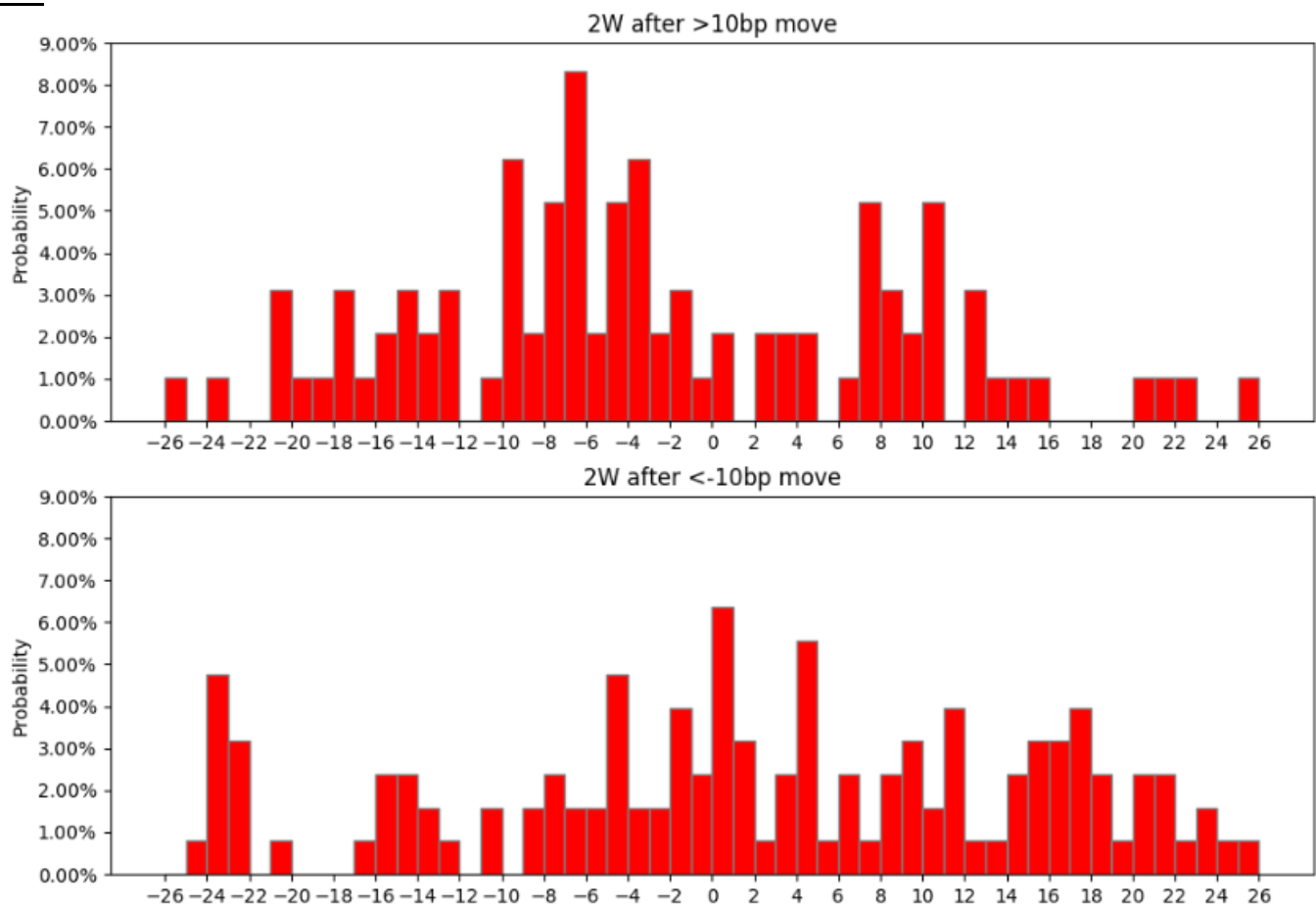
10 trading days (approximately 2weeks) after a more than 10bp daily move in both directions

White:



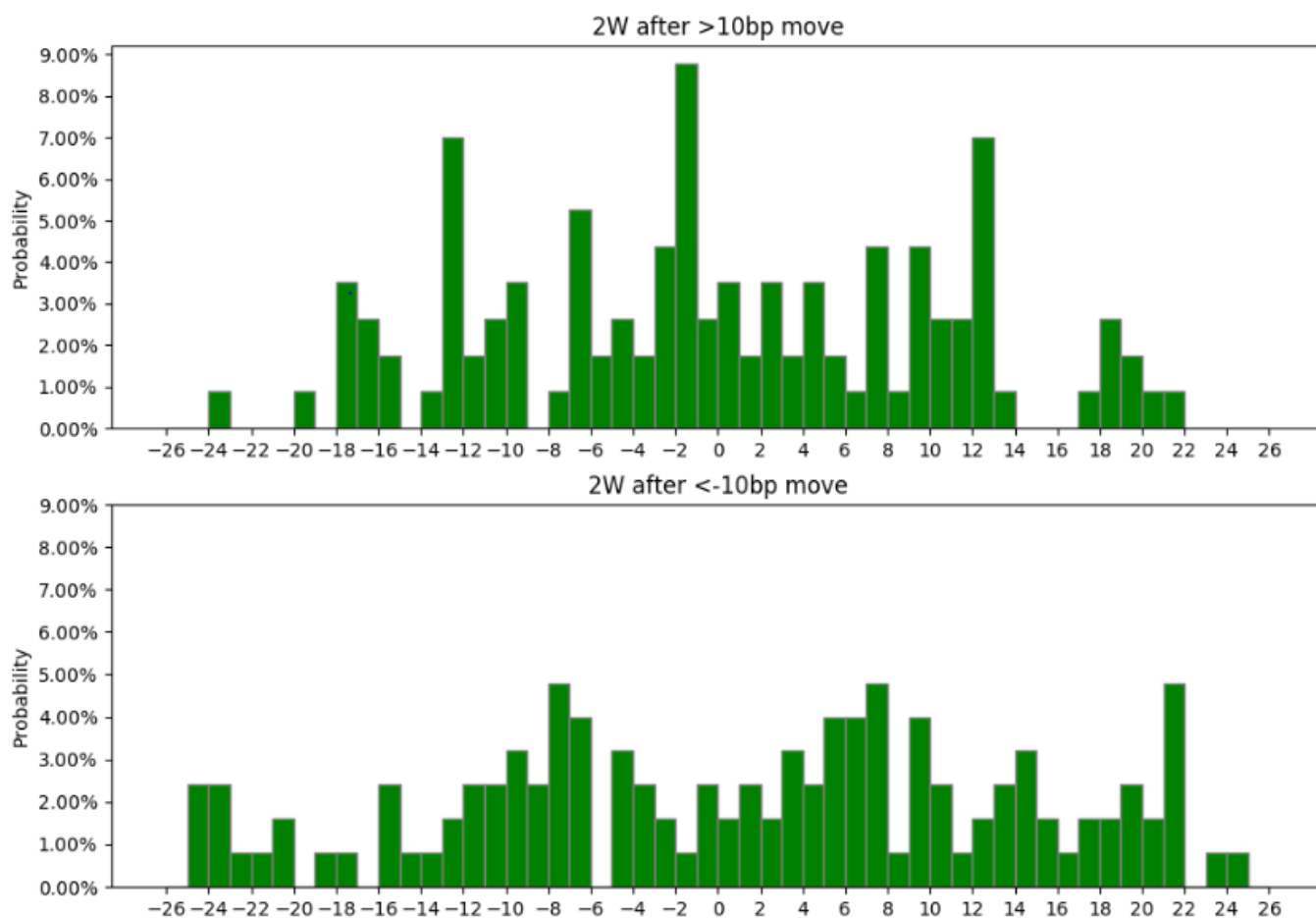
	>10bp	< -10bp
Between -2bp to 2bp	3.51%	14.89%
Between -5bp to 5bp	26.32%	27.66%
Less than -5bp	43.86%	27.66%
Less than -10bp	26.32%	12.77%
More than 5bp	29.82%	44.68%
More than 10bp	19.30%	23.40%

Red:



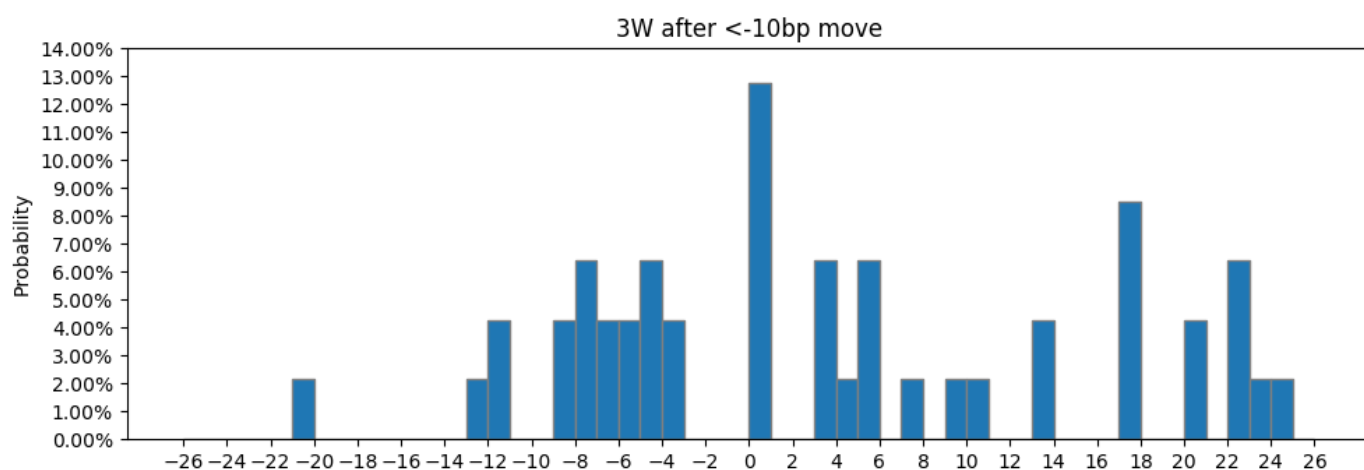
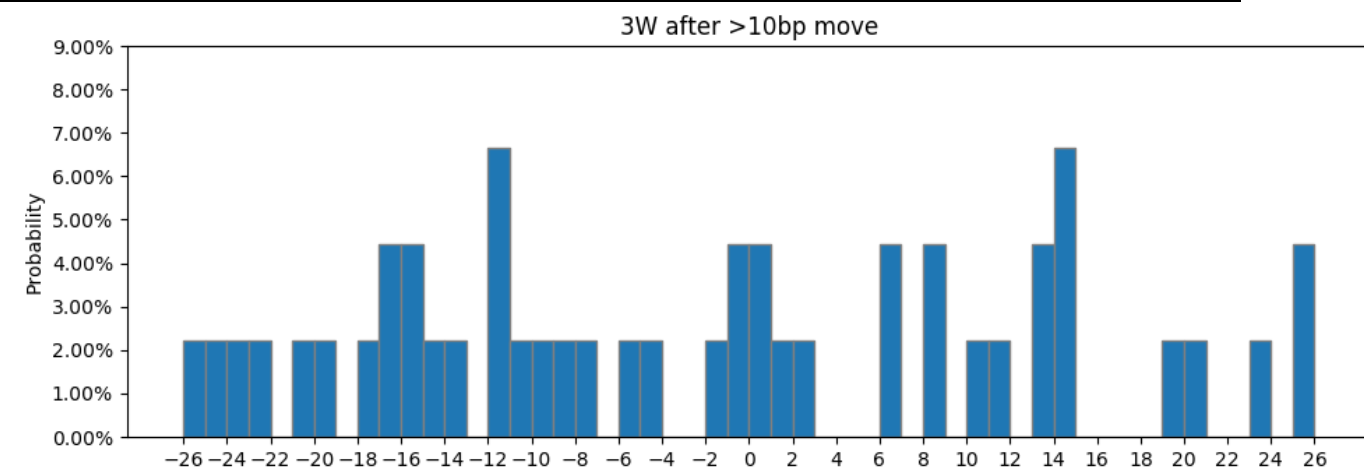
Red	>10bp	< -10bp
Between -2bp to 2bp	5.08%	14.81%
Between -5bp to 5bp	21.19%	30.37%
Less than -5bp	50.85%	27.41%
Less than -10bp	31.36%	20.74%
More than 5bp	27.97%	42.22%
More than 10bp	18.64%	33.33%

Green:

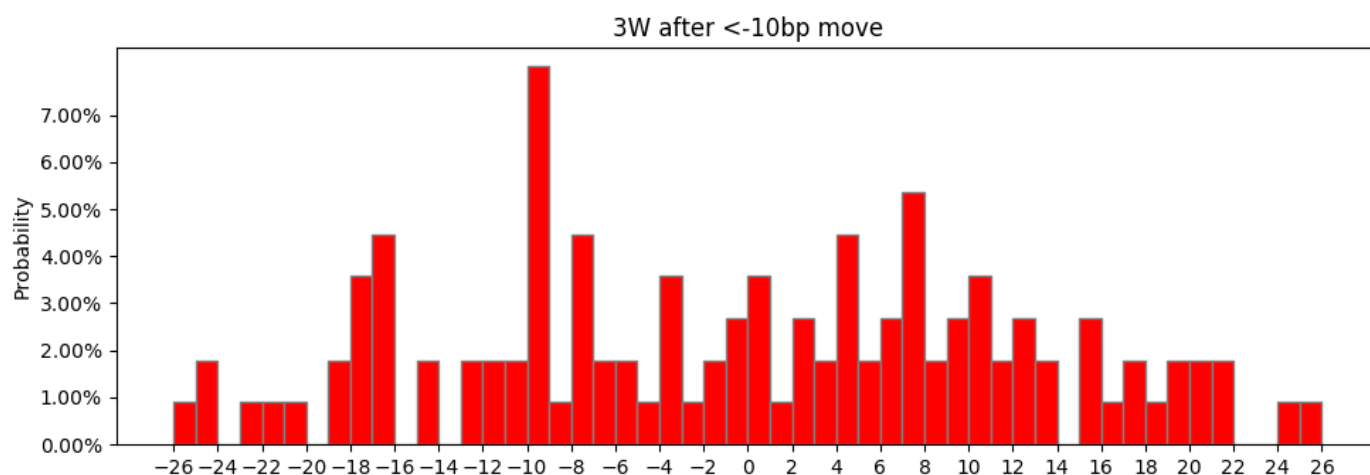
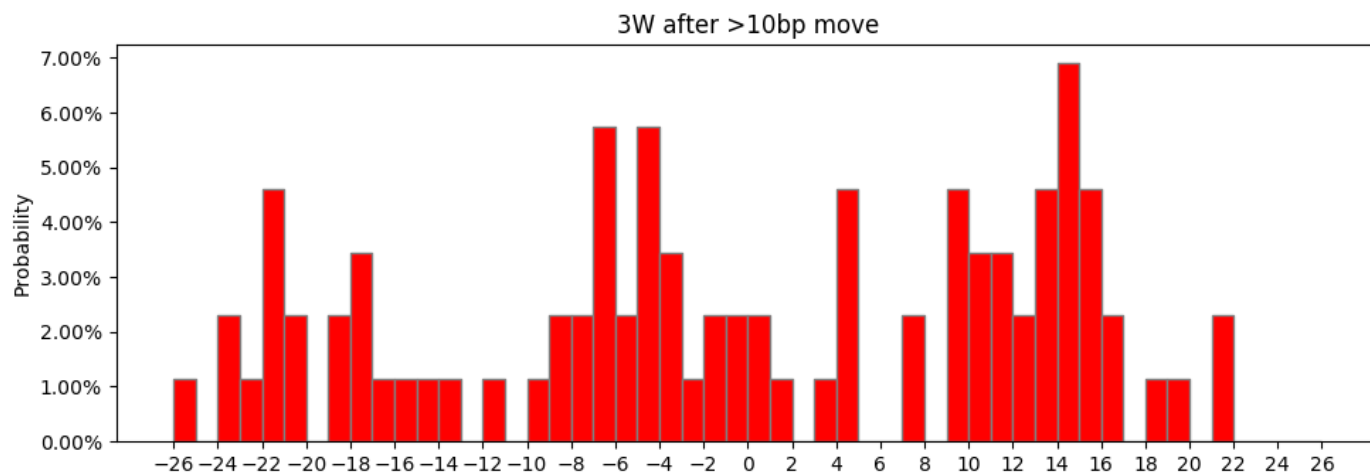


	>10bp	< -10bp
Between -2bp to 2bp	14.39%	6.04%
Between -5bp to 5bp	29.55%	18.12%
Less than -5bp	37.88%	38.26%
Less than -10bp	28.03%	26.17%
More than 5bp	32.58%	43.62%
More than 10bp	21.97%	28.85%

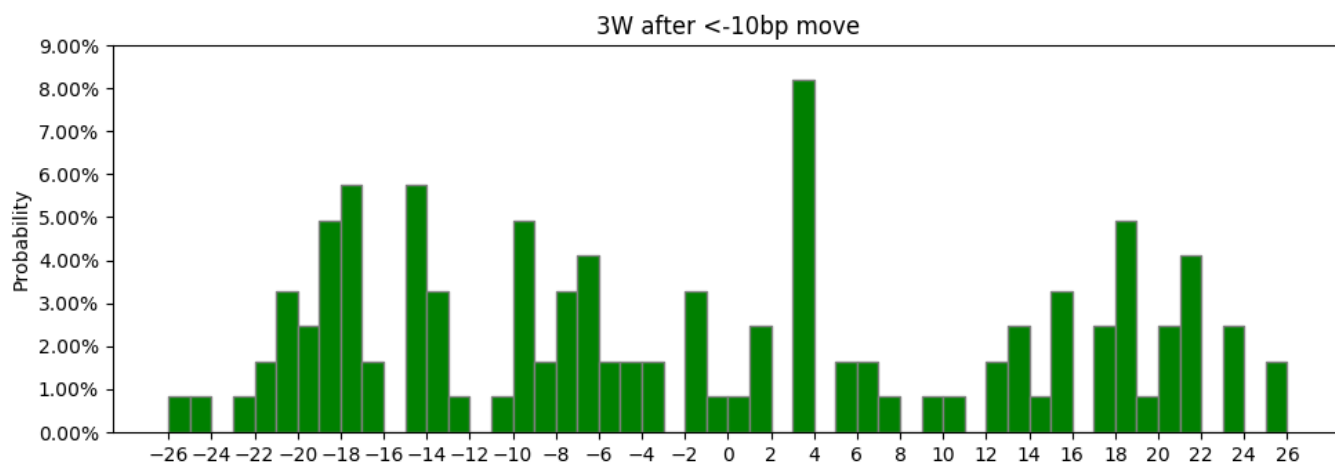
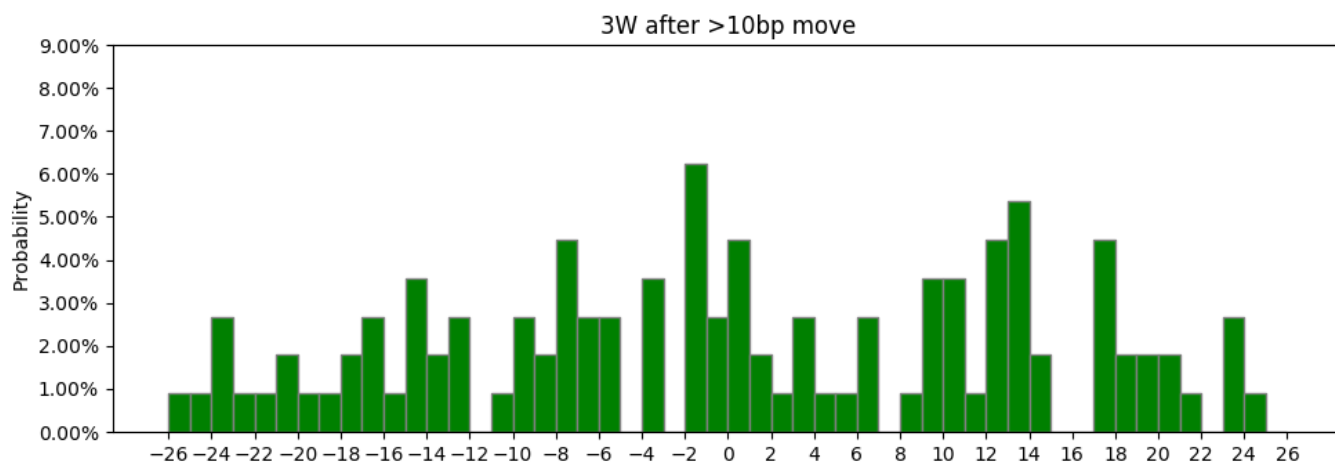
15 trading days (approximately 3weeks) after a more than 10bp daily move in both directions



	>10bp	< -10bp
Between -2bp to 2bp	10.53%	12.77%
Between -5bp to 5bp	14.04%	31.91%
Less than -5bp	45.61%	27.66%
Less than -10bp	38.60%	8.51%
More than 5bp	40.35%	40.04%
More than 10bp	33.33%	29.79%



	>10bp	< -10bp
Between -2bp to 2bp	5.93%	7.41%
Between -5bp to 5bp	17.80%	19.26%
Less than -5bp	49.15%	37.04%
Less than -10bp	38.98%	22.96%
More than 5bp	33.05%	43.70%
More than 10bp	27.97%	31.85%



	>10bp	< -10bp
Between -2bp to 2bp	12.88%	6.06%
Between -5bp to 5bp	19.70%	15.44%
Less than -5bp	43.94%	45.64%
Less than -10bp	31.82%	32.89%
More than 5bp	36.36%	38.93%
More than 10bp	29.55%	34.90%