

## History of MVA Index Rates

### Effective 9/1/2023

Based on Bloomberg Fair Value U.S. Dollar Denominated U.S Industrial A.  
Please see the Market Value Adjustment Rider in your contract for more details.

	3 Year	5 Year	7 Year	8 Year	10 Year
7/1/2010	-	2.91%	3.70%	-	4.34%
8/1/2010	-	2.70%	3.49%	-	4.14%
9/1/2010	-	2.36%	3.15%	-	3.88%
10/1/2010	-	2.25%	3.01%	-	3.71%
11/1/2010	-	2.10%	2.86%	-	3.66%
12/1/2010	-	2.09%	2.90%	-	3.80%
1/1/2011	-	2.53%	3.38%	-	4.17%
2/1/2011	-	2.74%	3.59%	-	4.42%
3/1/2011	-	2.92%	3.77%	-	4.54%
4/1/2011	-	2.83%	3.66%	-	4.41%
5/1/2011	-	2.97%	3.77%	-	4.46%
6/1/2011	-	2.66%	3.48%	-	4.22%
7/1/2011	-	2.49%	3.32%	-	4.09%
8/1/2011	-	2.45%	3.31%	-	4.12%
9/1/2011	-	2.02%	2.79%	-	3.61%
10/1/2011	-	1.99%	2.66%	-	3.41%
11/1/2011	-	2.17%	2.91%	-	3.54%
12/1/2011	-	1.97%	2.71%	-	3.43%
1/1/2012	-	1.98%	2.71%	-	3.40%
2/1/2012	-	1.85%	2.57%	-	3.27%
3/1/2012	-	1.64%	2.40%	-	3.14%
4/1/2012	-	1.66%	2.38%	-	3.15%
5/1/2012	-	1.64%	2.30%	-	3.15%
6/1/2012	-	1.57%	2.17%	-	2.96%
7/1/2012	-	1.60%	2.10%	-	2.82%
8/1/2012	-	1.49%	2.00%	-	2.65%
9/1/2012	-	1.42%	1.99%	-	2.59%
10/1/2012	-	1.31%	1.94%	-	2.53%
11/1/2012	-	1.33%	1.93%	-	2.54%
12/1/2012	-	1.36%	1.94%	-	2.54%
1/1/2013	-	1.36%	1.94%	-	2.57%
2/1/2013	-	1.43%	2.03%	-	2.71%
3/1/2013	-	1.51%	2.15%	-	2.87%
4/1/2013	-	1.50%	2.13%	-	3.03%
5/1/2013	-	1.44%	2.02%	-	2.73%
6/1/2013	-	1.45%	2.03%	-	2.73%
7/1/2013	-	1.80%	2.47%	-	3.14%
8/1/2013	-	2.14%	2.88%	-	3.55%
9/1/2013	-	2.05%	2.86%	-	3.55%
10/1/2013	-	2.30%	3.11%	-	3.77%
11/1/2013	-	2.07%	2.89%	-	3.58%
12/1/2013	-	2.01%	2.85%	-	3.58%
1/1/2014	-	2.12%	3.01%	-	3.76%
2/1/2014	-	2.25%	3.11%	-	3.83%
3/1/2014	-	2.09%	2.88%	-	3.56%
4/1/2014	-	2.10%	2.87%	-	3.57%
5/1/2014	-	2.15%	2.88%	-	3.51%
6/1/2014	-	2.03%	2.70%	-	3.32%
7/1/2014	-	1.99%	2.64%	-	3.25%

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8/1/2014	-	2.02%	2.64%	-	3.24%
9/1/2014	-	1.99%	2.58%	-	3.17%
10/1/2014	-	2.08%	2.66%	-	3.22%
11/1/2014	-	2.04%	2.61%	-	3.16%
12/1/2014	-	2.09%	2.62%	-	3.15%
1/1/2015	-	2.09%	2.60%	-	3.10%
2/1/2015	-	2.05%	2.50%	-	2.96%
3/1/2015	-	1.92%	2.36%	-	2.81%
4/1/2015	-	1.99%	2.45%	-	2.92%
5/1/2015	-	1.87%	2.32%	-	2.79%
6/1/2015	-	2.04%	2.52%	-	3.03%
7/1/2015	-	2.25%	2.77%	-	3.36%
8/1/2015	-	2.34%	2.87%	-	3.43%
9/1/2015	-	2.36%	2.85%	-	3.37%
10/1/2015	-	2.39%	2.89%	-	3.42%
11/1/2015	-	2.29%	2.79%	-	3.31%
12/1/2015	-	2.41%	2.90%	-	3.41%
1/1/2016	-	2.46%	2.92%	-	3.43%
2/1/2016	-	2.48%	2.92%	-	3.42%
3/1/2016	-	2.26%	2.69%	-	3.17%
4/1/2016	-	2.29%	2.70%	-	3.17%
5/1/2016	-	2.03%	2.42%	-	2.88%
6/1/2016	-	1.92%	2.31%	-	2.77%
7/1/2016	-	1.93%	2.31%	-	2.76%
8/1/2016	-	1.76%	2.12%	-	2.54%
9/1/2016	-	1.73%	2.07%	-	2.49%
10/1/2016	-	1.79%	2.13%	-	2.55%
11/1/2016	-	1.88%	2.22%	-	2.63%
12/1/2016	-	2.09%	2.46%	-	2.89%
1/1/2017	-	2.51%	2.90%	-	3.33%
2/1/2017	-	2.53%	2.90%	-	3.30%
3/1/2017	-	2.51%	2.89%	-	3.29%
4/1/2017	-	2.55%	2.93%	-	3.33%
5/1/2017	-	2.44%	2.79%	-	3.19%
6/1/2017	-	2.42%	2.76%	-	3.16%
7/1/2017	-	2.33%	2.66%	-	3.04%
8/1/2017	-	2.38%	2.72%	-	3.10%
9/1/2017	-	2.31%	2.65%	-	3.04%
10/1/2017	-	2.28%	2.61%	-	2.99%
11/1/2017	-	2.41%	2.74%	-	3.11%
12/1/2017	-	2.49%	2.79%	-	3.15%
1/1/2018	-	2.57%	2.84%	-	3.16%
2/1/2018	-	2.71%	2.96%	-	3.27%
3/1/2018	-	2.93%	3.20%	-	3.51%
4/1/2018	2.85%	3.13%	3.41%	-	3.72%
5/1/2018	2.98%	3.24%	3.48%	-	3.75%
6/1/2018	3.14%	3.41%	3.65%	-	3.92%
7/1/2018	3.12%	3.37%	3.61%	-	3.86%
8/1/2018	3.17%	3.38%	3.60%	-	3.84%

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9/1/2018	3.18%	3.39%	3.59%	-	3.82%
10/1/2018	3.20%	3.39%	3.58%	-	3.80%
11/1/2018	3.33%	3.53%	3.73%	-	3.95%
12/1/2018	3.38%	3.57%	3.77%	-	4.00%
1/1/2019	3.35%	3.51%	3.69%	-	3.90%
2/1/2019	3.19%	3.35%	3.53%	-	3.74%
3/1/2019	3.01%	3.15%	3.28%	-	3.54%
4/1/2019	2.89%	3.02%	3.21%	-	3.44%
5/1/2019	2.70%	2.83%	3.02%	-	3.26%
6/1/2019	2.68%	2.82%	3.02%	-	3.26%
7/1/2019	2.40%	2.55%	2.74%	-	2.99%
8/1/2019	2.24%	2.38%	2.57%	2.65%	2.81%
9/1/2019	2.13%	2.25%	2.43%	2.52%	2.67%
10/1/2019	2.02%	2.13%	2.29%	2.38%	2.52%
11/1/2019	1.92%	2.06%	2.24%	2.34%	2.49%
12/1/2019	1.95%	2.12%	2.33%	2.43%	2.60%
1/1/2020	1.94%	2.10%	2.31%	2.41%	2.57%
2/1/2020	1.88%	2.07%	2.29%	2.44%	2.56%
3/1/2020	1.67%	1.83%	2.03%	2.14%	2.30%
4/1/2020	1.56%	1.77%	2.00%	2.12%	2.31%
5/1/2020	1.86%	2.05%	2.28%	2.38%	2.55%
6/1/2020	1.04%	1.34%	1.67%	1.83%	2.07%
7/1/2020	0.65%	1.00%	1.38%	1.57%	1.86%
8/1/2020	0.54%	0.85%	1.21%	1.38%	1.65%
9/1/2020	0.44%	0.71%	1.04%	1.20%	1.46%
10/1/2020	0.44%	0.73%	1.10%	1.27%	1.56%
11/1/2020	0.45%	0.74%	1.13%	1.29%	1.60%
12/1/2020	0.46%	0.77%	1.15%	1.31%	1.61%
1/1/2021	0.44%	0.75%	1.11%	1.26%	1.54%
2/1/2021	0.41%	0.75%	1.14%	1.30%	1.60%
3/1/2021	0.40%	0.80%	1.24%	1.43%	1.75%
4/1/2021	0.54%	1.08%	1.61%	1.82%	2.17%
5/1/2021	0.57%	1.17%	1.72%	1.94%	2.28%
6/1/2021	0.51%	1.12%	1.68%	1.86%	2.23%
7/1/2021	0.48%	1.07%	1.60%	1.80%	2.12%
8/1/2021	0.57%	1.11%	1.56%	1.74%	2.02%
9/1/2021	0.56%	1.07%	1.49%	1.65%	1.92%
10/1/2021	0.61%	1.12%	1.53%	1.69%	1.95%
11/1/2021	0.72%	1.25%	1.68%	1.68%	2.10%
12/1/2021	0.94%	1.45%	1.82%	1.96%	2.19%
1/1/2022	1.14%	1.60%	1.92%	2.05%	2.25%
2/1/2022	1.33%	1.77%	2.09%	2.21%	2.42%
3/1/2022	1.80%	2.19%	2.47%	2.57%	2.75%
4/1/2022	2.24%	2.54%	2.77%	2.86%	3.04%
5/1/2022	2.83%	3.10%	3.28%	3.36%	3.48%
6/1/2022	3.23%	3.55%	3.77%	3.85%	3.99%
7/1/2022	3.34%	3.65%	3.86%	3.93%	4.07%
8/1/2022	3.57%	3.83%	4.00%	4.07%	4.20%
9/1/2022	3.41%	3.54%	3.66%	3.73%	3.85%

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10/1/2022	3.88%	4.03%	4.15%	4.21%	4.32%
11/1/2022	4.81%	4.95%	5.04%	5.08%	5.17%
12/1/2022	4.89%	4.97%	5.05%	5.08%	5.18%
1/1/2023	4.55%	4.52%	4.54%	4.56%	4.63%
2/1/2023	4.53%	4.50%	4.52%	4.55%	4.62%
3/1/2023	4.57%	4.48%	4.48%	4.50%	4.56%
4/1/2023	4.92%	4.84%	4.84%	4.86%	4.91%
5/1/2023	4.35%	4.27%	4.29%	4.32%	4.44%
6/1/2023	4.29%	4.21%	4.26%	4.31%	4.46%
7/1/2023	4.77%	4.64%	4.65%	4.68%	4.77%
8/1/2023	4.95%	4.78%	4.77%	4.79%	4.86%
9/1/2023	5.00%	4.85%	4.86%	4.89%	4.99%