

NY AM Q1 Break MFE/MAE

Comprehensive Analysis Report

January 2026

Executive Summary

This report analyzes Opening Range Breakout (ORB) trading performance across multiple futures instruments using Maximum Favorable Excursion (MFE) and Maximum Adverse Excursion (MAE) metrics. The analysis covers 8 instrument/timeframe combinations with EV targets ranging from 0.10% to 0.30%.

Key Findings

1. **MGC (Micro Gold) is the top performer** - profitable at ALL EV targets on 1m timeframe, with +38.2% return at 0.10% EV on 5m
2. **MNQ 1m is high-risk at higher EV targets** - while achieving 100% day win rate at 0.10% EV, it loses 47.3% of capital at 0.30% EV
3. **Day Win Rate vs Trade Win Rate differs significantly** - the 3-strike rule adds 20-30% to effective win rates
4. **0.10-0.15% EV targets provide optimal risk-adjusted returns** across most instruments

Methodology

Trading Parameters

Parameter	Value
Opening Range	6:00 AM - 8:30 AM NY
Last New Trade	12:00 PM NY
Max Stop Loss	0.3%
Max Strikes per Day	3
Breakout Requires Body in Range	Yes
Starting Balance	\$3,000 per ticker
Position Size	1 Contract

MFE/MAE Calculation Methods

Two calculation methods were compared to validate the indicator against reference implementations:

- **From Entry Price:** $MFE = (HighestHigh - Entry) / Entry \times 100\%$ for bull trades
- **From Range Boundary:** $MFE = (HighestHigh - RangeHigh) / RangeHigh \times 100\%$ for bull trades

Finding: The reference (GUNSHIP) indicator uses the 'From Entry' calculation method. The v8 indicator now displays both methods.

Instruments Analyzed

Ticker	Name	Point Value	Timeframes
MES	Micro E-mini S&P 500	\$5	1m
MNQ	Micro E-mini Nasdaq	\$2	1m, 5m
M2K	Micro E-mini Russell	\$5	1m
MYM	Micro E-mini Dow	\$0.50	1m, 5m
MGC	Micro Gold	\$10	1m, 5m

MFE/MAE Statistical Analysis

The following table shows the Python-calculated MFE/MAE values using both calculation methods. These values were validated against the TradingView indicator.

MFE/MAE by Instrument (0.2% EV Target)

Ticker	TF	Samples	MFE(Range)	MAE(Range)	MFE(Entry)	MAE(Entry)
M2K	1m	28	0.24%	0.14%	0.21%	0.17%
MES	1m	31	0.17%	0.12%	0.15%	0.14%
MGC	1m	25	0.26%	0.08%	0.22%	0.13%
MGC	5m	105	0.25%	0.10%	0.21%	0.16%
MNQ	1m	36	0.18%	0.15%	0.14%	0.18%
MNQ	5m	106	0.26%	0.10%	0.21%	0.16%
MYM	1m	26	0.22%	0.10%	0.20%	0.13%
MYM	5m	107	0.24%	0.12%	0.20%	0.18%

Win Rate Analysis

Day Win Rate by EV Target

Day WIN = At least one trade hits target that day. Day LOSS = All trades (up to 3 strikes) hit stop loss.

Ticker	TF	0.10%	0.15%	0.20%	0.25%	0.30%
M2K	1m	100.0%	88.2%	88.2%	82.4%	76.5%
MES	1m	88.9%	83.3%	55.6%	50.0%	50.0%
MGC	1m	100.0%	94.4%	94.4%	88.9%	88.9%
MGC	5m	93.3%	78.7%	77.3%	70.7%	64.0%
MNQ	1m	100.0%	83.3%	83.3%	61.1%	50.0%
MNQ	5m	94.7%	88.0%	76.0%	65.3%	57.3%
MYM	1m	94.4%	88.9%	88.9%	72.2%	66.7%
MYM	5m	84.0%	80.0%	73.3%	64.0%	58.7%

Trade Win Rate by EV Target

Individual trade wins divided by total trades taken.

Ticker	TF	0.10%	0.15%	0.20%	0.25%	0.30%
M2K	1m	68.0%	55.6%	55.6%	51.9%	43.3%
MES	1m	69.6%	57.7%	38.5%	33.3%	33.3%
MGC	1m	85.7%	77.3%	70.8%	66.7%	61.5%
MGC	5m	83.3%	62.1%	59.2%	55.8%	50.5%
MNQ	1m	85.7%	46.9%	41.7%	32.4%	27.3%
MNQ	5m	78.0%	67.3%	60.0%	52.1%	46.2%
MYM	1m	65.4%	61.5%	61.5%	52.0%	50.0%
MYM	5m	68.5%	61.2%	54.5%	49.0%	46.8%

Trading Simulation Results

Simulation with \$3,000 starting balance per ticker, trading 1 contract with the 3-strike rule.

Total Return % by EV Target

Ticker	TF	0.10%	0.15%	0.20%	0.25%	0.30%
M2K	1m	-2.2%	-4.0%	-0.8%	+0.1%	-3.1%
MES	1m	+2.8%	+3.2%	-9.5%	-11.6%	-6.4%
MGC	1m	+13.0%	+16.9%	+21.5%	+26.0%	+29.0%
MGC	5m	+38.2%	-26.5%	-4.3%	+10.6%	+6.8%
MNQ	1m	+20.9%	-28.8%	-29.6%	-42.8%	-47.3%
MNQ	5m	+27.0%	+23.9%	+19.4%	+1.3%	-11.5%
MYM	1m	+0.6%	+4.9%	+11.4%	+9.0%	+11.8%
MYM	5m	-6.8%	-0.9%	-1.7%	-1.4%	+8.2%

Top 10 Performers by Return

Rank	Ticker	TF	EV%	Return	Final Bal	MaxDD%	PF
1	MGC	5m	0.10%	+38.2%	\$4,145	7.3%	1.65
2	MGC	1m	0.30%	+29.0%	\$3,869	18.7%	1.70
3	MNQ	5m	0.10%	+27.0%	\$3,811	15.9%	1.29
4	MGC	1m	0.25%	+26.0%	\$3,779	19.5%	1.80
5	MNQ	5m	0.15%	+23.9%	\$3,717	26.1%	1.17
6	MGC	1m	0.20%	+21.5%	\$3,645	13.3%	1.76
7	MNQ	1m	0.10%	+20.9%	\$3,627	4.9%	3.11
8	MNQ	5m	0.20%	+19.4%	\$3,583	24.6%	1.11
9	MGC	1m	0.15%	+16.9%	\$3,507	9.0%	1.83
10	MGC	1m	0.10%	+13.0%	\$3,391	6.8%	1.99

Conclusions & Recommendations

Key Takeaways

1. **MGC (Micro Gold) is the standout performer** - profitable at ALL EV targets on the 1m timeframe with controlled drawdowns. The 5m timeframe at 0.10% EV delivered the highest absolute return (+38.2%).
2. **Lower EV targets (0.10-0.15%) provide better risk-adjusted returns** - Higher win rates and lower drawdowns despite smaller per-trade profits.
3. **MNQ 1m requires extreme caution at higher EV targets** - While it shows 100% day win rate at 0.10% EV, it can lose nearly half the account at 0.30% EV.
4. **The 3-strike rule significantly improves day-level win rates** - Adding 20-30 percentage points compared to individual trade win rates.
5. **MYM (Micro Dow) offers consistent but modest returns** - Good for conservative traders seeking steady performance with low drawdowns.

Recommendations by Risk Profile

Conservative Traders:

1. MGC 1m @ 0.10-0.15% EV - Low drawdown (6.8-9.0%), consistent profits
2. MNQ 1m @ 0.10% EV only - Best profit factor (3.11), minimal drawdown (4.9%)
3. MYM 1m @ 0.15-0.20% EV - Steady returns with very low max drawdown (3-4.7%)

Moderate Risk Traders:

4. MGC 1m @ 0.20-0.25% EV - Higher returns (+21.5% to +26.0%) with acceptable drawdown (13-19%)
5. MNQ 5m @ 0.15-0.20% EV - Strong returns (+19-24%) with moderate drawdown (24-26%)

Aggressive Traders:

6. MGC 5m @ 0.10% EV - Highest return (+38.2%) with acceptable drawdown (7.3%)
7. MGC 1m @ 0.30% EV - Strong return (+29.0%) but higher drawdown (18.7%)

Instruments to Avoid

- **MNQ 1m above 0.10% EV** - Severe losses (-28% to -47%) with high drawdowns (35-56%)
- **MES at any EV target** - Inconsistent performance with unfavorable risk/reward
- **M2K at all tested configurations** - Negative or near-zero returns despite reasonable win rates

Disclaimer: This analysis is for educational purposes only. Past performance does not guarantee future results. Always use proper risk management and test thoroughly before trading with real capital.