Michael Gayed's Market Regime Signal Analysis

Key Research Papers and Findings

1. Utilities/S&P 500 Beta Rotation Strategy (2014 Charles H. Dow Award Winner)

Core Thesis:
- Utilities sector has unique characteristics: higher yield, lower beta, relative insensitivity to cyclical behavior
- Utilities tend to lead broad market tops and bottoms due to their bond-like characteristics
- Strategy positions into either broad market or Utilities based on lead-lag dynamics

Historical Foundation:
- John Murphy (2002 MTA Award): "Prior to a stock market top, interest rate sensitive stocks like utilities usually start to break down"
- Martin Pring (2004 MTA Award): Utilities "put on their best performance relative to the market on either side of bear market low"
- Edson Gould (1975 MTA Award): Called Dow Jones Utilities Average "one of the best early indicators of the stock market"

Key Insights:
- Utilities reflect investment demand for stocks more than industrials
- Utilities are money-sensitive due to huge capital investment requirements
- Strategy significantly outperforms buy-and-hold through multiple market cycles
- Strength in Utilities increases probability of fat tail events and higher market volatility
- "Sell in May and go away" strategy may be explained through beta rotation during summer/fall

Momentum Characteristics:
- Industry momentum is strongest at one-month horizon (Moskowitz and Grinblatt, 1999)
- Weekly portfolio returns are strongly positively autocorrelated
- Information diffuses from large-cap to small-cap stocks within sectors with lag

2. Lumber/Gold Ratio Strategy (2015 NAAIM Founders Award Winner)

Core Thesis:
- Lumber and Gold provide information on economic growth and inflation expectations
- Lumber's sensitivity to housing makes it a unique cyclical leading indicator
- Gold exhibits safe-haven properties during volatility and stress
- Relative movement helps determine when to "play offense" vs "play defense"

Lumber as Cyclical Indicator:
- Housing contributes 15-18% of GDP (NAHB)
- Housing permits rank ahead of S&P 500 as leading economic indicator
- Average new home contains 16,000+ board feet of lumber
- Lumber futures react quickly to housing starts data
- Supply constrained by Endangered Species Act (1/3 of US forestland withdrawn from production)

Gold as Defensive Asset:
- No statistically significant correlation with GDP, inflation, interest rates
- Monthly correlation with bonds: 0.12, with S&P 500: 0.01 (since 1976)
- Acts as hedge against stocks and safe haven in extreme conditions
- Positive relationship with implied volatility

Trading Rule (13-week lookback):
- Lumber outperforming Gold = Risk-On (more aggressive stance)
- Gold outperforming Lumber = Risk-Off (more defensive stance)
- Re-evaluate weekly, change only when leadership switches

Volatility Signal Power:
- When Lumber leads: Average S&P 500 volatility = 12.5%
- When Gold leads: Average S&P 500 volatility = 17%
- VXO Index: 18.3 (Lumber leading) vs 22.1 (Gold leading)
- In worst 5% of weeks: Gold was leading 73% of time
- In worst 1% of weeks: Gold was leading 89% of time

3. Treasury Duration Tactical Risk Rotation Strategy (2014 Wagner Award 3rd Place)

Core Thesis:
- Relationship between 10-year and 30-year Treasury total returns provides volatility signals
- When 30-year outperforms 10-year: Risk-Off (higher volatility expected)

- When 10-year outperforms 30-year: Risk-On (lower volatility expected)
- Strategy anticipates expansionary/contractionary conditions before NBER declarations

Mechanism:
- Longer-duration Treasuries react favorably during "risk-off" periods
- Investors position into longer duration bonds in advance of higher volatility
- Intermediate-term Treasuries outperform when confidence grows
- Relative behavior serves as anticipatory gauge of economic conditions

4. S&P 500 200-Day Moving Average Leverage Strategy (2016 Charles H. Dow Award Winner)

Core Thesis:
- Volatility is the enemy of leverage; streaks in performance benefit margin usage
- Moving averages identify low volatility environments suitable for leverage
- Above moving average: Lower volatility, higher daily returns, longer positive streaks
- Below moving average: Higher volatility, lower returns, fewer positive streaks

Key Findings:
- Daily re-leveraging doesn't have natural decay over long term
- 3x leveraged S&P 500 returned 681x vs 1x since 1928
- Volatility creates "constant leverage trap" during seesawing markets
- Strategy employs leverage above MA, deleverages to T-bills below MA

5. VIX-Based Sector Allocation Strategy (2020 NAAIM Founders Award Winner)

Core Thesis:
- Mean reversion approach using VIX levels for sector allocation
- Low VIX: Position into defensive sectors (anticipating volatility increase)
- High VIX: Position into cyclical sectors (anticipating volatility decrease)
- Exploits behavioral biases during extreme market stress

Behavioral Foundation:
- Loss aversion creates stronger emotional response to declines than gains
- Panic selling during volatility spikes creates mispricings
- Overreactions during fear present exploitable opportunities
- Momentum crashes occur in panic states following market declines

Intermarket Analysis Foundation

Core Principles:
1. **Lead-Lag Relationships:** Certain assets/sectors lead others in market cycles
2. **Information Diffusion:** Information gradually spreads across markets with lag
3. **Volatility Regimes:** Different market conditions favor different strategies
4. **Behavioral Inefficiencies:** Human biases create exploitable patterns

Signal Integration:
- Short-term: Utilities/S&P 500 (momentum-based)
- Intermediate-term: Lumber/Gold (cyclical vs defensive)
- Long-term: S&P 500 200-day MA (trend-based)
- Volatility-based: VIX levels (mean reversion)
- Duration: 10yr/30yr Treasury (anticipatory)

Risk Management Philosophy:
- "What matters isn't being up more, but rather being down less"
- Avoid major drawdowns and volatile periods
- Position defensively before volatility spikes
- Increase exposure during oversold conditions