Subject: Comment on CFTC ANPRM on Prediction Markets (RIN 3038–AF65)

Dear Commissioners,

I am writing in response to the Commission's Advance Notice of Proposed Rulemaking on prediction markets (ANPRPM). I strongly support the view that prediction markets do not constitute a single homogeneous category and that the Commission should formally recognize and codify a distinct nonprofit research pathway, separate from the commercial pathway.

This distinction is grounded in differing costs, benefits, and governance needs, and aligns with the Commission's longstanding practice of granting no-action relief for academic markets such as the Iowa Electronic Markets and PredictIt.

This letter draws on nearly two decades of my academic research on prediction markets, including work on the efficiency of nonprofit research markets and commercial exchanges, theoretical and empirical studies of market design, and analyses of trading behavior.

I offer three related observations to reinforce and extend this argument.

1. Current regulatory direction risks disadvantaging high–public-value market designs

The current regulatory trajectory: formalizing scalable commercial pathways while leaving nonprofit and research markets dependent on discretionary relief, creates a structural asymmetry:

- Commercial markets receive **clarity and scalability**
- Nonprofit markets remain **uncertain and administratively constrained**

This asymmetry is not merely procedural; it shapes the evolution of the ecosystem. Markets are not natural objects, they are institutional constructs designed to allocate information, risk, and resources. As such, regulatory choices determine which forms of market organization survive and scale. At present, the Commission's approach risks disproportionately favoring commercial entities to the detriment of nonprofit research.

1a. Nonprofit markets enable experimentation in market design

A core insight from modern mechanism design is that market performance depends critically on contract structure and incentives. Nonprofit markets provide an essential testing ground for:

- Alternative market makers (e.g., LMSR variants)
- Hybrid scoring-rule/market systems
- Designs robust to thin markets or strategic behavior
- Conditional or decision markets

Commercial markets, by contrast, are typically optimized for liquidity and engagement and must remain stable, making them less conducive to experimentation. Without a protected research pathway, the pipeline from experimental design to applied market structure weakens. Importantly, this experimentation extends beyond prediction markets themselves, informing broader financial market innovation. **In short, nonprofit research prediction markets have distinct infrastructure and purposes relative to commercial exchanges, warranting a separate regulatory category.**

1b. Nonprofit markets are uniquely suited to sensitive or high-stakes domains

Prediction markets are most valuable in domains characterized by:

- Sparse or non-replicable outcomes
- High uncertainty
- Dispersed, partially private information

These include geopolitical, policy, and scientific forecasting domains, the very areas studied in programs such as IARPA's ACE program, which demonstrated the power of structured forecasting and aggregation (Tetlock & Gardner, 2015).

However, these domains also require:

- Careful participant selection
- Information controls
- Institutional neutrality and persistence

Commercial operators face inherent constraints:

- Incentives to maximize participation and engagement
- Exposure to ownership changes, monetization pressures, and data control issues

Nonprofit operators, by contrast, can align governance, transparency, and data-sharing practices with public research objectives, enabling applications that may be infeasible or risky under commercial incentives. **In short, nonprofit research prediction markets therefore serve a distinct set of stakeholders (both participants and end-users) and should be regulated accordingly.**

1c. Manipulation and insider trading risks are incentive-design problems

A central concern raised in the ANPRPM is manipulation and insider trading. The academic literature shows clearly that these are not intrinsic features of prediction markets, but depend on incentives and payoff structures.

The key condition is simple: a market is robust when the expected returns to manipulation or exploitation of private information are lower than their expected costs.

This aligns with broader results in market microstructure and mechanism design: participants act strategically given payoff incentives, and outcomes depend on whether manipulation is profitable.

Operators can control these incentives through:

- Position limits
- Liquidity parameters
- Subsidy design
- Contract payout structures
- Participation rules

Nonprofit markets have greater flexibility to implement such controls because they are not optimizing for transaction volume or fee revenue. **As a result, nonprofit research prediction markets have distinct strengths and weaknesses relative to commercial exchanges: again supporting separate regulatory treatment.**

2. Not all event categories produce meaningful informational value—sports is a clear limiting case

The Commission's ANPRPM avoids explicit categorization of event domains, but from an information-economics perspective, not all domains are equivalent.

Prediction markets perform best when aggregating idiosyncratic and dispersed information that is not easily captured by statistical models.

Professional and college sports games provide a clear counterexample:

- Outcomes are frequent and structured
- Data is abundant and publicly available
- Statistical and machine learning models already achieve high predictive accuracy

As a result, marginal informational gains from trading are limited, and prices often reflect:

- Behavioral biases
- Entertainment demand
- Liquidity shocks

rather than genuine information aggregation.

This is consistent with findings that markets are most informative when participants possess heterogeneous private signals: that is definitely not the case in professional or college sports games.

In contrast, high-value prediction markets operate in domains where:

- Outcomes are infrequent and not independently distributed

- Information is fragmented across individuals
- No dominant model exists

Examples include:

- Elections with turnout and coalition uncertainty
- Policy outcomes with strategic interaction
- Scientific or technological milestones

A regulatory framework that treats all categories equivalently risks privileging high-volume, low-information markets over low-volume, high-information markets.

3. Regulation should focus on market design and incentive alignment

The dominant framing of prediction market risk: manipulation, insider trading, and unfairness, is correct in identifying concerns, but incomplete in diagnosis.

These risks arise when:

- Market designs allow outsized returns to strategic behavior
- Operators prioritize volume over robustness

They are not inherent to the existence of markets on uncertain events.

The appropriate regulatory lens, consistent with both economic theory and empirical evidence, is:

- Evaluate whether contracts and market structures are incentive-compatible
- Require that operators demonstrate bounded returns to manipulation or insider advantage
- Allow flexibility in implementation, recognizing heterogeneity in use cases

In short, a regulatory framework that seeks to limit the risks and public harms associated with manipulation and insider trading should not focus on any particular category of events. Instead, it should evaluate the design of contracts, payout structures, and governance mechanisms that ensure incentive compatibility. The relevant policy levers vary substantially between commercial and nonprofit research prediction markets, further reinforcing the need for distinct regulatory treatment.

Conclusion

Prediction markets are not monolithic. They represent a family of mechanisms whose social value depends critically on:

- Purpose (commercial vs. research)
- Domain (low vs. high informational value)

- Design (incentive-compatible vs. manipulable)

The Commission's long-standing accommodation of nonprofit research markets reflects an implicit recognition of these distinctions. The current rulemaking presents an opportunity to formalize them.

I encourage the Commission to:

1. Codify a distinct regulatory pathway for nonprofit research prediction markets
2. Recognize that informational value varies across event domains
3. Center regulation on incentive-compatible market design as a means of addressing concerns about manipulation and insider trading.

Markets are tools for aggregating dispersed knowledge. Their effectiveness depends not only on participation, but on the institutional and incentive structures in which they operate. A regulatory framework that preserves space for nonprofit experimentation and public-interest applications will ensure that prediction markets continue to serve this function.

Sincerely,
David M. Rothschild, PhD
Senior Principal Researcher
Microsoft Research