

Memo: The Normative Theory of Web3 Commercial Integrity - Foundational Framework for Technology-Native Regulatory Clarity

TO: U.S. Securities and Exchange Commission

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PURPOSE

This memo accompanies the submission of "The Normative Theory of Web3 Commercial Integrity" (attached), a whitepaper proposing a systematic framework for evaluating and designing Web3 systems that intentionally ensure investor protection, fair and efficient markets, and transparent capital formation as core quality attributes. The proposed normative theory demonstrates that alignment between permissionless innovation and established regulatory objectives is both necessary and achievable through technology-native regulatory guidance.

The urgency of this framework is driven by the current pace of Web3 infrastructure development, where architectural decisions made today will determine whether these systems can deliver the investor protection and market integrity the Commission seeks to ensure. This urgency is also driven by the need for regulatory clarity and adaptability given the national security considerations inherent in global permissionless access. The currently fractured cross-jurisdiction regulatory landscape also presents an opportunity for the US to lead in establishing global standards for digital asset regulation.

KEY CONTRIBUTIONS TO REGULATORY DIALOGUE

1. Falsifiable Framework for System Assessment

Unlike subjective or ad hoc evaluation methods, the theory provides specific, testable hypotheses about system behavior. This enables:

- Empirical validation of compliance architectures
- Systematic comparison across different technological approaches
- Evidence-based policy development

2. Bridge Between Innovation and Compliance

The framework demonstrates how decentralized systems can achieve regulatory objectives through architectural design rather than traditional intermediary-based enforcement, potentially offering:

- Lower systemic risk through reduced single points of failure
- Greater transparency through immutable on-chain records
- More efficient compliance through automated rule enforcement

- Regulatory adaptability through modular governance models

3. Practical Implementation Pathway

The Hook Manager Framework whitepaper, previously shared with the SEC, demonstrates real-world operationalization of these principles in the context of Uniswap Protocol V4. However, the principles are protocol and tech-stack-agnostic.

ADDRESSING REGULATORY CONCERNS

Market Manipulation and Fraud Prevention

- On-chain trust assessment creates permanent, auditable reputation systems
- Atomic rule enforcement prevents sophisticated manipulation across protocol boundaries
- Segregation of duties prevents conflicts of interest that enable manipulation

Systemic Risk Management

- Modular governance prevents governance failures from cascading across unrelated systems
- Adaptable systems can respond to emerging risks without market-wide disruption
- Standardized evaluation enables regulatory oversight of systemic integrity

Cross-Border and Jurisdictional Challenges

- Technology-native compliance can enforce jurisdictional rules automatically
- On-chain evidence supports international regulatory cooperation
- Adaptable governance enables compliance with evolving international standards

IMPLEMENTATION CONSIDERATIONS

Regulatory Sandbox Potential

The framework's modular approach makes it well-suited for regulatory sandbox testing, allowing controlled evaluation of:

- Compliance effectiveness under various market conditions
- Integration with existing regulatory reporting requirements
- Scalability across different asset classes and transaction types

Industry Standards Development

The theory provides foundation for developing industry-wide standards that could:

- Reduce regulatory fragmentation across jurisdictions
- Enable more efficient examination and oversight procedures
- Support consistent institutional adoption criteria

Evolutionary Approach

Rather than requiring immediate wholesale adoption, the framework supports gradual implementation where:

- Individual system components can be upgraded incrementally
- Market participants can evaluate benefits empirically
- Regulatory guidance can evolve based on observed outcomes

REQUEST FOR COMMISSION CONSIDERATION

We respectfully request that the Commission:

1. Review the attached framework for its potential contribution to developing technology-appropriate regulatory approaches
2. Consider the proposed evaluation criteria as potential elements of future guidance for digital asset infrastructure assessment
3. Evaluate opportunities for pilot programs that could test these principles in controlled environments
4. Engage with industry stakeholders who are implementing or considering these architectural approaches

CONCLUSION

The Normative Theory of Web3 Commercial Integrity offers a systematic approach to harnessing technological innovation in service of these regulatory objectives.

This framework demonstrates how principled architectural design can deliver regulatory outcomes through technology-native integration. We believe this approach merits serious consideration as the Commission continues to develop its approach to digital asset regulation.

We welcome the opportunity to discuss this framework further and to provide additional technical detail or clarification as needed.

Attachments:

- "The Normative Theory of Web3 Commercial Integrity" (July 2025)

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