Institutional Inertia Momentum Index (IIMI)

A Behavioural Econometrics Approach for Detecting Conspiratorial Vulnerability in Institutional Systems

Radu Briciu

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Abstract

This proposal introduces the Institutional Inertia Momentum Index (IIMI), a new metric aimed at quantifying systemic stagnation in institutional behaviour. By correlating high IIMI scores with volatility in prediction markets, such as Polymarket, this study seeks to identify environments prone to conspiratorial thinking and low public trust. This research applies behavioural econometrics to explore how institutional feedback failure can foster alternative, often irrational, belief systems.

1 Introduction

Institutions that fail to adapt to changing conditions can inadvertently foster public distrust. Over time, this distrust may manifest as conspiratorial thinking, especially when traditional explanatory models appear unresponsive. The concept of institutional inertia is not new, but its behavioural consequences have been underexplored quantitatively. This project aims to bridge that gap through the creation and empirical testing of the Institutional Inertia Momentum Index.

2 Literature Review

This research draws from three key literatures: (1) institutional economics, particularly path dependence and administrative rigidity; (2) behavioural economics concerning cognitive biases under uncertainty; and (3) prediction market theory, focusing on how decentralized markets price information and uncertainty. While previous work has explored institutional decay and public trust, few have merged these with behavioural signals from financial prediction platforms.

3 Research Questions

1. Can institutional inertia be quantified in a meaningful, reproducible way?
2. Does a high IIMI score correlate with prediction market volatility around key events?
3. Can IIMI serve as an early warning signal for environments susceptible to conspiratorial behaviour?

4 Methodology

4.1 Data Collection

- Extract prediction data from Polymarket (e.g., pricing, liquidity, event duration).
- Collect policy responsiveness data (e.g., reform timelines, legislative lags) from public records and databases.
- Gather media sentiment data around key institutional decisions.

4.2 Preprocessing

- Normalize time series data across sources.
- Perform missing value imputation and outlier handling.
- Align datasets to uniform temporal benchmarks.

4.3 Analysis

- Construct the IIMI using a weighted composite of lag indicators.
- Run correlation and regression tests against prediction market volatility.
- Use clustering and time series decomposition to identify structural trends.

5 Expected Contributions

- Introduction of IIMI as a measurable, policy-relevant construct.
- Empirical linkage between behavioural uncertainty and institutional performance.
- New methodological approach combining econometrics and decentralized market data.

6 Conclusion

This proposal aims to develop a novel econometric framework for detecting latent behavioural signals of institutional dysfunction. If successful, the IIMI could be a valuable tool for early diagnosis of conspiratorial risk zones, guiding targeted governance reforms and restoring public trust.

References

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