Insight #4: A Game Theory Analysis of the Trade War

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Most game-theoretic analyses of trade wars rely on simplified models such as the Prisoner's Dilemma or repeated games. These frameworks portray countries as static actors with fixed payoffs, choosing between cooperation or defection based on rational self-interest. While these models offer clarity, they fail to capture the complex, identity-driven, and evolving nature of real-world trade conflicts—especially the ongoing U.S.-China trade war in 2025. Trade wars are not merely contests over tariffs or market access; they are recursive processes through which countries redefine their strategic goals, economic ideologies, and even their sense of national purpose. In this context, the trade war is better understood as a *Recursive Preference Game* (RPF)—a framework where nations evolve their utility functions based on the other side's actions, internal political modulation, and changing ideological narratives.

To understand the strategic fragility of the current situation, it helps to step back and consider what kind of game international trade was designed to be. Infinite games are played to keep playing—they aim to sustain cooperation, growth, and institutional legitimacy rather than achieve a defined win condition. Global trade, historically anchored in the Bretton Woods institutions and multilateral norms, was built as such an infinite game. However, the current trade war represents a rupture in that structure. Key actors—particularly Trump and the CCP—have adopted finite strategies. Trump's rhetoric sees trade as zero-sum and allies as cost centers, while China has shifted toward autarkic development and ideological insulation. These shifts are not temporary tactics but enduring transformations. Trust, interdependence, and tolerance—the scaffolding of infinite play—are deteriorating.

When tools like export controls are used not as correctives but as existential threats, they push actors to exit the game altogether, reinforcing recursive defensiveness. Hence, even attempts at discipline can backfire if they are perceived as eliminative. The infinite game has broken down, and what remains is an environment of feedback loops, ideological entrenchment, and systematic uncertainty.

This shift in national posture becomes clearer when examining recent policy decisions. When the Biden administration doubled down on semiconductor export controls in early 2025, it was not simply an economic move—it was a redefinition of China as an existential techno-competitor. Simultaneously, Beijing's response—ranging from rare earth export licensing restrictions to launching state-backed replacements for U.S.-based AI chips—demonstrated a recursive identity shift. China's utility function was no longer dominated by maximizing GDP growth; it now included technological sovereignty as a non-negotiable priority, even at significant economic cost.

The recursive nature of the conflict intensified following Liberation Day in 2025. The revised enforcement of the CHIPS and Science Act explicitly prohibited even indirect investments into Chinese tech firms, signaling a shift from industrial competitiveness to strategic insulation. Executive Order 14238, issued in May 2025, went further by reclassifying AI and digital infrastructure assets as "critical platforms," with access restrictions justified by narrative vulnerability rather than traditional IP concerns. Meanwhile, in direct response to these U.S. actions, China formally declared digital data a "national asset," expanded anti-espionage laws in April 2025, and escalated efforts to globalize the Renminbi through bilateral settlements and digital currency infrastructure. These policy changes confirm that both countries have recursively updated their preferences in response to perceived existential threats rather than static economic calculations.

Even traditionally apolitical institutions have adapted. The Federal Reserve, long seen as focused solely on inflation and employment, began referencing "strategic independence" in its Q2 2025 minutes. This rhetorical shift signals that institutional utility functions are evolving in line with the recursive strategic environment.

These structural evolutions play out in markets in often surprising ways. Recent modest rebounds in the S&P 500 and Nasdaq following trade talks in London suggest renewed optimism—but under the Recursive Preference model, such sentiment may be misplaced. These talks may simply reflect superficial narrative signaling, rather than a meaningful shift in identity-based strategies. Market reactions have become part of the performance: Trump's pattern of escalating and de-escalating tensions for effect—commonly referred to as the "TACO trade" (Trump Always Chickens Out)—creates a recurring, tradable volatility loop.

To make sense of these dynamics—and to act on them—investors need a strategy framework attuned to non-linear identity shifts. One approach is the FRiSPe model proposed in *Optimum in Chaos: A Regime-Aware Framework for Modern Asset Pricing*. FRiSPe integrates market flows, volatility decomposition, sentiment metrics, and macro-policy signals to detect shifts in regime and investor psychology. Crucially, it is built for environments where preference structures are not stable, making it ideal for recursive contexts. By capturing patterns in retail crowding, ETF-driven volatility, and social sentiment, FRiSPe can help traders quantify the pricing effects of recursive identity games.

Yet within this multi-layered strategic theater, another game is unfolding—one centered not on national strategy, but on personal gain. Donald Trump's consistent behavior—escalating tensions for headlines, creating volatility, then softening rhetoric—strongly suggests a separate recursive game: not between countries, but between Trump and the market itself. This is a recursive identity game where the player's utility function is not geopolitical leverage or economic policy success, but personal wealth extraction and influence amplification.

Trump's economic pronouncements, policy threats, and rally speeches often correlate with short-term swings in equities, sectors, and sentiment. For example, Trump-linked SPACs, media companies, and sentiment-sensitive stocks tend to spike around media narratives he controls. This transforms the trade war into a personalized volatility cycle, where the player generates recursive feedback loops for profit and control. In this framing, Trump is less a U.S. agent and more an identity actor playing the market as his audience. Rather than a traditional two-player geopolitical negotiation, this becomes a form of meta-narcissistic signaling game, where Trump manipulates perceived external threats and policy narratives primarily to provoke reactions—both market and media—that reinforce his own power and add to his own wealth. The objective is not resolution or equilibrium, but ongoing engagement that maximizes visibility and volatility.

In game-theoretic terms, this resembles a hybrid between a signaling game and a market player-manipulator game, where one actor benefits from creating predictable reactions in a large, reactive system. The market becomes both player and audience, responding not to fundamentals, but to perceived credibility of the signaler. Because Trump's incentives are personal rather than institutional, the feedback loops do not aim to stabilize but to destabilize—producing recurring cycles of escalation and de-escalation that benefit his narrative control.

Becoming aware of this structure gives traders a tactical advantage. It shifts the analytical lens from policy to persona, from economics to attention-economy mechanics. Traders who internalize this can anticipate volatility clusters, interpret Twitter or Truth Social as strategic signaling platforms, and allocate risk capital accordingly. This is not just political trading—it is trading on recursive identity manipulation within a politicized attention market. Yet the strategy is fragile. Several failure modes can undermine Trump's strategic feedback loop and create opportunities for counter-positioning by traders. If investors begin to view his threats as routine and overstated, the psychological trigger breaks. The once-powerful "TACO trade" loses potency. When markets cease reacting meaningfully to his provocations, the signaling loses its credibility and reach.

Legal and institutional constraints also pose risks. In May 2025, a federal court challenged the constitutional basis for Trump's tariff regime. If legal avenues for implementing his threats are curtailed, the signaling game deflates. Without enforceability, the feedback loop becomes hollow.

Additionally, when elite conservative voices and institutional actors begin to dissent or disengage, amplification mechanisms weaken. Former loyalists criticizing the economic fallout from his tariffs represent a defection in the attention ecosystem. Similarly, narrative fatigue—where the public and media move on to other priorities like inflation or elections—diminishes the impact of his cycles.

Understanding these vulnerabilities gives traders a forward-looking lens. As the signal-response loop loses traction, volatility strategies should pivot to mean reversion or regime stabilization trades. Recognizing the limits of the manipulator's control is as valuable as identifying the signals themselves.

Institutional investors should adapt by treating political volatility as a distinct asset class. Dynamic hedging through long-volatility funds, sector pairs trading (e.g., long defense/short global tech), and real-time narrative tracking across media platforms can capture these artificial cycles. Retail traders can deploy simpler versions: short-term options spreads around scheduled Trump appearances, sentiment-driven momentum scalping, or thematic ETF arbitrage using FRiSPe indicators.

The U.S.-China trade war is not purely a Recursive Preference Game or an Infinite Game—it is both. Recursive dynamics explain how actions and narratives reshape national priorities. The Infinite Game lens reveals what is at stake: the durability of the global order. As both nations drift from infinite commitments into recursive isolation, the game becomes more unstable and less predictable.

Profits will flow to those who can distinguish between performative signaling and genuine preference evolution. A strategic edge lies in mapping identity shifts—not just economic forecasts. This includes monitoring regulatory language, ideological symbols, and geopolitical posture, alongside technical indicators.

To thrive in a hybrid RPF/Infinite Game environment, investors must think in layers: hedge for chaos, position for regime change, and maintain exposure to durable institutions that survive political cycles. The game may be recursive, but the winners will be those who understand that the meta-game—sustaining the system itself—is the most valuable trade of all.

For retail traders specifically, a timely trade idea is to initiate a long volatility strategy tied to major geopolitical communication windows. For instance, purchasing options straddles or strangles on broad indices like QQQ or FXI ahead of high-level U.S.–China meetings, G20 summits, or Trump rallies can capitalize on market whipsaws driven by narrative signals. Additionally, pairing long positions in U.S. defense and reshoring-focused ETFs (e.g., ITA, XLI) with short positions in multinational tech firms heavily exposed to China (e.g., via put spreads on companies with high CN revenue exposure) creates an asymmetric bet on recursive preference persistence. Traders may also monitor sentiment on platforms like Truth Social and Bilibili as forward indicators of narrative momentum, integrating them into a lightweight FRiSPe screen. This hybrid approach allows retail participants to surf the surface narrative while anchoring to structural shifts underneath.