

Cursed Beliefs and Asset Price Bubbles in Sequential Trading Markets: A Theoretical Framework of Belief Formation and Market Dynamics

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Abstract

Forming asset price bubbles is a recurring phenomenon in financial economics and has been a persistent challenge to market prices, given the information available to marketers and rational valuation methods. Although previous research largely addresses the formation of bubbles as a question of speculation, information asymmetries and behavioral biases, the issue of the impact of belief structures as the drivers of the market dynamics has been under-researched. The research model presented in this paper is the well-known bubble model. The study aims to describe the mechanism of bubbles in a sequential trading market by introducing the concept of cursed beliefs. This paper is a conceptual study which combines the behavioral finance and sequential trading views to analyze the impact of cursed beliefs on investors' perception and the formation of their expectations and subsequent trading behavior. The theoretical analysis proposes that cursed beliefs lead to a misinterpretation of uncertainty, and thus to biased expectations and non-fundamental trading decisions. These individual belief distortions can diffuse between market participants and create collective expectations, as well as contribute to price deviations. This study has a contribution to the literature of behavioral finance in that it emphasizes the role of belief formation and social transmission as mechanisms other than information-based mechanisms in the emergence of asset price bubbles.

Keywords

cursed beliefs, asset price bubbles, sequential trading markets, behavioral finance, social learning

1. Introduction

The price bubble phenomenon is one of the longstanding paradoxes in financial economics [1]. History shows that this is not the first time that the price of assets has vastly exceeded their intrinsic value before falling sharply. These phenomena defy conventional financial theories based on rational expectations and financial markets efficiency that assume that investors process information objectively and include all information in the price. However, behavioral finance studies have shown that investment outcomes are often driven by psychological biases, emotions, and subjective expectations, highlighting that market outcomes do not necessarily rely on fundamental factors [2].

As for the existing explanations of the bubble phenomenon, they focus on speculative trading, information asymmetry and herding behavior [3]. In general, these views see investors' beliefs as a response to the outside information or market price signals that create the price distortions. There has been less focus on the potential that specific belief systems on their own can endogenously impact market dynamics by systematically influencing the way investors perceive uncertainty, assess risk and develop expectations of future outcomes [4].

In this paper, we propose the idea of "cursed beliefs" as a theoretical mechanism that can account for the emergence of asset bubbles in sequential trading markets. Cursed beliefs are delusions of fixed and unchanging causal patterns, pessimistic views of what is possible, or an expectation of inevitable risks in the future that contradict the actual probability of these events. These beliefs can lead investors to misjudge risk and return, which can impact their trading even when there is no fundamental change in the market. Importantly, financial markets are social places where beliefs are continually told, seen and reinforced. The expectations of investors in sequential trading systems are not only based on the information they have at their disposal, but also on the behavior of other investors who have been active in the market before them. Thus, idiosyncratic misconceptions can be transformed into collective beliefs, leading to self-reinforcing patterns of trading that lead to greater deviations in prices, and potentially more bubbles.

This paper expands upon the current behavioral explanations of bubbles by considering them as a belief-based mechanism functioning by means of social learning and sequential observation, and offers a theoretical framework to explain how irrational expectations come to be mass market phenomena.

2. Theoretical Background

This section discusses the process of the asset price bubble's formation. The term asset price bubble is usually applied to markets where the asset prices are continually higher than their fundamentals. Rationalization of bubbles is done in the literature of traditional finance through the following models: Heterogeneous expectations, Speculative incentives and Limits to arbitrage [5]. But behavioral finance theory states that market prices may deviate from the fundamentals as investors may not act in a rational way when they receive information. There is significant evidence that psychological factors are often crucial in investment decisions and not just on the basis of information alone [6]. The subjective expectation, emotion, and heuristic judgment are common in the evaluation of uncertain future outcomes undertaken by investors. Overconfidence, optimism, selective attention and affective responses are all behavioral biases that may lead to the misperception of risk and return, which in turn may affect the trading behavior of investors and lead to more trading and misaligned prices.

In addition to cognitive biases, emotions are also important to the process of expectation formation. Loewenstein separates two types of emotions: expected emotions and immediate emotions [7]. Both types of emotions can affect investors' perception of uncertainty and trigger them to overestimate specific scenarios in the future and overreact to market information.

But individual psychological biases cannot completely account for the formation of bubble. Financial markets can be understood as social spaces where beliefs and expectations pass among each other, all the time, in an observative and interactive manner. Distortions are likely to creep up to the larger market and become collective expectations that magnify deviations from fundamental values. This means that, in order to understand asset bubbles, we need to look at how investors process information, but also how they build and exchange, and consolidate, beliefs about uncertain future outcomes.

2.1 The Transmission of Information in Sequential Trading Markets

The fundamental difference between the sequential trading market and simultaneous trading market is that investors will make decisions in time sequence instead of simultaneously [8]. In these contexts, the behavior of early traders can provide easily-observable signals that can be used by subsequent traders to make their expectations and investment decisions. This means that, in addition to the information that is available, market outcomes are also affected by the way information and beliefs are spread between investors.

One of the defining features of sequential trading is that investors may glean information from the actions of other investors. Even if the first traders' decisions are based on subjective evaluations or psychological

factors, later traders might see these trades as signs of better information. Therefore, investors' beliefs may have indirect effects on other investors by their actions in the market. This can lead to the creation of information cascades where investors become more and more dependent on the decisions of others, instead of on their own individual assessment of the market's fundamental. However, when a certain expectation takes hold in the market, market participants can persist in what they believe, despite only having limited objective information that would support this. In this manner, the stock market prices may increasingly deviate from the fundamental values. Furthermore, sequential interaction provides a process whereby beliefs reinforce themselves. When more investors develop such expectations, their trading impacts market prices, which, in turn, become further signals that seem to confirm the initial expectations. These effects of beliefs on trading and of trading on prices can reinforce initial misperceptions and help to sustain asset price bubbles.

2.2 Financial Markets and Cursed Beliefs: Conceptualizing 'Cursed Beliefs' in Financial Markets

Cursed beliefs can be thought of as a specific type of belief-based cognitive bias that can affect investors' perceptions of uncertainty, the meaning investors give market events, and investors' expectations of what will happen next [9]. Cursed beliefs are different from conventional risk perceptions, where a probabilistic evaluation and rational information processing is usually involved, through the more psychological attribution process, and individuals feel that bad things are inevitable, permanent or not under his or her rational control.

Cursed beliefs are more than just pessimism or over-averse of risk in financial decision-making [9]. They are rather a systematic distortion of the interpretation of uncertainty and in some cases, ambiguous market conditions can be distorted and turned into expectations of unavoidable negative consequences. These beliefs may have an impact on investors' decisions even if the market fundamentals haven't changed, which can cause discrepancies between perceived value and the actual market situation.

In particular, cursed beliefs can interact with investors' financial decisions, by influencing their perception of risks, their expectancy formation, and their trading behavior. Strong cursed beliefs could cause investors to perceive uncertainty in a negatively biased thinking style, overestimate the likelihood of bad news or respond in an exaggerated manner to mixed signals in the market. These perceptions can also impact expectations for future returns and market conditions and lead to investing less in fundamental valuation and more in subjective forecasts of future market conditions. This can lead to a greater reliance on belief-based judgments in making trading decisions, such as when to invest or what assets to choose, and how to react to market changes.

Financial markets are not just decision-making systems but social systems in which beliefs are continually observed, communicated and reinforced [10]. The sequential trading markets consist of a sequence of markets in which investors make expectations based on information available as well as what the previous investors do. Hence, individual distortions from cursed beliefs can begin to affect other people through mechanisms of social learning, which can eventually lead to collective market expectations. In this process, cursed beliefs can become an unconscious psychological motivation for continued mispricing and hence can help to develop and magnify asset price bubbles.

This research will contribute to the current literature on behavioral finance by identifying a belief-centered mechanism that induces market dynamics and potentially leads to irrational market outcomes; the internal structures by which investors interpret uncertainty and build expectations.

3. How Curse Beliefs Give Rise to Asset Price Bubbles: A Theoretical Mechanism

This study suggests that cursed beliefs can be one of the psychological mechanisms that underlie the emergence and maintenance of asset price bubbles. In contrast to the previous explanations that rely on speculation, information asymmetry or even market inefficiency, the notion of cursed beliefs draws attention to the fact that investors' subjective interpretations of uncertainty can lead to an impact on investors' expectations and trading behavior. This is done by combining individual formation of beliefs with reinforcement of collective expectation and successive transfer of information.

At the individual level, cursed beliefs influence investment choices by influencing how investors' view uncertainty, risk and the future performance of the market. Investors guided by cursed beliefs may be led to hold on to expectations that are not only based on objective probabilities, fundamental information, or rational

evaluations, but also on perceived negative forces or unavoidable risks, or on predetermined patterns. Such beliefs can have an impact on how investors process market signals, leading them to overweight some actions while overweighting conflicting information. Consequently, investment decisions could be more and more separated from fundamental values, resulting in biased expectations and non-fundamental trading behaviors.

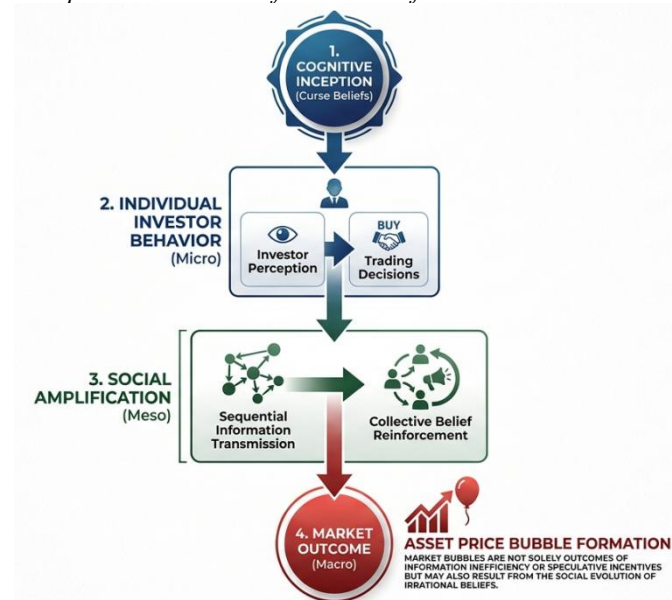
But if the belief distortion is confined to a handful of market players, it is not likely to have a significant market impact. Financial markets are a social system that consists of investors constantly watching, understanding and reacting to each other. As investors' expectations converge, the investors' trading actions may also become more closely correlated, thus inducing collective demand or supply pressures which push prices away from fundamental values. Moreover, the price change of the asset itself can be regarded as a validation of investors' original beliefs, thereby bolstering the investors' trust in their initial beliefs. A feedback loop can occur that makes subjective beliefs self-reinforcing and helps to retain price deviations.

This mechanism can be reinforced by the sequential structure of financial markets, which offer a channel for the transmission of individual beliefs among investors. Sequential markets differ from simultaneous markets in that later players are able to see what has happened on the market and use this to make their decisions. Even if early investors' actions are driven by irrational beliefs not by better information, their actions may be information signals. The subsequent investors can adjust their expectations in the light of the market moves and adopt similar moves, and can convert initial private beliefs gradually into the market expectations. In this way, the cursed beliefs are not just particular psychological prejudices, but are also written into the market. The interplay between belief formation, the imitation of behavior and the reaction of prices to the behavior produces a reinforcing process where beliefs lead to trading behavior, trading behavior impacts asset prices, and asset prices, in turn, reinforce the beliefs. Thus, asset price bubbles can form not just in the context of speculative trading motives, but also because of the reinforcing and propagation of false beliefs in sequential trading settings.

4. Conceptual Framework

Given the above, the following theoretical framework can be proposed in this study:

Figure 1: Conceptual Framework of Curse Beliefs and Asset Price Bubble Formation



This framework introduces a dynamic socio-behavioral transmission mechanism that conceptualizes asset price bubble formation as an evolutionary product of narrative contagion (shown as figure 1). Departing from traditional asset-pricing models that attribute market anomalies strictly to exogenous information shocks, institutional frictions, or speculative arbitrage incentives, this model posits that systemic bubbles can be driven entirely by the social amplification of non-fundamental "Curse Beliefs." The transmission path initiates at the micro-level, where superstitious, cultural, or historical narratives distort individual investor perception through

cognitive biases such as anchoring and confirmation bias. These skewed perceptions subsequently manifest as non-fundamental trading decisions, wherein investors either act on the narrative directly or engage in preemptive trading to front-run the anticipated irrationality of peers. As these trading decisions execute chronologically in the marketplace, they catalyze a meso-level sequential information transmission. Because subsequent market participants can observe price trajectories but not the underlying motives of early traders, this herding behavior triggers an informational cascade, where price fluctuations are falsely interpreted as empirical validation of the underlying curse. This sequential distortion feeds into an institutionalized echo chamber of collective belief reinforcement, heavily accelerated by modern social networks and community channels. Ultimately, this collective reinforcement generates a powerful self-fulfilling prophecy, completely decoupling asset prices from their intrinsic economic values and demonstrating how localized, irrational beliefs can sociologically evolve into macro-level market bubbles.

5. Theoretical Implications

The framework provides some important theoretical contributions on three essential aspects of financial literacy. First, it expands the boundaries of behavioral finance research, moving the analysis away from individual cognitive biases and toward systemic, belief-based market mechanisms, which show that irrational beliefs are not only individual psychological idiosyncrasies, but are strong collective forces that can influence macro level outcomes. Secondly, it extends the bubble theory; the current mainstream theory focuses on the mathematical price movements and structural information asymmetry, and this study provides an independent and new perspective, that is, social belief formation and narrative propagation is another independent pathway for the emergence of asset bubbles. Last but not least, the framework gives deep and important meaning to market regulation: if belief-based market instability becomes a reality, the regulatory authorities need to come beyond the quantitative indicators of the financial market and actively monitor the investors' sentiment, the viral collective narratives, and the psychological mechanisms that trigger the destabilizing investor behavior.

6. Conclusion

This study develops a theoretical framework to explain how cursed beliefs may contribute to the formation and persistence of asset price bubbles in sequential trading markets. By conceptualizing cursed beliefs as a belief-based cognitive mechanism, this study argues that bubbles may arise not only from speculative behavior, information asymmetry, or irrational responses to market signals, but also from the ways investors interpret uncertainty and construct expectations about future outcomes. The theoretical analysis suggests that cursed beliefs influence market dynamics through a process of individual belief distortion, expectation formation, and collective reinforcement. At the individual level, cursed beliefs may reshape risk perception and investment decisions by causing investors to rely on subjective interpretations rather than fundamental evaluations. Through sequential observation and social learning, these distorted beliefs can spread among market participants, transforming private expectations into collective market narratives. The interaction between belief formation, trading behavior, and price feedback may therefore create a self-reinforcing mechanism that amplifies price deviations and contributes to bubble formation.

This study is limited by its theoretical nature, as the proposed mechanism has not yet been empirically validated. Future research can further develop measurable approaches to identify cursed beliefs and examine their influence on investor behavior and market outcomes through empirical analysis, behavioral experiments, or computational simulations. Overall, this framework extends behavioral finance research by highlighting that irrational market phenomena may originate not only from biased information processing but also from the social construction and transmission of belief systems.

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Conflicts of Interest

The authors declare no conflict of interest.

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