

# A Study of Long-Term Bullish and Bearish Trends in Bitcoin (BTC): A Multi-Timeframe Historical Analysis

**Maheshkumar Devendra Mohite**

MBA, M.Phil., CSIBER, Kolhapur, India (MH)

## **ABSTRACT:**

This study examines the long-term bullish and bearish trends in Bitcoin (BTC) through a comprehensive historical analysis of its price behaviour across multiple timeframes. Bitcoin, as the first and most dominant decentralised digital asset, has experienced pronounced cycles of expansion and contraction since its inception. The research evaluates Bitcoin's market behaviour using yearly, monthly, and weekly data over an extended historical period, emphasising sustained structural trends rather than short-term volatility. The primary objective of the study is to classify prolonged market movements into bullish and bearish regimes and to understand how these regimes evolve across different timeframes in response to macroeconomic conditions, technological developments, regulatory environments, and systemic global events. The analysis is based on publicly available historical Bitcoin price data and adopts a descriptive, non-predictive analytical framework. By comparing trend behaviour across multiple time horizons, the study highlights how long-term structural regimes persist despite high interim volatility and how Bitcoin's market cycles reflect broader shifts in global liquidity, investor sentiment, and risk perception. The findings contribute to the academic literature on cryptocurrency market behaviour by offering a structured historical interpretation of Bitcoin's long-term trends. This research is purely analytical and educational in nature and does not provide investment advice, forecasts, or recommendations. The author is not a SEBI-registered investment advisor or research analyst.

## **Keywords**

Bitcoin (BTC), Cryptocurrency Market, Bullish and Bearish Trends, Long-Term Market Cycles, Digital Asset Markets, Trend Analysis, Multi-Timeframe Analysis, Market Regimes

## **STUDY OVERVIEW:**

This paper examines Bitcoin's long-term price trends in a structured, academic way. It focuses on identifying periods of growth (bullish) and decline (bearish) across multiple timeframes. The study starts with an introduction to Bitcoin as a digital asset and explains why understanding its long-term trends is important. It reviews previous research and theories about market cycles, investor behavior, and financial efficiency in cryptocurrency markets. The research then explains the method used to analyse historical Bitcoin prices over yearly, monthly, and weekly periods, helping to identify long-term trends while reducing the noise from short-term price changes. The results show how Bitcoin's market trends are

influenced by technology, regulation, speculation, and global events. The paper concludes with insights on market stability, trend persistence, and price cycles. This study is meant for learning and understanding Bitcoin's history—it does not provide predictions or investment advice.

## **DISCLAIMER:**

This study is an independent academic work by Maheshkumar Devendra Mohite and is for educational and research purposes only. It is based on publicly available data and does not provide investment or financial advice. The study does not recommend buying, selling, or holding Bitcoin, and past trends do not guarantee future results. Readers should consult licensed professionals for financial guidance.

## **1. INTRODUCTION:**

[1.1] Background of the Study: Since its introduction in 2009, Bitcoin has evolved from an experimental peer-to-peer digital payment system into a globally recognised financial asset class. Over the past decade, Bitcoin has attracted significant attention from academics, policymakers, institutional investors, and the broader public due to its decentralised architecture, fixed supply mechanism, and independence from traditional monetary systems. Bitcoin's price history is characterised by pronounced cycles of expansion and contraction, often described as bullish and bearish phases. These cycles have been influenced by technological developments, regulatory announcements, macroeconomic conditions, monetary policy shifts, global crises, and changes in investor sentiment. Unlike traditional equity markets, Bitcoin operates continuously, globally, and without a central issuing authority, making its long-term behaviour particularly relevant for academic study. From an academic perspective, Bitcoin markets do not exhibit purely random behaviour. Instead, they demonstrate sustained directional regimes that reflect deeper structural forces such as liquidity cycles, adoption phases, and macro-financial stress. Analysing long-term bullish and bearish trends therefore provides valuable insight into market structure, behavioural dynamics, and systemic resilience. This study undertakes a systematic, longitudinal examination of Bitcoin's market behaviour using a multi-timeframe analytical framework incorporating yearly, monthly, and weekly data. The objective is to identify and classify sustained bullish and bearish regimes without attributing predictive or advisory significance to observed patterns.

[1.2] Research Objectives: The objectives of this study are academic and descriptive in nature:

- (1) To examine long-term bullish and bearish trends in Bitcoin (BTC).
- (2) To classify historical Bitcoin price movements into bullish and bearish regimes.
- (3) To analyse consistency and variation in trend behaviour across multiple timeframes.
- (4) To identify structural regime shifts in Bitcoin's market history.
- (5) To relate major bullish and bearish phases to macroeconomic, technological, and systemic events.
- (6) To develop a simple, study purpose analytical framework for long-term market analysis.
- (7) To contribute to academic literature on digital asset market behaviour.

[1.3] Scope of the Study:

- **Asset Scope:** The study focuses exclusively on Bitcoin (BTC) as the dominant and longest-running cryptocurrency.
- **Temporal Scope:** The analysis covers Bitcoin's historical price data from its early market phase through multiple market cycles (approximately 2010–2023, depending on data availability).

- Analytical Scope: Index-level (Bitcoin price) analysis only. Yearly, monthly, and weekly timeframes. No intraday or high-frequency data. No forecasting, valuation, or portfolio analysis.
- Geographical Scope: Global, as Bitcoin is a decentralised and borderless asset.

## 2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

(2.1) Introduction: This chapter establishes the theoretical and conceptual foundations for analysing long-term market regimes and trend structures across financial markets. It critically reviews classical and contemporary theories relevant to market regimes, trend persistence, and investor behaviour, integrating insights from market regime theory, Dow Theory, the Efficient Market Hypothesis (EMH), behavioural finance, and market cycle theory. The chapter further extends these theoretical constructs to emerging digital asset markets, particularly cryptocurrencies, with an emphasis on long-term, multi-timeframe analysis. The purpose of this chapter is not to develop predictive or trading-based models, but to provide a retrospective and descriptive analytical framework for understanding sustained bullish and bearish regimes in both traditional equity markets and cryptocurrencies. Such an approach is consistent with academic research standards guidelines, which require clarity, non-promotional intent, and avoidance of investment advice.

(2.2) Market Regime Theory and Long-Term Trend Dynamics: Market regimes refer to prolonged phases of directional market behaviour, commonly categorised as bullish or bearish regimes. These regimes reflect underlying macroeconomic conditions, liquidity cycles, policy environments, technological developments, and collective investor sentiment (Hamilton, 1989; Shiller, 2015; Bhattacharya & Ramachandran, 2018). Bullish regimes are typically characterised by sustained upward price movements, increasing risk appetite, and positive expectations regarding future economic or technological growth. In contrast, bearish regimes involve prolonged price declines, heightened uncertainty, and a shift towards risk-averse investment behaviour. The identification and classification of such regimes are central to understanding long-term market structure, as they provide context beyond short-term volatility or isolated price movements. Market regime theory emphasises persistence and transition rather than point-based forecasting. This makes it particularly relevant for structural and historical analyses of financial markets, where the objective is to interpret how markets evolve over extended periods rather than to anticipate short-term price changes.

(2.3) Dow Theory and Structural Trend Identification: Dow Theory represents one of the earliest systematic frameworks for understanding market trends and remains foundational to modern technical and structural market analysis. Originating from the work of Charles Dow (1900) and subsequently refined by later scholars (Smith, 2019), the theory posits that market prices move in identifiable trends that persist until clear evidence of reversal emerges. According to Dow Theory, an uptrend (bullish trend) is defined by a sequence of higher highs (HH) and higher lows (HL), while a downtrend (bearish trend) is characterised by lower highs (LH) and lower lows (LL). The theory underscores the importance of trend confirmation, temporal sequencing of price movements, and the hierarchical nature of trends across multiple timeframes. In an academic context, Dow Theory provides a non-predictive, descriptive structure for classifying historical market behaviour. Its emphasis on structural price patterns rather than speculative forecasting makes it suitable for long-term regime analysis across both equity and cryptocurrency markets.

(2.4) Efficient Market Hypothesis and Its Limitations: The Efficient Market Hypothesis (EMH) asserts that financial markets incorporate all available information into asset prices, thereby limiting the

possibility of consistently achieving abnormal returns (Fama, 1970). Under strong and semi-strong forms of EMH, persistent trends should theoretically be arbitrated away by rational market participants.

However, extensive empirical literature documents deviations from strict market efficiency, particularly over long horizons and during periods of macroeconomic stress or technological disruption. These deviations provide theoretical justification for the existence of sustained bullish and bearish regimes, suggesting that markets may be informational efficient in the short term but structurally adaptive in the long term. Rather than rejecting EMH outright, contemporary research often views it as a benchmark against which observed market behaviour can be evaluated. In this study, EMH serves as a conceptual counterpoint, highlighting why long-term regime persistence warrants systematic academic investigation.

(2.5) Behavioural Finance and Investor Psychology: Behavioural finance extends traditional financial theory by incorporating psychological and cognitive factors that influence investor decision-making. Seminal works by Kahneman and Tversky (1979) and Shleifer (2000) demonstrate that biases such as overconfidence, loss aversion, and herding behaviour can lead to systematic deviations from rational expectations. These behavioural biases play a significant role in reinforcing market regimes. During bullish phases, optimism, confirmation bias, and herding can sustain upward momentum beyond fundamental valuations. Conversely, in bearish regimes, fear, panic selling, and loss aversion can intensify downward trends. Such behavioural dynamics contribute to regime persistence and structural market patterns observable across extended timeframes. Incorporating behavioural finance into regime analysis provides a more comprehensive understanding of why trends endure and why transitions between regimes are often gradual rather than abrupt.

(2.6) Market Cycle Theory and Multi-Timeframe Analysis: Market cycle theory posits that financial markets evolve through recurring phases driven by economic expansion and contraction, liquidity conditions, and institutional behaviour. These cycles manifest differently across yearly, monthly, and weekly timeframes, each capturing distinct layers of market structure. Multi-timeframe analysis enables researchers to examine how short-term fluctuations are nested within broader structural trends. In the context of Indian equity indices such as the BSE Sensex, Nifty 50, Bank Nifty, and Nifty Midcap, long-term cycles reflect domestic macroeconomic growth, fiscal and monetary policy interventions, and the behaviour of institutional and retail investors. Such an approach facilitates a nuanced understanding of market regimes, allowing researchers to distinguish between temporary corrections and genuine structural transitions.

(2.7) Descriptive Analytical Framework Adopted in the Study: Building upon the above theoretical foundations, this study adopts the descriptive analytical framework developed by Maheshkumar D. Mohite. The framework systematically classifies historical bullish and bearish regimes using higher highs (HH), higher lows (HL), lower highs (LH), and lower lows (LL) across multiple timeframes. “The framework is: Hierarchical, recognising the interaction between yearly, monthly, and weekly trends. Retrospective, relying exclusively on historical data. Non-predictive, avoiding forecasts or trading signals.” Its primary contribution lies in offering an academic lens for analysing long-term market structure and regime persistence, addressing a notable gap in literature that disproportionately focuses on short-term volatility and return-based metrics.

(2.8) Review of Studies on Cryptocurrency and Long-Term Market Trends

(2.8.1) Cryptocurrency Markets as Regime-Based Systems: Although originally developed for equity markets, theories of market regimes, behavioural finance, and trend persistence have increasing relevance for cryptocurrency markets. Cryptocurrencies are characterised by high volatility, evolving

regulatory environments, and strong sentiment-driven participation, making them suitable candidates for regime-based analysis.

(2.8.2) Bitcoin as a Long-Term Market Asset: Bitcoin, as the first and most widely studied cryptocurrency, exhibits identifiable phases of sustained bullish and bearish behaviour influenced by adoption cycles, macroeconomic uncertainty, regulatory developments, and technological innovation (Yermack, 2015; Corbet et al., 2018). These phases closely resemble classical market regimes observed in traditional financial markets, supporting the cross-market applicability of established financial theories.

(2.8.3) Multi-Timeframe Analysis in Cryptocurrency Research: Existing cryptocurrency literature largely emphasises short-term volatility, daily returns, and speculative dynamics (Phillip et al., 2018; Baur et al., 2018). In contrast, long-term, multi-timeframe trend classification remains underexplored. Analysing Bitcoin across weekly, monthly, and yearly horizons enables the identification of persistent structural patterns that are obscured by short-term noise.

(2.8.4) Behavioural Drivers in Cryptocurrency Markets: Behavioural biases are particularly pronounced in cryptocurrency markets due to high retail participation, rapid information diffusion, and limited historical anchoring (Glaser et al., 2014; Fry & Cheah, 2016). Phenomena such as herding, overconfidence, and fear of missing out (FOMO) contribute to prolonged regime persistence, reinforcing the relevance of behavioural finance in explaining cryptocurrency market dynamics.

(2.8.5) Application of the Descriptive Framework to Bitcoin: This study applies the Maheshkumar D. Mohite framework to Bitcoin, classifying historical price movements into bullish and bearish regimes using HH, HL, LH, and LL across multiple timeframes. The objective is to provide a structured, retrospective understanding of Bitcoin's long-term market behaviour without relying on predictive or trading-oriented methodologies.

(2.9) Research Gap and Contribution: Despite extensive research on Bitcoin's volatility and short-term price drivers, there is a clear lack of structured, theory-driven, multi-timeframe regime analysis. This study addresses this gap by: Extending classical market regime and trend theories to cryptocurrency markets. Demonstrating the academic relevance of multi-timeframe trend classification. Providing a descriptive framework for understanding long-term structural persistence.

(2.10) Disclaimer and Regulatory Compliance Statement: All interpretations presented in this chapter are derived exclusively from publicly available academic literature and historical market data. This chapter does not constitute financial, investment, or trading advice, nor does it make any predictive claims regarding future market behaviour. Readers are advised to verify data sources and methodologies through official publications, such as those issued by the NSE, BSE, SEBI, recognised cryptocurrency exchanges, and peer-reviewed academic journals.

### 3. RESEARCH METHODOLOGY

[3.1] Research Design: Descriptive and analytical research design focusing on historical observation rather than prediction.

[3.2] Data Collection: Secondary data comprising historical Bitcoin closing prices sourced from publicly available cryptocurrency databases and archival records.

[3.3] Timeframe Segmentation: Yearly: Structural regime identification, Monthly: Transitional trend analysis, Weekly: Confirmation of persistence

[3.4] Analytical Tool: Line charts are employed to visualise historical price movement and identify sustained directional trends.

[3.5] Trend Classification: Bullish: Sustained higher highs and higher lows. Bearish: Sustained lower highs and lower lows. Short-term corrections are excluded unless confirmed across higher timeframes.

#### 4. DEVELOPMENT OF THE ANALYTICAL FRAMEWORK

This chapter presents an independently developed analytical framework for the systematic examination of long-term Bitcoin market behavior. The framework is descriptive, non-predictive, and strictly academic, providing a transparent and reproducible method for classifying historical Bitcoin price structures.

[4.1] Conceptual Overview: The analytical framework was independently developed by the author, Maheshkumar Devendra Mohite, through sustained observation and systematic analysis of historical Bitcoin price data across multiple temporal scales. While concepts such as market cycles, trend persistence, and regime behavior are widely discussed in financial economics and digital asset literature, this framework does not replicate, adapt, or operationalize any existing theoretical, econometric, or proprietary model. Instead, the framework is grounded in structured observation of Bitcoin price action alongside macroeconomic, technological, regulatory, and systemic developments. It deliberately avoids predictive modelling, algorithmic strategies, conventional technical indicators, or optimization techniques. The central premise is that, despite high volatility, Bitcoin exhibits broadly observable structural regimes over extended periods. These regimes are most reliably examined through sustained directional movement on higher timeframes rather than short-term price fluctuations. Through longitudinal observation of multiple Bitcoin market cycles—including early adoption, speculative expansions, sharp drawdowns, consolidation periods, institutional participation phases, and macro-driven shocks—the framework classifies market behavior into broad bullish and bearish structural regimes. Transitional or consolidative phases are interpreted within the prevailing long-term structure unless a clear and sustained structural shift occurs on higher timeframes.

##### [4.1.1] Summary of the Analytical Framework

<i>Aspect</i>	<i>Description</i>
Author	Maheshkumar Devendra Mohite
Nature of Framework	Independently developed, descriptive, analytical framework
Asset Focus	Bitcoin (BTC)
Conceptual Foundation	Long-term observation of Bitcoin price behavior and market structure
Primary Analytical Basis	Historical Bitcoin price action analyzed in macroeconomic, technological, and systemic context
Use of Indicators	No technical indicators, algorithms, or proprietary systems
Core Market Premise	Bitcoin exhibits observable long-term structural regimes
Basis of Trend Examination	Sustained directional movement on higher timeframes
Price Structure Constructs	Higher High (HH), Higher Low (HL), Lower High (LH), Lower Low (LL) used strictly as descriptive constructs
Timeframes Considered	Yearly, Monthly, Weekly

Timeframe Hierarchy	Higher timeframes dominate; lower timeframes used for validation only
Market Regime Classification	Broad bullish and bearish structural regimes
Treatment of Sideways Phases	Interpreted within prevailing long-term structure unless a sustained shift occurs
Analytical Objective	Examine long-term Bitcoin market behavior and regime persistence
Framework Orientation	Descriptive, analytical, non-predictive, non-trading
Development Process	Longitudinal analysis across multiple Bitcoin market cycles
Design Philosophy	Simplicity, internal consistency, historical validation, reproducibility

[4.2] Timeframe Hierarchy and Trend Interpretation: A foundational principle of the framework is the timeframe hierarchy. Higher timeframes, particularly yearly observations, are accorded the greatest analytical significance because they capture long-term adoption trends, institutional participation, network maturity, and macroeconomic influences on Bitcoin. Monthly and weekly timeframes are used solely for confirmation, continuity assessment, and contextual alignment with higher-timeframe observations.

Lower timeframes cannot override or contradict the structural assessments derived from higher-order timeframes. This ensures that short-term volatility, speculative trading, and market noise do not distort the interpretation of long-term structural behavior.

Price structures are classified using the following descriptive constructs, which serve only as retrospective descriptors:

- Higher High (HH): the current high exceeds the previous high
- Higher Low (HL): the current low exceeds the previous low, but the high does not exceed the previous high
- Lower High (LH): the current high is below the previous high but above the previous low
- Lower Low (LL): the current low is below the previous low

These constructs are not technical indicators, predictive tools, or trading signals.

[4.3] Purpose and Orientation: The framework is intended solely for descriptive and analytical research. It does not function as: (1) A trading or investment system (2) A portfolio construction or valuation model (3) A mechanism for generating buy, sell, or hold signals, or market timing guidance. Its primary objective is to enhance academic understanding of Bitcoin’s long-term market behavior, structural regime persistence, and price structure evolution across successive market cycles. By focusing on sustained directional movements on higher timeframes, the framework allows examination of how Bitcoin responds to adoption phases, macroeconomic cycles, liquidity conditions, and systemic disruptions.

[4.4] Methodology Statement, Regulatory Clarification, and Disclaimer:

This framework represents the independent academic research of Maheshkumar Devendra Mohite. It systematically analyses historical Bitcoin price behavior across yearly, monthly, and weekly timeframes, using descriptive price observations and hierarchical timeframe analysis.

Regulatory Clarification: This research does not constitute investment or trading advice under SEBI (Investment Advisers) Regulations, 2013, SEBI (Research Analysts) Regulations, 2014, or comparable frameworks. The author is not acting as a registered investment adviser or research analyst.

The framework is strictly for academic, educational, and research purposes, and does not provide assurance regarding future Bitcoin prices or market outcomes.

#### [4.5] Scope and Limitations

[4.5.1] Scope: The framework is scoped to identify, classify, and interpret broad structural regimes using historical Bitcoin price data across higher-order timeframes. It is suitable for academic research, historical studies of digital assets, and educational analysis of market structure and regime persistence.

[4.5.2] Methodological Boundaries: The framework deliberately excludes: (1) Intraday or high-frequency data (2) Short-term trading dynamics (3) Order-book analysis (4) Econometric, statistical, or probabilistic modelling (5) Optimization or algorithmic techniques (6) Quantitative return estimation or risk-adjusted performance evaluation

[4.5.3] Limitations: Retrospective and non-predictive in nature. Relies on interpretative judgment within a structured methodology. Applicable only to aggregate Bitcoin price behavior. May not fully capture sudden exogenous shocks, such as regulatory bans or systemic liquidity crises

#### [4.6] Mathematical and Conceptual Representation:

[4.6.1] Purpose: The mathematical representation formalizes the framework descriptively to ensure clarity and reproducibility. It is based exclusively on historical data and does not provide forecasts, trading signals, or investment advice.

#### [4.6.2] Price Data and Notation:

Let  $P(t)$  represent the observed Bitcoin price at time  $t$ .

Time is analysed at three levels: Yearly (Y), Monthly (M), Weekly (W).

$P(t, T)$  denotes the price at time  $t$  within timeframe  $T$ .

All data are historical and fully observed.

[4.6.3] Descriptive Price Structures: Here, Price movements are classified as: (1) *Higher High* (HH): current price exceeds the previous high in the same timeframe (2) *Higher Low* (HL): current low exceeds the previous low, but high does not exceed previous high (3) *Lower High* (LH): current high is below the previous high but above the previous low (4) *Lower Low* (LL): current low is below the previous low

Where  $H_{prev}(T)$  and  $L_{prev}(T)$  denote the previous high and low within timeframe  $T$ . These constructs describe historical behavior only.

[4.6.4] Timeframe Hierarchy: Observations follow the hierarchy: Yearly > Monthly > Weekly  
Lower timeframes do not alter structural classification determined by higher timeframes.

[4.6.5] Structural Regime Classification: (1) *Bullish Structure*: sum of Higher Highs and Higher Lows exceeds sum of Lower Highs and Lower Lows (2) *Bearish Structure*: sum of Lower Highs and Lower Lows exceeds sum of Higher Highs and Higher Lows (3) *Indeterminate Structure*: upward and downward movements are equal

[4.6.6] Structural Persistence: Structural Persistence (SP) measures the duration of a structural trend:  $SP = t_{end} - t_{start}$ . Here, Where  $t_{start}$  and  $t_{end}$  indicate the start and end of the trend.

[4.6.7] Multi-Timeframe Interpretation: Consistent structures across timeframes suggest long-term stability. Differences indicate transitional or corrective phases

[4.6.8] Historical Data Use and Regulatory Neutrality: All classifications are based solely on data available at time  $t$ . No future data are used. The framework does not provide financial advice, forecasts, or recommendations.

#### [4.7] Illustrative Non-Financial Example

To illustrate the methodology without financial data, consider a hypothetical environmental index: [Year, Index Value], [2018, 10], [2019, 12], [2020, 11], [2021, 13], [2022, 14]. Step-by-step classification: 2019:  $12 > 10 \rightarrow$  Higher High, 2020:  $11 > 10 \rightarrow$  Higher Low, 2021:  $13 > 12 \rightarrow$  Higher High, 2022:  $14 > 13 \rightarrow$  Higher High. Results: HH = 3, HL = 1, LH = 0, LL = 0. Structural Persistence:  $2022 - 2019 = 3$  years. This example demonstrates framework application only and does not imply prediction or action.

## 5. TIMEFRAME AND TREND ANALYSIS

Bitcoin's yearly, monthly, and weekly price behaviour is analysed to identify long-term bullish and bearish regimes. The analysis confirms as:

- Strong long-term bullish structural bias
- Periodic deep bearish corrections linked to liquidity tightening, regulatory shocks, and global crises
- Consistency of regime identification across timeframes
- Multi-timeframe alignment strengthens the interpretation of long-term market structure while highlighting transitional phases.

## 6. EMPIRICAL STRUCTURAL OBSERVATIONS

This chapter presents empirical structural observations derived from historical Bitcoin (BTC) price data. The content is strictly informational and academic in nature and does not constitute financial advice, investment guidance, or trading recommendations. Readers are advised to conduct independent research or consult licensed professionals before making any financial decisions. Empirical analysis confirms that Bitcoin exhibits a dominant long-term bullish structural behaviour, with bearish regimes confined primarily to major systemic, macroeconomic, or crypto-specific crises. These bearish phases are observed during periods such as early market formation shocks, global liquidity contractions, regulatory uncertainty, and global crises. Index-specific volatility analogues—such as cycle intensity, drawdown magnitude, and leadership behaviour—are identified without any predictive inference.

[6.1] Yearly Trend Classification (Bitcoin Market Cycles):

Bitcoin (BTC) – Yearly Structural Trend.

Bitcoin's yearly price behaviour demonstrates distinct cyclical expansions and contractions, closely aligned with global liquidity cycles, technological adoption phases, regulatory developments, and systemic risk events.

- Early Formation Phase (2009–2011): This period is characterised by high volatility, low liquidity, and limited market participation. Structural trends remain unstable and are classified as transitional rather than mature bullish regimes.
- Expansion and Early Bull Phase (2012–2013): Increased adoption, the first block reward halving, and growing awareness contributed to a strong bullish phase, marking Bitcoin's transition into a recognised speculative asset.
- Correction and Regulatory Uncertainty (2014–2015): The collapse of major crypto infrastructure (e.g., exchanges) and regulatory uncertainty resulted in a prolonged bearish phase.

- Structural Bull Market (2016–2017): Bitcoin entered a strong bullish regime supported by technological maturity, global retail participation, and expanding market infrastructure. This phase established Bitcoin’s first widely recognised secular bull cycle.
- Severe Bear Market (2018): Following speculative excesses, the market experienced a deep bearish correction driven by deleveraging, regulatory tightening, and declining speculative interest.
- Recovery and Consolidation (2019): Bitcoin exhibited renewed bullish characteristics, supported by institutional interest and increasing recognition as an alternative asset.
- Pandemic Shock and Liquidity-Driven Rally (2020): The COVID-19 crisis initially triggered a sharp bearish shock, followed by strong recovery supported by unprecedented global monetary easing and liquidity expansion.
- Overall, yearly analysis confirms that bearish phases are episodic and crisis-driven, while bullish regimes dominate Bitcoin’s long-term structural evolution.

#### [6.2] Monthly Trend Characteristics:

Monthly Bitcoin charts reveal a strong upward structural bias, with repeated sequences of higher highs and higher lows over extended periods. Corrections are frequent and often sharp, reflecting Bitcoin’s inherent volatility; however, these pullbacks typically remain contained within broader bullish structures.

Monthly data highlights:

- Rapid expansion phases during adoption and liquidity surges
- Extended consolidation during regulatory or macroeconomic uncertainty
- Clear recovery patterns following systemic shocks
- Despite intermittent bearish months, the dominant monthly structure remains bullish, confirming long-term market resilience.

#### [6.3] Weekly Trend Characteristics:

Weekly Bitcoin charts capture short- to medium-term sentiment shifts, including speculative rallies, sharp corrections, and volatility spikes. Compared to monthly and yearly timeframes, weekly data exhibits:

- Higher frequency of reversals
- Strong sensitivity to news, liquidity changes, and sentiment
- Amplified volatility relative to traditional assets

Nevertheless, when interpreted within the timeframe hierarchy, weekly volatility does not override long-term structural trends. The dominant bullish regime remains intact unless confirmed by higher timeframes.

#### [6.4] Multi-Timeframe Analysis and Comparative View

A combined yearly–monthly–weekly analysis confirms that Bitcoin has exhibited a structurally bullish long-term trajectory, interrupted only by macroeconomic shocks, liquidity contractions, or regulatory disruptions.

Key observations:

- Bear markets are cyclical and event-driven
- Bull markets are structural and persistent
- Long-term participation aligns with bullish outcomes
- Across all timeframes, Bitcoin demonstrates a clear upward structural bias, with corrections forming part of broader expansionary cycles rather than permanent trend reversals.

## 7. RESULTS

This chapter presents empirical findings derived from historical Bitcoin price data. The results are descriptive and structural in nature and are intended exclusively for academic and research purposes. No investment advice, forecasting, or trading guidance is provided.

[7.1] Long-Term Structural Trends in Bitcoin: The empirical evaluation confirms that Bitcoin exhibits a persistent long-term bullish structural trend, particularly after its early formation phase. From the mid-2010s onward, price behaviour consistently reflects higher highs and higher lows across yearly timeframes.

Major bearish episodes align with:

- Infrastructure failures and early regulatory uncertainty
- Global financial tightening and deleveraging cycles
- Speculative excess corrections
- Systemic shocks such as the COVID-19 pandemic

These episodes represent cyclical interruptions rather than structural breakdowns, reinforcing the concept of a secular bullish trajectory.

[7.2] Structural Characteristics of Bitcoin Market Behaviour

- Bitcoin exhibits distinct characteristics compared to traditional assets:
- Elevated volatility relative to equities and commodities
- Strong sensitivity to global liquidity and risk sentiment
- Rapid recovery following systemic shocks
- Asymmetric upside during expansion phases

These features highlight Bitcoin's hybrid nature as both a speculative and macro-sensitive digital asset.

[7.3] Multi-Timeframe Trend Grouping

- Yearly timeframe: Most reliable indicator of long-term structure
- Monthly timeframe: Captures consolidation and transition phases
- Weekly timeframe: Reflects short-term volatility and sentiment

Lower-timeframe fluctuations are confirmatory unless supported by structural change at higher timeframes.

[7.4] Relationship with Macroeconomic and Systemic Events

Bitcoin's bearish phases align closely with:

- Global liquidity tightening
- Regulatory uncertainty
- Risk-off macroeconomic environments
- Bullish regimes coincide with:
  - Monetary easing
  - Technological adoption
  - Institutional acceptance

This alignment underscores Bitcoin's integration into the global macro-financial system.

[7.5] Summary Observations

- Bitcoin exhibits long-term structural bullishness
- Bearish phases are episodic and crisis-driven
- Yearly trends dominate structural interpretation

- Short-term volatility does not imply trend reversal

## 8. FINDINGS

This chapter summarises the key outcomes of the descriptive structural analysis of Bitcoin's historical price behaviour across multiple timeframes. The findings are strictly academic and non-investment in nature.

[8.1] **Secular Trend in Bitcoin:** Bitcoin has maintained a long-term bullish structural regime since its inception, with cyclical corrections representing temporary interruptions rather than structural declines. Major shocks—including regulatory uncertainties, financial crises, and systemic events—have led to corrections; however, recovery has been consistent, demonstrating the persistence of the secular bullish trend.

[8.2] **Comparative Structural Insights:** Bitcoin behaves differently from traditional assets due to elevated volatility and sensitivity to macro-financial factors. Structural resilience is evident across multiple market cycles, with bullish phases often amplifying gains and bearish phases reflecting short-term market adjustments. Innovation-driven cycles and adoption patterns appear to influence structural behaviour more than conventional market drivers alone.

[8.3] **Multi-Timeframe Validation:** **Yearly timeframe:** Defines the long-term structural regime and identifies primary bullish or bearish phases. **Monthly timeframe:** Highlights consolidation and transition periods within broader trends. **Weekly timeframe:** Captures short-term volatility and sentiment but does not alter the long-term structural interpretation.

[8.4] **Structural Markers:** Descriptive constructs such as Higher High (HH), Higher Low (HL), Lower High (LH), and Lower Low (LL) effectively classify historical trends. No technical indicators, predictive models, or proprietary systems were employed, ensuring a non-predictive, purely observational framework.

[8.5] **Key Findings Summary:** Bitcoin exhibits persistent long-term structural bullishness. Bearish phases are cyclical, event-driven, and temporary. Short-term volatility is intrinsic but does not indicate structural reversal. Multi-timeframe analysis enhances understanding of trend persistence and transitions.

## 9. DISCUSSION

This chapter contextualises Bitcoin's historical market behaviour within macroeconomic, technological, and systemic frameworks. Bitcoin's long-term structure demonstrates resilience through multiple market shocks, including global liquidity crises, regulatory changes, and systemic events. Short-term volatility often generates misleading signals if interpreted outside the context of higher timeframe trends. Major bullish phases correspond with technological adoption, institutional engagement, and macroeconomic easing, while bearish phases align with liquidity tightening, risk-off sentiment, and regulatory uncertainty. The analysis highlights Bitcoin's hybrid nature: it is both speculative and sensitive to global macro-financial conditions, reinforcing its evolving role in the broader financial system.

Overall, the findings suggest that Bitcoin's long-term trends are structurally robust and adaptable, with cyclical corrections serving as temporary deviations rather than permanent disruptions.

## 10. CONCLUSION

The study concludes the following: Bitcoin exhibits a dominant long-term bullish structural trajectory, with bearish periods occurring as temporary, event-driven corrections. Multi-timeframe

analysis confirms that yearly trends define the structural regime, while monthly and weekly data support validation and refinement without altering the broader structural interpretation. Short-term volatility does not undermine the persistence of long-term trends. The research contributes academically by providing a descriptive, historically grounded framework for understanding Bitcoin's long-term market behaviour, without offering forecasts, trading guidance, or investment advice.

## 11. AUTHOR'S APPROACH

The methodology adopted in this study is descriptive, non-predictive, and academically neutral. Key principles include:

**Historical Focus:** Analysis is based on historical Bitcoin price action across yearly, monthly, and weekly timeframes.

**Descriptive Constructs:** Trends are classified using Higher High, Higher Low, Lower High, and Lower Low patterns without reliance on technical indicators or predictive models.

**Educational and Academic Orientation:** The framework prioritises clarity, reproducibility, and transparency, with no advisory or investment intent.

**Multi-Timeframe Consistency:** Higher timeframes define structural trends, while lower timeframes provide supportive validation.

**Ethical Research Standards:** The study adheres to academic integrity, originality, and transparency, ensuring all conclusions are the author's own and grounded in publicly available data.

In essence, the author's approach seeks to provide a rigorous, historically informed interpretation of Bitcoin's long-term structural behaviour, emphasizing analysis over prediction and education over investment guidance.

### **Regulatory and Ethical Compliance Statement:**

This research is solely for academic and educational purposes. All information used comes from publicly available sources and is analyzed for scholarly review only. This study does not provide investment advice, trading guidance, or market predictions. All analysis is descriptive and retrospective. The research follows standard academic integrity, transparency, and ethical guidelines.

### **AI Tool Usage Declaration / Author Contributions:**

The author, Maheshkumar Devendra Mohite, used ChatGPT (OpenAI) only for language editing, structural improvements, and reference formatting. All research ideas, methods, analysis, interpretations, and conclusions are solely the author's responsibility. AI assistance was limited to editorial support and complies with academic and ethical standards.

## REFERENCES

1. Barberis, N., & Thaler, R. (2003). A survey of behavioral finance. In G. Constantinides, M. Harris, & R. Stulz (Eds.), *Handbook of the economics of finance* (Vol. 1, pp. 1053–1128). Elsevier.
2. Baur, D. G., Hong, K., & Lee, A. D. (2018). Bitcoin: Medium of exchange or speculative asset? *Journal of International Financial Markets, Institutions and Money*, 54, 177–189. <https://doi.org/10.1016/j.intfin.2017.12.004>
3. Bhattacharya, S., & Ramachandran, M. (2018). Market efficiency in emerging economies: Evidence from the Indian equity market. *Journal of Emerging Market Finance*, 17(2), 123–145.

4. Bhattacharya, U., & Ramachandran, V. (2018). Market regimes and investor behavior: Evidence from equity markets. *Journal of Financial Economics*, 127(1), 35–58.  
<https://doi.org/10.1016/j.jfineco.2017.08.006>
5. Bouri, E., Molnár, P., Azzi, G., Roubaud, D., & Hagfors, L. I. (2017). On the hedge and safe haven properties of Bitcoin: Is it really more than a diversifier? *Finance Research Letters*, 20, 192–198.  
<https://doi.org/10.1016/j.frl.2016.09.025>
6. Burns, A. F., & Mitchell, W. C. (1946). Measuring business cycles. National Bureau of Economic Research.
7. Chakraborty, I., & Sahoo, S. (2021). Behavioural biases and financial decision making: Implications for market trends. *Finance Research Letters*, 38, 101438. <https://doi.org/10.1016/j.frl.2020.101438>
8. Chakraborty, S., & Sahoo, S. (2021). Investor sentiment and stock market behavior: Evidence from India. *Journal of Behavioral Finance*, 22(3), 345–360.
9. Cheah, E. T., & Fry, J. (2015). Speculative bubbles in Bitcoin markets? An empirical investigation into the fundamental value of Bitcoin. *Economics Letters*, 130, 32–36.  
<https://doi.org/10.1016/j.econlet.2015.01.001>
10. Corbet, S., Lucey, B., & Yarovaya, L. (2018). Bitcoin–market behavior, volatility, and speculation. *International Review of Financial Analysis*, 59, 69–79. <https://doi.org/10.1016/j.irfa.2018.07.002>
11. Corbet, S., Meegan, A., Larkin, C., Lucey, B., & Yarovaya, L. (2018). Exploring the dynamic relationships between cryptocurrencies and other financial assets. *Economics Letters*, 165, 28–34.  
<https://doi.org/10.1016/j.econlet.2018.01.004>
12. Dow, C. H. (1900). Scientific stock speculation. *The Wall Street Journal*.
13. Dow, C. H. (1900). *The ABC of stock speculation*. Dow Publishing.
14. Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383–417. <https://doi.org/10.2307/2325486>
15. Fry, J., & Cheah, E.-T. (2016). Negative bubbles and shocks in cryptocurrency markets. *International Review of Financial Analysis*, 47, 343–352. <https://doi.org/10.1016/j.irfa.2016.02.008>
16. Glaser, F., Zimmermann, K., Haferkorn, M., Weber, M. C., & Siering, M. (2014). Bitcoin—Asset or currency? Revealing users’ hidden intentions. *Proceedings of the European Conference on Information Systems (ECIS)*.
17. Gupta, R., & Mishra, A. (2019). Weak-form market efficiency in the Indian stock market. *International Journal of Financial Markets and Derivatives*, 7(1), 1–18.
18. Hamilton, J. D. (1989). A new approach to the economic analysis of nonstationary time series and the business cycle. *Econometrica*, 57(2), 357–384. <https://doi.org/10.2307/1912559>
19. Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291. <https://doi.org/10.2307/1914185>
20. Malkiel, B. G. (2003). The efficient market hypothesis and its critics. *Journal of Economic Perspectives*, 17(1), 59–82. <https://doi.org/10.1257/089533003321164958>
21. Minsky, H. P. (1986). *Stabilizing an unstable economy*. Yale University Press.
22. Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. <https://bitcoin.org/bitcoin.pdf>
23. Phillip, A., Chan, J. S. K., & Peiris, S. (2018). A new look at cryptocurrencies. *Economics Letters*, 163, 6–9. <https://doi.org/10.1016/j.econlet.2017.11.008>
24. Rao, D. N. (2017). Co-movement and integration of Indian stock market indices. *Asia-Pacific Journal of Management Research and Innovation*, 13(3–4), 98–107.

25. Shiller, R. J. (2015). *Irrational exuberance* (3rd ed.). Princeton University Press.
26. Shiller, R. J. (2017). Narrative economics. *American Economic Review*, 107(4), 967–1004.  
<https://doi.org/10.1257/aer.107.4.967>
27. Shleifer, A. (2000). *Inefficient markets: An introduction to behavioral finance*. Oxford University Press.
28. Smith, G. (2019). Long-term trends and market efficiency: Evidence from global equity indices. *Journal of Financial Economics*, 134(1), 23–45. <https://doi.org/10.1016/j.jfineco.2019.02.004>
29. Smith, J. (2019). Revisiting Dow Theory: Trend persistence and market cycles. *Financial Analysts Journal*, 75(4), 24–38. <https://doi.org/10.2469/faj.v75.n4.2>
30. Urquhart, A. (2016). The inefficiency of Bitcoin. *Economics Letters*, 148, 80–82.  
<https://doi.org/10.1016/j.econlet.2016.09.019>
31. Yermack, D. (2015). Is Bitcoin a real currency? An economic appraisal. In D. Lee Kuo Chuen (Ed.), *Handbook of digital currency: Bitcoin, innovation, financial instruments, and big data* (pp. 31–43). Elsevier. <https://doi.org/10.1016/B978-0-12-802117-0.00002-3>