Why Do Investors Act Irrationally?

Behavioral Biases of Herding, Overconfidence, and Overreaction

Ooi Kok Loang
University of Malaya

Series in Business and Finance

Vernon Press

www.vernonpress.com

In the Americas:
Vernon Press
1000 N West Street, Suite 1200
Wilmington, Delaware, 19801
United States

In the rest of the world:
Vernon Press
C/Sancti Espiritu 17,
Malaga, 29006
Spain

Series in Business and Finance

Library of Congress Control Number: 2025933287

ISBN: 979-8-8819-0242-1

Cover design by Vernon Press with elements from Freepik.

Table of Contents

List of Figures

List of Tables

List of Acronyms and Abbreviations

AAA	Credit Rating (Highest Investment Grade)
ACC	Anterior Cingulate Cortex
AI	Artificial Intelligence
AMC	Asset Management Company
ARKK	ARK Innovation ETF (Cathie Wood's Fund)
BN	Barisan Nasional
CAPM	Capital Asset Pricing Model
CEO	Chief Executive Officer
CIMB	Commerce International Merchant Bankers
COVID	Coronavirus Disease
CRASH	Market Crash
DAX	Deutscher Aktienindex (German Stock Index)
DCA	Dollar Cost Averaging
ECRL	East Coast Rail Link
EMH	Efficient Market Hypothesis
ERM	European Exchange Rate Mechanism
FBM	FTSE Bursa Malaysia Index
FOMO	Fear of Missing Out
FTSE	Financial Times Stock Exchange
GDP	Gross Domestic Product
HSR	High-Speed Rail
IIUM	International Islamic University Malaysia
IMF	International Monetary Fund
KLCI	Kuala Lumpur Composite Index
KPMG	Klynveld Peat Marwick Goerdeler (Big Four Audit Firm)
LTCM	Long-Term Capital Management
MBS	Mortgage-Backed Securities
MPT	Modern Portfolio Theory
NASDAQ	National Association of Securities Dealers Automated Quotations

PH	Pakatan Harapan
PLOS	Public Library of Science (Academic Journal)
QS	Quacquarelli Symonds (University Rankings)
RM	Ringgit Malaysia
UK	United Kingdom
US	United States
VIX	Volatility Index

About the Author

Dr. Ooi Kok Loang is a leading expert in finance, celebrated for his deep insights into behavioural finance and his broad contributions to academia and industry. Currently a faculty member in the Department of Finance at Universiti Malaya, ranked 60th in the 2025 QS World University Rankings, Dr. Ooi previously served as Deputy Dean at City University Malaysia. He holds a Master's and PhD in Finance from Universiti Sains Malaysia (USM) and a Master of Laws from the International Islamic University Malaysia (IIUM), reflecting a rich academic foundation across finance and legal studies.

Dr Ooi's extensive professional background includes advising Malaysia's top 100 listed companies and serving as a board advisor, where he provided strategic insights on finance and corporate governance. His early career as an auditor and business consultant at KPMG, one of the Big Four accounting firms, equipped him with a robust understanding of corporate finance and market strategy. He is a Certified Internal Auditor (CIA) and a Professional Member of the Institute of Internal Auditors, further strengthening his expertise in regulatory and compliance aspects of finance.

Over the past five years, Dr. Ooi has published more than 40 influential papers in high-impact journals, including *Finance Research Letters, Journal of Economic Studies, The Singapore Economic Review, International Journal of Islamic and Middle Eastern Finance and Management*, and *China Finance Review International*. His research delves into behavioural biases like herding, overconfidence, and overreaction, challenging traditional finance theories and reframing investor behaviour through a psychological lens.

A dedicated mentor, Dr. Ooi has successfully guided over 25 PhD students to graduation, fostering the growth of future finance leaders. Central banks and financial institutions, and he regularly shares his expertise on major platforms such as China Talk Show. Dr Ooi's unique combination of academic depth, industry acumen, and regulatory knowledge continues to redefine and elevate the field of behavioural finance, offering critical perspectives on the psychological forces that shape global markets.

Foreword

Human beings have long held that financial markets are efficient, data-driven systems that make rational decisions. But history reminds us that economic booms, busts and disasters usually spring from irrational behavior, distorted thinking and emotional involvement. The book is about behavioral finance and what it teaches us about the biases that drive both market movement and investment decisions. The book is heavily downloaded from the expertise of Dr. Ooi Kok Loang from Universiti Malaya.

Although technological advancements have altered the financial landscape, they have failed to eliminate unjustified behavior. Why? However, the advent of algorithmic trading, AI-led financial models and the proliferation of DeFi systems has made this process increasingly complex. These advancements not only expedite processes and make products more readily available, but they also enable individuals to engage in more systematic risk-taking activities, including speculation and market manipulation. The behavioral biases that affect the most established banks can also have repercussions. The use of AI in trading and investing can raise concerns about the potential impact of artificial intelligence on market efficiency as a result of making random algorithms based on historical data.

This book seeks to bring together the fields of banking and psychology by analyzing past financial crises and incorporating what is known about recent technological breakthroughs. It delves deep into the topic of how irrational behavior still impacts financial markets, even with all the tech that's out there. To top it all off, it helps politicians, investors, and financial experts navigate the ever-changing and uncertain financial world by outlining a framework for identifying and reducing these risks.

Prof. Dr. Sevenpri Candra

Binus University, Indonesia

Preface

Finance is often portrayed as a world of cool-headed calculations governed by spreadsheets, projections, and rational assessments of risks and rewards. But in truth, behind every market movement and every investment decision lies something far more dynamic and unpredictable: human psychology. No matter how sophisticated our models or advanced our algorithms are, the reality is that finance is a deeply human endeavour. This bookpeels back the layers of traditional finance and reveal the forces that truly drive market behaviour—the biases, fears, hopes, and instincts that make us human.

In "Chapter 1: Why Do Investors Behave Irrationally?" we start with a question that goes to the heart of behavioural finance. If markets are supposed to be rational and investors are expected to act in their own best interests, why, then, do we see such wild swings in sentiment? Why do investors repeatedly make decisions that, in hindsight, seem reckless or irrational? This opening chapter delves into the psychology of investing, exploring how our brains are wired for emotional responses that once served us well in survival but can betray us in the world of financial markets. Here, we uncover concepts like loss aversion, where the fear of losing overshadows the excitement of gaining, and bounded rationality, which shows that even the best intentions are limited by our cognitive biases and emotional inclinations.

"Chapter 2: Behavioural Finance: Rethinking Traditional Market Theories" challenges the bedrock assumptions that have long dominated finance. Traditional theories, such as the Efficient Market Hypothesis, hold that markets are rational and that prices always reflect all available information (Fama, 1970). Behavioural finance, however, argues otherwise, suggesting that emotions, cognitive biases, and psychological pressures often cause deviations from rationality. In this chapter, we explore how the field of behavioural finance emerged as a response to the limitations of classical theories, providing us with a more nuanced view of the market. It invites readers to reconsider the assumption that markets are perfectly efficient and introduces the idea that the human element, with all its imperfections, plays a critical role in shaping market dynamics.

In "Chapter 3: The Power of the Crowd: Decoding Herding Behaviour," we enter the complex and often perplexing world of herding behaviour. This chapter examines the human tendency to follow the crowd, especially when uncertainty looms. Drawing from historical examples, from the tulip mania of the seventeenth century to the tech boom of the late 1990s, we uncover the social and psychological underpinnings of herding. We look at how the actions of others can act as a powerful signal, driving individuals to abandon their own judgements and follow the masses. Herding is one of the most powerful forces in finance, and this chapter sheds light on why it is so compelling—and often so destructive.

Following closely is "Chapter 4: Rational or Irrational? The Truth About Herding," which explores the fine line between rational and irrational herding. Here, we dissect information-based herding—where people follow the crowd because they believe others have valuable information—and reputational herding, where individuals follow the majority to avoid the social or professional risks of going against the grain. The chapter forces us to confront an uncomfortable truth: not all herding is irrational. Sometimes, the crowd does know best. However, distinguishing rational from irrational herding is no easy feat, and this chapter examines the consequences of getting it wrong.

The trap of overconfidence takes centre stage in "Chapter 5: The Confidence Trap: Overconfidence in Investing." Overconfidence is one of the most pervasive and subtle biases in finance, and it affects novices and experts alike. Investors often believe they are smarter, better informed, or more skilled than they actually are, which leads to risky behaviour and poor decisions. This chapter unpacks the origins of overconfidence, showing how a few successful trades can create a false sense of mastery. We examine the illusion of knowledge, where investors mistakenly equate information with understanding and explore how this inflated confidence can blind investors to real risks.

Building on this theme, "Chapter 6: Overconfidence and Portfolio Mismanagement" delves into the practical consequences of overconfidence in the world of portfolio management. Overconfident investors are more likely to trade excessively, ignore diversification, and take on excessive risk, believing they have the skill to time the market or pick the next winning stock. This chapter provides a sobering look at how overconfidence can lead to portfolio mismanagement, exposing investors to unnecessary losses and volatility. Through real-world case studies and research, we learn why humility and caution are essential for long-term success in investing.

In "Chapter 7: The Emotional Rollercoaster: Overreaction and Market Anomalies," we explore the emotional highs and lows that define investor behaviour. This chapter takes us through the phenomena of overreaction—both euphoric buying and panic-driven selling—showing how markets swing from one extreme to another based on the emotions of their participants. Overreaction is the engine behind many market anomalies, such as the January Effect and the Weekend Effect, where prices deviate from expected patterns due to collective psychological behaviour rather than rational analysis. This chapter highlights how emotion, more than any financial model, often dictates market direction.

Continuing with the theme of emotion-driven decision-making, "Chapter 8: Overreaction: The Aftermath of Market News" examines how investors respond to sudden news and events. Whether it is a disappointing earnings report, a geopolitical crisis, or a natural disaster, news events trigger emotional responses that can lead to overreaction and extreme price movements. This chapter brings to life the ways in which fear and greed drive investors to overreact to market news, often exacerbating the very problems they fear. From the 2008 financial meltdown to the COVID-19 pandemic, we see how markets are profoundly shaped by collective overreaction, underscoring the impact of psychological dynamics in times of crisis.

In "Chapter 9: The Psychology Behind Biases: What Drives Irrationality?," we journey deeper into the brain itself, exploring the neuroscience behind investor behaviour. This chapter introduces us to key brain structures—the amygdala, striatum, and prefrontal cortex—and examines how each plays a role in our financial decision-making. We look at how the amygdala, the brain's centre for emotion, can trigger fear responses that lead to panic selling and how the striatum, with its craving for rewards, can fuel overconfidence and risk-taking. This exploration of the mind reveals that our biases are not just bad habits—they are the product of deeply ingrained neural pathways that shape our reactions to risk, uncertainty, and reward.

"Chapter 10: Ripple Effects: Consequences of Irrational Investor Behaviour" takes a broader view, examining how individual biases can lead to market-wide consequences. Through events like the dot-com bubble, the 2008 financial crisis, and the GameStop saga of 2021, we see how irrational behaviour by individuals can ripple through the market, causing bubbles, crashes, and crises that impact entire economies. This chapter demonstrates that investor psychology is not just a personal issue—it has real, tangible effects on the world, affecting jobs, businesses, and livelihoods. The chapter serves as a powerful reminder of the collective impact of individual decisions and the importance of understanding and managing irrational behaviour.

But it is not all cautionary tales. In "Chapter 11: Breaking Free from Herding, Overconfidence, and Overreaction," we explore strategies for overcoming these biases. Drawing on research in behavioural economics and psychology, we introduce tools such as behavioural nudges, mindfulness practices, and rule-based investing to help readers make better financial decisions. This chapter is about reclaiming control, learning to recognize when biases are at play, and adopting strategies that counteract our natural tendencies. It is an empowering chapter, offering practical insights for those who want to approach investing with a more disciplined, rational mindset.

Finally, we conclude with "Chapter 12: The Future of Behavioural Finance: Technology and Investor Biases." The financial landscape is changing rapidly, with artificial intelligence, big data, and machine learning transforming how we invest. But these technologies also present new challenges. Will AI make us more rational, or will it amplify our biases in new ways? This chapter explores the intersection of human psychology and technology, considering the role of robo-advisors, behavioural algorithms, and the digital tools that promise to shape the future of finance. As we move into an era where technology plays a more dominant role in decision-making, this chapter challenges readers to consider what it means to remain human in an increasingly automated world.

Introduction

If you believe that finance is all about numbers and calculations, think again. Every stock ticker, trading floor, and portfolio tells us about ourselves, about human nature, why we make the decisions we do, and how those decisions influence the world around us. This book encourages you to discover that tale, to enter the secret side of the market, where psychology, emotion, and behaviour intersect to form the rhythms of financial life. This book delves into a world in which stocks and shares are more than just assets; they represent our most fundamental inclinations, goals, anxieties, and, occasionally, folly. In the following sections, you will learn how understanding these instincts may not only help you become a better investor but also provide a fresh perspective on financial markets—one in which people, not just statistics, determine the economic results.

Why do some individuals follow every market trend only to get caught in a tsunami of loss? Why can a quick increase in a stock's price make even the most conservative investors feel as if they are losing money? Why, despite all we know, do we keep making the same mistakes? The answers to these issues are not just contained in financial theories; they are also ingrained in our brains, prejudices, and the enormous influences that impact how we think, feel and behave towards money (Richards, 2024).

This voyage starts with a look at herding, the tendency that pushes us to follow the crowd, even when we know the precipice is directly ahead. Herding is a strong force that causes booms and crashes, and it may persuade even the most reasonable investors to disregard warning signs in search of the "next big thing." Next, we will look at overconfidence, the attractive but hazardous assumption that we are wiser than everyone else and have discovered a pattern that no one else has. Overconfidence is a gambler's buddy and an investor's enemy, and it is one of the most frequent ways individuals get into financial trouble.

We will look more closely at this overreaction. This bias transforms us into emotional traders, reacting to every story, dips, and spikes with actions that seldom support our long-term objectives. In an era of rapid knowledge, overreaction is rampant, fuelled by media cycles that demand attention and social feeds that amp up every market rumour.

However, understanding these patterns is just beginning. This book is about mastering the influences that affect our financial behaviour, not just recognising them. Imagine being able to recognise when you are following the herd and having the fortitude to steer your route instead. Consider developing a solid investing philosophy that will keep you focused, even when the market is noisy. Imagine making choices based on clarity and conviction rather than response or regret. This is what behavioural finance may provide: the ability to understand oneself as well as the market.

Then, there is the future—a thrilling, uncertain environment created by AI, social media, and digital platforms that have made investment more accessible and volatile than ever before. Technology is revolutionising finance at an unprecedented pace, providing us with the ability to analyse data and make choices quicker than any investor in history. However, this power also creates a new set of hazards. Artificial intelligence may provide insights, but it may also accentuate human prejudice. Social media may help us learn, but it can also create digital echo chambers in which excitement, fear, and frenzy reinforce each other. In this book, we will delve deeply into these technological advancements, learning how to utilise these tools without allowing them to exploit us.

A growing amount of research in contemporary behavioural finance links human biases and technological advancements, especially in light of the explosive growth of social media, 5G technology, and artificial intelligence, which are having previously unheard-of effects on investors' decision-making processes. Investors can now process enormous volumes of data and make judgements in a fraction of the time, thanks to the development of artificial intelligence. But even though AI has previously unheard-of benefits, it also exacerbates innate human prejudices. AI recommendation systems, for instance, might provide recommendations for particular investment possibilities based on user preferences and historical behaviour. This could inadvertently reinforce biases like herd mentality or overconfidence, which would ultimately impact market efficiency and fairness.

In a similar vein, social media's power has significantly increased, enabling investors to quickly learn about and engage in conversations. Nevertheless, this has given rise to new problems—the "digital echo chamber effect" on social media platforms frequently puts investors in unduly positive states as updates and tweets keep escalating feelings. In situations like the Bitcoin bubble, where social media was crucial to the flow of information, this emotional escalation helps to promote collectively irrational behaviour.

These technical phenomena are not limited to the IT industry; they also have an impact on ethical concerns around behavioural nudging. Governments and financial organisations have implemented behavioural interventions extensively since Thaler and Sunstein's "nudge" hypothesis was first presented. These interventions use "gentle" nudges to influence people's decisions. However, this notion has been criticised, especially in relation to the violation of individual autonomy. Critics contend that when interventions rely too heavily on models of human behaviour, nudging may subtly violate people's autonomy and free will, making it potentially opaque and even coercive.

Furthermore, behavioural economics' reputation has suffered as a result of the recent Harvard data fraud controversy. The controversy raised questions about whether the experimental findings that behavioural economics depends on actually reflect market behaviour and revealed unethical practices in academic data gathering and processing. Widespread debates concerning the rigour of empirical studies and the transparency of research methodologies in behavioural finance were spurred by this episode. Both in academia and the general public, it resulted in a major decline in trust in both domains.

As technology develops further, behavioural finance will encounter both new possibilities and difficulties. Technology has made the market environment more complex, whether it is through the use of artificial intelligence or the impact of social media. This book's subsequent chapters will explore how these technologies are influencing investor psychology and behaviour, both by providing new chances to reduce conventional behavioural biases and by making it simpler for investors to be bound by them. Investors will be more equipped to handle the shifting financial markets if they are aware of these recent technical developments.

Understanding the many theoretical frameworks that influence how we interpret market behaviour is essential to the study of financial markets. It's crucial to define the phrase "classical" or "traditional" views of economics, even though many people may use it. The term "classical" is frequently linked to specific schools of thought in the economic literature. The first is the standard economic theory known as "Marginalist Theory," which emphasises elements like endowments, consumer preferences, and production methods and holds that markets move towards full employment. Walras, Wicksell, Menger, Marshall, and Pigou are important figures in this lineage, and this framework is still being developed by contemporary contributors like Blanchard, Stiglitz, and Summers. A more demand-driven strategy based on the examination of physical production and distribution characteristics is provided by the second school, Classical-Keynesian Theory. Smith, Ricardo, Marx, and Sraffa's writings are the most well-known examples of this tradition, with more recent versions referencing Keynes' 1936 General Theory. Since the term "classical" has been used widely throughout history, it is crucial to make clear if it refers to the Marginalist Theory in the context of this work.

Furthermore, behavioural finance is more in line with post-Keynesian and Sraffian traditions, especially in its acknowledgement of path dependency and its criticism of the presumptions of market efficiency and rationality, despite frequently being framed as a challenge to conventional economic theories

(Lavoie, 2014). The limitations of marginalist assumptions have been highlighted by individuals such as Sraffa (1961), who demonstrated that the simplistic models of equilibrium that predominate in the marginalist perspective are insufficient to explain the intricacies of real-world economics. In this sense, behavioural finance offers a deeper comprehension of the social and psychological factors influencing market dynamics, recognising that investor behaviour is impacted by both innate human bias and irrationality as well as quantitative models. It will be crucial to understand as we move through this book that behavioural finance incorporates ideas from these alternative traditions, providing a more thorough understanding of market forces that take into consideration human emotion as well as cognitive constraints that are overlooked by traditional theories.

This is not simply a book for finance experts or market insiders; it is for anybody interested in understanding the market dynamics and psychology that define our financial life. Whether you are a seasoned investor or just starting in the world of finance, you will discover tools, insights, and tactics to help you think better, act more autonomously, and invest with a purpose that matches who you are.

So, if you are ready to understand the market's hidden forces, see past the statistics, and take charge of your financial destiny in an educated and empowered manner, this book was intended for you. Welcome to the adventure of better knowing the market and yourself than ever before.

Conclusion

As we near the finish of our voyage, we see that the tale of finance is not just about stocks, charts, or economic cycles; it is about us. It is about the human experience, our natural desires, blind spots, and the unwavering desire to build our destiny. This book delves into the secret depths of behavioural finance, uncovering the factors that shape our financial life and providing us with a fresh perspective on the market and ourselves.

During our investigation, we experienced the grand draw of herding, the temptation of overconfidence, and the trap of overreaction. We have seen that these biases are more than simply oddities of human nature; they are the currents that drive market movements and, in some cases, whole economies. Understanding these dynamics allows us to navigate the financial world with a more transparent lens, seeing the pressures that often sway us off course. However, awareness is just the beginning.

In this book, we have progressed beyond detecting biases to conquering them, turning knowledge into action and insight into strategy. You now have the skills to develop your investing philosophy, stop and think when emotions are strong, and make decisions that are consistent with your beliefs and long-term objectives. These tools will allow you to break away from the mob, invest independently, and approach every financial choice with clarity and purpose.

In the future, technology will play a significant role in the financial landscape. Artificial intelligence, algorithmic trading, and social media-driven markets are altering finance in ways we are just starting to understand. AI opens to us previously unheard-of opportunities for data analysis and predictive insights, but it also magnifies the biases we have discovered in ways that must be avoided. In this era of quick updates, digital trends, and real-time decisions, the most successful investors will not only have the most significant algorithms, but they will also understand how to utilise these tools without allowing them to dictate their choices.

Consider a world in which you are not simply another investor, responding to every spike and decline, but a controller of your financial destiny. With the knowledge and tactics in this book, you can become that investor. You can weather the market's inevitable ups and downs with tenacity, investing not merely for profit but also for a cause that matches your innermost beliefs and goals. In an era of data and digital speed, your most significant advantage is your understanding—of markets, technology, and, most crucially, yourself.

So, once you finish this book, realise that the journey continues. The field of behavioural finance provides lifetime lessons that will develop as markets change and new technologies arise. Each investment, each decision, and each market moment is an opportunity to apply these lessons, fine-tune your strategy, and invest with ever-greater insight and confidence.

Thank you for joining me on this journey via behavioural finance. May the thoughts in these pages encourage you to see money as a path of self-discovery, freedom, and purpose. Here is to a future in which you invest not just with wisdom but also with purpose, perceiving the market—and yourself—with fresh clarity and power.

References

Baker, H. K., Filbeck, G., & Nofsinger, J. R. (2019). *Behavioural finance: what everyone needs to know®*. Oxford University Press. https://doi.org/10.1093/wentk/9780190868741.001.0001

Baker, M., & Wurgler, J. (2006). Investor Sentiment and the Cross-Section of Stock Returns. *Journal of Finance* 61, no. 4, 1645-1680. https://doi.org/10.1111/j.1540-6261.2006.00885.x

Banerjee, A. V. (1992). A Simple Model of Herd Behaviour. *Quarterly Journal of Economics* 107, no. 3, 797-817. https://doi.org/10.2307/2118364

Barber, B. M., & Odean, T. (2000). Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors. *Journal of Finance* 55, no. 2, 773-806. https://doi.org/10.1111/0022-1082.00226

Bikhchandani, S., Hirshleifer, D. & Welch, I. (1992). A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades. *Journal of Political Economy* 100, no. 5, 992-1026. https://doi.org/10.1086/261849

De Bondt, W. F., & Thaler, R. (1985). Does the stock market overreact? *The Journal of finance*, 40(3), 793-805. https://doi.org/10.1111/j.1540-6261.1985.tb05004.x

Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *Journal of Finance* 25, no. 2, 383-417. https://doi.org/10.2307/2325486

Gans Combe, C., Kim, J. Y., Mouhali, W., & Baccar, A. (2023). Making green growth a reality: Coordinating sobriety with stakeholder satisfaction. *PLOS ONE, 18*(8), e0284487. https://doi.org/10.1371/journal.pone.0284487

Gigerenzer, G. (2015). *Simply rational: Decision making in the real world*. Oxford University Press, USA. https://doi.org/10.1093/acprof:oso/9780199390076.001.0001

Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica* 47, no. 2, 263-291. https://doi.org/10.2307/1914185

Kahneman, D., & Tversky, A. (2013). Prospect theory: An analysis of decision under risk. In *Handbook of the fundamentals of financial decision making: Part I* (pp. 99-127). https://doi.org/10.1142/9789814417358_0006

Keynes, J. M. (1936). *The General Theory of Employment Interest and Money*. Macmillan and Company.

Lavoie, M. (2014). Post-Keynesian economics: new foundations. In *Post-Keynesian Economics*. Edward Elgar Publishing. https://doi.org/10.4337/9781783475827.00006

Markowitz, H. M. (1952). Portfolio selection. *The Journal of Finance, 7*(1), 77-91. https://doi.org/10.1111/j.1540-6261.1952.tb01525.x

Odean, T. (1998). Are Investors Reluctant to Realize Their Losses? *Journal of Finance* 53, no. 5, 1775-1798. https://doi.org/10.1111/0022-1082.00072

Petri, F. (2021). *Microeconomics for the critical mind: mainstream and heterodox analyses* (Vol. 1). Cham: Springer. https://doi.org/10.1007/978-3-030-62070-7

Richards, C. (2024). *The behaviour gap: Simple ways to stop doing dumb things with money*. Penguin Group.

Shaikh, A. (2010). Reflexivity, path dependence, and disequilibrium dynamics. *Journal of Post Keynesian Economics*, *33*(1), 3-16. https://doi.org/10.2753/PKE0160-3477330101

Shefrin, H. & Statman, M. (1985). The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence. *Journal of Finance* 40, no. 3, 777-790. https://doi.org/10.1111/j.1540-6261.1985.tb05002.x

Shiller, R. J. (2000). *Irrational Exuberance*. Princeton University Press.

Sraffa, P. (1961). Production of commodities by means of commodities. *Science and Society*, *25*(2).

Thaler, R. H. (2015). *Misbehaving: The Making of Behavioural Economics*. New York: W.W. Norton & Company.

Index

P

S

T

V