

## Praise for *The Laws of Wealth*

“When I’m looking for sharp, against-the-grain insights on how we can and should make better investing decisions, I always turn to Daniel Crosby. If he’s publishing, blogging, or tweeting, I want to know about it. It also doesn’t hurt that he’s often hilarious in taking our built-in foibles and creating the potential for ending up in a much better place than we would otherwise. This book is yet another fantastic contribution to the practice of sound (and sane) investing.”

**Brian Portnoy, Founder of Shaping Wealth  
& Author, *The Geometry of Wealth***

“Individual investors are often their own worst enemies, whether they’re selling when they should be buying, focusing on their stocks’ day-to-day swings or letting the media drive them into a panicked emotional state. In Dr. Daniel Crosby’s newest book, he breaks down how to implement a set of easy-to-follow rules to keep investors on track. Don’t let your mind ruin your investing outcomes. Read his book and arm yourself against yourself today.”

**LouAnn Lofton, The Motley Fool**

“Dr. Daniel Crosby is one of the preeminent behavioral psychologists in investing today, and it shows with this tour de force of how an investor can manage their wealth. With these few simple rules, investors can easily build a framework allowing them to thrive, even when their human instincts try to sabotage their investing. Get this book!”

**Aaron Klein, CEO at Riskalyze**

“The financial services industry is broken and has for too long ignored the human factor. Savvy investors and advisors understand that emotions, decisions and behavior are at least as important as big returns and Dr. Daniel Crosby explains just that in *The Laws of Wealth*.”

**David Geller, CEO, GV Financial**

“Drawing the connection that what makes us interesting as humans can make us unsuccessful at managing our money in times of turbulence, Dr. Crosby provides a safe haven with his framework for success. This book is not only informative but enjoyable, as he gently exposes how human behavior impacts our decision making.”

**Noreen D. Beaman, CEO of Brinker Capital, Inc**

“Using lively and engaging real-life examples Dr. Crosby gives insights into innate human behavior and its role within the financial markets. In this entertaining book he provides a brilliant invaluable practical framework for investors, financial professionals and anyone in search of true wealth.”

**Dr. Svetlana Gherzi, Behavioral Finance Specialist, UBS**

“Step away from CNBC and into financial therapy! People often think that ‘buy low, sell high’ is the first (and only) rule of investing. This deceptively simple phrase motivates most, if not all investors, and yet many investors fail to successfully follow this simple mantra. In *The Laws of Wealth*, Daniel Crosby explains why we struggle with deceptively simple investment decisions, suggesting that first rule of profitable investing is to get out of your own way.”

**Meredith A. Jones, Author, *Women of The Street:  
Why Female Money Managers Generate Higher Returns  
(And How You Can Too)***

# *The* **LAWS of WEALTH**

Educated at Brigham Young and Emory Universities, Dr. Daniel Crosby is a psychologist, behavioral finance expert and asset manager who applies his study of market psychology to everything from financial product design to security selection. He is co-author of the *New York Times* bestseller *Personal Benchmark: Integrating Behavioral Finance and Investment Management* and founder of Nocturne Capital. He is at the forefront of behavioralizing finance. His ideas have appeared in the Huffington Post and Risk Management Magazine, as well as his monthly columns for WealthManagement.com and Investment News.

Daniel was named one of the “12 Thinkers to Watch” by Monster.com, a “Financial Blogger You Should Be Reading” by AARP and in the “Top 40 Under 40” by Investment News.

When he is not consulting around market psychology, Daniel enjoys independent films, fanatically following St. Louis Cardinals baseball, and spending time with his wife and three children.

## Also by Daniel Crosby

*Everyone You Love Will Die*

*Personal Benchmark: Integrating Behavioral Finance  
and Investment Management (with Chuck Widger)*

*The Behavioral Investor*

*The*  
**LAWS**  
*of*  
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First published in Great Britain in 2016. This paperback edition 2021.

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Paperback ISBN: 978-0-85719-783-2

eBook ISBN: 978-0-85719-784-9

British Library Cataloguing in Publication Data

A CIP catalogue record for this book can be obtained from the British Library.

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Harriman  
House

*For  
Katrina, Charlotte, Liam, Lola,  
and the three angels  
– all that matters*



# Acknowledgements

It has been appropriately noted that it takes a village to raise a child and the same can be said of writing a book. This book exists because of these people and their contributions to my life:

**Alison Crosby**—life and a love of writing

**Philip Crosby**—an unrivaled career counselor

**Nana**—for squash casserole, sweet potatoes and turnip greens

**Karl Farnsworth**—the biggest fan of my books

**Hege Farnsworth**—for raising an unbelievable daughter

**Ali McCarthy**—for ‘buying low’ and giving me a career

**Chuck Widger**—guidance, patience and a roadmap

**Craig Pearce**—for the opportunity

**Jim Lake**—motivation, energy and purpose

**Stephanie Giaramita**—humor, wit and hip-hop

**Brinker Capital**—for providing me with a work family

**Steve Wruble**—dreaming, scheming and backtesting

**Edmond Walters**—mentorship, opportunity and candor

**Tim McCabe**—encouragement and Southern hospitality

**Meredith Jones**—tireless guidance and patience with my quirks

**Brian Portnoy**—for not suffering fools

**Maddie Quinlan**—for proofreading, eh!

**John Nolan**—wisdom, humor and bagels

**Peter Kalianiotis**—for telling me that I wasn't charging enough

**Jordan Hutchison**—for believing in The Dynasty

**Corey Hoffstein**—for explaining how the world works

**Noreen Beaman**—for being a leader

**Leslie Hadad and Rachel Barrow**—for the early support

To the thousands of people who have watched me speak, purchased my books or given me an encouraging word—your support has blessed my life.

# Contents

|  |             |
|--|-------------|
| <b>Foreword by Morgan Housel</b>                                     | <b>xiii</b> |
| <b>Preface or: How I Learned to Stop Worrying and Read this Book</b> | <b>xv</b>   |
| <b>Introduction: Of Worms &amp; Wealth</b>                           | <b>1</b>    |
| <b>Part One. The Rules of Behavioral Self-Management</b>             | <b>9</b>    |
| Paradox of Primates & Formalwear                                     | 11          |
| Rule #1: You Control What Matters Most                               | 22          |
| Rule #2: You Cannot Do This Alone                                    | 27          |
| Rule #3: Trouble Is Opportunity                                      | 34          |
| Rule #4: If You're Excited, It's A Bad Idea                          | 39          |
| Rule #5: You Are Not Special   | 45          |
| Rule #6: Your Life Is The Best Benchmark                             | 50          |
| Rule #7: Forecasting Is For Weathermen                               | 59          |
| Rule #8: Excess Is Never Permanent                                   | 67          |
| Rule #9: Diversification Means Always Having To Say You're Sorry     | 74          |
| Rule #10: Risk Is Not A Squiggly Line                                | 81          |
| Applying the Rules of Behavioral Self-Management                     | 90          |

|   |            |
|---|------------|
| <b>Part Two. Behavioral Investing</b>                     | <b>93</b>  |
| The State of Money Management                             | 99         |
| Managing Behavioral Risk                                  | 110        |
| The Four Cs of Rule-Based Behavioral Investing            | 122        |
| The Five Ps of Investing                                  | 153        |
| <b>Epilogue. Behavioral Investing In A World Gone Mad</b> | <b>207</b> |
| <b>Bibliography</b>                                       | <b>213</b> |
| <b>Endnotes</b>   | <b>221</b> |
| <b>Index</b>  | <b>233</b> |

# Foreword by Morgan Housel

Think of how big the world is.

Now think of how good animals are at hiding.

Now think about a biologist whose job it is to determine whether a species has gone extinct.

Not an easy thing to do, is it?

A group of Australian biologists once discovered something remarkable. More than a third of all mammals deemed extinct in the last 500 years have later been rediscovered, alive.

It's an example of something we don't think about enough: A lot of what we know in science is bound to change. That's what makes science great, what makes it work, and what distinguishes it from religion. Science is filled with rules, evidence-based theories, and probabilistic observations. But laws—immutable truths lacking exceptions—are rare. Most fields only have a handful.

But the handful of laws that do exist play a special role. They're the great grandmothers, the old wise men, of the day-to-day theories and rules used to discover a new truth. There's a hierarchy of science: laws at the bottom, specific rules above that, then theories, observations, hunches, and so on. The higher you go on the pyramid the more exciting things become. That's where discovery and opportunity live. But everything at the top of the pyramid must respect the laws at the bottom.

The idea of flexible rules deriving from unshakeable laws applies to every field. John Reed writes in his book *Succeeding*:

When you first start to study a field, it seems like you have to memorize a zillion things. You don't. What you need is to identify the core principles that govern the field. The million things you thought you had to memorize are simply various combinations of the core principles.

It's the same thing with our money.

You can't accurately describe how complicated the global economy is. There are more than 200,000,000 businesses in the world. Three-hundred trillion dollars of financial assets. Eighty trillion dollars of GDP. Almost 200 countries, thousands of cultures and norms. With seven billion people, a rough calculation shows there's about two tons of pure serotonin careening through the global economy at every moment.

Wrapping your head around the global economy—predicting recessions, bubbles, GDP growth and the like—is nearly impossible. There are too many moving parts.

Consider a few points:

There are, as I write this, something like 630,00 publicly traded companies in the world.

There are four times as many mutual funds and ETFs than there are Starbucks locations in the world (114,131 vs. 29,324).

About the same number of people were awarded bachelor's degrees in 2010 as filed for personal bankruptcy (1.6 million).

Between 1980 and 2014, 40% of U.S. stocks lost at least 70% of their value and never recovered.

40% of Americans can't come up with \$400 in an emergency.

78% of workers live paycheck to paycheck.

46.1% of Americans die with less than \$10,000 in assets.

From 1950 to 2018, the S&P 500 rose 151-fold but was only positive on 52% of days.

It's just incomprehensible.

But we try—desperately—to comprehend it with financial models, spreadsheets, graphs, and predictions.

There's nothing wrong with attempting to do so. Yet when we try to make sense of the financial world we must always remember that the crazy, dynamic parts of finance are governed by just a few laws.

Like most fields, there aren't many financial laws. But they are what matter most. The more you study finance the more you see that all the crazy and complex parts of the economy are really just variations on a few critical points.

In *The Laws of Wealth*, Daniel Crosby does not answer the questions, "How do I get rich?" or "Where should I invest my money?" Instead, he lays out the base principles necessary to answer those questions—questions that vary from person to person, country to country, and generation to generation, yet always governed by a few laws.

Russian novelist Fyodor Dostoyevsky once wrote of natural laws: Nature does not ask your permission, she has nothing to do with your wishes, and whether you like her laws or dislike them, you are bound to accept her as she is, and consequently all her conclusions.

So it goes with every field's laws, including finance.

**Morgan Housel**  
The Collaborative Fund



# Preface or: How I Learned to Stop Worrying and Read this Book

**G**ENTLE READER, THIS book was crafted with the singular purpose of making you wealthier. This wealth, if it is to be realized, will be hard won. It will require you to exercise patience, admit your own flaws and assent to the idea that a few simple rules are the best hope you have for managing your self and your wealth. Given that you, as a member of the human family, have tendencies toward impatience, arrogance and a fetish for complexity, it is very likely that you will screw this up. Nevertheless, this book's purpose remains.

My efforts to save you from yourself are divided into two parts:

- **Part One**—An explication of the rules necessary for managing oneself along the journey of compounding wealth. I present ten commandments based on hundreds of years of market history, rooted in the truism that at all times, you control what matters most (i.e., your behavior).
- **Part Two**—Sets forth a rule-based approach to behavioral investing (henceforth, RBI). Part Two can be conceptualized as a funnel that moves from generality to specificity and from risk management to return generation. It begins by suggesting a universe of behavioral risk which leads directly into a conversation of a rule-based investment

approach that mitigates said risk. It ends with a discussion of the five specific factors I consider within my RBI approach, provided as an example of potential applications.

To help you narrow in on the practical applications of what has been covered, I include ‘What now?’ summaries at the end of each chapter. These summaries will point you towards what you should think, ask and do to take advantage of the lessons learned and put them into practice to improve your investing.

I make the case that the rules governing the world of an investor are much different than those dominant elsewhere in life. Our success in the market is contingent on working to the rules of the market and this in turn depends on us knowing ourselves. It is my hope that reading this book will leave you both financially better off and with a richer awareness of self.

# Introduction: Of Worms & Wealth

*“Psychology seems to lie behind all the ways that potentially improve stock market returns.”*

—Ben Stein and Phil DeMuth,  
*The Little Book of Alternative Investments*

## Of guinea worms...

**T**HE AMERICAN SOUTH is a proud and sometimes troubled region that is distinctive by virtue of its unique foodways, unmistakable accent, and reputation for both interpersonal and climatic warmth. I am a son of this strange and wonderful place, a native Alabaman who now lives in the de facto Capital of the South, Atlanta.

Atlanta is many things: home to two Nobel Peace Prize winners (Martin Luther King, Jr. and Jimmy Carter), the only American city to burn to the ground twice and the host of the 1996 Summer Olympic Games. But perhaps most impressive of all, Atlanta is the world's epicenter of epidemiological research, thanks to the Centers for Disease Control and Prevention (CDC) and the Carter Center.

The CDC boasts over 14,000 employees in 50 countries and is the tip of the spear for fighting infectious diseases domestically and internationally. The Carter Center, the philanthropic legacy of American president Jimmy Carter, has as its motto the ambitious goal of “Waging Peace. Fighting Disease. Building Hope.”

Although both organizations are constantly diligent, their work tends to enter public consciousness only around high profile health events like the HIV/AIDS epidemic, SARS, avian flu, Ebola and, more recently, COVID-19. As a result of headline-grabbing illnesses with dramatic names (I'm looking at you, Mad Cow Disease) taking a disproportionate share of the limelight, some of these organizations' most impactful programs go largely unheralded. One such campaign is the Guinea worm eradication effort headed up by Dr. Donald Hopkins.

To understand the full import of the work done by Dr. Hopkins and his team at the Carter Center, we must first undertake the (somewhat unpleasant) task of understanding the ill effects wrought by the parasite *Dracunculus medinensis*, or Guinea worm as it is more commonly known. The Guinea worm is the largest tissue parasite impacting humans and can grow to over three feet in length. Guinea worms are reproductively adept as well, with the adult female carrying an incredible three million embryos! The World Health Organization notes that, "the parasite migrates through the victim's subcutaneous tissues causing severe pain especially when it occurs in the joints. The worm eventually emerges (from the feet in most cases), causing an intensely painful oedema, a blister and an ulcer accompanied by fever, nausea and vomiting." Ouch.

To complicate matters, the very means by which this horrific pain can be abated actually furthers the transmission of the parasite. Seeking respite from the pain, sufferers run to their local water source and submerge their worm-ridden limbs in a desperate attempt at relief. The immediate result to the victim is positive—she receives some cooling of the impacted area and short-term symptomatic relief. But the succor of one individual comes at the expense of many, as the Guinea worm now finds itself in water, its preferred site for reproduction. As you have probably now guessed, the parasites multiply in the water, which is then passed on to thirsty villagers who eventually become infected and return to the water source for relief, perpetuating the cycle.

But the negative societal sequelae of the parasite are far greater than just the physical pain it causes (easy for me to say). The book, *Influencer: The Power to Change Anything*, describes the fallout thusly:

“Sufferers cannot work their crops for many weeks. When parents are afflicted, their children may drop out of school to help out with chores. Crops cannot be cultivated. The harvest is lost. Starvation ensues. The cycle of illiteracy and poverty consumes the next generation. Often, secondary infections caused by the worm can kill. Consequently, for over 3,500 years the Guinea worm has been a major barrier to economic and social progress in dozens of nations.”<sup>1</sup>

It should be abundantly clear by now that when Dr. Hopkins and his team declared war on the Guinea worm in 1986, they went into battle against a formidable foe. But their battle plan was not what most expected. Rather than focus their efforts on a medicinal cure for the ailment, they sought to change the human behavior that propagates its spread. In so doing they have done what many thought impossible—they have nearly eradicated a disease for which there is no cure.

The way they achieved this improbable success was by doing something highly intuitive: they examined the uninfected villages, noted a small number of vital behaviors, and publicized their findings broadly. In specific (and in case you ever find yourself in a developing country), the vital behaviors were as follows:

Villagers in healthy villages showed a willingness to speak up when a friend, family member or neighbor became infected. The infected people were kept far away from the communal water source at the height of their pain (i.e., as the worms were emerging from the skin).

By codifying these two crucial actions and informing others of their power, Dr. Hopkins and his team impacted the physical, mental and economic wellbeing of millions. The tremendous scope of their work belies the simplicity of the solution; nothing they had done to rid the world of this scourge was especially groundbreaking. Dr. Hopkins just understood the power of a few important behaviors, broadly and consistently applied.

## ...and big returns

The parallels between your wealth and a tropical parasite may seem too remote (or too disgusting) to consider, but there is in fact a great deal we can learn from the eradication of the Guinea worm. First, we must own up to the reality that we investors are afflicted with a disease for which there is not, nor will ever be, a cure. That disease is our own fear and greed. My hope is that by the time you have completed this book, you will be as convinced as I am that psychology presents both the biggest impediment to satisfactory investment returns and your greatest source of potential advantage over other, less-disciplined investors.

Second, you must accept that the only way to eradicate the disease of fear and greed is through disciplined adherence to a set of vital behaviors. Just as could be said of the behaviors that freed the villagers, the behaviors set forth here are simple and intuitive to grasp but gut-wrenchingly painful to execute. Is it simple to grasp intellectually that one ought not to approach the water supply when afflicted with a parasite? Of course. Is it easy to do when your body is ablaze with pain? No way.

Likewise, the ideas you will encounter in this book in a moment of cool calculation are likely to engender vigorous head nodding. But your ability to execute them in a disciplined fashion in all market conditions will determine their efficacy. A villager who knows not to stick his foot in the water and does it anyway is no better off than the clueless villager, and so it goes for investors. Just like the villagers, it is only as we learn to endure a painful today for the promise of a better tomorrow that we will become truly skilled investors.

## Moving beyond biases

It seems to be human nature to be fascinated by pathology. Sigmund Freud began his study of the human psyche by outlining how it was broken (hint: your Mom) and the discipline of psychoanalysis continued down that path for over a century. It was roughly 150 years before the study of clinical psychology was offset at all by the study of what we now call positive psychology—the study of what makes us happy, strong and exceptional.

Perhaps it is no surprise then that behavioral finance too began with the study of the anomalous and is only now coming around to a more solution-focused ideal. While a thorough review of the transition from efficient to behavioral approaches isn't why we are here, it's worth considering the rudiments of these ideas and how we can improve upon them.

For decades, the prevailing economic theories espoused a view of Economic Man as rational, utility maximizing and self-interested. On these simple (if unrealistic) assumptions, economists built mathematical models of exceeding elegance but limited real-world applicability. It all worked beautifully, until it didn't. Goaded by a belief in the predictability of Economic Man, The Smartest People in the Room picked up pennies in front of steamrollers—until they got flattened.

On the strength of hedge fund implosions, multiple manias with accompanying crashes and mounting evidence of human irrationality, Economic Man began to give way to Irrational Man. Behavioral proponents begin to document the flaws of investors with the same righteous zeal proponents of market efficiency had previously adopted to defend the aggregate wisdom of the crowd. At my last count, psychologists and economists had documented 117 biases capable of obscuring lucid financial decision-making. *One hundred and seventeen* different ways for you to get it wrong.

The problem with all of this Ivory Tower philosophizing is that none of it truly helps investors. For a clinical psychologist, a diagnosis is a necessary but far from sufficient part of a treatment plan. No shrink worth his \$200 an hour would label you pathological and show you the door, yet that is largely what behavioral finance has given the investing public: a surfeit of pathology and a dearth of solutions.

To consider firsthand the futility of being told only what not to do, let's try a simple exercise.

“Do not think of a pink elephant.”

What happened as you read the sentence above? Odds are, you did the very thing I asked you not to do and imagined a pink elephant. How disappointing! You could have imagined any number of things—you had infinity minus one options—and yet you still disobeyed

my simple request. Oh well, I haven't given up on you yet. Let's try one more time.

"Do not, whatever you do, imagine a large purple elephant with a parasol daintily tiptoeing across a high wire connecting two tall buildings in a large metropolitan area."

You did it again, didn't you?

What you just experienced was the very natural tendency to imagine and even ruminate on something, even when you know you oughtn't. Consider the person on a diet who has created a lengthy list of bad foods. He may, for instance, repeat the mantra, "I will not eat a cookie, I will not eat a cookie, I will not eat a cookie," any time he experiences the slightest temptation.

But what is the net effect of all of his self-flagellating rumination? Effectively he has thought about cookies all day and is likely to cave at the first sign of an Oreo. The research is unequivocal that a far more effective approach is to reorient that behavior into something desirable rather than repeat messages of self-denial that ironically keep the evil object top of mind.

Unfortunately for investors, up until now there have been far more histrionic "Don't do this!" messages than constructive "Do this instead." My aim is to redress the balance and provide you with concrete suggestions for managing both your behavior and your money.

## Beyond "Just say no"

Not only do negativity and self-shaming fail to bring about the desired behavior; sometimes they shut down proactivity altogether. The leaders of VitalSmarts—innovators in corporate training and leadership development—share just such a story in their work, *Influencer: The Power to Change Anything*. They tell the story of King Rama IX of Thailand, who on the occasion of his 60th birthday decided to enact an historic show of his largesse. His gift? He chose to grant amnesty to over 30,000 prisoners.

The year was 1988 and heretofore, the HIV/AIDS virus in Thailand had largely been contained to the prison system. But with the release of

tens of thousands of prisoners into a country with a thriving sex trade, that changed quickly. Within 365 days, as many as one-third of the sex workers in certain provinces were found to be HIV positive. With sad predictability, married men soon began contracting the disease from prostitutes, bringing it back to the suburbs and their unsuspecting partners. With over one million Thais already infected and nearly 1% of the population working in the sex trade, the projections for future rates of infection were horrifying.

In response, the government convened a task force led by one Dr. Wiwat. He was charged, effectively, with scaring the people straight. He and his team created dramatic scare pieces with tag lines like, “The dreaded plague is coming!” But when they checked on their progress a few years later, they found that their “scared straight” campaign actually had negative utility. The problem was getting worse, so they decided to take a new tack.

Dr. Wiwat and his team first pinpointed the root of the problem: 97% of all new HIV infections came from sex with prostitutes. This information focused Wiwat on the source—he must convince Thailand’s sex workers to insist on using condoms. Where fear had once ruled, education now took hold. Vague scare tactics were replaced with useful tips on how to procure, engage and dispose of prophylactics. By the late 1990s, five million Thais who ought to have had AIDS did not, given Dr. Wiwat’s pivot to outcomes-based information over fear mongering. Whether discussing pink elephants or Thai hookers, the result is the same—shame and fear are poor motivators of good behavior and can even lead to a paradoxical reaction.

As further evidence of the effect of priming on behavior, in *Predictably Irrational* Dan Ariely shows that performance on a math test varied depending on whether women were reminded that they were Asian (stereotypically viewed as being good at math) or a woman (stereotypically viewed as being bad at math). As you’ve surely guessed, those primed to think of themselves as Asian outperformed those primed to consider their femininity.

Likewise, Meir Statman shares research on socioeconomic labels and spending behavior in his book *What Investors Really Want*. Participants who were primed to think of themselves as poor were far more likely to

spend their money on conspicuous luxury goods, a marker of wealth to the outside world. In both cases, the behavior of participants was manipulated by a reminder of the box in which they fit. They were told where they belonged and they acted accordingly.

Following this through in the world of investing, such mental priming, as it is known, is dangerous. By emphasizing the behavioral faults that beset investors—and without providing constructive alternative approaches—behavioral finance has primed investors to fall foul of these biases and engage in behavior that makes the problem worse.

Investors are not the self-interested, utility maximizing drones the efficient market brigade once thought, and neither are they the Homer-Simpson-esque dolts they have more recently been painted as.

Instead of ever-longer lists of ways in which they are flawed, investors need a realistic understanding of their strengths and weaknesses, as well as concrete advice for magnifying the former and minimizing the latter. Just like a wise Thai doctor, I hope this book will scare you enough that you pay attention, but provide you with positive direction to avoid the dreaded plague of investor misbehavior.

Michel de Montaigne said it far more elegantly:

“I feel grateful to the Milesian wench who, seeing the philosopher Thales continually spending his time in contemplation of the heavenly vault and always keeping his eyes raised upward, put something in his way to make him stumble, to warn him that it would be time to amuse his thoughts with things in the clouds when he had seen to those at his feet. Indeed she gave him her good counsel, to look rather to himself than to the sky.”

Behavioral finance has spent a great deal of its time contemplating the heavenly vault, at times painfully unaware of the more practical considerations at its feet. My aim here is to provide theory, anecdotes and research sufficient to persuade the mind, but always toward the practical end of making you a better investor.

So read on, but don't just read, because the principles you will learn in this book will only be as useful as your willingness to experiment with them. The journey of the behavioral investor requires a bit of the head, but far more of the heart and stomach.

# **PART ONE**

## **The Rules of Behavioral Self-Management**





# Paradox of Primates & Formalwear

**H**AVE YOU EVER seen a monkey in a tuxedo? I certainly hope so, but on the off chance that you have not, please put down this book momentarily, access your preferred search engine and see that this travesty is remedied post-haste.

Seen it now? All better then!

In witnessing the transcendent splendor of a monkey in a tuxedo, you probably experienced a number of conflicting responses. Your first response was likely to laugh or smile, but as you looked on, you may have been overcome with a slight unease. For as funny as a monkey in a tuxedo (M.I.A.T., henceforth) may be, there's something not quite right about a wild animal wearing a cummerbund.

As alien as a primate in eveningwear may look, you are at least as out of place when investing in stocks. The sad paradox is this:

1. You must invest in risk assets if you are to survive.
2. You are psychologically ill-equipped to invest in risk assets.

First, let us examine the reasons why you must invest in risk assets if you are to eat anything but cat food in your Golden Years. As of the writing of this book, the median wage in the US is around \$49,000.<sup>2</sup>

Let us suppose for illustrative purposes, however, that you are twice as clever as average and have managed to secure a comfortable salary of \$100,000 per annum. Let us further suppose you are a disciple of anti-debt guru Dave Ramsey and religiously set aside 10% of your gross

income each year into a piggy bank whose innards will not see daylight until the first day of your retirement. Assuming you begin saving at age 25 and retire at age 65, your efforts at self-denial will have yielded a nest egg totaling \$400,000.

While \$400,000 may seem like a decent sum of money, it hardly provides much for someone who could easily live another 30 years in retirement. At \$13,333 per year, you would be living near the poverty line by today's math, to say nothing of how dramatically inflation would have eroded the purchasing power of that figure 40 years on.

If we turn back the clock 45 years from now, we see that roughly \$90,000 in 1975 money would get you \$400,000 in purchasing power in today's dollars. A little back of the napkin math tells us that even though \$400,000 may seem alright today, we will need more like \$1.5 million 40 years from now to maintain that same level of purchasing power.

Remember too that the average American couple currently spends nearly \$250,000 in retirement on health-related expenses above and beyond their monthly premiums. Factoring in even modest inflation over the next 40 years, the money spent on medical bills alone would far outstrip your savings on the high-earning-always-saving model.

While you could complicate the assumptions above to greater reflect the reality of the average worker (most people don't make \$100,000 right out of college, most people get raises over the course of a career, most people don't save 10% of their income), the basic math is the same. You simply aren't going to get to the necessary savings target by age 65 without a little help from risk assets whose returns exceed the insidious and corrosive power of inflation.

As Burton Malkiel said far more succinctly, "It is clear that if we are to cope with even a mild inflation, we must undertake investment strategies that maintain our real purchasing power; otherwise, we are doomed to an ever-decreasing standard of living." So, we must invest if we are to survive.

*But, thinking of the second problem raised above, are we any good at investing?*

Lewis Carroll's Alice in Wonderland stories are perhaps the best exemplar of the genre known as "literary nonsense." As one might

expect from a nonsensical tale, Alice finds herself in a strange world where up is down, wrong is right and “it doesn’t much matter which way you go.” The book’s whimsical circularity is well illustrated in Alice’s interactions with the Cheshire Cat, including:

“But I don’t want to go among mad people,” Alice remarked.

“Oh, you can’t help that,” said the Cat. “We’re all mad here. I’m mad. You’re mad.”

“How do you know I’m mad?” said Alice.

“You must be,” said the Cat, “or you wouldn’t have come here.”

Much like Alice in the realm of the Cheshire Cat, investors find themselves in a world that defies many of the laws of everyday life. The world of the investor is one in which the future is more certain than the present, doing less work trumps doing more and the collective is less knowledgeable than any single participant. Let us examine each of these realities of this topsy-turvy world in greater detail.

## A future more certain than the present?

Suppose I ask you what you will be doing in five minutes. Odds are, you will be able to answer that question with a high degree of certainty. After all, it will probably look a bit like what you are doing at the time you are asked.

Now, let’s move the goalposts back a bit and imagine that I ask you what you will be doing five weeks from now. It will certainly be exponentially harder to pinpoint, but your calendar may give some clues as to how you will be engaged at that time. Now imagine you were asked to forecast your actions five months, five years or even 50 years from now. Damn near impossible, right? Of course it is, because in our quotidian existence, the present is far more knowable than the distant future.

What complicates investing is that the exact reverse is true. We have no idea what will happen today, very little notion of what next week holds and a slight inkling as to potential one-year returns. But

we could make a much more accurate estimate of 25 years from now. Consider the long-term performance of stocks by holding periods, as shown in table 1.

**Table 1—Range of returns on stocks, 1926 to 1997<sup>3</sup>**

| Holding period (years) | Best return (%) | Worst return (%) |
|------------------------|-----------------|------------------|
| 1                      | +53.9           | -43.3            |
| 5                      | +23.9           | -12.5            |
| 10                     | +20.1           | -0.9             |
| 15                     | +18.2           | +0.6             |
| 20                     | +16.9           | +3.1             |
| 25                     | +14.7           | +5.9             |

Over short periods of time, returns are nearly unknowable. Over a single year, the range of returns is very wide, from a 54% gain to a 43% loss. Over 25 years, a time period more reflective of a long-term investment horizon, the future becomes far more certain as the range of returns is narrower. Returns vary from a gain of 15% per year to a worst case of around 6% per year for this longer period.

The range of returns is not so scary over the long term, which suggests that stocks ought to be held for the long term. For people, this requires a fundamental rethinking of reality, something that seems not to be happening. As statistician extraordinaire Nate Silver says in *The Signal and the Noise*:

“In the 1950s, the average share of common stock in an American company was held for about six years before being traded—consistent with the idea that stocks are a long-term investment. By the 2000s, the velocity of trading had increased roughly twelvefold. Instead of being held for six years, the same share of stock was traded after just six months. The trend shows few signs of abating; stock market volumes have been doubling once every four or five years.”<sup>4</sup>

Intuition tells us that now is more knowable than tomorrow, but Wall Street Bizarro World (WSBW) says otherwise. As Mr. Silver points out, more access to data and the disintermediary effects of technology make our human tendency toward short-termism even greater.

This presents an opportunity for those who can deny this tendency; the growing impatience of the masses only serves to benefit the savvy investor. As Ben Carlson says in *A Wealth of Common Sense*, “Individuals have to understand that no matter what innovations we see in the financial industry, patience will always be the great equalizer in financial markets. There’s no way to arbitrage good behavior over a long time horizon. In fact, one of the biggest advantages individuals have over the pros is the ability to be patient.”<sup>5</sup>

## Do less than you think you should

*“Never underestimate the power of doing nothing.”*

—Winnie the Pooh

*“Far from idleness being the root of all evil, it is rather the only true good.”*

—Søren Kierkegaard

Imagine a world where you could gain more knowledge by reading fewer books, see more of the world by minimizing travel and get more fit by doing less exercise. Certainly, a world where doing less gets you more is highly inconsistent with much of our lived experience, but is just the way Wall Street Bizarro World operates. If we are to learn to live in WSBW (and we must), one of the primary lessons to be learned is to do less than we think we should.

The psychobabble term for the tendency toward dramatic effort in the face of high stakes is *action bias*. Some of the most interesting research into action bias comes to us from the wild world of sports—soccer in particular. A group of researchers examined the behavior of

soccer goalies when faced with stopping a penalty kick. By examining 311 kicks, they found that goalies dove dramatically to the right or left side of the goal 94% of the time. The kicks themselves, however, were divided roughly equally, with a third going left, a third right and a third near the middle. This being the case, they found that goalies that stayed in the center of the goal had a 60% chance of stopping the ball; far greater than the odds of going left or right.

So why is it that goalies are given to dramatics when relative laziness is the most sound strategy? The answer becomes more apparent when we put ourselves into the mind of the goalie (especially those who live in countries where failure on the pitch is punishable by death). When the game and national integrity are on the line, you want to look as though you are giving a heroic effort, probabilities be damned! You want to give your all, to “leave it all on the field” in sportspeak, and staying centered has the decided visual impact of stunned complacency. Similarly, investors tasked with preserving and growing their hard-earned wealth do not want to sit idly by in periods of distress, even if the research shows that this is typically the best course of action.

Much like the Guinea worm researchers mentioned in the Introduction, a team at Fidelity set out to examine the behaviors of their best-performing accounts in an effort to isolate the behaviors of truly exceptional investors. What they found may shock you. When they contacted the owners of the best performing accounts, the common thread tended to be that they had forgotten about the account altogether. So much for isolating the complex behavioral traits of skilled investors! It would seem that forgetfulness might be the greatest gift at an investor’s disposal.

Another fund behemoth, Vanguard, also examined the performance of accounts that had made no changes versus those who had made tweaks. Sure enough, they found that the “no change” condition handily outperformed the tinkers. Further, Meir Statman cites research from Sweden showing that the heaviest traders lose 4% of their account value each year to trading costs and poor timing. These results are consistent across the globe: across 19 major stock exchanges, investors who made frequent changes trailed buy and hold investors by 1.5 percentage points per year.<sup>6</sup>

Perhaps the best-known study on the damaging effects of action bias also provides insight into gender-linked tendencies in trading behavior. Terrance Odean and Brad Barber, two of the fathers of behavioral finance, looked at the individual accounts of a large discount broker and found something that surprised them at the time.

The men in the study traded 45% more than the women, with single men out-trading their female counterparts by an incredible 67%. Barber and Odean attributed this greater activity to overconfidence, but whatever its psychological roots, it consistently degraded returns. As a result of overactivity, the average man in the study underperformed the average woman by 1.4 percentage points per year. Worse still, single men lagged single women by 2.3%—an incredible drag when compounded over an investment lifetime.

The tendency of women to outperform is not only seen in retail investors. Female hedge fund managers have consistently and soundly thumped their male colleagues, owing largely to the patience discussed above. As LouAnn Lofton of the *Motley Fool* reports:

“...funds managed by women have, since inception, returned an average 9.06%, compared to just 5.82% averaged by a weighted index of other hedge funds. As if that outperformance weren't impressive enough, the group also found that during the financial panic of 2008, these women-managed funds weren't hurt nearly as severely as the rest of the hedge fund universe, with the funds dropping 9.61% compared to the 19.03% suffered by other funds.”<sup>7</sup>

Boys, it would seem, will be hyperactive boys, but few could have guessed the steep financial cost of action bias.

## Far from the madding crowd

*“Anyone taken as an individual is tolerably sensible and reasonable—as a member of a crowd, he at once becomes a blockhead.”*

—Friedrich von Schiller

I travel roughly once a week to conferences where, in addition to eating overcooked chicken, I am typically asked to speak to financial advisors about the rudiments of behavioral finance. As anyone who travels for business well knows, it can be tricky in a new city to determine where best to eat, sleep or watch a show. And while many nice hotels provide a concierge to guide you, the concierge’s advice is ultimately limited by the fact that it is just one person’s opinion.

Having been steered amiss more than once by a concierge with a palate less sophisticated than my own (for surely it could not have been my taste that was in question), I quickly learned to harness the power of the crowdsourced review. Apps like Yelp, Urban Spoon and Rotten Tomatoes provide aggregated reviews that guide diners and moviegoers to restaurants and films that have received consensus acclaim. While I may not always agree with the taste of an individual concierge or my local newspaper’s movie reviewer, I have never been disappointed with a movie or dish that has received widespread approval. In things that matter most (i.e., food and movies), there is wisdom in the crowd.

But the power of crowd thinking is not limited to picking out a tasty schnitzel or deciding whether to watch *Dude, Where’s My Car?* (18% on Rotten Tomatoes)—it is the bedrock upon which the most successful political systems are built. Sir Winston Churchill famously opined, “The best argument against democracy is a five minute conversation with the average voter”, which is a sentiment heard in many forms at election time. So why then has democracy proven to be so successful (or at least not entirely unsuccessful) over long periods of time? Why is it, paraphrasing Churchill again, “the worst form of Government except all those other forms that have been tried from time to time”?

The answer is in the tendency of the crowd to be more wise, ethical, tolerant and gracious than the sum of its parts. The alternatives, political systems like oligarchy and monarchy, live and die with the strengths or weaknesses of the few, which is a much higher risk/reward proposition than democracy. The average voter may be unimpressive, but the average of the averages tends to be the best game in town.

If crowd wisdom can help us solve complex decisional problems and provides us with good-enough government, it seems intuitive that it has something to offer investors, right? Wrong. Once again, the rules of WSBW turn conventional logic on its head and require us to operate from a different set of assumptions. Assumptions that privilege rules-based individual behavior over the wisdom of the crowd.

Why is it that a qualitative gap exists between investment and culinary decisions? Richard Thaler, behavioral economist par excellence, has identified four qualities that make appropriate decision-making in any field difficult. They are:

1. We see the benefits now but the costs later.
2. The decision is made infrequently.
3. The feedback is not immediate.
4. The language is not clear.

Choosing a nice meal consists of clear language (“Our special tonight is deep-fried and smothered in cheese”), immediate feedback (“OMG! This is so good”), is made frequently (three times daily, more if you’re like me), and has a mix of immediate and delayed costs (“That will be \$27” or “I should have quit after three rolls”).

An investment decision on the other hand violates every single one of Thaler’s conditions. It consists of intentionally confusing language (What does “market neutral” even mean?), has a massively delayed feedback loop (decades if you’re smart), is made very infrequently (thanks for the inheritance, Aunt Mable), and has benefits that are delayed to the point that we can scarcely conceive of them (40-year-old me finds it very hard to imagine the 80-year-old me that will spend this money). The crowd can provide us excellent advice on selecting a meal because it is a decision that is frequently made with results that

are instantly known. Conversely, the wisdom or foolishness of a given investment decision may not be made manifest for years, meaning that the impatient crowd may have little wisdom to offer.

As we might expect from Professor Thaler's research, the crowd gets it all wrong deciding when to enter and exit the stock market. They enter at the time of immediate pleasure and long-term pain (bull markets) and leave at the time of immediate pain and long-term pleasure (bear markets). In *A Wealth of Common Sense*, Ben Carlson relates a study performed by the Federal Reserve that examined fund flows from 1984 to 2012. Unsurprisingly, "they found that most investors poured money into the markets after large gains and pulled money out after sustaining losses—a buy high, sell low debacle of a strategy." Yet again we see that preferring the rules of everyday to those of Wall Street Bizarro World means trading cheap emotional comfort for enduring poverty.

Jared Diamond's book *Collapse* recounts the story of a people who tried to do what so many investors attempt in WSBW—inflexibly imposing their preferred way of life on an incompatible system.<sup>8</sup> Diamond tells the story of the Norse, a once powerful group of people who left their homes in Norway and Iceland to settle in Greenland.

The Vikings, who aren't exactly known for their humility, doggedly pushed forward—razing forests, plowing land and building homes—activities that robbed cattle of grazable farmland and depleted the few extant natural resources. Worse still, the Norse ignored the wisdom of the indigenous Inuit people, scorning their ways as primitive compared to what they viewed as a more refined European approach to farming and construction. By ignoring the means by which the native people fed and clothed themselves, the Norse perished in a land of unrecognized plenty, victims of their own arrogance.

Like a Norseman in Greenland, you find yourself of necessity in a land with bizarre customs, some of which make little sense. This land is one in which less is more, the future is more predictable than the present and the wisdom of your peers must be roundly ignored.

It is a lonely place that requires consistency, patience and self-denial, none of which come easily to the human family. But it is a land you must tame if you are to live comfortably and compound your

efforts. The laws are few in number and easy enough to learn, but will initially feel uncomfortable in application. It won't be easy but it is surely worth it—and it is all within your power.

*Let's move forward now and get to work on learning those laws of the land.*

# Rule #1

## You Control What Matters Most

*“The investor’s chief problem—and even his worst enemy—is likely to be himself.”*

—Benjamin Graham

I HAVE REPEATEDLY NOTED that astute observations of human nature are recorded by philosophers, theologians and writers long before science ever proves the underlying truth. One such story is found in the Old Testament and has come to symbolize what I now call River Jordan Problems, or complex problems with simple solutions that go unrecognized precisely because they are so simple.

The story that gives rise to the River Jordan moniker is that of Naaman, a wealthy community leader who is a captain of one of the armies of the King of Syria. By all accounts, Naaman seems to be a powerful man and a respected member of his community. There’s just one (big) problem: Naaman is a leper. In an attempt to rid her employer of this most painful encumbrance, one of Naaman’s servants suggests that he consult with a holy man in Samaria who is reputed to work miracles for those similarly afflicted.

Having very little to lose, Naaman takes his horse and chariot to the home of Elisha, the holy man, and requests an audience with the prophet. Instead of coming out himself, Elisha sends forth a servant

with a simple message for Naaman: “Go and wash in (the River) Jordan seven times, and thy flesh shall come again to thee, and thou shalt be clean.”

Now, our powerful protagonist is not happy about this exchange on two counts. First of all, Elisha has not had the common decency to come and speak to him face to face. More egregious still is that he has been told to perform a seemingly inane task in what is a not-so-pretty river (go ahead, Google “River Jordan” and see for yourself how muddy it is). He goes on to name three rivers more beautiful and more proximal before storming off in a rage.

Incensed as he was, Naaman’s servants had the courage to approach him and suggest that he follow the simple request of the holy man, saying: “My father, if the prophet had bid thee do some great thing, wouldest thou not have done it? How much rather then, when he saith to thee, Wash, and be clean?” As the story goes, Naaman humbles himself, performs the seemingly simple-minded task and is cleansed of his disease.

Today, investors find themselves beset by a River Jordan Problem that is invisible precisely because of its simplicity. That problem is you.

When considering what drives investment returns, investors are wont to fantasize about everything except the very thing that matters most—their behavior. Some imagine what life would be like if they had bought Tesla (or Apple, or Name-Your-Skyrocketing-Stock) on the day of its initial public offering. Others wonder what it would have been like to perfectly time an exit before the Great Recession. Most common of all, perhaps, is the dream of being a ground floor investor in Berkshire Hathaway, coasting to wealth on the coattails of the folksy guru from the Midwest.

Despite the unequivocal truth that investor behavior is a better predictor of wealth creation than fund selection or market timing, no one dreams about not panicking, making regular contributions and maintaining a long-term focus.

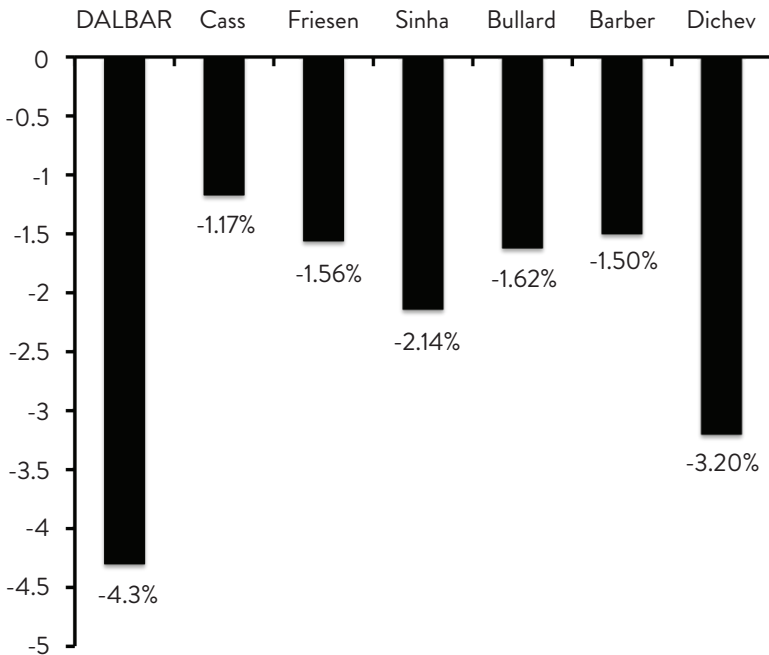
And while it may not be the stuff of investors’ dreams, sound behavior is the sine qua non of good investing and principle culprit in ruinous investing. Gary Antonacci uses the DALBAR study of investor behavior to highlight the great chasm between dollar and time

weighted returns, the most common shorthand for what we call the “behavior gap”:

“Over the past 30 years ending in 2013, the S&P 500 had an annual total return of 11.1%, while the average stock mutual fund investor earned only 3.69%. Around 1.4% of this underperformance was due to mutual fund expenses. Investors making poor timing decisions accounted for much of the remaining 6% of annual underperformance.”<sup>9</sup>

The behaviour gap measures the loss that the average investor incurs as a result of emotional responses to market conditions. While some may disagree with DALBAR on methodological grounds, no one doubts that a behavior gap exists. As the estimates in chart 1 show, there is some divergence around the size of the gap—with a range of estimates putting it somewhere between 1.17% and 4.33% per year—but widespread agreement about its return-killing impact.

**Chart 1—Estimates of the behavior gap**



If a mutual fund company created a product that exhibited, say, 4% outperformance year after year, investors would beat down the doors to buy it. Sadly, the River Jordan nature of the behavior gap means that we are much less likely to address the problem when the 4% is earned by virtue of making good decisions.

But OK, let's say you are unmoved by my appeals to minimize the behavior gap and still want to focus on choosing the best funds. Let's concede for a moment that you would be able to do that (despite the fact that there are over 8000 equity mutual funds) and say that you invested in the highest-flying fund of 2000 to 2010.

Over that decade, CGM Focus (CGMFX) was the highest returning stock fund, giving investors 18.2% annualized and besting its nearest rival by over 3% a year. Not bad—way to pick 'em! The only problem is, the average investor in CGMFX lost 10% of her money over the time she was invested. The volatile nature of the fund, paired with the tendency to chase returns, meant that investors piled in after most gains had already been realized, bailed out during times of loss, rinse and repeat. Maximizing returns is a worthwhile pursuit and a focal point of this book, but it is nothing without self-control.

As further evidence of this timing problem, in 1999, at a time when stocks were at their most expensive point in history, Americans were allocating nearly 9% of their paychecks into their 401(k) retirement accounts. Three years later, stocks were about 33% cheaper, but 401(k) contributions had dropped by nearly a quarter.<sup>10</sup> Valuing the broad market is fairly straightforward, but taking the appropriate action based on this valuation is far more difficult.

There is simply no escaping the fact that managing human behavior is the keystone to being a successful investor. No level of investment skill, which is rare on its own, is sufficient to overcome the cancer of bad behavior.

The following nine rules of self-management will point you towards good behavior and help you earn the 4% behavior gap premium, but it can only be accomplished if it is recognized and understood to be within your power. The difficulty with good investment behavior is that even once investors own its importance, what feels natural is

seldom the best course of action. The rules of self-management will help combat this as well.

Very few of us have the insight or clarity to manage ourselves in isolation. If good behavior is the best predictor of investment returns, a willingness to seek help is the best predictor of good behavior.

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## What now?

**Think**—“Whatever the market does, my own choices matter most.”

**Ask**—“Rather than chasing returns, is there more I could be doing with respect to saving, cutting costs and remaining patient?”

**Do**—Automate a process of long-term regular contributions to your investment account that escalate with salary raises.

