Foreword by BARRY RITHOLTZ

THE BESTSELLING CLASSIC

TREND FOLLOWING

REVISED & EXTENDED FIFTH EDITION

How to Make a Fortune in **Bull**, **Bear**, and **Black Swan Markets**

MICHAEL W. COVEL

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Trend Following

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Michael W. Covel

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“Get on the motorbike. *Relax*.” Cảm ơn Anh.

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He was impreġnably armored by his ġood intentions and his iġnorance.

—Graham Greene, *The Quiet American*

Yesterday don’t matter if it’s ġone.
—The Rollinġ Stones, “Ruby Tuesday”

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Foreword

True story: Not long after the financial crisis of 2008–09, I was dragged to a posh Long Island country club for some terribly boring social event (those tony golf places are not my idea of fun). On my way out the door, I was introduced to someone—let's just call him *Trader Guy*—who is described to me *sotto voce* as the wealthiest person in the club. The thinking apparently was "Hey, two finance guys! They should meet."

We exchange small talk. Trader Guy's diffidence makes it clear he has no interest in chatting. We are both heading out to the valet—these places won't let you park your own car—and a rather memorable few moments ensued.

Trader Guy knows who I am. My book on the financial crisis had come out the prior year; I had already been a regular in the financial media for a while. He knows my name and, truth be told, he could not possibly have cared less. If only to be polite to the host who introduced us, I ask what sort of trading he does. Trader Guy actually *sighs deeply*—then says to me, "I trade everything, I am a trend follower, you wouldn't understand."

Oh, really?

"What a coincidence" I say. "A friend of mine wrote a book on trend following."

By now, I have exhausted what little patience Trader Guy had with me to begin with. I actually *heard* his eyes roll.

"Listen, dude, it's really *cute* you have a friend who wrote a book on this, but there is only one book on the topic, every other one is crap. Your pal wasted trees writing *his*. The definitive book on the subject, the only one that matters, is called *Trend Following*. Everything else is a waste of your time."

I tried, I really tried so hard not to smirk.

As best as I could with a straight face, I casually say: "Yeah, *that's* the one. That's the book Mike—my friend Michael Covel—wrote. *Trend Following*.

Talk about an attitude adjustment: Trader Guy has a genuine *come-to-Jesus* moment, turning into a smitten schoolgirl:

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“*OhmygodOhmygodOhmygod*—you know Mike Covel? I love that book, I love *Trend Following*! I was a failing trader, about to get blown out of the business. I read *that* book, and it turned my whole life around. I owe that guy my entire career!”

Ahhh! The tables have turned. Now it is my turn to have a little fun:

“I keep telling Mike he needs to punch it up, make it more colorful, add a section on forecasting economic data, evaluating corporate management, and analyzing geopolitics. Make it *fresh and interesting*.”

Long pause as Trader Guy’s jaw drops.

It takes him a few seconds before he realizes that: a) I am totally kidding; b) I understand how irrelevant those things are to trend followers, and; c) I am busting his chops for being such a hard ass before.

Trader Guy laughs as I am *now* deemed worthy. We are suddenly best buds: We chat about what we were short during the crisis (AIG, Lehman, Bear), the equity rally off of the lows (strong), and the gold run (at risk of breaking), dollar trending. His car pulls up, we keep talking. My car comes around, and we are still talking. Mr. Diffident has morphed into Mr. Conversationalist.

All of which goes a long way towards explaining why the book in your hands, now in its fifth edition, has become one of the most popular trading books ever written.

What are the characteristics that make *Trend Following* so unique? I have my own biases. I see the inherent and natural flaws of human psychology as an investor’s biggest flaws. Like our inability to understand risk and data and statistics, our obsession to be right, and the ways our wetware constantly fool us into believing things that objectively are not true.

Hence, my top ten reasons I like *Trend Following* reflect all of that:

1. It is an objective, price-based approach.
2. News headlines, pundits, analysts, and opinions are not meaningful.
3. It has risk management built into it.
4. Specific views on “The Fundamentals” are not relevant.
5. It is methodical and systematic.

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6. The same exact strategies apply across all asset classes.
7. It does not require any predictions.
8. Time frames are long-term in nature.
9. Economic data—Employment, GDP, Fed, etc.—are irrelevant.
10. It demands a very exacting personal discipline.

Readers may find that other aspects of trend following that resonate more for them. It depends on your own personality. But what does not vary for any trend follower is understanding the specific underlying philosophy, and having the discipline to follow that approach with unwavering, religious dedication.

I have a few complaints as well. It gives you nothing to talk about at cocktail parties or barbecues. It is less intellectually stimulating than say debating whether and when the FOMC should or should not (or will or will not) raise or lower rates next meeting. It can be boring. And, there are long stretches of time where the trend is neutral, and you are doing nothing.

Anyone can *learn* the methods Covel discusses here. Putting them into action requires commitment to the craft, and a military discipline. The Achilles heel of so many traders is a lack of precisely those qualities. As you will learn, *Trend Followers* must be willing to tough out some difficult sledding. It is an old joke but it's true: *If it was easy, everyone would be rich!*

But it is not easy. Anyone who has lived with a major drawdown understands how your own body responds. Physical and emotional tolls are not insignificant. You lose sleep, you have a low-grade headache for days or weeks at a time, and some people respond with physical nausea. The biggest issue comes in the hit to self-confidence. Riding out the loss of capital leads traders to question themselves and to doubt their methodology. They wonder if maybe it really is different this time. Market structures have changed, the Fed is doing something unprecedented, high-frequency trading is new, or perhaps it is ETFs, they think *something* is different this time around. "Perhaps if I just tweak the approach a little here this once . . ." are famous last words.

To those who master the techniques described herein, there are profits to be had. But it is not for everyone, and if you are unable or unwilling to

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ride out the losses, accept drawdowns in capital, be bored through periods of tedium and inactivity, to have the discipline to follow your strategy, to you I say, “Move along. Trend following is not for everyone.”

For those who want to learn the craft of trading, have the personality and discipline, and are willing to do the heavy lifting, read on . . . you won’t regret it.

—Barry L. Ritholtz
Chairman, Chief Investment Officer, Ritholtz Wealth Management
Columnist for Bloomberg View and Washington Post
Host of Masters in Business radio podcast for Bloomberg

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Preface

Men wanted for hazardous journey. Small wages. Bitter cold. Long months of complete darkness. Constant danger. Safe return doubtful. Honor and recognition in case of success.[1]

Want to take the financial journey to a new investing philosophy that might very well affect the rest of your moneymaking life? I can't guarantee the yellow brick road, but I can promise the red pill will leave you wide awake.

> *Nearly every time I strayed from the herd, I've made a lot of money. Wandering away from the action is the way to find the new action.*
>
> **Jim Rogers**

In late 2016 *The Wall Street Journal* reported that Steve Edmundson, the investment chief for the Nevada Public Employees' Retirement System, has no coworkers, rarely takes meetings, and eats leftovers at his desk. His daily trading strategy: Do as little as possible, usually nothing. The Nevada system's $35 billion in stocks and bonds are all in low-cost funds that mimic indexes. He may make one change to the portfolio a year.[2]

Not exactly a life changing revelation, I know, but that do-nothing, sit-on-your-hands investing premise doesn't stop with one-man shows. Dimensional Fund Advisors LP (DFA), the sixth-largest mutual fund manager, is drawing in nearly $2 billion in net assets per month at a time when investors are fleeing other firms. DFA is built on the bedrock belief that active management practiced by traditional stock pickers is futile, if not an absurdity. DFA's founders are pioneers of index funds.[3]

Now we are getting somewhere, because just about everyone has money tied up in an index fund—which in 2017 is not exactly pioneering. But the much larger issue at hand, unknown to most, is that there is an academic *theory* that allows anyone to confidently *index*.

> *To receive my free interactive trend following presentation send a picture of your receipt to receipt@trendfollowing.com.*

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Q: Do you pencil it in first?

A: No, you just start drawing.

Q: But don't you make mistakes?

A: There is no such thing as a mistake. A mistake is an opportunity to do something else. You have to leave it and let nature take it course.

Ralph Steadman, British artist best known for his work with American author Hunter S. Thompson, talking to Anthony Bourdain.

The efficient market theory (EMT) states asset prices fully reflect all available information. This means it is *impossible* for average investors—or superstars, for that matter—to beat the market consistently on a risk-adjusted basis, since market prices should only react to new information or changes in discount rates. EMT, set in motion with Louis Bachelier's PhD thesis published in 1900, and developed by University of Chicago professor Eugene Fama, argues stocks always trade at fair value, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices.[4]

Let me drop the nuclear warhead on that perspective.

There is a mind-numbingly large hole in this cool-sounding theory. EMT by definition leaves the epic October 2008 stock market meltdown out of the academic equation. And for those who know about the sausage making of writing peer review papers or engineering a PhD, much of modern finance's foundation was bricked together with EMT mortar. Fama was ultimately awarded the 2013 Nobel Prize in Economic Sciences because his findings "changed market practice"—that is, the worldwide acceptance of index funds.

Those findings are the generally accepted status quo.

Not everyone, however, is a true believer guzzling the Kool-Aid.

One of the first and loudest critics of EMT was famed mathematician Benoit Mandelbrot. He saw EMT proponents sweep big events like 2008 under the carpet, like kids house cleaning for the first time, calling them "acts of God." French physicist Jean-Philippe Bouchaud sees EMT *marketing* in play: "The efficient market hypothesis is not only intellectually enticing, but also very reassuring for individual investors, who can buy stock shares without risking being outsmarted by more

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savvy investors.”[5]

Bouchaud continues: “Classical economics is built on very strong assumptions that quickly become axioms: the rationality of economic agents, the invisible hand and market efficiency, etc. An economist once told me, to my bewilderment: ‘These concepts are so strong that they supersede any empirical observation.’ As Robert Nelson argued in his book, *Economics as Religion*, ‘the marketplace has been *deified*.’ In reality, markets are not efficient, humans tend to be over-focused in the short-term and blind in the long-term, and errors get amplified through social pressure and herding, ultimately leading to collective irrationality, panic and crashes. Free markets are wild markets.”[6]

好书如挚友

David Harding, a man you might not know yet, ratchets up the polemic by describing EMT in apocalyptic terms: “Imagine if the economy as we know it was built on a myth. Imagine if that myth was the foundation stone on which the mainstream financial systems that control the global economy have been erected—the great bazaars of stock markets, bond markets, fiendishly complex financial instruments, credit default swaps, futures and options on which the fortunes of billions rest. Imagine if the myth was the key cause of the global crash in 2008—and if its perpetuation today threatened another catastrophic crash in the future. We don’t have to imagine. The myth is Efficient Market Theory (EMT).”[7]

> *The efficient market theory is about two questions: Can the market be beat and is the market price the right price? First, evidence says the market can be beat. Second, debating the right or wrong price is futile. There is only the market price and it’s the most real, objective piece of data in finance. Don’t make the market a morality tale.*
>
> **Michael Covel**

Harding does not have a Nobel Prize, but he does have a net worth of $1.4 billion.[8] He is a flat-out financial heretic and would not be offended if you called him a punk rocker for his antiestablishment attitude. In prior centuries he absolutely would have been burned at the stake for his wholesale dressing down of the financial high priests. He knows to question EMT is seen as *madness* by academics, banks, pension funds, and endowments.[9]

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Interestingly, and with a bipolar flair, the Nobel committee split the 2013 Nobel Prize among economists with radically different theories. Robert Shiller, a man focused more on *behavior* and who shares the Nobel Prize with Fama, sees the contradictions: “I think that maybe he has a cognitive dissonance. [His] research shows that markets are not efficient. So what do you do if you are living in the University of Chicago? It’s like being a Catholic priest and then discovering that God doesn’t exist or something you can’t deal with so you’ve got to somehow rationalize it.”[10]

Harding goes further, explaining EMT *madness* in an everyman way: “This theory of rational markets treats economics like a physical science—like Newtonian physics—when in fact it is a human or social science. Human beings are prone to unpredictable behavior, to over-reaction or slumbering inaction, to mania and panic. The markets that reflect this behavior do not assume some supra-human wisdom, they can and sometimes do reflect that volatility.”[11]

> *When it is a question of money, everyone is of the same religion.*
>
> **Voltaire**

Further translation: Human nature isn’t *rational*. It blows bubbles and then pops bubbles—and you can see this going back hundreds of years:

- Dutch Tulip Mania (1634–1637)
- The South Sea Bubble (1716–1720)
- The Mississippi Bubble (1716–1720)
- The British Railway Mania Bubble (1840s)
- The Panic of 1857
- The Florida Real Estate Bubble of the 1920s
- The stock market crash of 1929
- The 1973–1974 stock market crash
- Black Monday—the stock market crash of 1987
- Japan’s bubble economy and crash, 1989–current
- Dot–com bubble (1999–2002)
- United States bear market (2007–2009)

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- Flash Crash (2010)
- Chinese stock market crash (2015–2016)
- Brexit (2016)

And on and on. . . .

But it's beyond being not rational. Those events, the human actions driving those booms and busts, are best described by academia's *prospect theory*, *cognitive dissonance*, *the bandwagon effect*, *loss aversion*, and assorted *heuristics* in judgment and decision-making—to name a few of the hundreds of biases inherent in people's lizard brains.

No doubt, the efficient versus not-efficient debate will not be resolved in these pages. Perhaps it will never be satisfactorily resolved in an academic *mine is bigger than yours* sense, which would not be surprising given that human beings and their egos, greed, fear, and money are knotted up so tight as to restrict brain blood flow. And please don't expect this work to be filled with the latest and greatest macroeconomic bubblegum predictions. You already know that is bullshit completely unrelated to making money—even if you have not yet admitted that fact to yourself.

> *Education rears disciples, imitators, and routinists, not pioneers of new ideas and creative geniuses. The schools are not nurseries of progress and improvement, but conservatories of tradition and unvarying modes of thought.*
>
> **Ludwig von Mises**

In the face of such chaos, complexity, and human frailty, my curiosity is quite simple. Answer a question: "Why does David Harding think he is *right* and, more importantly, how in the hell did he get all that money trading the likes of Apple, Tesla, gold, U.S. dollars, crude oil, NASDAQ, natural gas, lean hogs, palm oil, wheat, and coffee without investing in an index or having a fundamental expertise in any of those markets or the ability to predict directions?"

That is a worthy question, and the answer is a follow the big money adventure.

Trend Following

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The 233,092 words in this book are the result of my near 20-year *hazardous journey* for the truth about this trading called *trend following*. To this day it still fills a void in a marketplace inundated with books about value investing, index investing, and fundamental analysis, but lacking few resources to explain *how* David Harding made his billion-dollar fortune with trend following.

> *You've got to guess at worst cases: No model will tell you that. My rule of thumb is double the worst that you have ever seen.*
>
> **Cliff Asness**

Out of the gate let me break down the term *trend following* into its components. The first part is *trend*. Every trader needs a trend to make money. If you think about it, no matter what the technique, if there is not a trend after you buy, then you will not be able to sell at higher prices. *Following* is the next part of the term. We use this word because trend followers always wait for the trend to shift first, then *follow* it.[12]

Every good trend following method should automatically limit the loss on any position, long or short, without limiting the gain. Whenever a trend, once established, reverses quickly, there is always a point, not far above or below the extreme reached prior to the reversal, at which evidence of a trend in the opposite direction is given. At that point any position held in the direction of the original trend should be reversed—or at least closed out—at a limited loss. Profits are not limited because whenever a trend, once established, continues in a sustained fashion without giving any evidence of trend reversal, the trend following principle requires a market position be maintained as long as the trend continues.[13]

> *Fish see the bait, but not the hook; men see the profit, but not the peril.*
>
> **Chinese proverb**

A big reason this conceptually works is seen in the wonky-sounding Bayesian statistics. Named for Thomas Bayes (1701–1761), the belief is the true state of the world is best expressed in probabilities that continually update as new unbiased information appears, like a price trend that keeps updating and extending. New data stays connected to prior data—think of it chain-ganged together. Random dice rolls this is not.

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Trend following thus aims to capture the majority of a connected market trend up or down for outsized profit. It is designed for potential gains in all major asset classes—stocks, bonds, metals, currencies, and hundreds of other commodities. However straightforward the basics of trend following, it is a style of trading widely misunderstood by both average and pro investors, if it is known at all. Academic literature and real-world investors, for example, have put forth a host of strategies that, on the surface, appear unique, but at a high level they are all related to trend following.[14]

> *If you can't explain it simply, you don't understand it well enough.*
>
> **Anonymous**

That classic trend wisdom has long failed to be understood in academic circles—that is, until very recently. Notable voices in the academic community have come around to agree *momentum* exists—the source of trend following profit—but to confuse matters they describe two forms of momentum: time series momentum (i.e., trend following) and cross-sectional momentum (i.e., relative strength). I don't see a connection between the two, and I can guess carving out business and academic niches for assorted reasons is in play, but I do know which strategy has produced decades of real performance proof, and it's trend following.

The desire to enlighten this state of confusion is what launched my original research and ignited my passion, going all the way back to 1994. My plan was to be as objective as possible, pulling research data from wide sources:

- Month-by-month trend following performance histories.
- Hundreds of interviews conducted with subjects from top traders to Nobel Prize winners.
- Published interviews from dozens of trend followers over the last 50 years—details not found on Google.
- Charts of winning markets traded by trend followers.
- Charts of historical markets seen across financial disasters.

If I could have utilized only data, numbers, charts, and graphs showing extreme trend following performance data, that would have been perfect—it is, after all, the raw, unassailable data.

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Yet without a narrative explanation few readers would appreciate the ramifications of data mining. Robert Shiller has said "that there is a narrative basis for much of the human thought process, that the human mind can store facts around narratives, stories with a beginning and an end that have an emotional resonance. You can still memorize numbers, but you need stories. For example, the financial markets generate tons of numbers—dividends, prices, etc.—but they don't mean anything to us. We need either a story or a theory, but stories come first."[15]

> *To be aware how fruitful the playful mood can be is to be immune to the propaganda of the alienated, which extols resentment as a fuel of achievement.*
>
> **Eric Hoffer**

Foundationally, my approach to researching and writing *Trend Following* became similar to the one described in the book *Good to Great*, in which researchers generated questions, accumulated data in an open-ended search for answers, and then debated it all—looking for stories, then for explanations that could lead to theories.

However, unlike *Good to Great,* which was about well-known public companies, to this day the strategy of trend following is still built around an underground network of relatively unknown traders who, except for the occasional misguided article, the mainstream press virtually ignores—and that has not changed in my 20 years. What I attempted with my first edition of *Trend Following* and with this newest edition is to lift the veil on this enormously successful strategy—how trend followers trade and what can be learned that anyone can apply to their portfolio for profit.

> *The credit bubble pushed the price of most financial assets far from fundamental value. The central bankers were rigging the market with their asymmetric approach to market volatility, where Alan Greenspan put a floor under the stock market but did not cap it with a ceiling. That ensured that the cost of waiting until after the event to clean up was unacceptably high.*[16]

Throughout this effort I avoided institutionalized knowledge as defined by Wall Street banks, brokers and typical *long only* hedge funds. I did not start with JPMorgan Chase or Goldman Sachs. Instead I asked questions across all types of sources and then, objectively, doggedly, and very slowly—and even through some Deep Throat help—answers that made intuitive

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sense were revealed.

If there was one factor that motivated me to work in this manner, it was childlike curiosity—where you rip the toy open to the find the motor and locate the *essence*. For example, one of my earliest curiosities was about who profited when a famed British bank collapsed, making the front cover of *Time* magazine. My research alone unearthed a connection between this bank and a wildly successful trend follower now worth billions. This trader's trend-trading track record had me wondering, "How did he discover trend following in the first place?"

> ***Question:*** *Some researchers argue that a market timing strategy based on buy/sell signals generated by a 50- or 200-day moving average offers a more appealing combination of risk and return than a buy and hold approach. What is your view?*
>
> ***Eugene Fama:*** *An ancient tale with no empirical support.*[17]

I also wanted to know who *won* when a two-billion-dollar hedge fund collapsed and almost sank the entire global economy. Why did the biggest banks on Wall Street, the so-called smart guys in charge of your retirement, invest $100 billion in this fund when there was so much obvious risk? Further, when I contrasted typical Wall Street losses during October 2008 to what trend following made during the same time in the great zero-sum game, it was hard to grasp why few market players were aware of the strategy. Other questions appeared:

- How does trend following win in the zero-sum game of trading?
- Why has it been the most profitable style of trading?
- What is the philosophical framework of trend following success?
- What are the timeless principles?
- What is the trend following view of human behavior?
- Why is it enduring?

Many trend followers are still reclusive and extremely low key. One who has beaten the markets for over 40 years works out of a quiet office in a Florida coastal town. For Wall Street this approach is tantamount to sacrilege. It goes against all the customs, rituals, trappings, and myths embedded in so-called success. It is my hope my narratives, backed by data, will correct misconceptions of *winning* as a harried, intense

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workaholic posted 24/7 in front of 12 monitors while downing Red Bull.

I have noticed that everyone who ever told me that the markets are efficient is poor.

Larry Hite

One of my sources who helped break apart this puzzle was Charles Faulkner. He observed elite traders are almost “floating above the world, seeing it from a different perspective than the rest of other market participants.” His insights go straight to the core:

- It doesn’t matter what you think; it’s what the market does that matters.
- What matters can be measured, so keep refining your measurements.
- You don’t need to know when something will happen to know that it will happen.
- Successful trading is a probabilistic business, so plan accordingly.
- There is an edge to be gained in every aspect of your trading system.
- Everyone is fallible, even you, so your system must take this into account.
- Trading means losing as well as winning, something you must live with for success.

To adequately explain the genesis of this new edition, I need time travel. You see, my public trend following persona started in October 1996 with the launch of a simple four-page website. Armed with a political science degree from George Mason University, no connection to Wall Street or any fund and with zero academic respect or PhD credentials, it seemed perfectly appropriate to create the first trend following website.

And I did.

The essence of trend following has been effective beyond my wildest dreams, and for me it has been more risky to diversify away from it than to embrace it wholeheartedly.

David Harding

Loaded with original content, that rudimentary-looking site, turtletrader.com, generated millions of views, millions of dollars, and—

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unbeknownst to me at the time—respect among legions of beginner and professional traders alike.

Six years into that website, I decided it was time for a book—or maybe the book decided it was time for me. Larry Harris, the finance chair at the University of Southern California, randomly e-mailed me. He wanted me to review his new book because I was driving more interest in his whitepaper, *The Winners and Losers of the Zero-Sum Game*, than anyone else.

Without skipping a beat I said sure to a review of his book, but asked for an introduction to his publisher, since I was writing a book, too. He obliged and connected me even though my book at that moment was conceptual.

After two years of starts and stops, *Trend Following* was finally ready. And when the first edition hit the streets in April 2004, I had no idea whether *it* would sell 10 or 10,000 copies. But immediately the book made an under-the-radar splash, landing in Amazon's top 100—of all books. In fact, that first edition was so expected to fail by my first publisher you could only get it online—initially no bookstore.

> *Most big startup breakouts are where people aren't paying attention.*
>
> **Bill Gurley**[18]

It went on to sell over 100,000 copies with translations into German, Korean, Japanese, Chinese, Arabic, French, Portuguese, Russian, Thai, and Turkish. Its success led to four more books and the opportunity to direct a documentary film over the course of 2007 to 2009.

I never expected an obscure *trading* book first written 13 years ago would lead me to conversations with five Nobel Prize winners or face-to-face learning from trading legends Boone Pickens, David Harding, Ed Seykota, and literally hundreds more. This journey also led me to the world's top behavioral economists and psychologists from Daniel Kahneman and Robert Cialdini to Steven Pinker. And it opened the door to my podcast, which has run since 2012 and now has over five millions listens. My podcast has further featured guests ranging from Tim Ferriss to paleontologist Jack Horner of *Jurassic Park* fame—all connected philosophically to trend following thinking (at least in my mind).

Yet this wild ride has been far more than one-on-one conversations. The

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serendipity of *Trend Following* has led me around the world before live audiences in Chicago, New York City, Beijing, Hong Kong, Kuala Lumpur, Macau, Shanghai, Singapore, Tokyo, Paris, Vienna, and São Paulo. A speaking gig in front of 1,500 native German speakers at the Hofburg Palace, the former imperial palace in Vienna, Austria—that happened.

And it kept going. Audiences with China Asset Management to Singapore's Sovereign Wealth Fund GIC to regular investor audiences with well over a thousand people—everyone from new investor to pro who wanted to learn more about trend following, all allowed me to come into their world.

But I recall my first public presentation in support of *Trend Following* —fall 2004 at Legg Mason's headquarters in Baltimore, where their chief market strategist had invited me to lunch. Afterward, I was escorted up a flight of stairs to a nondescript door. Upon entering the room, I found it filled with young bankers listening to a speaker. Michael Mauboussin, then Legg Mason's chief investment strategist, motioned for me to sit. I instantly recognized the speaker as Bill Miller, then the fund manager of Legg Mason Value Trust. At the time Miller had beaten the S&P 500 index for 14 straight years—and was easily one of Wall Street's most successful and famed players.

Miller then introduced me to the audience. Until that moment I had no idea I was up next. For the next hour, Miller from one side of the room, and Mauboussin from the other side, alternately peppered me with questions about trend following, risk management, and the TurtleTraders.

> *If you're chasing the masses, you're almost certainly heading the wrong direction. The masses are ignoring you. It's the weird who are choosing to pay attention, to seek out what they care about.*
>
> **Seth Godin**

After the presentation I thanked Miller for the opportunity to make my case, but wanted to know how he learned about *Trend Following*. He said, "I surf Amazon for all types of books. I came across yours, bought it, liked it, and told all my people at Legg Mason they should read it."

At that moment I knew *Trend Following* might be catching on a little—at least in some very rarified circles. Forget sales—which were very good—I knew that if *Trend Following's* message had struck a chord with Miller,

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who was not trading as a trend follower, I might be on to something life changing.

However, now it is time to bring this living work forward to 2017 and a whole new audience and generation for I have barely dented the broad consciousness of global investors. Roughly $80 trillion of investable assets sit squarely at the mercy of EMT inside buy and hold and/or passive index funds with only a quarter of 1 percent of assets in trend following strategies. Almost everyone's savings and retirement monies are literally a slave to wobbly economic theory that leaves the masses unprepared for the next smack down.

> *It is necessary for you to learn from others' mistakes. You will not live long enough to make them all yourself.*
>
> **Hyman G. Rickover**

That *slavery* is why I have yet again opened up the chest cavity on *Trend Following*. Not outpatient surgery to correct typos, but open-heart surgery to add thousands of details—big picture to minutia that bulk up the original to a new and improved *Schwarzenegger-on-steroids* edition. For starters, *Trend Following* is now divided into three sections:

1. *Trend Following*'s original chapters and principles, updated and extended.
2. Trend following interviews (new): Seven interviews from pros illuminate trend following's big picture with the requisite finer details.
3. Trend following research (new): Research contributions that add to the trend following conversation for average investors, professionals and scholars.

This is my most radical and extended volume. Content changes and additions are everywhere. It's now three books in one. I have added material in a way where you can take small steps or go for the deep dive—starting on almost any page. The tone is different, too. Toned down in some areas, toned up in others. Some of my younger *blank* and vinegar was expunged and reformulated to a new mature version, while staying true to the heart and soul of my origins. Last, some might complain there is too much information, too much content, and I am throwing the kitchen sink at the subject. If so, I will be happy with that criticism. Guilty as charged.

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Now, if you're looking for guru secrets or easy money riches—please head on back to that OxyContin bender. There is no such thing. If you're in the mood for outlandish predictions, stories about the ultimate *gut* trader, or what it's like to work inside a Wall Street bank, or if you want to complain life is unfair and beg for the government to save you with a bailout—no one can help you on your path to irrelevance. Or, worse yet, if you maintain faith in EMT, steadfastly refusing to consider overwhelming contradictory evidence, maybe you can burn me in effigy along with Bouchaud and Harding. If you fit any of these problematic profiles, there is a good chance my words, and my politically incorrect perspective, will give you an aneurysm. Turn me off now.

> *The river meanders because it can't think.*
>
> **Richard Kenney**

In the alternative, if you want outside-of-the-box *different*, the truth of how out-sized returns are made without any fundamental predictions or forecasts, this is it. And if you want the honest data-driven proof, I expect my *digging* will give everyone the necessary confidence to break their *comfort* addiction to the box they already know and go take a swing at making a fortune in bull, bear, and black swan markets.—Michael W. Covel

> *"Trend" synonyms: tendency, movement, drift, swing, shift, course, current, direction, progression, inclination, leaning, bias, bent.*

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Section I
Trend Following Principles

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1
Trend Following

An object at rest stays at rest and an object in motion stays in motion with the same speed and in the same direction unless acted upon by an unbalanced force.

—Newton's First Law of Motion

Speculation is dealing with the uncertain conditions of the unknown future. Every human action is a speculation in that it is embedded in the flux of time.

—Ludwig von Mises[1]

Speculation

It might sound pedantic or perhaps that I am focusing on the extraneous, I am not: A speculator's ability to receive a *price* they can count on as *fact* —is the foundation of markets. Said another way, with no *price*, humanity is back to cavemen beating each other with clubs. Austrian economist Ludwig von Mises puts price discovery's value in perspective:

The aim is to make money, not to be right.

Ned Davis

The people that I know who are the most successful at trading are passionate about it. They fulfill what is the first requirement: developing intuitions about something they care about deeply, in this case, trading.

Charles Faulkner[2]

It is the very essence of prices that they are the offshoot of the actions of individuals and groups of individuals acting on their own behalf. The catallactic concept of exchange ratios and prices precludes anything that is the effect of actions of a central authority, of people resorting to violence and threats in the name of society or the state or of an armed pressure group. In declaring that it is not the business of the government to determine prices, we do not step beyond the

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> borders of logical thinking. A government can no more determine prices than a goose can lay hen's eggs.[3]

Although government can't determine prices in the long run, in the short-term, government will attempt to directly *rig* the market system via QE, ZIRP, NIRP, or whatever acronym sure to follow.

However, speculation is all there is for making choices about those market prices. Learning how best to speculate using prices is not only a worthy endeavor—it is a survival-of-the-fittest concept that traces back to the earliest literature of Wall Street.

From *Young America on Wall Street* (1857), quoting a French poem about a latter-day millionaire:

> *Who will check the 'fact checkers?' Who will watch the watchmen?*
>
> **Anonymous**

Monday, I started my land operations;

Tuesday, owed millions, by all calculations;

Wednesday, my brown-stone palace began;

Thursday, I drove out a spanking new span;

Friday, I gave a magnificent ball;

Saturday, smashed—with just nothing at all.[4]

There is nothing wrong with that turn of events. It's normal. It's the expected up and down. Luck is always in play, but so is skill. From *The Theory of Stock Exchange Theory* (1874):

> A man who wins by haphazard speculation, who chances to operate successfully until he has filled his pockets, and retires with his gains from so fascinating an arena, is one in a hundred. Any one who knows anything of Stock Exchange speculation will confirm the statement that, to the ordinary run of men, the game is not worth the candle. There are, however, conditions under which speculation, in a market where ten or fifty thousand pounds can be lost in half an hour, may, under given conditions, be systematically practiced profitably. First, and most important perhaps of all those conditions, is the temperament of the speculator. When it is known in a market that a

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great speculator is selling, weak bulls are speedily frightened out, and when he has such an object in view it is his *game* to intimidate with all the force of his prestige and the power of his capital. Such a man must have a concrete hardness of indifference through which nothing can penetrate to his heart. It is as necessary to the success of his operations that he posses no more regard for the feelings or pockets of other people than a hungry tiger would for him if he were airing himself unconcernedly in a Bengal jungle. He has a purpose in view, just as a surgeon has when the amputation of a leg has been decided upon. The speculator's sole aim in the operation is the profit, towards which he cuts his way, regardless of the nature of the obstacles to be overcome, just as the knife is plunged into the flesh, severing the arteries, muscles, and sinews that surround the bone, which it is the object to reach and saw through. For a man to tread a path in which he must systematically not only disregard the interest of other people, but deliberately calculate upon the weaknesses of human nature which characterize the crowd, in order to work upon them for his own ends, it is obvious that he must be constituted in a quite exceptional manner, and not in a way that it is at all desirable others should attempt to imitate. If uninitiated people who enter the arena in which some of the professional speculators flourish, were to spend some months in gathering information and in close observance of the modus operandi, so far as they can get to see and hear, many of them would soon be persuaded that they were utterly useless at such work, and would retire, thanking their stars. The haphazard man, who is the antithesis of the professional speculator, will generally be found as differently constituted as are the results of his operations. The man who makes a study and business of speculating, investigating every detail that it seems necessary to probe until he has adapted it to the rest of his machinery, will be found to be a hard-grained man, sailing very close to the wind, while your persistently haphazard man is mostly a person of flabby character, and no less flabby mind, as easily frightened off a line that he has set himself to follow, in the innocence of a heart that expands with a delusive consciousness of possessing power, as a stray rabbit. Such a class of man is to be found by hundreds in the haunts of the stock markets, and they are always fidgeting in and out, first as little bulls, and then as little bears, disappearing after a sharp panic like flies from a joint of meat that is rudely disturbed by the shop-boy, with the important difference that whereas the flies always get

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something, the speculators invariably drop their money.[5]

> *Too many people simply give up too easily. You have to keep the desire to forge ahead, and you have to be able to take the bruises of unsuccess. Success is just one long street fight.*
>
> **Milton Berle**

From *How to Win and How to Lose* (1883) arguably the first trend-based market *player* arrives: “The shrewdest operator ever known on the London Stock Board was David Ricardo (1772–1823) who amassed an enormous fortune. In advice to a friend he sums up as the true secret of his success, the rule, every word of which is golden. ‘Keep down your losses—never let them get away from you. Let your profits take care of themselves.’”[6]

That precept is huge. *Timeless*. If you were to put Ricardo into language of modern day computer science 134 years later you would say, *optimal stopping* or *win-stay, lose-shift* or *A/B testing*. More clarification from 1883 keeps the focus on taking a loss: “Speculation is looked upon as being so much more risky than other avocations cause its results are more sudden and startling, though not one whit more disastrous. Statistics show that ninety-five out of one hundred men fail in mercantile life. The proportion is not greater among speculators: quicker action is obtained whether it be favorable or unfavorable, and it does not take five or ten years’ time to find that you are playing a losing game.”[7]

> *A study on human behavior shows 90% of the population can be classified into four basic personality types: Optimistic, Pessimistic, Trusting and Envious. Envious, at 30%, is the most common.*
>
> **Universidad Carlos III de Madrid**

No one is saying that attitude comes naturally. From *The Art of Investing* (1888): “Then, in theory, it is so easy to win by speculation! To buy at a low figure and sell at a higher, or to sell at a high figure and afterward buy at a lower, seems such a simple operation! It almost looks as if you could go into Wall Street and pick up money from the sidewalks.”[8]

Intense study, practice, is the rock solid foundation. From *Gold Bricks of Speculation* (1904):

> Speculation is inherent in the human constitution, and men have a

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> legal and moral right to speculate, provided they do so reasonably, intelligently and at their own risks. Reasonable speculation is such speculation as cannot seriously or permanently affect the resources or position of the persons indulging in it. Intelligent speculation is such speculation as is indulged in only after a thorough investigation and study of the subject of the speculation. The professional speculator is in the market not for the purpose of either depressing or raising prices. He is as ready to make money on a rise as on a fall in prices. In either case he will try to ascertain what the probable tendency of the market is before he embarks in any undertaking. No speculator or clique of speculators in their senses would undertake to try to depress prices in the face of a rising market.[9]

From *Investments and Speculation* (1911) it's easy to see free-market capitalism and less government as optimal:

> *The free market punishes irresponsibility. Government rewards it.*
>
> **Harry Browne**

> *The absolute number doesn't matter, it's the trend over time.*
>
> **Seth Godin**

> Call it what you will, speculation will always be with us. Prudes may frown upon it, superficial thinkers may confuse it with the commonest forms of gambling, and sociologists may dream of the day when envy, ambition and covetousness will be a thing of the past and the human race can exist in peace without these human traits, but their agitations and outcries can no more check speculation than human ingenuity can devise a scheme to control the tides. What the blood is to the human body, speculation is to business. It is absolutely a necessary part of it. The only difference, if there is at all a difference, is in the form it assumes. What would business be without incentive? In fact incentive is all there is at the bottom of speculation. Men are willing to take risks to acquire wealth. They are willing to stake their capital upon opportunities, which appeal to their judgment. From the pioneer who heedlessly plunges into a trackless waste to find a new home with greater opportunities for the acquisition of wealth, to the modern capitalist, who, to control the trade in a given commodity, plans gigantic trusts, is a long line of speculators, as speculation is behind all their ambitions. The inventor who is, apparently, of all men the least of

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> speculators, takes greatest speculative chances, for he uses up time and energy to shape his ideas into some form where they can be of practical use and should he fail has wasted them utterly and lost all. Illustration after illustration could be given to demonstrate how speculation in a greater of less degree enters into the material welfare of each individual. Without speculation no business could progress. It is the dynamic power behind every incentive to activity and progress. It is the desire for gain, which prompts the inception of every venture. If it is all that, then it can be readily seen how necessary speculation is. In fact, speculation in its highest form has shaped the course of history and often changed the map of the world. Intelligent speculation is no crime. It is not gambling. It is merely pitting human shrewdness against the uncertainties of the future. For that matter, life itself is a speculation in which ministers, prudes and agitators hope to avoid sickness and accident and live their allotted span of life. Between speculation and gambling there is as much difference as there is between night and day. Speculation commands the exercise of the greatest measure of acumen, where gambling trusts everything to luck and the turn of a card. Experience has demonstrated far too convincingly that wherever speculation has been leashed by the iron bonds of the law, the effect has been almost an immediate stoppage in the material progress of the country.[10]

And finally from *Psychology of the Stock Market* (1912), one year before the Federal Reserve System was established, the behavioral school comes into focus:

> The psychological aspects of speculation may be considered from two points of view, equally important. One question is: "What effect do varying mental attitudes of the public have upon the course of prices?" "How is the character of the market influenced by psychological conditions?" A second consideration is: "How does the mental attitude of the individual trader affect his chances of success?" To what extent, and how, can he overcome the obstacles placed in his pathway by his own hopes and fears, his timidities and his obstinacies?[11]

> *Gaslighting is a form of manipulation that seeks to sow seeds of doubt in a targeted individual or members of a group, hoping to make targets question their own memory, perception, and sanity.*
>
> **Wikipedia**

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This wisdom is clean, clear, and instantly *true* for those awake. These days, however, speculation is often positioned as a pejorative among the intelligentsia. While I enjoy Oliver Stone's outsider status, his film *Wall Street: Money Never Sleeps* (2010) paints speculation quite differently, as his film's main character Gordon Gecko profanes, "The mother of all evil is speculation."[12]

Stone is not alone in making an enemy out of speculation. New age guru Deepak Chopra makes the sweeping generalization that "Wall Street is broken for sure because it succumbed to greed and corruption and pure speculation with no values."

Wall Street, the phrase, can mean *anything*. If Chopra is talking big bank bailouts it is easy to agree with him, but pure speculation practiced *honestly* is far from valueless. Politicians, too, love the sport of ripping speculators, an enduring ritual. United States socialist Bernie Sanders was predictable: "I'm not much into speculation." The character Bobby Axelrod of *Billions* counters Sanders: "What have I done wrong? Really? Except make money. Succeed. All these rules and regulations? Arbitrary. Chalked up by politicians for their own ends."

Axelrod is of course a fictional, fast and loose day trader built on inside information, but his *words*, words uttered by many an honest man over the millennia, expose in raw form the hatred inferior minds have toward speculation and reinforce it as a worthy endeavor—at least for those disconnected from *The Matrix*.

Winning versus Losing

It is typical the general public equates *winning* in the markets with abusing the financial market system—you know the horror stories so I won't overwhelm you. However, there are players with the utmost integrity who achieve spectacular returns year after year. Examine their beliefs and self-perceptions and you will understand what keeps them *honest*. But before you examine their perspectives, take a moment to consider your own.

> *The joy of winning and the pain of losing are right up there with the pain of winning and the joy of losing. Also to consider are the joy and pain of not participating. The relative strengths of these feelings tend*

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to increase with the distance of the trader from his commitment to being a trader.

Ed Seykota[13]

For example, at the end of the 1990s or let's say summer 2007 or even fall 2016 for that matter, when investors were feeling more secure financially on *paper*, the you-know-what hit the fan or was about to, and by the time it was over, they had lost significant money. They became angry with analysts, experts, brokers, and money managers whose advice they had guzzled down. Now they know they will not meet their investment goals or come close to the mythological retirement. They've religiously held on to their remaining investments hoping they will eventually turn around, but 401(k) decisions are paralyzing. They still believe indexing or buying and holding is the way to go—after all, they've been sold that meme for decades. But now as a final act of desperation, they give up—they rationalize winning as only dumb luck.

If you think education is expensive, try ignorance.

Derek Bok

Still others lost even more in October 2008, but, win or lose, they enjoy the thrill in the hopes of the one trade that makes them rich. Investing gurus, stock tips, and all of that is their entertainment. Plus they love to boast about their investments—ego needs attention, after all. Yes, they are depressed and angry when they lose, but when they win it feels terrific —it's the heroin-junkie high. Since their main goal is to invest for quick profits, they will keep doing what they've always done. After all, there was one time a few years ago when a *tip* made a nice profit they still dream about.

Stop.

There is a much better way to think: Your approach becomes objective, moving as close as you can to rational. You have enough confidence in your own decision making that you never seek out investment recommendations. You're content to wait patiently for the right opportunity. And you're never too proud to buy a stock making new highs, even all-time highs. For you, investing opportunities are market *breakouts*. Conversely, when wrong, you exit immediately, no questions asked. You view loss as an opportunity to learn, move on, and save money to play another day. Obsessing on the past is pointless. You approach

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trading as a business, making note of what you buy or sell and why in the same matter-of-fact way you balance your checkbook. By not personalizing your trading decisions, your emotional indecision has the chance to decrease.

The first perspective is that of a market loser; the latter a winner. Don't be in a hurry to choose your approach until you know what the choice entails. And look, don't be shy about it. You have to want the money. You have to want to get ahead and be rich—the critics' condemnation, the player hating, the rank jealousy be damned. Speculation is not only honorable—it is life. Profit-seeking speculation is the absolute driving force of markets and without it there is only disintegration.[14]

Investor versus Trader

Wide swaths of the population think as investors in search of a bargain. However, if you were to learn the most consistent market winners call themselves traders, you would want to know why. Simply put, they don't invest—they trade.

> *Nothing has changed during the 21 years [over 40 years now] we've been managing money. Government regulation and intervention have been, are, and will continue to be present for as long as society needs rules by which to live. Today's governmental intervention or decree is tomorrow's opportunity. For example, governments often act in the same way that cartels act. Easily the most dominant and effective cartel has been OPEC, and even OPEC has been unable to create an ideal world from the standpoint of pricing its product. Free markets will always find their own means of price discovery.*
>
> **Keith Campbell**[15]

Investors put their money, or capital, into a market, such as stocks or real estate, with the assumption that value will always increase over time: "I am *long* and never wrong!" As value increases, their investment and psychological reinforcement also increase. But investors have no plan when their value drops. They hold on to their investment, hoping the value will go back up. Investors succeed in bull markets and lose in bear markets—like clockwork.

This is because investors have zero plan to respond when losses mount.

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They always choose to *hang tight* and continue to lose. And if mainstream press continually positions investing as *good* or *safe* and trading as *bad* or *risky*, average investors will be reluctant to align themselves with trading. Better to trust the mutual fund, and government systems, and fall asleep.

A trader, on the other hand, has a defined plan or strategy to put capital to work to achieve profit. Traders don't care what they buy or what they sell as long as they end up with more money than their starting capital. They are not investing in anything. They are trading. It is a critical distinction.

Trader Tom Basso believes a person is a trader whether or not he or she is trading. Some mistakenly think they must be in and out of the markets every day to call themselves traders. What makes someone a trader has more to do with their perspective on life more than making a given trade. For example, a great trader's perspective must include extreme patience. Like the African lion waiting days for the right moment to strike its unsuspecting prey, great trading strategy can wait weeks or months for the right trade with the right odds, and only then pull the trigger.

> *He who lives by the crystal ball will eat shattered glass.*
>
> **Ray Dalio**

Additionally, and ideally, traders will go *short* as often as they go *long*, enabling them to make money in both up and down markets. However, many traders won't or can't go short. They struggle with the counterintuitive concept of making money on market declines. I would hope the confusion associated with making money in down markets will dissipate, but it won't. Human nature believes in only *up*.

Fundamental versus Technical

There are two basic trading theories. The first is fundamental analysis. It is the study of external factors that affect the supply and demand. Fundamental analysis uses factors such as Federal Reserve meetings, 24/7 news, weather reports, regulatory knowledge, price-earnings ratios, and balance sheet projections to make buy and sell decisions. By monitoring all *fundamentals*, one can supposedly *predict* a change in direction before that change has been reflected in the price of the market,

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with the belief you can then make money from that knowledge. That means you can sit around, ponder the viability of Uber's autonomous car fleet, make your bets on whatever markets, and the easy bling money rolls in.

> *Whenever we get a period of poor performance, most investors conclude something must be fixed. They ask if the markets have changed. But trend following presupposes change.*
>
> **John W. Henry**[16]

The vast majority of Wall Street is fundamental analysis alone. They are the bankers, academics, brokers, and analysts who always have an opinion or prediction, rain or shine. Many of these Wall Street players have serenaded millions with fundamental stories for decades. Gullible and naïve investors buy into rosy fundamental projections riding bubbles straight up with no clue how to exit. Consider an exchange with President George W. Bush before the Great Recession:

> *With the possible exception of things like box scores, race results, and stock market tabulations, there is no such thing as objective journalism. The phrase itself is a pompous contradiction in terms.*
>
> **Hunter S. Thompson**

Question:

"I'm a financial advisor here in Virginia, and I wanted to ask you what your thoughts are on the market going forward for 2008 and if any of your policies would make any difference?"

President Bush:

"No (laughter), I'm not going to answer your question. If I were an investor, I would be looking at the basic fundamentals of the economy. Early on in my Presidency, somebody asked me about the stock market, and I thought I was a financial genius, and it was a mistake (laughter). The fundamentals of this nation are strong. One of the interesting developments has been the role of exports in overall GDP growth. When you open up markets for goods and services, and we're treated fairly, we can compete just about with anybody, anywhere. And exports have been an integral part, at least of the 3rd quarter growth. But far be it for me—I apologize—

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for not being in the position to answer your question. But I don't think you want your President opining on whether the Dow Jones is going to—(laughter)—be going up or down."

One of our basic philosophical tendencies is that change is constant, change is random, and trends will reappear if we go through a period of non-trending markets. It's only a precursor to future trends and we feel if there is an extended period of non-trending markets, this really does set up a base for very dynamic trends in the future.

Research at John W. Henry[17]

The President's view is a cardboard cutout of the type of fundamental view shared by the vast majority of market participants. An excerpt from Yahoo! Finance outlining a typical market day is instantly familiar: "It started off decent, but ended up the fourth straight down day for stocks. Early on, the indices were in the green, mostly as a continuation from the bounce Monday afternoon, but as the day wore on and the markets failed to show any upward momentum, the breakdown finally occurred. The impetus this time was attributed to the weakness in the dollar, even though the dollar was down early in the day while stocks were up. Also, oil prices popped higher on wishful thinking statements from a Venezuelan official about OPEC cutting production. Whether or not these factors were simply excuses for selling, or truly perceived as fundamental factors hardly matters."

Millions consume news or fake news drivel such as this every minute, hour, day, year, and decade. Thousands have watched the likes of CNBC's Jim Cramer's *Mad Money* show promote similar projections for what seems like decades (actually back to 2005). But predictions based off fundamental analysis are a crapshoot guessing game, as you will never know all fundamentals in what has become an ever-expanding fact and fact-less society.

But instead of helping people to understand *news* is not at all critical to their moneymaking decision making, politicians across the globe are gearing up to stamp out the supposed scourge of *fake news*. For example, State of California Assembly member Jimmy Gomez introduced Assembly Bill (AB) 155 in 2017 "to ensure that upcoming generations of online readers possess the analytical skills needed to spot fake news. The bill would direct the *Instructional Quality Commission* to develop and

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adopt curriculum standards and frameworks that incorporate civic online reasoning, for English Language Arts, Mathematics, History, Social Science, and Science."

[Insert your own Orwellian reference.]

Trader Ed Seykota notes across the board cognitive dissonance in play with a simple story: "One evening, while having dinner with a fundamentalist, I accidentally knocked a sharp knife off the edge of the table. He watched the knife twirl through the air, as it came to rest with the pointed end sticking into his shoe. 'Why didn't you move your foot?' I exclaimed. 'I was waiting for it to come back up,' he replied."[18]

Everyone knows an investor waiting for their market to come back, and it often never does. The financial website Motley Fool has a back-story, a narrative behind its start that reinforces the folly of fundamental analysis: "It all started with chocolate pudding. When they were young, brothers David and Tom Gardner learned about stocks and the business world from their father at the supermarket. Dad, a lawyer and economist, would tell them, 'See that pudding? We own the company that makes it! Every time someone buys that pudding, it's good for our company. So go get some more!' The lesson stuck."[19]

> *Our ace in the hole is that the governments usually screw things up and don't maintain their sound money and policy coordination. And about the time we're ready to give up on what usually has worked, and proclaim that the world has now changed, the governments help us out by creating unwise policy that helps produce dislocations and trends.*
>
> **Jerry Parker**[20]

The Motley Fools' David and Tom Gardner's pudding story is *cute*, but it's misleading in design. Their plan gets you in, but it doesn't get you out or tell you how much of that pudding stock you should buy. Many low information types believe that easy to digest narrative. I can only scream inside my head: "Houston, we've got a freaking problem!"

> *Ultimately, it is the dollar-weighted collective opinion of all market participants that determines whether a stock goes up or down. This consensus is revealed by analyzing price.*
>
> **Mark Abraham**

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A second market theory, technical analysis, operates in stark contrast to the funnymentals. This approach is based on the belief at any given point in time, market prices reflect all known factors affecting supply and demand. Instead of evaluating fundamental factors, technical analysis looks at the market prices themselves. But an understanding of technical analysis can quickly become confusing and controversial. There are essentially two forms of technical analysis. One is based on an ability to read charts or use indicators to *predict* market direction.

And predictive technical analysis rightly deserves poignant criticism:

> "I often hear people swear they make money with technical analysis. Do they really? The answer, of course, is that they do. People make money using all sorts of strategies, including some involving tealeaves and sunspots. The real question is: Do they make more money than they would investing in a blind index fund that mimics the performance of the market as a whole? Most academic financial experts believe in some form of the random-walk theory and consider technical analysis almost indistinguishable from a pseudoscience whose predictions are either worthless or, at best, so barely discernibly better than chance as to be unexploitable because of transaction costs."[21]

> *Now walking into client meetings we hardly ever have a discussion around why trend following works—the battle has been won.*
>
> **Anthony Todd**

This is the view of technical analysis held by most who think they know of it—that it is a form of chart reading, astrology, moon cycle analysis, chart pattern wiggle feelings, Elliott waves to the first, second, third, fourth, and fifth degree, and—Barry Ritholtz's favorite one to skewer—the *Death Cross*. Big bank equity research departments add to confusion by asking the wrong question: "The question of whether technical analysis works has been a topic of contention for over three decades. Can past prices forecast future performance?"[22]

It gets worse. Consider a recent *Red Alert* example from HSBC: "The Head & Shoulders Top with the neckline acting as resistance comes on top of a potentially bearish Elliot Wave irregular flat pattern and the fact that the index is now backing off from the old 2015 highs. A close below 17,992 would be very bearish. Pressure would ease above 18,449."[23]

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Good luck with that.

There is a second type of technical analysis that neither predicts or forecasts. This type is based on *reacting* to price action, as trend trader Martin Estlander notes: “We identify market trends, we do not predict them. Our models are kept reactive at all times.”[24]

Mebane Faber expands on *reaction* by noting three criteria are necessary for a model to be simple enough to follow, yet mechanical enough to remove emotion and subjective decision making:

1. Simple, purely mechanical logic
2. The same model and parameters for every asset class
3. Price-based only[25]

Instead of trying to predict market direction (an impossible chore), trend following reacts to movements whenever they occur. This enables a focus on the actual price risk, while avoiding becoming emotionally connected with direction, duration, and fundamental expectations.

> *It is not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to change.*
>
> **Charles Darwin**

This price analysis never allows entry at the exact bottom of a trend or an exit at the exact top. And you won’t necessarily trade every day or week. Instead, trend following waits patiently for the right conditions. There is no forcing an opportunity not there. And with this view there are not exact performance goals. Some want a strategy that dictates, “I must make $400 a day.” The trend following counter is, “Sure, but what if markets don’t move on a given day?” Trend following works because you don’t try to outthink it. You are a trend *follower*, not a trend *predictor*.[26]

Discretionary versus Systematic

There are investors and traders, and trading can be fundamentally or technically based. Further, technical trading can either be *predictive* or *reactive*. However, there is more distinction. Traders can be discretionary or mechanical.

> *Investing should be more like watching paint dry or watching grass*

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grow. If you want excitement, take $800 and go to Las Vegas.

Paul Samuelson

Trader John W. Henry makes a clear distinction between the two strategies: "I believe that an investment strategy can only be as successful as the discipline of the manager to adhere to the requirements in the face of market adversity. Unlike discretionary traders, whose decisions may be subject to behavioral biases, I practice a disciplined investment process."[27]

When Henry speaks of decisions that may be subject to behavioral biases, he is referring to those who make their buy and sell decisions on fundamentals, the current environment, or any number of other whatever factors. It's a never-ending parade of data they can supposedly sift through and utilize. In other words, they use their discretion—hence, the use of *discretionary* to describe their approach.

Decisions made at the *discretion* of the trader can be changed or second-guessed nonstop. These discretionary gut-trading decisions will be colored by personal bias. I have yet to see a multi-decade track record produced by gut trading. It's 100 percent fantasy. Many imagine the process is like a fighter pilot strapped into the cockpit armed with an instinctive feel, or even an innate gift. It's not that.

Now, a trader's initial choice to launch a trading system is discretionary. You must make discretionary decisions such as choosing a system, selecting your portfolio, and determining a risk percentage (some would argue even these aspects can be made systematically too). However, after you've decided on the system-orientation basics, you can systematize these discretionary decisions and make them mechanical.

Mechanical or systematic trading systems are based on objective rules. Traders put rules into computer programs to get in (buy) and out (sell) of a market. A mechanical trading system eliminates emotional vacillation. It forces discipline to stick with the process. If you rely on mechanical trading system rules, and break them with discretion, you are guaranteed to go broke.

Henry puts into perspective the downsides of discretionary thinking: "Unlike discretionary traders, whose decisions may be subject to behavioral biases, we practice a disciplined investment process. By quantifying the circumstances under which key investment decisions are

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made, our methodology offers investors a consistent approach to markets, un-swayed by judgmental bias."[28]

Maybe it is rigid to say it's against the rules to use a little discretion. You might think, "How boring to live like a CPA." Where's the *fun* if all you ever do is follow a mechanical model? Successfully making fortunes isn't about excitement. It's about winning. A researcher at Campbell & Company, one of the oldest and most successful trend following firms, is adamant: "One of our strengths is to follow our models and not use discretion. This rule is written in stone at Campbell."[29]

Trend trader Ewan Kirk adds:

> *The trend is your friend except at the end when it bends.*
>
> **Ed Seykota**[30]

> Systematic trading involves coming up with a statistical model of the markets. Assuming that model has worked in the past, and that you have developed and researched and tested your model correctly, then your hypothesis is that it's likely to keep working in the future. So the actual execution of trades is just continuing to follow what the model says. Now that sounds quite mechanical. In fact, it's no different than the way any good investor works. Why would you invest with Warren Buffett? Because, over the past 30 years, Warren Buffett has made money, and you're assuming that's going to continue in the future. Conceptually, that's no different than what we do.[31]

Traders Todd Hurlbut and Ted Parkhill further note the perils in discretion: "We are systematic. We have seen examples where managers either start to doubt and then start tinkering so there is what today is called style shift or worse where a manager dramatically changes the approach to what could be called style 'flip.'"[32]

Hiding in Plain Sight

Trend following, and assorted derivatives of price-based trading, is not a new concept. It goes back across names like David Ricardo, Jesse Livermore, Richard Wyckoff, Arthur Cutten, Charles Dow, Henry Clews, William Dunnigan, Richard Donchian, Nicolas Darvas, Amos Hostetter, and Richard Russell. Believe it or not, it literally goes back centuries, with

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data to prove it (see Chapter 19 and 20 in Section III, “Trend Following Research”).

AQR’s Cliff Asness clarifies: “Historically, it’s been a strategy pursued primarily by futures traders and in the last 10–20 years by hedge funds. The trading strategy employed by most managed futures funds boils down to some type of trend following strategy, which is also known as momentum investing.”[33]

Even traders not typically associated with trend following eventually find their way. In *Hedge Fund Market Wizards*, Jack Schwager asked Ed Thorpe, an American mathematics professor, author, hedge fund manager, and blackjack player best known as the “father of the wearable computer,” if he believed “there are trends inherent in the markets?” Thorpe replied: “Yes. Ten years ago, I wouldn’t have believed it. But a few years ago, I spent a fair amount of time looking at the strategy. My conclusion was that it works, but that it was risky enough so that it was hard to stay with it.”[34]

Thorpe noted he used trend following, too. And so it goes; price-based trend strategies discovered by new and old generations at different times. Salem Abraham, now an established trend following veteran, began researching the markets in his early twenties by asking a simple question: “Who is making money?” His answer was “trend followers” and his journey began.[35]

Still, not many have made the journey. During the Dot-com era of the late 1990s, throughout the Fed-induced S&P run-up after March 2009, and even today into 2017, many with zero strategy have made money in other ways, so trend following becomes a blip on the radar screen—seemingly not so important.

> *Defining a trend is like defining love. We know it when we see it, but we are rarely sure exactly what it is. Fung and Hsieh’s paper goes a long way to doing for trends what poets have been trying to do for love since time immemorial. They give us a working model that quantitatively defines their value for us. Traders will not be surprised to learn that trend following advisors performed best during extreme market moves, especially during bad months for equities.*[36]

And since trend following has nothing to do with high-frequency trading,

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short-term trading, cutting-edge technologies or Wall Street hocus pocus nonsense, its appeal is universally lost during extraordinary delusions unleashed inside the madness of crowds—that is, until bubbles pop. Trend following is not *sexy* until after the masses get poached and bleed out.

Nonetheless, if you look at how much money trend following has made before, during, and after assorted market bubbles, it becomes far more relevant to the bottom line of astute market players.

> *Change is not merely necessary to life—it is life.*
>
> **Alvin Toffler**

Yet, even when over the top trend following success is thrown onto the table, skeptical investors can be tough sells. They might say markets have changed and trend following no longer works. But philosophically trend following hasn't changed and won't change, even though markets might not always cooperate.

Let's put change in perspective. Markets behave the same as they did hundreds of years ago. In other words, markets are the same today because they always change—humans are involved, after all. This behavioral view is the philosophical underpinning of trend following. A few years ago, for example, the German mark had significant trading volume. Then the euro replaced the mark. This was a huge change, yet a typical one. If you are flexible and have a plan of attack—a solid strategy—market changes, like changes in life, won't kill you. Trend followers traded the mark; now they trade the euro. That's how to *think*.

Accepting that inevitability of change is an initial step to understanding. One trend follower elaborates:

> But what won't change? Change. When a period of difficult performance continues, however, most investors' natural conclusion is that something must be done to fix the problem. Having been through these draw downs before, we know that they are unpleasant, but they do not signal that something is necessarily wrong with the future. During these periods, almost everyone asks the same question in these exact words: "Have the markets changed?" I always tell them the truth: "Yes." Not only have they changed, but they will continue to change as they have throughout history. Trend following presupposes change. It

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is based on change.[37]

Markets of course are built by design to go up, down, and sideways. They *trend* or *chop*. They *flow* or don't. They are consistent, then they *surprise*. No one accurately can forecast a trend's beginning or end until it becomes a matter of record. However, if your trading strategy is designed to adapt, you can take advantage of changes:

> If you have a valid basic philosophy, the fact that things change turns out to be a benefit. At least you can survive. At the very least, you will survive over the long-term. But if you don't have a valid basic philosophy, you won't be successful because change will eventually kill you. I knew I could not predict anything, and that is why we decided to follow trends, and that is why we've been so successful. We simply follow trends. No matter how ridiculous those trends appear to be at the beginning, and no matter how extended or how irrational they seem at the end, we follow trends.[38]

A valid basic philosophy means a trading strategy that can be defined, quantified, written down, and measured in terms of numbers. Trend following does not guess at buys and sells. It knows what to do because valid basic philosophy is codified into a specific plan for all contingencies.

> *The people who excel in any field are people who realize that the moment is there to be seized—that there are opportunities at every turn. They are more alive to the moment.*
>
> **Charles Faulkner**[39]

The Man Group, one of the largest trend following traders, describes the source behind their profits:

> . . . trends as a persistent price phenomenon that stems from changes in risk premiums—the amount of return investors demand to compensate the risks they are taking. Risk premiums vary massively over time in response to new market information, changes in economic environment, or even intangible factors such as shifts in investor sentiment. When risk premiums decrease or increase, underlying assets have to be priced again. Because investors typically have different expectations, large shifts in markets result over several months or even years as expectations are gradually adjusted. As long as there is uncertainty about the future, there will be trends for trend

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followers to capture.

The four most expensive words in the English language are: this time it's different.

Sir John Templeton

Change Is Life

Patrick Welton saw no evidence trend following has devolved. He constructed 120 trend following models. Some were reversal based, and some not. Some were breakout-style trading systems based on price action, and others relied on volatility and band-style breakouts. The average holding periods ranged from two weeks to one year. The results gave almost identical performance characteristics.

Welton addressed head on the misconception that the sources of return for trend following had changed. He pointed out starting from first principles, it was a fact the source of return for trend following resulted from sustained market price movements. Human reaction to such events (read: Daniel Kahneman), and the stream of information describing them, takes time and runs its course unpredictably. The resulting magnitude and rate of price change could not be reliably forecast. This is the precise reason why trend following works.[40]

They are like surfboard riders, who study the movements of the waves, not in order to understand why they behave as they do, but simply in order to be on hand whenever they surge, to catch them at their crest, or as soon thereafter as possible to ride them as far as they possibly can, and to dissemble before they change direction.

Morton S. Baratz[41]

One fund consultant confronted trend trading skeptics decades before trend following's huge October 2008 positive returns:

[In the 1980s] on a tour of Germany sponsored by the Deutsche Terminborse, several advisors and pool operators were making a presentation to a group of German institutional investors. Among them were two trend-based traders, Campbell and John W. Henry. During the question-and-answer period, one man stood and proclaimed: "But isn't it true that Trend Following is dead?" At this

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point, the moderator asked that slides displaying the performance histories for Campbell and Henry be displayed again. The moderator marched through the declines, saying, "Here's the first obituary for trend-based trading. Here's the next one . . . and the next but these traders today are at new highs, and they consistently decline to honor the tombstones that skeptics keep erecting every time there's a losing period." Campbell and Henry have made their investors hundreds of millions of dollars since that time. It might, therefore, be a mistake to write yet another series of obituaries.[42]

Like sunrise, sunset you can always expect a new trend following obituary, oblivious to the data, and rooted in purposeful ignorance, will be written every few years by an agenda-driven press, EMT defenders, and player haters despite the incredible amounts of money made by trend following practitioners.

Markets don't move from one state to another in a straight line: There are periods of countertrend shock and volatility. We spend most of our time trying to find ways to deal with those unsettling but inevitable events. That being said, it is really not difficult to put together a simple trend following system that can generate positive returns over a realistic holding period and there are many, many commercial systems that have been generating strong, albeit volatile, returns for a long time. So there are definitely firm grounds for believing in Santa Claus.

Paul Mulvaney

Perplexed at Wall Street's lack of acceptance, one trend follower sees the danger in trying to be *right*: "How can someone buy high and short low and be successful for two decades unless the underlying nature of markets is to trend? On the other hand, I've seen year-after-year, brilliant men buying low and selling high for a while successfully and then going broke because they thought they understood why a certain investment instrument had to perform in accordance with their personal logic."[43]

Trend following trader Paul Mulvaney made the point: "One thing to bear in mind is that we have made no changes to our trend following strategy since 2005. So in a way we take the ancient Spartan view that everything that needed to be said about long-term trend following has already been said." He continued: "In recent years our research has focused on

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execution algorithms—but those are of minor importance versus the strategic trend following *philosophy*."

Here is Mulvaney's philosophy in performance data format:

Monthly Net Returns (%)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
2016	5.94	10.75	−13.52	−2.84	−8.35	27.33	−1.01	−13.30	18.22				**16.72**
2015	6.93	−0.50	3.84	−7.98	4.13	−6.07	4.77	−9.23	6.15	−11.05	13.52	−2.10	**−0.77**
2014	−1.46	1.36	4.65	2.67	−4.47	2.37	2.25	9.33	17.69	−1.67	13.05	9.05	**67.36**
2013	10.46	7.39	9.29	9.73	0.13	−3.15	−4.03	−10.90	2.61	7.29	11.58	−1.24	**43.12**
2012	−3.75	0.78	5.21	−1.08	−0.90	−18.12	11.38	−6.26	−8.58	−15.07	−0.97	0.76	**−33.72**
2011	2.07	9.78	−4.62	6.07	−11.82	−7.41	11.15	1.59	−4.20	−14.14	12.05	−1.64	**−5.26**
2010	−3.84	−7.15	−5.15	2.02	−8.77	0.53	−12.03	14.59	16.46	22.29	−5.36	25.30	**34.90**
2009	1.60	−0.03	−3.36	−5.51	−1.30	−6.81	−0.53	10.85	1.32	−7.86	10.70	−3.19	**−5.90**
2008	21.65	28.86	−7.96	−8.58	5.35	8.51	−18.78	−6.73	11.58	45.49	6.97	5.30	**108.87**
2007	0.56	−5.18	−8.82	2.59	4.70	4.85	−16.89	−19.40	3.92	13.72	−8.59	8.47	**−23.14**
2006	11.09	−2.70	13.05	11.46	−4.27	−6.10	−5.20	1.95	1.00	−0.13	0.56	1.60	**21.94**
2005	−4.28	0.54	2.30	−9.28	−4.08	5.32	6.62	2.78	13.57	−5.64	15.27	8.35	**32.34**
2004	4.19	8.45	2.37	−11.50	−6.99	−0.73	−0.41	−6.21	7.76	0.76	9.63	−4.94	**−0.10**
2003	13.20	7.22	−12.83	1.45	7.64	−7.61	−6.33	0.07	6.66	15.32	−0.27	5.35	**29.28**
2002	—	—	−7.52	1.55	6.75	7.38	5.95	5.44	5.13	−7.73	−5.08	7.80	**19.37**
2001	−9.62	18.76	13.46	−15.25	−0.66	5.39	−1.26	—	—	—	—	—	**6.69**
2000	−5.02	2.52	−8.40	−0.27	6.97	1.55	−1.25	12.68	−4.36	1.96	9.05	8.90	**24.51**
1999					−0.29	−0.14	−2.22	2.13	−4.81	−4.80	7.01	4.84	**1.09**

Mark Spitznagel, a trader focused on *tails* and a close associate of Nassim Taleb, would characterize Mulvaney's returns as "lumpy" with "extreme asymmetric payoffs"—exactly how he would refer to his trading world. And whether using Spitznagel's strategy, or Mulvaney's go-for-the-gusto high-octane strategy, an opportunistic plan of attack knows you aim to lose battles, but win the war.

> *By honest I don't mean that you only tell what's true. But you make clear the entire situation. You make clear all the information that is required for somebody else who is intelligent to make up their mind.*
>
> **Richard Feynman**

Let me be clear, though: Mulvaney's track record is but one example for industrious types to go reverse-engineer, to learn step by step how those volatile but overall *up* numbers came to be. His performance table is an initial shot across the bow to bring you into the trend following, month-to-month mindset of no benchmarks. But trend following is much more than one trend following track record alone—this strategy has performed consistently for more than a century across an untold number of traders. And the reasons to explain why markets have tended to trend more often

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than not include investors' behavioral biases, market frictions, hedging demands, and never-ending market interventions launched by central banks and governments.[44]

Follow the Trend to the End When It Bends

In an increasingly uncertain and downright unfriendly world, it is extremely efficient and effective to base decision making on the single, simple, reliable truth of price. The 24/7 never-ending fundamental data barrage, such as price-earnings ratios, crop reports, and economic studies, plays right into the tendency to make trading more complicated than it need be. Yet by factoring in every possible fundamental piece of data, which is impossible, you still would not know how much and when to buy, or how much and when to sell. The truth of *price* always wins if the debate is grounded in reason. Price is the only fact.

That said, even if you digest price as the key trading variable, it is not unusual for traders to focus on only one market—usually individual stocks in their home country to the exclusion of all other global opportunities. Seeking a maximum degree of comfort, many follow their one familiar market's movements faithfully every day. They never dream of branching out into currencies or futures or coffee or gold. The idea you could know enough about Tesla and soybeans to trade them the same might be unfathomable, but think about what cotton, crude oil, Cisco, GE, the U.S. dollar, the Australian dollar, wheat, Apple, Google, and Berkshire Hathaway all have in common: price action.

> *Warren Buffett says in the long run the stock market is a weighing machine and in the short term it is a voting mechanism. He exploits the weighing machine and we exploit the voting mechanism.*
>
> **David Harding**

Market prices, traded prices, are the unequivocal objective data reflecting the sum total of all views. Accepting that truth allows you to compare and study prices, measuring their movements, even if you don't know a damn thing about fundamentals. You could absolutely look at individual price histories or charts, without knowing which market is which, and trade them successfully. That is not what they teach at Harvard or Wharton, but it is the foundation of making millions as a trend following trader.

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Further, don't try to guess how far a trend will extend. You can't. You will never know how high or how low any market might go. Peter Borish, former second-in-command with Paul Tudor Jones, lays bare the trader's only concern: "Price makes news, not the other way around. A market is going to go where a market is going to go."[45]

The concept of price as the paramount trading signal is too simple for Wall Street to accept. This confusion or misinformation is seen across the mainstream press where they always emphasize the *wrong* numbers. Bill Griffeth, of CNBC, "At some point, investing is an act of faith. If you can't believe the numbers, annual reports, etc., what numbers can you believe?"

He misses the point. It doesn't matter whether you can or cannot believe an earnings statement. All of those numbers can be doctored, fixed, cooked, or faked. The traded market price can't be fixed. It's the only number you can believe. You can see it every day. However, this does not diminish confusion. Alan Sloan, a finance reporter, doesn't get it: "If some of the smartest people on Wall Street can't trust the numbers, you wonder who can trust the numbers."

I know Sloan is droning on about balance sheets and price-earnings ratios. You can't trust those numbers—*ever*. Bad actors can always alter them. Even if you knew accurate balance sheet numbers, that info doesn't necessarily correlate with buying and selling at the right time.

A critical lesson from an old-pro trend trader:

> Political uncertainty is one reason why investment decisions are not driven by discretionary judgments. How, for example, do you measure the impact of statements from [central bankers and treasury chiefs]? Even if we knew all the linkages between fundamentals and prices, unclear policy comments would limit our ability to generate returns . . . trying to interpret the tea leaves in Humphrey-Hawkins testimony or the minds of Japanese policy authorities does not lend itself to disciplined systematic investing. Instead of trying to play a loser's game of handicapping policy statements, our models let market prices do the talking. Prices may be volatile, but they do not cloud the truth in market reactions. Our job is to systematically sift price data to find trends and act on them and not let the latest news flashes sway our market opinions.[46]

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William Eckhardt, a trend follower and former partner of Richard Dennis (see my book *TurtleTrader*), describes how price is to live and die by: "An important feature of our approach is that we work almost exclusively with price, past and current. . . . Price is definitely the variable traders live and die by, so it is the obvious candidate for investigation. . . . Pure price systems are close enough to the North Pole that any departure tends to bring you farther south."[47]

Ed Seykota is a genius and a great trader who has been phenomenally successful. When I first met Ed he had recently graduated from MIT and had developed some of the first computer programs for testing and trading technical systems. . . . Ed provided an excellent role model. For example, one time, he was short silver and the market just kept eking down, a half penny a day. Everyone else seemed to be bullish, talking about why silver had to go up because it was so cheap, but Ed just stayed short. Ed said, "The trend is down, and I'm going to stay short until the trend changes." I learned patience from him in the way he followed the trend.

Michael Marcus[48]

Understanding how a trend follower implements that philosophy is illustrated in Ed Seykota's sugar story. He had been buying sugar—thousands of sugar futures contracts. And every day, the market was closing limit up. Every day, the market was going nonstop higher and higher. Seykota kept buying more and more sugar each day limit up. An outside broker was watching all of Seykota's action. And one day the broker called him after the market close, and since he had extra contracts of sugar that were not balanced out, he said to Seykota, "I bet you want to buy these other 5,000 contracts of sugar." Seykota replied, "Sold."

After the market closes limit up for days in a row, Seykota says, "Sure, I'll buy more sugar contracts at the absolute top of the market." Everybody instinctively wants to buy sugar on the dip or on the retracement. Let it come down lower they pine. "I want a bargain" is their thinking—even if the bargain never appears. Trend following works by doing the opposite: It buys higher highs and sells short lower lows.

Be less curious about people and more curious about ideas.

Marie Curie

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The wisest trend follower I know has said that every five years some famous trader blows up and everyone declares trend following to be dead. Then, five years later, some famous trader blows up and everyone declares trend following to be dead. Then, five years later . . . was the problem trend following or the trader?

Anonymous

Good Traders Confuse Price

The trading histories of Julian Robertson and Louis Bacon, two famed hedge fund titans, underscore the importance of price for decision making.

After the Dot-com crisis Julian Robertson shut his long-running hedge fund down. He was a global macro trader who relied on fundamentals for decision making. Robertson had a close relationship with another global macro trader, Louis Bacon. Bacon was extremely secretive to the extent that it was nearly impossible to find out his performance numbers unless you were a client. Although Bacon did not advertise himself as a trend follower, he was focused on price action:

“If a stock goes from 100 to 90, an investor who looks at fundamentals will think maybe it’s a better buy. But with Louis [Bacon], he will figure he must have been wrong about something and get out.” Contrast that, say, with [Julian] Robertson, who, even after shutting down his firm, was doggedly holding on to massive positions in such stocks as U.S. Airways Group and United Asset Management Corp. . . . [Bacon made the comment] in an investor letter that ‘those traders with a futures background are more sensitive to market action, whereas value-based equity traders are trained to react less to the market and focus much more on their assessment of a company’s or situation’s viability.’”[49]

Every successful trader is a trend follower even if they don’t use the technique, admit it, or know it.

Trend followers know to pick the trend start is a masochistic exercise. When trends start they often come from flat markets that don’t appear to be trending anywhere—it’s choppy, up-and-down, trendless, go-nowhere

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market action. The solution is to take small bets early to see if the trend will mature and get big enough to ride.

An executive at trend following pioneer Graham Capital Management clarifies, "The ability of trend following strategies to succeed depends on two obvious but important assumptions about markets. First, it assumes that price trends occur regularly in markets. Secondly, it assumes that trading systems can be created to profit from these trends. The basic trading strategy that all trend followers try to systematize is to 'cut losses' and 'let profits run.'"[50]

I asked Charles Faulkner to expand:

> *Trend following is similar to being long options because the stop loss creates a limited downside, and the continuation of the trend creates the large upside. This is why the phrase for this approach to trading is to cut losses and to let profits run. Of course, if trends continually fail to materialize, these limited losses can accumulate to large losses. This is also true for any option purchase strategy. For trend followers, the option premium is paid for after an unsuccessful trade is closed when a stop loss has been reached. The premium can also be paid after markets have moved a great deal, profits have been made, and a reversal causes a trailing stop to be hit, and some of the profits reversed.*
>
> **President, Graham Capital Management**[51]

> The first rule of trading is to, "Cut your losses, and let your profits run." And then, that it's the hardest thing to do. Seldom do any of them wonder why, and yet this is exactly where the efficient market theory breaks down, and the psychological nature of the markets shows through. When we lose or misplace something, we expect to find it later. The cat comes back. We find our car keys. But we know a dollar on the street will not be there with the next person who passes by. So experience teaches us that losses are unlikely and gains are hard. "A bird in the hand is worth two in the bush." This is when I tell them that they earn their trading profits by doing the hard thing—by going against human nature. This is where the discipline comes in, the psychological preparation, the months of system testing that give the trader the confidence to actually trade against his natural tendencies.
>
> *In Patton, my favorite scene is when U.S. General George S. Patton*

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has just spent weeks studying the writing of his German adversary Field Marshall Erwin Rommel and is crushing him in an epic tank battle in Tunisia. Patton, sensing victory as he peers onto the battlefield from his command post, growls, "Rommel, you magnificent bastard. I read your book!"

Paul Tudor Jones in George Soros' The Alchemy of Finance

If cutting losses and letting profits run is the trend following mantra, it is because harsh reality dictates you can't play the game if you run out of money. No money, no honey! Trend trader Christopher Cruden sarcastically builds the thought: "I would prefer to finish with a certain currency forecast, based upon my own fundamental reading of the market and one that underpins my personal investment philosophy. . . . The only problem is I can't tell you when this will happen or which event will be first. On that basis alone, it seems best to stay with our systematic approach."[52]

A good example of not letting profits run can be seen in trading strategies that take profits off the table before the trend is over. For example, one broker told me one of his strategies was to ride a stock up for a 30 percent gain and then exit. That was his strategy. Let it go up 30 percent and get out. Sounds reasonable. However, a strategy that uses profit targets is problematic at a root level. It goes square against the math of getting rich, which is always without question to let your profits run. If you can't predict the end or top of a trend, don't get out early and risk leaving profits on the table—you will need the biggest winners after all to pay for the smaller losers.

Bull market babies don't survive, they revert to the mean.

Michael Covel

For example, let's say you start with $50,000. The market takes off and your account swells to $80,000. You could, at this point, quickly pull your $30,000 profit off the table. Your wrong thinking is if you don't take those profits immediately, they will be gone.

Trend followers know that a $50,000 account may go to $80,000, back to $55,000, back up to $90,000, and from there, perhaps, all the way up to $200,000. The person who took profits at $80,000 is not around to take the ride up to $200,000. Letting your profits run is tough psychologically. But understand in trying to protect every penny of your

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profit you never make big profits. Those are the stark choices for the big boy game.

> *I began to realize that the big money must necessarily be in the big swing.*
>
> **Jesse Livermore**

You are going to have ups and downs in your trading account. Get over it. Losses are a part of the trading game no matter the strategy. If you want no losses, if you want positive returns every month, well, you could have had your money with the Ponzi scheme of Bernard Madoff and his fake monthly 1 percent performance, but you know how that turned out. You can't make money if you are not willing to lose. It's like breathing in, but not willing to breathe out.[53]

Think of it this way: If you don't have losses, you are not taking risks. If you don't risk, you won't ever win big. Losses aren't the problem. You must always *cut* them. Ignore losses with no plan, let them build up, and they will come back to wipe out your account.

Theoretically, really big losses rarely befall trend following strategy because it eliminates or reverses positions as soon as the market goes against it. The rationale for hanging in is that any price move could be the beginning of a trend, and the occasional big breakout justifies a string of small losses.[54]

Surf the Waves

I am fortunate to have learned from trader Ed Seykota starting in 2001 with our first Virgin Islands meeting, through a 2012 panel with Larry Hite, and up to his 2016 podcast appearance. But early on he told me a story about being in Bermuda with a new trader who wanted *secrets*. "Give me the quick-and-dirty version of your magical trading secrets," the neophyte beamed.

Seykota took the new trader out to the beach. They stood there watching the waves break against the shoreline. The newbie asked, "What's your point?"

Seykota said, "Go down to the shoreline where the waves break. Now begin to time them. Run out with the waves as they recede and run in as

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the waves come in. Can you see how you could get into rhythm with the waves? You follow the waves out and you follow them in. You follow their lead."

Many people would sooner die than think; in fact, they do so.

Bertrand Russell

The truth of trend following is its philosophical underpinnings are relevant not only to trading, but to life in general, from business to personal relationships. The old-pro trend followers were clear with me, in their words and actions: Trend following works best when pursued with the right *mindset* and unbridled *passion*.

First, consider the role of proper mindset. As Stanford psychologist Carol Dweck teaches, "In a fixed mindset, people believe their basic qualities, like their intelligence or talent, are simply fixed traits. They spend their time documenting their intelligence or talent instead of developing them. They also believe that talent alone creates success—without effort. They're wrong. In a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work—brains and talent are just the starting point. This view creates a love of learning and a resilience that is essential for great accomplishment. Virtually all great people have had these qualities."[55]

Second, trading coach and psychologist Brett Steenbarger argues the passion point: "Find your passion: the work that stimulates, fascinates, and endlessly challenges you. Identify what you find meaningful and rewarding, and pour yourself into it. If your passion happens to be the markets, you will find the fortitude to outlast your learning curve and to develop the mastery needed to become a professional. If your passion is not the markets, then invest your funds with someone who possesses an objective track record and whose investment aims match your own. Then go forth and pour yourself into those facets of life that will keep you springing out of bed each morning, eager to face each day."[56]

In my experience it became crystal clear when used within the context of mindset and passion, the term *trend following* can be substituted in this edition for other aspects of life. That insight crystallized in a passage from Brenda Ueland's 1938 book on creative writing: "Whenever I say *writing* in this book, I also mean anything you love and want to do or to make. It may be a six-act tragedy in blank verse, it may be dressmaking or

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acrobatics, or inventing a new system of double entry accounting . . . but you must be sure that your imagination and love are behind it, that you are not working just from grim resolution, i.e., to impress people."[57]

Successful trend followers don't trade with grim resolve or with the intention to impress. They are playing a game to win and enjoying every moment of it. Like other high-level performers, think professional athletes and world-class musicians, they understand how critical it is to maintain a winning attitude for success. And as Larry Hite told me, good trend following traders ask questions:

> *Among people who take the trouble to understand what the business is about instead of assuming it involves speculating on live cattle, it is readily understood.*
>
> **Campbell & Company[58]**

> The first question you have to ask yourself: "who are you?" I'm not kidding. And don't look at your driver's license! But what you got to say to yourself: "What am I comfortable doing?" Am I an arbitrager? Am I a short-term trader? It is really important that you understand who you are and what you want to do. The next thing you have to ask yourself, one of the real details, "What are you going to do?" What are you going to do exactly? What has to be done? Is it hard to you? Is it easy? Do you have the materials to do it? One of the great things about the market is the markets don't care about you. The market doesn't care what color you are. The markets don't care if you are short or tall. They don't care about anything. They don't care whether you leave or stay. The last question you have to ask yourself: "What follows?" You have to ask yourself, "If I do this and it works, where am I? What have I got?" Now what I've said may really sound like it's pretty simple and common sense, [but think about the failed hedge fund Long-Term Capital Management] those were some very, very smart people [Nobel Prize winners] who did some pretty *stupid* things. And they did it because they didn't ask themselves the basic questions.

Armed with Hite's marching orders let's dive deeper into what it takes for trend following excellence.

> *If you take emotion—would be, could be, should be—out of it, and look at what is, and quantify it, I think you have a big advantage over*

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most human beings.

John W. Henry[59]

A trend is a trend is a trend. Gertrude Stein would have said if she were a trader, "Once you have a game plan, the differences are pretty idiosyncratic.

"Richard Dennis[60]

Summary Food for Thought

- Galileo Galilei: "All truths are easy to understand once they are discovered; the point is to discover them."
- Hendrik Houthakker (1961): "Price changes are not purely random, but follow certain longer run trends." Inspired by Benoit Mandelbrot, Houthakker was an early EMT critic.
- Ed Seykota: "All profitable systems trade trends; the difference in price necessary to create the profit implies a trend."
- Prices, not traders, predict the future.
- If you don't have losses, you are not taking risks. If you don't risk, you can't win anything.
- Price goes either up, down, or sideways. No advance in technology, leap of modern science, or radical shift in perception will alter this fact.
- What if they told you the best way to get to point B, without bumping into walls, would be to bump into walls and not worry about it? Don't worry about getting to point B, but enjoy bumping into walls.[61]
- Trend following strategy is not for trading alone. The MIT blackjack team led by Mike Aponte (podcast episode #22) pursued very similar strategies, as do venture capitalists like Marc Andreessen. Film producer Jason Blum also uses an edge-seeking strategy to produce films.To receive my free interactive trend following presentation send a picture of your receipt to receipt@trendfollowing.com.

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Great Trend Followers

Most of us don't have the discipline to stay focused on a single goal for five, ten, or twenty years, giving up everything to bring it off, but that's what's necessary to become an Olympic champion, a world class surgeon, or a Kirov ballerina. Even then, of course, it may be all in vain. You may make a single mistake that wipes out all the work. It may ruin the sweet, lovable self you were at seventeen. That old adage is true: You can do anything in life; you just can't do everything. That's what Bacon meant when he said a wife and children were hostages to fortune. If you put them first, you probably won't run the three-and-a-half-minute-mile, make your first $10 million, write the great American novel, or go around the world on a motorcycle. Such goals take complete dedication.

—Jim Rogers[1]

The wise and most efficient way to understand trend following is not by only learning rules that make up the strategy, or by studying behavioral work, but by reviewing every last detail of the traders who practice it—Anthony Robbins modeling 101. However, many are reluctant to concede they might do better with mentoring or guidance—even if only from a *book*. Although they will sign up for a cooking or language class, and bet their money on social media avatars, they won't take advantage of insights from those who have made fortunes. They prefer reinventing the wheel instead of modeling behavior from proven top performers. However, the evidence shows modeling is critical for trend following success.

People are mathaphobic.

David Harding

Technical trading is not glamorous. It will rarely tell that you bought at the lows and sold at the highs. But trading should be a business, and a systematic program is a plan to profit over time, rather than from a single trade. High expectations are essential to success, but unrealistic ones just waste time. Computers do not tell the user how

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