

## Accounting & Valuation

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**Name:** “*Accounting’s Tower of Babel: Key Considerations in Assessing Non-GAAP Earnings*” (Ciesielski, Henry) 2017

**Link:** <http://www.cfapubs.org/doi/pdf/10.2469/faj.v73.n2.5>

**Description:** With more companies reporting their own version of earnings called adjusted or operating earnings, this paper analyzes the gap between companies’ versions of earnings and accounting-based GAAP earnings. The conclusion is that earnings have become a less reliable basis of comparison between companies.

**Name:** “*Capitalism Without the Capital*” (Haskel, Westlake) 2017

**Link:** <https://www.amazon.com/Capitalism-without-Capital-Intangible-Economy/dp/0691175039>

**Description:** Developed world economies have undergone a transformation with less capital being invested in tangible assets like buildings and machines and more in intangible assets like research and development, software, branding, and design. With an accounting system and economic measurements like GDP largely tied to tangible assets, this shift has profound implications for how we measure and make decisions about our economy.

**Name:** “*Employee Stock Options (ESOPs) and Restricted Stock: Valuation Effects and Consequences*” (Damodaran) 2005

**Link:** <http://people.stern.nyu.edu/adamodar/pdfiles/papers/esops.pdf>

**Description:** Stock option granting has increased in practice and the way it is accounted for has a significant impact on valuation measures.

**Name:** “*The End of Accounting*” (Lev) 2016

**Link:** <https://www.amazon.com/Accounting-Forward-Investors-Managers-Finance/dp/1119191092>

**Description:** Accounting practices have not kept pace with changes in the economy and businesses. Static accrual-based accounting rules have made standard financial metrics like earnings per share less meaningful and less comparable across companies as a result.

**Name:** “*Research and Development Expenses: Implications for Profitability Measurement and Valuation*” (Damodaran) 1999

**Link:** <http://people.stern.nyu.edu/adamodar/pdfiles/papers/R&D.pdf>

**Description:** The accounting treatment to expense rather than capitalize investment in research and development significantly distorts traditional measures of profitability and valuation.

**Name:** “*Security Analysis*” (Graham, Dodd) 1934

**Link:** <https://www.amazon.com/Security-Analysis-Foreword-Buffett-Editions/dp/0071592539>

**Description:** Graham is considered the father of value investing and this is his seminal work. It describes how accounting issues and managements can mislead investors if figures like earnings per share are not viewed skeptically and if systematic adjustments are not made to arrive at a normalized “earnings power” that can be used to estimate the worth or “intrinsic value” of a company.

**Name:** “*The Shiller CAPE Ratio: A New Look*” (Siegel) 2016

**Link:** <http://www.cfapubs.org/doi/pdf/10.2469/faj.v72.n3.1>

**Description:** Current earnings are dramatically more volatile and incomparable to the past due to changes in accounting rules. Specifically the 1993 and 2001 rules that require write-downs to assets have impacted reported earnings and the Shiller CAPE ratio.

**Name:** “*Why Have Measures of Earnings Quality Changed Over Time*” (Srivastava) 2014

**Link:** <https://pdfs.semanticscholar.org/6c96/d202ca8e62d3a60b4db34bddd5202378fdb4.pdf>

**Description:** Attributes the increase in earnings volatility and decline in the quality of GAAP earnings to the shift from a physical to knowledge economy and resulting increase in the intangible intensity of companies making up the market.

## Behavioral Economics

**Name:** *"The Behavioral Investor"* (Crosby) 2018

**Link:** <https://www.amazon.com/Behavioral-Investor-Daniel-Crosby/dp/0857196863>

**Description:** Crosby provides an excellent overview of the behavioral biases and flawed investment decisions that arise from the fact that human brains are evolutionarily wired for our emotions to support short-term survival and not long-term investing.

**Name:** *"Diagnostic expectations and Stock Returns"* (Bordalo, Gennaioli, La Porta, and Shleifer) 2017

**Link:** <https://www.nber.org/papers/w23863>

**Description:** The paper finds that stocks with the most optimistic analyst long term earnings growth forecasts perform substantially worse than stocks with the most pessimistic forecasts as investors and analysts over-react to news and over-extrapolate present conditions.

**Name:** *"Effects of Amount of Information on Judgment Accuracy and Confidence"* (Tsai, Klayman, Hastie) 2008

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1297347](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1297347)

**Description:** The authors showed that when given additional statistical data, predictions did not improve but confidence in their accuracy did. In a world increasingly awash in data and with greater computing power to process that data, this points to an enormous risk of using incremental information to become more confident, but not necessarily more accurate.

**Name:** *"The Excess Returns of 'Quality' Stocks: A Behavioral Anomaly"* (Bouchard, Ciliberti, Landier, Simon, Thesmar) 2016

**Link:** <https://arxiv.org/abs/1601.04478>

**Description:** High quality stocks tend to outperform with lower risk. An analysis of 12-month forward analyst price targets and actual realized prices shows that while analysts are overly optimistic about stock price appreciation in general, they are much more optimistic and even more wrong in their estimates for low quality stocks. Analysts are also overly optimistic about expensive stocks and stocks with high price volatility. This suggests there is an opportunity to exploit suboptimal behavior by investing in high quality stocks.

**Name:** *"The Happiness Hypothesis"* (Haidt) 2006

**Link:** <http://www.happinessthypothesis.com/>

**Description:** Haidt introduces the famous example of the elephant and the rider to describe the interaction of human emotion (the elephant) and higher level thinking and decision making (the rider). Haidt describes how the rider can usually steer the elephant, but the elephant can always overpower the rider if it chooses to. This is similar to the descriptions of human decision making that contrast the gut (emotion and instinct) and the brain.

**Name:** *"The Illusion of Predictability: How Regression Statistics Mislead Experts"* (Soyer, Hogarth) 2012

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1996568](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1996568)

**Description:** Experts have too much confidence in and make poor forecasts from linear regression results. Experts made more accurate forecasts when presented only with graphs and no linear regression equations and statistics. We think this is a good example of how the illusion of precision can lead to mistakes in decision making. Not everything can be neatly broken down into a single summary statistic. Sometimes broad relationships can be more informative than seemingly precise ones.

**Name:** *"Investor Memory"* (Godker, Jiao, Smeets) 2019

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3348315](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3348315)

**Description:** Investors have self-serving memory bias and under-remember losses compared to gains. This fits with research documenting how people form self-serving beliefs to maintain a positive self-view. The investing implication is that the memory bias leads people to form overly optimistic views about risky stocks and offers another explanation of why investors overpay for lottery stocks.

**Name:** *"A Lottery Demand-Based Explanation of the Beta Anomaly"* (Bali, Brown, Murray, Yang) 2016

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2408146](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2408146)

**Description:** The outperformance of low-beta stocks is attributable the lottery effect in which investors overpay for the prospect of extreme returns.

**Name:** “*Myopic Loss Aversion & The Equity Premium Puzzle*” (Benartzi, Thaler) 1995

**Link:** [http://www.nyu.edu/econ/user/bisina/benartzi\\_thaler.pdf](http://www.nyu.edu/econ/user/bisina/benartzi_thaler.pdf)

**Description:** Over longer time horizons, equities do better than bonds and do so consistently. But because investors are very short-term focused and do not do well with short-term price swings, they focus on the short-term periods in which equities are more volatile relative to bonds. This creates an attractive opportunity for long-term investors to invest more in equities.

**Name:** “*The Myth of the Rational Market*” (Fox) 2011

**Link:** <https://www.amazon.com/Myth-Rational-Market-History-Delusion/dp/0060599030>

**Description:** Traces the history of the idea that markets are perfectly efficient and that price moves are entirely rational and describes more recent work from thinkers like Robert Shiller and Richard Thaler that look at the behavioral influences in the market.

**Name:** “*The Science of Fear: How the Culture of Fear Manipulates Your Brain*” (Gardner) 2009

**Link:** <https://www.amazon.com/Science-Fear-Culture-Manipulates-Brain/dp/0452295467>

**Description:** The human brain is wired to be fearful. While this instinct for fear keep humans alive for most of human existence, it is less useful in the modern world where a fight or flight reaction usually leads to a negative outcome. Despite this, the media still caters to our instinct for fear since fear-based stories are more successful per the famous news saying, “if it bleeds, it leads.”

**Name:** “*Sapiens: A Brief History of Humankind*” (Harari) 2015

**Link:** <https://www.amazon.com/Sapiens-Humankind-Yuval-Noah-Harari/dp/0062316095>

**Description:** A history of human evolution and development that sheds light on how our brains are wired.

**Name:** “*Stock Prices and Social Dynamics*” (Shiller) 1984

**Link:** [https://www.brookings.edu/wp-content/uploads/1984/06/1984b\\_bpea\\_shiller\\_fischer\\_friedman.pdf](https://www.brookings.edu/wp-content/uploads/1984/06/1984b_bpea_shiller_fischer_friedman.pdf)

**Description:** The relationship between dividends and stock prices, while well correlated over long time periods, breaks down significantly when measured over shorter periods. Due to behavioral factors, stocks display excess volatility relative to the corresponding variability in fundamentals.

**Name:** “*Prospect Theory and Stock Returns: An Empirical Test*” (Barberis, Mukherjee, Wang) 2014

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2528149](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2528149)

**Description:** Shows that in the U.S. and in tests in 46 international countries, investors exhibited a preference for stocks with skewed past returns. This supports the idea that for behavioral reasons, investors overpay for lottery stocks.

**Name:** “*Stocks as Lotteries: The Implications of Probability Weighting for Security Prices*” (Barberis, Huang) 2007

**Link:** <http://www.nber.org/papers/w12936>

**Description:** Uses the behavioral model of prospect theory to explain investors’ willingness to overpay for lottery-like stocks. Investors are willing to accept a negative average expected excess return in order to obtain a behaviorally desirable highly skewed return distribution.

**Name:** “*Thinking, Fast and Slow*” (Kahneman) 2012

**Link:** <https://www.amazon.com/Thinking-Fast-Slow-Daniel-Kahneman/dp/0374533555>

**Description:** A study of mental systems and cognitive biases – why and how humans depart from “rational” decision making.

**Name:** “*Thinking in Bets*” Duke 2018

**Link:** <https://www.amazon.com/Thinking-Bets-Making-Smarter-Decisions/dp/0735216355>

**Description:** Annie Duke, a former World Series of Poker champion, encourages thinking in probabilistic terms like a poker player does to make decisions and evaluate their success rather than thinking in black and white terms. She also encourages thinking about process instead of outcomes given the amount of randomness in the former. This involves embracing uncertainty and becoming comfortable with the fact that good decisions don’t always lead to good results and vice versa.

## Risk

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**Name:** *“Against the Gods: The Remarkable Story of Risk”* (Bernstein) 1996

**Link:** <https://www.amazon.com/Against-Gods-Remarkable-Story-Risk/dp/0471295639>

**Description:** A comprehensive history of the study of risk – from ancient Greece to more sophisticated (but imperfect) modern approaches.

**Name:** *“The End of Theory”* (Bookstaber) 2007

**Link:** <https://www.amazon.com/gp/product/0691133611>

**Description:** Economic and risk models are flawed in the assumption of ergodicity (the idea that a process does not vary with time and experience). Such models may work in the field of physics, where many of them originated, but are not applicable in modeling human behavior where they are being applied in finance and economics.

**Name:** *“Heterodox Investment Theory: Stochastic Predictability and Uncertainty”* (Pistorius) 2017

**Link:** <https://www.amazon.com/Heterodox-Investment-Theory-Predictability-Uncertainty-ebook/dp/B0754LDYQK>

**Description:** Pistorius questions the repeated failures of standard financial and economic models that treat risk as known and measurable. He proposes alternatively that because markets do not follow normal distribution patterns, human beings are not consistently rational, and investing thus takes place under Knightian uncertainty, risk evaluation should be considered less an engineering science and more of a moral one that incorporates human behavior, logic, and stress testing and uses statistics as a supporting rather than dominant tool.

**Name:** *“Institutionalizing Countercyclical Investment: A Framework for Long-term Asset Owners”* (Jones) 2016

**Link:** <https://www.imf.org/external/pubs/ft/wp/2016/wp1638.pdf>

**Description:** Investors are too focused on short-term volatility risk instead of long-term shortfall risk and need to develop better incentive structures to invest both for the long-run and in a counter-cyclical fashion.

**Name:** *“Lost in Math: How Beauty Leads Physics Astray”* (Hossenfelder) 2018

**Link:** <https://www.amazon.com/Lost-Math-Beauty-Physics-Astray/dp/0465094252>

**Description:** Economics has been criticized for having “physics envy” and trying to force mathematical formulas borrowed from physics onto models of human behavior. But even the field of physics is coming under criticism for focusing too heavily on the beauty of elegant mathematical models over the less elegant realities of nature and physicists have consequently become “lost in math” and have struggled to make headway in proving theories and making new discoveries.

**Name:** *“The Misbehavior of Markets: A Fractal View of Financial Turbulence”* (Mandelbrot) 2004

**Link:** <https://www.amazon.com/gp/product/0465043577>

**Description:** Market returns do not follow a normal distribution pattern; thus models of risk & return that are built with the assumption of normal distributions can lead investors astray.

**Name:** *“Plight of the Fortune Tellers: Why We Need to Manage Financial Risk Differently”* (Rebonato) 2007

**Link:** <https://www.amazon.com/gp/product/0691133611>

**Description:** Overconfidence in complex quantitative risk tools is misguided and dangerous.

**Name:** *“Quality Investing”* (Cunningham, Eide, & Hargreaves) 2007

**Link:** <https://www.amazon.com/Quality-Investing-Owning-best-companies-ebook/dp/B017BI3V9A>

**Description:** Emphasizes the stability of profitability in defining quality and how this can be a function of factors like capital allocation, capital intensity, industry structure, and others.

**Name:** *“Recipe for Disaster: The Formula that Killed Wall Street”* (Salmon) 2009

**Link:** <https://www.wired.com/2009/02/wp-quant/amp>

**Description:** Details the story behind how a mathematical formula (David Li’s Gaussian copula function) led to the financial crisis by enabling Wall Street to repackage low quality and high risk mortgage debt into highly rated (and ultimately highly mispriced) pools of debt.

**Name:** *“Risk and Investment Horizon: Is Time Really Money”* (Emm & Travino) 2019

**Link:** <https://joi.pm-research.com/content/28/1/86>

**Description:** Academics have debated whether extending one’s time horizon makes stocks less risky. If the variability of outcomes is the measure of risk, long-term stock returns have ranged significantly. But long-term stock returns have considerably outpaced bonds over time and have done so consistently. Thus, stock returns over long periods of time are more variable, but also consistently superior to bonds, which are less variable. The variability measure of risk would thus consider stocks riskier in this context in that while an investor will have significantly more money over time by investing in stocks over bonds, there will be less certainty around exactly how much. If risk is instead thought of as the probability of a loss, size of a loss, or failure to meet a minimum return over the long-term, stocks are much less risky. We think the second definition of risk is much more relevant to investors and highlights the dangers of using price volatility as a proxy for risk.

**Name:** *“Risk, Uncertainty, and Profit”* (Knight) 1921

**Link:** <https://www.amazon.com/Risk-Uncertainty-Profit-Frank-Knight/dp/1614276390>

**Description:** Knight distinguishes between “risk”, which he defines as being measurable and definable and much less common in real world decision making, and “uncertainty”, which is not reducible to a set of clearly defined probabilities and is much more common. In investing, we think there is a danger in trying to force things that are uncertain and more ambiguous into the a quantifiable measure of risk. Investors who do this can generate a dangerous false confidence in thinking that they have controlled the risk of something that actually falls into the category of uncertainty. The Long-Term Capital Management failure, portfolio insurance in the 1980s, housing and mortgage securitization crisis are all examples of this as is Warren Buffett’s admonition in his 2014 shareholder letter that using price volatility as a proxy for risk is “dead wrong.”

**Name:** *“Strategic Risk Taking: a Framework for Risk Management”* (Damodaran) 2007

**Link:** <https://www.amazon.com/Strategic-Risk-Taking-Framework-Management/dp/0137043775>

**Description:** Provides a history of risk analysis and critique of the flaws of certain models such as the assumption of normal return distributions in the mean-variance and CAPM models.

**Name:** *“When Genius Failed”* (Lowenstein) 2001

**Link:** <https://www.amazon.com/When-Genius-Failed-Long-Term-Management/dp/0375758259>

**Description:** Tells the story of how behavioral biases and gross mismeasurement of risk led to the failure of Long-Term Capital Management, an investment that employed the best and brightest from Wall Street and Academia including several Nobel Prize winners.

## Factor Investing

**Name:** “*Alice’s Adventures in Factorland: Three Blunders That Plague Factor Investing*” (Arnott, Harvey, Kalensik, Linnainmaa)

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3331680](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3331680)

**Description:** Highlights three major issues with the way investors look at factors. First, many factors are data mined and not real and investors should question the logic and rational explaining a factor’s supposed efficacy. Second, factors are often riskier than investors think and they do not exhibit normally distributed returns. Third, investors mistakenly assume that factors are uncorrelated or that low correlations will hold during times of stress, when the reality is the opposite. This means that the benefit of factor diversification is much smaller than expected.

**Name:** “*A Closer Look at Value Premium: Literature Review & Synthesis*” (Patari, Leivo) 2015

**Link:** <http://onlinelibrary.wiley.com/doi/10.1111/joes.12133/abstract>

**Description:** Provides a comprehensive review of academic literature on the performance of different measures of value.

**Name:** “*The Cult of Statistical Significance*” (Ziliak, McCloskey) 2008

**Link:** <https://www.amazon.com/Cult-Statistical-Significance-Economics-Cognition/dp/0472050079>

**Description:** Argues that while tests of statistical significance should be an element of a scientific inquiry, an overreliance and misuse of significance tests have led various scientific fields including finance and economics astray and contributed to the current replication.

**Name:** “*Earnings, Retained Earnings, and Book-to-Market in the Cross Section of Expected Returns*” (Ball) 2017

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2924798](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2924798)

**Description:** Book value is comprised of retained earnings and contributed capital. The paper finds that retained earnings explains all the predictive power of price/book on security prices. Price/book has thus only worked in so much as it functioned as a proxy for earnings yield and is not by itself a useful factor.

**Name:** “*Explaining the Demise of Value Investing*” (Lev) 2019

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3442539](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3442539)

**Description:** Lev attributes the demise of value investing (as measured by price-to-book value) to accounting distortions largely driven by the expensing of research and development (R&D) and other intangible investments. As intangible investments became increasingly important in the late 1980s, book value lost its efficacy. Lev recommends capitalizing R&D expenses and even portions of sales, general, and administrative (SG&A) spending to correct for this distortion so that book value better reflects companies’ true values. While we fully agree with Lev’s explanation for the demise of traditionally-defined value investing, we think capitalizing intangible expenses introduce a slew of new issues around the validity of considering portions of SG&A as an asset, what depreciation to use for various intangible expenses, and so on.

**Name:** “*Facts about Formulaic Value Investing*” (Kok, Ribando, Sloan) 2017

**Link:** <http://www.cfapubs.org/doi/pdf/10.2469/faj.v73.n2.2>

**Description:** An analysis of historical value factor returns that demonstrates that once adjusted for illiquid (microcaps) securities, many of these factors like price to book lose efficacy.

**Name:** “*High Returns From Low Risk*” (Van Vliet) 2017

**Link:** <https://www.amazon.com/High-Returns-Low-Risk-Remarkable/dp/1119351057>

**Description:** Explains that the low beta anomaly exists because academics look at average monthly returns instead of compounded returns.

**Name:** “*In Search of Distress Risk*” (Campbell, Hilscher, Szilagyi) 2006

**Link:** <https://www.nber.org/papers/w12362>

**Description:** Finds that financially distressed stocks have delivered anomalously low returns despite their higher risk.

**Name:** “*Live From Newport Beach. It’s Smart Beta!*” (Research Affiliates) 2017

**Link:** [https://www.researchaffiliates.com/en\\_us/publications/articles/626-live-from-newport-beach-its-smart-beta.html](https://www.researchaffiliates.com/en_us/publications/articles/626-live-from-newport-beach-its-smart-beta.html)

**Description:** Alpha in backtests for smart beta indexes often disappears with live results due to overfitting or data mining in the backtests. Investors should question how backtested results were achieved and focus on models with sound underlying economic theories and not just attractive backtests.

**Name:** “*p-hacking: Evidence from Two Million Trading Strategies*” (Chordia, Goyal, Saretto) 2017

**Link:** <https://ideas.repec.org/p/chf/rpseri/rp1737.html>

**Description:** Demonstrates how easily the combination of huge amounts of data and computing power can lead to nonsensical but highly statistically significant results. The strategy generating the best positive performance out of over two million tested was (book value per share less sale of common and preferred stock)/advertising expense.

**Name:** “*Quality Investing*” (Novy-Marx) 2012

**Link:** <http://rnm.simon.rochester.edu/research/QDoVI.pdf>

**Description:** The combination of quality and value is greater than either on their own.

**Name:** “*Replicating Anomalies*” (Hou, Xue, Zhang) 2017

**Link:** <http://theinvestmentcapm.com/HouXueZhang2019RFS.pdf>

**Description:** Tests the ~450 factors or market anomalies written about in academic literature. Academics tend to look at factors on the equal weighted market of around 4,000 stocks, but microcaps are around 2,400 of those (~60%) and so dominate factor analysis even though they are only 3% of the cap weighted market. If one excluded microcaps, more than half of the factors would lose statistical relevance.

**Name:** “*The Smart Beta Mirage*” (Huang, Song, Xiang) 2020

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3622753](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3622753)

**Description:** Due to data mining, smart beta strategies (based on a sample of those listed between 2000 and 2018 that cover 80% of total smart beta AUM) that showed back-tested annual excess returns of 2.8% underperformed after launch by an average of 0.5%.

**Name:** “*The Flawed Reasoning Behind the Replication Crisis*” (Clayton) 2019

**Link:** <http://nautil.us/issue/74/networks/the-flawed-reasoning-behind-the-replication-crisis>

**Description:** The Replication Crisis, or the failure of statistically significant published results to be reproduced, is an issue that spans academic disciplines from health care and sociology to economics and finance. Clayton attributes the issue to the over-use of statistical significance tests without assigning any prior probability to the likelihood of a theory holding true based on the logic of the hypothesis. Instead of randomly testing 100 hypotheses and publishing five that were statistically significant at the 5% level as might occur in the frequentist statistical approach, Clayton urges the use of Bayesian statistical analysis which puts more emphasis on the reasoning behind a hypothesis by incorporating a prior estimation of its likelihood of a hypothesis being true. We think this is relevant to factor investing and the dangers of data mining for “factors” that might have worked in the past, but may not be effective in the future.

**Name:** “*Science Fictions*” (Ritchie) 2020

**Link:** <https://www.amazon.com/Science-Fictions-Negligence-Undermine-Search/dp/1250222699>

**Description:** Examines how bias, the misuse of statistics, misaligned incentives, and even fraud have undermined scientific study and contributed to the replication crisis across scientific fields including finance and economics.

**Name:** “*The Scientific Outlook in Financial Economics*” (Harvey) 2017

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2893930](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2893930)

**Description:** Harvey addresses the widespread problem in academic finance of data mining or p-hacking (testing enough variables until finding one with a statistically significant p value or t-statistic). To combat this, Harvey advocates using a framework that lays out a hypothesis, its reasoning, data collection methods (sample period, data exclusions, etc.) and number of tests to be conducted all prior to looking at the data.

**Name:** “*Stock Portfolio Design and Backtest Overfitting*” (Bailey, Borwein, de Prado) 2016

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2739335](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2739335)

**Description:** Overfitting data in backtests explains why investment models often look good on paper but the live performance often fails to live up to expectations from the backtest.

**Name:** “*The Trend that is Ruining Finance Research*” (Edesess) 2017

**Link:** <https://www.advisorperspectives.com/articles/2017/09/04/the-trend-that-is-ruining-finance-research>

**Description:** Academic research has seen an explosion in the number of so-called stock anomalies due to increased data availability, improved computing power, and pressure to publish. But many published research findings in finance are false and will undermine the credibility of academic research by publishing flawed studies that are not carefully reasoned. Most studies suffer from several key problems. One is p-hacking or doing lots of studies in order to get one that is significant based on its p-statistic. This is also called data mining. Another is the use of linear regression which gives too much influence to outlier data points. A third is employing techniques that equal weight stocks and lead to a large microcap bias.

**Name:** “*Your Complete Guide to Factor-Based Investing*” (Berkin, Swedroe) 2016

**Link:** <https://www.amazon.com/Your-Complete-Guide-Factor-Based-Investing/dp/0692783652>

**Description:** Analyzes common factors and related academic literature along the lines of whether a factor works across long periods of time and different economic regimes, whether it works across geographies and sectors, whether it holds for slight definitional modifications, whether it is investible, and whether it is logical.

## Long-Term Investing & Asset Allocation

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**Name:** “*Credit Suisse Annual Investment Returns Yearbook*” (Dimson, Marsh, Staunton) Annual

**Link:** <https://www.credit-suisse.com/corporate/en/articles/news-and-expertise/credit-suisse-yearbook-2017-201704.html>

**Description:** An annual report that looks at long-term returns on equities and bonds back to 1900 in different countries.

**Name:** “*Diversification in Portfolios of Individual Stocks: 100 Stocks Are Not Enough*” (Domian, Louton, and Racine) 2006

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=906686](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=906686)

**Description:** Uses long-term shortfall risk instead of short-term price volatility to debunk the idea that a 30 stock portfolio is adequately diversified. Due to skewness in the distribution of individual stock returns, the median expected return on a concentrated portfolio is significantly smaller than that of a large portfolio and the range of outcomes is significantly wider. Increasing the number of individual holdings narrows the range of expected outcomes and increases the median outcome. The paper also shows that rebalancing also significantly increases returns, likely by rotating into lower valued stocks as well as increasing the opportunity to capture the outperformers in the skewed distribution of individual stock returns.

**Name:** “*The Index Revolution*” (Ellis) 2016

**Link:** <https://www.amazon.com/Index-Revolution-Investors-Should-Join/dp/1119313074>

**Description:** Active managers do not outperform passive indexes over longer time periods after expenses and equities are much more stable over long periods of time.

**Name:** “*Long-Term Drivers of Total Stock Returns: Total Payouts and the Real Economy*” (Straehl and Ibbotson) 2016

**Link:** <http://www.cfapubs.org/doi/abs/10.2469/faj.v73.n3.4>

**Description:** Given the shift from higher dividend payout ratios to lower dividend payout ratios and the increased use of share buybacks, the authors look at long-term returns relative to total payout ratios and find a stronger predictability than either the dividend yield or CAPE.

**Name:** “*The Only Guide to Alternative Investments You’ll Ever Need*” (Swedroe) 2008

**Link:** <https://www.amazon.com/Only-Guide-Alternative-Investments-Youll/dp/1576603105>

**Description:** While some alternative assets like real estate or international equities offer attractive returns and diversification benefits, a large number of alternative asset classes do not.

**Name:** “*Payout Yields and Stock Return Predictability: How Important is the Measure of Cash Flow?*” (Eaton and Paye) 2017

**Link:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2348250](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2348250)

**Description:** Finds a strong relationship between total payout yield (dividend yield less share issuance plus share repurchases) for the overall market and long-term returns. This builds on other work that looked just at dividend yields, which became less meaningful as payout ratios fell and buybacks increased in the past few decades.

**Name:** “*Stocks, Bonds, & Pension Wealth*” (MaCurdy and Shoven) 1992

**Link:** <https://core.ac.uk/download/pdf/6806306.pdf>

**Description:** Investors over any long time period do much better in equities than bonds.

**Name:** “*The Retirement Glidepath: A Vote for Static Asset Allocations*” (Estrada) 2015

**Link:** <https://web.iese.edu/jestrada/PDF/Research/NotRefereed/CFA-IRP-G2.pdf>

**Description:** Estrada used historic returns to examine the likelihood of running out of money in varying static and dynamic stock and bond allocations in retirement and found that an all-stock portfolio outperformed all others in terms of the “probability of failure, upside potential, and downside potential when tail risks strike.”