1900 Shawnee Mission Parkway, Suite 210 | Mission Woods, KS 66205
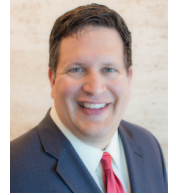
18 Key Behavioral Finance Biases

Peter Vrooman, CFA®, CIMA®, CRPC®
First Vice President – Investment Officer
913-267-7170
peter.vrooman@wfadvisors.com

Jonathan Sarver, CPWA®
First Vice President – Investment Officer
913-267-7165
jonathan.sarver@wfadvisors.com

What is *Behavioral Finance?*

It is a field of study that utilizes psychology to understand how investors make financial decisions, both individually and as a whole, while challenging (1) the "rationality," (2) "self-interest," and (3) "perfect information" of traditional economic theory.

The field of **Behavioral Finance** asserts: 1). Rather than "rational," human behavior is driven by fear and greed. 2). Rather than "self-interest," people can be self-destructive, charitable, religious, and be inclined to volunteer to help others. 3). Rather than "perfect information," people today are exposed to virtually an infinite amount of information, and often do not read the most relevant or important market data (Pompian, 2012).

Behavioral Finance helps us explain actual investor and market behavior vs. theories of investor and market behavior.

"People in standard finance are rational. People in behavioral finance are normal."

— Meir Statman *(Pompian, 2012)*

What is the *Adaptive Market Hypothesis?*

It is the research that modifies the efficient market theories with behavioral economics, asserting that markets evolve over time as individuals utilize biases to make investment decisions.

Markets tend to be inefficient because investors have a bias towards "survival" rather than rational economic decisions, profit, and utility. Markets have cycles, trends, panics, manias, and crashes.

Rather than being efficient, markets have anomalies that can be exploited by investors.

1. **Technical Anomalies:** Technical analysis of charts and volume history can be used to forecast future stock prices. Technicians will also analyze relative strength, moving averages, support, and resistance.

2. **Fundamental Anomalies:** Fundamental analysis of valuation metrics including price to earnings, price to cash flow, and price to book value can be used to find companies trading below their intrinsic value. Studies have shown that, historically, undervalued stocks tend to outperform the broad stock market over the long term with less risk.

3. **The January Effect:** Stocks tend to rebound from tax loss selling at the end of the year. Returns tend to be abnormally higher for the month of January than the rest of the year.

4. **Arbitrage Opportunities:** Often derivatives such as convertibles, preferred stock, and options can be mispriced by the market.

5. **More Inefficient Asset Classes:** Historically, small capitalization stocks, international stocks, and venture capital investments have tended to be the most inefficient and the best long term opportunity for investors. However, they tend to have a higher standard deviation (statistical measure of volatility) and a great deal of risk as well *(Pompian, 2012)*.

Bias #1

Loss Aversion Bias

Investors have a stronger desire to avoid losses than obtain gains by a ratio of 2 to 1. This causes investors to focus on avoiding risk. Often investors who suffer from *loss aversion bias* have "get even-itis," where they want to hold a losing investment position until they get back to even, regardless of the poor future prospects for the security. This type of investor tends to hold on to losing positions too long and sell appreciated positions too quickly. *(Pompian, 2017)*

Bias #2

Endowment Bias

Endowment Bias is an emotional bias where investors value an asset more when they own it, whether due to purchase or inheritance. It can be seen as the underweighting of opportunity cost. *(Pompian, 2017)*

Examples:

1) Investors have a tendency to hold on to whatever was inherited.

2) Due to the *endowment bias* investors do not want to sell because of: 1) inherited securities, 2) having to pay commissions, and 3) having purchased securities.

Bias #3

Affinity Bias

It is an emotional and information processing bias, where an investor tends to make uneconomical investment decision based on how he or she believes a purchase or sale of a security will affect their values. For example, often investors suffer from "home-country bias" and favor investing in domestic equities. More patriotic countries and regions hold smaller foreign equity positions. Often *affinity bias* will lead investors to buy stocks of retail companies they like to shop at or "environmental, social, and governance (ESG)" stocks that they feel will have a positive impact on the world, even though these companies may have poor prospects for future performance. *(Pompian, 2017)*

Bias #4

Anchoring and Adjustment Bias

This is a cognitive and information processing bias, where people use a default number or "anchor" and do not adjust adequately, and end up using statistically arbitrary, psychologically determined anchor points. An example of *anchoring and adjustment bias* would be when an investor owns a stock at 200 and it drops to 150 but the investor wants to wait until it gets back to 200 (the "anchor" price), even though there is significant negative news that should cause the stock to decline further. *(Pompian, 2017)*

Bias #5

Outcome Bias

This is a cognitive and information processing bias, where investors make a decision based upon the outcome and not based upon the process that led to that result. An example of *outcome bias* would be when investors focus only on the recent 3- or 5-year track record of return when selecting an investment manager, rather than analyzing the process of that investment manager that led to that return. Outcome bias can lead to excessive risk taking. Investors should look at MPT risk statistics, the investment process, the number of securities purchased and other fundamental factors when selecting an investment manager. *(Pompian, 2017)*

Bias #6

Mental Accounting Bias

This is a cognitive and information processing bias, where people categorize and group assets into separate mental accounts, even though money is the same regardless of its use.

Examples:

1). People tend to gamble more or spend more money when using credit cards rather than cash.

2). Often company stock is considered separately by employee investors, causing employees to overweight equities in their portfolios.

3). Investors often view college funds and retirement funds as sacrosanct and treat them as long-term investments. (Positive effect of *mental accounting*)

4). Goal-Based Investing — different mental accounts for each goal with a separate risk tolerance for each goal. *(Pompian, 2017)*

Bias #7

Snake Bite Effect

The *snake bite effect* happens when people take substantial drawdowns in their investment in stocks or other types of assets and then tend to seek to avoid risk as a result of their losses. Often this bias can lead to a portfolio that is over weighted in conservative investments and does not meet an investor's desire to keep up with inflation or have capital appreciation in their portfolio. *(Pompian, 2017)*

Bias #8

Illusion of Control

Investors who suffer from *illusion of control* bias think they can control investment outcomes, even though they cannot. *(Pompian, 2017)*

Examples:

1). Online traders tend to trade more frequently than they should because of the *illusion of control* bias.

2). "IOC" bias often leads to investment portfolios that are over-concentrated in one investment sector.

3). Often, limit orders give investors an illusion of control.

4). People think they are better guessers when they correctly pick a number of coin tosses in a row. (This also applies to investors correctly trading or speculating in individual stocks.)

Bias #9

Availability Bias

This is a cognitive and information processing bias, where investors use a shortcut, based on how familiar the outcome appears in their life. They perceive easily recalled possibilities as the best choices. *(Pompian, 2017)*

Examples:

1). A technology company employee will think technology companies are the best investments without due diligence and research.

2). An investor may avoid investing in countries for the sole reason that the country's name is not easily recalled.

3). Investors tend to think well-advertised mutual funds are the best because of "retrievability."

Bias #10

Self-Attribution Bias

It is a cognitive and information processing bias, where investors have tendency to credit their success to talent and skill and blame their failures on situations beyond their control. People who suffer from *self-attribution bias* take an irrational degree of credit for their success. *(Pompian, 2017)*.

Examples:

1). Sometimes investors do well simply because of a strong bull market. Hence the saying, "never confuse brains for a bull market."

2). Investors may take too much risk and trade their accounts excessively.

3). Investors may hold over-concentrated portfolios due to *self-attribution bias.*

4). This bias may cause investors to lack humility and fail to learn from past errors.

Bias #11

Recency Bias

It is a cognitive bias and information processing bias, where investors overemphasize more recent events than those in the near or distant past. *(Pompian, 2017)*

Examples:

1). Investors only look at the recent 1-, 2-, and 3-year track record when evaluating investment managers due to *recency bias.*

2). Investors will focus on the asset class in favor today because of *recency bias,* such as investors chasing growth stocks or technology stocks when they are doing well.

3). Often investors focus on price and not valuation and can falsely extrapolate future returns.

Bias #12

Cognitive Dissonance Bias

Often investors will ignore newly acquired information because it conflicts with previous views due to *cognitive dissonance bias.* Most people avoid potentially relevant information to avoid psychological conflicts. (Pompian, 2017)

Examples:

1). Refusal to take tax losses for the tax benefit and to reallocate to a better investment

2). Often investors do not want to admit that they made a mistake and decide to "average down."

3). "It's different this time" — This was the mantra of many investors who purchased high-flying growth stocks in the late 90s.

Bias #13

Self-Control Bias

Self-control bias is an emotional bias, where people do not act in their best long-term interest because they lack self control. Often people prefer high standards of living in the present, rather than saving for retirement.

People who suffer from *self-control bias* often spend today and sacrifice their retirement, and do not invest in equities or take part in the benefits of dollar-cost averaging.

The "save more tomorrow program" automatically increased savings rates for plan participants each year. (80% remained in the plan through three pay raises). This is a great way to counteract the natural tendency of people who suffer from *self-control bias. (Pompian, 2017)*

Bias #14

Confirmation Bias

This is both a cognitive and belief-perseverance bias where people emphasize ideas that confirm our beliefs while devaluing ideas that contradict our beliefs. *(Pompian, 2017)*

Example:

Often employees tend to hold an over-concentration in employee stock due to *confirmation bias.* History of the decline of WorldCom, Enron, Bear Sterns, Novastar, Sprint, and Interstate Bakeries provide examples of how employees suffered when their concentrated stock positions in their employer's stock declined sharply.

Bias #15

Hindsight Bias

This is a cognitive and belief-perseverance bias where people remember their own predictions of the future more accurately than they actually were.

Examples:

After both the "internet bubble" and the "credit bubble" investors claimed they knew a crash was coming. The danger in this type of "reconstruction" of the past is that investors get a false sense of security due to the fact that they think they have predictive powers *(Pompian, 2017)*.

Bias #16

Representativeness Bias

This is a cognitive and belief-perseverance bias where people make classifications based upon relevant past experiences. The classifications can often produce incorrect understandings.

Example:

1). "Base-rate neglect" — Investors are overly interested in buying IPOs even though research shows that most have historically not done well, because investors are looking at the last two years only as representative of the IPO market. *(Pompian, 2017)*.

Bias #17

Overconfidence Bias

This is an emotional bias, where investors have an unreasonable faith in their own judgement, reasoning, and analytical abilities *(Pompian, 2017)*.

Examples:

1). Investors often suffer from *overconfidence bias* and underestimate downside risk, trading their accounts too frequently.

2). Investors hold concentrated stock positions.

3). Investors suffer from *overconfidence bias* and refuse to save, invest, and develop their estate plan.

Bias #18

Paradox of Choice

Paradox of Choice is a book by Barry Schwartz that explains that while conventional wisdom tells us that more choice leads to more freedom and more happiness, research shows that giving people many choices does not increase performance or satisfaction, and often leads to paralysis and dissatisfaction.

Examples:

1). Fifty independent studies found a meaningful connection between choice and anxiety.

2). One Vanguard study showed that for every ten mutual funds added to a retirement plan, participation dropped by an additional 2%. *(Schwartz, 2005)*

Pompian, M.M., CFA. (May/June 2017). Risk Tolerance and Behavioral Finance. *Investments & Wealth Monitor* 11-14. Retrieved Oct. & Nov., 2017.

Pompian, M.M., CFA. (2012). *Behavioral Finance and Wealth Management: How to Build Investment Strategies That Account for Investor Biases* 3-18 (2nd Ed.). Hoboken, NJ: Wiley.

Schwartz, B. (2005). The Paradox of Choice. Retrieved November 15, 2017, from https://www.ted.com/talks/barry_schwartz_on_the_paradox_of_choice/transcript

The material has been prepared or is distributed solely for information purposes and is not a solicitation or an offer to buy any security or instrument or to participate in any trading strategy. Additional information is available upon request.