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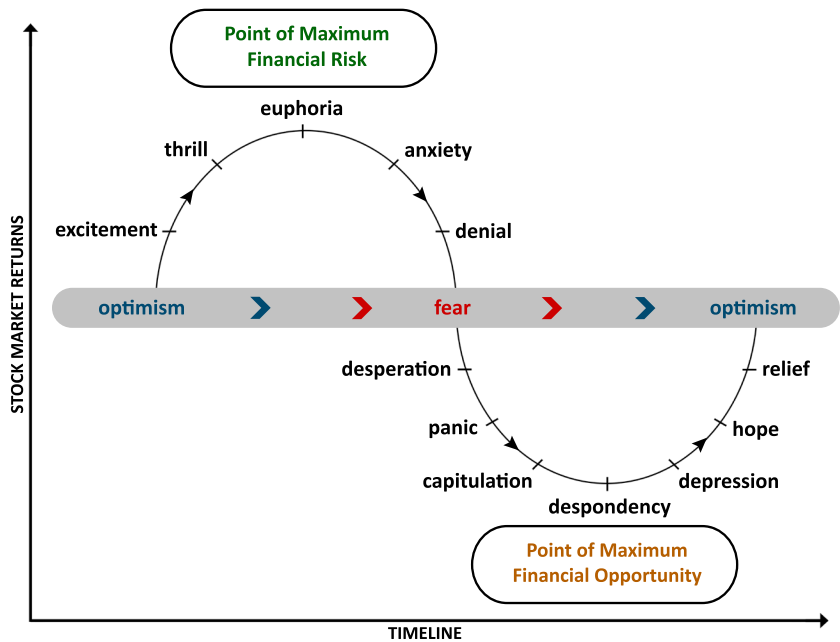
INVESTMENT PSYCHOLOGY

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Most people know not to make life-changing decisions while riding a roller coaster. Adrenaline, euphoria and fear are not conducive to critical thinking. Although the highs and lows of the stock market tend to have the same effect on an investor's mindset as a high-speed amusement attraction, there are no safety harnesses to prevent ill-advised action in the rush of the moment. You may be approaching retirement, but there is still a long ride ahead of you. By making well-thought-out, logical decisions, you can ensure your finances stay on the right track.

One of the biggest risks to investors' long-term wealth is their own behavior. Investment professionals and laypeople alike are prone to fears and biases that lead them to make subpar financial decisions. Part of the problem is that what separates good investors from bad ones isn't simply education and experience. With time and effort, both can be improved. But human brains are wired to avoid predators, not to make optimal investment decisions. Subconscious patterns of behavior can trip up even experienced investors.

The Cycle of Investor Emotions



Source: adapted from the Cycle of Market Emotions chart created by Westcore Funds/Denver Investment Advisors, 1998

Figure 1

We use mental shortcuts and emotional cues all the time in our day-to-day lives, but when it comes to investing, such habits can lead to trouble. That doesn't mean, however, that your brain is destined to hold your financial life hostage. You can improve your decisions by planning ahead and recognizing that emotion and spontaneity are your enemies, while data and planning are your friends.

Billy Beane, who became famous as the subject of the book *Moneyball* and the subsequent film of the same title, applied statistical data to the task of building a winning professional baseball team before such techniques were common. While others scoffed at such techniques, Beane accurately anticipated that using data instead of "gut instinct" could lead him to more consistent performance. The same reliance on data over emotion can protect investors from many common mistakes.

In this chapter, I will review some common errors that can lead to harmful investment decisions, as well as emotional traps that arise when

investors suffer losses or face market volatility. With a better awareness of these common pitfalls, you can appreciate the need for a long-term investment plan to keep you calm when euphoria, panic or hype try to take control of your psyche.

Fears And Biases

Experts in behavioral finance have identified some emotional shortcuts that investors use unconsciously as they make financial decisions. These shortcuts generally take the form of biases. Investors over- or undervalue the information available to them in a variety of predictable ways. Some of these biases are cognitive, or logical, in nature. Cognitive biases include logical fallacies, errors in interpreting statistics and errors of memory. Other biases are emotional, springing from impulse or intuition rather than from conscious calculation. Both logical and emotional errors can have devastating impacts on a portfolio if given free rein.

It may be helpful to think of these biases as techniques your brain has evolved to save time and energy. If you had to fully and deeply process every decision you made, you would quickly become exhausted and unable to make any decisions at all. However, the cost of these shortcuts is that they can warp your perception of reality. In the context of finance, even small distortions in your perception can lead you to make costly mistakes. The following are common biases that you should anticipate when making financial decisions.

Overconfidence

Most people believe they are better at many things than they actually are, from driving to investing. Compounding the problem, we don't notice this talent inflation, because people also generally tend to believe they are less overconfident than others. In many areas, self-confidence and optimism are boons; in finance, however, they can lead to taking risks that aren't worth the potential rewards.

Why are people prone to overestimate their own abilities? Generally, it is not a matter of conscious vanity, though temperament and socialization are factors. Rather, confidence springs from the story your brain has created regarding the task or activity you are about to perform. Since the brain prefers consistency to inconsistency, your confidence has much less to do with objective facts than with creating an internally

consistent story.

To understand how a consistent internal narrative can lead to overconfidence, consider the example of stock picking. People ranging from busboys to hedge fund managers are prone to think that they can beat the market by picking a few great stocks. Why? Because the internal narrative makes sense: They are generally smart people who are good at their jobs. They also have what they perceive to be useful information. They may get their ideas from friends, customers, Internet forums, research, the news or Jim Cramer. It is easy to believe that a hot tip or insightful article can give them an edge in the stock market, and it is consistent with their self-perception to think they should be better at evaluating such information than most. A smart investor plus good information should equal profit, in the simple but consistent story underpinning their actions. This is why stock picking is so alluring – and so dangerous.

The facts don't back up the story so neatly. More than 92 percent of professional mutual fund managers investing in large U.S. stocks underperformed the S&P 500 Index over the 15 years ending December 31, 2017. The results are similar over different time periods and in different markets. Although the jury may still be out on whether professional stock pickers can outperform index funds, the casual investor is sure to be at a disadvantage against the professionals. Financial analysts, who have access to sophisticated research and data, spend their entire careers trying to determine the appropriate value of certain stocks. Many of these well-trained analysts focus on only one sector — comparing the merits of investing in Chevron versus ExxonMobil, for example. And even so, these professionals still regularly underperform the market. It is impossible for an individual to hold a day job and also perform the appropriate due diligence to maintain a portfolio of individual stocks, especially one that is appropriately diverse. Overconfidence frequently leaves investors with eggs in far too few baskets and with those baskets dangerously close to one another.

Another manifestation of overconfidence is frequent trading, rather than long-term investing. Investing means buying something and holding it with the expectation that, over time, some combination of good management and societal progress will make the asset worth more than its original price. Diversified long-term investing is a game you can win.

Trading is something entirely different. Trading is buying something now on the expectation that you can sell it for more than you paid a

few days, a few minutes or, these days, often just a few seconds later. Trading is not a game individuals can win. It's also not a game most businesses can win, even investment businesses such as mutual funds or pension plans. The only way to consistently win in trades against fellow traders is to have faster execution or better information than your rivals. In the modern world, this can come down to fractions of a second.

Yet, believing that they are above-average, investors come to think that they know more than the person on the other side of a trade. The truth is that it's nearly impossible for an individual to have faster execution or better information than institutional traders. While some individual traders do well due to pure luck, the typical trader is ultimately worse off after accounting for the taxes and trading costs incurred by frequent trades. Nonetheless, the draw of being the exception to the rule is often more than investors can resist.

Whether in picking stocks or frequent trading, overconfidence leaves investors focusing on games they can't win. Instead, investors would be better served by focusing on what they can control – their own behavior, including their overall asset allocation, and their spending and saving habits.

Familiarity

Even the most confident investors know they are not omniscient. This insight may lead them to stick with what they know. Sticking with the familiar also feels good, because we tend to prefer things we know over the unknown. This is why people return to the same few restaurants again and again or read books by authors they already like. While these patterns may lead us to miss out on new experiences, there's nothing inherently harmful about them.

In investing, however, our bias toward the familiar is why many people invest most of their money in areas they feel they know best rather than in a properly diversified portfolio. The known feels safe; the unknown feels risky.

A bias in favor of the familiar can show up in a portfolio in several ways. A banker might create a "diversified" portfolio of five large bank stocks; a Ford assembly line employee might invest predominantly in company stock; a 401(k) investor might allocate his portfolio over a variety of funds that all focus on the U.S. market. Whether it means carrying too much of your employer's stock or investing too heavily in the geographic region where you live, familiarity is the enemy of well-

balanced investing.

Sticking with one type of investment concentrates risk. The market doesn't reward investors for risks that they can, and should, remove from their portfolios through proper diversification. Investors who give in to their bias toward the familiar can wind up creating portfolios with higher risk or lower expected rates of return than a properly diversified portfolio would offer.

Endowment Effect

In addition to favoring familiar investments, we also tend to overvalue things we already own and undervalue things we don't own yet. This tendency can spring up in a variety of places for an investor. It can lead you to overestimate the resale value of your home or to hold an overly large position in a company because you inherited the shares from a relative. Although you might value the memories created in the home or the legacy that your family has with the company, the market does not.

Since it is generally easier for individuals to decide to buy something than to sell it, it's important to make an effort to think as rationally about sell decisions as you do about buy decisions. One trick is to stop and consider whether, if you didn't already own the asset, you would go to the trouble to acquire it again. If the answer is no, it is probably time to sell.

Anchoring

While there are complex models that can help calculate the value of an investment, our brains usually want an easier answer. This desire leads many people to default to either the original cost of an investment or to some other benchmark, such as the value on last quarter's statement. Although both measures might provide a framework for determining value, the past is more often irrelevant to the current situation. This tendency to fixate on a point of reference may seem like an easy mistake to spot, but in practice, it can be hard to dislodge a perception that is anchored this way.

Some investors become overly focused on the dollar value of their account statements and may anchor to the amount they had at retirement. This becomes a problem because obsessively checking on your portfolio or investments can make you hyperaware of fluctuations,

leading to greater (and unnecessary) anxiety. In addition, the desire for a balance that never declines does not allow for other factors that affect your account, such as the withdrawals you make to fund your living expenses.

Anchoring may also prevent a purchase that is objectively a good idea. If you knew a stock traded for \$30 per share two months ago and it now trades for \$60, you might think that the stock is overvalued. However, if the company's prospects are skyrocketing, the stock may still be relatively cheap, despite having doubled in price from its former cost.

Alternatively, an owner might also needlessly avoid selling an asset due to this effect. If an investor paid \$1 million for his home during the peak of the frothy housing market in early 2007, he may insist that what he paid is the home's true value, despite the depressed market that investors faced in the Great Recession and beyond. Seeing comparable houses sell for hundreds of thousands of dollars less than their former values may not persuade him that his home is no longer worth \$1 million. This inability to adjust to the new reality could disrupt the investor's life if, for example, he needed to sell the property in order to relocate for a better job.

Loss Aversion

Not only do we tend to cling to what we know and anchor to historical prices that are clear in our minds, but we generally avoid facing the truth of a financial loss. An investor who makes a speculative trade that performs poorly will frequently continue to hold the investment, even if new developments have made the investment's prospects ever-more dismal.

In Economics 101, students learn about "sunk costs" — costs that have already been incurred. Students also learn that they should typically ignore such costs in decisions about future actions, since no action can recover them. Only the potential future return on the investment, and the associated risk, should matter. Knowing this theory and applying it are two different things. Sunk costs can lead investors to hold on to losers too long to avoid acknowledging mistakes, hoping to recoup their original loss. On the other hand, investors can also get rid of winners too quickly in a rush to mark the investment down in the "win" column and avoid the potential of a future downturn.

In most cases, people who are averse to risk when it comes to gains

are willing to take much larger risks to prevent possible losses. This is because most of us place different emotional weights on gains and losses of equivalent size – the pain of losing \$10,000 is generally much larger than the happiness of winning \$10,000. Unwillingness to accept this pain is what often leads investors to hold on to failing investments too long in the vain hope that they will somehow recover, rather than accept the loss in value.

Benjamin's Advice

Is there a right amount of risk to take when investing?

The “right” amount of risk varies for each investor, depending on cash flow needs and risk tolerance. The odds of a positive stock market return increase as your investment time horizon extends. Therefore, you should invest funds that you’ll need to withdraw from your portfolio within the next several years in safer investments, such as cash or short-term bonds. Beyond this reserve, you should try to determine how much short-term volatility you can comfortably tolerate in the pursuit of the higher expected returns associated with stocks. Don’t be overconfident. Overinvesting in stocks often leads to costly mistakes.

-BCS

This tendency can not only lose investors money, but it can also cause investors to miss the opportunity to capture tax benefits by selling investments with losses. Realized losses on capital investments can offset any other capital gains, and then up to an additional \$3,000 of ordinary income per year. By using capital losses to offset ordinary income or future capital gains, investors can reduce their tax liabilities. But first they have to admit that their losses are real.

Of course, being wary of loss is not always a problem. Some losses are too big to easily withstand, while the costs of avoiding them are tolerable. Buying fire insurance on your house is usually a sound choice; the cost of the insurance premium is relatively cheap, while a loss of the house could be financially devastating. The problem is not aversion to loss, but rather letting such wariness absolutely control your financial

behavior.

As discussed in Chapter 15, it is important to understand your risk tolerance when creating an investment plan. A portfolio that is appropriate for someone else may be too risky for you. When deciding on an asset allocation, you should focus both on the expected return and also on the potential losses the portfolio could incur in a market downturn.

It's vital that you don't allow loss aversion to prevent you from taking appropriate risks, however. Investors take notice when the dollar values of their accounts fluctuate, but they often forget to allow for the erosion of a dollar's purchasing power over time due to inflation. While those who fear loss may think it is safer to sit on a checking or savings account with little risk, the total purchasing power of their assets will slide downward over time, even if their account balances stay numerically the same. Taking some risk is the only way to maintain the purchasing power of your money.

While losses are never pleasant, investors should not focus obsessively on avoiding them. Understanding the magnitude of potential losses in a particular investment or portfolio of investments may help you stick with your plan when markets drop.

Recency

In the years that immediately followed the financial crisis of 2008-09, many investors focused on defending themselves against another market freefall, rather than on seeking opportunities to profit from the recovery as conditions stabilized. This is a great example of the recency bias, which is the assumption that conditions created by a recent event will persist or recur far into the future.

We are prone to pay undue attention to recent news, either good or bad, and as a result we may underemphasize long-term averages or trends. It's an adage in financial planning that past performance is no guarantee of future results. Performance in the recent past is arguably the least useful information about an investment to consider in isolation. Yet recent performance data is easy to access and remember, so it exerts an outsize influence on many investors' decisions.

The human brain seeks to identify patterns. This tendency can be helpful in a variety of areas, but it also leads us to interpret events as if they are part of a pattern when, in fact, they are random. If you do not stop to consider the reasons behind the pattern you perceive, it can be easy to buy into an illusory meaning and subsequently make choices

based on data that is ultimately irrelevant.

Seeking patterns can lead to chasing “hot” funds or stocks, which will actually tend to hurt returns as you trail behind the market. The returns that investors earn from mutual funds are typically lower than funds’ overall returns. According to a study by DALBAR Inc., the average investor’s annual returns on U.S. stock funds of 4.79 percent was less than two-thirds of the S&P 500 index’s return of 7.68 percent per year for the 20 years through December 2016. The difference is not mainly due to fees, but rather to the timing of when investors allocate money to specific funds. Funds usually experience greater inflows of new investment following periods of good performance, and investors seldom stay put as long as they should. The tendency to chase performance can seriously harm an investor’s portfolio.

We can see this effect on a much smaller scale with something like a coin flip. If a coin is flipped 10 times and always lands heads, most of us will be inclined to guess that it will land heads the 11th time. Or perhaps a few of us will guess tails because a tails flip is “due.” We intellectually know that the chance of either outcome is still precisely 50-50, regardless of how many times the coin has been flipped before, but it’s hard to feel that way in the moment. We make a choice, and then back it up with a reverse-engineered reason.

Similarly, if you remember hearing a recent news report about start-ups that made a lot of money, you may feel as if venture capital is a sure thing. In reality, how well other companies have done in the past is more or less irrelevant to a particular investment you might consider. Nor is a stock that’s had a long losing streak bound to get better eventually, just because an upturn is “due.” Here again, data can help you, while emotion will lead you astray.

Herd Mentality

It’s funny how investing can sound so easy in theory – don’t chase the latest hot idea or protect against yesterday’s disaster. Yet it is still hard not to get caught up in hype when the crucial moment arrives. It isn’t that we consciously decide to follow an irrational trend. It’s that a belief begins to seem plausible when so many other people buy into it. It is also easy to accept the theory that if many people are doing something, it must be a good idea. In the long term, though, this sort of thinking can burn investors.

A stock or asset class usually begins to appreciate based on some

valid, fundamental reason, such as a promising new product or a technological advance. As the asset's price increases, more and more people hear about the idea and buy in, causing further appreciation. Finally, every news channel and website ends up proclaiming that gold, Apple stock, emerging markets, cryptocurrency or the investment du jour is the place all smart investors should put their money. You don't want to miss out, so you take the plunge and buy.

Unfortunately, all streaks come to an end. The cycle of positive news takes a turn and transforms into a negative feedback loop. Yesterday's market darling becomes today's burst bubble. From the tech bubble of the 1990s to the real estate bubble of the 2000s, bubbles grow because the people who believe growth is not a bubble generally reap rewards in the short term.

By the time the bubble's inevitable pop arrives, fear of missing out has trumped self-control for many investors, leaving them to suffer the consequences. They may buy a security after the gains have already been earned or stay in too long and take the brunt of the downswing. Conversely, following the crowd can lead investors to wait too long to invest in a down market. Waiting until signs of recovery are already apparent can lead investors to buy at higher prices than they should; waiting for signs of trouble can mean investors miss opportunities to sell at the market's height.

To avoid getting caught up in hype, you should be sure to base your investment decisions on quantifiable data that you understand, not simply headlines or news reports. Basing your financial strategy on the emotions of a crowd is no wiser than basing it on your own emotions.

Confirmation Bias

The conclusion you seek often determines the data that you find. We tend to hear what we want to hear – or, put another way, we tend to make a decision and then search for data to back it up, ignoring any evidence that doesn't support it. This tendency is aggravated by both herd mentality and overweighting recent information. Investors' optimism or pessimism can thus be amplified as the market responds to it with price increases or decreases. Investors see these shifts as evidence their original confidence or fear was justified, leading them to double down on their conclusions and encouraging others to follow suit.

On a smaller scale, if you are convinced that a certain sector is a sure bet, you will be inclined to find and remember news that suggests it

is growing strong and ignore or write off as flukes reports that should trigger you to act more cautiously. Remember to research both sides of an issue equally and to honestly consider any potential bias inherent to the news source. On the Internet, you can find data supporting any conclusion.

This bias works in reverse too; we are inclined to view events as more predictable than they really were when viewing them in hindsight. It's easy to pick out the evidence suggesting an outcome once that outcome has already occurred, but that doesn't mean you could have – or should have – done so before the event. There will always be someone who accurately predicts the next hot investment or the next market crash. There will also always be people who guessed wrong. If someone makes a correct prediction and was in the minority in their opinion, they are likely to be hailed as a clairvoyant guru. Investors will often be inclined to listen to them and act on their recommendations next time, regardless of how often they have been wrong in the past.

Action Bias

Inaction is a powerful choice that is generally undervalued. It feels better to do something rather than nothing, especially when the market is in turmoil. This psychological effect holds even if the action taken is not particularly wise.

If you are losing money, you may find it easier to believe that you are doing something wrong than that the market is experiencing short-term volatility. It can be hard to accept our financial fate is partially beyond our control. Yet if you follow a long-term investment plan with a portfolio that is appropriate for your risk tolerance, the plan should already account for the possibility of down markets. At Palisades Hudson, we generally recommend that clients keep five years of expected portfolio withdrawals in safe investments that aren't subject to the stock market's fluctuations. This precaution can give people added comfort, and can help them to recognize that changing course during a volatile period is unnecessary.

Inaction can feel neglectful or foolish, especially if everyone else is furiously taking action. In reality, however, rash decisions can do active harm by locking in your portfolio's losses, especially if your original investment plan allowed for down markets. Choosing not to act is itself a choice. Sometimes it's the right one.

Mental Accounting

How easy it is to stay the course in a crisis may depend, for some, on the source of the money in question. One of the most prevalent and illogical of our emotional biases is treating dollars differently depending on their origins and their destinations. This mental accounting can lead to decisions that seem very sound on the surface. Sometimes this is because they are: Setting aside money for retirement may prevent us from spending it too early, for example. Many people budget by either figuratively or literally putting money for different sorts of spending into different envelopes. This can be a useful tool.

This sort of division becomes a problem, though, when we categorize our funds without stepping back to look at the bigger picture. Money you earned through work is no different than money you inherited, as far as your portfolio is concerned. Yet many investors are much more willing to take risks with one category than the other. On the outgoing side, it is possible to become overly focused on one goal at the expense of another. Maintaining an easily accessible emergency fund can distract from retirement planning; you may be reluctant to spend money set aside for vacation on a major health expense. It's essential to take stock of your assets as a whole, both incoming and outgoing, and not allow your mental assignments to keep you from rearranging if necessary.

Another common differentiation is how investors think of the components of their portfolio's growth. Some retirees budget to spend only their portfolio's income – interest and dividends. As a result, they look for investments that maximize their current income of their portfolio. At Palisades Hudson, we find this to be a meaningless and potentially harmful way of thinking. Interest and dividends are taxable income, so a high income portfolio can be an expensive way to manage investments after accounting for taxes. We prefer to focus on a portfolio's total return – the capital appreciation and the current income. Capital appreciation is only taxed once an investment has been sold, so the taxes can be deferred. Focusing too much on income can also constrain returns when interest rates are low. The government's current interest rate policy and companies' dividend policies should not dictate a retiree's spending. There's no reason why you can't live off the proceeds of the sale of an appreciated asset.

Overcoming Biases

All of these fears and biases may make it seem like the deck is stacked against you when making investment decisions. It is true that such mental shortcuts can be hard to notice in yourself, even when you know what to look for. This is because many of them operate on an unconscious level. We can convince ourselves that, in the moment, we aren't biased at all. It's only if you try to evaluate the actions under the lens of the tendencies discussed in the previous section that you may begin to see the emotional or illogical forces driving your decisions. You will not see a bias as it influences your decisions, but you might notice it in retrospect.

Knowing your own tendencies is vital, but it doesn't mean you can expect to rewire yourself. You, like your family, friends and yes, even your financial adviser, are only human. Since these biases generally work on your unconscious mind, being aware of them may help, but it won't eliminate their influence. So how can you avoid falling into traps created by your own mental shortcuts?

The most effective tool for combating bad mental habits is creating a written investment plan and committing to stick to it. An investment policy statement puts forth a prudent philosophy for a given investor and describes the types of investments, investment management procedures and goals that will define the portfolio. The plan should be focused on long-term results, and should include plans for eventualities such as a market downturn or the failure of a major investment. By considering such problems in advance as hypothetical situations, you can avoid the temptation to react emotionally in the moment.

Further, creating a detailed plan will allow you, perhaps with a financial adviser's help, to set benchmarks for your portfolio, such as what an appropriate amount of spending looks like, how much of a loss to expect in a market downturn, or what conditions should trigger rebalancing your portfolio. Keeping your asset allocation in line with your risk tolerance will help you to weather turbulent markets much more effectively than trying to react as volatile situations arise.

The development of an investment policy, alone or with an adviser, should follow the basic approach underlying all financial planning. This includes six steps:

1. Assessing your current financial condition

2. Setting personalized goals
3. Developing a strategy to meet those goals
4. Implementing the strategy
5. Regularly reviewing the results
6. Adjusting as circumstances dictate in a way that reflects the pre-determined plan

For many investors, combining an appropriate asset allocation for long-term goals with a reserve for short-term needs creates a buffer, which makes it easier to maintain patience and confidence in sticking to the investment plan. In essence, you will sign an “investment contract” with yourself, agreeing that you won’t let market conditions or outside influences cause you to abandon your original plan.

By setting up an investment plan, you will remove the temptation to rely on yourself to remain unbiased and unemotional in any circumstances. For example, a classic piece of investing advice is to “buy when there’s blood in the streets” – that is, when there is panic in financial markets. Panics are the time to make money, as long as you avoid emotional reactions and stick to your plan. The market is effectively on sale in a panic, and yet people are inclined to buy less, not more. A plan can help you avoid this tendency without forcing you to rewire your own natural responses. Similarly, sticking to an investment plan can prevent you from acting on overconfidence borne of a market boom. Your plan will allow you to avoid impulsive action and to recognize your own tendencies for irrationality.

Hiring a financial adviser can help mitigate emotional responses and make sticking to your plan easier. An adviser can also be useful for those without the time or skill to manage their own investments properly. A professional has the time and resources necessary to perform sufficient due diligence for your investments, replacing emotion and guesswork with data. The adviser can also provide moral support or coaching in rough times when you begin to doubt the wisdom of your own plan.

Remember: Risk isn’t the enemy. Calculated risk is an investor’s best friend, since it is the principal driver of returns. Because investors seek to protect their assets, they demand higher returns for higher risk investments. The possibility of loss lies along the path to greater rewards.

You should take on risk with discipline and within limits, however. You may find it easier to cope with risk by dividing your portfolio into chunks, each of which can have a different risk threshold and a different time horizon. In this way, mental accounting can work for you rather than against you, even while you consider the health and diversification of your portfolio as a whole. The idea is to handle risk calmly, based on good information and sound long-term strategy.

Resisting Sales Manipulation

Although we have focused on avoiding the impact of biases, it is also important to realize that people who want to sell you various financial products and services are aware of these biases and shortcuts too. While you try to resist your own mental traps, others will actively try to exploit them. Once you can recognize persuasion techniques, resisting them may be easier than fighting your own biases, but it will still take attention and practice.

Remember to think critically and question any information a salesperson or a marketing campaign feeds you. They may be trying to take advantage of your recency bias, selling you protection against yesterday's problem rather than tomorrow's. While it may seem like today's conditions will last forever, whether low interest rates, low inflation or low stock returns, the next big risk may be something entirely different.

Marketers may try to get you moving with the herd by bombarding you with examples of other people's decisions. It is easiest to sell what everyone is buying. As an investor, however, you need to focus on what is in your own best long-term interest. Buying an out-of-favor investment when it's "on sale" can be more profitable than buying the thing that everyone else wants today.

Marketers are also quick to exploit our tendency to trust or agree with someone we can label "an expert." This is why doctors often appear in ads for medication. Their position immediately triggers an air of credibility for the ads' claims. Similarly, you might be more inclined to buy a product if you hear it praised by a well-known financial expert, publication or investment firm. While these endorsements can be useful, they are not enough alone to serve as the basis of a sound decision.

A popular figure paired with a concept or product can encourage viewers to transfer their positive feelings about the person to the concept. This is the basis of celebrity endorsements, whether it's a sports figure on a Wheaties box or an actress as the face of a makeup cam-

paign. Even someone with no expertise in the product they're endorsing can make an idea much more attractive simply by saying they like it; this, however, has little bearing on whether the product is right for the consumer.

There are also behaviors a marketer can display that can influence investors' attitudes toward a product or idea. For example, we often feel obliged to return favors, which is why companies give away promotional items or offer free introductory services. People are also inclined to continue granting requests from the same source once they have said yes once. Think of how companies often try to get you to answer yes to small requests, such as giving five minutes of your time or sharing your email address, in order to make larger requests later.

Sellers may also make outrageously large requests, which then make smaller requests look like concessions once the large requests are refused. We may be more likely to consider the request that looks like we've gained some ground, even if it is not objectively a good idea. Further, most people feel awkward going back on an agreement, even if the terms change or new terms come to light. For example, hidden charges or fees can make an investment that seemed like a good idea at first much less appealing. Yet, even with new information, many people feel uncomfortable changing their minds if they previously expressed interest or approval.

Sales manipulation relies on listeners not applying critical thinking to the message they hear. We tend to find longer messages more accurate or trustworthy than shorter ones, regardless of content. We also tend to believe a story that is presented in an attractive package or told by a good storyteller. One of the best ways to counter active persuasion techniques is to force yourself to pay more attention to the strength and quality of the message's content than to the means of its delivery. Critical thinking requires motivation and concentration, and can be harder when you are tired or upset. Since it is one of the strongest tools investors have for cutting through hype and avoiding the temptation to blindly follow the crowd, you should be sure to be at your best when making major investment decisions.

Investor biases are one form of the human brain's adaptations for dealing with a complex world through patterns and shortcuts. The inclinations to focus too much on a few factors or to answer an easy question rather than a hard one are quite natural. Such mental biases are part of us and can never be eliminated completely. Yet that doesn't mean investors are powerless. Though we cannot eliminate our biases,

we can recognize them and respond in ways that help us avoid self-defeating behavior.

Planning and discipline are the keys. Think critically about your investment processes from start to finish, rather than letting your subconscious drive your actions. Make plans calmly over time, when you are well-rested and well-informed. Once you have a plan, be diligent in sticking to it. Adhering to a long-term investment plan will limit the extent to which fears and biases can influence your behavior as an investor. We all make mistakes, but a plan that accounts for such foreseeable temptations can help protect you from avoidable missteps.