

Behavioral finance

Do you have a behavioral bias?



Wealth Management
Dominion Securities

Navigating the markets is not an exact science, and an element of art is often required when making investment decisions. For example, an investor might think a particular stock is overvalued because the company's market capitalization exceeds the sum of all its competitors. On the flip side, another investor might say the same stock is undervalued because the company has the potential to disrupt its industry.

Both of these views could be subject to behavioral biases, which in turn could lead to suboptimal investment decisions. In this commentary, we highlight some common biases, examine their potential consequences, and suggest strategies to mitigate suboptimal outcomes.

Cognitive biases

Cognitive biases are typically driven by an individual's personal beliefs and/or irrationality when it comes to processing information. The good news is that these biases can often be corrected through better information, education, and advice.

Scenario 1

Brad and Karen have been married for 23 years and are high-ranking executives in a real estate development company. They would describe themselves as having an average risk tolerance and a long investment horizon, with a preference for dividend-paying securities. From a household perspective, the couple earns about \$500,000 in after-tax income annually, have no debts, and maintain a modest lifestyle. The bulk of their wealth is held within registered accounts, and they max out their RRSP and TFSA contributions on an annual basis, placing the remainder into a high-interest savings account.

They've been happy with the performance of their equity investments, with a particular emphasis on the strength and stability of their holdings in the Financials sector. At the same time, they've been hearing talk about an impending recession and the risks to the financial system. However, they are comforted when one of their financial-

industry colleagues tells them, "The banks lend to everyone, they're too big to fail!". Later, during lunch, one of their close friends convinces them that they need to minimize their market exposure because companies will likely go bankrupt, just like in the Great Financial Crisis. Their only child, John, who graduated at the top of his class, has also mentioned that Canadian households are highly indebted and that they should have some exposure to Bitcoin to diversify away from the Canadian dollar.

Brad and Karen are not familiar with cryptocurrency, but their recent portfolio returns have been better than expected and therefore they would be comfortable allocating their gains into Bitcoin. They also have noticed that their holdings in real estate investment trusts (REITs) have underperformed due to higher interest rates—but as real estate developers, they are confident this sector will ultimately rebound because Canadians have a strong attachment to real estate, and therefore they have decided to double down.

In the scenario above, Brad and Karen might be subject to several cognitive biases. We identify these biases in the following sections, and suggest ways investors may be able to correct or reduce their effects.

The cognitive biases that might affect Brad and Karen's investment decision making process include:

Confirmation bias: A tendency to overvalue information that supports existing thought processes or beliefs, and to undervalue information that appears to contradict what one already believes.

Consequence: Brad and Karen are concerned about an impending recession and its potential impact to their Financials-sector exposure. However, they choose to place a larger emphasis on their colleague's opinion that the banks are "too big to fail".

Mitigation: Confirmation bias can be corrected or reduced by actively seeking information that challenges existing thought processes. For instance, Brad and Karen could

look for an analysis that determines reserve levels of the banks versus potential loan losses.

Framing bias: An information processing bias in which the way a situation is presented skews the interpretation or response.

Consequence: During lunch, Brad and Karen were convinced that the next recession could result in a market selloff like the one that occurred during the Great Financial Crisis in 2008. The risk is that they might not be making an apples-to-apples comparison.

Mitigation: Framing bias can be corrected or reduced by asking more specific questions. For instance, “The 2008 crisis was driven by elevated housing risks and poor lending practices; is the same scenario playing out today?”.

Mental accounting: Mentally dividing money into different “buckets” even though money is fungible, which may lead to suboptimal investment decisions.

Consequence: Brad and Karen have no experience with cryptocurrency, but they believe having some exposure makes sense in light of the recommendation from their son. Furthermore, they appear to have a lower attachment to this investment because the capital is funded from recent gains; even if Bitcoin doesn’t work out, they’re okay taking a loss because it wasn’t “their money” to begin with.

Mitigation: Recognize that money is fungible, whether it comes from employment income or capital gains. Once capital is earned, it becomes a component of Brad and Karen’s net worth and should be utilized in a manner that aligns with their financial goals and objectives.

Representative bias: A tendency to extrapolate from past experiences and outcomes when processing new information.

Consequence: Brad and Karen’s REIT holdings have underperformed, but their personal experience is that investors have benefitted from buying the dip during every pullback in recent memory. Therefore, they are not concerned about their REIT exposure.

Mitigation: Representative bias can be corrected or reduced by analyzing a larger amount of evidence and looking for subtle differences between past events, such as changes in interest rates. For example, one could compare historical affordability rates, accounting for average home prices and income levels across various time periods.

Gambler’s fallacy: Believing a future outcome is more or less likely due to past outcomes.

Consequence: Brad and Karen’s decision to double down on their REIT holdings might be biased because it is based on the robust growth in real estate prices in recent

years. Furthermore, they might believe they have an edge because they both work in the industry.

Mitigation: Gambler’s fallacy bias can be corrected or reduced by recognizing that seemingly related events are often independent of one another. Brad and Karen should recognize that the macroeconomic environment and consumer behaviors have shifted meaningfully in a short time. For instance, the shift to hybrid/remote work is likely structural in nature, and this is likely to negatively impact the prospects for office REITs going forward.

Emotional biases

Emotional biases are those in which an individual’s reasoning is influenced by feelings or emotion. These biases typically stem from impulse or instinct, and affect the way one perceives or acts on information. It is often easier to recognize and adapt to emotional biases when making decisions, rather than trying to eliminate them.

Scenario 2

John is 23 years old, works full time, and regularly contributes to his investment accounts. He has begun to feel dissatisfied with how his stocks are trading, with one of his holdings down 35% on the year due to a structural change in company fundamentals. John hates losing money, so he is determined to hang onto this stock instead of selling at such a steep loss. To combat this feeling of loss, he begins selling his winners as soon as they are in the green in order to crystalize any gains and avoid recreating the situation he is in with respect to his poorly performing holding.

One day, John is chatting with some friends, and they convince him that a certain digital coin that was recently launched is the next crypto to buy. Convinced that the price will multiply many times in a matter of months, John decides to stray from his long-term plan of investing in high-quality, value-oriented stocks in order to buy this coin and get rich quick. Unfortunately, it soon becomes clear that the new coin was propped up by the rumor mill. After seeing his investment lose almost 95% of its initial value, John falls behind his annual savings goals.

As John does not seem to be able to navigate the market very well, he decides to move his money to an investment advisor. John’s parents want to help him get back on track after his recent poor decisions, and have gifted him shares in a company that were purchased by his great-grandfather. After careful consideration of John’s strategic asset allocation, his new advisor has decided to sell the shares to further diversify John’s portfolio. But John disagrees—he thinks there is no way the shares are only worth \$30,000, and believes they can move much higher. This is obvious to him, as his parents must have had great conviction to hold onto them for so long!

In Scenario 2, above, John might be subject to the following emotional biases:

Loss aversion: The tendency to prefer avoiding losses as opposed to achieving gains. This leads to selling winners too soon and holding losers too long, as losses are significantly more emotionally powerful than gains.

Consequence: John refused to sell his losing position in a significantly underperforming stock, and instead sold his best performers before giving them a chance to fully appreciate. This resulted in a sub-optimal investment portfolio.

Mitigation: Having an up-to-date investment policy statement, followed by discipline in the investment process to ensure the risk profile remains within targeted allocation ranges.

Self-control bias: Failing to act in pursuit of long-term goals in favor of short-term satisfaction.

Consequence: John wanted to make money fast, and thought he could do this by straying from his investment strategy in order to achieve quick gains. This has resulted in him taking on excess risk and ultimately falling behind in his goals.

Mitigation: Strictly following an investment policy statement, as well as having an up-to-date financial plan to quantify goals and the actions needed to reach them, are good ways to remain focused on long-term goals.

Endowment bias: Valuing an asset more than market value solely because you own it.

Consequence: John is placing a premium valuation on the shares bought by his great-grandfather only because they were gifted to him and he now owns them. This leads him to deviate from his strategic asset allocation, and could be setting up his portfolio to exceed his risk tolerance by failing to diversify appropriately.

Mitigation: Endowment bias can be reduced by adhering to an investment plan to reach desired goals, as well as asking yourself important questions like “Would I buy this in my current portfolio if I did not already own it?”

Conclusion

As an investor, it can be difficult to separate one's behaviors from logical and judicious decision making. We believe being aware of biases, and bringing them to the forefront of client conversations or self-evaluation, will often produce better investment outcomes.

Authors

Richard Tan, CFA

richard.tan@rbc.com; RBC Dominion Securities Inc.

Matt Altro

matt.altro@rbc.com; RBC Dominion Securities Inc.

Disclosures and disclaimers

Analyst Certification

All of the views expressed in this report accurately reflect the personal views of the responsible analyst(s) about any and all of the subject securities or issuers. No part of the compensation of the responsible analyst(s) named herein is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the responsible analyst(s) in this report.

This report is issued by the Portfolio Advisory Group (“PAG”) which is part of the retail division of RBC Dominion Securities Inc. (“RBC DS”). The PAG provides portfolio advisory services to RBC DS Investment Advisors. Reports published by the PAG may be made available to clients of RBC DS through its Investment Advisors. The PAG relies on a number of different sources when preparing its reports including, without limitation, research reports published by RBC Capital Markets (“RBC CM”). RBC CM is not independent of RBC DS or the PAG. RBC CM is a business name used by Royal Bank of Canada and certain of its affiliates, including RBC DS, in connection with its corporate and investment banking activities. As a result of the relationship between RBC DS, the PAG and RBC CM, there may be conflicts of interest relating to the RBC CM analyst that is responsible for publishing research on a company referred to in a report issued by the PAG.

RBC Capital Markets Distribution of Ratings

For purposes of ratings distributions, regulatory rules require member firms to assign ratings to one of three rating categories – Buy, Hold/Neutral, or Sell – regardless of a firm’s own rating categories. Although RBC Capital Markets’ ratings of Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because RBC Capital Markets ratings are determined on a relative basis.

Distribution of ratings – RBC Capital Markets Equity Research

As of March 31, 2023

Rating	Count	Percent	Investment Banking Services Provided During Past 12 Months	
			Count	Percent
Buy [Outperform]	824	56.05	236	28.64
Hold [Sector Perform]	591	40.20	132	22.34
Sell [Underperform]	55	3.74	4	7.27

Explanation of RBC Capital Markets Equity Rating System

An analyst’s “sector” is the universe of companies for which the analyst provides research coverage. Accordingly, the rating assigned to a particular stock represents solely the analyst’s view of how that stock will perform over the next 12 months relative to the analyst’s sector average.

Ratings: Outperform (O): Expected to materially outperform sector average over 12 months. **Sector Perform (SP):** Returns expected to be in line with sector average over 12 months. **Underperform (U):** Returns expected to be materially below sector average over 12 months. **Restricted (R):** RBC policy precludes certain types of communications, including an investment recommendation, when RBC is acting as an advisor in certain merger or other strategic transactions and in certain other circumstances. **Not Rated (NR):** The rating, price targets and estimates have been removed due to applicable legal, regulatory or policy constraints which may include when RBC Capital Markets is acting in an advisory capacity involving the company.

Risk Rating: The **Speculative** risk rating reflects a security’s lower level of financial or operating predictability, illiquid share trading volumes, high balance sheet leverage, or limited operating history that result in a higher expectation of financial and/or stock price volatility.

Valuation and Risks to Rating and Price Target

When RBC Capital Markets assigns a value to a company in a research report, FINRA Rules and NYSE Rules (as incorporated into the FINRA Rulebook) require that the basis for the valuation and the impediments to obtaining that valuation be described. Where applicable, this information is included in the text of our research in the sections entitled “Valuation” and “Risks to Rating and Price Target”, respectively.

The analyst(s) responsible for preparing this research report have received (or will receive) compensation that is based upon various factors, including total revenues of RBC Capital Markets and its affiliates, a portion of which are or have been generated by investment banking activities of RBC Capital Markets and its affiliates.

RBC Capital Markets Conflicts Policy

RBC Capital Markets Policy for Managing Conflicts of Interest in Relation to Investment Research is available from us on request. To access our current policy, clients should refer to <https://www.rbccm.com/global/file-414164.pdf> or send a request to RBC Capital Markets Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7. We reserve the right to amend or supplement this policy at any time.

Dissemination of Research

RBC Capital Markets endeavors to make all reasonable efforts to provide research content simultaneously to all eligible clients, having regard to local time zones in overseas jurisdictions. RBC Capital Markets provides eligible clients

with access to Research Reports on the Firm's proprietary INSIGHT website, via email and via third-party vendors. Please contact your investment advisor or institutional salesperson for more information regarding RBC Capital Markets' research.

Conflict Disclosures

In the event that this is a compendium report (covers six or more subject companies), RBC DS may choose to provide specific disclosures for the subject companies by reference. To access RBC CM's current disclosures of these companies, please go to <https://www.rbccm.com/GLDisclosure/PublicWeb/DisclosureLookup.aspx?entityId=1>.

Such information is also available upon request to RBC Dominion Securities, Attention: Manager, Portfolio Advisory Group, 155 Wellington Street West, 17th Floor, Toronto, ON M5V 3K7.

The authors are employed by RBC Dominion Securities Inc., a securities broker-dealer with principal offices located in Toronto, Canada.

The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard & Poor's Financial Services LLC ("S&P") and is licensed for use by RBC. Neither MSCI, S&P, nor any other party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Disclaimer

The information contained in this report has been compiled by RBC Dominion Securities Inc. ("RBC DS") from sources believed by it to be reliable, but no representations or warranty, express or implied, are made by RBC DS or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC DS' judgment as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. This report is not an offer to sell or a solicitation of an offer to buy any securities. Additionally, this report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. This material is prepared for general circulation to Investment Advisors and does not have regard to the particular circumstances or needs of any specific person who may read it. RBC DS and its affiliates may have an investment banking or other relationship with some or all of the issuers mentioned herein and may trade in any of the securities mentioned herein either for their own account or the accounts of their customers. RBC DS and its affiliates may also issue options on securities mentioned herein and may trade in options issued by others. Accordingly, RBC DS or its affiliates may at any time have a long or short position in any such security or option thereon. To the full extent permitted by law neither RBC DS nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct, indirect or consequential loss arising from, or in connection with, any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior written consent of RBC DS in each instance.

In all jurisdictions where RBC conducts business we do not offer investment advice on Royal Bank. Certain regulations prohibit member firms from soliciting orders and offering investment advice or opinions on their own stock. References to Royal Bank are for informational purposes only and are not intended as a direct or implied recommendation for investing in Royal Bank and all related securities.

RBC Dominion Securities Inc.* and Royal Bank of Canada are separate corporate entities which are affiliated.

* Member-Canadian Investor Protection Fund. RBC Dominion Securities Inc. is a member company of RBC Wealth Management, a business segment of Royal Bank of Canada.

® Registered trademarks of Royal Bank of Canada. Used under licence.

©2023 RBC Dominion Securities Inc. All rights reserved.