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Behavioral finance
Anchoring: When to hold on - and when to cut free
By Stan Clark - Senior Investment Advisor


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In this month's behavioral finance article, I examine a tendency we have but are often unaware of: anchoring, that is, relying on information irrelevant to a decision we're about to make. Michael Chu continues his "Behind the numbers" series by discussing the use of price-to-earnings (P/E) ratios in evaluating companies. Reviewing the performance of stocks vs. bonds over the past 100 years, Elaine Loo shares an intriguing lesson. And Sylvia Ellis looks at whether to put money in a Tax-Free Savings Account or Registered Retirement Savings Plan.


## Behavioral scientists Amos Tversky and Daniel Kahneman once asked a group of people what percentage of African nations belonged to the United Nations. But the scientists' question had a twist.

Before asking each person, Tversky and Kahneman spun a wheel of fortune. They asked them whether the percentage would be higher or lower than the random number the wheel had spun to. Then they asked them to estimate the exact percentage.
The wheel's spin hugely affected people's guesses. When it pointed to 10 , the median answer was $25 \%$. But when it pointed to 65 , the median answer was nearly double that: $45 \%$.
Would any rational person think the spin of a wheel could affect the number of African countries in the U.N.? I doubt it. Yet, it did just that in the incident l've described.
In this article, I'd like to talk about a psychological bias called anchoring. This is our tendency to rely too heavily on one piece of information when making a decision without thinking about it, even if we know the information is irrelevant. I'll also discuss when to hold on to such information and when to cut free of it.
In another experiment, Massachusetts Institute of Technology Professor Daniel Ariely held a mock auction. Ariely asked his students to write down the last two digits of their Social Security numbers. Then he asked them to bid for items such as chocolates, a cordless keyboard and wine. For the cordless keyboard, the students with the lowest numbers (one to 20) made an average bid of $\$ 16$. Those with the highest numbers ( 80 to 99 ) bid an average of $\$ 56$, more than three times as high.
The trend held across all products. Students who had written down higher numbers were willing to spend an average of $300 \%$ more than those with lower numbers.
you're selling your house in a down market, you may be anchored to your initial asking price. When the market falls a little, you hold out for your price. As a result, you may pass on a reasonable offer. Later, when the market falls more, you finally adjust your price and sell - but possibly for much less than the earlier offer you refused.

> Investors are often overly affected by a stock's previous high or low price, or by what they paid for it.

Anchoring explains why many negotiators begin by asking for a very high price. They hope the counterbid will be close to what they really want. Anchoring also accounts for why people feel overly confident in new business ventures. Anchored to their first successes, they dismiss or underestimate problems down the road.
Investors are often overly affected by a stock's previous high or low price, or by what they paid for it. This can cause people to hold on too long to losers, or to buy stocks like Nortel at $\$ 60$ per share because it seems like a bargain compared to the share's peak of $\$ 120$.
We should be on the lookout for anchoring in all our financial decisions. Being aware of anchoring can help us save money - and prevent us from making big financial mistakes.


Mattias's 1st birthday party January 5th, 2020

Any major events in the family over the past year? Definitely. Our second son, Mattias R. Johansson was born on January 7, 2019 and has been an incredible addition to the family. The adjustment from one child to two was actually not as hard as I thought, but our boys are 4.5 years apart. Mattias is adored by his big brother and the feeling is certainly reciprocated. Watching the two of them bond over the past year has been a definite highlight in my life. The boys are also adjusting well to me returning to work and Callan is being a great big brother.

Where did you go on vacation this past year? In July 2019, we took the family to London, England and Stockholm, Sweden for two weeks! Mattias was only 6.5 months old, which was a perfect age to travel that far. Both kids handled the long flights really well. We stayed with friends which made daily excursions a lot easier with a home base to come to at the end of a long day. It was a fantastic trip. We also took a family vacation to Kaanapali on Maui in November for some fun in the sun and sand.

## Investing

Behind the Numbers:
Price-to-earnings ratio (part two)

## By Michael Chu, Investment Advisor

## The price-to-earnings ratio, also known as

 $P / E$, is a company's share price divided by its annual earnings per share. In part two of our series "Behind the numbers," we discuss the P/E ratio - and its importance in evaluating companies.If a company has a price of $\$ 30$, and annual earnings of $\$ 3$ per share, then the P/E ratio is 10 times. That would typically be considered low, or cheap. If another company has the same share price, but earnings of only $\$ 1$ per share, then the P/E ratio would be 30 times. All else being the same, that would typically be considered high, or expensive.
Another way of presenting P/E is the earnings yield. Earnings yield is the inverse of P/E: earnings divided by price. So, a low P/E stock has a high earnings yield. In our example of the company with a P/E of 30 , the earnings yield would be 3.3\%.

The P/E ratio tells you how much you are paying for every dollar of earnings. It also enables you to compare the valuation of one company to another - perhaps in the same industry, or to a completely different stock, or to itself historically. All things being equal, a company with a P/E ratio of 30 is three times as expensive as a company with a ratio of 10, even though they are both $\$ 30$ per share. You might wonder why some stocks have high P/E ratios, while others have low ones. Usually, stocks with higher P/E ratios also have higher growth prospects. Those with low P/E ratios would typically have lower growth prospects.
We often hear about value stocks and growth stocks. Value stocks are typically those with low P/E ratios. Value investors like these stocks. They believe they are getting good value because they are paying below-average prices for earnings. They don't want to depend on, or pay more for, future earnings growth that seems too unpredictable or overestimated. Growth investors are on the other end of the spectrum. They are willing to pay more for companies that are poised for significant growth. If such growth materializes, it should result in good price appreciation.

So, how do we use the P/E ratio to select stocks? P/E ratios and stock selection have been the subject of numerous research studies. One longterm study looks at all U.S. stocks over 46 years, from 1963 to 2009. The study separates the stocks into 10 groups, based on P/E ratios. It shows that low P/E stocks had returns of $16.3 \%$, while high P/E stocks had returns of $5.5 \%$. The market average for this period was $11.2 \%$. Clearly, low P/E stocks outperformed high P/E stocks - and, more importantly, they also outperformed the market.
There's one thing we should point out about testing variables like P/E: Just because there is a pattern doesn't necessarily mean that it's a good variable to use. There might not be a causal relationship. For example, let's say we discover a strong pattern between stock returns and the weather. We wouldn't consider using this as a variable because it doesn't make sense; it is just a coincidence. By contrast, the reasoning behind P/E being a useful variable is sensible and sound. You are paying less for the same dollar in earnings compared to an average stock. You may recall from our discussions on behavioral finance that going counter to the popular trend can be rewarding.
While value investing has a strong track record over the long term, keep in mind that investment styles can come in and out of favour, and one style can outperform the other for extended periods. Our stock strategies have a value bias, but still combine factors from both styles of investing for diversification. ■


Michael Chu is a Portfolio Manager and Investment Advisor for the Stan Clark Financial Team at CIBC Wood Gundy. Michael is a specialist in investment research and information technology.

## Asset allocation

## Stocks vs. bonds over the past 100 years

By Elaine Loo, Associate Investment Advisor

In Aesop's fable The Tortoise and the Hare, slow and steady wins the race. But is that really how it works in life? When it comes to investing, slow and steady can be a recipe for near-certain losses.
Let's look at stocks-vs.-bonds returns over the past 100 years. Think of The Tortoise and the Hare as a story about asset allocation: of bonds, which appreciate slowly and appear reliable; and of stocks, which can appreciate strongly and quickly, but appear risky. Which is your best bet?

The answer depends on what kind of race you're running.
The past 100 years have been wildly volatile: inflation, deflation, a deep depression, two global financial crises, explosive growth, two World Wars, embargoes, assassinations and worldwide pandemics. We often forget how frightening things seemed at the time. Although the world may seem scary now, it's likely that the period ahead won't be all that different from some of the periods we've experienced in the past. History

stocks after inflation.
Inflation actually makes bonds riskier than stocks over the long term. The return during the worst 10-year period for bonds was $20 \%$ lower than the worst 10 -year period for stocks. The chance of losing money over any 10-year period was nearly seven times greater for bonds than it was for stocks.
Over any 10-year period, stocks did better than bonds $89 \%$ of the time. And, over 15 and 20 -year periods, stocks beat bonds every time and never failed to beat inflation. The worst return for stocks over 20 years was a profit of $\$ 100,708$ above inflation! So, based on history, it seems that the longer you can invest for, i.e., your , the less risky stocks are and the riskier bonds become.

The key takeaway here is that one type of asset inn't always better. How long you can invest for is critical in determining the right mix for you. If you only have a few years to
repeats itself; you just don't know which part of the past you're going to get! But the past informs the future. By studying history, you can get a good idea of the range of possible outcomes going forward.

Data shows that, over the past 100 years, if you owned equal amounts of Canadian and U.S. stocks you would have enjoyed average annual growth of 10.9\% (in Cdn dollars) for an inflation-adjusted (real) return of $8.2 \%$. Over the same period, Canadian bonds averaged 4.9\%, or real returns of just $2.3 \%$ per year.
The graph shows 100 years of growth in stocks vs. bonds. If you started with $\$ 1,000$ in each, you would now have over $\$ 2.2$ million with stocks, but only about \$9,000 with bonds. Remember that these are in "real" dollars, after adjusting for inflation.
The table shows the average percentage growth in stocks vs. bonds over the past 100 years. It also compares the differences in median total dollar growth over various time horizons.

The average real returns from equities were 3.6 times higher than those of bonds. If you started with $\$ 100,000$ in bonds, this would

Growth in stocks vs bonds 1920 to 2019

|  | Average Nominal Returns | Average Real* Returns | Real growth from \$100,000** |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 Year | 5 Years | 10 Years | 15 Years | 20 Years |
| Stocks | 10.9\% | 8.2\% | \$8,214 | \$53,086 | \$117,037 | \$217,046 | \$372,364 |
| Bonds | 4.9\% | 2.3\% | \$2,278 | \$9,790 | \$19,254 | \$30,190 | \$41,351 |
| Inflation | 2.6\% |  |  |  |  |  |  |
| Difference in growth (real \$) |  |  | +\$5,936 | +\$43,296 | +\$97,783 | +\$186,856 | +\$331,013 |
| Difference in growth | 2.2 x | 3.6 x | 3.6 x | 5.4 x | $6.1 x$ | 7.2x | 9.0x |

* "Real" returns are nominal returns after subracting inflation
** "Real growth from $\$ 100,000$ " is the median real growth over different time periods, showing the effect of compounding.
have grown by about $\$ 41,351$ after 20 years. The same amount invested in stocks would have grown by $\$ 372,364$ - nine times as much!

Now, you may be asking: But aren't stocks much riskier than bonds? Yes and no. The stock market is volatile in the short term, making stocks seem risky. But if you invest for the long term, that is, more than 10 years, history shows that down markets have almost always been more than offset by up markets, giving reliable returns for
invest, then most of your money should be in bonds. If you have savings earmarked for needs five to 10 years or more from now, consider investing more of those savings into stocks.


Elaine Loo is an Associate Investment Advisor for the Stan Clark Financial Team at CIBC Wood Gundy. She is responsible for the day-to-day monitoring and maintenance of client accounts and investment portfolios.

## Financial Planning

## Put your money in a TFSA or an RRSP?

By Sylvia Ellis, Senior Estate Planning Advisor

## Since the Tax Free Savings Account (TFSA), was first introduced on January 1, 2009, many people wonder how it compares in attractiveness to a Registered Retirement Savings Account (RRSP). If you can't put money into both a TFSA and an RRSP, which one should you choose?

The two plans are actually meant to be taxneutral. For people who are being taxed at the same rate now as they will be in

|  | TFSA | RRSP |
| :--- | ---: | ---: |
| Pre-Tax Income | $\$ 5,000$ | $\$ 5,000$ |
| Tax (40\%) | $(2,000)$ | $\mathrm{n} / \mathrm{a}$ |
| Net contribution | $\$ 3,000$ | $\$ 5,000$ |
| Growth @ 5\% for 20 years | $\$ 7,960$ | $\$ 13,266$ |
| Tax upon withdrawal | $\mathrm{n} / \mathrm{a}$ | $(5,306)$ |
|  | $\$ 7,960$ | $\$ 7,960$ |

retirement, this means the TFSA and RRSP are equally suited.
Let's look at an example that compares the after-tax growth of $\$ 5,000$ over 20 years:

Basically, the money contributed to a TFSA is taxed up-front, and the funds going into an RRSP are only taxed upon ultimate withdrawal. But the end results are identical.

Many people are inclined to contribute to an RRSP rather than a TFSA because they want the RRSP's tax refund. But Jamie Golombek, managing director of Tax and Estate Planning at CIBC Wealth Management, urges you to remember that "the refund associated with an RRSP contribution should not be considered a windfall but rather the present value of the future tax payment that will have to be made on the ultimate RRSP withdrawal (assuming tax rates are constant)."
Jamie explains that, even if you invest your tax refund in a TFSA (and assuming your TFSA grows at the same rate of return as your RRSP), then the value of your TFSA will equal the amount of future tax payable upon your RRSP withdrawal.
"The growth of the refund is meaningless, because at the end of the day, you end up paying back the refund with interest at the same rate of return that you're earning inside of your RRSP."
What's the key to answering the RRSP versus TFSA question? It helps to try to determine what your tax rate might be in retirement compared to what it is now, or until then. Here are the two situations that can affect your decision today:

1. If the tax rate at the time of withdrawal is lower than at the time of contribution, the RRSP is a better choice.
2. If the tax rate at the time of withdrawal is higher than at the time of contribution, the advantage goes to the TFSA.

When considering your tax rate on withdrawal, you also have to factor in the effect of RRSP withdrawals on benefits such as the Guaranteed Income Supplement or Old Age Security, which might be clawed back because of withdrawals from an RRSP or a Registered Retirement Income Fund (RRIF). Neither would be affected by withdrawals from a TFSA.

TFSAs also have advantages, including greater flexibility and more control - that is, access to capital that allows you to dictate the terms of how you use your money.
So, should it be a TFSA or an RRSP? It depends on your income and tax rates, and how these compare now to retirement. If you would like help determining what is best for you, please do not hesitate to ask us. ■


Sylvia Ellis is the Senior Estate Planning Advisor for the Stan Clark Financial Team at CIBC Wood Gundy. Sylvia provides support to the team in projecting and planning client financial affairs.

## SCFT Trivia

## Play our trivia - support the cure!

For every correct entry we receive in our trivia contest, the Stan Clark Financial Team will contribute $\$ 1$ to CIBC's "Run for the Cure" to raise money for breast cancer research. Each correct entry will also be entered into the draw for this month's prize. Email or phone in your entry today.
Answer all four questions to be entered into the draw for this month's prize. Hint: You can find the answers inside this newsletter.

1. An example of anchoring, or relying on information irrelevant to decisions we're about to make, includes:
a) When buying or selling a house, we strongly anchor to the list price or pre-sale price.
b) When the stock market falls a little, we hold out for the old, higher value in trying to sell.
c) When embarking on new business ventures, we're overconfident because of past successes.
d) All of the above.
2. A price-to-earnings (P/E) ratio tells you how much you are paying for every dollar of earnings. It also enables you to compare the valuation of one company to another:
a) True.
b)
False.
3. In comparing the results of stocks vs. bonds, it's useful to:
a) Concentrate on current results and, based on them, make your investment decision.
b) Study history, e.g., the past 100 years, to get a good idea of the range of possible outcomes going forward.
c) Check social media for pundits' latest recommendations on how to invest.
d) For the clearest perspective, review results from the entire past year.
4. One advantage of putting money into a Tax-Free Savings Account (TFSA) is:
a) A TFSA's after-tax growth greatly exceeds that of a Registered Retirement Savings Plan (RRSP).
b) The federal government is likely to abolish TFSAs. Use them before it's too late.
c) Greater flexibility and more control - that is, access to capital that allows you to dictate the terms of how you use your money.
d) It's a preferable investment to RRSPs no matter what your income and/or tax rate.

## Email answers to: stanclarkfinancialteam@cibc.ca or call (604) 641-4361

One prize winner will be chosen by a draw from all those who submit correct answers. The draw will take place on March 31, 2020.
Trivia challenge runs March 1-30, 2020. No purchase necessary. There is one prize to be won. Simply complete the trivia questions correctly to be entered in the draw. Limit 1 entry per person.
Chances of winning depend on number of eligible entries and whether you correctly answer the trivia questions. Open to adult Canadian residents (excluding Quebec). For full challenge rules, write to: The Stan Clark Financial Team, CIBC Wood Gundy 400-1285 West Pender St,
Vancouver, BC V6E 4B1. © Stan Clark 2020


## The Stan Clark Financial Team

Where planning, investing and behavioral finance meet

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Stan Clark is an Investment Advisor with CIBC Wood Gundy in Vancouver, BC. The views of Stan Clark do not necessarily reflect those of CIBC World Markets Inc. This information, including any opinion, is based on various sources believed to be reliable, but its accuracy cannot be guaranteed and is subject to change. Clients are advised to seek advice regarding their particular circumstances from their personal tax and legal advisors. Insurance services are available through CIBC Wood Gundy Financial Services Inc. In Quebec, insurance services are available through CIBC Wood Gundy Financial Services (Quebec) Inc. If you are currently a CIBC Wood Gundy client, please contact your Investment Advisor. CIBC Wood Gundy is a division of CIBC World Markets Inc., a subsidiary of CIBC and a Member of the Canadian Investor Protection Fund and Investment Industry Regulatory Organization of Canada.

