PERSPECTIVES

Stan Clark
Senior Investment Advisor

In this issue's behavioral finance article, I look at *framing* and how it can influence our actions. Faced with a dropping stock, for example, an investor might hold on rather than sell at a loss – convinced the stock will always be worth its original price. Michael Chu examines benchmark indexes such as the S&P 500 and how to interpret them, as opposed to just accepting them at face value. And in part three of his Behind the Numbers series, Michael discusses *dividend yield* and how this traditional measure of value works.

Stan

CIBC Wood Gundy

Behavioral finance
How the *framing* phenomenon affects your key financial decisions

By Stan Clark - Senior Investment Advisor

Think about these behavioral oddities:

People are more likely to choose meat that's labelled 85% lean over meat labelled 15% fat.

Twice as many people opt for surgery that claims to have a 90% chance of success, versus surgery claiming to have a 10% chance of failure.

Take a full, four-ounce glass and pour out two ounces. Sixty-nine percent of people will say the glass is half empty. Pour two ounces into an empty four-ounce glass; 88% will say it is half full.

Each of the above examples takes identical results and changes the context, or *frames* the results, in a way that affects your responses. In this article, I'd like to discuss how the phenomenon of framing affects your key financial decisions.

Political pollsters know how easy it is to affect results: They simply change the way they frame their questions! For instance, in one poll they asked, "Politically, do you consider yourself: a) conservative, b) liberal, c) neither?" The results were 58%, 30% and 12%, respectively. But when option c) was changed from "neither" to "middle of the road," the tally changed dramatically, to 38%, 20% and 42%.

Traditional economics assumes people make rational choices – and will make the same choices, no matter how these choices are presented, or framed. But research in behavioral finance shows that, in fact, financial decisions can be wildly influenced by framing.

It's all in the framing

Consider the following:

You have entered and won two contests. Contest #1 gives you a prize of $100. But before you leave with the money, you get an option to receive another $50 outright (option A), or flip a coin (option B). If the coin is heads, you win another $100. If it is tails, you win nothing, but keep your original $100. If you're like most people, you choose A, locking in the $50 gain. Your *bird-in-the-hand* bias has been triggered.

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Contest #2 gives you a $200 prize. But you must either give back $50 and leave with $150 (option C), or flip a coin (option D). If the coin lands heads, you must give back $100 and leave with $100. If the coin lands tails, you lose nothing and get to keep the entire $200 prize. Again, if you're like most people, you choose D, gambling on a gain to avoid locking in a $50 loss. Your *aversion-to-loss* bias has been triggered.

Now that is odd, because option A in Contest #1 and option C in Contest #2 have identical results! You leave with $150, guaranteed. And options B and D also have identical results – you have a 50:50 chance of leaving with either $100 or $200.

Why do people's choices differ in each example? It's simply because of the way those choices were framed.

Let's say you invested $20,000 in a stock that has now fallen to $10,000. Your instinctive *loss aversion* means you will likely avoid selling because that would lock in a big loss – even if you know that, by not selling, the value could fall even further. It may also be that you've become *anchored* to the original price. You may believe it is worth $20,000, and that makes you willing to gamble the stock will rise again.

Team Talk:

This month, we've decided to do something a bit different with our Team Talk section. During the Covid-19 quarantine, many of us have been rediscovering our joy of cooking, and we'd like to take this opportunity to share some of our favourite recipes with you! Stan, Jocelyn and Martha's recipes can be found at the end of this issue of Perspectives. Here are some teaser photos...

Stan's Thin-Crust Whole-Wheat Pizza

Martha's Cherry Cake
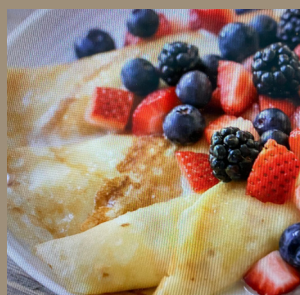
Jocelyn's Delicious Swedish Pancakes

You'll find the complete ready-to-print recipes and the stories behind them at the end of this issue.

Now, reframe your situation. Imagine you have never owned the stock, and you have $10,000 in cash available. Would you buy that stock today? If you answer "No," that means you don't think the stock is worth $10,000. So, you should probably sell to cut your losses.

Being aware of how we are affected by framing can help us avoid behavioral biases that lead to mistakes. Used properly, framing can also help us make the right decisions. When confronted with financial choices, try to think of different ways of framing your options, to see if you come to different decisions. ■

Asset Allocation
Benchmark indexes: They don't always tell the whole story
By Michael Chu, Investment Advisor

Let's say a friend tells you her portfolio is up 4% in the last year. She asks if that is good or bad. How would you answer? You might think the 4% sounds good, considering interest rates are only around 1%. But then your friend says her portfolio is 100% in stocks. You've heard that the market is up 15% over the same period. Would you still think she's had a good return?

Whenever you judge returns – how good or bad they are – you need to compare them to something. That something is called a *benchmark*.

If your portfolio is 100% stocks, it makes sense to select a stock market index as a benchmark. If the portfolio is 40% in Canadian stocks and 60% in U.S. stocks, we should make a benchmark that averages Canada and U.S. indexes with a 40:60 split. If your portfolio has some cash, bonds and international stocks, we would need to include some of these indexes in your benchmark. You get the picture: The benchmark should select a mix of indexes that reflects how you are invested to make sure you are comparing apples to apples.

So that's the first step. The second step is to select the specific indexes for each of these. Here's where it gets tricky.

Some of the more popular stock indexes to use in benchmarks are the S&P 500 for the U.S. and the S&P/TSX Composite for Canada. Because these are the "go to" indexes, we often take them at face value. Which is generally okay – but there are a few things to watch out for.

First, why do we need indexes? Because there are thousands of companies in the market. We need something to summarize in a concise, accurate and understandable way how all these companies are doing. That's what an index is supposed to do.

How are indexes constructed? To start, the index creator decides which companies to include. The criteria could be geography, company size, industry, etc. Then the creator has to decide how to calculate the index: Do they take an average of each stock, or weight them by company size? There are various methods, each with its advantages and drawbacks.

A *market-cap-weighted index* is the most common. This means each company is weighted by the total market value of the stock. Say there are only two companies. If company A has a total market value of $100 billion and company B has a value of $10 billion, then the index will have 10 times more in the first company. The index will

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be about 91% company A and 9% company B. As you can see, larger companies will have larger weightings and smaller companies fewer. This will make the return numbers the same as if you owned 100% of each company.

Not quite apples-to-apples

You can probably see potential problems with this method. What if company A is down 5% and company B is up 50%? The performance of the market-cap-weighted index will be about 0%. But in the real world, if you owned equal amounts of each company, then you would be up 22%! Investors rarely own stocks the same way an index does. Therefore, when the biggest companies' returns are far different from average company returns, the indexes don't do a good job at showing how the average company is doing. *In times like this, the market-cap-weighted indexes fail in providing the apples-to-apples comparison you were wanting for your benchmark.*

Despite such a major flaw, why is this method of constructing indexes still the most popular? First, from an academic perspective, it does represent the whole market, as if you owned 100% of every company. And it does approximate the total market return. Second, from a practical perspective, it's easy for a company to make a fund that copies this type of index. Once the company has purchased the right proportion of each stock, the weighting of each in the fund adjusts automatically with price changes. As the price of each company rises or falls, the weight in the fund and in the index rises and falls the same.

There are problems with this method, too, though they're rarely talked about. The first is that, as a stock's price increases, its weight in the index

will also automatically increase. But a higher price usually means a stock is more expensive. From a commonsense investing perspective, companies should be less attractive as their price goes up – yet this weighting method goes counter to that. The second problem is that, by definition, the index will own more of big companies than of small companies.

Over time cheaper stocks *(value stocks)* and smaller-sized companies, which are underweighted in these indexes, tend to do better than market-cap-weighted indexes. The automatic overweighting of higher-priced and larger companies is one reason this creates opportunities for astute investors to invest differently than the index.

HOWEVER (and this *is* a big however), though the above two problems cause market-cap-weighted indexes to underperform the median/average stock and to underperform value stocks over time, this tendency ebbs and flows like the tides. Sometimes the biggest, priciest stocks have their day in the sun, which produces temporary distortions.

Right now is one of those times when the indexes are not very representative. The S&P 500 is up about 7% so far this year, but it is clearly being carried by the largest companies. In fact, the largest five companies are up an average of 54% this year; these same five companies have a 23% weight in the index. In contrast, the smallest 50 stocks are down an average of 15%.

We can view this discrepancy another way by looking at the equal-weight version of the S&P 500. This index consists of the same companies, but they are all equally weighted. The equal-weight index is down 4% compared to up 7% for the standard market-cap-weighted version. That's a big gap, again telling us that the average stock is not doing as well as the index shows.

Today, the biggest, heaviest-weight companies are doing really well, with an extreme upward influence on the index. As a result, the S&P 500 isn't so representative of the overall market – and it's not doing a good job in providing the apples-to-apples comparison we look for in a benchmark index.

In summary, indexes are still useful, but it's sometimes important to look beyond one number. Headline facts don't always tell the whole story. ■

Investing
Behind the Numbers: Dividend yield (part three)
By Michael Chu, Investment Advisor

Like the price-to-earnings (P/E) ratio we've discussed earlier, the *dividend yield* is another traditional measure of value. The dividend yield is a stock's annual dividend, divided by the stock price. For example, if a stock has an annual dividend of $1 and the stock price is $20, then the dividend yield is 5%.

All else being equal, a higher dividend yield means a cheaper valuation and a lower yield means a more expensive valuation. Let's say you are comparing two stocks. Stock A is priced at $20 and pays $1 in dividends; stock B is priced at $40 and pays $3 in dividends. Which one is cheaper? The dividend yield for stock A is 1/20 = 5% and stock B is 3/40 = 7.5%. So based on dividend yield, we see that stock B is the better deal as it pays more income per dollar.

The dividend yield has a special advantage over other value measures, because it is highly objective. Dividends are either paid or not – no matter what the accounting standards are. That means the dividend yield cannot be swayed or manipulated.

High-dividend-yielding stocks are usually out of favour. That's why they are cheap, selling at a lower price relative to their dividends. This good value is attractive for investors, which eventually brings the stocks back into favour, resulting in a higher price.

Numerous academic studies discuss the results of using dividend yield to choose stocks. For example, in an 83-year study[1] from 1926 to 2009, stocks were divided into 10 groups, based on dividend yield. The research showed that high-dividend stocks had returns of 11.8%, while low-dividend

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stocks had returns of 9.7%. The market average during this time was 10.5%. Those results, from choosing stocks based only on dividend yield, show that high-dividend-yielding stocks outperformed low-dividend-yielding stocks. Furthermore, high-dividend-yielding stocks also outperformed the market.

So far in this series, we've covered two value measures: price-to-earnings and dividend yield. The results from long-term studies show the advantage of buying low P/E stocks or high-dividend-yielding stocks. But the results get even better when we combine the two measures and look for stocks that have both good P/E *and* good dividend yields. Actually, we take it even further. By adding a few more variables, we get the best long-term results: above-average returns with lower-than-average risk. We have less risk because having more variables gives us more consistent results.

Basically, that's how we create our stock strategies. We use variables that show positive value and also make sense. Then we test the combinations of the variables in long-term studies. For instance, our Canadian High Yield strategy looks at dividend yields. But it also includes some momentum factors to help ensure that a stock is trending reasonably well so that it's not falling more out of favour.

In summary, value strategies work, rewarding patient investors who stick with them. But it's the sticking-with-it part that sometimes can be hard. Despite the good long-term track record, in the short term, strategies can underperform for many consecutive years. People also tend to like glamour stocks and their sizzling growth stories rather than boring dividend yields. Glamour stocks are typically more expensive, making them harder to justify. That being said, there's a place for certain types of higher-growth stocks. We'll talk about that next time. ■

1 James O'Shaughnessy

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.

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. In behavioral finance, the concept of *framing* refers to:
   a) Printing out annual stock returns and framing them to hang on a wall
   b) The big advantage of buying only stocks publicized as glamorous and fun
   c) Information presented in a context that may lead us to misunderstand the facts – and then to make bad decisions
   d) The advisability of relying on rumour rather than factual details.

2. Of benchmark indexes, such as the S&P 500 for the U.S. and the S&P/TSX Composite for Canada, it can be said that:
   a) In representing the whole market, as if you owned 100% of every company, they approximate the total market return
   b) When the biggest companies' returns are far different from average company returns, the indexes don't do a good job at showing how the average company is doing
   c) Are useful for making comparisons, but sometimes don't tell the whole story
   d) All of the above.

3. The traditional economic assumption that people make rational choices, no matter how these choices are framed, holds true more than ever today:
   a) True
   b) False

4. *Dividend yield* refers to a stock's annual dividend, divided by the stock price. Its advantages include:
   a) Enabling you to banish price-to-earnings (P/E) ratios from your mind
   b) Once you have high-dividend-yielding stocks, you can sit back and never pay attention to the stock market again
   c) Dividend yield is highly objective. Dividends are either paid or not, meaning the dividend yield cannot be swayed or manipulated
   d) The more you rely on dividend yields, the less you need to consider other variables involved in investments.

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 Sept. 30, 2020.

Trivia challenge runs Sept. 1 - 29, 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

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The Stan Clark Financial Team
Where planning, investing and behavioral finance meet

Phone: (604) 641-4361   Toll free: 1 (800) 661-9442   Fax: (604) 608-5211   Email: StanClarkFinancialTeam@cibc.ca   www.stanclark.ca

Thin-Crust Whole-Wheat Pizza

Shared by Stan Clark

I've always loved pizza, and the thinner the crust the better! My brother and sister-in-law introduced us to making our own, individual-size pizzas using flatbreads bought from Costco. Eventually we decided to make our own flatbread so that we could make the pizzas with whole wheat. This made us feel a little healthier about eating pizza! During the height of the Covid lockdown, these pizzas with super-thin, whole-wheat crusts, plus a variety of fresh toppings, became our go-to dinners.

We usually make the crusts first, partially cooking them in the oven. We make eight at a time, then use what we need and freeze the remaining ones.

Ingredients for crusts:

Makes eight 10" x 5" crusts, 75 g per crust

Dry ingredients

- 150 g (1 cup) whole wheat flour
- 200 g (1-1/3 cup) all-purpose unbleached flour
- 3/4 tsp instant yeast
- 1 tsp salt
- 1 tbsp garlic powder (optional)

Liquids

- 1 tbsp honey
- 220g (<1 cup) room-temp water
- 1 tbsp olive oil
- Plus some cornmeal for sprinkling on the bottom of the pan.

Preparation:

1. Mix dry ingredients together in mixing bowl.
2. Mix liquids together, then add to dry ingredients and mix well with hands for a minute or so.
3. Let sit for 5 min to hydrate.
4. Knead by hand for 8-10 minutes.
5. Cut in two, form into balls, coat lightly with oil, and place each in a medium freezer bag.
6. Sit on counter for 30 min.
7. Put in fridge at least overnight (or can leave 2-3 days). Can also freeze after this step.
8. Take out of fridge at least 2 hours before making pizza crusts.
9. Divide each ball into 4.
10. Roll out each to approx. 10" x 5" using a rolling pin (or by hand if you're a purist). Use flour on counter and on roll to keep from sticking. Keep flipping regularly – roll both sides.
11. Lay on cookie sheet with corn meal sprinkled on it – 3 per cookie sheet. Can cook 8 at one time using 3 cookie sheets.
12. Bake at 450 degrees convection for 5 min.
13. Let cool a bit, them put sauce and toppings on. Place on parchment paper (to catch melted cheese) and cook for further 8-9 min at 450 degrees.

Toppings:

You can put just about anything you want on the crust – experimenting is half the fun!

I start with a thin layer of pizza sauce (store-bought) and then a layer of cheese. For cheese I usually use grated Parmigiano-Reggiano and shredded mozzarella. We buy mozzarella pre-shredded: It's so much easier and a bit less expensive, too. You can try almost any kind of cheese. You can also use pesto sauce as a base instead of pizza sauce, or half-and-half.

We then choose from the following ingredients:

Thin-sliced zucchini, mushrooms, red peppers and tomatoes; artichokes in oil; sliced black olives; and spinach. If you want meat you can add cooked chicken slices, cooked ground beef, ham, pepperoni or bacon.

I then add a little more cheese on top (rationalizing how healthy the whole-wheat thin crust is), and a sprinkling of crushed red peppers.

You can really use just about anything you have in the fridge: I've also used sliced bok choy (very tasty), pre-roasted Brussels sprouts, even frozen peas and corn. All good!

Cherry Cake

Shared by Martha Rodriguez

I love summer because of sun, berries and cherries. This summer I've baked cherry loaves and cherry cakes. I've cooked cherry compote, sooo good with vanilla ice cream. I've even been known to prepare cherry liqueur.

Here I present you with my recipe for cherry cake. Easy to do – and you'll love it!

Ingredients:

- cherries (450 g)
- potato starch (90 g) (I get it at a Korean market)
- sugar (150 g)
- baking powder (16 g)
- flour (150 gr)
- eggs (3)
- butter at room temperature (100 g)
- You will also need a 20-cm-diam round baking pan, buttered.

Preparation:

1. Remove stem and pit from cherries and cut them in half.
2. Put the sugar and the butter in a bowl. Using a mixer, mix until you obtain a creamy consistency.
3. Add the eggs and continue mixing at medium speed. Once eggs are incorporated, stop using the mixer.
4. Sift dry ingredients (flour, baking powder and starch) into the mix. Combine using a spatula (do not use a mixer).
5. In the buttered pan put a generous big portion of the mix (use spatula) and spread it on the bottom of the pan. Cover it with a layer of the cherry halves. Put one half next to the other, facing down.
6. Take a handful of the leftover cherries and using a blender (I use my immersion blender) blend into a cherry sauce.
7. Pour the sauce on top of the cherry halves (the ones in the pan).
8. Pour the rest of the mix and spread (use the back of a spoon to spread evenly).
9. Put the rest of the cherry halves on top (always with the cut side facing down).
10. Bake for 60 min at 200 degrees Celsius (392 F). The first 30 minutes on the bottom part of the oven; the next 30 in the middle section.

Delicious Swedish Pancakes *(The Swedes' version of crêpes)*

Shared by Jocelyn Johansson (courtesy Curtis Johansson)

My husband's father is Swedish and he grew up having these pancakes as a child. He introduced me to them years ago and now our six year old son is obsessed with them. He requests them almost daily for breakfast, but we've had to limit them to weekends! You can enjoy these as a savory dish by filling them with ham and sharp cheddar or a sweeter dish with fresh fruit. The traditional way is to simply sprinkle a little raw sugar and squeeze lemon over them. Our son prefers them to be filled with Nutella and whipping cream if he's allowed.

They will also keep in the fridge for a few days and can be microwaved with a moist paper towel to reheat them. Enjoy!

Ingredients:

- 4 eggs
- 2 cups of milk
- 1 cup of flour
- 2 tbsp sugar
- 1 tsp salt
- 2 tbsp melted butter.

Instructions:

1. Melt the butter
2. Mix together the ingredients into a thin batter
3. Preheat the skillet to medium heat
4. Butter the skillet
5. Pour enough batter in to the skillet just to cover the bottom (i.e., a thin layer)
6. Cook for a couple of minutes until golden brown, then flip and cook for another minute or two on the other side.

Serve with Nutella and whipped cream – that is, if you happen to share tastebuds with our son Callan. Swedish Pancakes are also delicious with fresh berries or fruit, or plain syrup. Or, for a savoury breakfast, with ham and cheese!