QUBE COMMENTARY

July 2022

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Letter From the Editor

Ian Quigley, MBA, CFA

Yes, 2022 has so far been terrible for investors! As we joyously celebrated a resolving pandemic (fingers crossed), we were confronted with supply chain disruptions and labour market shortages. Add to that a horrific attack on Ukraine and the decoupling of Russian energy. The markets, as a result, have responded accordingly with some of the worst returns seen in decades.

I look ahead and see a planet with ample sources of energy, no shortage of labour, and technological innovations that continue to astound me. As with prior challenges, humanity continues to persist and adapt. Our research team has responded by installing a "transient inflation overlay" onto our valuation models, allowing us to discern not just proper valuations in light of these macro-economic shifts, but also which companies should outperform within this new environment. We remain convicted on our current holdings—with many new trades under contemplation. Recently, we added Hanesbrands to the portfolio and are very, very excited about its potential.

The July edition of our Commentary is dedicated to you, our valued clients, whose continued faith drives us to provide service above and beyond the industry standard. This Commentary features articles that focus on the various alarm bells we hear about daily: Patrick discusses our short and long-term inflation expectations, Noah touches on forecasting interest rates, Michael explains the importance of bond credit ratings, and Karlen offers clarity on the real estate market. As always, our research team provides commentary on our current and prospective holdings, with Church & Dwight getting its own spotlight article from one of our student analysts, Thomas.

We have taken time, now that pandemic management seems behind us, to refresh our client experience. We continue in our quest to make wealth matter with enhanced communication and information-sharing planned in the year ahead. As such, we welcomed a brilliant Digital Marketing Coordinator, Maxine, to our team in January. She has been responsible for branding and creating our bi-weekly Recap emails, all our social media content (Facebook, LinkedIn, and Instagram), and planning our August 2022 Open House event. The positive feedback received from many of you confirmed our hunch: There is a demand for increased communication.

Lastly, our Associate Portfolio Manager Sarah, has moved on from Qube to pursue an opportunity in Calgary. We are saddened to see her go but excited to watch her tackle this new chapter. Most importantly, we are grateful to have been able to watch her grow and learn as a valued member of this firm.

With summer in full swing, we are eager to see you all in person, whether it be during a portfolio review meeting or at our renovated office during the upcoming client appreciation event in August.

Glossary of Terms

One of our core tenets that allows us to make your wealth matter is **financial literacy.** Throughout this commentary, you may run across a particular word or phrase you're not familiar with. Don't worry; we have you covered.

cost-leading

-a competitive quality whereby a company purports to being the most inexpensive provider of a certain commodity due to low manufacturing or operating costs

first-mover

-an advantage gained when a business becomes the first to introduce a new product or service to the market

Forex market

-foreign exchange market or FX, global currency exchange where currencies are bought or sold to facilitate international trade

intrinsic value

-based on valuation methods and assumptions, the real value of a common share that indicates whether a company is under or overvalued relative to the current market price

inventory fill rates

-the percentage of customer orders a company can fill without running out of stock

nominal exchange rate

-an exchange rate that has not accounted for inflation

Glossary of Terms

real exchange rate
-an exchange rate that accounts for inflation, making it easier to compare the current rate against historical rates

risk-adjusted return
-a measurement of an investment's profit in relation to its risk

speculation
-the purchase of high-risk securities that have significant potential value

transitory inflation
-a period of high inflation that is not expected to persist

Of course, with knowledge comes the realization of how little you actually know. If what you read in the following articles sparks a thirst for further insight into our world, visit our Qub[Ed] library. Launched in February, it's a collection of financial resources written by our expert team with new articles published twice a month.

Kaleo Portfolios: Past Performance

	YTD	2021	3-Year	5-Year	Inception
Kaleo A	-19.3%	24.3%	8.6%	8.8%	11.5%
Kaleo Full	-18.4%	19.3%	7.7%	8.7%	11.9%
MCSI World Index	-19.1%	20.7%	6.4%	7.5%	10.6%
S&P TSX	-9.9%	25.1%	7.9%	7.3%	6.1%
50% TSX / 50% MSCI World Kaleo Benchmark	-14.5%	22.9%	7.2%	7.4%	8.3%

Note: All returns reported above for periods in excess of 1-year are reported as annualized returns. Composite returns represent past performance and should not to be treated as an indication of future results. All returns are reported as net of trading costs, but do not account for management expense fees. All rates reported above correspond to the period ending June 30, 2022. Kaleo inception of January 2011.

Kaleo

Kaleo consists of a portfolio of stocks that are selected using an investment approach that applies company-specific fundamental analysis, and strategic macroeconomic positioning. The model invests in a mix of both domestic and international equities, with geographic weighting subject to change intermittently.

For clients with invested funds in the $250K to $1M range, we offer a subset—called Kaleo A—of our Kaleo model, consisting of fewer stocks in order to reduce brokerage fees. Returns since inception for both Kaleo Full and Kaleo A are similar by design.

We currently aim to hold a stock for 3-5 years in our Kaleo models. This means that we have an average portfolio turnover of 25%.

We purposefully chose our benchmark to more accurately represent the broad geographic diversification of our holdings in Kaleo. Our benchmark for Kaleo is defined as 50% of the MSCI World Total Return Index and 50% of the S&P TSX Total Return Index.

The Missing Bubble

Where the Housing Market is Today

By Karlen Daschuk, BCom

One day, my colleague Michael and I found ourselves deep in discussion about the affordability of houses for young Canadians. We pondered whether rental properties were a worthy investment, keeping in mind the last 20-or-so years of upward trending home prices.

Michael pointed my attention outside the windows of our Edmonton office to a beautiful early 1900s-era home. He was looking into buying it—lamenting that it was far too expensive considering the amount of restoration it would require. The total cost would simply exceed his available funds. It was at this point I couldn't help but realize something. Much of my opinion regarding the housing market was painted by newspaper articles, op-ed pieces, and the opinions of my hometown colleagues and parents. I began to question whether all that I had "learned" was true…

Are we *actually* in a housing bubble? If so, are younger generations going to depend on a down payment from their parents?

A "Bubble" That You can See?

It was during my undergrad that a finance professor described why we used the terminology "bubble" when referring to inflated prices. The idea was that most people would never truly know they were inside a bubble, due to its transparent nature, until after it had popped. However, language is prone to change, and it seems like we've begun to use the term "bubble" interchangeably with "rising prices" and a dash of wishful "FOMO."

Often, we find ourselves in conversations (some lasting nearly two decades) about this housing bubble in Canada. But if we all believe there is a bubble, and that it will inevitably pop, then why do people keep buying into real estate? Surely our belief in this bubble creates a self-fulfilling prophecy. By trying to exit before the crash, we become the crash, like lemmings to a cliff.

Perhaps the real estate investors are seeing something different from us outside observers. The most likely culprit in my mind are the journalists who shape our perception and are observing the housing market from an arguably biased perspective. That's not to say there exists an "unbiased" perspective—but rather, maybe there exists a perspective, one that relates to wages and consumption, that provides a clearer picture.

The Housing Market Historically

When comparing the price of a home today to what it was over a decade ago, it's important to remember that we are swimming against the tide of inflation. As Patrick Choi discusses far more elaborately in his piece later on in this commentary: With each year that passes, a dollar buys a little less. This is the nature of any growing economy, and thus, we must not let the rising price level obscure our perspective. Lest we sound like the stereotypical grandpa who once bought a loaf of bread for a dime and vehemently insists the same loaf should not cost a dollar today.

When the average price of a home in Canada was around $229,000 at the start of 2005[1], things didn't seem too far-fetched. The idea of a "housing bubble" wasn't in our vernacular just yet. At this time, many couples could afford a down payment at a fairly young age, and homes were plentiful in the big cities and small towns alike.

But as the average price of homes rocketed to $750,000 by April of 2022, it almost seemed apparent that we were facing a real issue, right? Nearly half a million in price appreciation over 17 years *must* be evidence of a bubble. What other assets could grow *this* fast?

Well, in reality, the price of a home in Canada has had an average annualized growth rate of 4.4% per year (**after** inflation). This is slightly less "return" than what you would expect from a long-term corporate bond (6.54% historical average[2]), and slightly more than a long-term government bond (2.83% historical average[3]). Naturally, if it were a rental property, you could expect some cash flow to enhance that return—but most homes are purchased for "consumption" (the funny finance way of saying "living in") instead of investment gain.

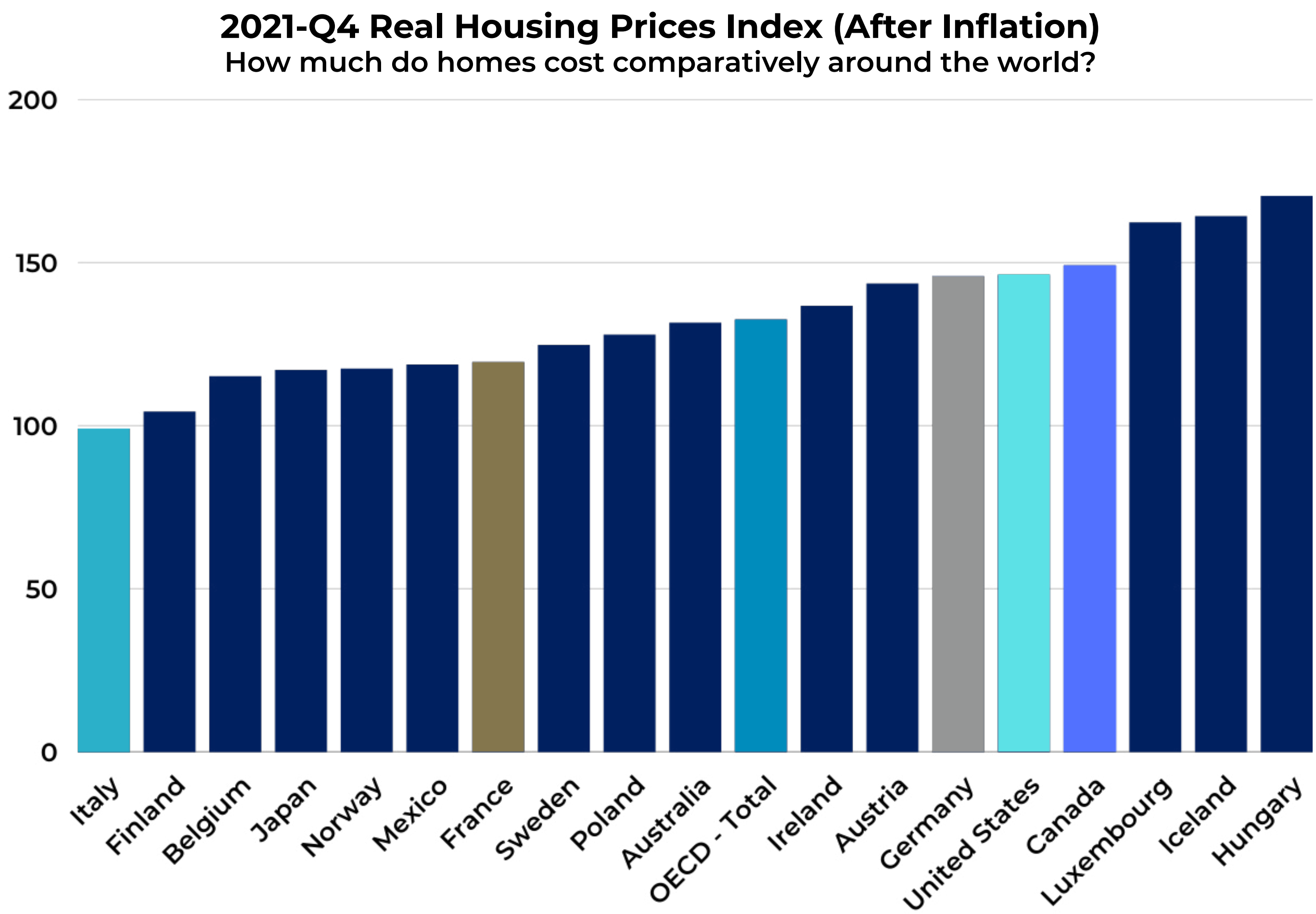
1 https://www.crea.ca/housing-market-stats/

2 https://ycharts.com/indicators/moodys_seasoned_aaa_corporate_bond_yield#:~:text=Moody's%20Seasoned%20Aaa%20Corporate%20Bond%20Yield%20is%20at%203.98%25%2C%20compared,long%20term%20

3 https://www.bankofcanada.ca/rates/interest-rates/canadian-bonds/

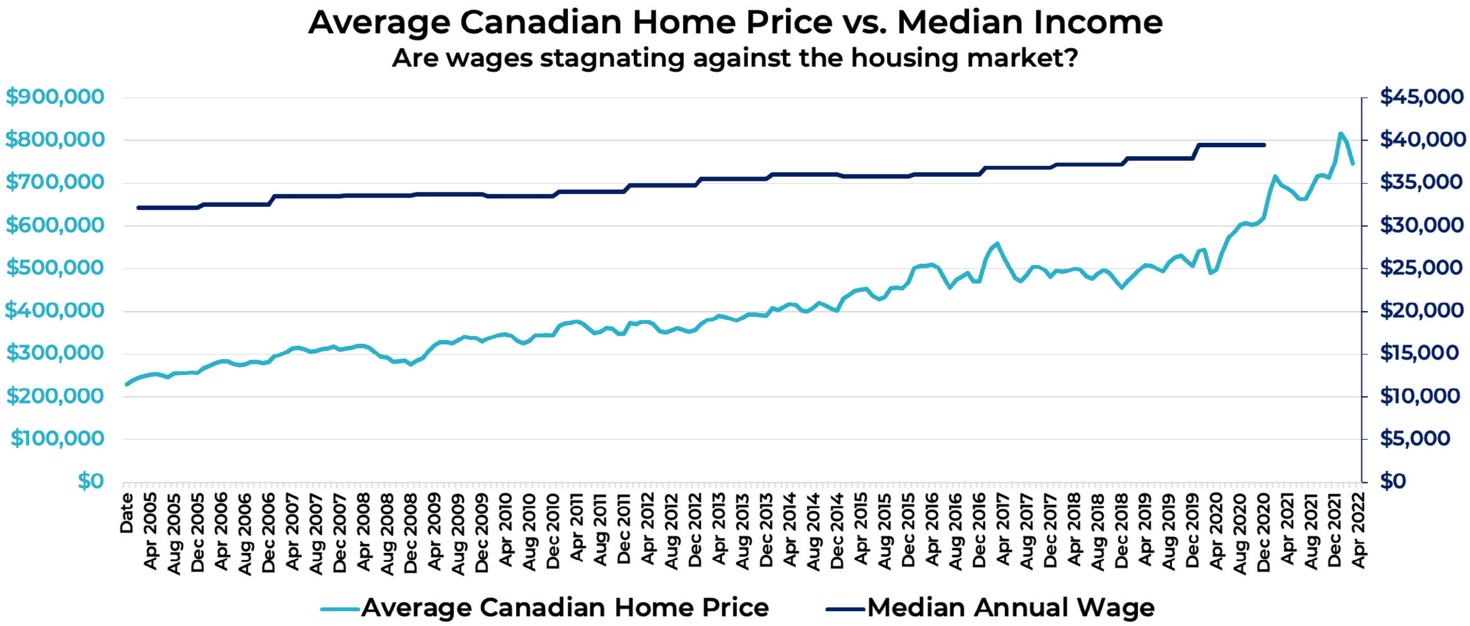
This 4.4% "return" is also baked in the rather illiquid nature of real estate and its price sensitivity during certain economic periods: all forms of risk that require compensation in efficient markets. In other words, from purely an investment perspective, home prices need to increase by this rate to convince builders and owners alike to create and fill homes—or they would instead turn to more fruitful assets that provide better returns for less risk.

Compared to other countries around the world, and even Canada over the preceding 2000s, this level of growth is hardly outside the norm. Although on the upper end of G7 countries, the real (**after** inflation) prices of Canadian homes are still floating right around similar countries like the US and Germany.



Source: https://data.oecd.org/price/housing-prices.htm

So, if the prices of homes themselves aren't of concern, perhaps there's another factor that feeds into people's perception of a supposed over-valued market. The root of the issue, from my perspective, must be the yearly median wage of Canadians.



If we bring the wages of 2005 up to today (adding in inflation over the last 17 years), the average take-home pay was $32,000. Compared to the current average wage of $39,500, we see income has grown merely $7,500 in real terms. This means that over the past 17 years, the housing market's growth of 4.4% per year has grossly outpaced the average Canadian's ability to afford a home.

The Value of Hard Work

It seems we've stumbled across a less digestible or headline-worthy realization. Homes in Canada are probably **not** in a bubble; they grow slightly faster than inflation and government bonds but slightly less than corporate bonds. This is exactly where you might expect an asset like real estate to land in an efficient financial market.

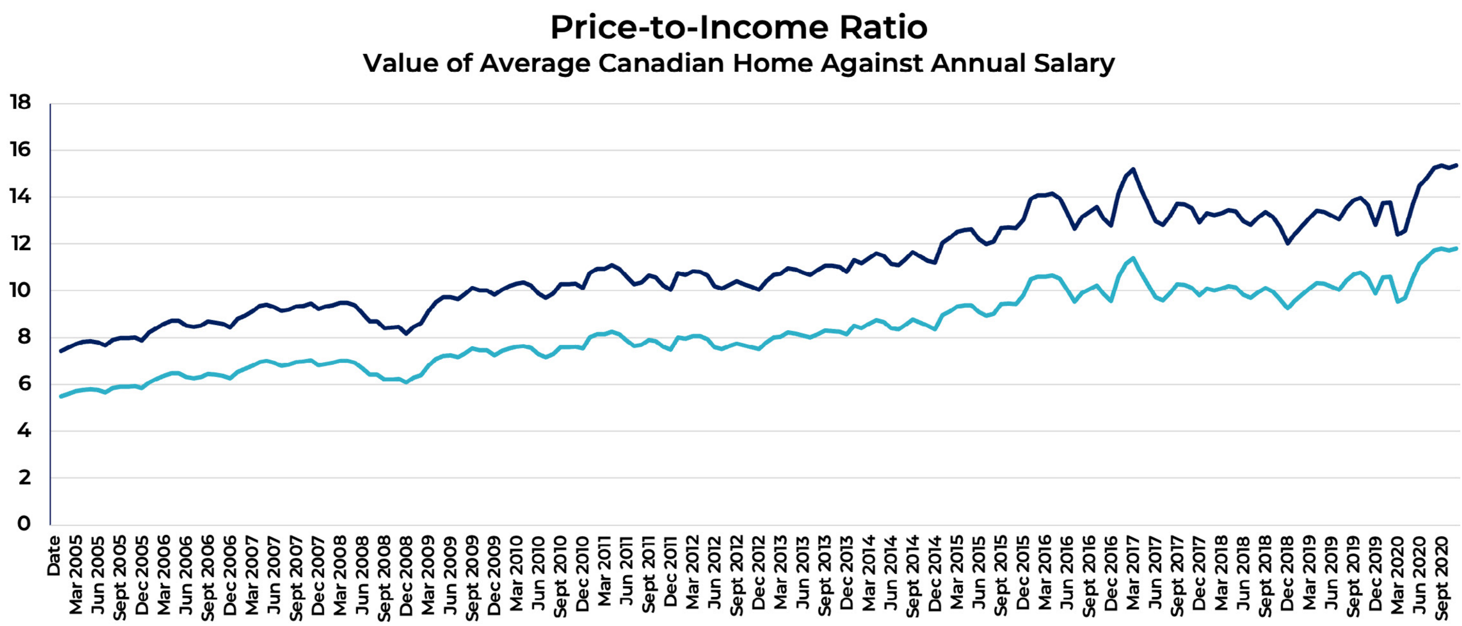
Instead, there lies a disconnect between the median wage and the ability to keep up with the growth of real estate prices. On average, Canadian wages have only grown 1.4% per year after inflation[4].

In other words, it's less of a housing crisis and more of an earnings predicament.

As a result, there has been divergence between the disposable income the average Canadian has available and the cost to make a down payment and secure a mortgage. A common metric used to track the affordability of a home is the **Price-to-Income Ratio**, which compares how many years of salary it would take to pay outright for a home. Depending on whether you use the average or the median salary as your baseline, one thing is apparent: Since 2005, this ratio went from 6-8 times a Canadian's annual earnings to 10-15 times.

[4] https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110023901

Certainly, this ratio would be halved if the home were purchased by a couple—which is most often the case. Still, the common rule-of-thumb is that a homebuyer should not purchase a home that costs more than 2.5x their salary. Unfortunately, this rule may no longer be reasonable for the average Canadian, especially those that make below the average wage.



With homes costing almost 7 times what a couple might make in a year, what options do they have when it comes to saving for a down payment and mortgage?

What Options Exist Now?

As it stands, two of the most popular avenues for making the purchase of a home more affordable come in the form of a Tax-Free Savings Account (TFSA) and a Registered Retirement Savings Plan (RRSP).

TFSAs are an excellent way for a young adult to begin growing their wealth and preparing for one of the biggest purchases they'll make in their life. These investment accounts allow a person to contribute up to **$6,000 per year** of after-tax income, and have it grow on a tax-free basis, all while allowing tax-free withdrawals at any time. Due to the flexibility provided, these are excellent accounts for those just starting out in the workforce.

RRSPs are another account available to investors, which allow pre-tax contributions up to **18% of one's salary per year.** By putting earned income into an RRSP, you guarantee yourself a tax refund in April, which can be a nice gift to your future self.

One of the more exciting features of an RRSP is access to the Home Buyers' Plan (HBP), which allows an investor to withdraw funds from their RRSP for the purchase of their first home without incurring the normal tax on withdrawal—on the condition that the funds be repaid back into the RRSP over the next 15 years.

More information regarding the purchase of your first home can be found in our Qub[Ed] article "First-Time Home Buyers: Purchase Wisely."

What Options Will be Available in the Future?

Starting in January 2023, investors will have access to a new investment vehicle known as a First Home Savings Account (FHSA). Those who are saving to purchase their first home will be able to contribute up to **$8,000 per year** of their pre-tax income and also experience tax-free growth on the investments held inside the account. When it comes time to purchase the home, investors will be able to withdraw funds from the FHSA on a tax-free basis.

Several stipulations do apply, such as established lifetime limits and the inability to carry unused contribution room forward into the following year, like you would expect from a TFSA. However, there are numerous planning frameworks that could be used. One prominent option is the use of Canada's current gifting rules, which would allow parents or grandparents to provide the young adults in their life with funds towards a down payment on a tax-advantaged basis.

The FHSA **cannot** be combined with the HBP. A given individual's personal situation will determine which avenue allows the greater degree of flexibility or tax advantage when it's time to pay a down payment. However, when dealing with a widening gap between home prices and salary in Canada, any advantage available will give a first-time homebuyer the edge in signing those closing papers.

As we approach 2023, this is an excellent opportunity to confer with your portfolio manager about **living inheritances** or how best to utilize this new vehicle to lessen the burden you or your children may experience when moving into a first home.

What Does This Mean for Existing Homeowners?

With the required sweat equity; time commitment; and stress of being a landlord, it would appear the annual return being offered by real estate, on average, is not the primary reason to enter the market. Most often, the reason for owning a home is for the security and fuzzy feelings it provides.

You're likely utilizing this "asset" for consumption purposes: living in it, raising a family, and making it into your own personal space.

When you aren't battling against the diverging path of real estate prices and average annual wages, you have few reasons to exit the market. Even in the event of depreciation of prices, price has little bearing on the reason you own a home.

If you never intend to realize the "gain" in price, then the fluctuations are inconsequential.

Consequently, if you were hoping to upgrade or downgrade your home, you still aren't *leaving* the market. Selling a perceived overvalued house to buy a new perceived overvalued house is no different than selling a perceived undervalued house to buy a new perceived undervalued house.

Still, this perspective, like any perspective, is not one-size-fits-all. There are many arguments to be made regarding refinancing, borrowing against the value of a home through a home equity line of credit, and a myriad of other tax advantaged financial planning options. Each possibility can spark a wonderful discussion with a portfolio manager who can advise you on an optimal approach. Based on your personal situation and vision for the future, an expert will guide you with a holistic plan towards a better financial well-being. If you have home ownership on your mind, either for yourself or your children, reach out to Qube to talk strategy.

What's Up With Inflation?
The Market's Expectations, Our Expectations, & How We Are Managing Accordingly
By Patrick Choi

The topic capturing the market's attention in the first half of 2022 has undoubtedly been the twin issues of higher inflation and higher interest rates. It was only a little more than a year ago (back in March 2021) that the US Federal Reserve Chair, Jerome Powell, first told the world that the expected rise in inflation throughout 2021 would be **transitory**. Fast forward to April 2022 and inflation in the US (year over year) came in at 8.22%—vastly higher than the 2% annual target set by the Federal Reserve. It begs the question: How temporary is this high inflation really going to be?

In the following article, we will discuss 2021's so-called "transitory" inflation, how it has persisted in 2022, and the effect that rising price levels have on Qube's intrinsic valuations.

The Reserve's 2021 Interpretation

As mentioned previously, Jerome Powell first used the word "transitory" to describe the expected inflation back in March 2021 at the Federal Open Market Committee press conference. While ridiculous in hindsight, there were multiple reasons why the Federal Reserve decided to classify the higher prices exhibited at the time as transitory:

1. The unemployment rate remained elevated at 6.2%. If people don't have jobs, then it would not be possible for them to maintain their higher spending.

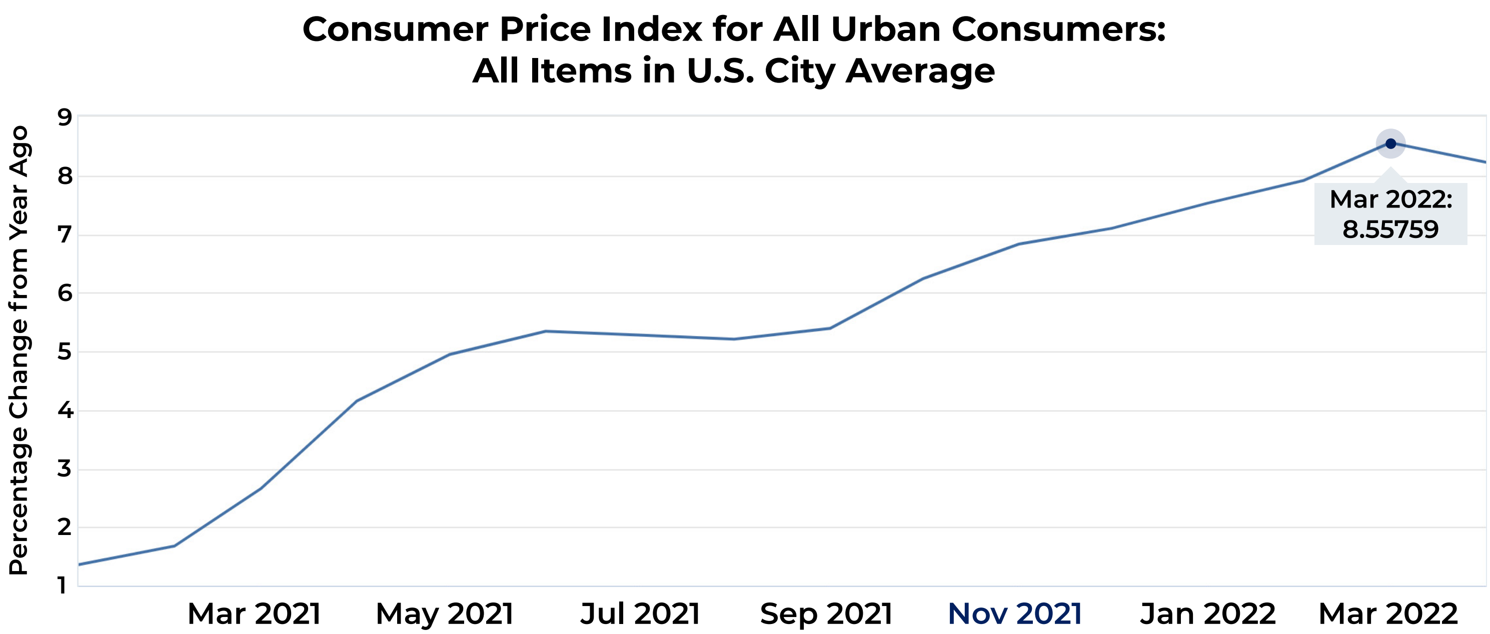
2. The primary cause for the current period of inflation was believed to be the lockdown measures put in place as a result of COVID. This restricted the supply of goods not only from a **logistics standpoint** (lockdowns preventing products from going to where they were needed) but also from a **manufacturing standpoint** (shortages in both labour and raw materials). It was believed that as the economy reopened, these bottlenecks would gradually be resolved.

3. Deflationary factors such as globalization, innovation, and technological improvements continue to play a role in lowering the price of goods. There is no reason to believe that these factors, which contributed to the low inflation rates we saw in previous decades, would cease to persistently lower the price of goods going forward.

When Inflation Stopped Being Transitory

Perhaps realizing the absurdity of maintaining the transitory inflation myth amidst persistently higher inflation rates, both Powell and Federal Reserve Treasury Secretary Janet Yellen decided to retire the word "transitory" when they testified before a Senate Banking Committee at the end of November 2021.

Since then, inflation has continued to march higher due to continued supply constraints from both pre-existing issues and new circumstances that arose at the beginning of 2022. The most important of these new circumstances (as it relates to inflation) are the war between Russia and Ukraine and the city-wide lockdowns in China. The first situation exacerbates the cost of raw materials such as oil & gas, fertilizer, and various agricultural products. The second situation exacerbates the delay for finished, manufactured goods—thereby making existing goods more expensive. Combined, these issues have caused an inflation rate now hovering north of 8% on a year-over-year basis in the United States.



Source: U.S. Bureau of Labor Statistics

Inflation to Interest Rates to Intrinsic Values

An imbalance in inflation rates represents, at its core, an imbalance in the underlying supply and demand. For example, high inflation rates are a result of high demand relative to the amount of supply. This means that in order to correct the imbalance in inflation rates, there must be a correction in the demand side of the equation, the supply side of the equation, or both.

This is where interest rates come into the discussion. The lowering or raising of interest rates by the Central Bank will lower or raise the cost of borrowing, which in turn will increase or decrease (respectively) the overall demand for goods and services. When it is more expensive to borrow money, **spending will slow down**, and the inflation rate will follow suit (and vice versa). Since neither the lockdowns in China, nor the war in Ukraine can be directly controlled by policy makers in the United States, they have turned to raising interest rates to rein in persistently higher inflation.

The side effect of raising interest rates is that both the reduced demand and higher borrowing cost have negative consequences for company valuations. We believe that this has been, and will continue to be, the driving narrative for stock prices in the foreseeable future.

Moving Forward and the Impact on Our Valuations

We believe that inflation in the United States will peak in 2022 and decelerate in 2023-2024 while remaining positive. This forecast is consistent with the official forecasts from the Federal Reserve and the private forecasts from outside economists.

As time passes, we're confident that the supply problems pushing up inflation will eventually get resolved: Supply chains will get reworked, the Russo-Ukrainian war will either resolve or at least de-escalate, and China will relax lockdown measures. Once supply problems get sorted, the Federal Reserve will have room to slow down, stop, or maybe even reverse the higher interest rate policy. If this happens, the negative headwinds in the first half of 2022 will eventually turn into positive tailwinds for stocks and other risk assets.

The above walkthrough serves as a guide in navigating our discounted cash flow modelling. Generally speaking, our model assumes that inflation will be at its worst this year. In 2023, we start to **normalize the inflationary impact** until it reaches pre-Covid levels by the end of our modelling period. More specifically, the changes we made reduced the intrinsic value for all companies relative to six months ago. These changes include, but are not limited to, a higher cost of capital and potential negative impacts to the company's operating margins.

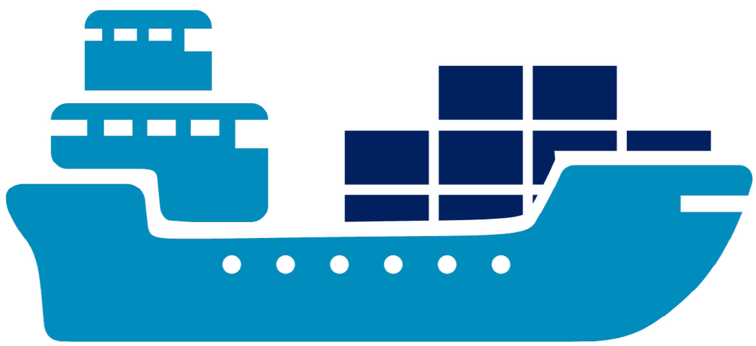
After accounting for all these changes, we are still finding undervalued companies. The only question is whether any of these potential new purchases can provide more upside than our existing holdings.

In reality, we do not know how long it will take for the supply problems to work out, nor whether our line of reasoning will hold true even if inflation tapers. However, our modelling is a dynamic process, and we review our companies regularly for changes in the narrative.

If reality turns out differently than what we had anticipated, then we will make the appropriate changes to our model and to our portfolio.

Our research program is currently in full swing for the spring and summer periods. This year, we hired seven full-time analysts to support our research program. This number represents the largest investment Qube has made in terms of research hours and is a testament to the confidence of our research methodology, even in this investment environment.

Suffice to say, we remain optimistic about the growth potential of our positions. We look forward to updating you on new opportunities in our future correspondence.



Grades Matter

Why Credit Ratings Are Important for Fixed Income

By Michael Baker

It's fair to say that the staff at Qube are reasonably studious. We feel at home in a spreadsheet and always find opportunities to expand our portfolio management expertise. Now that we're done with post-secondary studies, we don't see grades too often. There are no A's handed out for picking a good company. But we continue to consider grades when it comes to fixed income.

Companies, governments, and governmental agencies are graded on their credit worthiness. Rather than seeking a car loan or mortgage, they borrow to finance operations and growth. Credit grades range from AAA to D—best to worst. Grades matter because they essentially communicate to investors how likely an organization is to repay loaned money.

The highest rating, AAA, is exceedingly hard to come by. Only 11 countries have a AAA rating, Canada among them. In 2022, the only corporations to claim a AAA rating are Johnson & Johnson (JNJ) and Microsoft.

Why is AAA such a rarity? It represents **almost zero risk** of losing money. With that rating, companies and governments can issue debt at lower rates. Less chance of loss, less return provided.

		Rating Agency	
Grade	**Risk**	**S&P**	**Moody**
Investment	Lowest Risk	AAA	Aaa
Investment	Low Risk	AA	Aa
Investment	Low Risk	A	A
Investment	Medium Risk	BBB	Baa
Junk	High Risk	BB	Ba
Junk	High Risk	B	B
Junk	High Risk	CCC	Caa
Junk	High Risk	CC	Ca
Junk	Riskiest	C	C
Junk	In Default	D	D

Where Qube Invests

To illustrate how ratings impact a balance sheet, compare JNJ (AAA-rated) to PayPal (PYPL), which is rated BBB. In 2020, both companies issued new debt maturing in 2030. The cost for PYPL was 2.3%. For JNJ, it was 1.3%.

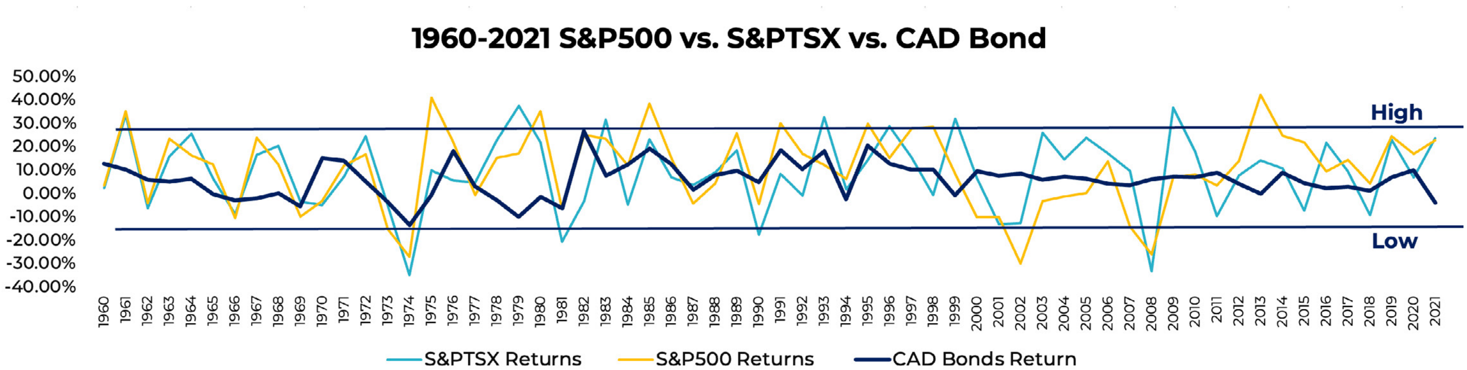
PYPL borrowed $1B and promised to pay investors $230M over ten years. JNJ borrowed $1.75B and only promised to pay $225.5M. JNJ's credit rating helped them borrow 75% more and pay less. As interest rates begin to creep up from their historic lows, debt will become more and more expensive for organizations with lower credit ratings. The more costly the debt, the less it will finance to grow.

If organizations with lower grades pay more to borrow, the logical question for investors is: "Shouldn't we optimize a fixed income portfolio by including companies with lower credit ratings?" Just pick the ones who are the most likely to pay investors back.

In theory, that idea works. But how can you confidently say who will pay you back? That's the lurking danger known as default risk. Attempting to pick bonds with a junk rating (high-yielding) that won't default is akin to the risk some of my classmates took in university. They followed the adage "C's get degrees" meaning all you need is a C average to pass university and receive your degree. Again, that mentality is acceptable in theory, but there are externalities you cannot control as a student. I had friends who thought they were taking an "easy A" course and ended up with a B or C due to the curve. They risked failing by not receiving the result they had expected.

The same is valid for fixed income. We need to remember why we are purchasing fixed income in the first place. It's not because bonds offer the highest returns. We purchase fixed income to diversify a portfolio and reduce volatility. The secondary benefit is a source of income and returns. We knowingly give up some expected return when we purchase fixed income.

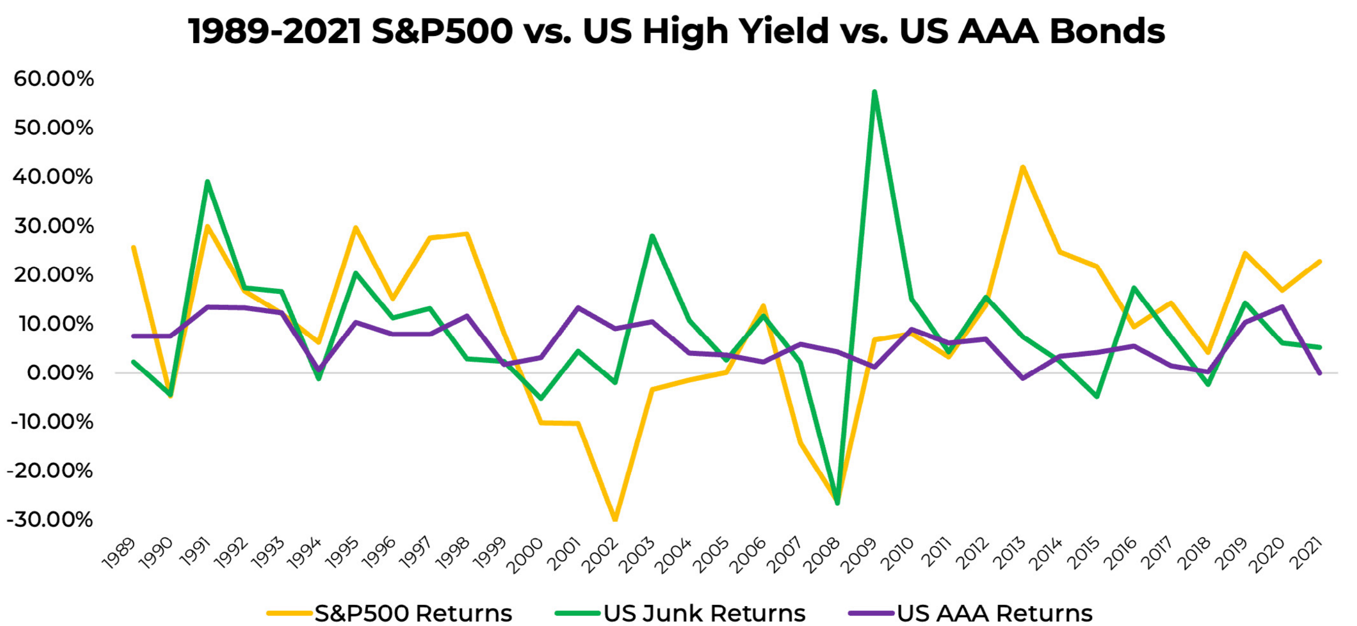
Historically, the Canadian bond universe[1] has returned an inflation-adjusted 5.87%. The S&P50[2] and TSX[3] have averaged 10.51% and 8.93%, respectively, over the same period. The premium for equities comes with higher volatility. Plotted below are the indices.



[1] FTSE Canada Universe Bond Index Total Return Inflation Adjusted 1960-2021
[2] S&P500 Total Return $CAD Index Inflation Adjusted 1960-2021
[3] S&P/TSX Total Return Index Inflation Adjusted 1960-2021

The Canadian bonds on the dark blue line go up and down, like equities; however, their volatility is much lower. Their standard deviation (movement around the mean) is 7.5% compared to the S&P500 and TSX, which are 16.4% and 16.05% comparatively. By building a portfolio with equities and bonds, your annual highs and lows are **less extreme**—providing more predictable results, which help us all sleep at night! As we retire or near retirement, predictability increasingly matters, which is why many of our clients increase their fixed income weighting as they approach retiring age. They want the funds there when they need them and are willing to give up some returns in exchange.

In our portfolios, we stick to investment-grade bonds using fixed income to reduce volatility. If we instead had a portfolio of junk bonds mixed with equities, the volatility our investors' experience would almost be identical to the volatility of a 100% equity portfolio. Junk bonds don't provide the benefit of volatility reduction. To see how much greater junk bond volatility is, we can compare US junk bonds[4], US AAA[5] bonds, and the S&P500[6].



The junk bonds' standard deviation is greater than triple the AAA bonds': 14.1% vs. 4.3%. For all the volatility, investors are only compensated with a 2.3% higher annualized return. To Qube, the risk and return trade-off isn't there to justify an investment in low-grade junk. We prefer to invest in quality companies if we expect to experience volatility like equities. Never mind the additional risks of default and the less favourable tax treatment of bonds.

Creating a junk bond portfolio to carve out additional returns is good in theory, but for the average investor, the risks do not offset the rewards. When equities are going through volatility,

[4] ICE Bank of America US Total Market High Yield Bond Index 1989-2021

[5] ICE Bank of America US Total AAA Bond Index 1989-2021

[6] S&P500 Total Return $CAD Index Inflation Adjusted 1989-2021

we want a high-quality fixed income because of its stability. What matters for long-term investors and our client portfolios is the ability to survive and persist. We're not the type of portfolio managers to take the "C's getting degrees" route with our client's money. Instead, we put in the hard work and reap the rewards over the years and decades, resulting in a portfolio that meets clients' retirement goals and helps them rest easy. For us, studious habits are ingrained, and grades continue to matter.

Ronald McDonald's Invisible Yellow Hand

By Noah Clarke, MA, CIM®

I don't care to see the dessert menu. Maybe it's an unpopular opinion, but ice cream, cookies, and cake just aren't all that intriguing to me. Instead, I'd far prefer the offer of a hamburger… Not necessarily because of my tastebuds (of which we have 10,000, by the way), but because the humble hamburger could help me predict future exchange rates between Canada and the US. In fact, it may be a far more robust forecasting tool than other popularly cited determinants of the loonie's worth—commodity prices, for instance.

The Petro-Buck Story Stops Here

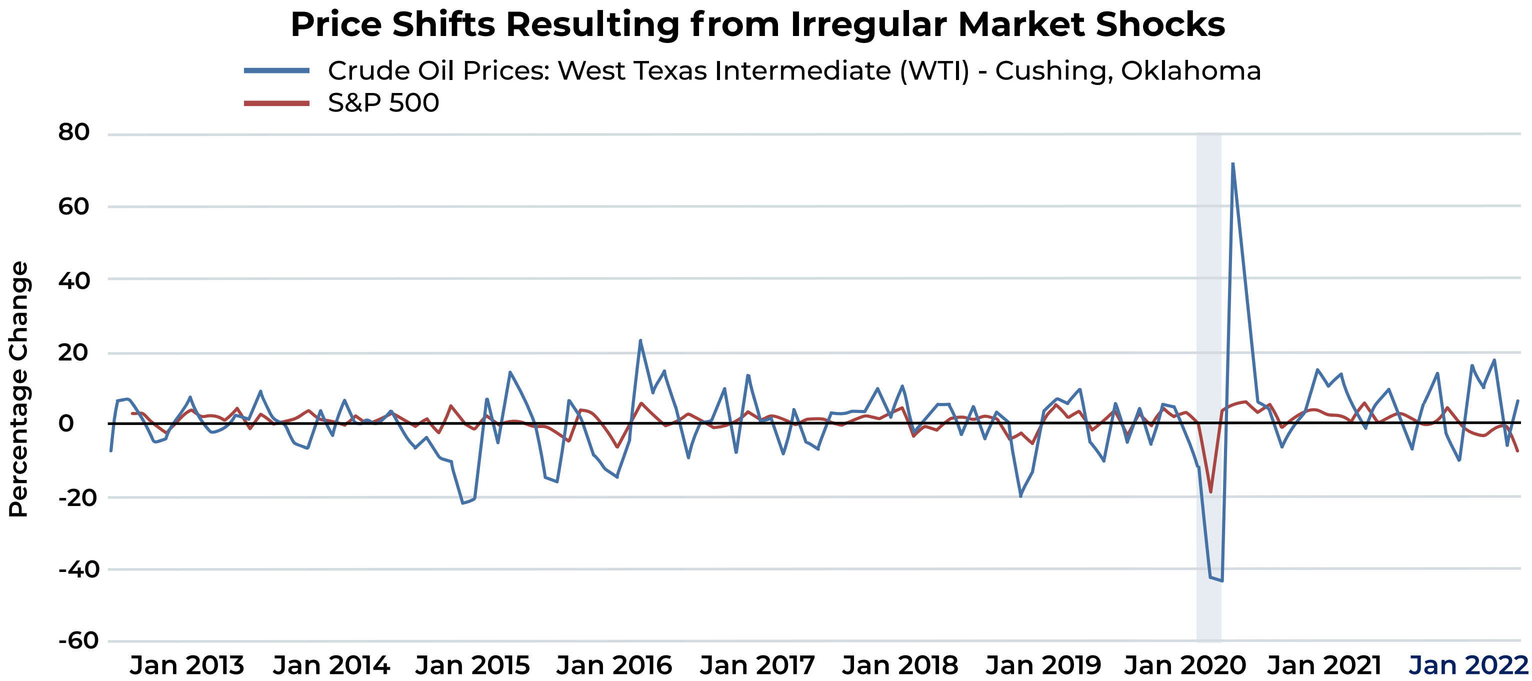
The Canadian dollar has traditionally been classified as a "petrocurrency." This stems from Canada's reliance on commodity exports and historical data showing that when commodity prices go up, the Canadian dollar appreciates and vice versa.

Based on this status, if one wished to trace out the future path of our currency, they would theoretically need only calculate how much a weighted basket of commodities (e.g., crude oil, sawn wood, or petroleum gases) will cost in the future, compare it to today's value, and—voila!—they would have the future exchange rate dynamics figured out.

The only issue here is that such a pursuit just swaps one problematic forecast for another. As late as June 2021, the U.S. Energy Information Administration (EIA) was forecasting that the average Brent crude spot price would be around $60 per barrel in 2022. Boy, were they off… In June 2022[1], the spot price was hovering around $120 per barrel.

To be fair, we should cut the EIA some slack. Commodity prices tend to be far more volatile than stocks and exchange rates as they are extra susceptible to shocks or changes in trend ranging from natural catastrophes and political/military interventions to structural market changes. And since these types of shocks (like global pandemics and wars) tend to be irregular in nature, the resulting price shifts are often abrupt and significant.

1 The Bank of America Corp. predicted that oil may surge to $100 a barrel in 2022, which was amongst the strongest calls then made among major forecasters in June 2021.



Sources: EIA; S&P DJI

Given the challenge of predicting future commodity prices, this indicator provides limited practical use for forecasting out into the future. If we can't reliably predict the future price of commodities, we can do little more than evaluate their impact on the current price of the loonie. But contemporaneous correlation is **not all that valuable.** After all, it's hard to make money from the knowledge that the Canadian dollar went up today because the price of a barrel of crude went up. Our goal is to find an indicator that helps to predict changes in the nominal exchange rate years into the future. This is where hamburgers come in.

Is This Index Low Calorie?

Back in 1986, in a weekly edition of The Economist, one could find sandwiched between news of the recent Chernobyl disaster and Microsoft's IPO, an article which laid out a new method for understanding exchange rates based on the price of McDonald's Big Mac. This method leaned on macroeconomic theory called **purchasing power parity**, or PPP, which holds that the cost of consumer goods in different countries, when measured in the same currency, should converge over time to some long-run average level.

Since Big Macs were standardized and ubiquitous, the thought was that they could serve as a proxy for a domestic "basket of goods." Based on this premise, if the burger cost $1 USD in the United States, market forces would eventually bring the USD converted cost to around the same amount in every country outside of the US. This price adjustment would occur via a change in the nominal exchange rate.

Big MacCurrencies

Hamburger prices round the world

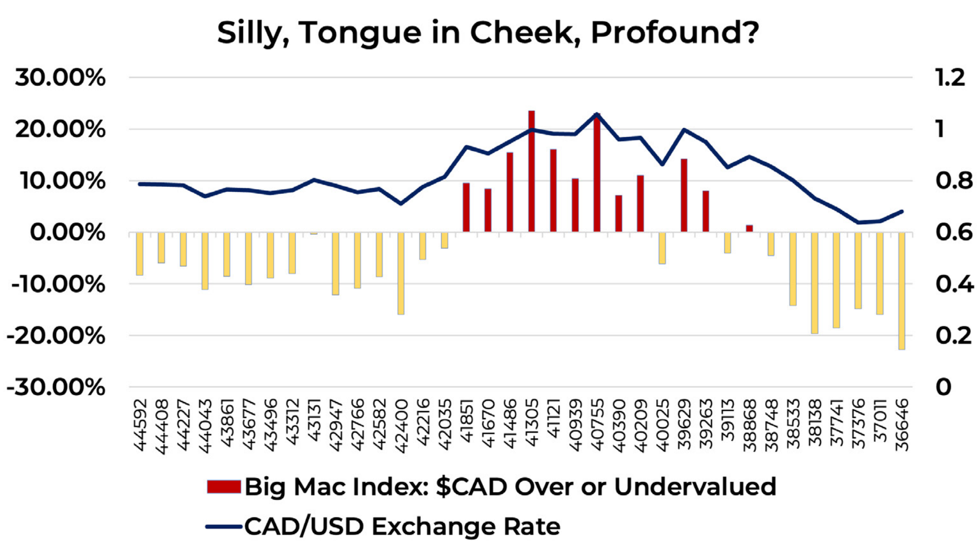
Country	Price* in local currency	Implied† purchasing power parity of the dollar	Actual exchange rate Sept 1st	% over (+) or under (−) valuation of US$
Australia	A$1.75	1.09	1.64	+50
Belgium	BFr90	56	42	−25
Brazil	Cz$2.5	7.80	13.80	+78
Britain	£1.10	0.69	0.67	−3
Canada	C$1.89	1.18	1.39	+18
France	FFr16.4	10.30	6.65	−35
Hongkong	HK$7.60	4.75	7.80	+64
Ireland	IR£1.18	0.74	0.74	−1
Japan	Y370	231	154	−33
Holland	Fl4.35	2.72	2.28	−16
Singapore	S$2.80	1.75	2.15	+23
Spain	Ptas260	163	133	−18
Sweden	SKr16.5	10.30	6.87	−33
United States	$1.60	—	—	—
W Germany	DM4.25	2.66	2.02	−24

*Source: McDonald's. *Prices may vary slightly between branches. †Foreign price divided by dollar price.*

For instance, if the average converted price in Canada at that time was $0.90 USD, the Big Mac Index would tell us that the Canadian dollar was worth more than the exchange rates gave it credit for. Theoretically, such a market imbalance **could not exist in perpetuity** since US residents would be inclined to cross the border to buy their burgers at a discount, which would increase demand for the Canadian currency and hence its value relative to the USD. Before long, Big Macs would cost the equivalent of $1 USD on either side of the border.

There is, of course, a fair amount of silliness to this index. Very few individuals would or could make a trip across the border to purchase a cheaper hamburger. This is a problem because a main tenet of the theory is that the goods in question are freely traded across borders. As well, the local prices of Big Macs will be affected by local demand and input costs which will be different among countries and are not a reflection of relative currency values.

And yet, there does appear to be a lagged correlation between the index's point-in-time estimates of under/over valuation and the CAD/USD exchange rate. When the index has implied that the Canadian dollar is undervalued, the CAD/USD exchange rate has tended to increase over the following 3-5 years. And vice versa.



Rather than showing that Ronald McDonald pulls the strings of the **Forex market,** this result shows that the Big Mac Index, despite its limitations, is a reasonable proxy for the real exchange rate, which itself has been a robust predictor of future changes in the nominal exchange rate[2].

The Big Mac Index was most recently updated in January 2022. At that time, the actual USD average price of a Big Mac in the US was $5.81 vs. $5.32 in Canada which would suggest that the Canadian dollar was 8.4% undervalued. If we kick out the middleman and look directly at the real exchange rate published by the St. Louis Federal Reserve, we find that the Canadian dollar is probably closer to **4% undervalued,** but in either case we would expect to see our domestic currency strengthen moderately against the greenback over the next 3-5 years. Knowing this, my proposal may come as a shock to some readers: We file this information away and avoid acting on it. Allow me to explain.

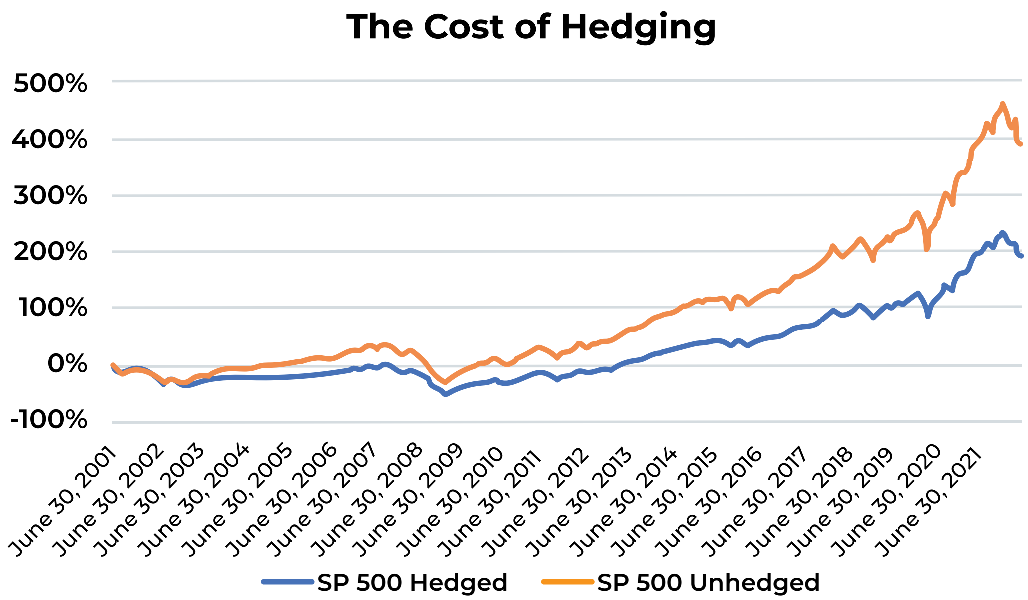
Much Ado About Doing Nothing

In the short-term (i.e., this year and next), the nominal exchange rate will likely jump around in both directions due to changes in a myriad of factors including the economic cycle and interest rate expectations. As we hold more US-listed companies in our Kaleo portfolios than we do Canadian ones, these changes in the nominal exchange rate will consequently have an impact on returns (for better or worse).

One way to avoid this currency risk would be to invest only in Canadian-listed companies. There are no rules preventing us from shifting to an entirely Canadian portfolio. In fact, if it were the case that we found more value prospects in Canada relative to the US, the Kaleo portfolios would—by design—shift to holding a higher concentration of Canadian companies. However, this is not the current case. We are still finding a higher number of value prospects in the US than we do in Canada. As we don't wish to throw out the baby with the bathwater, we will for the foreseeable future remain exposed to currency risk via our US-traded securities. If the Canadian dollar strengthens over the next 3-5 years, we hope to generate enough excess return on our selected US securities to offset the currency losses.

[2] Eichenbaum, Johannsen, and Rebelo (2018) found that for time horizons longer than three years, the real exchange rate between Canada and the US is significantly negatively correlated with future changes in the nominal exchange rate.

Another method for reducing currency risk would involve using financial instruments such as futures, swaps, and options to effectively hedge currency risks; however, the associated costs likely do more harm than anything. As shown in the graph below, even though the Canadian dollar has strengthened by 15% since June 2001, the iShares S&P 500 Hedged index has underperformed the iShares S&P Unhedged index by almost 200% over the same period. This difference in long-term returns is a high price to pay. What's more, the CAD/USD hedge may already be built into the index for free.



If the US dollar weakens, then this negative impact should be offset by higher international sales since USD denominated goods would be cheaper for international consumers paying in their local currencies. We have evidence that this should be the case because, for the past 7 years or so, the companies we hold have often complained about how the strong US dollar has been a headwind to their overall financial results.

I remember holding off on buying a new set of Ping golf irons a few years ago because the strong US dollar meant that the price of those irons, which are manufactured in Arizona, were much higher than usual. If the US dollar was weakened for an extended period, prices for the clubs would drop in Canada. Many golf enthusiasts—myself included—would then be more likely to buy clubs from Ping, which would boost the company's financial performance in the future. Ultimately, in the short term (let's say 1-2 years), a stronger CAD will have an immediate impact and could hurt our returns; however, if a weaker USD extends into the 3-year period, there should be ample enough time for the US companies we hold to show better financial performance and help offset the negative impact from FX.

Lastly, when it comes to the bond portion of your portfolios, we look to avoid currency risk entirely by purchasing only $CAD denominated securities. Since the primary role of bonds in your investment portfolio is, in our view, to act as a return stabilizer and source of funds during market downturns, we want to isolate these holdings from currency risk. Where your individual risk tolerance is lower, your allocation to bonds will be higher and fluctuations in the nominal exchange rate will have a diminished impact on total short-term returns.

The Long and Short of It

There are times, especially during market downturns, when it feels dull and cliché to point out that we are invested for the long run. I am consequently grateful our clients are, by and large, willing to weather periods like the current one, based on the knowledge that an investor who maintained course through every bear and bull market in the past 50 years would have made an average yearly return of 10.46% as of June 2022[3]. We can, in this case, predict with a high level of confidence that conditions will improve, and we will get back to positive days outnumbering negative ones.

What's more, we need not deviate from our investing principles to take advantage of these predictions. Although we have shown that nominal exchange rates may be similarly predictable given a long enough time horizon, adjusting for these predictions would likely cost more than the estimated benefit of 4-9% cumulative returns in 3-5 years.

[3] Based on currency adjusted returns for the S&P 500 index

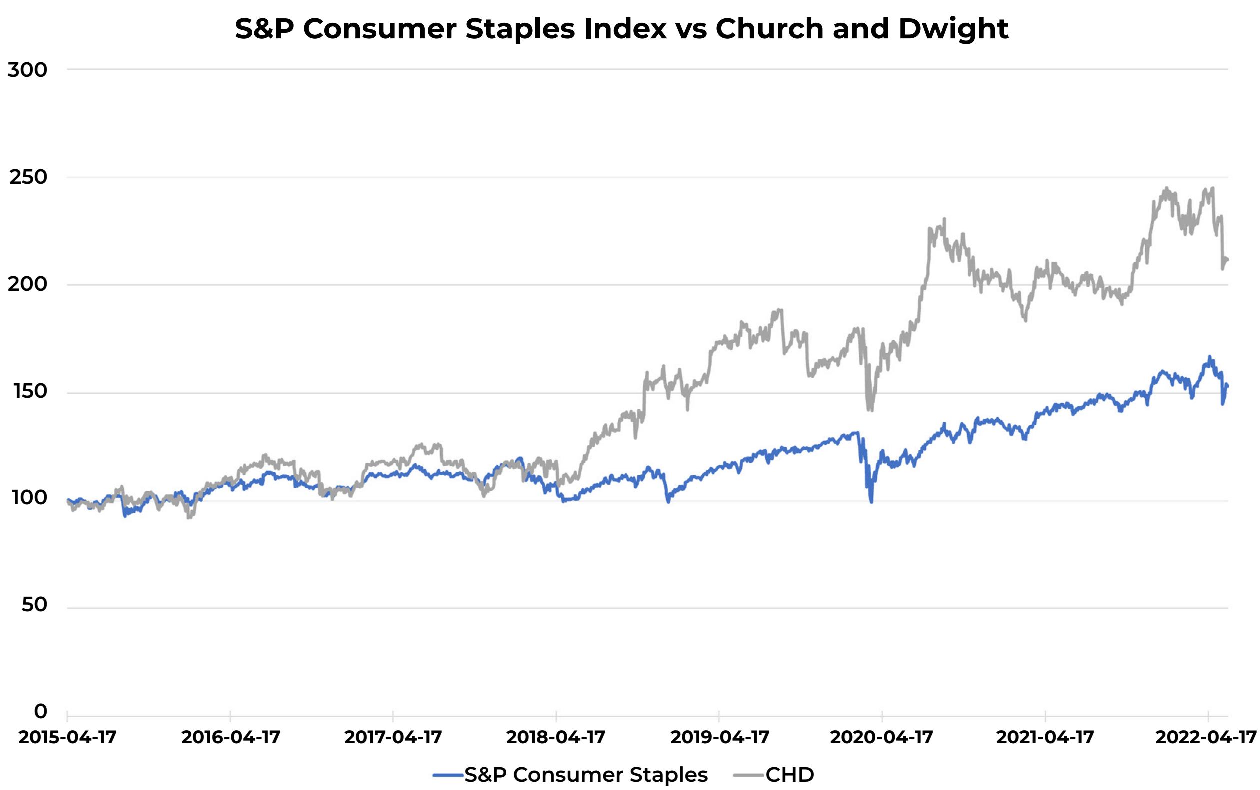
Stock Spotlight: Church & Dwight

By Thomas Channon

Started With an Arm and a Hammer

Baking soda. Sodium bicarbonate. The baking revolution. I'm sure you've used it before; maybe you've polished your silverware with it or placed an open box in the back of your fridge for fresher-tasting food. But are you aware of the $21 billion dollar empire this kitchen staple was built off?

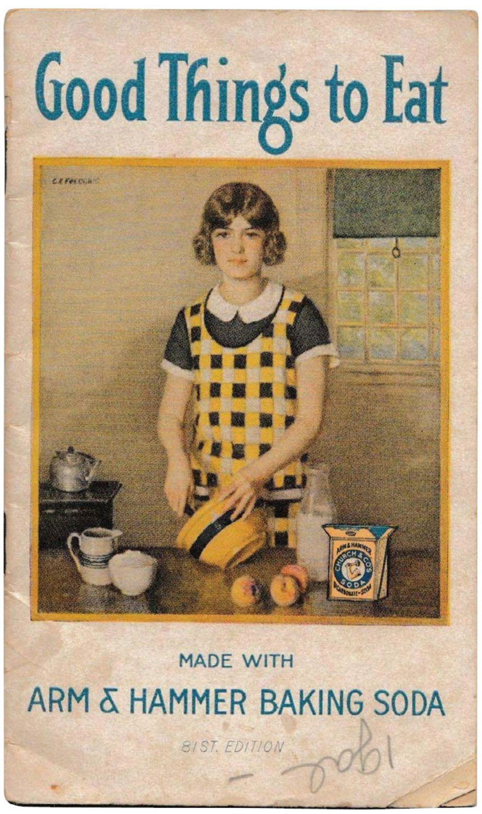
A boring company producing exciting returns. If you have ventured into our Qub[Ed] library and read the Stock Spotlights, you'll know that our Kaleo portfolio is no stranger to holdings like this. They have been one of our main sources of positive **risk-adjusted return.** Since we purchased Church and Dwight (CHD) in April of 2015, it has generated a 122% holding period return (shown below in gray): an upside that has trumped the rest of the consumer staples industry represented by the S&P Consumer Staples index (shown in blue) over the same time period.



Why We're Still Holding

Over its long history, CHD has grown from its baking soda roots, expanding into other home and living essentials. Its most current product portfolio consists of 14 mainstream brands, many of which you may have used today without realizing. What was once only Arm and Hammer, CHD has since expanded into other household names such as OxiClean, Rub A535, and Gravol.

However, as we have seen in the markets time and time again, product expansion is not always the telltale sign of a lucrative investment. For a 176-year-old company, product expansion is not simply admirable but necessary to preserve market share, especially as the industry continues to see new entrants and competitors.



So, what is so great about CHD? Its ability to adapt.

One of the reasons we have continued to hold CHD is its ability to not only develop products that capitalize on industry trends but do so with **first-mover** scalable advantage. For example, their 2022 product releases include the first immune support vitamin gummies with zinc and vitamins C & D (Zicam) and EPS Safer Choice certified hypoallergenic baby detergent (Arm and Hammer).

Another reason we hold CHD is the unwavering demand for its products (arguably the byproduct of its capitalization on industry trends). When the economy has gone recessionary, CHD has demonstrated its defensiveness. With 40% of its product portfolio considered **cost-leading,** the value products are the natural choice when consumers have less disposable income. The term "value product" refers to the bargain or budget equivalent of the same product. Batiste, a popular dry shampoo brand by CHD, is the cheaper alternative to luxury salon brands. Compared to premium products, the demand for value products remains more consistent through economic ups and downs.

The Challenges Facing Church and Dwight

In the near term, we are confident in CHD's management. They have a long track record of adjusting accordingly when faced with business challenges. In today's business environment, they face two main issues: the global supply chain crisis and the associated rising input costs.

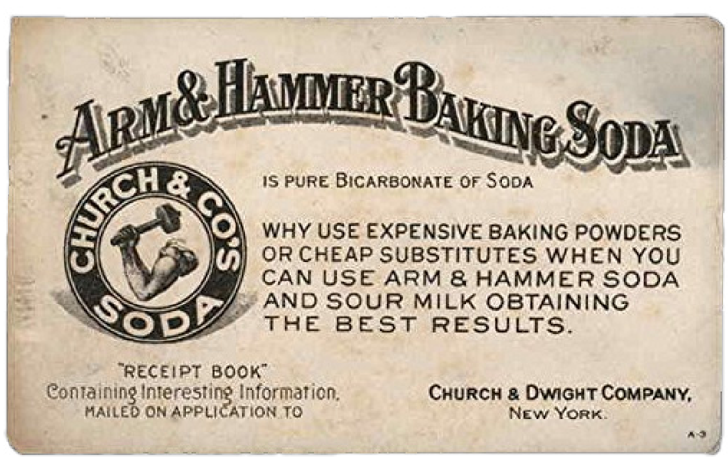
The imbalance between the demand for materials and the inability to supply them causes the prices of those materials to skyrocket. Those desperate enough to continue their product development will pay a premium, which changes the market value and increases input costs for the rest of the world alike. Not only are those materials taking longer to get to their destination, they're leaving companies with no choice but to shut down production or find other ways to keep their profit margins healthy.

To help deal with the global supply chain issue and its effect on profit margins, CHD has temporarily reduced its marketing initiatives until the backlog eases. This benefits their operating margins, offsetting the negative effect that this imbalance has had on CHD's financial statements.

Fortunately, most of CHD's products are already household names. (I challenge you to name another baking soda brand off the top of your head.) Management anticipates a return to their historical level of marketing spending by the end of the fiscal year. Not only that, but their **inventory fill rates** already began returning to their historical levels in April of this year.

Another example of smart management decisions from Church and Dwight is how they have dealt with their rising input costs. In CHD's case, these input cost increases are mostly due to higher shipping costs (due to higher fuel costs) and the market premiums mentioned previously. Management has adapted in three ways: retail price increases, product packaging size adjustments, and productivity improvements.

Overall, we believe that CHD continues to "bring down the hammer" in the consumer staples industry. Its strong management capabilities, continuous adaptation to industry trends, and strong market demand will drive up its currently undervalued stock price when the rest of the market sees what we do.



Qube Insights: Equity Research Traffic Lights

Equity Research Traffic Lights

Balancing traditional research techniques with modern portfolio science allows our team to find companies that demonstrate and maintain solid investing fundamentals. We look for less volatile and proven earnings combined with long-standing stable dividend policies. Share prices need to be justified on a combination of current earnings and reasonable earnings growth possibilities. Quality financial statements, coherent management and an operational business plan need to be in place before we rank a company "green."

Company	Sector	Current Status
TAKE-TWO INTERAC	Communications Services	
DISCOVERY INC-	Communications Services	
SEA LTD-ADR	Communications Services	
SNAP INC-A	Communications Services	
NETFLIX INC	Communications Services	
OMNICOM GROUP	Communications Services	

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
SHAW COMM-B	Communication Services	○ ○ ○ ✖
ALPHABET INC	Communications Services	○ ● ○ ○
CHARTER COMMUNICATIONS INC	Communications Services	○ ● ○ ○
ELECTRONIC ARTS INC	Communications Services	○ ○ ○ ✖
META PLATFORMS INC CL-A	Communications Services	✔ ○ ○ ○
TELUS CORP	Communications Services	○ ○ ○ ✖
TOPBUILD COR	Consumer Discretionary	○ ○ ○ ✖
HELEN OF TROY	Consumer Discretionary	○ ○ ○ ✖
AUTONATION INC	Consumer Discretionary	○ ● ○ ○
MATTEL INC	Consumer Discretionary	○ ● ○ ○
YETI HOLDINGS IN	Consumer Discretionary	○ ● ○ ○
WAYFAIR INC-A	Consumer Discretionary	○ ○ ○ ✖
TESLA INC	Consumer Discretionary	○ ● ○ ○
THOR INDUSTRIES	Consumer Discretionary	○ ○ ○ ✖
CHEWY INC-CL A	Consumer Discretionary	○ ○ ○ ✖
COUPANG INC	Consumer Discretionary	○ ○ ○ ✖

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
WHIRLPOOL CORP	Consumer Discretionary	
LENNAR CORP-A	Consumer Discretionary	
LITHIA MOTORS	Consumer Discretionary	
GENERAL MOTORS C	Consumer Discretionary	
BRUNSWICK CORP	Consumer Discretionary	
TEMPUR SEALY INT	Consumer Discretionary	
PLANET FITNESS-A	Consumer Discretionary	
YUM! BRANDS INC	Consumer Discretionary	
PENSKE AUTOMOTIV	Consumer Discretionary	
MCDONALDS CORP	Consumer Discretionary	
STARBUCKS CORP	Consumer Discretionary	
SEAWORLD ENTERTAINMENT INC	Consumer Discretionary	
AMAZON.COM INC	Consumer Discretionary	
D.R HORTON INC	Consumer Discretionary	
DISNEY WALT COMPANY	Consumer Discretionary	
LEAR CORP	Consumer Discretionary	

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status			
BRP INC	Consumer Discretionary	✓	○	○	○
HANESBRANDS INC	Consumer Discretionary	✓	○	○	○
KIMBERLY-CLARK	Consumer Staples	○	○	○	✗
REYNOLDS CONSUME	Consumer Staples	○	○	○	✗
ALBERTSONS COS-A	Consumer Staples	○	↷	○	○
CASEY'S GENERAL	Consumer Staples	○	↷	○	○
JM SMUCKER CO	Consumer Staples	○	↷	○	○
COCA-COLA CONSOL	Consumer Staples	○	○	○	✗
KROGER CO	Consumer Staples	○	↷	○	○
CONSTELLATION-A	Consumer Staples	○	○	○	✗
ALIMEN COUCHE	Consumer Staples	○	○	○	✗
THE COCA-COLA COMPANY	Consumer Staples	○	○	○	✗
CHURCH & DWIGHT CO INC	Consumer Staples	○	○	↷	○
CLOROX COMPANY	Consumer Discretionary	✓	○	○	○
COLGATE PALMOLIVE CO	Consumer Discretionary	○	○	↷	○
DARLING INGREDIENTS INC	Consumer Discretionary	○	○	↷	○

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
EMPIRE CO CL-A NV	Consumer Discretionary	○ ○ ↻ ○
GENERAL MILLS INC	Consumer Discretionary	○ ↻ ○ ○
LAMB WESTON HOLDINGS INC	Consumer Discretionary	✓ ○ ○ ○
TARGET CORP	Consumer Discretionary	✓ ○ ○ ○
TYSON FOODS INC-CL A	Consumer Discretionary	✓ ○ ○ ○
WALMART INC	Consumer Discretionary	✓ ○ ○ ○
ENBRIDGE INC	Energy	○ ○ ○ ✗
JEFFERIES FINANC	Financials	○ ○ ○ ✗
BERKSHIRE HATH-A	Financials	○ ○ ○ ✗
ROYAL BANK OF CA	Financials	○ ↻ ○ ○
PAYPAL HOLDINGS INC	Financials	○ ○ ○ ✗
BANK OF NOVA SCOTIA	Financials	✓ ○ ○ ○
PROGRESSIVE CORP OHIO	Financials	○ ○ ↻ ○
S&P GLOBAL INC	Financials	○ ○ ↻ ○
THERMO FISHER	Health Care	○ ○ ○ ✗
LABORATORY CP	Health Care	○ ○ ○ ✗

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
PERKINELMER INC	Health Care	○ ○ ○ ✗
CHEMED CORP	Health Care	○ ○ ○ ✗
BIO-RAD LABS-A	Health Care	○ ○ ○ ✗
NOVOCURE LTD	Health Care	○ ○ ○ ✗
AMERISOURCEBERGE	Health Care	○ ○ ○ ✗
HUMANA INC	Health Care	○ ● ○ ○
PFIZER INC	Health Care	○ ○ ○ ✗
NEUROCRINE BIOSC	Health Care	○ ● ○ ○
CVS HEALTH CORP	Health Care	○ ○ ○ ✗
HCA HEALTHCARE INC	Health Care	✓ ○ ○ ○
UNIVERSAL HEALTH SERV -B-	Health Care	✓ ○ ○ ○
HOLOGIC INC	Health Care	○ ○ ○ ✗
QUEST DIAGNOSTIC	Health Care	○ ● ○ ○
AGCO CORP	Industrials	○ ○ ○ ✗
LENNOX INTL INC	Industrials	○ ● ○ ○
CINTAS CORP	Industrials	○ ○ ○ ✗

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
UFP INDUSTRIES I	Industrials	
CLEAN HARBORS	Industrials	
HONEYWELL INTL	Industrials	
ROCKWELL AUTOMAT	Industrials	
COPART INC	Industrials	
DEERE & CO	Industrials	
HOWMET AEROSPACE	Industrials	
QUANTA SERVICES	Industrials	
CARGOJET INC	Industrials	
RITCHIE BROS	Industrials	
THOMSON REUTERS	Industrials	
UNITED AIRLINES HOLDINGS INC	Industrials	
WASTE MANAGEMENT INC	Industrials	
TEXAS INSTRUMENTS INC	Information Technology	
EPAM SYSTEMS INC	Information Technology	
IBM	Information Technology	

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
ADVANCED MICRO DEVICES INC	Information Technology	✔ ○ ○ ○
LAM RESEARCH CORP	Information Technology	✔ ○ ○ ○
MICRON TECHNOLOGY INC	Information Technology	✔ ○ ○ ○
MICROSOFT CORP	Information Technology	○ ○ ● ○
WESTERN UNION	Information Technology	○ ○ ○ ✖
CIENA CORP	Information Technology	○ ○ ○ ✖
HP INC	Information Technology	○ ● ○ ○
HEWLETT PACKA	Information Technology	○ ○ ○ ✖
FIRST SOLAR INC	Information Technology	○ ○ ○ ✖
NUANCE COMMUNICA	Information Technology	○ ○ ○ ✖
CISCO SYSTEMS	Information Technology	○ ○ ○ ✖
APPLE INC	Information Technology	○ ○ ○ ✖
VERISIGN INC	Information Technology	○ ○ ○ ✖
GARTNER INC	Information Technology	○ ○ ○ ✖
KEYSIGHT TEC	Information Technology	○ ○ ○ ✖
WESTERN DIGITAL	Information Technology	○ ○ ○ ✖

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
DELL TECHN-C	Information Technology	
APPLIED MATERIAL	Information Technology	
TRIMBLE INC	Information Technology	
MOTOROLA SOLUTIO	Information Technology	
FORTINET INC	Information Technology	
ADOBE INC	Information Technology	
AUTODESK INC	Information Technology	
ORACLE CORP	Information Technology	
NETAPP INC	Information Technology	
QUALCOMM INC	Information Technology	
QORVO INC	Information Technology	
SHERWIN-WILLIAMS	Materials	
BALL CORP	Materials	
AVERY DENNISON	Materials	
NRG ENERGY	Utilities	
VISTRA CORP	Utilities	

Qube Insights: Equity Research Traffic Lights

Company	Sector	Current Status
SEMPRA ENERGY	Utilities	
ALLIANT ENERGY	Utilities	
DOMINION ENERGY	Utilities	
ATCO LTD-CLASS I	Utilities	
ALGONQUIN POWER	Utilities	
ALTAGAS LTD	Utilities	

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At any one point in time, the composition of the Kaleo model may change. Currently, the focus for our models (Kaleo A and Full) is to invest in a globally diversified portfolio of liquid stocks with a minimum market capitalization of $1 billion. Our diversification strategy is to have similar industry weightings between our Kaleo models A and Full, which in turn will have similar weightings to the S&P 500. Our investment mandate is to not have any one industry sector or sub-group exceed 2.0 times the percentage weighting assigned to that group by the MSCI Index unless the sector or sub-group composes less than 5% of the total index. Please refer to your Investment Policy Statement (IPS) for more details.

Index comparisons are based on the total return index defined by 50% of the MSCI Index and 50% of the S&P TSX Total Return Index. All index returns are inclusive of dividends, adjusted to the Canadian currency, and, similar to the modeled portfolio, determined via the IRR method. Please note that, as total return indices are not actual portfolios, these returns do not include the cost of management and/or trading fees.

Past performance is not indicative of future results and there is no assurance that our model portfolio will achieve its objectives or avoid significant losses.

Qube Investment Management Inc.
www.qubeinvest.ca
Kendall Building
9414 - 91 Street
Edmonton, AB T6C 3P4
780.463.2688