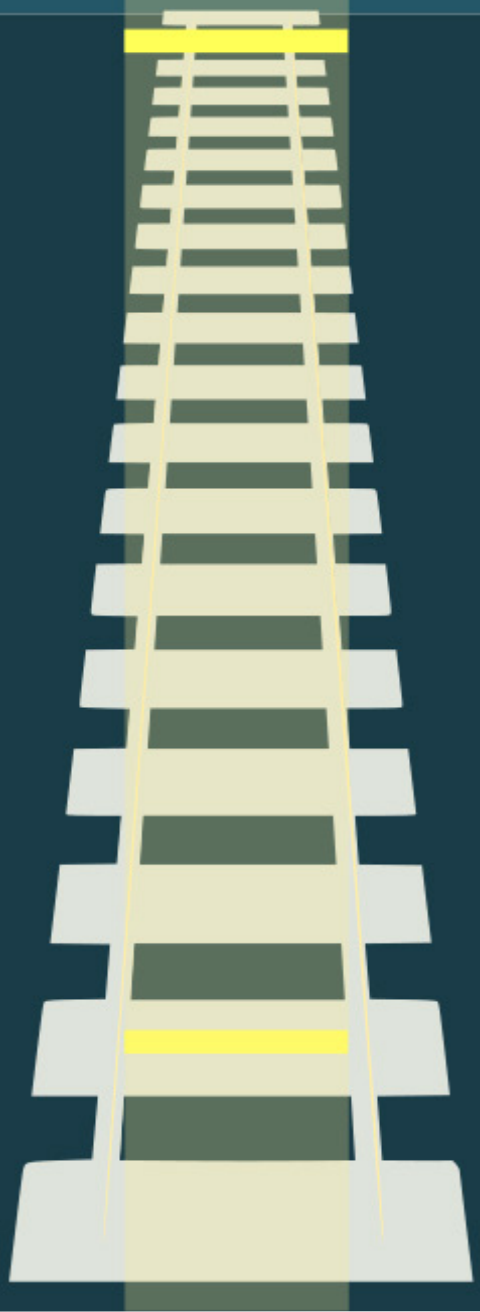
Qube Commentary

June 30th, 2020 Edition



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Qube Investment Management Inc. is a registered portfolio management firm in the Provinces of Alberta and British Columbia and was registered as a portfolio management firm on June 25, 2012. Any return period cited before this date was prior to QIM being registered as a portfolio management firm. Inception was Jan 1, 2011 and all returns are for a modeled portfolio initiated at $500,000. Your actual returns may vary according to your individual portfolio. The modeled returns are calculated inclusive of dividends, adjusted to the Canadian currency, and are determined via the IRR (Internal Rate of Return) method. The gain/loss shown are simple (non-compounded) returns for periods up to one year. If the time since inception date is more than one year, then the return shown is an annualized return. For comparison purposes, the Kaleo model(s) are reported as gross returns before investment management fees. Individual investor level returns will differ as the fees agreed to in your Investment Management Agreement (IMA) are subtracted from the gross return.

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 benchmark 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 S&P 500 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 provided by Standard & Poor's for both the S&P/TSX and the S&P 500. 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.

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Letter From The Editor
Ian Quigley

It would be a gross understatement to state that the past six months have been "crazy." It would only be the beginning of "crazy" to mention the global pandemic, equity riots, and an American president actively destabilizing society. Time in social isolation has permitted much reflection for all Canadians, including myself. This was not the first pandemic, nor the first equity/race riots and of course not the first destabilized moment in human society. Thinking on this has caused me to keep asking myself, "Are we condemned to repeat the past?"

Well, this could be considered a matter of perspective or an issue of framing. In our cover art, we present a Ponzo illustration, first created by Mario Ponzo in 1911. The illusion of railroad tracks spanning into the distance tricks our brains into thinking the upper yellow bar is wider than the lower. As humans, we have created built-in biases that allow us to reach decisions faster by simplifying information and establishing rules of thumb. These same biases can also become a threat to our survival by enabling us to make potentially fatal mistakes. These are the themes that you will encounter as you read our summer commentary. With an overload of information from such diverse (and divisive) sources, how can we determine what is "fake news" and where the prudent course of action may be? We present our own evidence of the financial markets and in the process desire to comfort you that your wealth is strategically and responsibly placed, not just for preservation but also for appreciation.

As we work together to endure this pandemic, we want to again express our appreciation and gratitude for your trust in our team and allowing us the privilege of being fiduciaries to you.

Sincerely,
Ian Quigley, MBA
Senior Portfolio Manager

Kaleo Portfolio: Past Performance

	YTD	2019	3-Year	5-Year	Inception
Kaleo A	4.2%	20.2%	11.9%	10.6%	12.4%
Kaleo Full	4.3%	19.6%	13.3%	12.0%	13.2%
Kaleo Benchmark	-4.3%	22.2%	6.2%	6.6%	8.1%

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, 2020. 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.

Our Kaleo Full model is composed of 35 stocks + 5 index ETFs. For clients with invested funds in the $250K to $1M range, we offer a subset 22 stocks + 5 index ETFs subset of this model (Kaleo A) in order to reduce brokerage fees. Returns since inception for each of our Kaleo models 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 S&P 500 Total Return Index (in CAD) and 50% of the S&P TSX Total Return Index.

Qube has rated this model as “medium risk.” This rating is based on how much the Fund's returns have changed from year to year. It doesn't tell you how volatile the Fund will be in the future. The rating can change over time. A fund with a low-risk rating can still lose money. Like most mutual funds this investment model does not have any guarantees. You may not get back the amount of money you initially invested.

There is No Condemnation for Us

By Ian Quigley, MBA

"Those who cannot remember the past are condemned to repeat it." – George Santayana

I spent much of my time this month reading first-hand accounts of infamous markets events that started in October 1929, March 2000 and September 2008. I admit that this may be an odd thing to do during one's free time, but I wanted to gain insight from investors directly involved in the three largest market corrections in modern history.

Take for instance the perspective of Bill Bailey, a telegraph boy in New York during the late 1920's who had a tendency to read the messages that he was paid to deliver. In his BBC Archive statement[1], he described the busiest weeks of his telegraph career delivering many versions of the same message: "Please Send Money." Or there's the statement from a Kitty Carlisle who was only 19 in 1929 but was required by her Mother to call the broker each day to retrieve the stock market quotes. The markets had been booming and everyone, including her mother, wanted a piece of the action. The summer had been up and down but coming into October things had seemed to stabilize. That day, when she repeated the stock prices out loud to her mother, "she fainted dead away and was financially ruined."

In a 2007 testimony before the U.S. House of Representatives, author Robert Kuttner[2] described the 1929 market as one with excessive leveraging, insider conflicts, non-transparency, and the triumph of engineered euphoria over evidence. "If you thought the market was just going up forever, you could borrow the amount of your investment via loans conveniently provided to you by your stockbroker." I also found testimony from Thomas Larkin, one of these brokers, who described how the market bids dried up in October 29, 1929 and then started falling like never before. "The tape ran 5 hours behind due to the volume, so the mayhem wasn't fully realized until 8pm." Speaking to the misery of the time, Larkin's testimony also included dark comments about how he learned to walk cautiously down the street in the days and weeks following, as people were jumping from windows. An incredible statement, but the Washington Post reported in an article on October 25, 1987[3] that only 2 people actually terminated their lives in this manner on Wall Street in 1929. Starting October 1929, the markets fell 47% in 26 days bringing the roaring 20's to a halt. The markets would go on to fall a total of 89% over two years before eventually bottoming out.

Everybody in the 1920's was interested in the markets. There were a lot of experts, but none of them seemed to know anything. Is it not reasonable to assume the same thing today in 2020?

In 2017, Rick Schwartz shared his testimony from his Florida home with a reporter from Gimlet Media[4]. His home sits on 140 feet of beachfront and is one of five similar homes that he owns. Rick was not born wealthy; he is self-made with a story that began in 1993 where he learned how to register and then rent 1-800 phone numbers (like 1-800-MAKEOUT). On Dec 26, 1995 Rick entered the "Tech Economy" from what could be called a "side-door." He took what he learned from renting

[1] BBC News, The Wall Street Crash Witness Testimony, www.bbc.co.uk/programmes/p00z9sqt
[2] US House Committee on Financial, Hearing 110, Testimony of Robert Kuttner, Oct 2, 2007
[3] Washington Post, The Jumpers of '29, Oct 25, 1987
[4] Gimlet Media, StartUp Podcast from Sept 1, 2017

1-800 numbers and began registering and renting "dot com" addresses. Yes, Rick is that guy. The guy that already owns the web address you tried to register when you had that big idea. He would wake up in the night, think of a new name that somebody might desire and then race to register it. He became known as the "dotcom King" owning over 7000 web addresses. Probably due to his lavish lifestyle and many divorces, Rick's total net worth is hard to determine but some estimate it to be $500M.

Rick was also one of those "tech bubble" winners. A positive testimony from 1995 to 2001 when we witnessed a massive adoption of the internet and with that, companies that traded in the stock market who were servicing this new sub-sector. In five short years, the stock market (Nasdaq) grew 400% and the gains in efficiency were perceived to be so exciting and spectacular that economists started writing books about how it was a "new economy." They even anticipated that stocks would subsequently begin trading on a new perspective of valuation. In this pronouncement, they got a bit ahead of themselves.

This was the era that spawned "day trading," and marked a return to the levels of speculation last seen 80 years prior. When the dot-com bubble burst in mid-2000, the extent of financial ruin was subdued compared to the 1929 due to the fact that leveraged investing was not as rampant. Even so, many testimonies capture the terrible mistake many investors made with concentrated positions in the technology sector (many unaware of their concentration risk as the positions were embedded in "diversified" mutual funds).

Over and over investors are drawn into the markets, setting aside their fears and bravely trusting professionals to steward their savings, their core capital, their life's work, their retirement and their safety nets. In 2000, much of this wealth was threatened. How can we ensure that today, in 2020, this same threat is measured and managed respectfully and prudently?

We are today living through a global pandemic. A terrible and disruptive event happening on the tail of a productive stock market that has functioned well for over 12 glorious years. On May 15th, the US Federal Reserve warned that investing done on the basis that COVID-19 will be short-lived would be "unwise." Moreover, Google searches today on "Is the Stock Market Overvalued?" shows 9,440 results. How can we be reassured that investing today can be done with greater levels of prudence than in 1929, 2000 or 2008?

To gain confidence that we are not condemned to repeat past mistakes, we can start with what forms the basis for value in the stock market. As an investor, we in theory own any surplus cash generated by the public company. This is the surplus that can be reinvested into the business or paid to us as a dividend. Measurement and forecasting of this surplus is a core exercise in value determination. Just as we can evaluate companies by looking at their ability to generate surplus, we can also evaluate the entire stock market by looking at the aggregate surplus and then comparing it to the aggregate price.

Simply put, it's like rent. The value of a public company (or stock market in its entirety) is generally related to the cash dividends paid (or at least the capacity to pay these dividends). One can forecast the cash dividends coming to build a basis for valuation.

Back in March, our team used this approach to assess the stock market after a severe COVID induced correction. Our model ran a conservative scenario including a 20% hit to corporate earnings in 2020, with only 50% recovering in the "rebound" years that follow. Long-term growth estimates were consistent with pre-pandemic valuations (1.8%) and, among other assumptions, we increased the market risk premium (from 5 to 5.5%). Our conclusion was that the markets were 20% undervalued and we then encouraged clients to make any planned deposits for 2020 as soon as possible. In our Kaleo model, we also used some cash positions and Gold positions to increase our market exposure with positive results, as the markets indeed pulled a near 35% three-month return between March and June of this year.

To test our general model, we asked two of our team members[5] to take two weeks and explore all global regions and economic sectors using this valuation approach among others. They started with the re-

[5] Much thanks to Nick Riemer and Austin Glenn for their hard work and dedication to this ambitious project. We have a 165 page PowerPoint presentation for any client that would like them.

gions, first assessing which market regions had the optimal conditions for investment and where in the business cycle they might be (an economic assessment). Then, using this perspective, they proceeded to value these regions both absolutely and relative to each other.

In summary, our global strategy remains relevant and prudent. While we continue to look for opportunities in Canada, we remain cautious about international positions.

We then analyzed economic sectors. The stock market is broken into 11 sectors, ranging from technology to energy companies and everything in between. Taking the relative risk of each sector into consideration, performance over various historical periods illustrate certain sectors have consistently outperformed (e.g. Consumer Products, Technology and Healthcare).

Using our cash flow model, the sectors showed a wide range of valuations. Going forward, this will direct our analysts' focus during the summer research program already underway.

Our final step was to determine the optimal mix (called mean-variance optimization) of sectors, taking into consideration both our forecast on valuation and historical correlations. This type of work aids our team in setting more targeted research in the months ahead.

Back to our original narrative. Our approach uses a

Region	Economic Assessment	Absolute Valuation	Relative Valuation
USA	Attractive based in sales/earnings growth and earnings quality.	**Undervalued by 4.6%** **Current Price = 3103.48** **Current Value = 3244.91**	Return on Equity (ROE) outpaces other regions, even as debt levels remain relatively modest. Return on Assets (ROA) is strong and in-line with Japan. Exhibits 2nd highest Current Ratio trend indicating liquidity risk is relatively low, but not as favorable as Japan. Same story is indicated with Net Debt/EBITDA levels.
Canada	Earnings growth in past 5 years, but recent sales declines. Highest population growth.	**Undervalued 3.9%** **Current Price = 15484.27** **Current Value = 16087.69**	ROE & ROA levels have been volatile and remain low even with debt levels being relatively high. Liquidity risk has increased given the downward trend of its' current ratio.
Europe	No growth narrative to be found, possible deflationary conditions.	**Overvalued 30.5%** **Current Price = 362.77** **Current Value = 251.98**	ROE & ROA are not attractive relative to competitors. Region becoming less levered on a Net debt/EBITDA basis; however liquidity risk is relatively high based on its' low current ratio.
Shanghai	Recession territory conditions.	**Overvalued 29.9%** **Current Price= 2965.27** **Current Value = 2078.85**	ROA & ROE continues to compress over the last 10 years, but remains higher than Canada & Europe. ROE remains higher than Canada & Europe. Liquidity risk has improved over the last 10 years, but remains inferior to the US, Japan & Hong Kong.
Japan	Deceleration of earnings in recent years, but still above regional median and margin improvement noted.	**Overvalued 28.6%** **Current Price = 22437.27** **Current Value = 16028.63**	ROE has experienced significant improvement over the last 10 years primarily attributable operating margin improvements. ROE improvements are particularly impressive considering debt levels have declined on a debt/EBITDA basis. Low correlation (0.64) to the US markets contributes to the region's attractiveness.
Hong Kong	Recession territory conditions.	**Overvalued 25.0%** **Current Price = 24511.34** **Current Value = 18382.60**	Exhibits the highest operating margin (which may reflect) the "white collar" nature of Hong Kong's primary industries. Lowest P/B Ratio. ROA & ROE is higher than Canada, but lower than Japan and the US. Well positioned given the regions' extremely low debt levels.

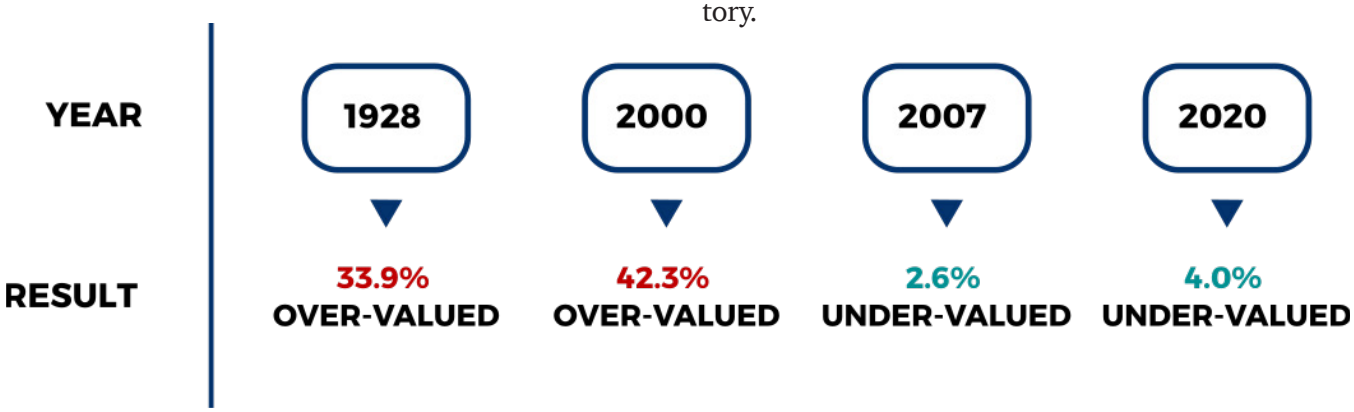
Sector	Current Estimated Valuation Position
Technology	49% Undervalued
Healthcare	19% Undervalued
Financials	31% Undervalued
Consumer Discretionary	7% Undervalued
Consumer Staples	9% Overvalued
Communications	44% Overvalued
Industrials	3% Undervalued
Energy	14% Undervalued
Utilities	38% Overvalued
Real Estate	3% Undervalued
Basic Materials	6% Overvalued

combination of qualitative assessment and quantitative measurement, but how can we reassure our investors that we have more prudent insight than exhibited prior to the market meltdowns in 1929, 2001 and 2008? Back-testing is required. To test our model, we recreated the valuation scenario using data from just prior to each of these terrible market events with the following results[6]:

To our great relief, our approach-maintained consistency within expectations. Just prior to the 1929 and 2001 bear markets, the model predicted that the markets were overvalued and therefore threatened by a potential correction. It did not identify the 2008 crisis ex ante but we must consider that 2008 was different, as the market meltdown was related to a heated real estate market and related mortgage financing (subprime mortgages) rather than an overheated stock market. Nonetheless, the disfunction in these two sectors caused the entire market to correct and the economy to stall. Our results from the back-test were supportive of the model's viability, providing us with additional confidence that investing today in 2020 remains reasonable.

If you have anxiety, we understand. Thanks to COVID19, in 2020, we have seen a massive market slide, followed by an immediate recovery. Our team has also been disrupted and also been subject to fear and anxiety. We are confident that, extending the same principles that we use to select individual stocks, illustrates that investable regions and sectors continue to exist. Our core philosophy remains intact. We only invest when evidence supports the decision. We continue holding a position(s) when a case can be made that there is a favorable risk/return tradeoff. Thankfully, this evidence can be found here in 2020 despite the terrible and disruptive events being endured. Our approach takes time to review history, intensely study the present and make prudent steps to prevent a repeat of history.

The Back Test



[6] Model assumptions and scenarios are available upon request.

The Money 'Taboo': Why Women Should Be in the Meeting Room

By Sarah Anderson

"I was raised not to talk about finances."

In 2015, Fidelity Investments conducted a survey designed to measure how women view and address their finances. Included in the study were obstacles that may be holding women back from embracing their financial literacy (Money Fit Women Study).

95% of women want to learn about financial planning.

YET ONLY...

35% will meet with a financial professional when offered through their employer.

80% have also reported refraining from talking about finance with someone they are close with.

THESE STATISTICS ARE IN STARK COMPARISON TO WOMEN'S WILLINGNESS TO DISCUSS SENSITIVE MEDICAL ISSUES.

77% of women are comfortable discussing medical issues with a doctor.

VS

47% would be comfortable talking about investing with a financial professional.

Why is there a disconnect?

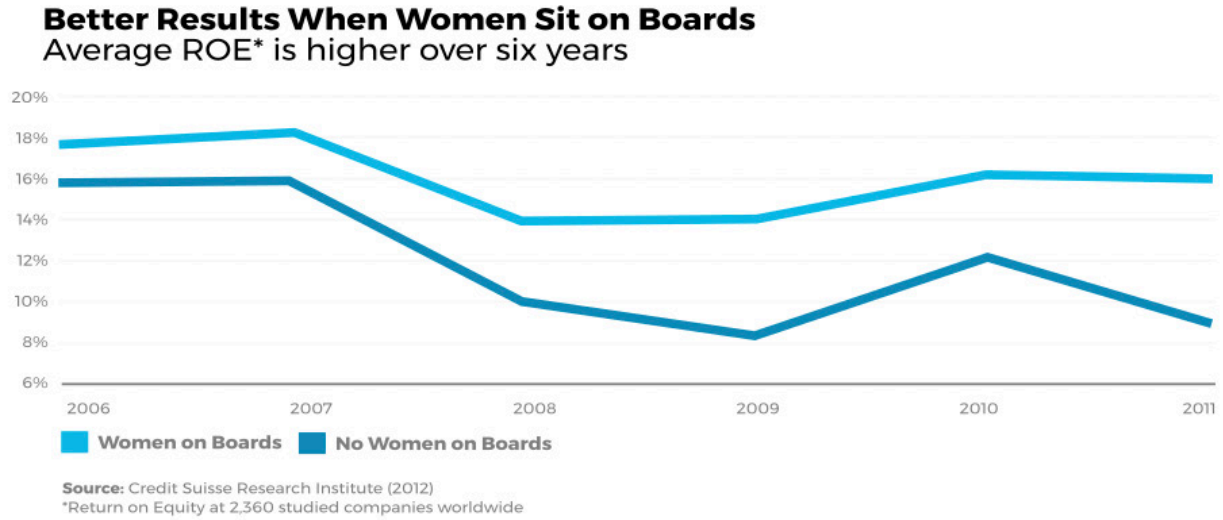
Historical culture norms have played a large part. Sentiments such as 'I was raised to not talk about finances' and 'I don't understand or know enough to talk about it intelligently' are among a few of the reasons reported by women when asked about what is refraining them from joining in the conversation (Money Fit Women Study, 2020). Discussing finances has been considered taboo, rude and an inappropriate conversation to have.

A symptom of these cultural norms, the financial industry has historically been dominated by men. Financial terms reflect this idea; the 'economic man', a term first coined in the 19th century by John Stuart Mill and later brought to mainstream economic study by Lionel Robbins, is used to define an 'investor who acts rationally on complete knowledge out of self-interest and the desire for wealth'. Generally women do not identify with this term. Studies have shown that while men tend to define financial success as a monetary value, women extrapolate the meaning of money beyond that. They define wealth in terms of family security, lifestyle maintenance, and lack of dependence on children in old age (Fopiano, 2018). Is it possible that some women leave themselves out of the conversation because the conversation doesn't address what matters to them?

Having women engaged in the conversation benefits everyone. Some studies of the vast benefits of diverse perspective in decision-making have focused primarily on women in the business world. Not only have studies concluded that women generally gain more trusting relationships with clients than men (Gender and Banking: Are Women Better Loan Officers?, 2013), having women on the executive team of a bank has been associated with higher stability and profitability than all-male leadership teams (Credit Suisse, 2012). Based on these findings, women have been hypothesized to possess traits that present better unbiased decision-making, risk management and relationship building. These findings have not been ignored by the business world, Fortune's "most admired" companies in 2018 had twice as many females at the senior management level than those not on the list.

Outside of the business world, 90% of women have been or are responsible for their household budgeting and finances, but only 50% of surveyed women (Fidelity, 2015) have spoken to their investment counsellor. If we ignore the studied economic benefits of ensuring that women are involved in the decision-making process, there are still practical reasons as to why they should be involved.

On average, women live six to eight years longer than men (World Health Organization, 2020). A widow becomes solely dependent on the retirement savings that she may not have had any part in planning for. Without a comfortable relationship with her wealth manager and an understanding of her current financial position,her time to grieve may be overshadowed by financial confusion and uncertainty.



Not only that, but she may feel compelled to leave her current investment manager and find another that may not be able to fully understand her financial history and current needs.

Our job, as wealth managers, is to learn how wealth matters to you, regardless if it's different to each spouse. Returns, fees and planning are all just cogs in the wheel. Our responsibility is to ensure you are comfortable, knowledgeable and inspired about your long-term financial position. We are doing only half our job if only half of your household is empowered to join the discussion.

There shouldn't be barriers to learning about financial planning and investments. We are excited to launch a seminar for the Women of Qube in Fall, 2020. Come join us for a morning of getting to know the Qube staff, a presentation on financial planning catered to women, and a Q&A period. There will more information to come at the end of summer, and we hope to see you there.

If you have any questions, or would like to reserve a spot, please contact Sarah at sarah@qubeinvest.ca.

Royal Caribbean Cruises (RCL): The Swing from Greed to Fear and Back Again

By Patrick Choi

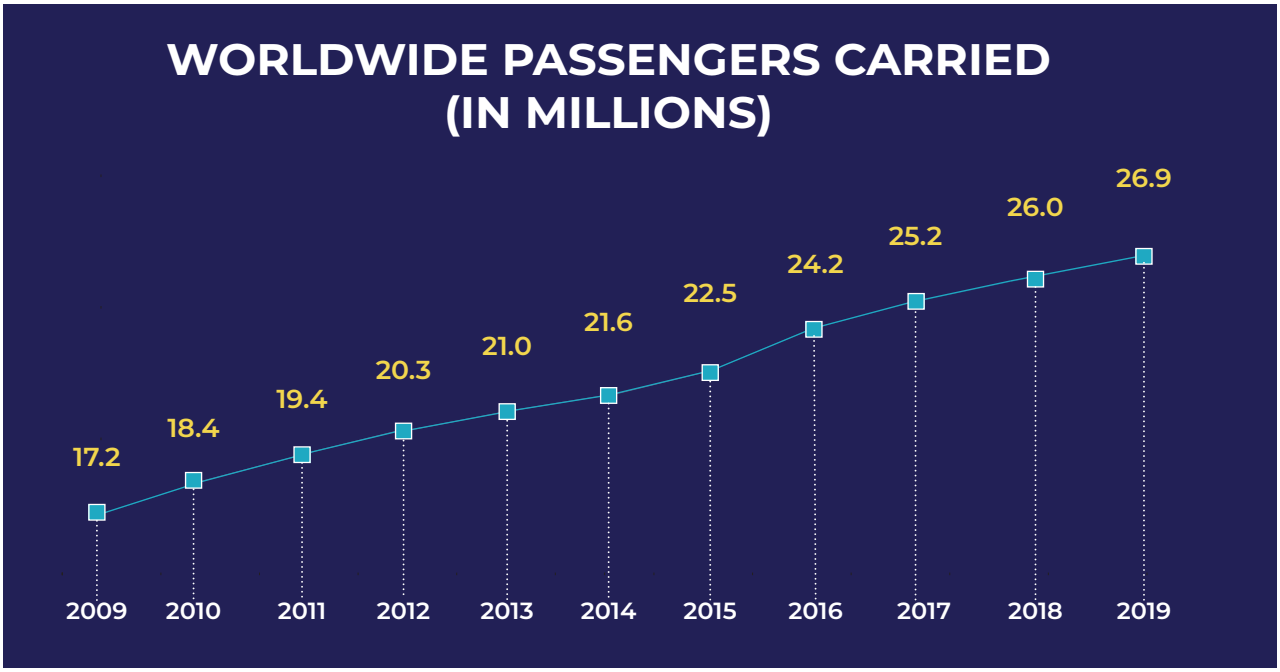
When we first reviewed RCL almost a year ago, the cruise line industry had presented one of the most compelling demand stories we had ever come across. Since 2009, the industry had been experiencing uninterrupted, year-over-year higher passenger count, and their soaring revenues and profits seemed only to be constrained by ship capacity. With over 50 ships on order over the next 5 years (outof the current 300+), the industry seemed unstoppable and poised for continued growth...until a ball called COVID-19 came out of left field.

In the span of only a few short months, cruise lines went from being one of the most loved industries to being one of the most reviled, with ships dockedat port and cash reserves going down the drain.

Besides monetary loss, the industry also had to deal with the social fallout from negative publicity of deaths and suicides from passengers and crew members stranded on these ships.

In just a few months, current shareholders went from counting how much more money they would make in 2020, to wondering whether these companies would survive past the inevitable suspension of their operations. Additionally, even if they did survive, shareholders were still left wondering whether there would be any lasting damage from the social fallout.

As is often the case whenever there is fear in the market, the associated stock will start selling off. At the end of 2019, Royal Caribbean Cruises was trading at approximately $133 US/share. After COVID-19 hit, by March, the stock fell to a low of $19.25 US/share. In March, we ultimately decided to purchase RCL when it was at $27.50 US/Share. This decision was based on our 2019 calculated fair value price of $158.24 per share, and though we weren't comfortable with this investment in 2019, our decision in March changed with close to 80% more margin on our prior valuation. In mak-



ing the purchase decision, from our estimation, we believe the market was irrationally pricing in a permanent impact from COVID-19 on RCL's operations. We could hear the swinging of the market pendulum heading towards fear. We chose to ignore the market noise at the time because of our belief that the lockdowns from COVID-19 would be temporary, comparable in duration to China's Wuhan. Once the economy opened up again for travel, we believed that there would be pent-up demand for cruises.

Like the recovery of airlines from the September 11 attacks, we did not believe that there would be lasting damage to cruises as a form of vacation. Everything we liked about the company and industry remained intact over the long term. It just so happened to be trading at more than $100 less than it was 3-months prior.

Some of the other factors influencing our decision to purchase RCL at these discounted prices are given below:

1

- RCL is one of the largest cruise companies with destinations worldwide and with multiple brands serving all segments of the cruise market from budget to premium. We believe that RCL's size and diversification provides them with a higher chance of survival when compared to their smaller competitors.

2

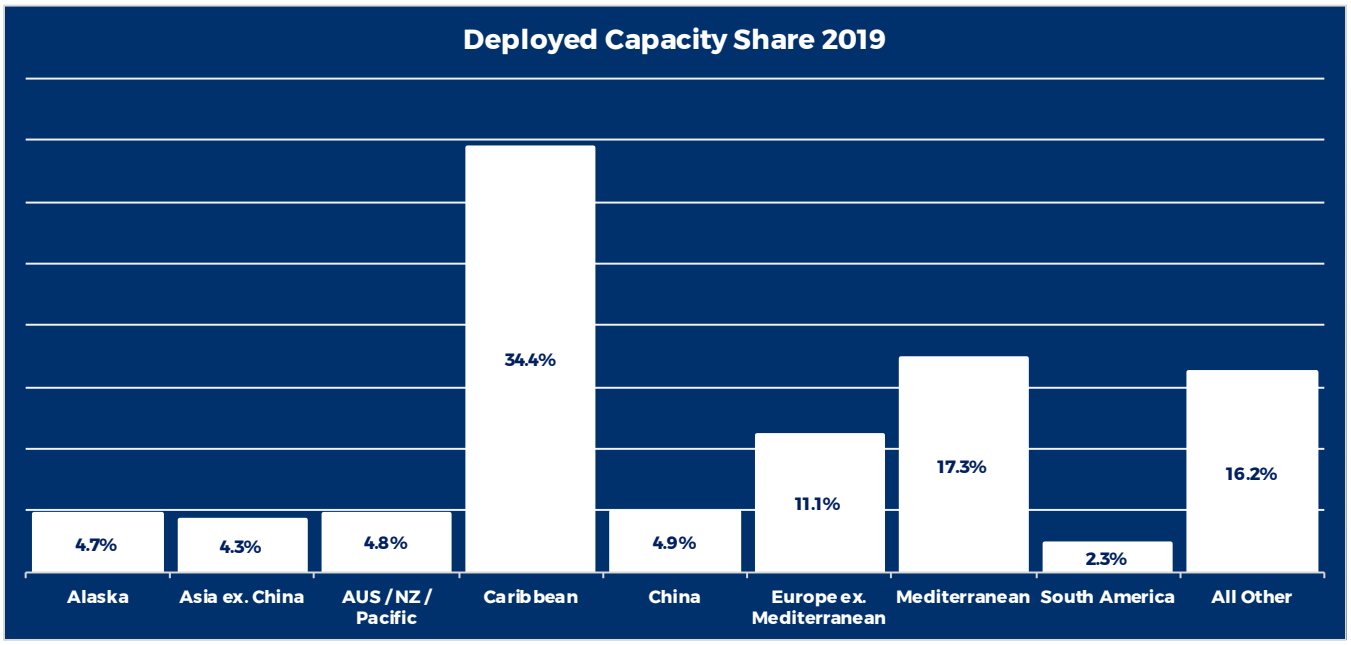
- In recent years, RCL has been rapidly expanding its fleet through larger capacity ships to fulfill demand. As of the end of 2019, RCL owns the two most expensive cruise ships in the world, "Allure of the Seas" and "Oasis of the Seas," each costing over $1.4 billion. We believe that these assets can be collateral to make any debt issuance from RCL more appealing to debt purchasers.

3

- According to Emerson Hankamer, CEO of Vacations to Go, cruises represent the best vacation value on the dollar for dollar basis and have a very high satisfaction rating and repeat rate. We believe this will help support the recovery of the cruise industry once they can sail again.

4

- The cruise industry continues to be dynamic and innovative. New itineraries from more destinations around the world help to attract younger customers. Also, millennials are increasingly choosing to spend their money on authentic experiences to share with their friends on social media rather than on material goods. These trends will help the cruise industry sustain growth past the baby boomer generation.



As is the case with almost all of our purchases, our intention is to hold the security for 3-5 years for our thesis to play out in the market. For RCL, we sold the security 3 months after the purchase for a price of $50.99 US. The unusually quick turnover was a result of our updated fair value analysis, which took into account updated information such as the extended suspension of operations until September 15, 2020. The turnaround happened quickly, and in little more than a month, RCL's share price surpassed our updated fair value estimate for RCL of $38.69.

To put things into perspective, if our expectation for RCL was to generate a return of 10% every year, this stock has achieved in 3 months what we thought would take 6.5 years. In these 3 months, we believe the pendulum for RCL may have swung back towards greed. It was time to take profits and get out.

In our opinion, Mr. Market will continue to move between cycles of fear and greed, and it is our job, through our research program, to find these dislocations and profit from them. The more we witness these extreme movements in the market, the more we realize the timeless wisdom in Warren Buffet's message from 2004.

"Investors should remember that excitement and expenses are their enemies. And if they insist on trying to time their participation in equities, they should try to be fearful when others are greedy and greedy only when others are fearful."- Warren Buffett, 2004 Letter to Berkshire Shareholders.

Gold: Worth its Weighting

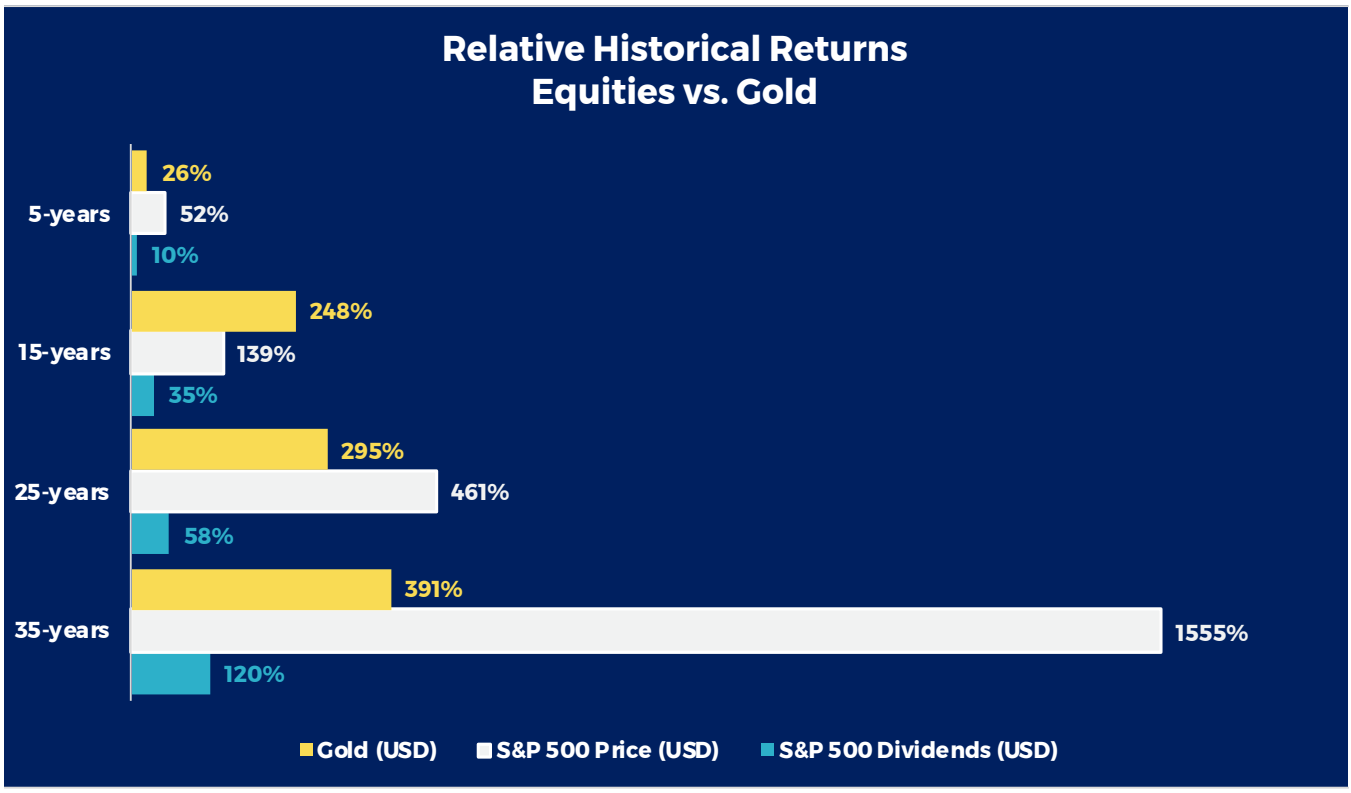
By Noah Clarke, MA

Maybe you've noticed that your portfolio has looked a bit more lustrous. Not in terms of returns – though those too have shone relative to our benchmark over this period – but in terms of the much higher allocation to gold that we've held in the Kaleo portfolios since May of 2019. For those of you who did and may have questions, I wanted to outline our rationale for this increased position in gold and its intended purpose in the portfolio.

As a starting point, I should affirm that our shift into gold was not impelled by a belief that gold on its own would outperform equities over any meaningful period of time. As shown in the graph below, the S&P 500 price index (which excludes dividends) has outperformed gold in all long-term periods reviewed since 1971 - when President Nixon effectively cut "ties" to the historic gold standard and suspended convertibility of the U.S. dollar to gold. Accounting for the compounding of dividends over any of these periods (add the teal and grey bars together), the difference in returns is all the more significant. As such, where investors are content to buy and hold (weathering any storms that may appear) and are explicitly concerned with maximizing long-term returns, equities as a whole have historically proven to be a superior holding compared to gold.

The same could be said about the trade-off between fixed-income holdings and equities. After all, in the long run, equities have outperformed bonds. However, liquidity needs, an indefinite investment horizon, or a desire for smoothing medium-term returns are likely to affect an investors ability to pursue maximum returns at all costs. Hence why the vast majority of our clients hold bonds in their portfolios.

So, should gold be viewed similarly to fixed income? Not really. When compared to equities, investment-grade corporate bonds have historically demonstrated lower levels of risk measured in terms of average annual volatility. Gold has not. In fact, ordering the three assets from lowest variability of returns to highest would see fixed income



ranked lowest, equities taking the middle position and gold coming in ranked highest.

Looking at the data for the period starting January 1975 to the end of 2019, the return on an investment in gold averaged about 7% per year compared to 7% for the DEX Canadian Bond Universe and 11.8% for the S&P 500 total return index. Over the same period, the standard deviation of annual returns for gold is about 3.5 times that of the DEX Canadian Bond Universe and 1.5 times that of the S&P 500 total return index. Thus, the risk-return trade-off for holding gold does not on its own appear to be beneficial.

Based in part on such results, we prefer to seek long-term growth through cash flow generating equities, for which we can derive an estimate of intrinsic value. But, the strategic case for gold is not centered on its relative performance in isolation. Instead, the case for gold is centered on its ability to provide diversification and thereby manage risk in tandem with equities and fixed income.

In his 2017 book Principles, Ray Dalio (manager of the largest investment fund in the world) coined the concept now referred to as the "Holy Grail of Investing". It entailed finding fifteen to twenty good, uncorrelated return streams that "zigged and zagged in ways that balanced each other out", and thereby reduced risk without reducing expected returns. If such a portfolio was found, an investor could do away with defensive assets such as fixed income, while reducing risk and increasing expected returns. If such a portfolio was found, an investor could do away with defensive assets such as fixed income, while reducing risk and increasing expected returns. In reality though, the moniker of "Holy Grail" is fitting as most investments are at least moderately correlated. The quest for fifteen to twenty is still ongoing, but there are a few instances of uncorrelated investment assets. Gold is largely uncorrelated with the S&P 500 index (correlation of 0.013) and bonds (correlation of 0.083). Therefore, unlike either equities or fixed income, gold provides our portfolios with a liquid asset that lacks credit risk and most importantly, reduces the systemic risk in our portfolios due to its low correation to both stocks and bonds. Such benefits are valuable in any market environment/economic regime.

Economic regimes are defined in terms of four factors, which tend to drive financial market performance: economic growth, inflationary expectations, monetary policy, and economic slack. No matter what economic regime we find ourselves in, market risks are always present. There is no escaping it. When we made the decision to increase the amount of gold that we hold in our portfolios, it was not in response to any one specific threat. Instead, we expanded our allocation to gold to help insulate our portfolios from any number of market risks on the horizon. In 2019, some risks were detectable ex ante, including extended trade wars, elevated debt levels, and currency devaluations. Some were "black swans", i.e., unpredictable events with potentially severe consequences, including the outbreak of COVID-19.

All such risks, when realized, tend to result in a rush to buy assets perceived as safe, such as T-bills and government bonds, gold or various commodities and sometimes stronger currencies such as the Swiss Franc, Japanese Yen and US Dollar. As this "flight to quality" occurs, the prices of these safer assets tend to surge. Gold demonstrated this quality during the Dotcom bust, the Financial Crisis, and the European Sovereign Debt Crisis. In the case of the Financial Crisis, from July 2, 2007, to March 9, 2009, the S&P 500 index lost close to 55%, while gold surged 40%. These experiences have bolstered the common conception of gold being a safe haven asset, which it inherited from its historical role as a monetary instrument.

The traditional definition of a safe haven asset is "an investment that is expected to retain or increase in value during times of market turbulence." The title of "safe-haven" asset does not not appear to apply to other assets with similar ties to monetary instruments. Notably, cryptocurrencies and silver.

As shown in the table below, silver has been far llast effective as a safe-haven asset during the last 10 biggest declines of the S&P 500. In fact, it rose in only three of the tabled S&P 500 selloffs and was basically flat in two of the three instances. This may have to do with the fact

that silver has a high industrial use (estimated around 50% of total supply). As market selloffs are typically driven by deteriorating economic conditions and a corollary reduction in industrial production, during these periods weakened industrial demands for silver may offset the increase in demand for silver as a store of value. This dynamic challenges silver's credentials as a safe-haven asset and backs our rationale for exclusively adding gold (which has a much lower industrial demand of around 15%), rather than a basket of precious metals to the portfolio. Note that platinum and palladium are similarly influenced by industrial demand with more than 50% of the total supply of these precious metals directed to automotive catalysts and other industrial uses.

Bitcoin and other cryptocurrencies are anything but stable, but due to sharing attributes with precious metals such as gold and silver, and having risen alongside gold since the start of 2019, a narrative of Bitcoin being a potential safe haven asset was created. However, the data does not support the assertion that Bitcoin performs like "digital gold". There are fewer examples available to evaluate Bitcoins performance in turbulent markets due to the recency of its invention. However, one poignant example is cause for concern. Bitcoin suffered a dramatic crash on March 12, falling from almost $8,000 USD to stabilize at around $5,000 USD, a loss of about 40% in the span of less than two days. Rather than buttress returns during this period of increase market volatility, Bitcoin fell more than the general market and then later came back in lockstep with the market. We still have no plans to ever hold Bitcoin in our portfolios.

Dates of S&P 500's Biggest Declines (Past 50 Years)	S&P 500	Gold	Silver
Sept 21, 1976 - Mar 6, 1978	-19.40%	53.80%	15.20%
Nov 28, 1980 - Aug 12, 1982	-27.10%	-46.00%	-66.10%
Aug 25, 1987 - Dec 4, 1987	-33.50%	6.20%	-11.80%
Jul 16, 1990 - Oct 11, 1990	-19.90%	6.80%	-10.80%
Jul 17, 1998 - Aug 31, 1998	-19.30%	-5.00%	-9.50%
Mar 27, 2000 - Oct, 9 2002	-49.00%	12.40%	-14.40%
Oct 9, 2007 - Mar 9, 2009	-56.80%	25.50%	1.10%
May 10, 2011 - Oct 3, 2011	-19.00%	9.40%	-19.10%
Sept 21, 2018 - Dec 21, 2018	-17.51%	4.69%	2.22%
Feb 20, 2020 - Mar 23, 2020	-33.93%	-4.07%	-28.18%

The upshot is, gold marches to its own beat, showing a low correlation to other comparable assets and serving as a relatively good safe-haven asset during times of crisis. It's associated ability to help stabilize portfolio returns year-to-year makes it worthy of inclusion in our portfolios.

Nonetheless, we must still asses how much of it we should hold to gain all the benefits without reducing returns or increasing risk. To answer this question, we refer to a 2010 study published by Natalie Dempster and Juan Artigas in the Journal of Wealth Management, which reviewed the statistical role gold could play in an investment portfolio. By adding incremental amounts of gold into a hypothetical portfolio, and back-testing to asses results, Dempster and Artigas were able to determine what affect each marginal increase in gold would have had on portfolio returns and volatility. They also performed the same analysis on other comparable assets; including real estate (REITS), other commodities and government inflation bonds (TIPS). In all scenarios (with or without the inclusion of other defensive assets), Gold was found to form an optimal portfolio position ranging from 4.0% to 9.9% of the total portfolio value.

Coincidentally, the higher end of this optimal range matches with estimates of how much the value of gold makes up in relation to the world's combined market capitalization of stocks, bonds and gold (i.e., taking a 10% position would be market weight).

Our target allocation to gold has fallen within this range, having been as high as market weight (10%) leading into March of 2020 and currently sitting at 7 to 7.5% for our Kaleo portfolios. Going forward, this allocation may change slightly, but assuming there are no dramatic changes in this precious commodity's profile, we expect it to continue playing a supporting role in our portfolios.

Qube Insights: Kaleo Holdings

By Patrick Choi

Kaleo Full

Microsoft (MSFT): We first bought Microsoft in our Kaleo portfolios on Jan 3, 2011, at a price of $27.98. Since then, the company has produced a total, cumulative return on investment of approximately 643%, including dividends, on a constant currency basis. If we include currency appreciation, the total, cumulative return jumps to 917%. In our opinion, Microsoft can still provide outsized returns, when considering that they remain one of the few beneficiaries of the new stay-at-home economy.

Our initial thesis on the purchase of Microsoft was on the strength of their Windows and Office platform, which, even after 10 years from our initial purchase, remains one of the core tools in almost every business. Today, Microsoft has broadened their footprint into hardware, cloud, and services, through brands such as Teams, Xbox, Surface, Azure, LinkedIn and GitHub. Based on their progress in expanding the company's offerings, we believe that they are succeeding in their mission statement to empower every person and every organization on the planet to achieve more. If successful, there should be an enormous opportunity for Microsoft to reap the profits from making businesses more productive, nonprofits more effective, and governments more efficient.

Microsoft's latest quarterly report ending March 31, 2020 provides further evidence to their success. Due to COVID-19 and the associating remote work and stay-at-home environment, Microsoft saw increased cloud usage of Microsoft 365 and Teams, increased demand for Surface hardware, and increased engagement in gaming through Xbox. In monetary terms, Microsoft grew their revenues by 15%, and their earnings by 22%, year-over-year for the period ending March 31, 2020. This is phenomenal growth for a company that already made $126 billion in revenues and $39 billion in profits last year.

Even prior to the COVID-19 pandemic, Microsoft was already benefiting from long term trends in the adoption of cloud computing, and a resurging consumer interest in their Surface hardware. Throughout the pandemic, the adoption rates have only gotten stronger. Acccording to Microsoft's CEO, Satya Nadella, "we've seen two years worth of digital transformation in two months". It's no surprise that Microsoft reported the numbers they did, and we believe this growth can continue post COVID-19.

In our opinion, Microsoft's business has the rare mix of both growth and safety. Currently, we are only seeing the growth in Microsoft's revenues and earnings; however, as the transition towards Microsoft's cloud subscription offerings continue, it should also mean more stable financial performance in the future. Even during a recession, it is likely that customers would choose to maintain their subscription to avoid changes in their workflow. Going forward, we expect better than market returns for the company's stock (our intrinsic value calculation is $226.92 vs. a current price of $197.39), and will continue to monitor the price for any valuation concerns.

Colgate-Palmolive (CL): One of the reasons for our portfolio's outperformance year-to-date, relative to benchmarks, is our investment in companies that can grow in both good and bad times. We believe that CL is one such company.

Kaleo Full

We first bought Colgate-Palmolive in our Kaleo portfolios on Jan 3, 2011, at a split adjusted price of $39.90. Since then, the company has produced a total, cumulative return on investment of approximately 119%, including dividends, on a constant currency basis. If we were to include currency appreciation, the total, cumulative return jumps to 200%. While Colgate-Palmolive might not have the eye popping returns of some of our other investments, we believe there is value in the stability of their business that few other companies can match.

Colgate-Palmolive is one of the largest consumer products companies in the world, selling staple-like products which people, and animals, use every day. Through their Colgate brand, they have the #1 market share of toothpaste in the world. Other products and brands within the Colgate-Palmolive family include Palmolive for dish detergent, Speed-Stick for antiperspirants, Ajax for disinfectants, and Hill's for dog and cat food.

For the quarter ended March 31, 2020, Colgate-Palmolive reported better than expected organic sales and earnings-per-share growth of 7.5% and 12% respectively. Much of the rise was due to consumers stocking up, which speaks to the importance of Colgate-Palmolive's products in our daily lives. Even without the coronavirus upside, we suspect the company would have continued to grow their revenues and profits. In fact, Colgate-Palmolive's staple-like products and well-known brands has resulted in 124 consecutive years of uninterrupted dividends, paid throughout two world wars and at least 22 recessions.

Going forward, we believe future growth for Colgate-Palmolive can continue through both acquisitions and innovation. Even something as seemingly simple and mundane as toothpaste and toothbrushes can be innovated on and sold for a premium. Some of Colgate's recent premium innovations include Colgate Natural Extracts Charcoal toothpaste, Colgate Bamboo manual toothbrush, and Ajax Eco-Respect biodegradable wipes. In terms of acquisitions, Colgate recently acquired PCA Skin, EltaMD and Filorga, all of which are in the fast-growing and highly-profitable skin health category. By selectively pursuing adjacent categories, and using their already existing infrastructure, Colgate-Palmolive should be able to bring value and synergies to these acquisitions.

The markets reminded us in March to not become too complacent, because investment risk is ever present. This is why we hold on to companies such as Colgate-Palmolive, which has the products, the scale, and the branding to survive, and even thrive, in these volatile times. Our current intrinsic value calculation on the company is $81.82 (it is currently trading at $72.40). We will continue to monitor its current share price relative to our calculations for an opportune time to sell.

Qube Insights: Equity Research Snapshots

Equity Research Traffic Lights

Company	Sector	Current Status
A.O Smith	Industrials	
Ametek Inc	Industrials	
Canadian National Railway	Industrials	
Deere & Co	Industrials	
Norfolk Southern	Industrials	
Waste Management Inc	Industrials	
Facebook Inc CL_A	Communication Services	
IAC/Interactive	Communication Services	
Rogers Communications	Communication Services	
Telus Corp	Communication Services	

Qube Insights: Equity Research Snapshots

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
Progressive Corp Ohio	Financials	✓
Agilent Technologies Inc	Health Care	✓
Zoetis	Health Care	↷
Accenture PLC-CL A	Information Technology	↷
Automatic Data	Information Technology	✗
Blackberry Limited	Information Technology	✗
Broadridge Finl	Information Technology	✗
Citrix Systems	Information Technology	✗
Fortinent Inc	Information Technology	↷
HP Inc	Information Technology	✗
LAM Research	Information Technology	✓
Maxim Integrated	Information Technology	✗
Micron Tech	Information Technology	✓
Microsoft Corp	Information Technology	✓

Qube Insights: Equity Research Snapshots

Company	Sector	Current Status
Qualcomm Inc	Information Technology	✗
Visa INC-CLASS A	Information Technology	✓
Vmware Inc-CL A	Information Technology	✗
Linde PLC	Materials	↻
Nextera Energy	Utilities	✓
Northland Power	Utilities	↻
Vereit	Real Estate	✓
Lear Corp	Consumer Discretionary	↻
Royal Caribbean Cruise	Consumer Discretionary	↻
ULTA Beauty	Consumer Discretionary	✓
Aliment Couche-Tard-B SV	Consumer Staples	✓
Colgate Palmolive Co	Consumer Staples	✓
Mondelez Intl INC CL-A	Consumer Staples	✓
Procter & Gamble	Consumer Staples	✗
Saputo Inc	Consumer Staples	↻
Walmart Inc	Consumer Staples	✓

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