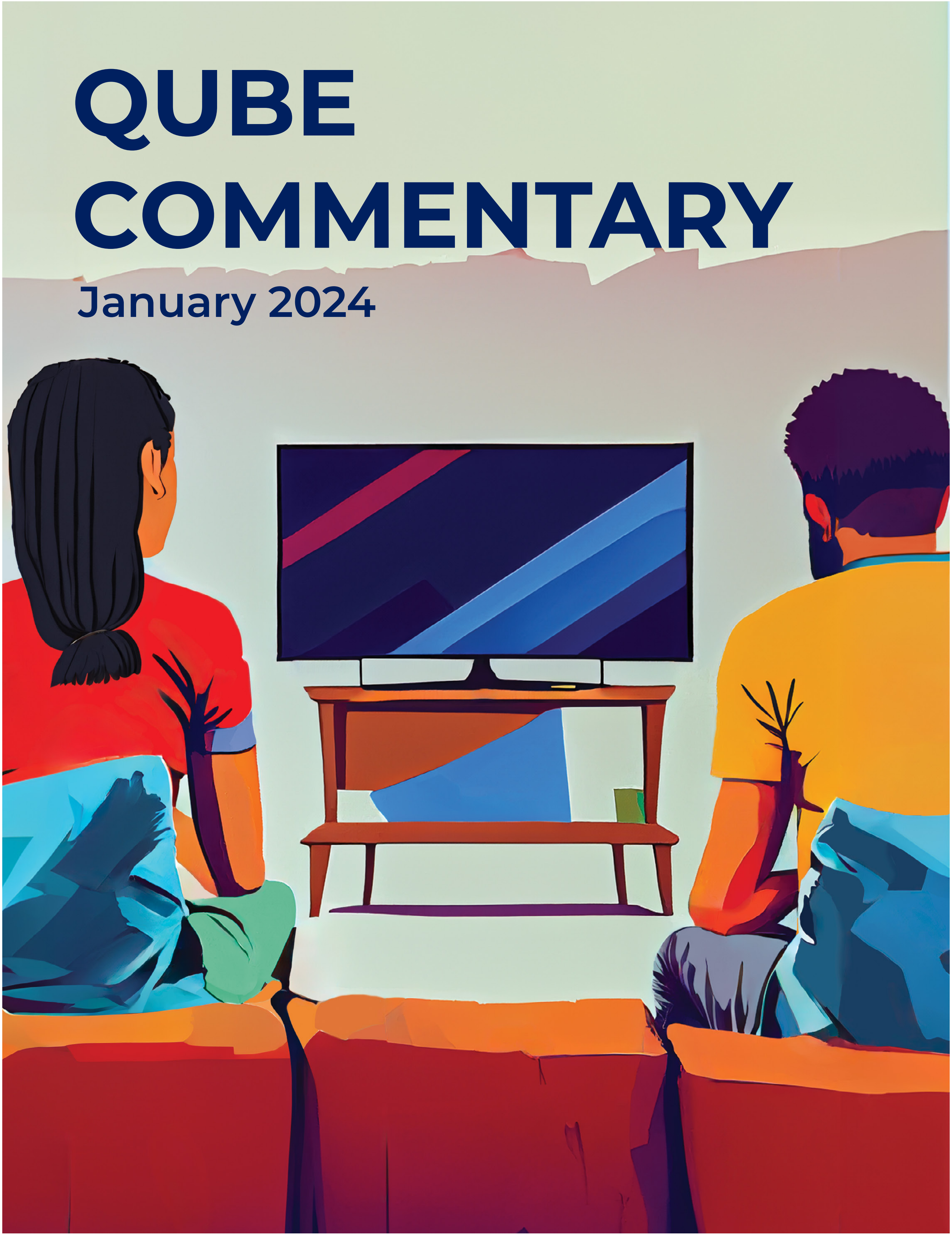
QUBE COMMENTARY

January 2024



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Letter to Investors: Welcoming New Partners

Ian Quigley, MBA, CFA, CBV

I have had and continue to have the privilege of offering investment services to many of you for almost 25 years. Starting as an investment advisor, I gained registration for Qube (Qube Investment Management Inc.) as a portfolio management company in 2011 and transitioned into professional services as a portfolio manager. My career has offered me endless opportunities to chase curiosities in financial planning and investment valuation while serving good people. I am also so very grateful for the opportunity to mentor a team of bright and caring professionals. Our mission is to "Make Wealth Matter," and a highlight for me has been watching "Qubies" progress their careers in finance while gaining purpose by serving the needs of our investors. The entire team genuinely views our work from a fiduciary's standpoint.

Today, I am excited to share some changes in Qube's ownership structure with you, which will also clarify my role in the organization in the coming years.

Recently, I have entertained discussions about the sale of Qube. The conversations often started with how much I could potentially "win" by selling Qube and ended with how little our clients and staff could also "win." Earlier this year, I received a letter of intent from a Chartered Canadian bank and had to make a decision. While our cultures aligned, our visions about the commoditization of financial services—including the role of a professional advisor—did not.

In recent years, I have seen Canadian banks downgrade the qualifications of high-net-worth wealth advisories, and I fundamentally disagree with the approach. Investors pay for and deserve well-trained, highly skilled and fiduciary-based advice regarding their wealth management. The advice should be free of bias, commissions, and kickbacks (recently referred to as referral fees).

For this reason, I entertained a new discussion with our team. What if they slowly took over Qube and, as our professional team grows, shared ownership with those serving the investors and giving advice? We spent months working on an equitable model and have decided to proceed. While this does not preclude the potential for strategic partners in the years to come, it certainly sets the course for the rest of my career. I will maintain an active role of mentorship (as the firm's UDP—Ultimate Designated Person) and continue to be the lead portfolio manager responsible for our research program while leading our private valuation initiative. I welcome Michael Baker and Noah Clarke as our first two participating partners in our portfolio managers equity program and Michael as our new Chief Compliance Officer (CCO). I am honoured to report that Nicole Gervais has also purchased an equity position.

As a team, we are energized and excited about the future. We have ambitious plans for growth and are about to build another 1,500 square feet of working space behind our current location. Our portfolio performance remains exceptional, our risk levels managed, and our fees sensitive to our competition. With Karlen, Mackenzie, and Wyatt on our young professional team, we have the capacity and desire to continue making wealth matter for Western Canadians needing financial planning and investment management.

Should you have any questions about these recent changes, please do not hesitate to reach out. My phone number is 780-463-2688 ext. 101, and my email is ian@qubeinvest.ca. I am always happy to do a real or virtual coffee.

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.

advisory vote

-A vote which indicates a position that a board of directors may consider, but ultimately has no control over the final decision. The company may continue dialogues with shareholders based on an advisory vote, as part of the decision-making process.

compound annual growth rate (CAGR)

-An investment's annual growth rate over a period longer than one year, used for accuracy when calculating potential returns

greenwash

-To make misleading claims about the environmental sustainability or benefits of a company's actions, manufacturing, or products

industry multiple

-Averaged number across a company's industry that assists in determining the potential value of said company via comparison

paradox of choice

-Stipulates that, while we might believe that being presented with multiple options actually makes it easier to choose one with which we are happy, and thus increases consumer satisfaction, having an abundance of options actually requires more effort to make a decision and can leave us feeling unsatisfied with our choice

player efficiency rating (PER)

-John Hollinger's all-in-one basketball rating, which attempts to collect or boil down all of a player's contributions into one number. Using a detailed formula, Hollinger developed a system that rates every player's statistical performance.

recapitalization

-A company's method to restructure its debt and equity ratio in an effort to stabilize its capital structure

recency bias

-The tendency to place too much emphasis on experiences that are freshest in one's memory—even if they are not the most relevant or reliable

Qualifying Small Business Corporation (QSBC)

-The selling of these shares has tax implications with regards to the lifetime capital gains exemption

value lever

-Actions potentially available to a company to drive an increase in the company's worth

If what you read in the following articles sparks a thirst for further insight into our world, visit the Education tab on our website. It is an amalgamated repository for all of Qube's educational material—all written by our amazingly knowledgable staff!

Kaleo Portfolios: Past Performance

	YTD	2022	3-Year	5-Year	Inception
Kaleo A	23.2%	-15.7%	8.9%	13.2%	12.3%
Kaleo Full	23.0%	-17.1%	6.8%	11.9%	12.4%
MCSI World Index	20.8%	-12.4%	8.5%	12.1%	11.6%
S&P TSX	11.8%	-5.8%	9.6%	11.3%	6.6%
50% TSX / 50% MSCI World Kaleo Benchmark	16.3%	-9.1%	9.1%	11.7%	9.1%

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 December 31, 2023. 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.

Play the Long Game

By Michael Baker, MBA, CIM®, CFP®

Many evenings during the fall and winter, I'll hear a notification on my phone that a basketball game has just started. One of the players on my fantasy team is playing and starts to accumulate points. I've chosen this player because I believe they'll add value to my team, allowing me to beat the other players in my league.

In fantasy basketball, as in many fantasy sports, there are stats that will contribute points and others that take them away. For example, rebounds and points scored are pluses, while turnovers are minuses. Just like the real NBA season, fantasy is going to be played over 24 weeks. My goal: choose the best 12 players who cumulatively perform better than my friends' teams in the league. If I'm lucky, I'll win the league and pocket a little bit of cash.

Portfolios and sports leagues have their superstars, such as Meta (up 156% in 2023 as of Dec. 14); their supporting players, like Lear Corporation (up 5.3% in 2023 as of Dec. 14); and the players who seem to have hot and cold streaks, such as Generac—up 30% on the year, having been as high as 50% or as low as -18% (again, as of Dec. 14). In fantasy sports, your "best" team will go through times where every player is adding to the stat line and times when players are detracting. At the end of the season, what matters is whether your team outperformed your opponents on average.

Being Impressive (On Average)

In the 2021/2022 NBA season, the Most Valuable Player (MVP) of the league was Nikola Jokic. That year, some of his stats were among the best put out by a player ever. When all of these stats were taken together, his player efficiency rating (PER) was 32.85—while the league average was 15. In other words, Jokic alone was playing well enough to contribute for two NBA players. Despite this phenomenal year on the court, there were games when Jokic's PER was as low as 17 and as high as 68. Even in a record-setting season, the best player still had his ups and his downs.

Ups and downs are normal in sports as well as investing. The difficulty is trying to time when a player or company is going to be hot or cold. In fantasy, I see this all the time. My friends in the league will be switching up their roster in the hopes of adding a player who's going into a hot streak and dropping a player who is cooling off. To see this aggregated, one could sort players by adds and drops. For a top player like Jokic, there would be very few drops as, even in a slow period, he would be worth having on your team. Statistically, he will always be a higher performer.

On Dec. 14, the trends were to add Jonathan Kuminga (7,149 adds on Yahoo Fantasy), as he had played well the last two games, while Josh Hart was falling out of favour (3,618 drops on Yahoo Fantasy) due to recent poor play. Despite all the adds for Kuminga, his

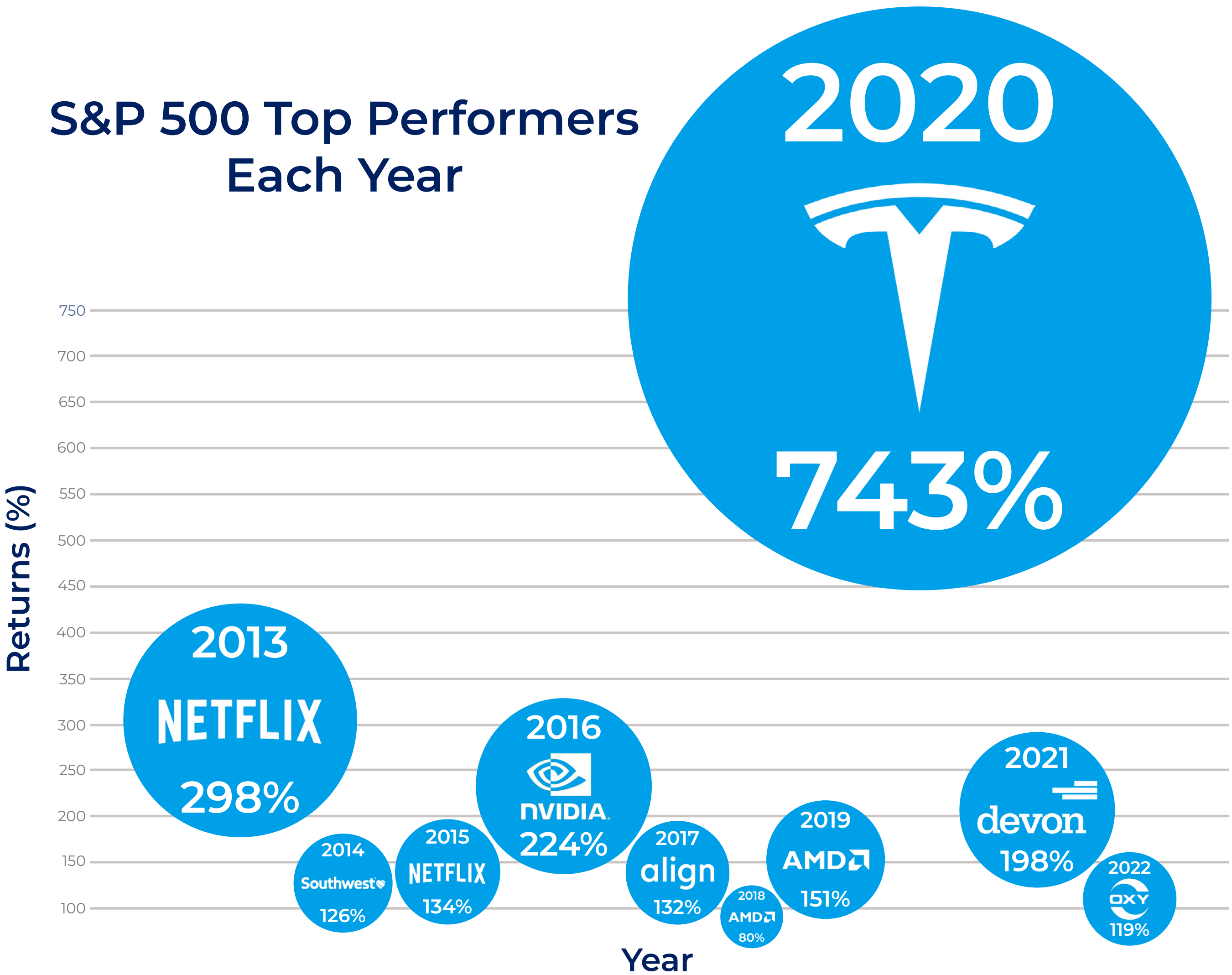
NBA ranking was still 278 for the season. And Hart's ranking was 92 for the season. Most fantasy leagues cap out at 12 teams holding a total 144 players. If we were rational actors, no player with a ranking outside of 144 would make it onto a team. Yet streak-seeking players were adding Kuminga, trying to beat the odds.

If I'm looking to hold a player for the season, wouldn't I want to hold Hart over Kuminga? Yes. Logically, it makes sense to hold the higher-ranked player. The issue was Hart was on a cold streak while Kuminga was on a hot streak, allowing **recency bias** to take hold. Irrationality rules both the fantasy leagues and the stock market.

Player	Roster Stat	% Rostered	% Started	Adds	Drops	Trades	Total	Adds Drops
J. Kuminga	FA	32%	28%	7149	133	0	7282	
J. Hart	W (Dec 17)	53%	27%	826	3618	0	4444	
M. Thybulle	FA	19%	17%	3354	178	0	3532	
D. Robinson	FA	52%	50%	3224	112	0	3336	
K. Love	FA	27%	26%	2058	1255	0	3313	

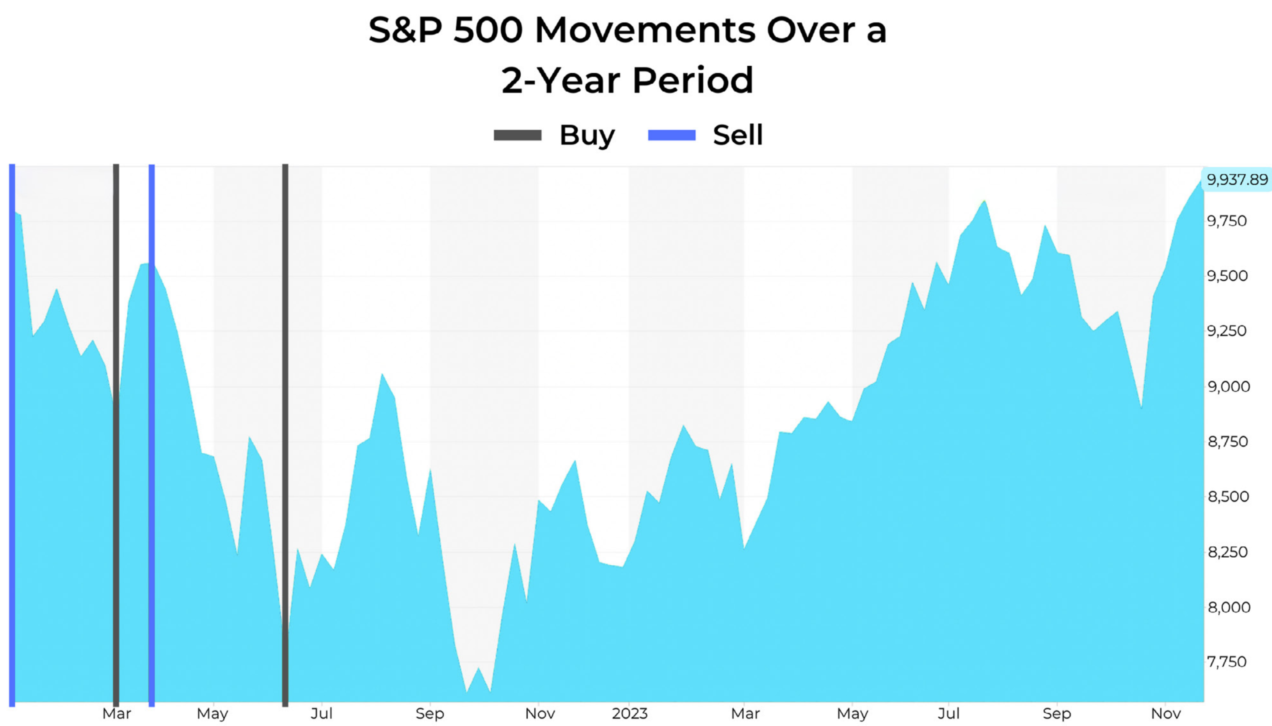
Source: Yahoo Fantasy Basketball

When considering a position in our Kaleo portfolios, we spread client assets over 28-40 positions, depending on the portfolio. It would be great to have 40 Nikola Jokic positions, but the truth is there are not going to be that many MVP companies. It's also extremely difficult to forecast and pick the MVP. Over the past decade, just like a league MVP, the best performing company in the S&P 500 has changed. Darlings turn to dogs and vice versa.



What matters for Qube when choosing a company for our clients is having a stock that we predict is mispriced and will outperform over a 3-to-5-year investment window. We don't want to take the risk of trading based on momentum: simply buying or selling a company who has gone hot or cold. Our belief is that we would just end up accumulating trading fees and likely do worse than we would have by simply holding the original company.

Over the past two years, we've seen the S&P 500 drop 18.11% in 2022 while gaining 24.53% Year to Date (Dec. 14). Over that 24-month period, was there a good prediction of when to buy or sell? Should we have sold in January 2022, bought in March, sold again in April, then bought in June? The predictability of market timing is nigh on impossible.



Source: Yahoo Fantasy S&P 500 Jan 1, 2022 to Dec 14, 2023

Yet it doesn't stop countless investors from continually making this error in market timing. They do this either explicitly through the buying and selling of investments, or implicitly, adding more to their portfolio when it's going well and keeping cash on the sidelines when it's not.

This timing effect and its negative impact has been evidenced in multiple academic articles. One of recent interest was published by Itzhak Ben David: "Ratings-Driven Demand and Systematic Price Fluctuations." One of the main findings was that investors' personal performance tends to differ from that of a fund or portfolio's reported performance. Investors typically lag the reported returns due to the chasing of returns—either jumping between funds or holding cash back/investing in the bad or good times respectively.

A very public example of return chasing was in 2021 when the ETF ARK Innovation (ARKK) posted returns in 2020 of 152.82%. Following that spectacular year, the ETF accumulated $4.77B in new deposits. Then, in the following two years, the fund performed -23.38% and -66.97%. Now, in 2023, the fund has rebounded 66.52% (as of Dec. 14, 2023). Despite the positivity of 2023, the ETF experienced net outflows of $795M.

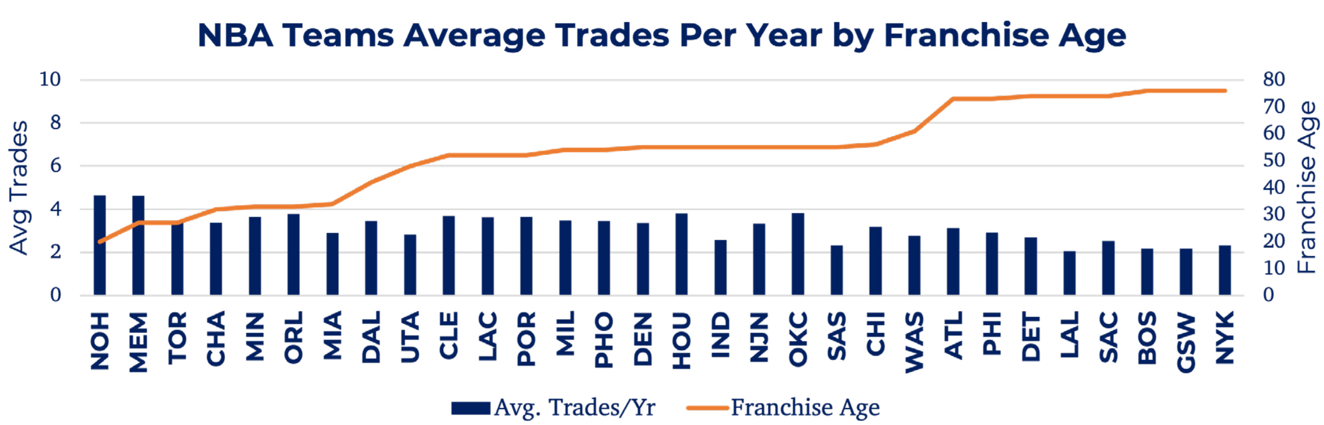
ARKK Inflows and Outflows (Millions)	
2020	88.908
2021	4,766.516
2022	1,220.623
2023	-795.706

For the investor who held ARKK from the start of 2020 to today, their **Compounded Annual Growth Rate (CAGR)** would be approximately 1.59% for a total gain of 6.54% in four years. If they were an investor who missed out on 2020 and invested by chasing the high returns, their CAGR would be -25.03%, for a total loss of -57.83% in three years. By chasing returns, investors end up worse off. Although an extreme example, it makes the point; a long-term approach beats attempting to be reactionary.

This is why, as investment counsellors at Qube, we want to develop a savings or decumulation strategy to meet your goals over the long run, rather than change course year to year. We know that the long-term average return of the stock market is about 10%; we just don't know which years will be up and which will be down.

With a world of information at our fingertips, we have more data than ever to make decisions. Because of this ease, we are faced with the harmful **paradox of choice.** My speculation on why there seems to be an increase in investors chasing returns comes down to a lack of friction. In the age of low-cost or zero trading fees, it is easy to buy or sell a stock, attempting to eke out an extra percentage or two. The prevalence of online trading platforms and apps further reduces the friction to trade.

But portfolio management shouldn't be like a fantasy team, where we add or drop players on a whim. Rather, we should act as the team owners. An NBA team sets their 15-person roster at the start of the year and then will make trades to adjust their team. On average there are 3.2 trades made by a team (or about 25% roster turnover). An owner acts differently than a fantasy player; they look to build the winning team over the entirety of a season rather than a single week.

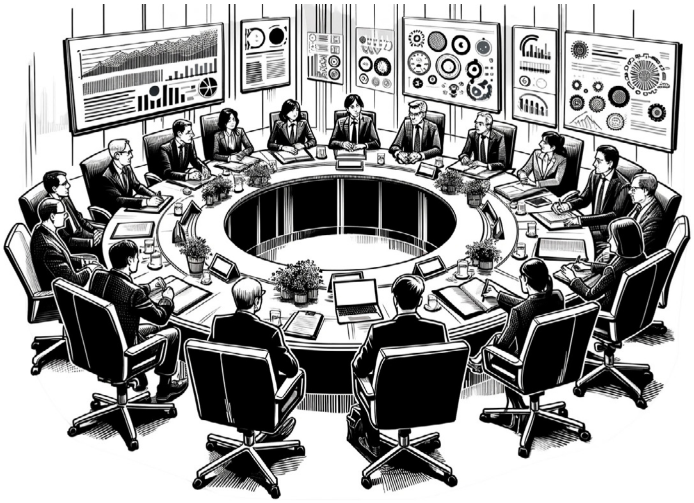


Data Source: https://www.basketball-reference.com/friv/trades.cgi

Trusting in Qube to invest your wealth means buying into the belief that, as a portfolio manager, we are the disciplined team owners of the Kaleo portfolios. We focus our full research effort on developing two portfolios we believe will provide the best risk-adjusted returns for clients. There are years when we will have some of the best companies and years when some companies will falter. However, we seek to continue earning your trust in our approach over the long run. For that, we're grateful. After a year of continually evolving markets, we look forward to making some new additions to the portfolios in 2024 while retiring other holdings whose theses have played out.

Qube Shifts Its ESG Perspective

By Ian Quigley, MBA, CFA, CBV



I gratefully recognize that my career has allowed me to explore my passion for financial planning and investment valuation, while creating meaningful, positive impact on clients' lives. My career has also included a journey through the Environmental, Social, and Governance (ESG) investing space.

Upon registration, I launched Qube as an ESG-focused manager. Sustainable investing was part of my internal perspective, training in my undergraduate program in environmental research. I started with active participation in the UNPRI (United Nations Principles for Responsible Investing), taking a position on the "Steering Committee" directing global engagement between investment managers and public corporations. I also spent time on various policy subcommittees, covering topics that included responsible fracking, director recruitment, and accountable supply-chain management. I attended numerous research conferences of the Canadian Business Ethics Network (CBERN) and what is now referred to as the Responsible Investing Association (RIA) Canada. I completed a certificate in sustainable investing (SIPC) offered by the John Molson School of Business at Concordia University. In 2013 and 2015, I was ranked top 3 in America for the most shareholder proposals filed with the American SEC. I filed policy proposals on topics ranging from auditor rotation to executive compensation, with several making it to the AGM. So, I went into the ESG space with some genuine passion.

Over the years, I increasingly struggled with ESG activism. I slowly transitioned from being a prominent activist to remaining largely silent on corporate social responsibility. I was discouraged. Public corporations simply don't care. They **greenwash** and filibuster investor engagement and view shareholders as annoying at best. Public company executives are modern-day privateers in well-tailored outfits.

With some time to reflect, I realized I was also battling an internal conflict with ESG activism. I felt a disconnect in the work that we were doing. Our valuations were steadily growing in complexity and proving predictive value in three-to-five-year time horizons. Our holding period averaged four years. This means we are in and out of a position, on average, every four years. We take pride in our work, view investing as our craft, and have become pretty good at it. Unfortunately, our holding of public corporations would be more synonymous with renting rather than ownership. Hence the internal conflict. Renters simply do not have the same interest or concern for long-term issues (e.g., ESG) as owners. Socially responsible corporations require sincere and longstanding ownership and, as such, governance currently fails while greenwash flourishes. The system simply does not function as it should.

I now do believe there is a path forward. First, more professionals need to acknowledge the rent/own disconnect. If shareholders are unable to hold corporate governance to acceptable standards, then accountability must come from elsewhere. Therefore, Qube's ESG involvement has transitioned to participation in regulatory and policy development efforts, including the Canadian Coalition for Good Governance (CCGG), the C.D. Howe Institute, the Parkland Institute, the Portfolio Managers Association of Canada, the Canadian Tax Foundation, and the Philanthropic Association of Canada. We are increasing our role with these groups in 2024—from financial support to active volunteerism. It is our hope that, with our insight into public companies, we can assist with positive change by increasing responsible requirements on public companies, starting with governance. More stringent auditor relationships, independent and diverse directors, rational executive compensation, and shareholder input would be a great start. Responsibility starts in the boardroom.

My hope is that Qube can turn a new chapter in 2024 with regards to corporate social responsibility and regain a position in the community pushing for positive change in the system: to make the investing world matter more and leave it better than we found it.

2024 Changes to the Alternative Minimum Tax Rules

By Noah Clarke, MA

In the 1984 federal leaders' election debate, Brian Mulroney set the stage for a personal minimum tax in Canada, promoting the idea that "it's unfair that an individual not pay a minimum tax," and advocating for all Canadians of "wealth and substance" to pay "a handsome tax." Two years later, the Alternative Minimum Tax (AMT) was introduced to ensure that high-income-earning Canadians and trusts do not disproportionately reduce their tax liability through application of various allowable tax advantages, such as reporting substantial exempt income, tax deductions, or credits.

Since then, Canadian taxpayers have been required to calculate their federal tax owing under the regular method and under the AMT method. They then pay the higher of the two amounts. Most taxpayers are unaware of the second calculation's existence, as they'll never trigger its application (AMT is typically the lower amount). However, due to changes proposed in Budget 2023 and put into force this year, the number of Canadians aware of this calculation may be increasing slightly[1]. And, for those already in the know, it will become far more front of mind.

Expanding the AMT Base (How Much is Taxable?)

In simple terms, regular federal income tax is calculated by adding up all income, subtracting associated deductions, and multiplying the result by a defined tax rate. The AMT calculation is similar; however, income and associated deductions are counted in a differ-

[1] We must keep in mind that these changes will only affect those individuals who receive a significant portion of their income from tax-preferred sources (such as capital gains) or who have significant deductions or expenses that reduce tax payable under the ordinary rules (such as certain interest charges or non-capital loss carryovers).

ent manner. For example, many of us will realize a capital gain when we sell an investment for more than we initially paid for it. When calculating regular federal income taxes, we treat half of this gain as taxable income. This 50% inclusion rate makes capital gains highly tax-advantaged.

When calculating AMT under the old rules, we applied an inclusion rate of 80%. That is, we'd take 80% of the gain and add this to income. As of 2024, the differences increased, as the inclusion rate has been raised to 100%. Therefore, the new AMT method captures twice the amount of capital gains as regular income taxes. All things considered, this will increase the likelihood that AMT applies in years when significant capital gains are realized.

That's not the only material change pertinent to capital gains, though. In addition to more of the gain being added as income for AMT, the new rules also reduce the amount of capital losses that can be deducted against income. Starting in 2024, capital losses will be discounted by 50%. As such, each dollar of realized gains will carry twice as much weight as every dollar of realized losses.

Tax Method	Capital Gain	Taxable Income	Capital Loss	Capital Loss Deducton	Net Taxable Income
Regular Federal Income Tax	$100.00	$50.00 1	$100.00	$50.00 2	**$0.00** 3
Alternative Minimum Tax (Old)	$100.00	$80.00 1	$100.00	$80.00 2	**$0.00** 3
Alternative Minimum Tax (New)	$100.00	$100.00 1	$100.00	$50.00 2	**$50.00** 3

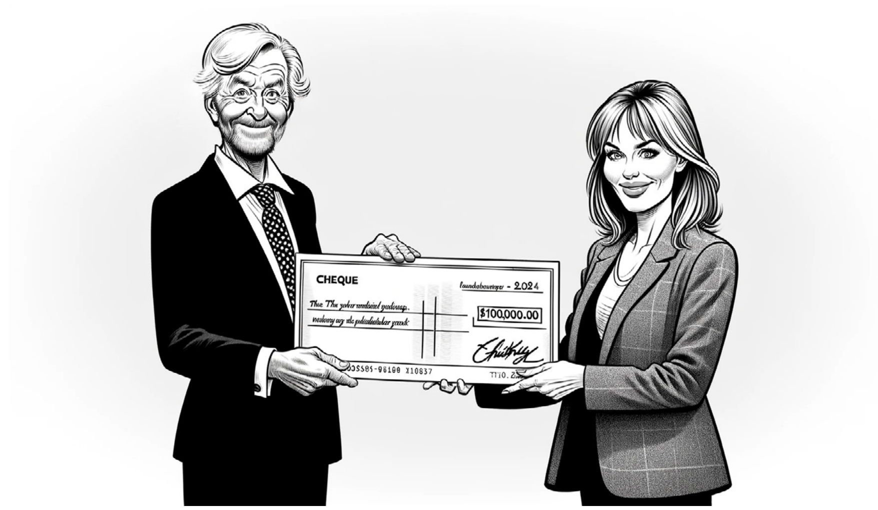
Employee Stock Option Plans

Under certain conditions, tax-preferred treatment is available when stock options are exercised. With regular income tax rules, 50% of the employment benefit can be deducted from income in the same year, so that only half the benefit is taxed. In the pre-2024 AMT calculation, this deduction was reduced to 20% (meaning 80% of the employment benefit was used in calculating AMT). However, effective January 1, 2024, 100% of the employment benefit will be used in calculating AMT. That is, all future AMT calculations will consider 100% of the employment benefit that arises from exercising stock options.

Charitable Giving – Donations of In-Kind Securities

When individuals gift appreciated public securities to charities in-kind, they avoid realizing the capital gain on these securities and still get a tax credit for the full market value of the donated securities. To account for this, the new AMT rules will include 30% (up from 0%) of the capital gains that would have been realized if the shares were sold.

Although this does not erase the efficiency of donating appreciated securities in-kind, for a select number of Canadians, it will reduce the benefit somewhat and could lead prudent tax planners to spread out their donations over several years instead of making a large one-time lump sum donation[2].



Lifetime Capital Gains Exemption (LCGE)

Thankfully, the treatment of the LCGE is unchanged. As before, 30% of capital gains eligible for the lifetime capital gains exemption are included in the AMT base. Only a small subset of Canadians will be affected by the AMT—the majority of which will be impacted only once when they sell shares of their **Qualifying Small Business Corporation (QSBC)** and subsequently claim their LCGE.

Non-Refundable Credits

Currently, most non-refundable tax credits can be credited against the AMT but, in a similar fashion to other changes, the new AMT rules will discount non-refundable credits by 50% in the calculation. Note that this includes the donation tax credit, which further impacts charitable giving!

[2] Since AMT does not apply to corporate income or CDA elections, the extra advantages of donating appreciated securities in-kind through one's corporation shouldn't be affected.

Calculation of How Much Is Owing

Once all sources of income and associated deductions have been adjusted under the AMT rules (past and present), taxpayers must calculate how much they'll owe. The general method for doing so hasn't changed under the new rules, but the exemption amounts and rates applied have been updated.

Raising the AMT Exemption

When we calculate our regular taxes, we pay 0% federally on the first $15,000 of income. This is due to the Basic Personal Exemption (BPE) amount. Traditionally, the AMT has had a similar exemption, with the first $40,000 of income calculated under the AMT method being non-taxable. Under the new rules, the exemption has been increased by more than 400% to $173,000 and will be indexed annually to inflation. This ensures that the subset of Canadians impacted by AMT should be quite limited year to year.

Raising the AMT Tax Rate

Unlike with regular income tax, the AMT is calculated based on a flat rate. Prior to new proposed changes, the rate was 15%, but this is increasing to 20.5%. As a result, those taxpayers who are subject to AMT will pay more in taxes for every dollar calculated above the new exemption threshold. Therefore, while some taxpayers may benefit from the increased exemption, households that are hit with AMT could face higher taxes under the new rules.

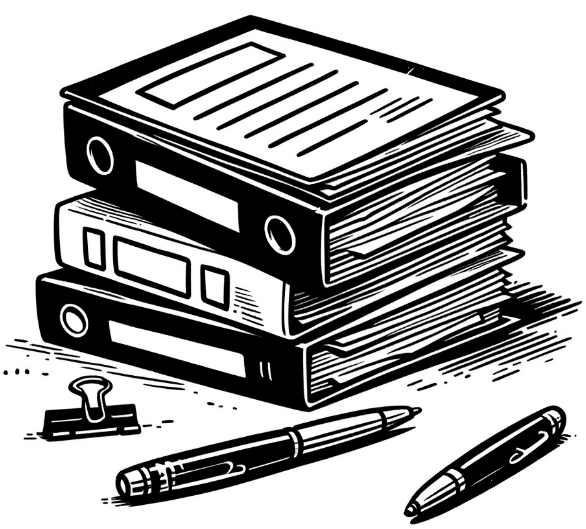
Source of Income / Deduction	Now (Proposed for 2024)	Then
Capital gains	▲ 100% included	80% included
Employee stock option benefits	▲ 100% included	80% included
Capital loss carry-forwards and allowable business investment losses	▼ 50% deductible	80% deductible
Capital gains on donations of publicly listed securities	▲ 30% included	0% included
Application of Lifetime Capital Gains Exemption	▬ 30% included	30% included
Interest and carrying charges incurred to earn income from property	▼ 50% deductible	100% deductible
Non-capital loss carryovers	▼ 50% deductible	100% deductible
Most non-refundable tax credits	▼ 50% deductible	100% deductible

Example of Changes

Given these changing rules, it is essential for taxpayers to evaluate the potential impact on their finances and consider strategic tax planning opportunities. The following examples serve to demonstrate that, in most cases, there will be little impact to taxpayers, as AMT won't apply under the new rules. However, in the event that it does apply, the taxes paid can be much higher than before.

Scenario 1: Higher AMT Resulting from Proposed Changes

The taxpayer is an Albertan resident and runs her own company. She will be selling shares of her company, which qualifies as a QSBC, for $4.0 million as of January 1, 2024. This will result in a capital gain of $3.9 million. Due to a separate investment made two years ago that didn't work out, she has $1.0 million of capital loss carry forward to apply against the gain on her shares.



Assuming that she can use the Lifetime Capital Gains Exemption of $1,016,836, her regular income tax owing, based on the the previous figures, would be $284,315 federal and $128,373 provincial.

Under the old rules (pre-2024), her AMT would be calculated as $265,857 federal and $93,050 provincial. Under these old rules, the AMT would not apply since her regular income tax calculated is higher.

Effective 2024, her AMT would be calculated as $515,619 federal and $180,466 provincial. Under the new rules, the AMT would certainly apply, since taxes owing under this calculation would be much higher than regular income tax. In fact, she would pay nearly twice as much in taxes.

The excess over the amount of ordinary income tax payable can be carried forward for seven years and credited against ordinary income tax payable, so long as it exceeds the AMT in those years. But this knowledge may provide limited comfort to someone facing a tax bill that is $283,397 higher than it would have been if they simply closed the sale a week prior (back in 2023).

Scenario 2: Lower AMT Resulting from Proposed Changes

To find a scenario in which taxpayers may be advantaged by the proposed rules, we need to focus on "lower income" bands. This is because the only benefit conferred by the new rules is the higher exemption amount (increased from $40,000 to $173,000). All other proposed changes serve to increase AMT calculations.

Looking at the common scenario of a taxpayer realizing capital gains (with no accrued unused losses), we find that the AMT is lower under the new proposed rules, only if the realized gain is lower than $346,635. For instance, using the current rules to calculate federal AMT on a realized gain of $300,000, we find that a taxpayer would owe $30,000. This is slightly higher than the amount owing under the new rules—$26,035. We are clearly talking smaller amounts relative to the first scenario.

The only sticking point here is that it would be inaccurate to calculate the savings by comparing AMT calculations. Ordinary federal income taxes in this scenario would be $27,644, so AMT would not be paid under the new rules.

It appears to be the case that the new rules serve to eliminate AMT for the average household (leading to savings in the range of $2,000 to $3,000) while materially increasing the taxes payable for wealthier households. Based on this finding, I'm surprised that this change seemed to receive less attention than the 2017 changes to the Income Tax Act.

Realized Capital Gains	Other Sources of Income	Ordinary Income Tax (Federal)	AMT 2023	AMT 2024
$50,000.00	$0.00	$1,394.00	$0.00	$0.00
$100,000.00	$0.00	$5,144.00	$6,000.00	$0.00
$150,000.00	$0.00	$9,947.00	$12,000.00	$0.00
$200,000.00	$0.00	$15,644.00	$18,000.00	$5,535.00
$250,000.00	$0.00	$21,644.00	$24,000.00	$15,785.00
$300,000.00	$0.00	$27,644.00	$30,000.00	$26,035.00
$350,000.00	$0.00	$33,985.00	$36,000.00	$36,285.00

What to Do With This Information

For those unavoidably subject to the new AMT, all is not lost. With careful planning, the impacts of the AMT changes can be reduced, but it's likely that this will involve spreading out deductions over multiple years or re-evaluating certain types of remuneration. Considering the complexity of these changes, consulting with a qualified accountant and financial advisor is strongly recommended. Qube is always happy to discuss such matters with you if you have questions or concerns about future plans.

Don’t Take It at Face Value

By Mackenzie Saunders
& Noah Clarke, MA

To all those Toronto Blue Jays fans, I’m sorry that your team could not match the competitive market price for Shohei Ohtani. $700 million over ten years was always going to be a steep ask.

Even if we assume that this man could single-handedly boost average attendance at Toronto’s Rogers Centre from the current 37,307 up to the max of 49,286, then—at an average ticket cost of $32—the team would only bring in around $31 million of additional revenues from regular season ticket sales. Maybe add in an additional $20 million (pure conjecture) for other “Shotime” connected revenue streams, as well as a top-end estimate of $30 million additional revenues from winning the World Series every year, and we arrive at a wildly optimistic revenue bump of $81 million per year. As someone who is baseball agnostic—perhaps evident from my loose analysis above—the price inevitably offered by LA would have slanted towards a “pie in the sky” value. As such, I’d be out on Shohei as an investment.

Maybe I'm missing something, but then again, maybe it doesn't matter. As outlined in a recent blog post by corporate finance and valuation professor Aswath Damodaran (with whom regular readers of our commentary are likely to be familiar), major sports teams themselves don't appear to be valued as businesses but instead are priced like commodities or collectibles. That is, there is less attention paid to the ability of these businesses to generate cash flows and more emphasis placed on what others have been willing to pay for similar businesses.

This is a foreign concept to us. Our investment philosophy has always been based on finding a positive gap between the current selling price of a business and the price that one ought to pay—itself justified by the earnings that one ought to make.

Public markets for the most part do a wonderful job of supporting our philosophy. Since these investors do not see a boost in social status via their ownership of a share certificate, they are likely to only care about the risk-adjusted monetary benefits derived from ownership and will, on average, choose to support (with their investment accounts) the best narrative for future earnings.

Take, for instance, the disparity between Forbes' estimated market price of the New York Rangers and New York Knicks ($8.8 billion combined) and the market cap of the publicly traded company that owns these two teams ($4.235 billion). The former is based on multiples that other similar sports teams have sold for recently, while the latter is based on the public market's assessment of economic value. Which would you lend more credence to?

In a similar vein, if buying or selling a private business, would you be more inclined to take an **industry multiple** (pricing) at face value, or would you dig deeper to uncover a value that is concordant with the quantitative and qualitative features of the business? When the three potential outcomes of a transaction are wealth creation, wealth conservation, and wealth destruction, we'd suggest that due care is required. To this end, in 2022, following Ian's successful accreditation as a Chartered Business Valuator (CBV), Qube launched our private business valuation program, helping our clients uncover a credible value for their private businesses and businesses they may be looking at purchasing.

While many believe that valuation is a science, others see it more as an art. Neither camp is wrong per se. The science side is supported by application of numerous interdependent formulas that describe the relationship between risk and return. The "art," or craft, component of valuation is rooted in the ability to identify and forecast value drivers (not always synonymous with growth). Only through application of both can we uncover narratives and value conclusions that would be missed by reference to simple price multiples.

If this article evokes a feeling of a déjà vu, you've clearly read our January 2022 commentary. In all honesty, this isn't the first time that we've written on the difference between price and value; however, we thought the topic was worth rehashing with reference to private company valuations. Although the principles of valuation do not drastically differ between private and public companies, differences between the two in terms of size, customer markets, ownership structures, access to capital, market transaction transparency, and numerous other factors bring to light new and novel pricing inefficiencies. Where some or all might apply to your business, the remainder of this article reads a bit like a list of our "top 5" **value levers** from the past year.

Debt is Good, Within Limits

Somewhere along the way, we all seem to have picked up the belief that debt is bad. No surprise when financial gurus like David Ramsey are tweeting ("X'ing") advice like: "The only good debt is a debt that is paid off." But this conventional wisdom can be misleading and value destroying. Every company will have an optimal level of debt that differs from the next but, in almost all cases, it will never be $0.

Without wading too deep into the morass of financial theories backing the valuator's craft, it's important that we look at the two rates which we use to qualify all future company earnings: cost of equity and cost of debt. In simple terms, the cost of equity is akin to the rate of return that an investor must receive from their investment in a company to be indifferent. Since the risks associated with each company will differ, so too will this required rate of return. Determining the specific rate is part of the craft and is beyond the scope of this article but suffice to say that a smaller company with less regular income or an unproven growth narrative will require a higher cost of equity relative to its peers. Note as well that, since equity investors have no guarantee of payment, the cost of equity will typically be higher than the cost of debt.

The cost of debt is much less abstract as it's simply the interest rate that a lending institution would demand on a loan. However, there is one important component of debt which isn't immediately obvious but serves to reduce its cost. That is, the government encourages businesses to use debt by allowing them to deduct the interest on the debt from corporate income taxes. With a general corporate tax rate of 23% in Alberta, every dollar of interest will then only cost the company 77 cents. Debt therefore can be a fantastic source of capital, at least up until the point that too much of it is taken on, at which point lenders may rightly get nervous and raise after-tax interest rates up to and above the cost of equity.

If companies are holding too little debt, they may very well be missing out on value, while the reverse holds true if they're holding too much debt. Compare the following simplified scenarios. For each, we will assume that the company is expected to generate after-tax profits of $100 next year. We will also assume that the company's cost of equity in each scenario is 12%.

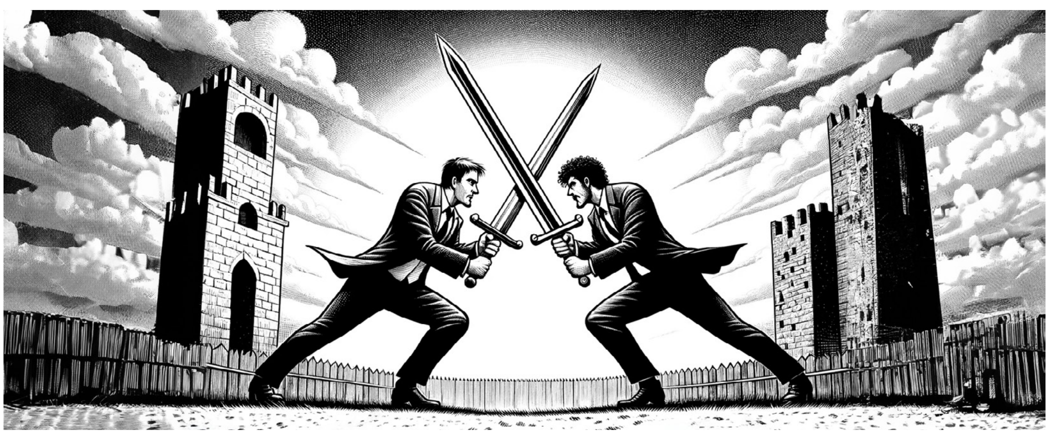
To start with, let's assume the company's capital is made up of 80% equity (funds paid into the company by investors), and 20% debt (funds paid into the company via a loan). The after-tax cost of this company's debt is favourable at 6%. When we look at the $100 of profits expected in the following year, we can say that 80% was derived from equity capital and 20% was derived from debt capital. Therefore, the weighted average cost of capital will be: 80% x 12% + 20% x 6% = 10.8%. By discounting future profits, we can determine what the fair value to pay for the $100 of profits next year is: $100 / (1+10.8%) = $90.25. That is, a rational investor would be willing to pay $90.25 for the right to receive $100 a year from now, while recognizing that there is a risk that the investment doesn't pan out.

To determine whether this is a "good" value, we'd want to see if the company could secure and sustain higher levels of debt at reasonable interest rates. If so, the discounted value of these future profits might increase. For instance, if the bank was willing to provide enough financing to bring debt capital up to 40% at an after-tax interest rate of 8% (slightly higher than before), the weighted average cost of capital would drop to 60% x 12% + 40% x 8% = 10.0%. In this case, the fair value to pay for $100 of profits next year would increase 3.7% up to $90.57. Therefore, maintaining the previous debt to equity split would have left money on the table.

Of course, this isn't an infinite money glitch. If too much debt is taken on, the banks would likely demand interest rates above 12%, which would then reduce value. There is a fair amount of craft required to determine the optimal level of debt that maximizes value for each company. Simple pricing multiples would be silent on this type of consideration.

Growth Can Be a Double-Edged Sword

For business owners, growth is often viewed synonymously with success. We are therefore inclined to focus much of our attention on building out business offerings and ensuring that profits are increasing year-over-year. However, growth isn't always valuable. In fact, in many scenarios, we find that growth (even if it's profitable) can erode value. This erosion comes into play when incremental capital invested in any type of growth initiative successfully creates additional profits, but profits don't grow at a rate that's at least equal to the business's cost of capital.



The cost of capital should be viewed as a hurdle rate for your business, which dictates the direction your business heads in, the strategies and initiatives it should pursue, and ultimately, the value that will accrue to you as the shareholder. The higher the hurdle rate, the more often a manager needs to say no to new ideas. Warren Buffett once said that "really successful people say no to almost everything." Presumably, this is because they have realized that, to take on a new initiative, the initiative must provide a return attractive enough to offset the associated risks.

Take a company that's considering allocating $100K of profits from the current year to develop a new business offering. The company estimates that this new offering will generate an extra $10K per year in gross profits. This growth initiative appears profitable; it has a 10% expected return on investment. But what if the company's cost of capital was 15%? If it was, then this company would be eroding value, even though the growth appears to be positive. In this case, the company would be better off refocusing attention to growth initiatives that yield a higher expected return or simply returning the capital to debt/equity holders.

Identifying a cost of capital hurdle rate and evaluating all growth initiatives in relation to this rate may not be useful in the context of a business owner planning to market their business for sale today. Neither will it be if one plans to sell their business for an accepted industry multiple like "4 times revenue." However, for business owners with a longer-term view (i.e., plans to sell in 5+ years), being able to identify this hurdle rate can ensure that all future growth initiatives are both strategic and value enhancing. It may also aid in identifying which business activities are worth scrapping to free up capital for these better growth opportunities.

Reinvestment Shouldn't Be Overlooked

In the normal course of operations, there are four main things that a business owner can do with their after-tax profits. They can pay a cash dividend, pay down debt, reinvest in the business, or purchase another company. Assuming that the expected return on investment exceeds the company's aforementioned hurdle rate, the latter two options will be the main levers employed to boost company value.

It's odd, then, that pricing multiples like "5 times earnings" will ignore these levers, specifically reinvestment. Earnings figures may tell you something about how much profit the business generated in each year, but they are silent on how much of that profit you would need to reinvest to keep the business going, let alone growing. Such an omission implicitly assumes that every company in a given industry will have the same reinvestment requirements. I'd argue, from experience, that this is hopelessly simplistic. Each business's reinvestment needs can vary considerably depending on their unique narrative, which means that reliance on pricing multiples can drastically under- or overstate a firm's value.

Imagine two construction companies that must own and maintain a fleet of heavy equipment to operate effectively. Earnings are the same for both companies, but one of the companies has found unique ways to prolong the lifespan (at little additional cost) of the heavy equipment they purchased. This consequently lowers the company's reinvestment needs, which will free up more cash that can be rolled into other investments and/or be returned to shareholders as dividends. This company should clearly demand a higher value, but the industry accepted pricing multiple assumes that all construction companies need to pay for repairs and new equipment at the same rate.

Reinvestment needs aren't limited to operating equipment or other fixed capital. Even a purely service-based company will require working capital reinvestment—that is, cash set aside to cover any near-term liabilities such as employee wages. Consider a company that gets paid only upon completion of work at year's end. That company would be forced to maintain higher cash balances to cover expenses during the year. A new manager endeavours to shake things up and renegotiates all contracts so that the business gets paid regularly in installments rather than all at once. Without changing the business itself, this manager has freed up cash that can be paid out as dividends or put toward a better use than sitting in a corporate bank account. All things held constant; this should boost the value of the company. Cash in hand today is always more valuable than cash received a year out.

Whether planning to sell in the near term or focusing on building over the long term, paying attention to reinvestment is a key lever for boosting company value.

There's Gold in Them Thar Balances

There is a long list of notional tax balances to consider when valuing a company, as each can provide additional benefits both to the purchaser and seller. Ignoring these balances can leave considerable money on the table. For example, undepreciated operating equipment owned by a company may be worth more to the purchaser on an after-tax basis than a comparable piece of equipment that had previously been depreciated for tax purposes. Sellers should be able to attach a dollar value to this benefit. There could also be tax-preferred dividend pools (i.e., less personal taxes paid when the amounts are paid out in the future to shareholders).

In some cases, there may even be positive capital dividend account balances, which would allow shareholders to extract cash from the company tax-free. To be honest, the list goes on and on. Suffice to say that since proper consideration of taxes can affect the value of the company being sold and may also dictate how to optimally structure the transaction, both buyers and sellers would do well to pay close attention to all embedded tax benefits.

Goodwill Hunting

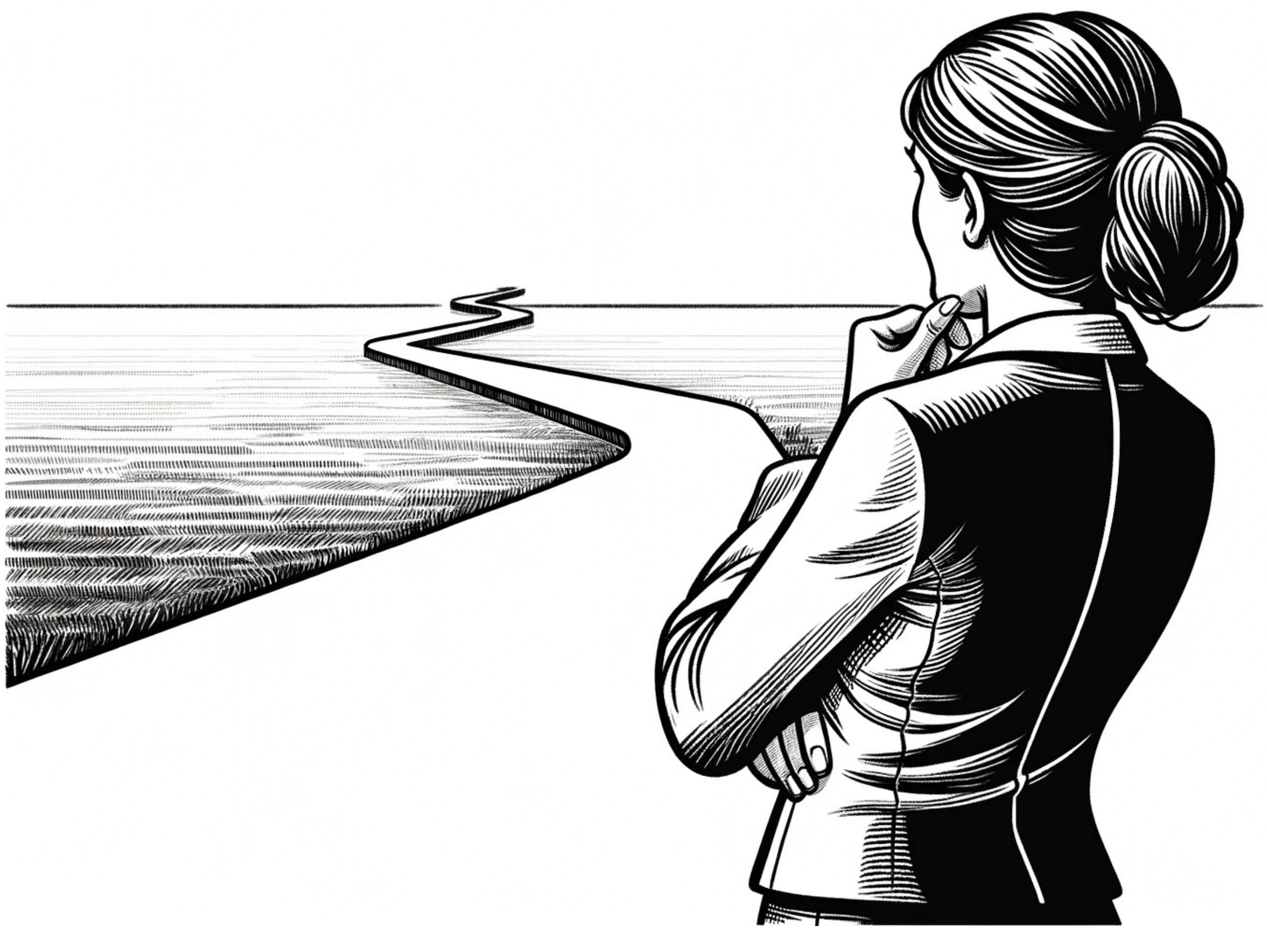
When purchasing a company, buyers take ownership of all the tangible company assets like equipment, inventory, and contracts, and intangible assets like brand identity. Unfortunately, they don't get to keep the positive personal relationships built by previous owners or acquire the unique skillsets of departing managers. To ensure that they're only paying for transferable assets, it's essential to break out how much of the company's value is attributable to personal goodwill and discount accordingly. No one should pay for something that has no useful value (for example, NFTs).

Again, this is a concept that could be missed with reference to simple pricing multiples. Many investment management companies would sell for a simple multiple of "4 times revenue," but each will have a different dependency on a key person, whether it be due to the trusting relationships that they've built with clients or their investment acumen.

For many of the firms that we've helped to value in the past year, one of the key action items presented has been developing strategies to reduce the goodwill component of the business. This can take the form of investing in staff training, promoting employees into key decision-making roles, or gradually stepping away from day-to-day operations. All companies will differ somewhat in how this works but, in every case, the goal is to divert business reliance away from any one individual for the purpose of maximizing company value.

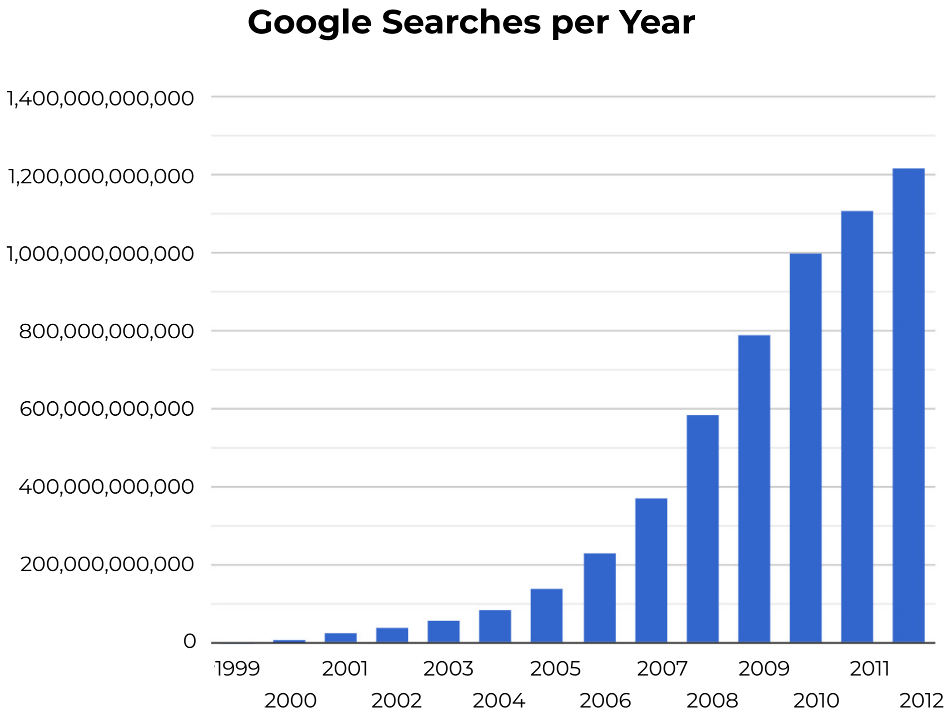
Qube's Private Business Valuation Program

The primary objective of every company is to create value for its shareholders. If you've gotten to the point of requiring a business valuation, whether for a pending sale, interim planning, or tax purposes, it's evident that you've been able to deliver on this primary objective. In this context, our business valuation professionals can work with you to deliver an independent and objective assessment of value, in keeping with the Canadian Institute of Chartered Business Valuators' (CICBV) practice standards. It is likely that this valuation assignment will uncover information and advice to be considered that could enhance the marketability of your company, as well as boost your eventual asking price. Of course, once all is said and done, if the accepted industry pricing multiple delivers a higher purchase price, we'd encourage all clients to pursue a transaction on those terms. At the very least, you could be confident in knowing that you got a Shohei Ohtani-type deal.



Stock Spotlight: Alphabet

By Daniel Bailey



It is hard to imagine using the internet without Google. Whether you know what you need or are trying to discover something new, for 25 years, your investigation has likely begun in the Google Search Bar. Now known as "Alphabet," the company, founded in 1998, has grown extensively—beyond just a search bar. Alphabet serves as the internet's great maestro and seamlessly conducts a symphony of services worldwide.

The main body of its orchestra is the string section, headed by Google Search Engine, which elegantly guides trillions of queries, eyes, and data points across its services. Instead of violas or cellos, the rest of Alphabet's strings comprise YouTube, Google Maps, and more.

Beyond the strings, Alphabet's woodwind section sets the cadence for everyday collaboration across Gmail, Google Drive, Google Calendar, and Google Meet. The final crescendo comes from the brass section. Other Business Segments are trumpet-like—small yet exciting—and house many futuristic technologies such as Alphabet's very own AI, Bard.

Qube decided to purchase Alphabet in August of 2022. After thorough research by Qube's research team, the Portfolio Steering Committee unanimously decided Alphabet was worth adding to Kaleo—they heard the music!

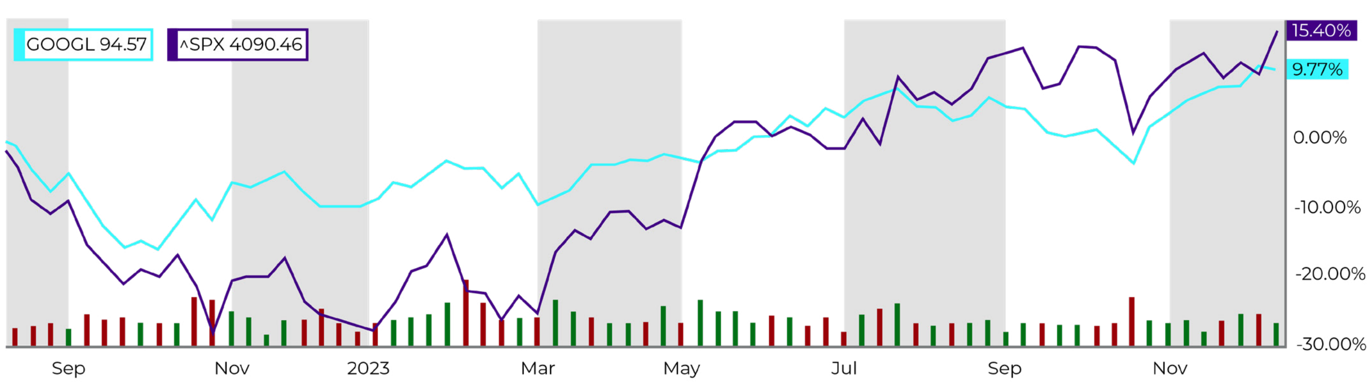
Alphabet was added to our portfolio at $120.43/share and recently (as of December 21, 2023) traded at $138.97/share for a capital appreciation of 15.40%. Alphabet outperformed the S&P 500 over the same time by 5.63%. In Fall 2023, our most recent estimate of intrinsic value for this company sets a target price of $165.85.

Our initial valuation report was centred around two key ideas:

1. The strength of Alphabet's core advertising business and market dominance across its services.
2. The emergence of Alphabet's cloud business and convergence towards profitability.

Our valuation narrative was that Alphabet would continue to grow its core advertising business, as Alphabet's dominance across internet search, video, and advertising is unmatched. The prospect that the company would develop its cloud business into a large, profitable segment was a potential bonus, although it was uncertain when it would achieve profitability.

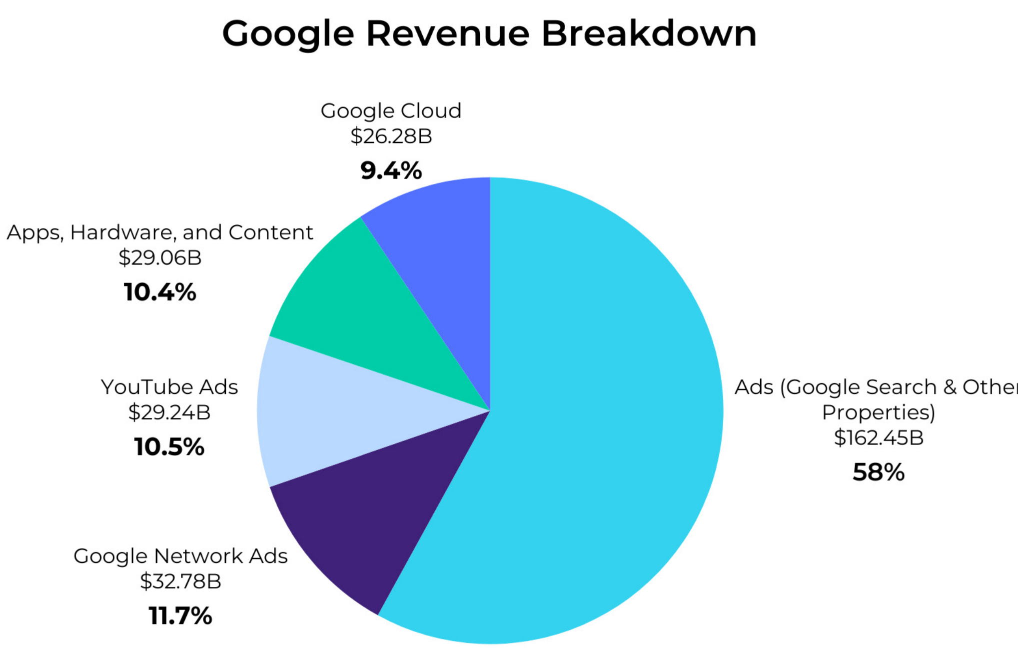
Alphabet Share Price:
August 2022 to December 2023



Since Qube's initial buy, there have been many exciting developments within the world, the internet, and Alphabet itself. There were concerns with Alphabet's ability to maintain its revenue levels in the current macroeconomic environment, including the emergence of ChatGPT—which was initially deemed a worthy competitor for Google Search. The cloud segment also achieved profitability for the first time in 2023, far ahead of Qube's conservative projections, as we were not expecting profitability in this space until sometime in 2025.

Pieces of the Orchestra: Google Services

With more than half of the musicians and instruments, the strings section plays a crucial role. Alphabet's string section is the Google Services segment, housing the majority of revenues from critical platforms. Google Services is further split into the type of revenue earned, either as Advertising or Google Other.



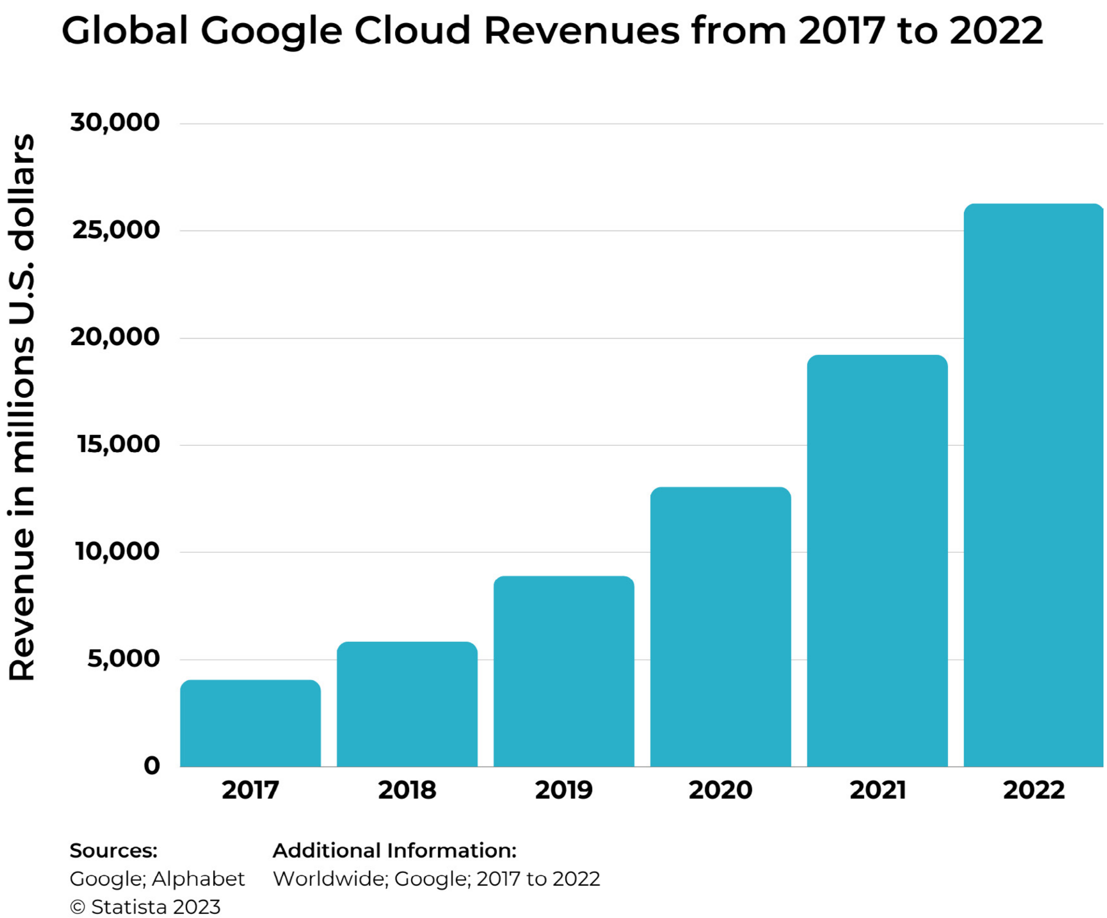
Advertising earns roughly 75% of the company's revenues. Alphabet monetizes the trillions of visits to its platforms by offering advertising in various forms. There is Performance Advertising, where advertisers create ads to rank higher in search results, and there is Brand Advertising, where advertisers create ads using videos, text, images, and other interactive formats across YouTube, the Google Network, and other platforms.

Google Other includes all other non-advertising revenue made across various Alphabet platforms, such as YouTube premium subscriptions, Google Play app purchases, and sales of Google hardware. This hardware includes Fitbit smart watches, Google Nest home products, and Pixel devices.

Google Cloud

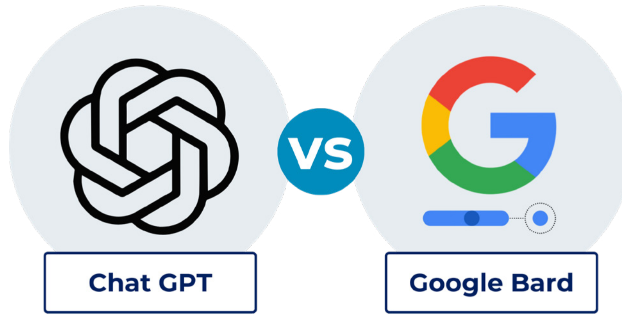
An orchestra's woodwind section has some noticeable instruments, such as the flute, but also many more important instruments that go largely unnoticed. Google's Cloud segment finds parallels within this, serving as Alphabet's woodwinds. Within Google Cloud, there is Google Workspace, the Google Cloud Platform. Like the high pitch trill of a flute, these products are easily recognizable: Gmail, Google Docs, Google Drive, Google Calendar, and Google Meet, among others.

The Google Cloud Platform, however, is virtually unknown to the public eye. Yet it serves as the foundation for thousands of enterprises worldwide. The platform excels in cybersecurity, data analytics, AI, machine learning, and infrastructure services. Their cybersecurity products address many threats, while the data cloud unifies data-related processes and advanced machine learning. The platform provides an open, reliable, and scalable infrastructure, allowing customers to run workloads on their cloud, at the edge (i.e., local processing closer to where data is being generated), or in their data centres. According to customers, Google's cloud tools are nearly magical; what used to take hours now takes a few minutes.



Other Business Segments

Finally, as the brass section, the Other Business Segments, which serves as Alphabet's investment arm and includes businesses in all stages of development, from those in the R&D phase to those in the beginning stages of commercialization. While these early-stage businesses naturally come with considerable uncertainty, Alphabet is responsible for funding many companies, ideas, and technologies pushing our world forward.



One of Alphabet's most notable investments is DeepMind. DeepMind was purchased by Google in 2014 and has led collaborations with other Alphabet teams in developing artificial intelligence. DeepMind has created a neural network capable of learning to play video games similar to humans, resulting in a computer that mimics the human brain's short-term memory.

AlphaZero, a version of this network, made headlines in 2017 after it conquered chess by defeating every world champion and AI engine available. In the present day, AlphaZero continues to teach itself to be one of the best neural networks in the world and posts an Elo rating (that is, chess strength compared to other players) of 4650, whereas the highest rating ever recorded by a human is 2882. The importance of DeepMind cannot be understated, especially in today's battle of artificial intelligence.

In November of 2022, ChatGPT was released to the masses. It took the world by storm and was seen by many as a competing symphony with the very real potential to drown out Google. The belief was that users would no longer need Google Search and that Alphabet's lead violinist would face real competition for the first time.

Fortunately, our maestro quickly called on all sections of its orchestra to develop a solution and released its own public AI, Bard. While ChatGPT is an excellent tool, it is currently best at executing straightforward tasks, such as condensing paragraphs. Bard draws on the experience and technologies of DeepMind to become a much more robust AI. With a better ability to think, create, and develop than ChatGPT, Alphabet has silenced the hecklers in the crowd.

Additionally, Bard has live connectivity to the internet and nearly countless data points available from other Alphabet platforms, compared to ChatGPT, which does not. You can see the difference on the following page, where two identical inputs resulted in massively different outputs.

Google Bard

Tell me about Qube Investment Management, located in Edmonton, Alberta

Google Maps

Sure, here is what I found about Qube Investment Management in Edmonton:

It is a registered portfolio management firm in the Provinces of Alberta and British Columbia. They offer a combination of value and sustainable investment methodologies to pension trusts, foundations, corporate clients and other retirement-focused investors. 1

Here are some details from their website:

- 11.6% Average Return Since Inception
- Team of professional and administrative staff
- Discretionary portfolio management
- Focus on growing a client's wealth, not just their investments
- Services include retirement scoping, tax optimization, pension analysis and charitable planning

They are located at 9414 91 St #200, Edmonton, AB T6C 3P4, Canada. Their hours of operation are Monday-Friday from 8:00 AM to 5:00 PM and they are closed on Saturday and Sunday.

You can contact them by phone at 780-463-2688 or by email at info@qubeinvest.ca.

ChatGPT

You
Tell me about Qube Investment Management, located in Edmonton Alberta.

ChatGPT
I'm sorry, but as of my last knowledge update in January 2022, I don't have specific information about "Qube Investment Management" in Edmonton, Alberta. It's possible that the company might be a relatively new or niche organization, or it may not be widely known.

The Final Numbers

Alphabet has been conducting our experience on the internet for more than two decades, and Qube does not believe the orchestra will stop anytime soon. Alphabet has proven innovative in developing new technologies, maintaining its competitive advantages, and monetizing all its web traffic. We believe there is still a substantial opportunity for Alphabet to diversify its operations further while bolstering its core businesses. Alphabet's compositions continue to shape the fabric of the internet, weaving a soundscape of connectivity and information that resonates globally.

Proxy Voting Summary

By Brenda Wilber

In 2023, Qube voted on management and shareholder resolutions for 51 companies in our portfolio. Time and resources are allocated on your behalf to be able to effect change in the areas of governance, human rights, and climate change.

Management Proposals

We were pleased to be able to vote for 70% of the director nominations, a percentage that continues to increase each year. More companies are putting term limits on their directors and refreshing the board more frequently. Twenty-three say-on-pay frequency votes came up for renewal this year, and we were happy to see that 21 were requesting reporting on an annual basis; the volume of yes votes on this one resolution skewed our voting statistics for management. We voted for employee stock purchase plans and against amendments to increase shares for stock option plans for executives and directors.

Shareholder Proposals

Sixty-four different shareholder proposals were voted on in 2023—a substantial increase over the previous year—thematically divided into environmental (11), governance (18), with social topics (35) taking the lead. Amazon holds the record this year with 18 proposals, and in appreciation of the effort

required to labour through all the issues, the company donated $1 to Feeding America on behalf of every shareholder account that voted.

The adoption of say-on-climate proposals was prominent for Canadian banks in our portfolio this year, and while it may seem this would be a no-brainer, there are some complexities attached. One, since this is solely a non-binding advisory vote, companies could greenwash their reporting to attract the yes vote. Evaluation of these climate initiatives should include the company's depth of reporting and commitment year-round through their annual and ESG reports, along with their consistent engagement with shareholders.

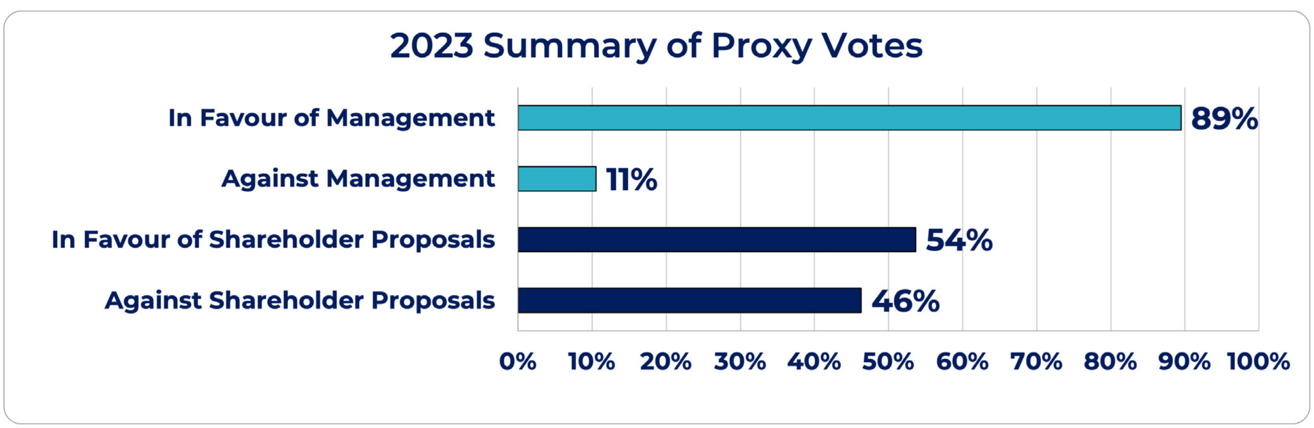
Two, standards on accessing, measuring, and managing climate financial risk have yet to be widely adopted, although there is positive news on that front. Over the last five years, the Task Force on Climate-related Disclosures (TCFD) has advocated for clear, consistent, and comparable reporting methods to equip shareholders making investing decisions. The SEC has proposed rule amendments that would require mandatory disclosure of climate-related risks, GHG emissions, and info on targets and potential transition plans. We should start to see the SEC Climate Disclosure Rule being implemented with phase-in periods starting in late 2024.

Tech companies (Alphabet, Meta) contended with shareholder proposals regarding their algorithm disclosures, data privacy, surveillance, targeted ads, and whether their cloud data centres should be located in countries with human rights concerns. Issues around AI also appeared this year, with a proposal requesting a report on the risks of potential dissemination of misinformation generated by artificial intelligence.

Political polarization made its way onto the proxy ballot, with proposals asking for a cost benefit analysis report on diversity/equity inclusion programs (with an eye to eliminating them) and for charitable donation disclosure for donations over $10K (primarily for the motivation to see where the company's leadership falls on social issues).

On the governance side, there were encouraging proposals on the topics of executives retaining significant stock holdings until retirement and the consideration of salary ranges of all company employees in executive compensation decisions. We also voted a hearty yes to the proposal at Meta asking for a **recapitalization** plan for all outstanding stock to have one vote per share; in the current framework, Class A shares are worth one vote, and Class B shares get 10 votes per share—the CEO holds 99.8% of the B shares, rendering Class A votes powerless.

For a copy of the detailed voting in 2023, please contact brenda@qubeinvest.ca.



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
ALPHABET INC CL-A	Communications Services	
AMERICA MOVIL	Communications Services	
DISNEY	Communications Services	
SCHOLASTIC CORP	Communications Services	
VERIZON	Communications Services	
WARNER MUSIC GROUP	Communications Services	

Company	Sector	Current Status
ALBERTONS COS-A	Consumer Discretionary & Staples	○ ○ ○ ✖
AMAZON	Consumer Discretionary & Staples	○ ○ ↻ ○
ASBURY AUTOMOTIVE GROUP	Consumer Discretionary & Staples	○ ↻ ○ ○
BOOKING HOLDINGS	Consumer Discretionary & Staples	✔ ○ ○ ○
BOYD GAMING CORPORATION	Consumer Discretionary & Staples	○ ○ ○ ✖
BRP INC.	Consumer Discretionary & Staples	✔ ○ ○ ○
BUILD-A-BEAR WORKSHOP INC.	Consumer Discretionary & Staples	○ ↻ ○ ○
CAL-MAINE FOODS	Consumer Discretionary & Staples	○ ○ ○ ✖
CAPRI HOLDINGS LTD.	Consumer Discretionary & Staples	○ ↻ ○ ○
CARGURUS INC.	Consumer Discretionary & Staples	○ ○ ○ ✖
CARTERS INC.	Consumer Discretionary & Staples	○ ↻ ○ ○
CAVCO INDUSTRIES	Consumer Discretionary & Staples	○ ○ ○ ✖
CLOROX	Consumer Discretionary & Staples	✔ ○ ○ ○
COLGATE PALMOLIVE	Consumer Discretionary & Staples	○ ○ ↻ ○
CROCS, INC.	Consumer Discretionary & Staples	✔ ○ ○ ○
D.R. HORTON	Consumer Discretionary & Staples	✔ ○ ○ ○

Company	Sector	Current Status
DARLING INGREDIENTS, INC.	Consumer Discretionary & Staples	
DILLARD'S INC.	Consumer Discretionary & Staples	
DOLLAR GENERAL CORP	Consumer Discretionary & Staples	
DOLLARAMA	Consumer Discretionary & Staples	
EMPIRE COMPANY	Consumer Discretionary & Staples	
ETHAN ALLEN	Consumer Discretionary & Staples	
FLOWERS FOODS INC.	Consumer Discretionary & Staples	
FORD MOTOR	Consumer Discretionary & Staples	
GENERAL MILLS	Consumer Discretionary & Staples	
GILDAN ACTIVEWEAR	Consumer Discretionary & Staples	
GLOBAL E-ONLINE LTD.	Consumer Discretionary & Staples	
GROUP 1 AUTOMOTIVE	Consumer Discretionary & Staples	
HALEON PLC	Consumer Discretionary & Staples	
HANESBRANDS INC.	Consumer Discretionary & Staples	
HOWDEN JOINERY GROUP PLC	Consumer Discretionary & Staples	
INTERNATIONAL GAME TECHNOLOGY	Consumer Discretionary & Staples	

Company	Sector	Current Status
JB HI-FI LTD.	Consumer Discretionary & Staples	○ ○ ○ ✖
KB HOME	Consumer Discretionary & Staples	○ ↻ ○ ○
KONTOOR BRANDS	Consumer Discretionary & Staples	○ ↻ ○ ○
KROGER	Consumer Discretionary & Staples	✔ ○ ○ ○
LAMB & WESTON	Consumer Discretionary & Staples	✔ ○ ○ ○
LEAR CORPORATION	Consumer Discretionary & Staples	✔ ○ ○ ○
LENNAR CORP-A	Consumer Discretionary & Staples	○ ○ ○ ✖
LKQ CORPORATION	Consumer Discretionary & Staples	○ ↻ ○ ○
LOBLAW COMPANIES LIMITED	Consumer Discretionary & Staples	○ ○ ○ ✖
LUCKIN COFFEE INC.	Consumer Discretionary & Staples	○ ↻ ○ ○
MALIBU BOATS	Consumer Discretionary & Staples	○ ↻ ○ ○
MASCO CORPORATION	Consumer Discretionary & Staples	○ ○ ↻ ○
NEXT PLC	Consumer Discretionary & Staples	○ ○ ○ ✖
OLAPLEX HOLDINGS INC.	Consumer Discretionary & Staples	○ ○ ○ ✖
OXFORD INDUSTRIES INC.	Consumer Discretionary & Staples	○ ○ ○ ✖
PATRICK INDUSTRIES	Consumer Discretionary & Staples	○ ○ ○ ✖

Company	Sector	Current Status
PRESTIGE BRANDS HEALTHCARE	Consumer Discretionary & Staples	
RALPH LAUREN	Consumer Discretionary & Staples	
RESTORATION HARDWARE	Consumer Discretionary & Staples	
RLX TECHNOLOGY	Consumer Discretionary & Staples	
SHOE CARNIVAL	Consumer Discretionary & Staples	
SPROUTS FARMERS MARKET INC.	Consumer Discretionary & Staples	
STEVE MADDEN	Consumer Discretionary & Staples	
TAPESTRY INC.	Consumer Discretionary & Staples	
TARGET HOSPITALITY	Consumer Discretionary & Staples	
TESLA INC.	Consumer Discretionary & Staples	
TOLL BROTHERS INC.	Consumer Discretionary & Staples	
WALMART	Consumer Discretionary & Staples	
WINNEBAGO INDUSTRIES INC.	Consumer Discretionary & Staples	
WOOLWORTHS GROUP LTD.	Consumer Discretionary & Staples	
BP PLC	Energy	
CANADIAN NATURAL RESOURCES	Energy	

Company	Sector	Current Status
NEW HOPE CORPORATION LIMITED	Energy	○ ○ ○ ✗
PETROLEO BRASILEIRO S.A.	Energy	○ ○ ○ ✗
WHITEHAVEN COAL LIMITED	Energy	○ ○ ○ ✗
3I GROUP	Financials	○ ○ ○ ✗
ANZ GROUP	Financials	○ ○ ○ ✗
BANK OF NOVA SCOTIA	Financials	✓ ○ ○ ○
JP MORGAN	Financials	✓ ○ ○ ○
M&G	Financials	○ ○ ○ ✗
MAN GROUP	Financials	○ ○ ○ ✗
PROGRESSIVE	Financials	○ ○ ● ○
ROYAL BANK OF CANADA	Financials	✓ ○ ○ ○
ST. JAMES PLACE	Financials	○ ○ ○ ✗
UNIVERSAL HEALTH CARE	Health Care	✓ ○ ○ ○
ACADIA HEALTH CARE	Health Care	○ ○ ○ ✗
AMN HEALTHCARE SERVICES	Health Care	○ ● ○ ○
CHEMED CORP	Health Care	○ ● ○ ○

Company	Sector	Current Status
DAVITA	Health Care	✓ ○ ○ ○
HCA HEALTHCARE	Health Care	✓ ○ ○ ○
SONIC HEALTHCARE	Health Care	○ ○ ○ ✗
3M COMPANY	Industrials	○ ● ○ ○
AIR NEW ZEALAND	Industrials	○ ● ○ ○
ASHTEAD GROUP	Industrials	○ ○ ○ ✗
BAE SYSTEMS	Industrials	○ ○ ○ ✗
BLUELINX HOLDING	Industrials	○ ○ ○ ✗
CLARIVATE	Industrials	○ ○ ○ ✗
DANAOS INC.	Industrials	○ ○ ○ ✗
EXPERIAN	Industrials	○ ○ ○ ✗
GENERAC HOLDINGS INC.	Industrials	✓ ○ ○ ○
GENKO SHIPPING	Industrials	○ ○ ○ ✗
GOLDEN OCEAN GROUP	Industrials	○ ○ ○ ✗
H&E EQUIPMENT SERVICES INC.	Industrials	○ ○ ○ ✗
KORN FERRY	Industrials	○ ● ○ ○

Company	Sector	Current Status
MAXAR TECHNOLOGIES	Industrials	
MUELLER INDUSTRIES	Industrials	
RUSH ENTER-CL A	Industrials	
STANDEX INTL CO	Industrials	
THOMSON REUTERS	Industrials	
ANGLO AMERICAN PLC	Materials	
ANTOFAGASTA PLC	Materials	
BHP GROUP LTD.	Materials	
BLUESCOPE	Materials	
FORTESCUE METALS	Materials	
GLENCORE PLC	Materials	
JAMES HARDIE INDUSTRIES	Materials	
MONDI PLC	Materials	
RIO TINTO	Materials	
SOUTH32	Materials	
WEST FRASER TIMBER	Materials	

Company	Sector	Current Status
LAND SECURITIES GROUP PLC	Real Estate	
ADVANCED MICRO DEVICES	Technology	
ENPHASE	Technology	
MICRON	Technology	
MICROSOFT	Technology	
QUALCOMM	Technology	
SOLAREDGE TECHNOLOGIES, INC.	Technology	
ORIGIN ENERGY	Utilities	

How We Keep in Touch

Beyond meetings and quarterly reports, there are a number of ways to stay connected with Qube.

	RECAP	SEMI-ANNUAL COMMENTARY	SOCIAL MEDIA
What?	• the latest happenings at the Qube office • information about our services	• a collection of editorial papers authored by our experts that reveals our thoughts on the financial landscape	• updates on everyday office life • investing terminology • helpful reminders
Where?	Email	On our website and by paper mail	LinkedIn
Frequency?	Monthly	Twice a year—January and July	Multiple times a week
How to receive?	• Investment clients are **automatically** subscribed • Other contacts can visit qubeinvest.ca to subscribe	• Investment clients **automatically** receive the paper version by mail • Visit qubeinvest.ca/education to view	Give us a follow!
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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 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.

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