

Global Leaders Strategy



INVESTMENT LETTER | AUGUST 2023

The Global Leaders Strategy invests in a concentrated portfolio of market-leading companies from across the globe. We believe that companies that combine exceptional outcomes for their customers with strong leadership can generate high and sustainable returns on invested capital (RoIC) which can lead to outstanding shareholder returns.



Mick Dillon, CFA
Portfolio Manager



Bertie Thomson, CFA
Portfolio Manager

The Hidden Trouble Within

Dear Fellow Investors,

We have fielded a number of questions over the past six months from clients and prospects about how we think about and control factor risks within the Global Leaders strategy. We discuss factor risk, some views on artificial intelligence, and our upcoming offsite in this letter. Factor risk is best described as any exposure that can explain the portfolio returns other than the individual investments, such as a “theme” or a sector. An obvious example is if one has over half their portfolio invested in consumer staples companies then the biggest driver of relative performance will likely not be the individual investments but whether or not the consumer staples sector outperforms the benchmark. In this example, the stock picking hardly matters anymore – the portfolio is predominantly a sector bet and hence has a large factor risk. This is the antithesis of what we are trying to do but nonetheless an easy trap into which we could fall as bottom-up, concentrated, stock-picking fund managers if we don’t think about our factor risk properly. We need to view the complete portfolio; it is not just a collection of 30-40 great companies. This is “The Hidden Trouble Within” – when the collection doesn’t work as a portfolio and the outcome can be attributed to – and easily replicated by – factors such as interest rates, country or industry exposures.

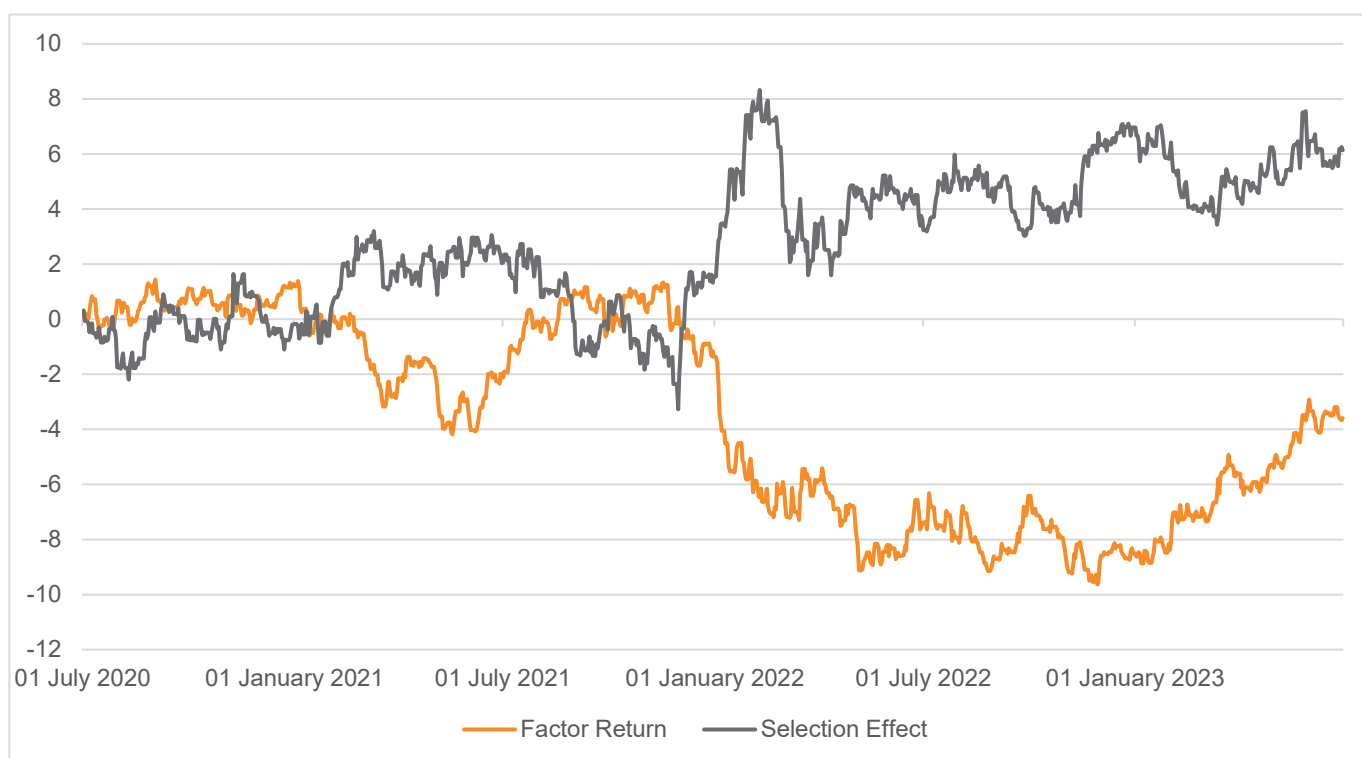
We have seen these factor risks play out many times. Over just the past three years we have witnessed unintended factor risks and opportunities manifest across the market due to COVID-19, meme-stocks, inflation, interest rates, the ongoing war in Ukraine, the European energy crisis, the “value-rally” in 2022, the U.S. banking crisis in 1Q23 and this is undoubtedly not an exhaustive list. As bottom-up investors, maximising idiosyncratic stock-specific risk is one of the core reasons for our weekly capital allocation meeting. We want to ensure that we are managing these opportunities and risks in balance. When we think of risk it is about losing money: supply-side from competitors stealing our precious customers, or regulators changing the rules, or overpaying for the prospect of future cash flow which does not eventuate. Our challenge is to find differentiated investments which combine at the portfolio level to limit individual factors but still produce double-digit annualised absolute returns over the long-term.

Past performance is not indicative of future results. The portfolio information is based on a Brown Advisory Global Leaders representative account and is provided as Supplemental Information. Please see the end of the letter for important disclosures and a GIPS Report. Sectors are based on the Global Industry Classification Standard (GICS®) classification system. The information provided in this material is not intended to be and should not be considered to be a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell, or hold any of the securities mentioned. It should not be assumed that investments in such securities have been or will be profitable. To the extent specific securities are mentioned, they have been selected by the author on an objective basis to illustrate views expressed in the commentary and do not represent all of the securities purchased, sold or recommended for advisory clients. Please see the end of the letter for important disclosures.

We believe that 30-40 investments give Global Leaders enough diversification to ensure that stock specific risk (i.e, risk associated with each individual investment case) is driving our outcomes – not factors. Our investment selection process follows a bottom-up, fundamental approach so we are wary of “sleepwalking into factor risk”. At the margin, the factors can be a tailwind as experienced in 2017 and 2018 or a headwind as seen in 2016 and 2022, but when we look at attribution over the past three years in the chart below it shows over 100% of the strategy’s alpha came from individual investment selection or stock-picking as the factors combined were a net negative drag. For us, the factors are basically a wash over a long horizon.

Attribution Analysis

Global Leaders Representative Account (%)
3 years (06/30/2020 – 06/30/2023)



Source: Bloomberg. Total effect figures provided above reflect the combination of the factor return from country, currency, market, style, and industry exposures and the selection effect, and are based on the Brown Advisory Global Leaders Representative Account including cash and is provided as Supplemental Information. Numbers may not total due to rounding. Performance figures may vary from actual portfolio performance, as calculations are based on end-of-day security prices and do not incorporate the actual cost basis or sale price of individual securities. Please see the end of this letter for a GIPS Report, important disclosures and a complete list of terms and definitions.

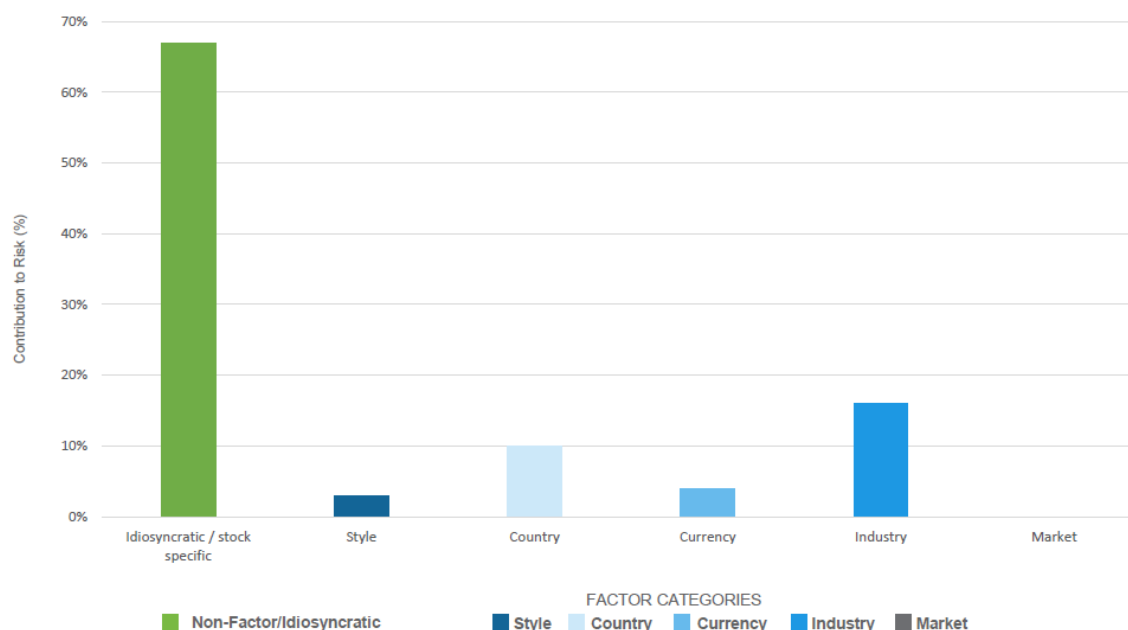
One quantitative tool we use to assess our ongoing factor risk is Bloomberg PORT. This shows in the chart below at the end of June that our stock specific risk was two-thirds of our attributable risk and all factors combined are only 33%. Whilst the exact percentages move around, this is a very typical split of 2:1

Past performance is not indicative of future results. The portfolio information is based on a Brown Advisory Global Leaders representative account and is provided as Supplemental Information. Please see the end of the letter for important disclosures and a GIPS Report. Sectors are based on the Global Industry Classification Standard (GICS®) classification system. The information provided in this material is not intended to be and should not be considered to be a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell, or hold any of the securities mentioned. It should not be assumed that investments in such securities have been or will be profitable. To the extent specific securities are mentioned, they have been selected by the author on an objective basis to illustrate views expressed in the commentary and do not represent all of the securities purchased, sold or recommended for advisory clients. Please see the end of the letter for important disclosures.

idiosyncratic vs. factor since inception. As long-term investors we do our analysis calibrating our factors on an annual basis. Sometimes factors are short and sharp as seen with the US banking crisis earlier this year. The factor models view these gyrations as risk – more often we find them sources of investment opportunity. This is the reasoning behind our drawdown reviews. Even if we use a shorter quarterly time frame for calibration then we still see over half the risk as stock specific (no prizes for guessing that we would argue this is too short for 5+ year investors). Basically, the longer the time horizon the more stock specific risk shows up for us. It is rare that we see an individual factor consistently contributing more than 5% to total risk which is our “watch closely” threshold. We do have a deliberate style bias to high Return on Invested Capital (RoIC) and low financial leverage as well as risks such as having no investments in the energy sector and currently no investments in Japan but these are all overshadowed by individual investments which is precisely what we are aiming at.

Factor Exposure within Global Leaders

Global Leaders Representative Account (%) vs. MSCI ACWI® Index
As of July 5, 2023



Source: Bloomberg. Total effect figures provided above reflect the combination of the factor return from country, currency, market, style, and industry exposures and the selection effect, and are based on the Brown Advisory Global Leaders Representative Account, and includes cash. Numbers may not total due to rounding. Performance figures may vary from actual portfolio performance, as calculations are based on end-of-day security prices and do not incorporate the actual cost basis or sale price of individual securities. The portfolio information provided is based on a Brown Advisory Global Leaders Representative Account and is provided as Supplemental Information. Please see the end of this letter for a GIPS Report, important disclosures and a complete list of terms and definitions.

For as much as we are cognisant of factor risks, the backward-looking nature of these models – and unpredictable embedded covariance matrices – means we are careful to not over-interpret the results. The future is rarely the same as the past. We have twice seen British Sterling spike up as a factor risk on

Past performance is not indicative of future results. The portfolio information is based on a Brown Advisory Global Leaders representative account and is provided as Supplemental Information. Please see the end of the letter for important disclosures and a GIPS Report. Sectors are based on the Global Industry Classification Standard (GICS®) classification system. The information provided in this material is not intended to be and should not be considered to be a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell, or hold any of the securities mentioned. It should not be assumed that investments in such securities have been or will be profitable. To the extent specific securities are mentioned, they have been selected by the author on an objective basis to illustrate views expressed in the commentary and do not represent all of the securities purchased, sold or recommended for advisory clients. Please see the end of the letter for important disclosures.

one-off non-repeatable issues: Brexit in 2016 and the mini-budget fiasco in 2022. Both “risks” faded in the models quickly; the events had already happened. By necessity these models are somewhat looking in the rear-view mirror. A key risk for any fundamental, bottom-up, low turnover, long holding period, “stock picking” investor is that all their hard work is overwhelmed by unmanaged or unintended macroeconomic factors. Ultimately our guide is to always aim for idiosyncratic stock-specific risk to be driving portfolio outcomes. As noted above, we use these models as a sense check to stop us sleep-walking into unwanted exposures and we do not see large factor risks in the portfolio today.

Quantitatively, factor risk manifests in high tracking error. The higher the tracking error then more likely the higher the embedded factor risk as that portfolio is significantly (often overwhelmingly) divergent from its benchmark in a way that can easily be replicated with relatively inexpensive factor ETFs. The stock picking no longer matters – what matters is whether the consumer staples sector outperforms or energy underperforms etc. In Global Leaders, we aim for high active share – typically approximately 90% divergence from our benchmark – but only moderate tracking error. This magnifies our stock picking. Our tracking error, since inception, has typically been in the 4-5% range which is not high for a diversified manager, let alone a concentrated one. This is due to our managing of the factors at an aggregate portfolio level and focus on idiosyncratic stock-specific risk as the primary driver of our risk and returns. We check our idiosyncratic risk every week in our capital allocation reports. We don’t like factor risk as we have no idea what these factors will do, nor when. Most importantly for us is that the horse always leads the cart. We are concentrated investors first and foremost so we are never going to buy something just to fill a “factor risk” bucket. The real risk is that the investment starts performing poorly and we get shaken out at a loss on a low conviction “risk reduction” position within a concentrated portfolio.

What About Factor Risk Within Financials?

Another interesting query has been “is our current bias to the financials and technology sectors in the strategy structural?” We don’t think so. In March we saw Visa and Mastercard moved in the GICS sector classification from technology to financials. This means we currently have close to one-third of the portfolio classified by GICS as financials. On the surface this could be a factor risk. However, we have found some completely differentiated investments and business models within our financials with investment drivers ranging from emerging market credit and insurance penetration to irreplaceable financial market infrastructure. Consequently, the correlations between our financial investments are low (aside from Mastercard and Visa) and this sector doesn’t show up as an outlier risk – notably it is well below our 5% “watch closely” level. Our technology investments range from semiconductor design and manufacturing to vertical market software and we believe these have very different long-term economic drivers and ways of capturing value which is precisely what we seek.

We are an all-sector, all-country investment strategy. That is how we think and how we measure ourselves. We don’t believe the current shape is permanent but rather an outcome of the opportunity set in the past few years. To be clear, we would love to have more investments in any diversifying business or sector but every investment must first pass all our tests, particularly valuation. We tend to think more about business models and how companies make money than sectors or countries; we believe sectors such as industrials, technology and financials are quite heterogeneous. In contrast, some consumer

Past performance is not indicative of future results. The portfolio information is based on a Brown Advisory Global Leaders representative account and is provided as Supplemental Information. Please see the end of the letter for important disclosures and a GIPS Report. Sectors are based on the Global Industry Classification Standard (GICS®) classification system. The information provided in this material is not intended to be and should not be considered to be a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell, or hold any of the securities mentioned. It should not be assumed that investments in such securities have been or will be profitable. To the extent specific securities are mentioned, they have been selected by the author on an objective basis to illustrate views expressed in the commentary and do not represent all of the securities purchased, sold or recommended for advisory clients. Please see the end of the letter for important disclosures.

staples companies might have 100-year old brands but unless that brings loyalty or a price premium then the brand is irrelevant economically and the business models are startlingly similar. Consequently, the cross correlations are high as is factor risk; sectors are a blunt instrument.

As we have noted many times, our strict valuation framework using a minimum 10% weighted average cost of capital (WACC) and double-digit base case internal rate of return (IRR) hurdle-rate means we have passed over many otherwise attractive potential investments. This is especially true in the health care and consumer staples sectors over the past five years. Our 'Ready-to-Buy' list has a healthy set of potential investments across all sectors but investing all comes down to price. The price you pay drives so much of the final return that we remain super disciplined and happy to be patient. More recently, our view on valuations in health care has become more constructive as share prices have come down. In 2022, we invested in Coloplast, our first new health care company for three years. It is an illuminating case study.

Our weekly capital allocation process includes three parts: (1) a payoff versus probability assessment for every individual holding, (2) the integration of our behavioural rules, such as buying and selling rules, and (3) a portfolio risk analysis which includes a risk factor analysis and a focus on deferrable vs. non-deferrable revenue in the portfolio. Before making any new investment, we analyse that potential new idea's contribution to total portfolio risk with the aim of lifting stock-specific risk. We funded our investment into Coloplast in September 2022 by trimming Microsoft. This de-risked the portfolio by lowering our sector factor risk whilst lifting our recurring revenue with the addition of Coloplast. Importantly both investments had double-digit five-year expected IRRs and high base case probability so this was not a performance trade-off. By increasing stock specific risk without trading off long-term portfolio performance we actively managed factor risk down. Interestingly we have added more to both Microsoft and Coloplast already in 2023 as the IRRs improved. We believe that our style of investing in high-quality companies in Global Leaders is permanent but the make-up of underlying sectors will likely continue to change over time.

A Few Thoughts on Artificial Intelligence

One area that we are watching closely is the emerging use cases for artificial intelligence (AI) applications and Generative AI. We think about the impact of AI by categorising into four broad groups stepping from those closest to end-users to the underlying infrastructure:

1. **End-user Applications:** This group includes companies like Adobe, Wolters Kluwer, and Intuit, which offer applications directly to consumers or businesses that could benefit enormously from embedded AI.
2. **AI Models, including Large Language Models (LLMs):** This includes the development and deployment of advanced AI models, including large language models such as ChatGPT as well as propriety or use-specific datasets such as those owned by London Stock Exchange Group.
3. **Cloud Compute:** Major cloud service providers like Microsoft Azure, Amazon Web Services (AWS), and Google Cloud play a significant role in AI infrastructure. We own Microsoft and

Alphabet (who also operate multiple LLMs, but the moats appear bigger in cloud computing infrastructure).

4. **Technical Infrastructure:** This encompasses GPUs, Networking, Memory and related value chains including semiconductor equipment, which is represented by Marvell Technology, Taiwan Semiconductor and ASML in our portfolio.

It is still too early to make a clear assessment of the impact AI will have on the competitive positioning for our companies. The opportunities and risks vary wildly depending upon which group a company is in. Currently we believe the highest probabilities are in the Technical Infrastructure and semiconductor companies which typically have dominant market positions for leading node semi design, production and equipment (Marvell, Taiwan Semiconductor (TSMC) and ASML in the Global Leaders portfolio). Following closely are the Cloud data-centre companies (e.g. Microsoft's and Alphabet's data centre business within Global Leaders) which have no emergent competition and strengthened relative positions.

We expect competition to intensify as we move up the stack into AI models. LLMs have proven significantly easier to create and scale due to mastery of the Transformer technology so it is not clear who wins here nor even if these LLMs become a commodity. Those with proprietary data sets will need to harness the power of AI to deliver improved customer outcomes, without falling prey to new entrants. The Applications group has significant productivity benefits yet runs the risk of numerous new companies trying to compete or enter so has the widest distribution of potential outcomes.

We have undertaken a number of capital allocation decisions in 2023 when opportunities arose on the back of short-term volatility in share prices due to concerns around AI. The most obvious was in March when Alphabet was under pressure due to fears about the combination of Bing and ChatGPT/OpenAI into its core search profit driver. We did a full drawdown review and added. We have recently started trimming Alphabet again following a rapid approximately 50% share price rise. We also added to our investment in Microsoft in February after share price weakness. At the time, Microsoft had one of the best IRRs and higher base case probabilities in the strategy. It is our biggest investment. Lastly, we added to Marvell Technology in early January on the back of another drawdown review. All three are long-term holdings that benefit from expanding AI opportunities.

We have engaged our investigative research analyst team to better understand this emerging technology and end use cases, as well as the potential impact on the companies in our portfolio. For now, we are closely watching progress in our investments, relating to product offerings, infrastructure capex, monetisation opportunities, and most importantly new market entrants. A number of our long-term investments are clearly beneficiaries from advances in AI but some may be more exposed to risk. Global Leaders has benefitted so far from the long-term AI related investments into technology research and development (R&D) that management teams have made such as Microsoft, Marvell and Alphabet noted above, but we remain highly attentive to the developments in this dynamic landscape.

Favourite Day of the Year

Our children would no doubt disagree but our favourite day of the year is fast approaching – our annual offsite! The whole team gathers to dissect and analyse our investment processes with the aim of marginal

Past performance is not indicative of future results. The portfolio information is based on a Brown Advisory Global Leaders representative account and is provided as Supplemental Information. Please see the end of the letter for important disclosures and a GIPS Report. Sectors are based on the Global Industry Classification Standard (GICS®) classification system. The information provided in this material is not intended to be and should not be considered to be a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell, or hold any of the securities mentioned. It should not be assumed that investments in such securities have been or will be profitable. To the extent specific securities are mentioned, they have been selected by the author on an objective basis to illustrate views expressed in the commentary and do not represent all of the securities purchased, sold or recommended for advisory clients. Please see the end of the letter for important disclosures.

improvements. We have found a way to get better every year. One exciting opportunity this year has come from Annie Duke's latest book *Quit*.¹ Annie, a former professional poker player, discusses "quit triggers" or when to walk away; for us this could be a quantitative numerical sign we are wrong (market share loss, falling margins etc.) and thus should just exit an investment. We have trialled quit triggers in our drawdown reviews so far this year and it's been very powerful when we buy more...but fear we could be wrong.

Quitting is part of decision-making efficiency – which for us in particular is saying no to ideas quicker. Every time we say no is an opportunity to reprioritise our time and potentially say yes to something else. Process efficiency and taming personal curiosity is amplified by reducing distractions and focusing time spent on the most likely investment candidates. Does the idea have all the moats we are looking for? If not stop now, no matter how intriguing. Is there a question over persistence of barriers to entry? If so then why take the risk – better to move on. Fail fast is a mantra from venture capital which has a corollary here. Every time we decide to persist with an activity or research it is taking up time we could have used to investigate something more promising. This opportunity cost of time is rarely tallied. In many parts of life quitting is equivalent to failure but not so when investing. Naturally curious individuals (life-learners) are often so intrigued by the possibility that an investment might work that we don't stop to think at the outset about the probability of it working. "How might this work?" or "could this work?" dominate thinking over what is the likelihood of this working (and does it fit within our portfolio)?

Ultimately this is all part of maximising our return on time spent. Not taking the decision to quit and forging ahead with more research is a decision in itself. There are a number of intertwined behavioural biases at play which favour persistence over quitting. The first is that we value consistency highly - both in others and we like to display it ourselves – quitting looks inconsistent and potentially lacking in persistence; neither appear good. This is much discussed in Robert Cialdini's book *Influence*² and we have addressed it in prior letters. Another is the "status quo bias" whereby we tend to pursue behaviour that reaffirms prior decisions rather than switch course (and appear inconsistent). A third is the sunk cost fallacy whereby having spent so much time and effort already it implies we should continue even though there might be a better use of research time. Having started the research shouldn't we finish it? Often the correct answer is no – it is better to fold and deal a new hand. Not being ready to make a decision on one investment idea doesn't mean that we shouldn't reprioritise to something more promising. A great categorisation tool here is the "too hard bucket" – sometimes it will just take too much time to work out if something fits – and even then the payoff may not be worth it. Better to get onto a clearer path – we can always come back to something if we change our minds later when new information presents itself.

There is a critical step when learning in relation to how our brains reward system works when taking in new information. Irrespective of the value of the information, every time we learn something new our brains get a dopamine kick. Dopamine is released in the brain when it is expecting a reward and this can become addictive. This is nefariously exploited by social media.³ One trigger for our brains to release dopamine (one of the four pleasure hormones) is learning.⁴ Learning is a new experience and dopamine

¹ *Quit: The Power of Knowing When to Walk Away* by Annie Duke

² *Influence: The Psychology of Persuasion* by Robert Cialdini

³ *The Attention Merchants: The Epic Scramble to Get Inside Our Heads* by Tim Wu

⁴ The other "feel-good" hormones are serotonin, endorphins and oxytocin.

plays a part in helping us retain the new information through the creation of new connections. For life-learners, understanding new things is effectively an adventure and learning can be rewarding in itself. For social media types selling advertising, the algorithms need to be tuned to keep serving up “new” information to keep our attention – with scant regard to the *quality* of the information presented. Our brains struggle to differentiate quality from quantity. Unfortunately, we reward all new information. Hence, we can get tricked into consuming “empty brain calories” where the information has little value. For investors endless curiosity is a distraction when attempting controlled learning and to get to decision points – our learning must be productive not a goal in itself. Learning prioritisation is difficult, but a good process can help direct both what we need to understand and when in order to make effective decisions.

Ultimately the vast majority of our investment decisions end in a “no”. We decide to not invest – or at least “not yet”. Getting to no faster will likely increase our return on time spent. Over the past five years we have invested on average in four new companies each year whilst rejecting up to ten times that amount. Getting to one more high quality yes could amplify our results. Ray Dalio has a good schematic in his book *Principles*⁵ on how to think effectively. It is OK to delve into proverbial rabbit holes along the way (we certainly go down plenty of these!) so long as we get back to complete all steps of the process and finalise a decision – and that decision might well be to quit!

Favourite Week of the Year?

We are going to undertake what may well become our favourite week of the year – our inaugural *Think Week* this August. Think Week is our chance to find uninterrupted time to read, think and gather compounding (versus expiring) knowledge. We were inspired by Microsoft co-founder Bill Gates and our aim is to unplug and think about how we, as individuals and as a team, can be better investors. Everyone will share their thoughts with the team to be fed into our annual offsite; we are excited by what may come out of this! There are an enormous variety of books and many more research topics on participants’ reading agendas. One book Mick is reading is called *A Guide to the Professional Interview*⁶ which despite its prosaic title is a wealth of information for those of us whose job is to gather information by asking good questions. We meet with management teams most days and a well-constructed interview can elicit a wealth of valuable insight. The book uncovers the common pitfalls and cognitive bias we fall into when interviewing and offers techniques such as how to structure questions in order to get more accurate and reliable information. On the surface it appears to be essential reading for any investor – with any luck it will feed some ideas into our offsite as well.

As ever we are grateful for readers who stick with us to the end of our letters. We have also recently published our annual [report](#) on the impact of our investment decisions. This year we highlight the carbon intensity of the companies in the portfolio and focus in on the adoption of Science Based Targets. We shine a spotlight on impact within the financials sector and have enhanced our reporting on voting and engagement. We hope it makes for interesting reading.

Mick, Bertie and the Global Leaders Team

⁵ *Principles: Life & Work* by Ray Dalio

⁶ *A Guide to the Professional Interview: A Research-based Interview Methodology for People Who Ask Questions* by Geir-Egil Loken, Svein Tore Bergestuen, and Asbjorn Rachlew

Disclosures

Past performance may not be a reliable guide to future performance and investors may not get back the amount invested. All investments involve risk. The value of the investment and the income from it will vary. There is no guarantee that the initial investment will be returned.

The views expressed are those of the author and Brown Advisory as of the date referenced and are subject to change at any time based on market or other conditions. These views are not intended to be and should not be relied upon as investment advice and are not intended to be a forecast of future events or a guarantee of future results. The information provided in this material is not intended to be and should not be considered to be a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell, or hold any of the securities mentioned. It should not be assumed that investments in such securities have been or will be profitable. To the extent specific securities are mentioned, they have been selected by the author on an objective basis to illustrate views expressed in the commentary and do not represent all of the securities purchased, sold or recommended for advisory clients. The information contained herein has been prepared from sources believed reliable but is not guaranteed by us as to its timeliness or accuracy, and is not a complete summary or statement of all available data. This piece is intended solely for our clients and prospective clients, is for informational purposes only, and is not individually tailored for or directed to any particular client or prospective client.

ESG considerations are one of multiple informational inputs into the investment process, alongside data on traditional financial factors, and so are not the sole driver of decision-making. ESG analysis may not be performed for every holding in the strategy. ESG considerations that are material will vary by investment style, sector/industry, market trends and client objectives. The strategy seeks to identify companies that it believes may have desirable ESG outcomes, but investors may differ in their views of what constitutes positive or negative ESG outcomes. As a result, the strategy may invest in companies that do not reflect the beliefs and values of any particular investor. The strategy may also invest in companies that would otherwise be screened out of other ESG oriented funds. Security selection will be impacted by the combined focus on ESG assessments and forecasts of return and risk. The strategy intends to invest in companies with measurable ESG outcomes, as determined by Brown Advisory, and seeks to screen out particular companies and industries. Brown Advisory relies on third parties to provide data and screening tools. There is no assurance that this information will be accurate or complete or that it will properly exclude all applicable securities. Investments selected using these tools may perform differently than as forecasted due to the factors incorporated into the screening process, changes from historical trends, and issues in the construction and implementation of the screens (including, but not limited to, software issues and other technological issues). There is no guarantee that Brown Advisory's use of these tools will result in effective investment decisions. This piece is intended solely for our clients and prospective clients, is for informational purposes only, and is not individually tailored for or directed to any particular client or prospective client.

Bloomberg is a trademark and service mark of Bloomberg Finance L.P., a Delaware limited partnership, or its subsidiaries. Any other trademarks or service marks are property of their respective owners. The MSCI ACWI® Index (All Country World Index), MSCI's flagship global equity index, is designed to represent performance of the full opportunity set of large- and mid-cap stocks across developed and emerging markets. As of May 2022, it covers more than 2,933 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market. All MSCI indexes and products are trademarks and service marks of MSCI or its subsidiaries.

RoIC is a measure of determining a company's financial performance. It is calculated as NOPAT/IC ; where NOPAT (net operating profit after tax) is $(\text{EBIT} + \text{Operating Leases Due 1-Yr}) * (1 - \text{Cash Tax Rate})$ and IC (invested capital) is $\text{Total Debt} + \text{Total Equity} + \text{Total Unfunded Pension} + (\text{Operating Leases Due 1-Yr} * 8) - \text{Excess Cash}$. ROIC calculations presented use LFY (last fiscal year) and exclude financial services.

The **internal rate of return (IRR)** is a measure of an investment's rate of return. The internal rate of return is a discount rate that makes the net present value (NPV) of all cash flows from a particular project equal to zero. It is also called the discounted cash flow rate of return.

Tracking Error is the standard deviation of the difference in the portfolio and benchmark returns

Alpha is a measure of performance on a risk-adjusted basis. Alpha takes the volatility (price risk) of a portfolio and compares its risk-adjusted performance to a benchmark index.

Annualized Return is the geometric average amount of money earned by an investment each year over a given time period. It is calculated as a geometric average to show what an investor would earn over a period of time if the annual return was compounded.

Alpha is a measure of performance on a risk-adjusted basis. Alpha takes the volatility (price risk) of a portfolio and compares its risk-adjusted performance to a benchmark index.

Volatility is a statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index.

Weighted Average Cost of Capital (WACC) presents a firm's average after-tax cost of capital from all sources, including common stock, preferred stock, bonds, and other forms of debt. WACC is the average rate a company expects to pay to finance its assets.

Factor Return is the return attributable to a particular common factor. We decompose asset returns into common factor components, based on the asset's exposures to common factors times the factor returns, and a specific return.

Selection Effect measures the effect of choosing securities that may or may not outperform those of the benchmark.

Active Share indicates how different the portfolio is from its benchmark. Calculated as the sum of each security's absolute weight difference.

Brown Advisory Global Leaders Strategy Composite

Year	Composite Total Gross Returns (%)	Composite Total Net Returns (%)	Benchmark Returns (%)	Composite 3-Yr Annualized Standard Deviation (%)	Benchmark 3-Yr Annualized Standard Deviation (%)	Portfolios in Composite at End of Year	Composite Dispersion (%)	Composite Assets (\$USD Millions)*	GIPS Firm Assets (\$USD Millions)*
2022	-19.0	-19.7	-18.4	20.6	19.9	Five or fewer	N/A/	3,680	57,575
2021	17.6	16.7	18.5	17.2	16.8	Five or fewer	N/A	4,368	79,715
2020	21.0	20.0	16.3	18.1	18.1	Five or fewer	N/A	2,428	59,683
2019	35.1	34.0	26.6	11.6	11.2	Five or fewer	N/A	731	42,426
2018	-2.2	-2.8	-9.4	11.0	10.5	Five or fewer	N/A	303	30,529
2017	35.1	34.0	24.0	N/A	N/A	Five or fewer	N/A	77	33,155
2016	-0.6	-1.4	7.9	N/A	N/A	Five or fewer	N/A	38	30,417
2015**	1.2	0.7	-7.3	N/A	N/A	Five or fewer	N/A	24	43,746

**Return is for period May 1, 2015 through December 31, 2015

Brown Advisory Institutional claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Brown Advisory Institutional has been independently verified for the periods from January 1, 1993 through December 31, 2022. The Verification reports are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

1. *For the purpose of complying with the GIPS standards, the firm is defined as Brown Advisory Institutional, the Institutional and Balanced Institutional asset management divisions of Brown Advisory. As of July 1, 2016, the firm was redefined to exclude the Brown Advisory Private Client division, due to an evolution of the three distinct business lines.
2. The Global Leaders Composite (the Composite) aims to achieve capital appreciation by investing primarily in global equities. The strategy will invest in equity securities of companies that the portfolio manager believes are leaders within their industry or country, as demonstrated by an ability to deliver high relative return on invested capital over time. The minimum account market value required for Composite inclusion is \$1.5 million.
3. The Composite creation date is August 26, 2015. The Composite inception date is May 1, 2015.
4. The benchmark is the MSCI ACWI Net Index. The MSCI ACWI Net Index captures large and mid cap representation across Developed Markets (DM) and Emerging Markets (EM) countries. The Index covers approximately 85% of the global investable equity opportunity set. All MSCI indexes and products are trademarks and service marks of MSCI or its subsidiaries. An investor cannot invest directly into an index. Benchmark returns are not covered by the report of the independent verifiers.
5. As of September 1, 2022, the Composite benchmark was changed from the FTSE All-World Net Index to the MSCI ACWI Net Index. The change was applied retroactively from the Composite inception date. The Advisor determined that MSCI indices are more widely used for global products, and thereby provide more relevant data to shareholders and prospects as well as comparisons to competitors.
6. Composite dispersion is an equal-weighted standard deviation of portfolio gross returns calculated for the accounts in the Composite for the entire calendar year period. The composite dispersion is not applicable (N/A) for periods where there were five or fewer accounts in the Composite for the entire period.
7. Gross-of-fees performance returns are presented before management fees but after all trading commissions, and gross of foreign withholding taxes (if applicable). Net-of-fees performance returns are calculated by adjusting the gross-of-fees performance return by the highest fee for the institutional strategy as outlined in Part 2A of the firm's Form ADV, applied on a monthly basis. Certain accounts in the Composite may pay asset-based custody fees that include commissions. For these accounts, gross returns are also net of custody fees. Other expenses can reduce returns to investors. The standard management fee schedule is as follows: 0.80% on the first \$50 million; 0.55% on the next \$50 million; 0.45% on the next \$50 million; and 0.40% on the balance over \$150 million. Further information regarding investment advisory fees is described in Part 2A of the firm's Form ADV. Actual fees paid by accounts in the Composite may differ from the current fee schedule.
8. Effective July 1, 2023, the firm transitioned from using actual account fees in the calculation of net performance returns to applying the highest fee for the institutional strategy as outlined in Part 2A of the firm's Form ADV. The net performance track record was revised back to Composite inception.

9. The investment management fee for the Investor Shares of the Brown Advisory Global Leaders Fund (the Fund), which is included in the Composite, is 0.65%, and represents the highest fee charged excluding Advisor Shares. The total expense ratio for the Investor Shares of the Fund as of the most recent fiscal year end (June 30, 2022) was 0.90%. Further information regarding investment management fees and expenses is described in the fund prospectus and annual report.
10. The investment management fee for the Dollar Class B Acc Shares of the Brown Advisory Global Leaders Fund (the UCITS), which is included in the composite, is 0.75%. The total expense ratio for the Dollar Class B Acc Shares of the UCITS as of the most recent fiscal year end (October 31, 2022) was 0.87%. Further information regarding investment management fees and expenses is described in the fund prospectus and annual report.
11. The three-year annualized ex-post standard deviation measures the variability of the Composite (using gross returns) and the benchmark for the 36-month period ended on December 31. The 3 year annualized standard deviation is not presented as of December 31, 2015, December 31, 2016 and December 31, 2017 because the 36 month returns were not available for the Composite (N/A).
12. Valuations and performance returns are computed and stated in U.S. Dollars. All returns reflect the reinvestment of income and other earnings.
13. A complete list of composite descriptions and broad distribution and limited distribution pooled funds is available upon request.
14. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.
15. Past performance is not indicative of future results.
16. This is not an offer to sell securities. That may only be accomplished by the issuance of a private offering memorandum/subscription documents.
17. This piece is provided for informational purposes only and should not be construed as a research report, a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell or hold any of the securities mentioned, including any mutual fund managed by Brown Advisory.