June 2023

The Monthly

With this commentary, we plan to communicate with you every month about our thoughts on the markets, some snapshots of metrics, a section on behavioral investing and finally an update on MacNicol & Associates Asset Management (MAAM). We hope you enjoy this information, and it allows you to better understand what we see going on in the marketplace.

"If it takes 200 years to achieve artificial intelligence, and then finally there is a textbook that explains how it's done, the hardest part of that textbook to write will be the part that explains why people didn't think of it 200 years ago…"

- John McCarthy, The "Father" of Artificial Intelligence

The Numbers:

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Index:		**2023 YTD:**
S&P/TSX:		0.97%
NASDAQ:		23.6%
Dow Jones:		-0.7%
S&P500:		8.7%
Interest Rates:	**Canada**	**USA**
90-Day T-Bill:	4.90%	5.26%
5-Year Bond:	3.67%	3.92%
10-Year Bond:	3.36%	3.77%
30-Year Bond:	3.25%	3.92%

Economic Data:

- Bank of Canada hikes benchmark rate to 4.75% and signals further hikes
- Argentina's Peronist government seeks IMF bailout to avoid a peso collapse
- US Federal Reserve raises interest rates by a quarter of one percent to 5-5.25%
- Crude oil off 11.4% in May
- Tech heavy indices such as Japan and the NASDAQ stronger in May
- Commodities broadly lower in May
- Bitcoin off 7% in May, still up 64% in

Valuation Measures: S&P 500 Index

Valuation Measure	**Latest**	**1-year ago**
P/E: Price-to-Earnings	22	21
P/B: Price-to-Book	4.1	4.5
P/S: Price-to-Sales	2.4	2.8
Yield: Dividend Yield	1.7%	1.4%

2023 Year to Date Performance, by Sector: May 31st, 2023

S&P/TSX Composite	0.97%
NASDAQ	23.6%
Dow Jones Industrials	-0.7%
S&P 500	8.7%
Russel 2000 (Small Caps)	0.4%
MSCI EAFE	5.10%
Crude Oil Spot (WTI)	-16.1%
Gold Bullion ($US/Troy Ounce)	5.64%
SOX Semiconductor Index	42.8%
VIX Volatility Index	-32.6%

Source: Canaccord Genuity Capital Markets & Thomson Reuters

Foreign Exchange - FX

As of June 13, 2023 10:00 AM EST	$5,000	Cdn		
Banks	**Rate**	**Buy USD**	**Cost**	**% Difference from Spot Rate**
CIBC	No Public Rate Posted Online			
Interactive Brokers	1.332	$3,754	$3	0.1%
Laurentian Bank	No Public Rate Posted Online			
National Bank	1.3715	$3,646	$(105)	-2.9%
Raymond James	1.3468	$3,713	$(38)	-1.0%
Royal Bank	1.3598	$3,677	$(74)	-2.0%
Scotia	1.3725	$3,643	$(108)	-3.0%
TD	1.3689	$3,653	$(98)	-2.7%
Canadian Snowbird	1.3644	$3,665	$(86)	-2.4%
Spot Rate	1.3330	$3,751	$-	0.0%

This coffee tastes gross…

There are few things I enjoy more than a genuinely satisfying cup of coffee. The smell, the taste, the overall experience is something I have loved from the very first moment I started drinking coffee in 1990. Coffee's main protagonist (conspirator) is of course the world's most widely abused drug: caffeine. But caffeine can be found in a wide range of foods and beverages. Everything from tea to energy drinks, "power bars", to throngs of soft drinks can jolt you with more caffeine than you might even suspect.

Still, few things delivery caffeine's punch as honestly, as genuinely and as robustly as coffee can. And this is precisely why I know of few things that can spoil coffee's tasty climax more than artificial sweeteners. For starters, they simply do not taste as good as sugar does…period. And those annoying little packets that artificial sweeteners come in are seriously difficult to open even for those of us with surgical dexterity. Lastly, how can something that provides sugar's sweetening power in just a few small granules be good for you? If at this point you are already brewing up a fresh pot of coffee to wake yourself a titch do me a favor and use real sugar.

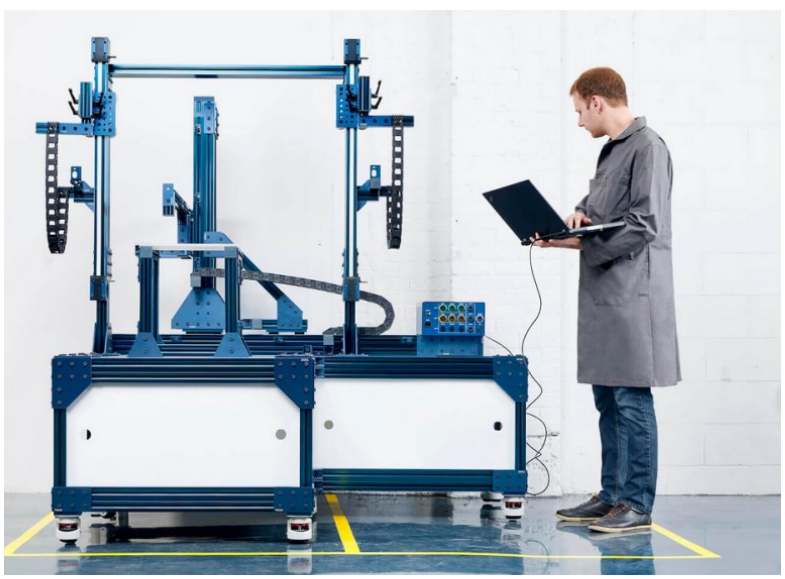
Assuming you are now sufficiently caffeinated, I want to draw your attention to something as genuine as coffee itself and that is our investment in companies directly involved in *artificial* intelligence. What prompted this wake up call was a discussion I recently had with one of our investors and his financial advisor. When asked what my thoughts on artificial intelligence were, I paused and said that while the underlying technology is way over my head, I was glad that we had exposure to this area in our Emergence private equity fund. Emergence through its partnerships holds many companies that are directly involved in artificial intelligence of the most cutting-edge sort, and I thought this would be a good opportunity to share some of them with you even if the underlying technology is deep into Ph.D., territory. But don't bother trying to get a quote on any one of these companies on Google Finance. These companies are all private, and as you will read about shortly, I quite prefer things that way.

Before we get into some specific names, let's map out how we here at MacNicol think about AI in general. First, we like to think about AI in the context of 3 core areas: immersive interfaces, data analytics or "applied" AI and trust protocols. Immersive interfaces such as Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR) are evolving fast but have been around for years. The archetype of immersive interfaces would be video games. But the traditional image of a pimply faced teenager holding a controller and slaughtering "aliens" from a galaxy far, far away on a screen in his parent's basement has long ago given way to technologies even more otherworldly than that. Today's immersive interfaces are more sophisticated and broader in how they are helping to transform the way consumers and businesses engage with the digital world. If anything, companies are challenged to adapt their planning processes to keep up with and define emerging immersive technology markets, and profits not bragging rights among other pimply faced teenagers are what is on the line here for investors.

Profits in AI are driven to a considerable extent by **penetration rates**, which is to say the overall level of sales activity that a company experiences but multiplied by a second dimension of the profit equation: the extent to which a company can sell its more lucrative products or services to customers. When the MacNicol team makes forays into this area, we see striving for higher profitability in both dimensions of the profit equation and in recent years it is education and training that has led the way. Palo Alto, CA based Strivr is the leader in immersive learning, a groundbreaking methodology that combines virtual reality (VR) with advanced learning theory, data science and spatial design to transform employee performance. Incubated at Stanford University by world-renowned VR expert Jeremy Bailenson and CEO Derek Belch, Strivr quickly expanded its focus from the athlete to the enterprise, now partnering with Fortune 1000 companies including BMW, Fidelity, JetBlue, Verizon and Walmart, to elevate performance through immersive experience.

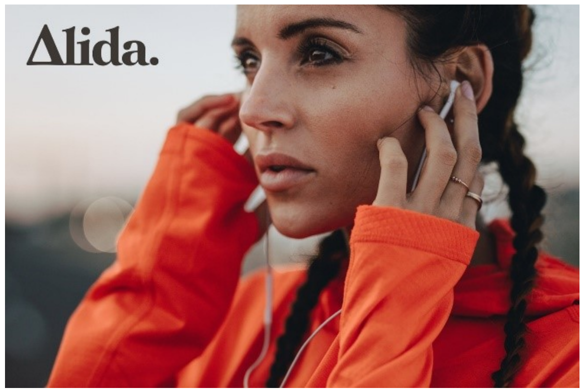
With Strivr, the goofy goggles are real, but the pimply faced teenager is often replaced by someone my age who is training or retraining for a new career or learning how to make their existing career much less “artificial” and much more real their customers.

Next up is an area I love which is data analytics or applied AI. This is the area of artificial intelligence that helps make other companies more efficient. We could write a dedicated commentary as long as this one exclusively on the companies in this all-important space and Emergence has exposure to many. My personal favourite is Montreal, QC based Vention. Vention helps some of the most innovative manufacturers automate their production floors in just a few days. Vention’s online-first manufacturing automation platform lets clients design, program, order, and commission automated equipment directly from their web browsers.



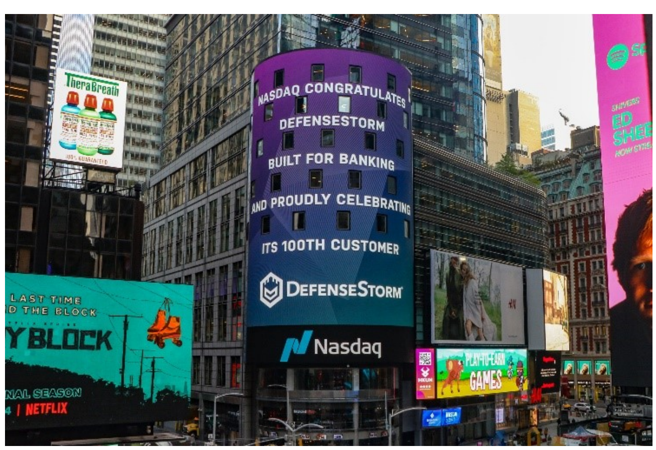
Vention’s protocols are used by over 1,000 factories in North America, Europe and Asia, and the uptake solidifies in our mind that the manufacturing of today is replacing size, scale and muscle power with precision, efficiency and most importantly brains. Production efficiency is measured in operational effectiveness. Operational effectiveness identifies the percentage of planned production time that is genuinely productive, and companies like Vention help to ensure that metric is higher than it can be with strength alone.

Toronto, Ontario based Alida provides a cloud-based customer intelligence platform that allows companies to build engaged, secure communities of customers they can use continuously, across the enterprise, for ongoing, real-time feedback and insight. Designed for today's glued-to-my-smart-phone mobile savvy social media culture, Alida's technology helps large, customer-centric enterprises discover what their customers want so they can deliver what they need.



If you don't know what your customers need, then as an entrepreneur, you don't know anything apart from the fact that you should probably be putting in a call to Alida right now.

The final AI area for us is trust protocols and cyber security. The simple fact of the matter is that you are more likely to get robbed blind online than in person, and cyber security has enormous implications for consumers, businesses, governments, the healthcare industry, and a whole host of other sectors. San Francisco, CA based Armis AI is the leading agentless, enterprise-class security platform that patrols the new threat landscape of unmanaged and IoT ("Internet of Things") devices. Dozens of Fortune 500 companies trust Armis' unique out-of-band sensing technology to discover and analyze all managed, unmanaged, and IoT devices - from traditional devices like laptops and smartphones to new unmanaged smart devices like smart TVs, webcams, printers, HVAC systems, industrial control systems, medical devices and more. Alpharetta, GA based DefenseStorm provides cybersecurity and cyber-compliance solutions specifically built for banking to achieve and maintain Cyber Safety & Soundness. DefenseStorm's GRID™ is a co-managed, cloud-based, and compliance-automated solution, operating as a technology system and as a service supported by experts in FI security and compliance. It watches everything on a bank or credit union's network and matches it to defined policies for real-time, complete, and proactive cyber exposure readiness, keeping security teams smart and executives accountable.



Cybersecurity is nothing if you cannot prove it to your stakeholders. And these days proof equals profits.

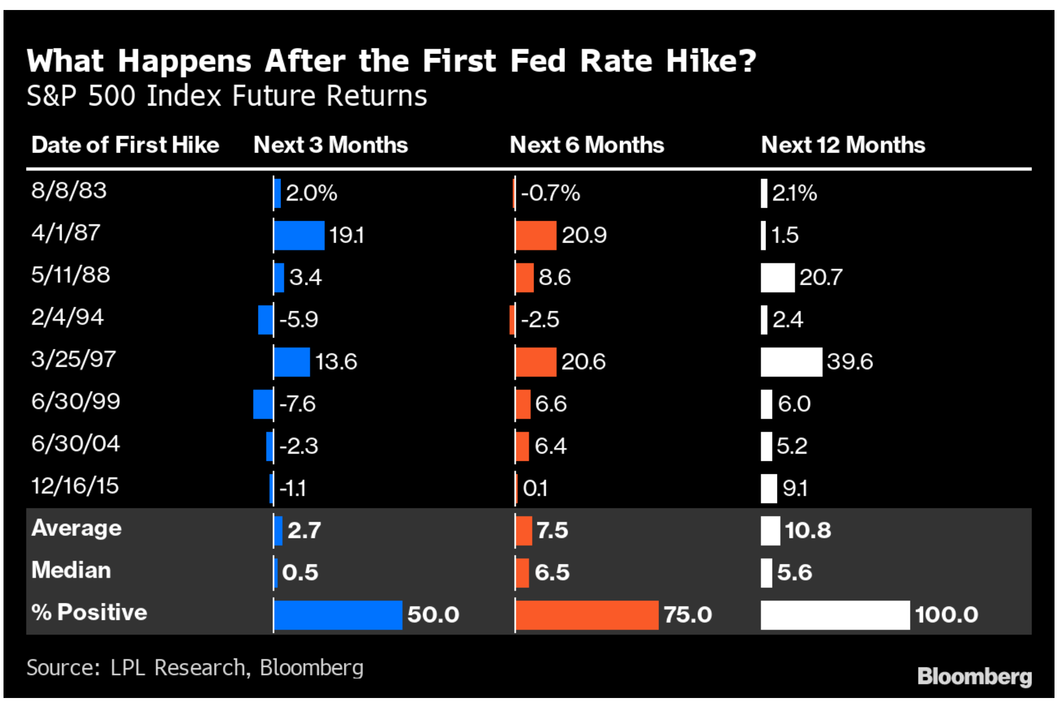
I believe that artificial sweeteners can ruin something as real as the experience of enjoying a good cup of coffee. But I do not believe that artificial intelligence will ruin real jobs and livelihoods. Better, faster, and safer technologies will result in more jobs in the future. But to stir it all up, your primary goal as an investor is to identify those areas of AI that are necessary, I would say crucial, in today's increasingly futuristic economy and separate them from fringe technologies that relate only tangentially to economic growth. Public market investments in technology are notoriously influenced by the hype of "FOMO", fear of missing out. And so, our approach to tech here at MacNicol has never been to avoid it, but instead to harness it for your use in the primary market through private investments. The technology is artificial, but we assure you the profit potential is not. Our partners in this extremely important area are immersive, data driven and trustworthy. But most important of all, they will often take the time to carefully explain to us what we can reasonably be expected to achieve with an investment, usually over a cup of coffee.

The MacNicol Investment Team

Run roughshod…

I love those words: *run roughshod*. What better way to describe a S&P500 that has surpassed its 1-year high (August 2022) and is now solidly higher by over 18% from the March 2023 lows. Last month, we penned a missive called "*Sell in May and you will pay…*" and in that article we alluded to our view that whenever naysayers and doomsday theorists are at the apex of their collective absurdity, you should hold your nose and invest like mad. The practice of arming our investors with not only prudent investments but prudent investment advice is intended to provide better traction and to serve as a weapon against the real enemy of those with capital: inflation.

But since we don't (ever) invest like mad or when we are mad, let's look at the present state of investment markets, and why we believe the bears may just get trampled some more. Our base case is that inflation, while still problematic for many, has been attenuated by a combination of tighter monetary policy and waning economic momentum. We are therefore very much in the camp of thinking about, thinking about the end of the interest rate tightening, and, if history is any indicator, this could be good news for equity markets. A look back at past tightening cycles shows that equity markets have historically performed well in the year after the final rate increase. But if there is one fly in the proverbial equity ointment, it is that a very big percentage of the overall performance of stocks in 2023 has been explained by a very small handful of enormous companies. Capital economics, a research firm, notes that a market-cap weighted portfolio of the largest five companies in the S&P 500 has returned ~ 40%, compared to only ~ 2% for one of the next 95 largest constituents and less than 1% for one of the remaining 400 firms. In other words, two thirds of the current constituents of the S&P 500 have risen in price by less than the overall index, many have fallen, and about a quarter are off by more than 10%.



What Happens After the First Fed Rate Hike?
S&P 500 Index Future Returns

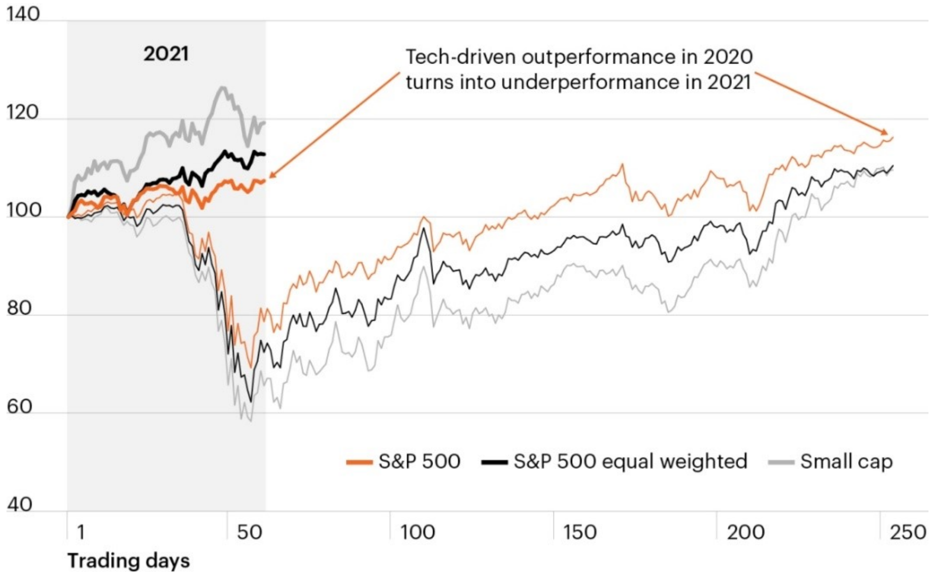
Date of First Hike	Next 3 Months	Next 6 Months	Next 12 Months
8/8/83	2.0%	-0.7%	2.1%
4/1/87	19.1	20.9	1.5
5/11/88	3.4	8.6	20.7
2/4/94	-5.9	-2.5	2.4
3/25/97	13.6	20.6	39.6
6/30/99	-7.6	6.6	6.0
6/30/04	-2.3	6.4	5.2
12/16/15	-1.1	0.1	9.1
Average	**2.7**	**7.5**	**10.8**
Median	**0.5**	**6.5**	**5.6**
% Positive	**50.0**	**75.0**	**100.0**

Source: LPL Research, Bloomberg

Bloomberg

But that could change. LPL Research demonstrates that over the past 8 tightening cycles, the S&P 500 has a good track record 6-months after the first rate hike but a great track record 12-months after the first rate hike.

We know that much of the S&P 500's plight is now in the hands of whatever Apple or Nvidia are doing, but rather than lead the overall market lower, we think big cap tech leadership might just pull the rest of the market up with it. There has been a positive correlation in recent years between returns from the largest 100 constituents in the S&P 100 relative to those from the smaller companies in index and changes in US high-yield credit spreads. A similar correlation exists when it comes to the returns from large-cap stocks relative to those from mid-cap stocks, and from mid-caps relative to small-caps too. In other words, when worries about the economic outlook have led to higher spreads, larger companies have usually outperformed smaller ones. In a similar vein, larger-cap companies have also tended to outperform smaller ones when more cyclical industries – such as banks – have underperformed the S&P 500.



The initial recovery in US equities from early 2020's lows **also** lacked in breadth, depending heavily on the mega-cap stocks benefitting from lower bond yields and the boost to many of their business models from social distancing. But it soon broadened out, as economic re-opening and fiscal and monetary stimulus meant a strong fundamental backdrop for US stocks more broadly.

Bringing it home…

We also believe the North American housing market has bottomed and the CEO of one of our main multifamily residential real estate partners will be updating us on the status of North American real estate in the Fall. If we are correct about housing, it will support our long-standing view that a brutal recession is not in the cards, despite what a multitude of bears are saying these days. Moreover, it provides some interesting investment opportunities in the U.S. and Canada in the form of home renovation giants such as Home Depot and Lowes, along with home builders like D.R. Horton. If bond investors underestimated inflation's wrath in 2022, then we reckon that equity investors will underestimate the durability of the economy in 2023. The jobless rate is not exactly flashing signs of major weakness and continues to kiss 70-year lows despite high profile layoff announcements and an unfounded fear that "AI" (Artificial Intelligence) will one day destroy us all.

To be clear, 1% GDP growth is hardly a sign of stellar economic growth, but it is a very nice relief for many investors who currently expect a far more draconian outcome. More importantly, cooler albeit still warm inflation, readings at least introduce the concept that maybe, just maybe Central Bankers do know what they are doing after all. Time will tell. For now, though don't grab the Bull by the horns, but do consider that it still has legs.

The MacNicol Investment Team

Behavioral investing: humongous fungus among us…

About 25 years ago, one of my University of Toronto Biology Professors (Jim Anderson) and his colleagues began studying a giant individual fungus, *Armillaria gallica, o*r honey mushroom. Gallica's cellular mutations offered an interesting vantage point on the important study of cancer cell growth and Dr. Anderson felt that it was a great opportunity to study the dynamics of naturally occurring mutations in a cell population that is spatially organized. Dr. Anderson and his team estimated that the honey mushroom, which is growing in a forest on Michigan's upper peninsula, was 1,500 years old, weighed 100,000 kilograms (no typo) and covered 15 hectares with an "h" (also no typo) and this led to a research paper with the same title as this article. Although Gallica, like most fungi, produces mushrooms *above* ground, it also has a network of underground tendrils called the mycelium that keeps the fungus alive by searching for food sources. The mycelium feeds on soil or decaying plant matter. So, when it comes to your investments, do you see mushrooms or tendrils?

Mycelium and myopia…

Psychological myopia refers to the tendency in decision makers to focus on information immediately related to their judgment and to ignore other, less prominent, pieces of information. As an investor, money losing positions in an overall portfolio certainly command focus. Justifiably so. But they should never derail you from ignoring the more prominent piece of information, which is the overall progress of a portfolio of investments towards your long-term financial goals. A secondary comparison directly applicable to life in today's pricier world is economic inflation, which people (my own Mother for example) often overlook. Recently, I had to replace my main family vehicle and if I told you what I paid for it you'd probably view me as frivolous or simply dumb. But like my Mom, you would be overlooking the economic impact of inflation, and instead judging my decision based on nominal values rather than the fact that I simply could not allow my children to be driven around in the 14-year-old (barely) road worthy rust bucket I replaced. People tend to think about $80,000 as $80,000 instead of its actual (adjusted) value during times of inflation. Similarly, people tend to think about their money losing investments as a **proxy attribute** of their overall portfolio. Psychologists describe proxy attributes as something that distracts you from the more fundamental attributes: such as whether your overall portfolio position is better today than it was a year ago or five years ago. Sadly, thinking in a proxy way may lead to biased decision-making. And in our experience, we have unfortunately seen people twist proxy attributes into fundamental attributes and derail an otherwise sound investment strategy at precisely the wrong time.

If you or someone you know is prone to the psychology of myopia, particularly when it comes to your finances, do take a moment to refer them to us. We look at investments, all investments, closely. But like Dr. Jim Anderson, my biology professor, our firm is in the unique position of being able to carefully study the mushrooms and the tendrils so that we can let you and your family know which one matters.

The MacNicol Investment Team

Firm Wide News

MacNicol & Associates Asset Management recently hosted RealVision founder Raoul Pal for a lookahead webinar on technology, digital currencies and what to expect in the coming years.

MacNicol & Associates would like to congratulate David MacNicol, Jr., on completing Medical School. Dr. MacNicol will soon embark on a residency program in Orlando, Florida to acquire further knowledge in family medicine.

MacNicol & Associates would like to congratulate Angelica Pochodyniak on her new start up Playful Paintbrush.