2022 Annual Report

Master of Management in Finance
On behalf of the entire Master of Management in Finance program, we send our deepest condolences to Marcel Desautels’ children, Paul and Renée, and their families. Without Mr. Desautels, none of this would be possible. The school has lost a great trailblazer and leader, but his legacy will live on.

We draw confidence, inspiration, and values from Mr. Desautels, whether through his impact, big picture ideas, or always thinking of others. We thank you for making the Desautels Faculty of Management a world-class business school and are forever grateful for your generous contributions to the university and broader community.

“We wanted to make a broad impact in the world of business by helping to shape well-rounded leaders with the ability to think analytically and create value across disciplines.”

– Marcel Desautels
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We would like to thank our investors for their continuous support since the inception of the Desautels MMF program, 7 years ago. The experiential learning is second-to-none, and the skill and knowledge gained from our time at Desautels Capital Management could not have been achieved at any other academic institution in the world. None of this would be possible if not for your continued trust and support in us and our firm. Thank you all, and we hope you will enjoy reading our 2022 Annual Report.

Hira Suman
Strategist, SRI Fund

Joseph Findlay
Strategist, Alpha Squared Fund

Master of Management in Finance
Class of 2022-2023

“An investment in knowledge pays the best interest.”

- Benjamin Franklin

Link to Class of 2022-2023
EXECUTIVE TEAM

Morty Yalovsky, President

Professor Morty Yalovsky is the President of Desautels Capital Management. He joined the faculty in 1974, and in addition to his academic responsibilities, he has assumed several senior administrative roles, including Vice-Principal (Administration and Finance) at the University level. Professor Yalovsky's research interests include Statistical Methodology, Forecasting Methods, and Modeling. He has also consulted in the areas of Applied Statistics and Information Technology for several leading Canadian corporations.

Vadim di Pietro, Co-Chief Investment Officer

Professor di Pietro is Co-Chief Investment Officer, Chief Compliance Officer, and registered Advising Representative for Desautels Capital Management. He joined the Faculty of Management in 2009. Prior to Desautels, Vadim was an investment strategist at J.P. Morgan in London from 2007 to 2009. He holds a B.Eng. from McGill University, a Masters in Mathematical Finance from the University of Toronto, and a PhD in Finance from the Kellogg School of Management. Vadim is also a CFA charterholder.

Jiro Kondo, Co-Chief Investment Officer

Professor Kondo joined the Finance group at the Desautels Faculty of Management in 2012 after having served on the faculty at Northwestern University’s Kellogg School of Management. Prior to becoming an academic, he was a proprietary trader at Goldman Sachs. He holds an undergraduate degree in Economics from Princeton University and a PhD in Financial Economics from MIT’s Sloan School of Management.

Jan Ericsson, MMF Program Director

Professor Ericsson joined the Desautels Faculty of Management in 1999 with a PhD from the Stockholm School of Economics. Professor Ericsson’s current research focuses on risk premia in corporate bond and credit derivative markets, and has been published in, among others, the Journal of Business and the Journal of Finance. He is a frequent guest speaker at industry conferences and has carried out consulting projects for a Nordic real estate investment firm, the Swedish National Debt Office, as well as for a hedge fund startup in Scandinavia.
BOARD OF DIRECTORS

Richard Pan | VP and Head of Corporate Finance
Power Corporation

Mr. Pan is currently Vice-President and Head of Corporate Finance and is responsible for strategic and corporate planning at Power Corporation and at Power Financial. Before joining Power Corporation in 2008, Mr. Pan was an Executive Director in Investment Banking with Goldman Sachs International based in London, England.

Sharon Stern | President
Metro Investment

Ms. Stern is a Canadian entrepreneur and real estate investor. Ms. Stern is the President of Metro Investments and President of Eastmore Management. Ms. Stern also serves on the Board of Directors of Cedar Realty Trust (NYSE: CDR), a Real Estate Income Trust specializing in grocery-anchored retail properties. At Cedar, Ms. Stern serves on both the Audit and Compensation committees.

Neil Murdoch | Former President
Aston Hill Asset Management

Mr. Murdoch is an active investor and has served on the boards of many private and public companies, including his current portfolio of businesses. He is the former President of Aston Hill Asset Management, having retired in December 2015. Mr. Murdoch has a strong track record of leadership and execution in the retail investment world.
**2023 Class Profile**

3.73
Average GPA

697
Average GMAT

20
Canadian Students

23
International Students

6
PR of Canada Students

Languages
English, French, Armenian, Arabic, Hungarian, Hindi, Nepali, Spanish, Italian, Mandarin, Punjabi, German, Haitian Creole, Korean, Romanian, Portuguese, Tamil, Kannada, Urdu, Russian

7
MMF students speak at least 4 languages

22
MMF students speak at least 3 languages

49
Students

14/35
Female/Male

23
Average Age

Previous Education

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<th>Count</th>
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<td>Finance</td>
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<td>Economics</td>
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<td>Engineering</td>
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<td>Accounting</td>
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<td>Mathematics</td>
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<tr>
<td>Management</td>
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<td>Computer Science</td>
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<tr>
<td>Environmental Studies</td>
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Class of 2023 and MMF Alumni Employer Placements
**STRATEGIST REVIEW**

2022 Market Recap

**Vol is back**

The S&P 500 lost 18.1% in 2022, its worst performance since 2008. The S&P/TSX fared better, down only 8.7% due to its larger exposure to the high flying energy sector and lower exposure to crashing Info Tech. These losses were also accompanied by extreme volatility. In 2022, the VIX volatility index recorded its second highest annual average since the Financial Crisis. In the next section, we recap month-by-month important events that shaped equity markets in 2022, and after that we provide our outlook for the year ahead.

**2022 Returns**

| Index       | Change  
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>S&amp;P 500</td>
<td>(18.1%)</td>
</tr>
<tr>
<td>Energy</td>
<td>59.0%</td>
</tr>
<tr>
<td>Utilities &amp; Renewables</td>
<td>(1.4%)</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>(3.2%)</td>
</tr>
<tr>
<td>Health Care</td>
<td>(3.6%)</td>
</tr>
<tr>
<td>Industrials</td>
<td>(7.1%)</td>
</tr>
<tr>
<td>Financials</td>
<td>(12.4%)</td>
</tr>
<tr>
<td>Materials</td>
<td>(14.1%)</td>
</tr>
<tr>
<td>Real Estate</td>
<td>(28.4%)</td>
</tr>
<tr>
<td>Information Technology</td>
<td>(28.9%)</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>(37.6%)</td>
</tr>
<tr>
<td>Communication Services</td>
<td>(40.4%)</td>
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</tbody>
</table>

| Index       | Change  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P/TSX</td>
<td>(8.7%)</td>
</tr>
<tr>
<td>Energy</td>
<td>24.4%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>8.5%</td>
</tr>
<tr>
<td>Industrials</td>
<td>0.2%</td>
</tr>
<tr>
<td>Materials</td>
<td>(0.2%)</td>
</tr>
<tr>
<td>Communication Services</td>
<td>(7.0%)</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>(8.1%)</td>
</tr>
<tr>
<td>Financials</td>
<td>(12.7%)</td>
</tr>
<tr>
<td>Utilities &amp; Renewables</td>
<td>(14.0%)</td>
</tr>
<tr>
<td>Real Estate</td>
<td>(24.3%)</td>
</tr>
<tr>
<td>Information Technology</td>
<td>(52.2%)</td>
</tr>
<tr>
<td>Health Care</td>
<td>(62.2%)</td>
</tr>
</tbody>
</table>

**Figure 1: S&P/TSX and S&P 500 in 2022**

Source: Bloomberg
# Strategist Review

## 2022 In Review

### January (↓)
S&P 500 fell 5.2% due to the Fed’s hawkish policy shift, Omicron and geopolitical tensions. Energy was the only sector up, and there was a downward repricing of growth stocks.

### February (↓)
S&P 500 declined 3.1% on the back of the Russian invasion of Ukraine and a hotter-than-expected inflation print.

### March (↑)
S&P 500 rose 3.6% as beaten down growth and small-cap stocks rebounded in March. The top performer was Utilities (+10%), while Energy (+9%) also did well owing to soaring oil and gas prices.

### April (↓)
S&P 500 fell 8.7% with oil slipping below $100 per barrel and news of the US real GDP contracting 1.4% in Q1 2022.

### May (↑)
S&P 500 went up a meagre 0.2% as April’s volatility bled into the first three weeks of May. The market was finally considered to have hit bear market territory with a decline of nearly 21% from its January high.

### June (↓)
S&P 500 declined 8.3% and registered its worst first half (-20%) since 1970. Hawkish monetary policy, the Russian war, China lockdowns and recession fears were the primary headwinds.

### July (↑)
S&P 500 went up 9.2% due to higher-than-expected earnings releases for Q2 2022 and strong performance from growth stocks (long-duration securities increased in value because the 10-year bond yield fell).

### August (↓)
S&P 500 went down 4.1% because of Chair Powell’s hawkish speech about impending ‘pain’ for households and businesses.

### September (↓)
S&P 500 fell 9.2% as even defensive sectors such as Utilities and Consumer Staples saw loss of investor interest due to rising rates which offered a more competitive yield.

### October (↑)
S&P 500 went up 8.1% thanks to corporate buybacks and a correction of overly negative investor sentiment.

### November (↑)
S&P 500 rose again by 5.6% due to Chair Powell hinting at a lower pace of rate hikes in future and the midterm elections resulting in a divided Congress which is good for policy stability.

### December (↓)
S&P 500 fell 6% based on analysts’ expectations that corporate earnings would fall 3% in Q4 2022.

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### Crude Oil Monthly Average Price: WTI - USD/Bbl

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Russian Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fuel</strong></td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>26%</td>
</tr>
<tr>
<td>Crude</td>
<td>8%</td>
</tr>
<tr>
<td>Coal</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td></td>
</tr>
<tr>
<td>Palladium</td>
<td>19%</td>
</tr>
<tr>
<td>Nickel</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Agriculture and Forest Products</strong></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>17%</td>
</tr>
<tr>
<td>Timber</td>
<td>12%</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>23%</td>
</tr>
</tbody>
</table>

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**Strategist Review**

2023 Outlook

**Recession fears looming**
As we enter 2023, we do not expect a recession, but it is certainly a possibility. Central bank overtightening is the main risk factor. The street expects central banks will hike too aggressively, induce market turmoil and will subsequently be forced to reverse course. Indeed, we would not be surprised to see the S&P 500 2022 lows retested in the first half of 2023. Despite the turmoil, we expect modest central bank easing in the second half of the year will help sustain a modest market recovery.

**Caution on earnings**
Through 2022, fundamentals remained well anchored given a resilient labour market and COVID reopenings. These fading tailwinds and tightening financial conditions should make for a more challenging backdrop going forward. Our view is that S&P 500 earnings will likely contract by 5-7% due to the lagged effects of restrictive monetary policy, decreasing consumer savings, and increased geopolitical risks. It should be noted, if the recession is earlier, deeper, and longer than our current view, net income for the S&P 500 could collapse. This can occur especially if the contraction is accompanied by a deflationary spiral and private credit cycle.

**Energy momentum**
Barring a severe global recession, our view is continued outperformance for the Energy sector. Oil and gas demand are predicted to remain high in 2023 as economies continue to rebound from COVID. Moreover, supply is likely to remain constrained due to disruptions related to the Russian war in Ukraine and years of low investment in production. Global oil and natural gas markets were already tight – with supply lagging demand. This is most likely to continue in 2023. Even despite recessionary fears, demand for oil and gas will continue to grow. Although the investment in oil and gas production has been increasing, it will likely take at least several years for global supply to catch up with demand, thus supporting high oil and gas prices for the foreseeable future.

**Themes to watch**

1.) **The easing of China’s zero-COVID policy** will most likely jumpstart the Asian economy

2.) **Inflation and interest rates continue to be a key driver in equity markets**, as inflation sensitive stocks, whether value or growth, will continue to provide relative performance contingent on the inflation prints and headlines (if the FED keeps rates higher for longer to combat inflation, stocks with a superior credit profile and robust margins should be resilient).

3.) **Stocks that are currently resilient to disruptions in agriculture/fertilizer supply**, due to Europe conflict have an opportunity to gain increased market share and be rewarded by investors.

4.) **As the de-globalization trend maintains momentum**, corporations will likely surrender to protesters’ agenda and build more resilient and diversified supply chains to avoid being held hostage to changing local laws or other bottlenecks.

**The battle of value vs growth**
The market rally in Jan ‘23 is the result of the market pricing in a soft-landing and growth returned more than value. Our view, however, is that value names will outperform for rest of this quarter as value companies tend to be more domestically focused and are benefitting from the COVID recovery.

Shares of U.S grocers, such as packaged food companies and supermarkets are expected to lag in Q1 2023 as their high valuations and fading dividend appeal will most likely push investors to U.S treasuries. This could be the first time in nearly a decade that Consumer staples companies (considered value for most-part) witnessed soaring demand for groceries and cleaning supplies during peak COVID. They are now battling low sales volume, high input costs, and a stronger dollar.
**ALPHA SQUARED FUND**
2022 Review & Outlook

**Financial Performance**
In 2022, the Alpha Squared Fund returned (11.0%) gross of fees vs (8.7%) for our blended benchmark (60% S&P TSX and 40% S&P 500). As of December 31st, 2022, the fund has an annualized return of 5.3% since inception (February 2017), while the benchmark has an annualized return of 8.4%.

As a reminder, the Alpha Squared Fund uses a combination of bottom-up fundamental analysis, quantitative screening, and top-down macroeconomic views for stock selection.

*Figure 1: A² vs Blended Benchmark*

Our underperformance in 2022 can be attributed to our overweight exposure in consumer discretionary securities as well as growth stocks. Our fund’s PE ratio was approximately 31.7, vs only 18.5 for our blended benchmark. Unfortunately for us, the first week of January 2022 was the worst week for growth (relative to value based on the Fama-French HMB factor) since September 1939. Our positions in Netflix, Vizio, Etsy, and PayPal significantly underperformed their respective benchmarks in Q1, which saw our fund underperform by 8.3%. While we outperformed for the rest of the year, we were not able to completely close the gap.

**Outperforming after Q1**
The Alpha Squared fund implemented important changes entering the 2nd half of 2022. Reducing exposure in the consumer discretionary sector by selling Vizio was a priority as we felt that higher interest rates would limit consumer spending on their offerings. We sold Vizio on July 20th. From that date to the end of the year it lost 12.7%.

We also sold PayPal on July 20th. PayPal was a bottom third performer in its sector and sub-sector, which triggered a sell based on our quant momentum exit signal. From that date to the end of the year, PayPal lost another 11.7%.

Our Q2-to-Q4 outperformance in 2022 was also helped by our decision to reduce our exposure to the consumer discretionary sector, which lost 18.4% in Q4.

**Positioning ourselves for 2023**
In June 2022, we laid out our four-part strategic plan: We were going to 1) increase exposure in the Consumer Staples sector; 2) diversify sub-sector exposures within their respective sectors, 3) reduce the portfolios systematic risk and overall risk (beta, standard deviation, tracking error) and; 4) Reduce the portfolio growth bias by reducing the fund’s P/E. In other words, we reduced the influence of our prior top-down macro theses and focused on bottom up fundamental analysis.
**ALPHA SQUARED FUND**

2022 Review

**Growth/Value Exposure**

![Graph showing growth/value exposure over time]

**Size Exposure**

![Pie chart showing size exposure: Small 5.9%, Mid 10.9%, Large 83.3%]

**Currency Exposure**

![Bar graph showing currency exposure: A2 CAD 50.2%, A2 USD 49.8%, Benchmark CAD 60.0%, Benchmark USD 40.0%]

**Alpha Squared 2022 Performance**

<table>
<thead>
<tr>
<th></th>
<th>A2</th>
<th>Benchmark</th>
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</thead>
<tbody>
<tr>
<td>Return</td>
<td>(11.0%)</td>
<td>(8.7%)</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>18.3%</td>
<td>14.8%</td>
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<tr>
<td>Sharpe Ratio</td>
<td>(0.78)</td>
<td>(0.80)</td>
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<tr>
<td>Beta</td>
<td>1.12</td>
<td>-</td>
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<tr>
<td>Alpha</td>
<td>(0.9%)</td>
<td>-</td>
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<tr>
<td>Treynor Ratio</td>
<td>(0.13)</td>
<td>(0.12)</td>
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<tr>
<td>Tracking Error</td>
<td>8.3%</td>
<td>-</td>
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<tr>
<td>Information Ratio</td>
<td>(0.02)</td>
<td>-</td>
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</table>

*Only Standard Deviation & Sharpe Ratio Annualized*

**Alpha Squared Sector Weightings**

<table>
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<tr>
<th>Sector</th>
<th>Fund Weight</th>
<th>Benchmark Weight</th>
<th>Benchmark Deviation</th>
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<td>Utilities</td>
<td>7.3%</td>
<td>4.5%</td>
<td>2.7%</td>
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<tr>
<td>Cash</td>
<td>2.0%</td>
<td>-</td>
<td>2.0%</td>
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<tr>
<td>Health Care</td>
<td>7.8%</td>
<td>6.2%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>3.8%</td>
<td>2.7%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>6.1%</td>
<td>5.3%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>7.2%</td>
<td>6.8%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Financials</td>
<td>23.5%</td>
<td>23.4%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Information</td>
<td>12.6%</td>
<td>13.9%</td>
<td>(1.3%)</td>
</tr>
<tr>
<td>Technology</td>
<td>9.7%</td>
<td>11.1%</td>
<td>(1.4%)</td>
</tr>
<tr>
<td>Industrials</td>
<td>5.6%</td>
<td>7.7%</td>
<td>(2.1%)</td>
</tr>
<tr>
<td>Materials</td>
<td>3.8%</td>
<td>6.3%</td>
<td>(2.5%)</td>
</tr>
</tbody>
</table>

Desautels Capital Management

MMF Annual Report 2022
**ALPHA SQUARED FUND**

2022 Review

**Total return and position summary**

- Tourmaline Oil Corp.*
- Enphase Energy Inc.*
- UFP Technologies Inc.*
- Mastercard Incorporated, Class "A"
- TMX Group Limited*
- Roper Technologies Inc.*
- Royal Bank of Canada*
- Manulife Financial
- NIKE Inc., Class "B"*
- Equinix Inc.*
- PepsiCo Inc.*
- Franco-Nevada Corp.*
- S&P/TSX Financials ETF*
- BSR Real Estate Investment Trust*
- Communications ETF (SPDR)*
- S&P/TSX 60 ETF
- CGI Inc.*
- Medtronic*
- S&P Global Industrials ETF*
- Alimentation Couche-Tard*
- Energy Transfer*
- Intact Financial*
- ON Semiconductor*
- Bank of America Corp.*
- Canadian Solar Inc.*
- Innergex Renewable Energy Inc.
- Liberty Oilfields
- Etsy Inc.*
- Clearway Energy*
- MSCI Inc.*
- ATS Automation Tooling Systems Inc.*
- Danaher Corporation*
- TC Energy Corporation*
- Spin Master Corporation*
- Vizio Holding Corp
- Veeva Systems Inc., Class "A"*
- PayPal Holdings Inc.
- Shell PLC*
- Netflix
- Teladoc Health, Inc.
- GURU Organic Energy Corp

**Alpha to Sector Benchmark**

**Total Return**
Overview of Financial Performance
In 2022, the SRI Fund returned (20.0%) gross of fees, lagging its blended benchmark by 7%. As of December 31st, 2022, the fund has an annualized return of 4.4% since its inception in September 2018. The benchmark has an annualized return of 9.2% in comparison.

The SRI Fund uses a combination of bottom-up fundamental analysis, ESG screening, and top-down macroeconomic views for stock selection.

2022 Performance Analysis
January 2022 was largely responsible for the SRI Fund’s relative underperformance this year. Most of the holdings that did poorly in January belonged to the Information Technology and Consumer Discretionary sectors, such as Advanced Micro Devices (down 24%) and Etsy (down 25%). This negative performance was due to a systematic repricing of growth stocks which were overvalued at the market peak in late 2021. In fact, the first week of January was the worst for the High-Minus-Low Fama-French factor since 1939.

Quarterly Performance Analysis
The Fund outperformed its benchmark in Q3 and Q4 2022 by 4% and 3%, respectively. In Q3, holdings such as VZIO (+77%) and NET (+67%) led the way, while AXSM (+37%) and OKTA (+31%) led in Q4.

Sector Rebalancing
While we aim to outperform the benchmark through careful stock selection, we also try to minimize deviation from the benchmark’s sector allocation. Our investment decisions made in December 2022 helped reduce the sector allocation deviation for five sectors: Information Technology, Consumer Discretionary, Communication Services, Materials and Industrials. We ended 2022 with the following sector allocation deviations in the Fund.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Benchmark Deviation</th>
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</thead>
<tbody>
<tr>
<td>Consumer Discretionary</td>
<td>4.7%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>3.8%</td>
</tr>
<tr>
<td>Information Tech.</td>
<td>2.4%</td>
</tr>
<tr>
<td>Financials</td>
<td>1.6%</td>
</tr>
<tr>
<td>Cash</td>
<td>1.4%</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.5%</td>
</tr>
<tr>
<td>Communication Services</td>
<td>0.4%</td>
</tr>
<tr>
<td>Materials</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Health Care</td>
<td>-2.9%</td>
</tr>
<tr>
<td>Energy</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Industrials</td>
<td>-6.0%</td>
</tr>
</tbody>
</table>

Stock selection in H2 2022
The following stocks were purchased for the SRI Fund in December 2022:

1. CBOE Global Markets: we expect the market to reprice CBOE’s currently undervalued revenue growth potential.
2. Freeport McMoRan: the company is expected to benefit from an increase in copper prices due to negative supply shocks in Chile and Peru
3. Medtronic: we expect Medtronic to see significant growth from its presence in emerging markets
4. UDR Inc: this REIT has a next-gen operating platform expected to increase efficiency and profits beyond the market’s current expectations
5. Alphabet Inc: we believe that Alphabet is well-positioned to benefit from advertising growth once the economic climate improves.
6. Chargepoint Holdings: we believe the market underappreciates CHPT’s capital-light structure that allows it to scale its business faster than competitors.
Important Milestone for the SRI Fund
For the first time since inception, the Fund has invested in the Industrials and Materials GICS sectors. The responsible stocks are Chargepoint Holdings and Freeport McMoRan respectively.

It is generally difficult to find companies in the two sectors that meet our stringent ESG standards. Kudos to the respective sector analysts for their determination to find such companies, and to the companies themselves for striving to become responsible businesses.

SRI Fund Beta and P/E Multiple
The Fund beta, based on 5-year monthly data, is 1.17 as of December 31st, 2022.

The SRI Fund’s P/E multiple was reduced from 30.6x to 28.1x through the December trades. The strategy implemented was to divest stocks with negative earnings per share, namely GURU, SQ, NET, OKTA and TDOC, and invest in positive EPS stocks (FCX, CBOE, MDT, UDR and GOOG).

Given the experience of 2022, we will aim to reduce our growth exposure going forward, so our fund performance is more closely linked to our bottom-up fundamental analysis as opposed to growth vs value plays.

Geographic Exposure of the Fund
Overall, the Fund’s holdings generate 66% of their revenue from North America. The remainder comes from a variety of countries in Asia, Europe, S. America and the Middle East. Given the relatively higher economic and political stability generally found in N. America, we believe this is a medium risk geographic exposure.

<table>
<thead>
<tr>
<th>Region</th>
<th>SRI Fund</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. America</td>
<td>66%</td>
<td>58%</td>
</tr>
<tr>
<td>Asia</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Europe</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>S. America</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Middle East</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Compared to its benchmark, the Fund has a 58% exposure to the U.S., while the benchmark has a 54% exposure.

<table>
<thead>
<tr>
<th>Year</th>
<th>SRI Fund</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>24.5%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>(0.96)</td>
<td>(0.98)</td>
</tr>
<tr>
<td>Beta</td>
<td>1.17</td>
<td>-</td>
</tr>
<tr>
<td>Alpha</td>
<td>(2.9%)</td>
<td>-</td>
</tr>
<tr>
<td>Tracking Error</td>
<td>13.3%</td>
<td>-</td>
</tr>
<tr>
<td>Information Ratio</td>
<td>(0.54)</td>
<td>-</td>
</tr>
</tbody>
</table>

*Only Standard Deviation & Sharpe Ratio Annualized

<table>
<thead>
<tr>
<th>Since inception</th>
<th>SRI Fund</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>19.8%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>0.10</td>
<td>0.41</td>
</tr>
<tr>
<td>Beta</td>
<td>1.11</td>
<td>-</td>
</tr>
<tr>
<td>Alpha</td>
<td>(0.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Tracking Error</td>
<td>8.7%</td>
<td>-</td>
</tr>
<tr>
<td>Information Ratio</td>
<td>(0.52)</td>
<td>-</td>
</tr>
</tbody>
</table>

*Only Standard Deviation & Sharpe Ratio Annualized
Best and Worst Performers in 2022

The best performing holding in 2022 was Axsome Therapeutics, which obtained regulatory approval for its first two medicines. It was followed by Enphase Energy, a solar panel manufacturer, which capitalized on the energy crisis and doubled its revenue in Europe. The worst performing holdings were Guru Organic Energy which had difficulty meeting its growth targets, and Teladoc Health which took a $6.6B goodwill impairment charge on an acquisition and cut its projected growth due to tougher-than-expected competition.

Investment Decisions in December 2022

Six of the holdings mentioned below were purchased in December 2022, namely CBOE Global Markets, Freeport McMoRan, Medtronic, UDR Inc, Alphabet Inc and Chargepoint Holdings. These will contribute to the Fund’s performance 2023 onwards.

On the other hand, positions in Guru, BestBuy, Block Inc, Cloudflare, Danaher, Life Storage Inc, Okta, PayPal and Teladoc Health were fully divested in December 2022 and are no longer held by the Fund.
MACROECONOMIC THEMES

2022 REVIEW & 2023 OUTLOOK

VERONICA DEOL
Analyst

KASHYAP RAGHAVENDRA
Analyst

RENZO MUÑOZ NAJAR DEZA
Chief Economist

HIRA SUMAN
Strategist

ALLEN LI
Analyst

TIAN YUAN ZHENG
Analyst

DESAUTELS CAPITAL MANAGEMENT
MACROECONOMIC THEMES

2021 – 2022 Themes

Labour Market
The labor market in the US and Canada showed remarkable resilience in 2022. In the US, low initial jobless claims, low unemployment rates and high job openings rates signal strong labor demand. Nonetheless, growth in average hourly earnings have been slowing down up to 4.8% YoY in December. Furthermore, the overall Employment Cost Index was up 1.0% QoQ in December, below the 1.1% consensus. In Canada, there are similar conditions, the unemployment rate fell to 5.0% and the average hourly wages slowed down to a 5.2% increase in December. Big companies’ layoffs are expected to be partially offset by small companies hiring in the US during 2023. In Canada, new immigrants are expected to continue boosting 2023 new hiring. Hence, in 2023, labor market is expected to slightly cool down due to recession expectations and tightening monetary policy, resulting in a 3.8% unemployment rate and an average hourly earnings growth below 4% by the end of 2023 in the US. In this regard, this level should be enough to prevent the Fed from increasing interest rates above 75 bps in 2023.

Inflation
During the first half of 2022, the US and Canada continued facing 2021 inflationary pressures such as world supply chain issues due to COVID-19, labor shortages and strong consumer spending. On top of that, the Russian invasion of Ukraine added new pressures as it reduced global supply of oil and food commodities. These conditions bolstered inflation expectations and caused inflation to peak in June 2022. Afterwards, the easing of supply chain disruptions, the aggressive tightening of monetary policy and the increasing recession risk, which led to a decline in oil prices, helped to slow down both inflation and inflation expectations. YoY inflation resulted in 6.5% in the US and 6.3% in Canada by year-end. While a disinflationary process might have started, these inflation levels are still far from the Central Banks 2% target rate. The decline in goods prices was evident, but services inflation remained high and sticky. For instance, in the US, services excluding energy services, which represents 57.5% of the CPI, exhibited a 7% yearly inflation. As this figure heavily relies on wage inflation, Jerome Powell made public his concerns of services inflation and mentioned that for wage growth to be sustainable, it needed to be consistent with 2% inflation, which required reducing demand for labor by slowing the economy. According to analysts, this means that wage inflation must reach a level below 4%. As we expect Central Banks to be more data dependent in the near future, monitoring labor market will be crucial going forward.

Looking ahead 2023, while there are many factors supporting lower inflation figures, there are some others to be aware of as they could put pressure on inflation. Future oil prices imply that energy prices will remain constant. Lower consumer spending, discounting in goods’ prices and continued improvements in the supply chain due to the reopening of China are likely to cause prices to fall. However, the re-opening of China could also cause demand-induced price increases. Moreover, food inflation is expected to remain high, fueled by supply issues such as continued conflict of Russia and Ukraine, weather variability and livestock diseases. Given low MoM inflation figures in the second half of 2022, base effects and the factors mentioned, we expect US YoY inflation to be within 2.8% and 4.1% percent by June 2023, 3.3% being our baseline forecast. In Canada, we expect similar or slightly higher figures due to the effect that the end of the cost blackout period in supermarkets might have.

Figure 1: 2022 & 2023 Forecast Inflation Rate in USA

Bureau of Labour Statistics
MACROECONOMIC THEMES
2022 – 2023 Themes

Monetary Policy

United States:
Monetary policy was the name of the game in 2022, and we expect it to continue being a major driver of market volatility going forward. 2022 was defined by the Federal Reserve’s aggressive actions against out-of-control inflation. In the midst of upside inflation surprises, the Fed conducted their final purchase of bonds on March 9, 2022, ending the COVID quantitative easing program which started in March, 2020. This was followed by a rate hike of 25 BPS on May 16, bringing the policy rate to 0.25-0.5%. On June 1, 2022, the Fed began to unwind its balance sheet, beginning a program of quantitative tightening. By allowing treasuries and mortgage-backed securities to mature, the Fed reduced its balance sheet by $47.5 billion per month over the summer, and accelerated this pace to $95 billion a month in September. As of January 29, 2023, the Fed’s balance sheet is down $450 billion from its peak of $8.4 billion, reducing the money supply in the economy. The Fed will continue its QT program for the foreseeable future, further reducing money supply and tightening financial conditions. Beyond QT, the Fed has also attempted to bring in inflation by engaging in the most aggressive rate hiking cycle in recent history. While DCM analysts predicted rate increase of 25 BPS in March, June, September, and December (bringing the policy rate to 1.00-1.25% by EOY), the Fed ended up hiking 25 BPS in March, 50 BPS in May, 75 BPS, in June, July, September and November, and finally 50 BPS in December, bringing the EOY policy rate to 4.25-4.50%. Due to downward trending inflation, and noting that monetary policy works with lag, the Fed hiked 25 BPS in February. We expect 2 more hikes of 25 BPS in March and May of 2023, bringing the policy rate to 5.00-5.25%, and expect the Fed to hold rates at this level until EOY. Due to the persistence of sticky inflation in components of CPI such as services, we do not expect the Fed to cut rates before the end of 2023, as markets are currently pricing. We also do not believe that recession is a base case by EOY, as the labor market remains strong, while consumers continue to have a cushion of savings.

Canada:
In 2022, the Bank of Canada conducted its monetary policy in a very similar fashion to its US counterpart, in an attempt to fight inflation. Recently, it conducted what the market prices to be its last rate hike, bringing the overnight lending rate from 4.25% to 4.50%. Due to certain factors such as mortgage terms of 5 years, the Canadian consumer is likely to be more sensitive to interest rate increases. (In the US, many 30-year mortgages were locked in at lower interest rates). Combined with decreasing inflation, we agree with the market’s projection that Canadian rates will be held constant for the foreseeable future.

Figure 2:

Federal Funds Effective Rate Evolution

Bloomberg
MACROECONOMIC THEMES

2022 – 2023 Themes

Fiscal Policy

United States:
The budget deficit totaled USD1.38 trillion for FY2022, down from $2.77 trillion in FY2021. Throughout 2022, US President Joe Biden subsequently signed the CHIPS and Science Act and the Inflation Reduction Act into law. Along with the Bipartisan Infrastructure Law, the US government introduced approximately USD2 trillion of new spending over ten years. Major areas of spending include clean energy and US domestic chip manufacture. On the revenue side, the Inflation Reduction Act introduces a 15% minimum corporate tax on applicable corporations along with a 1% exercise tax on share repurchase. On January 17, 2023, the US government officially reached the debt ceiling. The treasury has enacted “extraordinary measures” to keep fulfilling the current obligations.

Canada:
The Canadian government has a fiscal year ending March 31. During Fiscal Year 2021-2022, the government posted a fiscal deficit of CAD90.2 billion, compared to a deficit of CAD327.7 billion in Fiscal Year 2020-2021, reflecting normalization of fiscal spending post pandemic. On January 27, the finance ministry reported CAD3.55B fiscal deficit for the first eight month in Fiscal Year 2022-2023. The decreasing deficit YoY is the result of a combination of higher fiscal revenue and lower government expenditure.

GDP

United States:
Real GDP increased 2.1% in 2022 year-over-year. The main reasons behind this growth were higher consumer spending, exports, private inventory investment and non-residential fixed investment. These effects were partially offset by decreases in residential fixed investment and federal government spending, and an increase in imports.

Consumer spending on services increased thanks to robust wage growth due to labor shortages and savings from the first year of COVID-19. Higher inventory investment and non-residential fixed investment were driven by increased manufacturing, wholesale and retail trade, and increases in intellectual property and equipment. At the same time, there was a decrease in new single-family construction and government spending in both defense and non-defense categories.

Due to a tightening monetary policy, growth is expected to average 0.9% in both 2023 and 2024. In 2023, we expect a continued decline in spending on durable goods, residential investment and non-residential structures.

Canada:
Canada’s real GDP growth in 2022 is estimated to have been 3.8%. The year was marked by declines in household spending and residential investment due to higher interest rates. The positive GDP growth was a result of higher exports, non-residential structures and private inventory investment. Within inventory investment, the stock-to-sales ratio for motor vehicles rose after its historical low in 2021.

Growth is expected to taper down to 1% in 2023 and 1.3% in 2024. Higher borrowing costs are expected to hinder consumer spending in Canada, while uncertain financial and geopolitical stress in trade partner countries should weigh on exports.
MACROECONOMIC THEMES
2022 – 2023 Themes

Housing Market

Unites States:
The US housing market experienced a decline for the fifth consecutive month, resulting in a decrease of 2.5% from its June high in the housing price index. In November, there was also a 0.3% drop from the previous month. Despite the recent dip, housing prices remain higher than they were a year ago due to the ongoing impact of the pandemic, which caused a boom in real estate in many parts of the country. Nevertheless, this growth has started to slow down, with the yearly increase in November being 7.7%, a decrease from the 9.2% increase seen in October.

The purchase of new single-family homes rose by 2.3% to an annual rate of 616,000. This followed a downward revision from the previous month when 644,000 homes were bought. In 2022, this was the lowest yearly total in four years. This can be attributed to the Federal Reserve's monetary policy tightening, which caused a significant rise in mortgage rates, making it difficult for people to buy homes. The combination of high mortgage rates and slow-to-decline prices resulted in the toughest home-buying conditions in a generation. The 30-year mortgage rates reached its highest point at 7.24% in November but have since decreased by nearly one percentage point to 6.13% in late January. The decline in inflation has led to optimism that the Federal Reserve may be approaching the end of its cycle of interest rate hikes. Housing prices may experience a more significant drop in the western region of the US, where there is a greater surplus of supply compared to the more populated regions of the mid-Atlantic and Midwest. Austin, San Francisco, San Diego, Phoenix, and Denver are the five US cities most likely to see steeper price declines of over 10% from their peaks.

In a concerning development, Blackstone, the largest real estate fund operator, and Starwood, the second largest non-traded REIT, have both restricted investor redemptions from their private REITs. These private REITs are investment vehicles for wealthy individuals and institutional investors, such as pensions, insurance companies, and hedge funds. This restriction of redemptions is a sign of declining liquidity in both commercial and residential real estate. This means that these residential REITs are lacking sufficient funds and are holding onto properties that would be difficult to sell quickly enough to fulfill redemption requests. This is a major concern for investors, many of whom are pension and retirement funds. It is likely that the real estate market will experience a significant downward movement in the near future. Additionally, cancellation rates for home builders seem to have increased in the fourth quarter compared to the third quarter.

The National Association of Home Builders (NAHB) Housing Market Index (HMI) rates the relative level of current and future single-family home sales. The data is compiled from a survey of around 900 home builders. A reading above 50 indicates a favourable outlook on home sales; below indicates a negative outlook.

The HPI is published by OFHEO using data provided by Fannie Mae and Freddie Mac. House price index is a statistic designed to reflect the average change of house prices across the country or a certain area. A higher-than-expected number should be taken as positive to the USD, while a lower-than-expected number as negative.

Bloomberg, Forbes, Goldman Sachs
MACROECONOMIC THEMES
2022 – 2023 Themes

Housing Market

Canada:
The swing in the market over the past year has been remarkable. Due to the low interest rate environment, changing housing needs and elevated investor involvement, the Canadian housing market at the beginning of 2022 was extremely overheated. Since then, the Bank of Canada’s aggressive interest rate hikes beginning in March triggered a correction in the markets. It resulted in monthly activity falling nearly 40% by fall, to the second lowest levels, after the pandemic lockdown period, in more than a decade. Property values have been under intense downward pressure across Canada. The national MLS Home Price Index is down 13% since its February peak, we expect prices to depreciate further in the near term.

While the bottom for activity may be reached soon, buyers will continue to contend with poor affordability for some time. As part of the federal government’s effort to ease Canadians’ struggle to afford homes since some believe that foreign investors and speculative activities have fueled Canada’s surging housing prices and spurred the affordability crisis, as of Jan. 1, 2023, foreign buyers are banned from buying homes in Canada for 2 years. Under the act, non-citizens, non-permanent residents, and foreign commercial enterprises are banned from buying Canadian residential properties. The law exempts individuals with temporary work permits, refugee claimants and international students if they meet certain criteria. The law appears to have low impact since foreign owners represent a tiny segment of the market: according to Statistics Canada, a government website, non-residents owned 2.2 percent of residential properties in Ontario and 3.1 percent in British Columbia in 2020. The percentages were 2.7 and 4.2 in the Toronto and Vancouver metropolitan areas, respectively. So, while some foreign capital is involved, other factors are at play, such as Canadian real-estate investors buying up properties. We believe that the government could do more to address the affordability problem by allocating more funds towards building co-ops and social and community housing.

On the supply side, more sellers are expected to make their way to the market as signs of a bottom accumulate and if the higher interest rates stick, homeowners may be forced to sell their homes after failing to meet mortgage payments. To date, mortgage delinquency rates have remained exceptionally low across Canada (at just 0.14%). With a cyclical bottom in sight, the future after that remains not very eventful as Canada continues to struggle with housing supply shortage and affordability concerns even with the rising immigrant population. We expect the housing market to correct its course and balance in 2023 and the eventually heat up again in 2024.
RISK MANAGEMENT

2022 REVIEW & 2023 OUTLOOK

Riad Diab Garcia
Head of Risk Management

Jeremy Huang
Head of Risk Management
RISK MANAGEMENT

Introduction

An important quote

"Risk management is not about avoiding risk, it's about making sure you have the right balance of risk and reward." - Anthony J. D'Angelo. At Desautels Management team, we closely monitor the risk exposure of our portfolio. We are dedicated to using a variety of risk metrics and tools to find the optimal balance between risk and reward in order to ensure the continued stability and growth of our funds. With a dynamic group of 14 who are actively working, we keep learning and practicing our skills.

Portfolio Asset Allocation & Beta Risk Exposure

The financial market in 2022 presented a range of opportunities and challenges for risk management. It began with some shocking geopolitical events, that resulted in a major spike in volatility and loss across all markets, including our funds and their benchmarks as seen in Figure 1. This was fueled fear and concern around the energy which altered the production power and economy.

<table>
<thead>
<tr>
<th>2022 Fund Performance Metrics</th>
<th>Alpha²</th>
<th>SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gross Return</td>
<td>Benchmark*</td>
</tr>
<tr>
<td>Gross Return</td>
<td>-11.0%</td>
<td>-8.7%</td>
</tr>
<tr>
<td>Annualized Standard</td>
<td>18.3%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>-0.78</td>
<td>-0.80</td>
</tr>
<tr>
<td>Beta</td>
<td>1.12</td>
<td></td>
</tr>
<tr>
<td>Annualized Alpha</td>
<td>-0.9%</td>
<td></td>
</tr>
<tr>
<td>Tracking Error</td>
<td>8.3%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Alpha² and SRI Annualized 1-Month Rolling Volatility
**RISK MANAGEMENT**

Analysis

**Contribution to portfolio variance**

In addition to monitoring portfolio volatility, beta exposures, and downside risk, we also monitor the contribution of individual holdings to overall portfolio variance. Component Variance allows us to understand which of the portfolio holdings contribute the most to risk. Each stock's contribution to portfolio variance is based on that stock's weighting, variance, and covariances to all other stocks. Results are shown in Figure 2 and 3.

*Figure 2: A2 - Contribution to Portfolio Variance (%)*

Aside from monitoring each individual stock’s contribution to portfolio variance, we also compare the variance contribution of each sector to its weight in the portfolio, as shown in Figures 4 and 5. The portfolio variance is rooted in many sectors, but it can be seen that IT, utilities, and consumer discretionary were among the top four contributors to volatility to both the SRI and Alpha Squared funds.
RISK MANAGEMENT

Analysis

Contribution to portfolio variance

In the SRI fund volatility in the IT sector had a great impact on the overall variance of the portfolio. This was primarily caused by the fund’s over-exposure to growth stocks that suffered the consequences of an wide readjustment of valuations for stocks in this category. In the A2 fund the Utilities sector was the major contributor to variance. The reason behind this finding is the high weight of renewable energy related stocks such as Enphase or Canadian Solar. We have made some structural changes to both portfolios in order to reduce this exposure to growth stocks whilst still benefiting from interesting upside potential.

*Figure 4: A2 - Portfolio Weights and Contribution to Variance*

*Figure 5: SRI - Portfolio Weights and Contribution to Variance*
**Risk Management**

Analysis

**Value-At-Risk**

VaR is the most common tool used in financial institutions to monitor and manage the downside risk of a portfolio. Simply defined, x% VaR is the minimum loss that we can expect to happen x% of the time. VaR has three components: the loss size, the probability of a loss greater than or equal to the specified loss size, and a time frame. DCM monitors its 5-Day 5% VaR using historical simulation and a parametric approach. Details of the results are presented in Figures 6 and 7. The SRI and Alpha Squared funds both saw 2 VaR breaks in 2022. Not surprisingly these occurred at the Russo-Ukraine war and interest rate hike period when market volatility spiked. Observing a few VaR breaks per year is entirely normal and indicative of a realistic modelling approach that is neither too liberal or conservative. (Note: 5% of 52 weeks is about 2 weeks.)

*Figure 6: Rolling VaR at 5% based on weekly returns A2 fund*

*Figure 7: Rolling VaR at 5% based on weekly returns SRI fund*
**RISK MANAGEMENT**

**Analysis**

**Systematic Risk**

To monitor our risk exposures to currency fluctuations between our funds and the USDCAD exchange rate, we simulate trailing portfolio returns using the weighting and composition observed at the end of each month vs the returns of the USDCAD exchange rate. These simulated monthly returns are then regressed against key risk factors to calculate factor betas (Figure 8 and 9).

*Figure 8: A2 Rolling Beta Based on Month-End Holdings*

*Figure 9: SRI Rolling Beta Based on Month-End Holdings*
SUSTAINABILITY

2022 REVIEW & 2023 OUTLOOK

Sheldon Gu
Chief Sustainability Officer

DESAUTELS CAPITAL MANAGEMENT
SUSTAINABILITY
2022 Review

ESG Recap

ESG investments faced challenges in 2022. ESG-related assets under management shrunk 29%, vs a 21% decrease for non-ESG funds. 2022 was also the first year since 2018 where ESG funds underperformed non-ESG funds. This was of course due to record profits for the energy sector amid soaring oil and gas prices.

There were also positive trends in 2022. European Union’s Sustainable Finance Disclosure Regulation (SFDR) classification introduced in March 2021 helped to define ESG-related funds into three levels, Article 6, 8, 9, corresponded to funds with no ESG characteristic, funds with ESG characteristics, and funds with ESG-related investment objectives, respectively. Some positive trends are the increasing number of Article 8 funds, which increased from 997 in 2021 to 2248 in 2022. Among the 2248 funds, 555 of them were upgraded from Article 6. Another positive trend is that the proportion of Article 6 funds declined from 75% to 50%. However, there were also some challenges. Over 90% of the Article 9 funds failed to properly disclose their environmental targets, and more than 70% of them were downgraded to Article 8.

The global green, social, sustainability and sustainability-linked bond (GSSSB) issuance was only $444 billion, a 25% decline compared to $596 billion in 2021.

Regulations on Greenwashing

Greenwashing, a process defined as exaggerating a company’s ESG practices by conveying false or misleading information to consumers, is a risk that was brought up in our 2020 annual report. The issue remains a concern. Unclear terminology is one risk factor in greenwashing. For instance, different portfolio managers can have different definitions of “green investment,” some may completely forbid investment in the energy sector, while others may allow investing in refining companies that do not have oil or gas reserves. Ambiguous terminology confuses investors, and, unfortunately, gives companies the opportunity to convey misleading information.

Several countries have stated that greenwashing is a nonnegligible issue. For example, the People’s Bank of China classified greenwashing as one of the moral hazards that needs to be taken care of, while Swiss and Australian regulators started investigations on greenwashing. To alleviate the issue, several tools have been developed to provide more regulations and transparency for investors interested in green investments. For example, PRI’s transparency reports and the European Union’s Sustainable Finance Disclosure Regulation (SFDR) classifications, to name a few. More regulated reporting procedures should help prevent greenwashing, and investors will less likely feel confused among different ESG objectives.
SUSTAINABILITY

2023 Outlook

ESG Outlook

Considering the underperformance of ESG strategies in 2022 and already existing doubt and criticism, there might be more challenges in 2023, such as an “ESG backlash”.

On the other hand, rising inflation, cost of living and energy prices may help to state the need of a faster energy transition. Also, as the climate change issue and net zero emission became more of a global consensus, ESG strategies should be more attractive to many.

In November 2022, the United Nations Climate Change Conference (COP27) highlighted another ESG issue we are facing, which is the loss of biodiversity. The 15th Conference of the Parties (COP15) held one month later also expressed the concern on a sustainable ecosystem. As a result, it is reasonable to expect more acts and regulations associated with biodiversity in the following year, and it will also create opportunities for new ESG investments.

Investors should also expect more stringent regulations and reporting process against greenwashing in the following year, since greenwashing is still a main issue that governments want to deal with. The large reclassification of Article 9 funds in 2022 is evidence of this goal.

SRI Fund – New Metrics

To make sure our SRI Fund is aligning with our thematic investment, and to respond to the trend of net zero emission, the sustainability team decided to incorporate one more metrics this year, which is the tons of CO2 per million dollar invested. It will measure the carbon efficiency of a portfolio by calculating the total carbon emissions of the portfolio normalized per million dollars of portfolio value, through the following formula.

\[
\sum \left( \frac{Current\ value\ of\ investment}{EV\ including\ cash} \times \frac{Issuers's\ scope\ 1\ and\ 2\ GHG\ emissions}{Current\ portfolio\ value\ (\$\ in\ million)} \right)
\]

Here is a table that summarizes the metric for different indexes. The DCM SRI Fund is at 19, while The S&P 500 is at 50. The S&P TSX is close to 100 due to its high energy weight. Of particular note is that the SRI Fund’s metric is less than that of S&P 500 Environmental & Socially Responsible Index, an index that focused on ESG stocks in the S&P 500.

<table>
<thead>
<tr>
<th>Index</th>
<th>Carbon to value invested in tons of CO2e/ $M invested</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500</td>
<td>50.4</td>
</tr>
<tr>
<td>S&amp;P/TSX composite index</td>
<td>99.5</td>
</tr>
<tr>
<td>S&amp;P 500 Environmental &amp; Socially Responsible Index</td>
<td>40.8</td>
</tr>
<tr>
<td>SRI fund</td>
<td>19.4</td>
</tr>
</tbody>
</table>

In the following year, the goal of sustainability team is to keep the CO2 per million dollar invested metrics under 25.
**COMMUNICATIONS**

**2022 Review**

**Benchmark Performance**

The S&P 500 Communication Services sector decreased 40.42% while the S&P 500 decreased 19.44% in 2022. The Communication Services sector’s underperformance compared to the S&P 500 can be attributed to its heavy exposure to tech-related companies. For subsectors, Telecommunication Services returned -8.3% while Media & Entertainment returned -44.2%.

Due to rising interest rates and concerns of a recession, the consensus discount rate increased significantly, and future growth prospects were reduced, and as a result, growth stocks were penalized the most in their valuation. In the Media & Entertainment subsector, Google, the largest constituent in the index with more than 1 trillion market capitalization, significantly contributed to the decrease of the index with its abysmal -39.9% return in 2022. Meta Platforms Inc, the second largest company in the same subsector, also suffered the same fate, decreasing by more than 64% in 2022. On the other hand, telecom companies are considered defensive, and the rising rates did not impact them as much.

![Figure 1: S&P Communication Services vs. S&P 500](image)

Netflix is the main contributor to this underperformance. Netflix was sold in April as it failed to pass the momentum screening of A2 fund, it was purchase at $614.82, leading to a loss of 64.95%. Netflix’s share price correction first occurred in January, where the company’s stock price dropped by 28.5% compared to the S&P 500’s -5.8% decline. In April, due to its massive subscriber loss, the stock plunged again by 35%. This was mainly due to increased competition in the video streaming market. As entertainment services are considered non-essential for consumers, its optimistic growth outlook got slashed by investors. Moreover, with long cash conversion cycles, is more negatively impacted by the rising interest rate than others.

![Figure 2: DCM A2 Com. Sector vs. A2 Com. Benchmark](image)

The Communication Services Benchmark decreased by 32.42% in 2021, compared to -48.5% for the Communications holdings in the SRI Fund. Our holdings in 2022 consisted of The Walt Disney Company (NYSE: DIS), The Communication Services Select Sector SPDR® Fund ETF Shares (NYSE: XLC), Netflix Inc (NASDAQ: NFLX), and the newly added Alphabet Inc (NASDAQ: GOOGL). Currently, only the SRI fund holds Communications stocks. The Communication Services sector in the SRI fund underperformed the benchmark throughout the year, with the 2 biggest plummet in January and April mainly due to Netflix’s disappointing performance. Alphabet Inc was added to the SRI fund in late December.

![Figure 3: DCM SRI Com. Sector vs. SRI Com. Benchmark](image)

**2022 DCM Sector Performance**

The Communication Services benchmark decreased by 24.97% in 2022, compared to -68.77% for the Communications holdings in the Alpha Squared Fund (A2). Our holdings during 2022 consisted of Netflix Inc. (NASDAQ: NFLX), The Communication Services Select Sector SPDR® Fund ETF Shares (NYSE: XLC), Currently, the A2 fund does not hold any communications stock.
COMMUNICATIONS

2023 Sector Outlook

General Outlook

Heading into 2023, the S&P500 Communications Sector rallied by approximately 14% during the first month of the year, its best month since its inception in 2018 from S&P500’s reclassification (beating April 2020’s Covid rally). The current investors’ sentiment seems to overlook past the uncertainty surrounding Fed rate hikes and shift their focus towards the possibility of a soft landing. Hence allowing the Communication Services Sector to bounce back in January after being the worst performing sector in 2022.

An important aspect to consider is the sector’s high sensitivity to changes in the long-term discount rate, as it has a heavy exposure to tech-related companies. This exposure is a double-edged sword, as it can translate into huge upside and downside potential whenever the macroeconomic situation and investors’ sentiment changes.

As investors rethink the valuation of stocks under the possibility of a recession, we think companies that can control costs and maintain solid balance sheets, regardless of their level of economic sensitivity, will have the best long-term prospects. In conclusion, we have a neutral view on the sector, but we believe there are still interesting alpha opportunities within the high-quality segment of the sector.

Media and Entertainment

The spending boom on original content is likely to be moderate in 2023 as broadcasters and streamer are adapting to the tougher economic landscape ushered in during 2022. With the cost of living continuing to rise, many consumers are trying to cut back on spending. Younger generations are feeling especially stretched, this could result in consumers cancelling some subscription services to save money.

The advertising industry spending is predicted to continue growing 2023 although at a slower pace globally facing the economic downturn. Major brands are likely to continue their investment in advertising as investment in marketing remains one of the most powerful forms of defense in times of economic crisis, which will let them recover more quickly when market conditions improve.

The trend in advertising video-on-demand tiers is expected to continue in 2023 as it enables continued, lower-cost access to consumers’ favorite content, and expands opportunities of new sources of revenue for streaming service providers.

Telecommunications

Going into 2023, the advancement of IoT and 5G is anticipated to foster an increased digital transformation in technology. Additionally, the rise of new technologies such as AI and VR will further bring in new opportunities. Moreover, the ongoing shift towards mobile computing and cloud-based services will sustain the population’s digital habits and need for essential communication services. Meanwhile, telecom companies face challenges due to customers’ cost-cutting as people switch to lower-priced services in an environment of higher interest rates and inflation, as well as the need for more decisive measures to deal with breaches and cybersecurity.

Overall, the telecommunication services is seen as a defensive sector since it is less economically sensitive given the utility-like nature of broadband and wireless services. Telecom companies often have low betas and rather high dividend yields which often decline less when the market significantly drops. We believe that telecom companies will continue to provide a reliable, defensive position in 2023.
COMMUNICATIONS

2022 HOLDING REVIEW

Shi Tong Li
Analyst

Angelina Mo
Analyst

Eugenia Pan
Chief Operating Officer
**Company Overview**

- Alphabet is the holding company of Google, the firm behind Google Search, Android, YouTube, and other holdings.
- It operates in the United States, Europe, the Middle East, Africa, the Asia-Pacific, Canada, and Latin America.
- 50% of its revenue comes from outside the United States.
- 3 segments: Google Services, Google Cloud, and Other Bets.

**Investment Theses**

1. **Ad Cyclicality and Growth**
   - Ads make up ~80%+ of Alphabet’s revenue. Advertising spend fell sharply this year due to ongoing economic concerns. As the uncertainty clears up and the economic climate improves, Alphabet will be well placed to benefit.

2. **Growth in the Cloud Segment**
   - Google Cloud saw the highest growth rate of the top IaaS vendors, growing 63.7% in 2021 to reach $6.4 billion in revenue.
   - Growth was driven by steadily increased adoption for traditional enterprise workloads as well as Google’s innovation in more cutting-edge capabilities such as artificial intelligence and Kubernetes container technologies.
   - Google Cloud is also expanding its partner ecosystem to reach a broader customer base that is helping to drive IaaS sales.

**Catalysts & Risks**

*Catalysts*

- **Increase in R&D spending**, especially in AI, enables Alphabet to incorporate new opportunities in a rapidly changing environment.
- Other Bets segment is expected to continue monetize as new products and innovations are being created, which can have a **huge upside potential** if it succeeds.

*Risks*

- Threat of **more regulations** concerning data privacy.
- Legal and regulatory proceedings may result in huge **fines and injunctions**.

**1 Year Stock Performance**

Source: Bloomberg, Company Filings.
### NETFLIX INC. (NASDAQGS: NFLX)

**Media & Entertainment**

#### Company Overview
- Netflix is one of the world’s leading entertainment services with approximately 213 million paid memberships (2021 Q3) in over 190 countries.
- It offers TV series, documentaries and feature films across a wide variety of genres and languages.
- Launched in 1997, sold and rented DVD by mail, introduced streaming media and video on demand in 2007, started content production in 2013.

#### Investment Theses

1. **High Content Quality**
   - Consistent creation and improvement of original content since 2013 which has led to a unique advantage of producing high-quality content that consumers enjoy.

2. **Subscription Growth Potential**
   - Substantial growth in subscribers that outperforms the expectation by a material margin in the last quarter of 2022, with growth potential from newly introduced ad-supported subscription tier as well as the anti-password sharing policy.

#### Catalysts & Risks

**Catalysts**
- New developments in Gaming & Merchandising
- Popular shows that attract new subscribers

**Risks**
- Possibility of slow growth in customer subscription as Netflix grows into a mature company
- Slowdown in revenue growth due to fierce competition in the video-streaming industry
- More negatively impacted by rising interest environment due to long cash-conversion cycle

#### 1 Year Stock Performance

![Graph showing Netflix, Media & Entertainment, and S&P 500 performance from December 2021 to November 2022](#)

**Source:** Bloomberg, Company Filings

### Regional Revenue Breakdown

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA and Canada</td>
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</tr>
<tr>
<td>LATAM</td>
<td>32.87%</td>
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<tr>
<td>EMEA</td>
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<tr>
<td>APAC</td>
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### Financial Ratios

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<th>Metrics (LTM)</th>
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<tr>
<td>EBITDA Margin</td>
<td>20.7%</td>
<td>22.6%</td>
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### Valuation Summary

![DCF and Analyst Forecast Graph](#)

### Position Summary

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<tr>
<td>Shares</td>
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</tr>
<tr>
<td>SRI – A²</td>
<td>N/A (A²)</td>
</tr>
</tbody>
</table>
THE WALT DISNEY COMPANY (NYSE: DIS)  
Media & Entertainment

Company Overview

- The Walt Disney Company, founded in 1923, is a diversified international mass media and entertainment conglomerate.
- It operates through 2 segments: Disney Media and Entertainment Distribution (63%); and Disney Parks, Experiences and Products (37%).
- Headquartered in Burbank, California, but operates around the world with 82% of its revenue coming from Americas, 10% from Europe, and 8% from Asia Pacific.

Investment Theses

1. Underestimated future of Disney+ Hotstar in India
   - 86.72% of the population in India is using the Disney+ Hotstar, which became India's biggest premium OTT platform
   - It is expected to launch in other countries as well by the end of 2023.

2. Potential of Disney+ being one of the biggest players in the SVoD industry
   - Disney+ has been continuously increasing its subscriber base, reaching 164.2M paid subscribers as of Q4 2022
   - The launch of its lower-cost ad-supported tier, Disney+ Basic, is expected to boost average revenue per user through advertising.

Catalysts & Risks

Catalysts
- Recovery in the theme parks and resorts with the ease of Covid
- Strength of the company’s brand creates an unbeatable economic moat

Risks
- Concerns about inflation, currency headwinds, and the ongoing losses at its direct-to-consumer media division in 2022
- Declining free cash flows due to shifting focus on creating new content
- Benefits from raising contractual prices are primary offset by fewer cable subscribers due to cord cutting

1 Year Stock Performance

Source: Bloomberg, Company Filings

Revenue Breakdown

Financial Ratios

Metrics (LTM)  | DIS  | Comps
--- | --- | ---
EV/EBITDA  | 20.1x | 15.0x
P/E  | 44.38x | 20.87x
EPS  | $2.44 | $3.52
P/S  | 2.38 | 1.88
EBITDA Margin  | 9.65% | 10.24%

Valuation Summary

Position Summary

Rating  | Buy
--- | ---
Price Target  | $175
Price Dec-31  | $85.73
Acquisition Date  | 2019-12-23
Shares  | 475 (SRI)
SRI – A²  | N/A (A²)
**CONSUMER DISCRETIONARY**

2022 Review

**General Outlook**

The Consumer Discretionary sector decreased 37.6% in 2022, underperforming the S&P 500 index, which decreased 19.4% over the same period. The macroeconomic environment was not conducive to high discretionary spending in 2022, with CPI inflation reaching a 40-year high of 8.1%, the federal funds interest rate reaching a 15-year high of 4.25%, and increased geopolitical tensions and fears, mainly stemming from Europe via the Russia-Ukraine war and China.

The 3 best performing industries within Consumer Discretionary were Distributors, which decreased 7.8%, followed by Speciality Retail which decreased 15.5%, followed by Hotels & Restaurants which decreased 15.9%. The 3 worst performing industries were Automobiles with a decrease of 61.8%, followed by Internet & Direct Marketing Retail which decreased 49.3%, followed by Leisure Products which decreased 40%.

During 2022, inflation averaged ~6.5% over the year, peaking at 8.1% in June 2021, severely degrading consumer’s purchasing power. The inflation surge can be attributed to pandemic related spending and stimulus, increased demand for goods combined with supply chain disruptions such as chip shortages, an increase in natural gas prices, fertilizer, and food prices as a result of Russia’s invasion of Ukraine. In addition, a steep increase in the Federal Funds Rate over the year, from near zero in Q1 to 4.25% in Q4, adds further downward pressure on consumer spending as the cost of borrowing and financing increased dramatically.

2022 DCM Sector Performance

The Alpha Squared Consumer Discretionary sector returned -34.6% in 2022, underperforming our sector benchmark by 21.9%. The fund held 3 positions at various points this past year: Etsy (NASDAQ: ETSY), Nike (NYSE: NKE) and Spin Master Corp (TSE: TOY). The underperformance stems from Etsy losing 45% of its value in 2022 and representing 32% of our sector holdings, followed by in Spin Master and Nike losing 35% and 30% of their value in 2022, respectively.

*Figure 1: A2 Cons. Discretionary vs. A2 Cons. Benchmark*

![Graph showing A2 Cons. Discretionary vs. A2 Cons. Benchmark]

The SRI Consumer Discretionary sector returned -33.8% in 2022, outperforming our sector benchmark by 0.6%. The fund held 6 positions at various points during the year: Lowe’s Cos. Inc. (NYSE: LOW), Etsy (NASDAQ: ETSY), Nike (NYSE: NKE), Tapestry, Inc. (XNYS:TPR), Vizio Holding Corp. (XNYS:VZIO), and Best Buy (NYSE: BBY).

*Figure 2: SRI Cons. Discretionary vs. SRI Cons. Benchmark*

![Graph showing SRI Cons. Discretionary vs. SRI Cons. Benchmark]
CONSUMER DISCRETIONARY

2023 Outlook

Consumer Discretionary

The consumer discretionary sector underperformed in the past year as economic worries weighed on consumers and investors turned away from cyclical sectors. As we enter 2023, consumers are beset by competing forces: high savings vs. high inflation rates that ate away at both wage gains and savings. Low unemployment vs. massive tech layoffs. High home values vs. high interest rates. Sector performance in 2023 remains highly uncertain and will largely depend on macroeconomic developments going forward. However, after such a challenging past year, stock valuations in the sector may have reached attractive levels with an overreaction of pessimism priced in by the market.

Consumer confidence increased in December 2022, but remains lower than levels this time last year. While inflation peaked during 2022 and has began to decrease in Q4 2022 and into 2023, interest rates are likely to remain high and will continue to eat into disposable income. While there is low unemployment levels and high confidence in the labor market, workers are less confident their wages will keep pace with inflation. Geopolitical tensions may also negatively affect consumer confidence and spending habits. Lastly, while Covid is considered an “endemic” in many countries, it is still heavily affecting China. With China’s abrupt end to their Zero-Covid policy in December 2022, we expect supply chain disruptions to continue into H1 of 2023 and taper off and normalize in the second half of 2023.

Household Durables

Household improvement stocks have strong long-term fundamentals and potentially attractive valuations. As a whole, home-improvement retail stocks fell in 2022, possibly due to investors’ misperception that high home prices and rising mortgage rates would negatively impact the segment. While those forces do clearly impact home sales and turnover, it may not as negatively affect restoration spending. In fact, high home prices and mortgage rates could mean more homeowners end up remaining in place longer, turning their focus to improving and maintaining their current homes rather than moving. Retailers like Home Depot, Lowes Cos. Inc. and Floor & Decor Holdings have supported this investment thesis.

Luxury Goods

The luxury goods industry is expected to drive double-digit sales and earnings growth in 2023, led by the success of top brands such as Louis Vuitton, Chanel, Gucci, and Rolex. The US market remains strong at the high-end but more challenging at the entry-level, while tourism is expected to benefit Western Europe. A solid pricing model protects profit margins and supports greater cash generation, as well as rising dividends and M&A activity. Additionally, optimism for China’s consumer spending, both domestically and internationally, is likely to raise sentiment for luxury-goods in 2023 and boost growth.

Apparel

2023 may present challenges for retailers due to slowing consumer spending and inflation, but companies such as TJX, Nike, and Macy's are expected to be well-positioned in their respective subsectors. The desire for value and treasure-hunting shopping experiences is expected to benefit off-price retailers, while active lifestyles will drive demand for athletic wear. In January, department store shares rose 24% while athleisure and off-price retail gained less. Inflationary headwinds will likely position off-price retailers such as TJX and Ross Stores for better sales and higher-single-digit gains. Macy's is seen as the best positioned among department stores.
ETSY (NASDAQ: ETSY)
Retailing

Company Overview

• Etsy is an e-commerce platform offering handmade and vintage items. It is well known for its rigorous verification process to ensure that vintage and handmade items respect a minimum set of rules and characteristics.

• It has two main revenue streams. The most important is the 5% transaction fee on each sale. The other one is services revenue, which consists of optional services for sellers and advertising.

Investment Theses

1. Etsy is well-positioned to retain and expand its customer base from further removing buyer barriers to purchase and to improve the services available for sellers.
   – Firm’s four growth strategies allow Etsy to not only retain these customers but also attract new customers post-pandemic
   – Etsy’s support for its sellers

2. Favorable consumer preference and small business trends fuel future growth.
   – Shifting preference toward customized products
   – Evidence of shift in preference
   – Millennials and Gen Z are the main sources of demand
   – Increased e-commerce spending enhance this shift

Catalysts & Risks

Catalysts
• Continued increase in revenue growth: Revenue growth exceeded analysts expectations and continues to grow. More opportunity for seller revenue growth
• Pricing Power: ETSY has an edge over competitors since most of the products are cheap. ETSY rising seller fees and revenue still growing.

Risks
• Increasing competition: Big retailers such as Amazon, Ebay, Shopify and Baba entering the art and crafts market.
• Economic Downturn: Can largely affect sales in the coming year, lead to decreasing margins. Products are cheap and many require labor, hard to cut prices

1 Year Stock Performance

Source: Bloomberg, Company Filings
LOWE’S (NYSE: LOW)
Retailing

Company Overview

- Lowe’s, founded in 1921, is the second largest home improvement retailer in the world
- The company has a single reportable segment of home improvement retail operations for selling home décor (35%), building products (32%), hardlines (30%) and other (3%) products and services
- Based in North Carolina, US, 94% of its revenue coming from USA, 6% from Canada and Mexico.

Investment Theses

1. Market underestimates the synergy benefits of management restructuring
   - Shift towards core operations efficiency with increased focus on supply chain optimization including distribution and inventory rationalization using algorithms
2. The market underweights future growth of remodeling activities
   - Remodelling including improvements and maintenance spending have not been fully taken into account by the market in industry growth estimation which will enhance Lowe’s performance more than expected
   - Remodelling is also more stable compared to the rest of the sector

Catalysts & Risks

Catalysts

- Favourable immigration policies will lead to greater demand for housing and for home improvements too consequently
- Climate change with more hurricanes every year will damage more houses leading to more demand for home improvement

Risks

- Real estate housing market collapse might affect the home improvement sector
- Home Depot’s market cannibalism with its aggressive pricing and store expansion policies might reduce Lowe’s market share
- Trade war with China could strain relationship with Chinese suppliers

1 Year Stock Performance

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary

Source: Bloomberg, Company Filings
Nike (NYSE: NKE)
Consumer Durables & Apparel

Company Overview

• Nike, founded in 1964, is a designer and manufacturer marketer and sales company of footwear products, sport apparel and equipment
• The company has four segments: footwear (67%), apparel (29%), equipment (3.5%) and other (0.3%) products and services
• Based in Oregon, US, 41% of its revenue coming from North America, 28% from Europe, Middle East & Africa (EMEA), 17% from Greater China and 14% from Asia Pacific & Latin America (APLA)

Investment Theses

1. Nike is in a better position to target increasingly younger consumers and their preferences
   – With the increasing purchasing power of the younger generations, Nike’s brand social activism especially inclination towards female empowerment and digital innovation including data analytics position it well to capture a larger market share amongst the younger generation
2. Superior brand, marketing advantage and a strong root in sports
   – Nike’s brand and marketing efforts connect with its target audience and are superior to competitors who are more focused on supply chain efficiency
   – Nike also tries to improve its products innovatively to make them safer for the consumers and reduce injuries

Catalysts & Risks

Catalysts
• Dominant position in footwear industry will help offset decreased sales by charging full price for products

Risks
• Amazon’s distribution is more direct to consumer, causing brands to leave the marketplace thus, the remaining brands on the platform have competitive advantage
• Younger generations prefer smaller brands with supply chain transparency
• Covid-related disruptions for both sales and supply chain

1 Year Stock Performance

Valuation Summary

Position Summary

Source: Bloomberg, Company Filings
**Spin Master (TSE: TOY)**

**Toy & Entertainment**

**Company Overview**

- Spin Master is a global children’s entertainment company creating play experiences through a portfolio of toys, entertainment franchises and digital games
- It operates through 3 segments: Toys (89%), Entertainment (6%) and Digital Games (5%)
- Based in Toronto, Canada and operates predominantly in North America (57%) and Europe (29%)

**Investment Theses**

1. **Market underweights the growth and potential of digital games**
   - Surge in digital game revenue during 2020 and 2021
   - Prospective educational game industry as a vertical to enter
   - Continued expansion into China where Spin Master demonstrates a stronger position in large educational games market compared to competitors
   - Leverage entertainment franchises to create digital games experiences

2. **Market underweights the growth and potential of entertainment segment**
   - Low product development costs
   - Utilization of investor community

**Catalysts & Risks**

*Catalysts*

- Continue to produce original content which is in high demand
- Leverage free digital games and include monetization options in their respective app stores

*Risks*

- Digital games and entertainment sectors experienced COVID-19 demand surges, normalization post lockdown
- Decrease in consumer spending for entertainment content
- Supply chain concerns could highly impacted their toy business

**1 Year Stock Performance**

![Chart showing stock performance](image)

Source: Bloomberg, Company Filings

**Revenue Breakdown**

![Pie chart showing revenue breakdown](image)

**Financial Ratios**

<table>
<thead>
<tr>
<th>Metrics (LTM)</th>
<th>TOY</th>
<th>Comps</th>
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<tbody>
<tr>
<td>EV/EBITDA</td>
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<tr>
<td>P/E</td>
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<td>EPS</td>
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<td>Div. Yield</td>
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<td>EBITDA Margin</td>
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**Valuation Summary**

- **Comps**
  - $119
  - $128
- **DCF**
  - $44
  - $84
- **Street’s view**
  - $42
  - $59
- **52 week H/L**
  - $31
  - $50

**Position Summary**

- **Rating**
  - SELL
- **Price Target**
  - $62.00
- **Price Dec-30**
  - $33.32
- **Acquisition Date**
  - 2021-11-19
- **Shares**
  - 100 (SRI)
- **SRI – A²**
  - N/A (A²)

Source: Bloomberg, Company Filings
**Company Overview**

- Tapestry is an American luxury holding company that designs and markets luxury clothes and accessories.
- The company has three major brands: Coach, Kate Spade, & Stuart Weitzman.
- North America is the major contributor to revenue, followed by Greater China and Japan.

**Investment Theses**

1. **The Market Underestimates Tapestry’s Growth Prospects**
   - The market has not fully priced in Tapestry’s growth potential in China as well as in e-commerce.

2. **The Market Overestimates the Impact of Inflationary Pressures on Tapestry’s Business**
   - Luxury goods are usually less elastic.
   - Tapestry’s brands have strong pricing power:
     - An increase of 11% in AUR.
     - The company gained 11 million new customers in high inflation.
     - The company has shown its ability to maintain margins.

**Catalysts & Risks**

- **Catalysts**
  - Future expansion into digital goods markets in the metaverse.

- **Main Risks**
  - Logistics gridlock causing supply chain issues.
  - The rise of domestic luxury brands in Tapestry’s main markets.
  - Uneven recovery from the pandemic.

**1 Year Stock Performance**

- **Position Summary**
  - **Rating**: Hold
  - **Price Target**: $48.2
  - **Price Dec-31**: $38.08
  - **Shares**: 100 (SRI)
  - **SRI – A²**: N/A (A²)

**Revenue Breakdown**

**Financial Ratios**

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<td>EBITDA Margin</td>
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<td>10.24%</td>
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</table>
VIZIO (NYSE: VZIO)
Consumer Electronics

Company Overview
• Vizio is an American electronics company that designs and sells smart TV & soundbars. Through its Smartcast application, Vizio is able to expand into several revenue streams, including data analytics and advertising
• The company’s headquarters are located in Irvine, California and operate mostly in the US
• The company has been shifting from the low-margin business of selling consumer electronics to high-margin platform advertising on its own Smartcast application

Investment Theses
1. Vizio will capitalize on the connected TV ad market expansion while gaining market share
   – By targeting the price-conscious population through competitive pricing strategy, Vizio’s users reach is larger than its competitors.
   – A network effect will begin to emerge as the number of users increases, allowing Vizio to establish stronger partnerships with big brands, further increasing its user base

2. Ability to increase ARPU through strategic partnerships and best-in-class data analytics tools, which provides a better experience for both advertisers and consumers.
   – Vizio Ads delivers the right message at the right time to the right consumer to ensure impactful impressions that drive real business outcomes.

Catalysts & Risks
• Catalysts
   – Competitive pricing and product offering drive increase in Vizio’s marker share
   – Solid, diversified supply chain
   – Advantage in distribution channels against potential new entries
• Main Risks
   – Big tech companies starting to enter the smart TV advertising market
   – Shrinking TV market and declining watch time in North America

1 Year Stock Performance

Gross Profit Breakdown

Financial Ratios

Position Summary

Rating  Hold
Price Target $27.19
Price Dec-31 $7.41
Shares 100 (SRI)
SRI – A² N/A (A²)
CONSUMER STAPLES

2022 REVIEW & 2023 OUTLOOK

Petro Giannarakis
Analyst

Sarkis Balanjian
Analyst

Kevin Nam
Analyst

Rabia Piplani
Analyst

Henry Chang
Analyst

Daniel Vasquez
Analyst
**CONSUMER STAPLES**

**2022 Review**

**Benchmark Performance**

The Consumer Staples sector was the 3rd best performing sector (after Energy and Utilities) in 2022, outperforming the S&P 500 by 17.5%. The sector showed once again why it is considered a traditionally defensive sector in 2022. Even with rising prices, unemployment levels were low throughout the year and with consumers holding relatively high levels of savings, were able to afford the increased costs.

Food, beverages and tobacco was the best performing subsector, being the only one to yield a positive return and outperforming the sector by 9.7%. This was led by Lamb Weston Holdings Inc. (NYSE: LW) with a 42.9% return, with other large companies such as Archer-Daniels-Midland Co (NYSE: ADM) and General Mills (NYSE: GIS) boasting good returns as well, 40% and 28.1% respectively. Major players such as Coca-Cola and Pepsi also showed positive returns. Some companies were able to capitalize on the growing trend for healthier and sustainable products while others benefited from being viewed as a hedge against inflation and rising interest rates among other economic headwinds.

After being the top performing sector last year, food and staples retailing subsector was the worst performing this year, underperforming the sector by 9.7%. Walgreens Boots Alliance Inc (NASDAQ: WBA) and Costco Wholesale Corp (NASDAQ: COST) had returns of -25% and -19.1% respectively. A lot of companies in this space not only operate on staple goods but also discretionary. In case of Costco, their e-commerce sales fell sharply largely due to consumers cutting back spending on discretionary goods.

**2022 DCM Sector**

The Alpha Squared Fund’s Consumer Staples holdings returned -36.4% in 2022, underperforming our sector benchmark by 40.2%, as shown in Figure 1. We mainly held two companies throughout the year: PepsiCo. (NYSE: PEP) and Guru Organic Energy (TSE: GURU; sold in late Dec 2022). Alimentation Couche-Tard Inc (TSE: ATD) was purchased in late December 2022.

Our underperformance is mainly credited to the sharp decline of Guru shares last year, which fell 82.9% from beginning of the year until we liquidated the position. Guru’s underperformance was largely due to declining revenue and increased marketing expenses that are much higher than their peers as they struggled to pass the rising costs onto consumers. Pepsi had a positive return of 4% and the team expect Couche-Tard’s strong performance to carry on into 2023.

![Figure 1: A2 Cons. Staples vs. A2 Cons. Staples](image)

The SRI Fund’s Consumer Staples holdings also underperformed compared to the benchmark as shown in Figure 2. We held the same holdings of Pepsi and Guru, our position in Guru was liquidated for the SRI Fund in late December 2022 as well.

Full holdings details are provided after our 2023 Sector Outlook.

![Figure 2: SRI Cons. Staples vs. SRI Cons. Staples](image)
**CONSUMER STAPLES**

**2023 Outlook**

**Consumer Staples**

The primary pressures felt throughout 2022 are expected to persist throughout 2023. As we saw this past year, the consumer staples sector is considered “defensive” by nature. However, this does not make it exempt from the inflationary pressures and rising costs. Consumers may react more sensitively to further price hikes than previous ones, especially if accompanied by a slowing economy. The different subsectors in consumer staples deal with these issues in different ways based on pricing power. Companies with stronger pricing power are best positioned to be able to efficiently navigate the headwind without losing sales volume compared to those with weaker pricing power.

Although consumer staples sector is an attractive sector given the current macroeconomic conditions, in environments of pressured growth and margins, our focus should be identifying companies with sustainable organic growth.

Overall, 2023 may present another challenging year for the market but we believe many companies within the consumer staples sector are well equipped to navigate the conditions and some will nonetheless be able to thrive, evident by historical data. This should lead to a year of relatively solid performance for the sector, and we expected it to outperform the overall market.

**Food, Beverage & Tobacco**

In recent years, we have been seeing the shift in trend to healthier and more sustainable food products. Major players such as Pepsi has been adhering to these demands and offering healthier options in their portfolio of brands. This trend still provides a significant opportunity for this subsector as it reaches a larger audience and represents strong growth potential.

Rising commodity cost is still major risk that persists which affects food and beverage producers. The ongoing Russia/Ukraine conflict had a lot of impact in the sector, with both countries being huge exporters of grain and vegetable oil. As mentioned in the previous section, companies with strong pricing power will be able to continue to navigate this risk much better than those without.

With the tightening of the monetary policy and borrowing rates at an all-time high since 2008, smaller companies are having trouble raising capital to fund their business from private channels. Global venture funding in 2022 has been down significantly compared to 2021 numbers. Major players in the market can potentially look to capitalize on this by growing via strategic investments or acquisitions. Deal activities remained consistent through 2022 among companies in this subsector.
**CONSUMER STAPLES**

**2023 Outlook**

**Household and Personal Products**

The increase in commodity prices necessary to the production of household and personal products continue to affect the subsector. These include items such as wood pulp, plastics, and resin. This is likely to hinder the potential growth of the industry as companies work to protect their margins.

Through the pandemic, we were able to see certain shifts in demand that can be attributed to the change in an individual's lifestyle. These changes have created opportunities for a boost to this subsector in the short-term. Research has shown that the US population has seen a slight “baby boom” throughout the pandemic. Many products for babies are sold by firms in this subsector and can benefit from this growth. We also saw an increase in demand for domestic animals during the pandemic; the estimated growth in animal expenditures for last year was 6.6% of household consumption compared to 7% for the prior two years combined. Analysts expect consumption in this market to continue increasing at a steady pace and brands providing animal products can expect to benefit from this through the near future.

A big opportunity in this subsector can be drawn to global tourism. Although global tourism remained at 63% of pre-pandemic levels in 2022, it was doubled that of 2021 levels and the World Tourism Organization forecasts a strong recovery through 2023, backed by lifting of restriction in China. Travel retail makes up a large part of beauty and personal product sales and with tourism back on the rise, these companies will be able to benefit and recoup their lost revenue from the previous years.

**Food and Staples Retail**

The subsector continues to be affected by pressures of increasing costs on labour and transportation. We have seen companies combat these through different measures such as passing their costs through to consumers and automating several processes in retail stores.

The pandemic served as an accelerator for e-commerce in this subsector. In 2022, companies continued to expand their ever-growing online business, with consumers now shifting preference to home delivery as opposed to click-and-collect that we saw early pandemic. Companies should look to invest in this department to evolve their digital presence and satisfy the shifting consumer needs. As businesses shift focus to online channels, it is interesting to note that Amazon, which is categorized in a different sector, is considered a major threat as they have been stealing market shares in the online retail industry.
**ALIMENTATION COUCHE-TARD (TSX:ATD)**

Consumer Staples

**Company Overview**

- Couche-Tard was founded in 1980 and is currently headquartered in Laval, Canada. The company operates convenience stores in Canada, the US, Europe, and Asia.
- Revenues come from sales of merchandise and from sale of transportation fuels
- Couche-Tard operates under 3 main store brands: Couche-Tard, Circle-K, and Ingo

**Investment Theses**

1. The marker undervalues the innovation push made by the company
   - Retail innovation such as smart self-checkout
   - EV labs in Norway
   - Circle K Venture Fund

2. Couche Tard is poised to become the dominating player in the industry through numerous strategic acquisitions
   - History of successful of mergers and synergy creation
   - Market reacted positively to acquisitions

3. Increase product variety & offerings
   - Expansion into cannabis market and launching its own-branded products

**Catalysts & Risks**

- Catalysts
  - New acquisition as a way to achieve external growth and add value to shareholders through consolidation
  - Unexpected margin increase from fuel and merchandising
  - Growth from entering new market
- Main Risks
  - Foreign exchange exposure
  - Lower fuel volume due to EVs

**1 Year Stock Performance**

![Graph showing stock performance for Alimentation Couche-Tard (ATD), Food & Staples Retailing, and S&P/TSX Composite from Dec-31 to Nov-30. The graph indicates stock price movements from -20% to 50% with key dates and indices highlighted.]

**Revenue Breakdown**

- US: 66.50%
- Europe & Others: 20.90%
- Canada: 12.70%

**Financial Ratios**

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**Position Summary**

- **Rating**: Hold
- **Price Target**: $67.2
- **Price Dec-31**: $59.50
- **Acquisition Date**: 2022-12-20
- **Shares**: 100 (SRI)
- **SRI – A²**: N/A (A²)
PEPSICO (NYSE: PEP)

Food & Beverage

Company Overview

- PepsiCo is the world’s second largest food and beverage company
- Based in Harrison, New York and operates in more than 200 countries and regions
- It operates through 2 segments: Beverages (45%) and Convenient Foods (55%)
- Operations are broken down into 7 divisions: Frito-Lay North America (FLNA), Quaker Foods North America (QFNA), PepsiCo Beverages North America (PBNA), Latin America (LatAm), Europe, Africa, Middle East and South Asia (AMESA) and Asia Pacific, Australia, New Zealand and China Region (APAC)

Investment Theses

1. Innovator in Food and Beverage Industry
   - With thousands of brand offerings and continuing growing
   - Proven to be resilient when facing changing market demand trends

2. International and Emerging Market Growth
   - Growth opportunities in these markets are vast
   - Established global presence and brand power

Catalysts & Risks

Catalysts

- **Continue to leverage marketing** to grow branding in domestic and international markets
- Ensure new product releases meet industry demands, especially in international markets

Risks

- **Supply chain concerns** impacting inventory levels for their distributors and consumers
- **Ukraine and Russia conflict**: majority of Ukrainian operations remain shut down due to the ongoing conflict
- Decreasing in consumer spending due to recession and inflation concerns

1 Year Stock Performance

Source: Bloomberg, Company Filings

Revenue Breakdown

- FLNA
- QFNA
- PBNA
- LatAm
- Europe
- AMESA
- APAC

Financial Ratios

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Position Summary

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<td>SRI – A²</td>
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Source: Bloomberg, Company Filings
ENERGY
2022 Review

Benchmark Performance
2022 was a strong year for Energy. It had been the best performing S&P 500 sector for two consecutive years, with a record-high annual return of 65.43% in 2022. While its outperformance in both years could be justified with surging energy prices and demand associated with economies recovering from the Covid pandemic, an additional performance driver in 2022 would be supply shock brought by geopolitical uncertainty.

In February 2022, the outbreak Ukrainian Crisis has caused a decrease in the supply of crude oil and natural gas, as one of the largest exporters, Russia, was been sanctioned by several countries. As a result, the prices had been volatile. The natural gas price spiked up to $9.31/MMBtu on June 6 and reached a record high of $9.71/MMBtu since 2008. However, with the help of increasing production of natural gas and a warmer-than-average winter in Europe, the price decreased to $4.1/MMBtu at the end of 2022.

DCM Sector Performance
The DCM Energy sector achieved an annual return of 21.00% in 2022. Compared to the DCM Energy sector benchmark with a total return of 57.52%, it underperformed by 36.52%. Explanations for the underperformance would be that our holdings in TC Energy were not performing as well as expected, and the fact that we are underweighting the downstream subsector.

Crude oil price also reached a 12-year high price of $119.65/Bbl on March 8, but it was declining to the pre-crisis level gradually for the rest of the year.

The price trend of diesel fuel was also abnormal. Usually, diesel and gasoline prices are close to each other. For example, the diesel price was only $0.06 higher than the gasoline price per gallon at the beginning of 2022. This pattern was broken in April, as we saw the price difference soar to almost $2, which contributed to the extremely well performance of the downstream sector.
ENERGY
2023 Outlook

Energy
In 2022, the energy sector has seen some recovery from the impacts of the pandemic. The global demand for energy has increased, leading to a rise in oil prices, while the Russo-Ukraine war has disrupted the flow of natural gas from Russia to Europe, which is a major source of energy for the region. The uncertainty surrounding the conflict and the potential for further disruptions has made it difficult for energy companies to plan for the future. Despite these challenges, the energy sector remains a significant contributor to the global economy and is expected to continue playing a key role in the years to come.

The use of oil savings and government stocks has been effective in managing market risks during the energy crisis caused by Russia's invasion of Ukraine. In the future, it will be even more important to increase efficiency, promote the adoption of electric vehicles, and handle government inventory responsibly to manage market risks.

Natural Gas
2022/23 heating season started late due to milder than expected winters in North America as well as Europe. Even though there have been a couple of cold spells the initial panic had resulted in Europe filling up their storage levels to unprecedented highs. These storage levels have not been withdrawn as expected due to warmer winters, which are expected to last through mid-February 2023, raising concern regarding reduced demand for gas. Assuming Europe exits the winter in this warmer weather, they should have comfortable inventories exiting the season, making the job of refilling storage over replenishing season easier. Weaker Chinese demand has also been an agent in Europe being able to secure supplies.

Assuming Russia does not cease anymore of the remaining gas supplies to Europe, replenishing storage levels and entering the 2023/24 winters would not be as dire as last year was, rendering expectation of price inflation due to Europe’s demand with little possibility.

However, China’s demand is coming back online and the extent to which it rebounds could tighten the LNG markets and intensify competition for supply. Since TTF is at a discount to Asian natural gas prices at the moment, cargos are being directed to Asia. With Chinese demand back, the reopening of US' Freeport LNG facility could provide some relief. Again, this depends on the extent to which China's demand rebounds.

EIA expects production for dry natural gas to remain at pace 100-101 Bcf/d this year, this is accounting the re-opening of the Freeport facility. Once online the facility, if fully functioning, will add over 2 Bcf/d of natural gas and would translate to a 11% (1.2 Bcf/d) increase in LNG exports.

Post the withdrawal season (March-November), the storage levels in the US are expected to be 16% higher than the 5 year average.

Oil
The 2023 outlook for the oil market will largely be influenced by two major forces: Russia and China. Global oil demand is set to rise by 1.9 mb/d in 2023, to a record 101.7 mb/d, with nearly half the gain coming from China. Jet fuel remains the largest source of growth, up 840 kb/d. China will drive nearly half this global demand growth even as the shape and speed of its reopening remains uncertain.

In 4Q22, supply outpaced demand by over 1 mb/d despite a cut in OPEC+ production targets and disruptions to US supply due to winter storms. Milder than expected winter combined with weak industrial activity helped Europe cut its oil demand. Demand was also restrained by China’s Covid lockdowns and winter blizzards that disrupted holiday travel in the US and Canada.

Although the oil market is well-supplied at the beginning of 2023, the situation could quickly tighten due to the impact of western sanctions on Russia's exports. The diesel market is particularly vulnerable, as demand growth recovers. In December, Russia exported a record 1.2 mb/d of diesel, with 60% of it going to the European Union. New supplies from the Middle East and China are expected to provide some relief. China’s diesel has already started arriving in Europe after the Chinese government increased its export quotas late last year.

Russia’s invasion of Ukraine is a clear reminder that Oil and energy matters. The West's retaliatory sanctions have forced them to search for more reliant partners and Canada is ideally placed to step in, however, it is restrained by its political objectives. Canada currently sits on 10% of known oil reserves (3rd largest globally), it is also politically stable and geographically well situated. Nevertheless, it is restricted by pipeline and export capacity.
ENERGY

2022 HOLDING REVIEW

Veronica Deol
Analyst

Sheldon Gu
Chief Sustainability Officer

Jeremy Huang
Head of Risk Management

Ria Nagpal
Analyst
ENERGY TRANSFER LP (NYSE: ET)
Storage & Transportation

Company Overview
- **Midstream** provider based in Dallas, Texas, owns and operates a diverse portfolio of energy assets, making it one of the country’s largest and most diversified midstream service providers.
- Exports, transports, stores, and terminals natural gas, crude oil, NGLs, refined product and LNG
- ET delivers logistics and transportation platforms for natural gas(90k miles), NGL(5.5k miles), crude oil(11.3k miles) and refined products(3.6k miles), moving energy products throughout the U.S. and to over 75 countries.

Investment Theses

1. **Macro tailwinds support sector growth**
   - Regulatory authorities overly optimistic on the pace renewables can replace fossil fuels
   - Natural gas can serve as transition source

2. **Market underestimating expansion plans**
   - Negative sentiment on focus shift from debt reduction to expansion
   - Expansion is giving access to pipelines from major basins to leading markets

Catalysts & Risks

*Catalysts*
- **Strengthening conditions in the energy market**: driving demand
- **Acquisitions and expansion projects**: driven by relative low-cost financing coming from recurring cash flow from operations

*Risks*
- **LP model and selfish management**. Management effectively issues itself preferential treatment and stock when the opportunities present themselves. More and more midstream companies are switching to being c-corps, and comments on the previous article even showed some readers were uninterested in LPs.
- **Climate change**: Natural gas and oil demand’s greenhouse effect

1 Year Stock Performance

Source: Bloomberg, Company Filings
SHELL PLC (NYSE: SHEL)
Integrated Oil & Gas

Company Overview

- Shell PLC is a Dutch integrated energy company. Most of the firm’s revenues are derived from its downstream activities. It is also a major player in liquified natural gas.
- The company has ventures all around the globe. Shell also owns the biggest network of retail gas stations compared to its competitors.
- Renewables is also part of the long-term plan of Shell, as it has started to invest in alternative sources of energies. Most notably, Shell is investing in hydrogen and offshore wind turbines.

Investment Theses

1. Shell will be able to profit from the growing demand of LNG through its leadership position in this sector. With projects such as Prelude LNG and Coastal GasLink in play, the firm is bound to take advantage of the increasing demand of LNG in developing countries.

2. Shell’s exposure to renewables makes the firm better prepared for a greener future. Moreover, the company will be able to use those green energies in its retail network, which is a differentiating factor.

Catalysts & Risks

Catalysts

- As China loosening the Covid restrictions, demand for oil and gas will increase in the short run.
- Deadlocked Russian pipeline Nord Stream 2 will cause a decrease in natural gas supply.
- Countries are more concerned about green energy and energy transition.

Risks

- Geopolitical risks (e.g. Ukraine Crisis) will increase the volatility of supply and price of oil and gas.

1 Year Stock Performance

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary

Source: Bloomberg, Company Filings
TOURMALINE OIL CORP. (TSE: TOU)
Exploration & Production

Company Overview
- Tourmaline Oil was founded in 2008 and is headquartered in Calgary, Alberta.
- It is Canada’s largest natural gas producer focused on long-term growth through an aggressive exploration, development, production and acquisition program in the Western Canadian Sedimentary Basin.
- It operates in three basins, which include the Alberta Deep Basin, NEBC Montney Gas/Condensate and Peace River Triassic Oil.
- The company’s 2P reserve life is estimated to be 22 years.

Investment Theses
1. The Market underestimates Tourmaline’s defensiveness and its ability to weather uncertainty (as we are currently seeing and except to see more of)
   - Its ability to capitalize on its large storage capacity, thereby selling its unhedged production at a higher realized spot price.
   - Exposure to many markets in North America and more recently in Asia through Cheniere’s LNG terminal (JKM).
2. The market underestimates the operational synergies culminating from Tourmaline’s M&A activities and its recent CAPX investments
   - Its ability to achieve operational synergies following the purchase of Modern, Jupiter and Black Swan, which were executed from Q3 2020 to Q3 2021.
   - Its ability to reduce third party processing fees through the development of Gundy Phase 2 expansion.

Catalysts & Risks

Catalysts
- The company has an extensive hedging program that protects it from volatility in natural gas prices.
- The insiders currently hold ~6% of the company’s stock, which represents a significant investment in the C$23 billion company.

Risks
- Ongoing negotiations between the British Columbia government and Treaty 8 First Nations regarding northeastern British Columbia is expected to reach an agreement in 2023, any delays could impact Tourmaline.

1 Year Stock Performance

Source: Bloomberg, Company Filings

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary

Desautels Capital Management
MMF Annual Report 2022
**TC Energy Corp. (TSE: TRP)**

Storage and Transportation

**Company Overview**

- TC Energy (formerly Trans Canada Energy) is a Canadian Energy Infrastructure company that owns and operates projects across Canada, the US and Mexico.
- The vast majority of TC Energy's revenue is generated through its Natural Gas pipelines, while only around 1/5 is generated through its high-profile Liquids pipeline projects.
- Portfolio includes 93,000km of natural gas pipeline, 4,900 km of oil pipeline and 7 power generational facilities with a capacity of 4,300 MW.

**Investment Theses**

1. **Multiple projects in place and in construction, such as Coastal GasLink, allow TC Energy to benefit from increased North American energy exports**
   - China's demand for natural gas will be a major driver
   - Canada's natural gas is cheaper than the US'
   - These projects have however been running into problems due to cost overruns and delays

2. **Mexican operations well positioned to capture growth in Mexican natural gas demand**
   - Market is not pricing in the unused capacity
   - Mexico only accounts for 5% of total revenue, hence market is ignoring value
   - Sur de Texas is forecasted for higher revenues than the market sees

**Catalysts & Risks**

**Catalysts**

- Faster than expected balance sheet improvement expected through debt reduction given increase in cash flows

**Risks**

- Approvals are dwindling given aversion to the sector due to environmental issues. TransMountain pipeline carrying oil facing delays
- Pipeline leaks or spills lead to environmental hazards. Recent spill of 14,000 barrels of oil is going to result in significant cleanup costs
- Mega project risk that can lead to increases in cost estimate.

**1 Year Stock Performance**

![Graph showing stock performance over a year with performance metrics and labels]

**Source:** Bloomberg, Company Filings

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**Revenue Breakdown**

- Natural Gas pipeline: 72.8%
- Liquids pipelines: 2.3%
- Power & Storage: 10.4%

**Financial Ratios**

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**Valuation Summary**

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**Position Summary**

- **Rating:** Sell
- **Price Target:** $63.00
- **Price Dec-31:** $59.29
- **Acquisition Date:** 2019-12-19
- **Shares:** N/A (SRI)
- **SRI – A**: (A²)
FINANCIALS

2022 REVIEW & 2023 OUTLOOK

Boldizsár Edgár Balogh
Analyst

Kshitiz Bhandari
Head of Quantitative Strategy

Deeksha Bindra
Analyst

Zakaria Chakrouni
Analyst

Joseph Findlay
Strategist

Yixuan Ji
Analyst

Renzo Muñoz Najar Deza
Chief Economist

Alexandre Touchette
Analyst
FINANCIALS
2022 Sector Review

Sector Performance
In 2022, the S&P 500 financials sector outperformed the S&P 500 by 7.5%. This is attributable to large banks having an increase in their interest income due to rising rates. Concurrently, it is interesting as well to note the S&P/TSX financials sector underperformed the S&P/TSX by 3.6%. Historically, this has been an economically sensitive sector. Although the sector declined along the rest of the market for much of 2022, the sector outpaced the broader market over the latter part of the year. The rising interest rates boosted the banks’ profitability by widening the differential between what the banks earn (on the loans they make) and what they must pay (on deposits they hold).

The SRI fund was overweight in Canadian banks. The subsector returned (10.9%) in 2022 outperforming U.S banks. This was one of the main drivers of the sector outperformance compared to the benchmark. Canadian banks had continued credit participation and a slight increase in net interest margins, increasing net income YoY. However, the cooling housing market and shifting credit cycle were headwinds for the sub-sector, and could be dragged on in 2023.

Strong security selection bolstered returns
SRI financials returned 1.5% outperforming the SRI financials benchmark which returned (10.2%). This outperformance is primarily driven by Chubb (NYSE: CB) which returned 15.1% and TMX (TSX:X) returned 7.6% respectively. Property and casualty insurance companies performed well as they were able to take advantage of a hard market. At the end of 2022, financials were one of the cheapest sectors in the S&P 500, and also very cheap relative to the sectors own historical valuation patterns. This was shown in our security selection as the financial companies selected are blue-chip & value-based.
**FINANCIALS**

2023 Sector Outlook

**Bullish on top-line revenue**

Going into 2023, the interest rate environment supports the insurance industry while the main headwind is inflation, putting pressure on margins, as costs increase with inflation (especially the replacement cost). Therefore, the loss ratio increases, evidently putting downward pressure on EPS.

A recession would decrease volumes, but the inelastic demand and higher insured values that boost premiums provide protection against these risks. All in all, the defensive nature of the insurance industry and the favourable interest rates place insurers in a good position to potentially keep up the outperformance.

For U.S banks, we expect revenue to be tepid throughout the first 3 Q’s of 2023. We conjecture deal volume to start increasing from Q4 2022. It should be noted, net interest income should remain high throughout the year due to our view on interest rates remaining higher for longer if needed. However, we expect loan growth to slightly decrease in H2 of 2023 if interest rates do remain higher for longer. Both of these effects are expected to roughly offset each other unless the economy takes a sudden and severe down swing. However, given that U.S banks have ~10-14% of capital, we remain a neutral outlook with balanced risk and rewards.

The outlook for the financial exchange and data subsector appears muddled in the near future. Financial exchanges will certainly go through important technological changes over the next year. AI-powered software and cloud-based infrastructure are quickly becoming the norm in the industry and large exchanges are now beginning to move entire markets to the cloud. We expect companies like TMX and MSCI to take advantage of these changes and maintain their dominant market position. Despite the recent scandals and crashes in crypto trading markets, we also believe that CBOE is well positioned to profit from a positive outlook for digital assets.

**It it an out-of-favour sector?**

Ever since the bank bailouts in 2008, the federal government has closely monitored the capitalization of the largest U.S banks through a series of stress tests designed to simulate a variety of worst-case scenarios. The banks have passed these tests, indicating reduced risk in the sector. If banks are being cautious in setting aside capital for loan losses, it could mean that they are better positioned than the market expects. This could bode well for banks’ ability to navigate a variety of economic scenarios, while positioning themselves to benefit in any market cycle. Our team view is the sector can still be resilient no matter the economic outlook as banks have become crafty in generating cash flow.
FINANCIALS

2022 HOLDING REVIEW

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Analyst

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Strategist

Yixuan Ji
Analyst

Renzo Muñoz Najar Deza
Chief Economist

Alexandre Touchette
Analyst
BANK OF AMERICA CORP (NYSE: BAC)
Diversified Banks

Company Overview

• Bank of America, founded in 1904, operates as a financial holding company, which engages in the provision of banking and nonbank financial services.
• It operates through 4 segments: Consumer Banking (40.5%), Global Banking (23.3%), Global Wealth and Investment Management (22.8%), and Global Markets (19.0%). (5.6% of the revenue is double counted, hence accounted for in all other)
• Federally chartered US bank headquartered in Charlotte, NC. It operates globally with US revenues 86.9% and foreign revenues 13.1% of the total.

Investment Theses

1. Market underestimates the impact of rising interest rates on Bank of America’s earnings
   – With the Federal reserve increasing interest rates at an unprecedented pace, BAC’s net interest margin and consequently net income will see a huge boost in the coming quarters
   – Has a higher sensitivity to short-end of the yield curve (75%) vs long end (25%).
   – Room for further loan growth without impacting risk profile. Historically positive loan growth during high interest rate environment.

2. Bank of America’s prudent approach to technological innovation provides positive outlook for its business
   – Bank of America has invested more than $35B to build tech platforms.
   – Technology adoption among BAC clients continues to rise
   – BAC’s tech initiatives are focused towards serving their customer base.

Catalysts & Risks

Catalysts
• Consistent rate hikes driving top line growth and net interest margin.
• Positive loan growth while maintaining the same risk profile.

Risks
• Continued slow down of deal making will further hurt investment banking revenues (down ~58% in 2022).
• Slowdown in global markets growth in a high interest rate environment.

1 Year Stock Performance

Source: Bloomberg, Company Filings, DCM Forecasts
CBOE GLOBAL MARKETS INC. (BATS: CBOE)

Financials

Company Overview

- CBOE, founded in 1973, provides market infrastructure and traded products, delivering trading, clearing and investment solutions.
- It operates through 5 segments: U.S. options (36%), North American Equities (29%), Futures (28%), Europe and Asia Pacific, and Global FX (7%)
- Headquartered in Chicago, but operates around the world with 45% of its revenue coming from U.S. Options and U.S. Equities, 18.1% from European Equities markets and 18.6% from Australian Equities and Japanese Equities.

Investment Theses

1. Market underestimates the short-term revenues from peaking option volumes.
   - Strong demand for VIX and SPX option products and strong performance from the derivatives segment
   - Pan-European equity and index options market is about 1/8th the size of the US market and could see an exponential growth in option trading.

2. Analysts underestimate the growth potential for data and digital assets.
   - Expansion of their global data distribution to other locations and durable growth from data and access solutions.
   - 2 acquisitions in the digital asset space since the beginning of FY21. Leverage digital asset data to develop and distribute digital asset indices for use in Exchange traded product creation

Catalysts & Risks

Catalysts

- Next earning calls (4Q22, 1Q23 and 2Q23)
- Unexpected Macro news; interest rate swings, CPI and elections
- More regulation and certainty in the digital asset world

Risks

- Trading volume decrease
- Uncertainty in the digital asset space.

1 Year Stock Performance

Source: Bloomberg, Company Filings
CHUBB LTD (NYSE:CB)  
Insurance

Company Overview

- Chubb is the world’s largest publicly traded P&C insurance company. Chubb sells P&C insurance, life insurance and reinsurance through subsidiaries, to commercial and personal customers in 55 nations.
- The largest segments are North America Commercial P&C Insurance (over 40% of net premiums earned) and Overseas General Insurance (some 27% of net premiums earned).

Investment Theses

1. Life insurance
   - Chubb is well positioned to gain life insurance market share in Asia Pacific, especially in China, where insurance services remain an underdeveloped industry
2. Cyber insurance
   - Chubb remains among the 3 main players in the US cyber insurance industry, which is a fast-growing segment in the insurance industry
3. Efficiency
   - Chubb is industry leading in terms of efficiency, operating with the lowest combined (loss and expenses) ratio, which places it in a strong position to gain advantage of current market conditions as inflation puts pressure on margins

Catalysts & Risks

Catalysts

- Increasing volume of cyber attacks could bolster the growth in cyber insurance
- Covid-19 outbreak in China, could raise demand for life insurance and thus increase the growth

Risks

- Natural disasters, as the frequency is increasing while predictability is decreasing
- Regulatory risk in China regarding foreign companies
- Covid-19 outbreak in China could increase claims

1 Year Stock Performance

- Chubb: 16.0%
- Insurance: 10.1%
- S&P 500: (18.1%)

Revenue Breakdown

- NA Commercial
- Overseas General Insurance
- NA Personal
- Life insurance
- NA Agriculture
- Global Reinsurance

Financial Ratios

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<th>Metrics (LTM)</th>
<th>Chubb</th>
<th>Comp</th>
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<td>P/BV</td>
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<td>1.6x</td>
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<tr>
<td>Op. ROE</td>
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<td>Combined ratio</td>
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Valuation Summary

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<tbody>
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<td>$ 174</td>
<td>$ 231</td>
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</table>

Position Summary

Rating: Buy
Price Target: $246.16
Price Dec-31: $220.60
Acquisition Date: 2020-02-28
Shares: N/A (SRI)
SRI – A²: 129 (A²)

Source: Bloomberg, Company Filings

Disclaimer
INTACT FINANCIAL (TSX: IFC)
P&C Insurance

Company Overview
- Intact Financial, founded in 1809, is the leading property & casualty insurance firm in Canada.
- It operates through 2 main segments: Personal Lines (59%), and Commercial Lines (41%)
- Headquartered in Toronto, but operates around the world with 74% of its revenue coming from Canada, 15% from the United Kingdom & Ireland, and 11% from the United States

Investment Theses
1. Strong Position to Take Advantage of Market Conditions
   - Current P&C industry is resilient and Intact is well positioned to gain even more market share in the near future
2. Intact’s Growth Potential is Underestimated
   - Intact’s acquisitions are strategic to which they create increased market exposure and leading positions
   - Intact typically acquires private companies with certain characteristics and grows the company with Intact

Catalysts & Risks

Catalysts
- An increase in technology adoption, by robotic process automation in their process will reduce costs
- An increase in emerging risks creates a new business opportunity, as Intact can take advantage of these profitable events

Risks
- Inflation and decrease in IR, as they have moderate exposure
- The current underwriting cycle could signal the end of the hard market, meaning the end of unprecedented rapid growth

1 Year Stock Performance

Source: Bloomberg, Company Filings

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary

Rating  Buy
Price Target  $225.28
Price Dec-31  $192.84
Acquisition Date  2022-12-20
Shares  N/A (SRI)
SRI – A²  550 (A²)
MSCI INC. (NYSE: MSCI)
Financial Exchanges & Data

Company Overview
- MSCI Inc., founded in 1969, provides investment decision support tools to investment institutions worldwide.
- It operates through 3 main segments: Index (62%), Analytics (26%), and ESG & Climate (8%)
- Headquartered in New York City, but operates around the world with 45% of its revenue coming from the Americas, 39% from Europe, Middle East and Africa, and 16% from Asia and Australia.

Investment Theses
1. ESG & Climate initiative become a main driver in top-line revenue
   - Shift towards responsible investing will drive management firms to license their ESG indices
   - Opportunity to charge higher licensing fees as the ESG space is matricious in nature
2. MSCI is an industry leader
   - The market is not pricing in the importance they have in the asset management space
3. Opportunity for M&A activity
   - Increasing their leadership presence by completing tuck-in acquisitions will bolster their market share even more

Catalysts & Risks

Catalysts
- Robust inflation and resulting price pressures, will help bolster profits
- The FED achieves a soft landing, where markets do not harshly react to future economic turmoil, keeping asset prices from decreasing

Risks
- Declining market prices lowers fees as a long-lasting bear market will also lead to several investors withdrawing funds, lowering AUM
- Increase in future indices products could possibly lead to less market share.

1 Year Stock Performance

![Chart showing stock performance over 1 year](chart)

Source: Bloomberg, Company Filings
ROYAL BANK OF CANADA (XTSE : RY)
Canadian Banks

Company Overview

• RBC, founded in 1864, is the largest Canadian Bank. They provide diversified financial services to over 17 million clients.
• It operates through 4 segments: Personal & Commercial Banking (43%), Wealth Management (31%), Capital Markets (17%), and Insurance (9%).
• Based in Canada, it operates around the world with 60% of its revenue coming from Canada, 24% from the United States, 10% from Europe / United Kingdom and 6% from emerging markets.

Investment Theses

1. Well positioned to take advantage of the low rate environment
   – Diversified revenue streams combined with a high non-interest income enable them to outperform peers in a low-rate environment.
   – Low-rate environment was expected to continue due to the COVID secondary effects.

2. Market is underreacting to RBC’s COVID resiliency
   – Strong balance sheet underpinned by a high-quality loan portfolio.
   – Long history of conservative and prudent business decisions.
   – RBC’s COVID resiliency compared to peers would enable them to outperform the competitors.
   – Lowest COVID-sensitive sector exposure among the Canadian Banks.

Catalysts & Risks

Catalysts

• Strong dividend distribution to increase shareholder wealth.
• Shift to lower fee ETFs.
• High inflation and interest rate environment.

Risks

• High housing prices should impact mortgage activity.
• Uncertain economic conditions will most likely result in an increase of Provision for Credit losses in the upcoming quarters.

1 Year Stock Performance

Source: Bloomberg, Company Filings

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary

Source: Bloomberg, Company Filings
TMX GROUP LTD (TSE: X)
Capital Markets

Company Overview

- TMX is a multi-asset class exchange group operating cash and derivative markets and clearinghouses for equities, fixed income and energy markets.
- It provides clearing facilities, data products and other services to its clients and is best known for its stock exchanges, Toronto Stock Exchanges (TSX) and TSX Venture Exchange (TSXV), which serves the public venture equity market.
- It operates through 4 segments: Capital Formation, Equities and Fixed Income Trading and Clearing, Derivatives Trading and Clearing, Global Solutions, Insights and Analytics.

Investment Theses

1. Greater number of listings in Capital Formation
   - Increased IPO listings volume in the innovations sector will drive revenue and be a source of growth.
   - Attractiveness indicator rates Canada's environment for M&A and IPO activity as the best in the world.
   - Over the long term, the company believes that capital formation will be supported by an active pipeline of TSX-Venture candidates.

2. Strong Derivatives Volume Growth
   - Global derivative volume growth led by Asia & South America.
   - TMX futures and options volumes drive the growth.

3. TMX can benefit from a potential economic recovery
   - Due to its extreme market dominance in Canada, TMX is positioned to benefit disproportionately from a potential recovery in 2023.

Catalysts & Risks

Catalysts

- **Global expansion and partnership** Expansion towards Asia & South America for equity trading volumes.
- **Data analytic business** Deliver increased value along the full trade lifecycle by increasing data and analytics tools available for OTC markets.

Risks

- **Regulatory changes (data business, transaction fee)** TMX cannot adjust such fees without the approval of the OSC, AMF and BCSC.
- **Economic Condition (affecting IPO & trading volume)** could drive the Capital Formation revenue down.

1 Year Stock Performance

<table>
<thead>
<tr>
<th>December</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMX: 8.3%</td>
<td>S5CAPM: (16.8%)</td>
<td>S&amp;P/TSX: (5.8%)</td>
<td></td>
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Source: Bloomberg, Company Filings
HEALTHCARE

2022 REVIEW & 2023 OUTLOOK

Charles-Olivier Martineau
Analyst

Ariana Milin
Analyst

Mihnea Morar
Analyst

Diana Yang
Analyst

DESAUTELS CAPITAL MANAGEMENT
**Healthcare**

2022 Sector Review

A defensive sector yet again

In 2022, the healthcare sector outperformed the S&P 500 by 16.1% returning (2.0%) over the year against (18.1%) for the S&P 500. This outperformance was characterised by the increased demand for healthcare services due to the continued aging population and rise in chronic diseases such as diabetes and heart conditions. For the third year now the COVID-19 pandemic was an important factor in the healthcare performance highlighting once again the importance of healthcare combined with U.S. Government initiatives to improve access to medical care led to increased investments and growth in the sector.

Pharmaceutical companies realized revenues from COVID-19 vaccines and drugs, clinical trials resumed producing positive datasets for several late-stage trials, FDA approvals returned to pre-pandemic levels and investors reached for relatively defensive pharmaceutical stocks amid fears of a recession. The culmination of these effects resulted in the pharmaceutical sector producing a strong performance in 2022 and driving the healthcare sector to outperform the broad market. New trends, brought by the pandemic, such as telemedicine and other digital health solutions continued the rapid pace of innovation bringing advancements in Medical Technology to efficiently adopt remote patient monitoring. However, growth in medical devices was offset by low hospital capacity due to workforce shortage and costs pressure coming from supply-chain issues and inflation.

*Figure 1: Healthcare Sector Performance vs S&P 500, 2022*

Security selection drives outperformance

SRI healthcare returned (4.5%) outperforming the SRI benchmark in 2022 which returned (17.3%). This outperformance is primarily attributed to Axsome Therapeutics (NASDAQ: AXSM) which returned 104.2%. In 2022, AXSM acquired Sunosi, a medication approved for the treatment of narcolepsy & sleep apnea, from Jazz Pharmaceuticals, received FDA approval of *Auvelity* a novel treatment of major depressive disorder and announced positive data for their phase 3 trial of the treatment of Alzheimer’s disease agitation. AXSM strong performance was, however, negatively impacted by Teladoc Health (NYSE: TDOC) poor performance. TDOC returned (71.9%) before DCM Healthcare sold the position in late December. This bad return can be explained by the fact that it overpaid for the Livongo acquisition and had to write down of ~$10B. In addition, the company still has not earned profit since its foundation and were pressured by the rise of interest rates and inflation. As the hype for telemedicine faded with COVID-19, selling the position was deemed appropriate.

*Figure: SRI Healthcare vs SRI Benchmark*

Danaher (NYSE: DHR) also brought down the SRI return with a (19.0%) performance, attributable to deficits in supply-chain and trimmed forecasts on revenue from COVID-19-related products. However, Danaher retains strong organic revenue growth in all their segments and despite the current inflationary period, pricing remains solid.

A2 Healthcare returned (8.2%) outperforming the benchmark. DHR and TDOC had the same impact on the fund and Veeva Systems (NASDAQ: VEEV) added to the performance by returning (36.8%), mainly attributable to the sharp drops in September and December 2022 as they lowered their forward-looking guidance in the second and third-quarter earnings releases. This was on account of the strong US dollar headwind, as Veeva had half of its geographical exposure outside the United States. The company maintained its earnings through growing revenue retention, catalyzed by several long-term strategic partnerships formed during the year.

*Figure: A2 Healthcare vs A2 Benchmark*

*Source: Bloomberg, Seeking Alpha*
HEALTHCARE
2023 Sector Outlook

The age of digitalization

New trends coming from digitalisation and more innovation caused by the pandemic are expected to continue in 2023. Historically, an increase in R&D spending has increased significantly the top line growth within the medical devices subsector. This trend is set to continue in the foreseeable future as several segments still use old technology in need of innovation. The strong product pipeline should also shape 2023 and be the catalyst in renal denervation, pulse field ablation and robotic surgery. Adding to that, the continued aging of the population and rise of chronic disease should persist and companies that specialize in medical supplies and devices, such as those serving the diabetes, structural heart conditions, and orthopedic care markets, are expected to experience growth.

With rising interest rates and strong balance sheet, large players in the equipment and supplies subsector are well position to take advantage of the M&A market with valuation down and small companies struggling to meet their debt burden.

In 2022, new therapeutic areas in the healthcare sector were seen as major growth drivers for the industry. These areas included obesity, which is expected to become a $30+ billion opportunity for the industry, and Alzheimer’s, which is expected to see the launch of effective treatments in 2023. The pharmaceutical industry is also poised to benefit from a shift away from the major patent expiration headwinds experienced in recent years and towards renewed innovation and technology adoption.

Value-Based Care (VBC), a healthcare model where providers are incentivized to focus on the quality of care they provide, and are reimbursed based on cost, quality of care metrics, and sometimes health outcomes. This is in contrast to the traditional fee-for-service (FFS) model, where providers are reimbursed based on volume. VBC benefits patients by providing better quality care at lower costs, benefits payors by reducing costs and improving health outcomes, and benefits providers by allowing them to earn more if they can effectively manage costs. Continued innovation was also highlighted as an important trend in the healthcare industry, especially in the biotechnology sector. Healthcare IT is crucial for the success of VBC as it requires data and analytics to measure and analyze healthcare cost and quality metrics.

Pharmaceuticals and Biotechnology: Growth is expected in the therapeutic areas of obesity and Alzheimer’s disease, where markets can be worth as much as $30B, and $9.67B, respectively. Eli Lilly’s Mounjaro was recently approved as a treatment for type II diabetes but similar drugs have shown effectiveness as therapies for obesity. Despite the many failures in drugs that attempt to prevent cognitive decline in patients with Alzheimer’s, Biogen’s approval of Leqembi has shown tremendous progress in getting closer to a cure. Caution should be pointed to the upcoming patent cliff, where declining sales from blockbuster drugs like AbbVie’s Humira will put pressure on pharmaceutical companies to refit their pipeline. Several companies, notably Bristol Myers Squibb will have a large portion of their revenues exposed to competition from generics and biosimilars, if unmitigated.

Headwinds

The inventory data suggests that the supply-chain risks won’t affect the revenue but may impact the gross margin in 2023. The inventory levels increased by 6% between 2020 and 2021 and another 11% so far this year, indicating that there won’t be major shortages in delivering devices to hospitals when needed. However, this also shows that the cost of goods sold could increase. One notable example is Dexcom, which has seen inventory drop 11% year-to-date due to greater-than-expected demand for continuous glucose monitoring devices. There won’t be significant supplier shutdowns except for highly technical segments of medical technology, such as robotics that require computer chips.

In 2023, there is a large uncertainty regarding the impact of Federal Reserve’s interest-rate hikes on the unemployment rate and the Affordable Care Act (ACA). The Federal Reserve expects the unemployment rate to increase to 4.4% in 2023, which could have an impact on people’s ability to receive medical procedures if they lose their insurance. The ACA, which expanded Medicaid eligibility, could provide coverage for some of the unemployed, but certain medical procedures, such as trauma cases from workplace accidents, could still be affected if there is a decrease in construction jobs. The implementation of the ACA in 2010 could mitigate the effects of an increase in unemployment on medical procedures.

Source: Bloomberg, SVB Leerink, Informa
AXSOME THERAPEUTICS (NASDAQGM: AXSM)
Pharmaceuticals

Company Overview

- Axsome Therapeutics is a biopharmaceutical company that specializes in developing novel therapies for central nervous system (CNS) conditions with high unmet medical needs
- They have 5 differentiated clinical-stage CNS therapies in their pipeline
- Axsome has 2 drugs on the market resulting from the acquisition of a drug from Jazz Pharmaceuticals and their commercial launch of another medication in FY2022
- Headquartered in New York City and currently only operates in the US market

Investment Theses

1. Underestimation of Approval of Axsome’s Breakthrough Therapy Drugs (BTD)
   - Investors attributed virtually no long-term value to a Breakthrough Therapy Designation as generally trials for BTD are less comprehensive & thus, have lower approval rates
   - However, Axsome’s clinical trials for their BTD are very comprehensive, resulting in a higher approval rate

2. Misestimation of BTD Market Share Capture and Ramp-Up Time
   - Breakthrough Therapy Designation by the FDA helps the drug reach the market faster
   - They also capture market share faster than non-BTD as they target underserved markets
   - Thus, firm will be profitable quicker and help in establishing a sizable market position giving additional early-mover benefits

Catalysts & Risks

Catalysts

- Uptick in R&D return due to more efficient pipeline design
- Resumption of FDA approval processes that were delayed during COVID
- Increased market size due to growing awareness of CNS conditions and rise Geriatric population

Risks

- Inflation Reduction Act gives drug pricing power to the Federal Government
- Failure to reach FDA approval of Axsome’s pipeline therapies
- Patent expiration significantly decrease market share and in turn revenues

1 Year Stock Performance

Financial Ratios

<table>
<thead>
<tr>
<th>Metrics (LTM)</th>
<th>AXSM</th>
<th>Comps</th>
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<tbody>
<tr>
<td>EV/Revenue</td>
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<td>P/B</td>
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Valuation Summary

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Position Summary

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<td>SRI – A²</td>
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</table>
Danaher Corporation (NYSE: DHR)
Life Sciences Tools & Services

Company Overview

- Danaher is a medical company operating in 3 divisions: Life Sciences, Diagnostics, and Environmental & Applied Solutions
- They design, manufacture and market professional, medical, industrial and commercial products and services
- Headquartered in Washington, D.C., Danaher operates worldwide with 40% of their revenue coming from North America, 24% from Western Europe, 5% from other developed markets (Japan, Australia), and 31% from high growth markets.

Investment Theses

1. Strong management with a proven track record of integrating acquisitions into Danaher's operations
   - The Danaher Business System (DBS) implements lean and kaizen-based manufacturing processes in eliminating operating inefficiencies
   - Holds a 25+ year track-record in acquiring companies, which has led to 50% of Danaher's total revenue being acquired

2. Recurrent free cash-flow generation, which can finance tuck-ins to position Danaher as a key player in the healthcare M&A market
   - Around 70-75% of Danaher's revenue is generated from recurrent sources
   - Danaher's annual free cash-flow has increased by 21% YoY on average in the past five years
   - Value creation through rapid adoption of DBS through improvements in cost structure, reinvestments in R&D, acceleration of margins

Catalysts & Risks

Catalysts

- Danaher intends on being a pure-play life sciences company, to which they are spinning off their Environmental and Applied Solutions business
- Pursuing further M&A by expressing interest in acquiring Catalent, a leader in pharmaceutical contract manufacturing

Risks

- Potential slow growth, due to endemism of COVID-19, leading a lessened demand of COVID-19 products, and diagnostics equipment
- Further supply chain constraints, and inflationary pressure can squeeze potential earnings in the life sciences subsector

1 Year Stock Performance

Source: Bloomberg, Company Filings
MEDTRONIC PLC (NYSE: MDT)  
Equipment & Supplies

Company Overview

- Medtronic, founded in 1949, develops, manufactures, and sells device-based medical therapies. Clients are healthcare systems, physicians, clinicians, and patients worldwide.
- It operates through 4 segments: Cardiovascular (36%), Medical Surgical (29%), Neuroscience (28%), and Diabetes (7%).
- Based in Dublin, Ireland but operates around the world with 51% of its revenue coming from USA, 32% from other developed markets and 17% from emerging markets.

Investment Theses

1. Potential EV/EBITDA re-rating
   - Shift towards innovation-driven growth with increased R&D spending driving top-line growth should decrease the EV/EBITDA discount from MDT to peers.

2. Well positioned to take advantage of M&A market
   - Track record of high spending on M&A during recessionary periods.
   - Strong balance sheet and high cash flow generation provides easy financing for acquisitions.

3. Market underestimates growth potential in underpenetrated areas
   - Set to gain market share in robotic surgery as its technology is superior and cheaper than competitors.
   - High growth potential coming from emerging markets as healthcare spending is on the rise.

Catalysts & Risks

Catalysts

- Increase in R&D spending driving top line growth and margin expansion.
- Accretive M&A activity driven by low-cost financing coming from recurring cash flow from operations.

Risks

- Over-expenditure on unsuccessful trials coming from increase on bad R&D spending.
- Increase in M&A premiums could possibly lead to dilutive transactions.

1 Year Stock Performance

Revenue Breakdown

<table>
<thead>
<tr>
<th></th>
<th>MDT</th>
<th>Comps</th>
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</thead>
<tbody>
<tr>
<td>EV/EBITDA</td>
<td>14.6x</td>
<td>25.5x</td>
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<tr>
<td>P/E</td>
<td>29.0x</td>
<td>62.9x</td>
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<tr>
<td>EPS</td>
<td>$3.25</td>
<td>$3.52</td>
</tr>
<tr>
<td>Div. Yield</td>
<td>3.29%</td>
<td>1.31%</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>27.8%</td>
<td>25.7%</td>
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Financial Ratios

Metrics (LTM)

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Valuation Summary

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Position Summary

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<td>SRI – A²</td>
<td>N/A (A²)</td>
</tr>
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</table>

Source: Bloomberg, Company Filings
UFP TECHNOLOGIES INC (NASDAQ: UFPT)
Health Care Supplies

Company Overview

- UFP Technologies, founded in 1963, is primarily a medical designer and manufacturer of custom devices, sub-assemblies, components and packaging, and uses highly specialized foams, films, and plastics.
- It operates through 5 segments: Medical (65%), Consumer (15.0%), Aerospace & Defense (10.0%), Automotive (5%) and Electronics & Industrial (5%)
- Based in Newburyport, Massachusetts, it operates across the US, as well as the Dominican Republic and Mexico

Investment Theses

1. Well-poised to meet expected demand post-pandemic
   - UFPT will recapture market share in the orthopedic medical sector as surgeries resume post-pandemic
   - UFPT’s recent acquisitions allow them to advance in the high-margin Robotic Surgery segment + will decrease cost margins by 1% each year

2. Company was trading at a discount to MedTech companies
   - Expect revenues to grow in line with the MedTech market
   - Revenue expected to match health care competitors by the next two years, then grow with the market

3. Opportunity to cross-sell products by leveraging expertise in materials
   - Potential to expand into the automotive industry with product cross-selling (economies of scope)

Catalysts & Risks

Catalysts
- The evolution of e-commerce and the rapid urbanization and rising purchasing power especially in EMs, are expected to boost demand outlooks
- Sophisticated and eco-friendly biodegradable packaging are also on the rise pushing for innovative products
- Fairly competitive market where key costs (ie. raw materials, chemicals and transportation costs) control is crucial

Risks
- Disruptions related to an extended COVID-19 pandemic
- Loss of key customers (35% of revenues come from top 10 customers)

1 Year Stock Performance

Source: Bloomberg, Company Filings

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary
**VEEVA SYSTEMS INC. (NYSE: VEEV)**

**Health Care Technology**

**Company Overview**
- Veeva Systems is a life science-focused SaaS firm founded in 2007. The firm provides CRM and cloud-based solutions tailored to the regulatory needs of life sciences and pharmaceutical industries.
- The firm also offers professional services to support its clients' use of the firm's products.
- Headquartered in California, Veeva operates worldwide with customers from more than 75 countries. 57% of its revenue are attributed to North America, 27.5% to Europe, and 12.2% to Asia-Pacific.

**Investment Theses**
1. **Expansion into other highly regulated industries, including cosmetics and chemicals, creates new runways for existing products**
   - Veeva is in its early stage of expanding to the highly-regulated cosmetics and chemicals industries with its regulatory compliant products
   - By entering the highly-regulated industries, Veeva gains the advantages of legacy systems consolidations, reduced compliance risk, and increased responsiveness and risks
2. **Veeva has a switching cost that enables the firms to lock-in its customers and generate returns above its cost of capital**
   - Switching costs lock in customers and create dependencies on Veeva's products as they become ingrained in day-to-day operations
   - Veeva grows its margins through economies of scale and revenue retention. The margins are expected to expand as the firms charge higher on its locked-in customers

**Catalysts & Risks**

**Catalysts**
- **Strategic partnership** provides predictable streams of revenue
- **High retention rate** attributable to strong customer dependencies and switching cost

**Risks**
- **Increasing customer acquisition cost** since Veeva has signed most of its "easy" customers
- **Limited runway** left for the life science CRM as the market is close to maturity
- **Macroeconomics headwind remains** due to strong US dollars, spelling pains on earnings growth

**1 Year Stock Performance**

**Revenue Breakdown**

**Financial Ratios**

**Valuation Summary**

**Position Summary**

**Source:** Bloomberg

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**Desautels Capital Management**
**MMF Annual Report 2022**
INDUSTRIALS

2022 REVIEW & 2023 OUTLOOK

Patrick Bisson
Analyst

Delilah Dias
Analyst

Riad Diab Garcia
Analyst

Allen Li
Analyst
INDUSTRIAL

2022 Review

Benchmark Performance

The S&P 500 Industrials sector declined 5.5% in 2022, outperforming the S&P 500 index by 12.6%, which declined by 18.1%. The Capital Goods subsector increased by 0.33%. Meanwhile, the Commercial & Professional Services subsector declined 7.37%, and the Transportation subsector declined the most by 17.56%.

The Capital Goods subsector's relative outperformance was partly due to demand for capital goods as firms invested further in CAPEX with the aim of updating their production lines to meet demand in 2022. However, this demand was not robust all throughout the year, for example shipments for US-made capital goods fell in November indicating slowing business-spending on equipment in the final quarter as high borrowing costs cooled demand. Conversely, the Commercial & Professional Services continued to be impacted by low vacancies across offices across North America, partially offset by increased demand for consulting services to help firms navigate adjustments to their production lines, capital strategy, and employee base.

2022 DCM Sector Performance

The DCM A2 Industrials Sector performance was completely driven by ATS Automation tooling systems (TSE: ATS) which returned -17.26%. This underperformed DCM’s A2 benchmark for the Industrials sector by 15.92%, which returned -1.34% over the year in comparison. This relative underperformance is attributed to ATS Corp facing cost pressure due to supply chain inflation and raw material costs for certain commodities resulting in a negative impact on gross margin over the last year. For example, in their food and beverage segment they put forward a significantly higher spend in raw materials as food and beverage processing consumes large amounts of high-grade stainless steel.

ATS is deemed as having acute expertise in the processes of automotive electrification, for car manufacturers and beyond. Recently, they received a further US$119.9 Million of EV Orders related to a multi-phase enterprise program that includes the design, build, and installation of turnkey battery assembly systems. These types of projects are expected to improve margins going forward.

Figure 1: A2 Industrials vs. A2 Industrials Benchmark
**INDUSTRIALS**

2022 Review

**Capital Goods**

The Capital Goods subsector encompasses the production of various goods (i.e: machinery, tooling, etc.) serving the purpose of producing consumer goods further down the line. That being the case, its performance is in large part driven by industry capital expenditures, which serve to explain the performance we have observed throughout 2022.

To understand the subsector’s positive 2022 performance of 0.33% — significantly outperforming its benchmark (-5.5%) — we should look deeper into the market behaviour of its driving components. As such, we note the robustness of capital expenditures in resource-based industries such as mining and energy production. To that end, after a strong 2021 where Canada’s minerals sector saw a vigorous CAPEX increase of 11% (NRCAN, 08/22), 2022 was poised to follow in the same direction. Impediments in international markets, ranging from the Russian war in Ukraine to strained supply lines fuelled the rise in the price of several minerals, notably copper. These factors drew capital expenditures higher as firms strove for their production lines to keep up with a tense market.

Albeit the lingering threat of a potential economic downturn in the coming quarters, we see the Capital Goods subsector maintaining a robust positioning as firms invest further in CAPEX with the aim of updating their production lines to meet new market realities. 2022 also bore witness to growing signs of upheaval in certain industries — such as the electrification of transportation — which calls for the overhaul of entire supply chains. Various government schemes introduced this past year aimed at enticing a greener future through investments (see *The Inflation Reduction Act*) coupled with a lingering need for producers to address supply backlogs renders us confident that the 2022 performance of Capital Goods can be sustained in the new year. Coupled with a lingering need for producers to address supply backlogs renders us confident that the 2022 performance of Capital Goods can be sustained in the new year.

**Commercial & Professional Services**

The professional and commercial services subsector is composed of the sales of goods and services supplied by professional firms aiming to address the various needs of other businesses, companies, and entities. The underlying of these services is human capital, which is generally used in support to existing structures. Examples of subsector constituents are legal, accounting, and consulting firms, amongst others. As previously noted, 2022 saw this subsector’s performance decline by 7.37%, notably underperforming the industrials sector index by 1.87%, albeit outperforming the broader S&P 500. This underperformance, however, is not to say that 2022 (and to an extent, 2023) did not give way to interesting opportunities for the subsector. The need to rethink production lines, corporate systems, and adapt strategies to face the ever-changing needs of the markets has driven much of the demand seen in some of the bigger consultancy firms. Going forward, we do not see this need for human capital in supporting companies across industries as significantly receding in the coming year. Notwithstanding, 2022 also gave way to notable threats that have tarnished the image of consulting services and weighed on their performance. Notably, consultancy behemoth McKinsey & Co. was at the centre of several scandals, namely related to government contracts obtained in Canada and France — hot on the heels of a 2021 opioid scandal-related legal settlement in the United States. Greater scrutiny into the industry’s business practices may bring about further headwinds in 2023, allowing us to conclude that significant threats to the subsector’s performance remain going forward.
Transportation

Reshoring and de-globalization are major growth catalysts for the transportation subsector, namely for the road and railway subsectors as critical supply lines shifted away from nations such as China due to the Pandemic and geopolitical events. This shift is also partially incentivized by US subsidies from the Inflation Reduction Act and CHIPS Act which contain provisions that provide specific financial incentives for products made in the US, Canada or Mexico. Lastly, advances in robotics and automation have made moving manufacturing closer to home more feasible than before.

These reshoring efforts will be further bolstered by the support from President Biden’s Bipartisan Infrastructure Law (The Infrastructure Investment and Jobs Act), America is focused on rebuilding roads and railways, airports, shipping ports. Firms in this subsector can expect to secure large-scale projects that will extend into at least the next two years.

The subsector’s poor performance can be partially explained by the fall in airline stocks during 2022, characterized by an uneven recovery from the pandemic. After two years of downsizing their employee-base, airlines were ill-equipped to meet a resurgence in travel demands. This situation was exacerbated by rising costs as fuel prices pursued an upwards climb until July 2022, and closing off the year at $3.14 per gallon, 56% higher than pre-pandemic levels.

Even though the subsector has significant opportunities to deliver shareholder value, overall, the sector underperformed the S&P500 Index by 0.54%. We anticipate a slow first half of 2022, due to consistently high interest rates dampening investment in transportation, but an uptick in H2 as firms avail of the aforementioned subsidies and government funding to launch new multi-phase projects across North America.

Figure 2: Summary of Sub-Sector Recommendations

- Capital Goods  
  Overweight
- Commercial & Professional Services  
  Underweight
- Transportation  
  Overweight
ATS AUTOMATION TOOLING SYSTEMS (TSE: ATS)
Industrials & Materials

Company Overview
• Headquartered in Cambridge, Ontario, Canada
• ATS Automation Tooling Systems is a custom engineer and producer of industrial automated manufacturing systems in industries ranging from consumer products, chemicals, life sciences all the way to food and transportation.
• The company also offers value-added services to its customers, including after-sales support and pre-automation.

Investment Theses
1. The Electrification of Transport and Industry
ATS is deemed as having acute expertise in the processes of automotive electrification, for car manufacturers and beyond. Going forward, we expect an expansion in the need for expert solutions in the field.

2. Diversification
Strategic reduction in macroeconomic exposure through business diversification; illustrated by their wide-range of serviced industries.

Catalysts & Risks
Catalysts
• Increased government support for electrification in the automotive sector and beyond, manifested through recently enacted bills such as the Inflation Reduction Act.

Risks
• Potential macroeconomic instability calls for further diversification efforts needed to mitigate potential macroeconomic instability; exposure to Life Sciences remains important.

1 Year Stock Performance

Revenue Breakdown

Financial Ratios

Metrics (LTM)  VEEV  Comps
EV/EBITDA  17.8x  15.4x
P/E  37.6x  30.7x
EPS  $1.42  $0.09
Div. Yield  N/A  0.61%
EBITDA Margin  14.1%  13.9%

Valuation Summary

Position Summary
Rating  Hold
Price Target  $58.00
Price Dec-31  $42.09
Acquisition Date  2019-12-19
Shares
SRI – A2

Communications  Consumers  Energy  Financials  Healthcare  Industrials  Information Technology  Materials  Real Estate  Renewables  Program Alumni  Disclaimer
2022 was a challenging year for the S&P 500, and the Information Technology sector (S5INFT) was not immune to the turbulence, declining by 28.2%. Throughout the year, the IT sector lagged the S&P 500 Index, underperforming by 10.1% overall.

This underperformance can be attributed to headwinds such as the Russia-Ukraine conflict, rising oil prices, inflation, and Fed interest rate hikes, which caused investors to fear a possible recession.

In addition, high interest rates meant tech companies relied more on investments and financing for growth. Revenue was also impacted by reduced advertisement spending and the strengthening US dollar, which negatively impacted American multinationals’ ability to bring in foreign business.

The IT sector is divided into six subsectors, most of which outperformed the overall index. The best performing subsector was IT Services, outperforming the IT index by 9.65%. Conversely Semiconductors were the worst performing subsector, underperforming by 7.72%.

We currently hold 6 companies within the IT sector. In the Alpha Squared Fund, we hold Roper (NYSE: ROP) and Mastercard (NYSE:MA) while recently adding ON Semiconductor (NASDAQ: ON) and CGI (TSX: GIB.A, NYSE: GIB). In the SRI Fund, we hold Roper (NYSE: ROP), Western Digital (NYSE: WDC), Advanced Micro Devices (NASDAQ:AMD), Mastercard (NYSE: MA).

In December 2022, we exited our positions in Okta (NASDAQ:OKTA), Block Inc. (NYSE:SQ), Paypal (NASDAQ:PYPL) and Cloudflare (NYSE: NET). Selling these stocks provides us with protection from further losses expected under current high-inflationary macroeconomic conditions.

In 2022, our IT sector holdings had negative returns in both the SRI and A2 funds of 33.78% and 7.46% respectively. The SRI fund underperformed their benchmark by roughly 3.78%, while A2 beat their benchmark by 22.49%. In 2022, the top performer out of our holdings was Roper at 31.6% while our worst performer Paypal at −67%. Despite the challenging year, we remain optimistic that our recent strategic additions will place us in a favorable position for recovery in 2023.
INFORMATION TECHNOLOGY
2023 Outlook

Software
The current economic environment, characterized by inflation and rising interest rates, has created uncertainty, which could lead to a decrease in spending from both consumers and enterprises, particularly in discretionary areas. However, software spending has become increasingly non-discretionary as cybersecurity becomes a necessity, cloud computing is a must to stay competitive, and digital transformation is needed to help firms cut costs. If inflation subsides and central banks adopt a more accommodative stance, the already hard-hit software industry may benefit from multiple expansion.
Moreover, the advancements in AI, particularly products from OpenAI such as ChatGPT and DALL-E, are set to drive growth in the software sector in 2023. These technologies have the potential to increase efficiency in work tasks and create new opportunities for startups to disrupt established players.

Hardware & Semiconductors
Economic uncertainty and fears of a recession are affecting spending on consumer and enterprise electronics, such as PCs. However, the trend towards digital transformation and the push towards electric vehicles may help mitigate some of the impact.
In 2023, US-China tensions may present a challenge to chipmakers as the US restricts exports of advanced semiconductor equipment to China, exacerbating the impact of a potential recession.

Household Durables
Leading payment processors, such as Visa and Mastercard, are poised to continue their growth as activity is boosted by China's reopening, the rebound in travel, and increased spending on services. The rise in e-commerce and the aversion to cash due to the Covid-19 pandemic are also driving the growth of online and non-cash payments.
New, cash-burning entrants in the payment processing sector may face challenges as interest rates are expected to remain elevated and investors focus on companies with positive cash flow.

IT Services
In times of uncertainty, the IT Services industry, particularly consulting revenues, are likely to be impacted as companies reduce spending on new projects. However, consulting firms can offset losses by leveraging their outsourced-services capabilities as clients seek to cut costs. Additionally, some projects, such as those related to cybersecurity and digital transformation, have become non-discretionary in nature.
In 2022, the tight labor market and rising wages presented a challenge for consulting firms' margins. This trend is expected to reverse in 2023 as attrition rates head lower.
Unlike the software sector, IT Services multiples did not experience significant contraction, so, even if inflation subsides and interest rates ease, IT Services companies are not expected to experience significant multiple expansion.
ADVANCED MICRO DEVICES (NASDAQ: AMD)
Semiconductor company

Company Overview

- Based in California, develops microprocessors and related technologies for business and consumer markets. AMD outsources production to manufacturers such as Global Foundries and TSMC.
- Computing and Graphics segment includes desktop, notebook processors, chipsets, discrete GPUs and professional graphics.
- Enterprise, Embedded and Semi-Custom segment includes servers, embedded processors, SoC products, engineering services and royalties

Investment Theses

1. Strong growth in AI content with integration of Xilinx
   - AMD to leverage portfolio of CPU, GPU, and adaptive accelerators as well as providing Software expertise solutions for AI needs with engines like Xilinx AI, MI300, Ryzen AI and more

2. Workload expansion in Data Center segment
   - Investment in Cloud are non-discretionary, sales are forecasted to grow 26% and 25% YoY in 2023 and 2024
   - Strong adoption of Genoa, new line of CPU, within existing clients (AMZN, GOOG, ORCL, MSFT) in new workloads; offering 2x performance with almost same power consumption

Catalysts & Risks

Catalysts

- Increasing adoption of AI and Machine Learning techniques; transforming virtually a lot of industry service and product

Risks

- U.S. restrictions on sale of chips to China; ceasing to supply Chinese chipmakers with advanced and high-end computing chips or equipment
- Declining PC shipments, inventory digestion in PCs and softening macro

1 Year Stock Performance

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<thead>
<tr>
<th></th>
<th>AMD: (54.5%)</th>
<th>SSSSEQX (35.9%)</th>
<th>S&amp;P 500: (18.1%)</th>
</tr>
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Position Summary

Rating: Hold
Price Target: $87.16
Price Dec-31: $64.77
Acquisition Date: 2020-02-20
Shares: 789 (SRI)
SRI – A²: N/A (A²)

Source: Bloomberg, Company Filings as of 2/2/2023
CGI (TSX: GIB.A, NYSE: GIB)  
IT Consulting & Other Services

Company Overview

- CGI Inc. is a global IT and business process services company with 90,000 professionals and 400 locations worldwide. It provides digital transformation, systems integration, managed IT and business services, and IT infrastructure services to clients in various industries.
- Revenues are apportioned into two main segments: 55% of its revenue comes from managed IT and business process services while 45% comes from business and strategic IT consulting and systems integration services.

Investment Theses

1. Strong Defensive and Diversification Benefits with Lower Beta
   - CGI offers strong defensive, and diversification benefits due to its lower beta compared to other stocks in the portfolio.
   - A defensive position is prudent when considering the amount of macroeconomic uncertainty present in today’s markets

2. Positive Earnings Surprises due to Increased Demand for Outsourcing Services
   - The company is set to see positive earnings surprises with an increase in demand for its outsourcing services caused by tech-firm layoffs and a shift towards non-discretionary IT spending. This positions CGI to capitalize on growing needs for its services.
   - In light of high inflation and substantial uncertainty, clients are seeking ways to reduce expenses and have shown interest in utilizing CGI's outsourcing services.

Catalysts & Risks

Catalysts
- If the market tumbles due to persistent high inflation or a recession, then, thanks to CGI’s low beta, it should outperform the market
- Earnings reports from CGI and clients will show if IT spending is becoming more non-discretionary—with a focus on cloud computing, AI, and cybersecurity—allowing CGI to maintain revenue growth and post earnings surprises

Risks
- Unexpected increase in wage inflation outpacing revenue growth, resulting in margin decline
- Adverse economic conditions leading to a contraction in IT spending and negatively impacting revenue growth.

1 Year Stock Performance

Source: Bloomberg

Client Geography

Financial Ratios

Valuation Summary

Position Summary

Rating
Price Target $141
Price Dec-31 $117
Acquisition Date 2022-12-20
Shares N/A (SRI)
SRI – A² 600 (A²)
MASTERCARD INC. (NYSE: MA)
Data & Transaction Processors

Company Overview

- Mastercard Inc., founded in 1966, provides financial transaction processing services.
- The company offers payment processing services for credit and debit cards, electronic cash, automated teller machines, and traveler checks
- It operates through 3 main segments: Transaction Processing (36%), Domestic Assessments (25%), and Cross-Border Volume Fees (19%)

Investment Theses

1. The company has built multiple powerful rails through its M&A strategy
   - Strengthening its network and positioning it well to offset risks in the payment processing industry
2. Mastercard is geographically diversified and has a strong expansion strategy.
   - The company has strong growth prospects and opportunities, such as its B2B initiatives

Catalysts & Risks

Catalysts
Increasing cross-border spending, which can be monitored via travel data. 
Growing transaction volumes, which can be tracked in their « Spending Pulse » and earnings reports.
Expansion of acceptance locations, which can be monitored via their earnings reports

Risks
Legal and regulatory threat to future earnings: Global regulatory and legislative activity directly related to the payments industry may have a material adverse impact on overall business and results of operations.

1 Year Stock Performance

Source: Bloomberg, Company Filings
ONSEMI (NASDAQ: ON)
Semiconductor manufacturing company

Company Overview
• Onsemi, spun off by Motorola in 1999 & headquartered in Arizona, USA, provides sensing technology and power solution services including analog, standard logic and discrete semiconductors
• Benefits from electric vehicles (EV), advanced driver assistance systems (ADAS), energy infrastructure and factory automation
• Diversified customer base including automotive, industrial, communications, computing and consumer industries

Investment Theses
1. Market is underestimating ON’s ability to increase market share in Automotive End-Market with: Silicon Carbide (SiC)
   – Silicon carbide semiconductors can operate at much higher voltages, temperatures and frequencies than traditional silicon-based semiconductors, it delivers faster charging and longer driving ranges for EVs.
   – Management projects SiC’s sale to reach 1bn in 2023 and already secured 4bn in forms of LTSAs for 2025
2. Market is underestimating ON’s ability to increase market share in Automotive End-Market with Advanced Driver-Assistance Systems (ADAS)
   – Rising demand for safety and driving comfort features, Expanding Adoption of integrated radar and camera systems
   – Onsemi currently captures ~60% of the image sensor market which ADAS is part of

Catalysts & Risks
Catalysts
• US CHIPS Act, $39B investment over next 5 years to accelerate and drive domestic chip production
• China’s EV subsidies, generous subsidies for EV purchase extended to 2023

Risks
• Failure to meet production target, demand still outstrips Onsemi’s ability to supply in its core markets
• China’s new 5-year plan, to aim a greater self-sufficiency in semiconductor design and manufacturing but China is multiple years behind in technology

1 Year Stock Performance

Onsemi: (8.2%)
Semi GICS lvl 3 (35.9%)
S&P 500: (18.1%)

Revenue Breakdown

Financial Ratios

Catalysts & Risks
Catalysts

Risks

1 Year Stock Performance

Onsemi: (8.2%)
Semi GICS lvl 3 (35.9%)
S&P 500: (18.1%)

Price Target
$93.30
Price Dec-31
$62.37
Acquisition Date
2022-12-20
Shares
N/A (SRI)
SRI – A²
1200 (A²)
**Company Overview**

- Roper is a global software conglomerate that provides engineered products and solutions for four global niche end markets. The company serves healthcare, water, food, transportation, energy and commercial construction markets.
- Roper is headquartered in Sarasota, Florida and has manufacturing assembly across the world. It exports products to Asia, Europe, Canada, the Middle East and other countries.
- Revenue is generated from three main segments: Application Software (50%), Network Services (25.7%) and Technology Enabled Products (25.2%).

**Investment Theses**

1. Market has underestimated Roper’s potential growth due to significant M&A activity and placed a complexity discount on Roper’s portfolio
   - After large divestitures, Roper has rebuilt capacity to pursue more M&A, a key pillar in its growth strategy.
   - A long history of free cash flow to net-income conversion well above 100% is expected to improve and will enable them to be aggressive in the M&A market.

2. Roper’s shift from an industrial stock to mainly IT will allow for its cash-flow compounding strategy will justify its premium valuation
   - Roper’s shift to software limits cyclical exposure and industrial-outlook concerns. It’s software-focused business strategy allows for recurring revenue, customer retention and high backlog for its product businesses.
   - Free cash-flow conversion of 98% in 2022 was mainly due to inventory buildup and a one-time tax impact but well positioned for improvement.
   - Software consisted of 75% of sales in Q4, while SAAS remains a key growth driver.

**Catalysts & Risks**

*Catalysts*
- As Roper continues to shift its business model to software-based, the cash flows of the company will resemble a technology company
- Continued prevalence of mobile devices used for SMB, allows for enterprise cloud-based solutions to become an industry standard across all markets.

*Risks*
- High downside volatility makes them poorly equipped for a potential economic downturn,
- Increased M&A activity in the software industry could result in Roper acquiring companies at a premium, which could reduce value

**1 Year Stock Performance**

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**Financial Ratios**

<table>
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<tr>
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<th>Comps</th>
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<td>Profit Margin</td>
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**Valuation Summary**

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<th>$ 280</th>
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**Position Summary**

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<td>Acquisition Date</td>
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<td>Shares</td>
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<tr>
<td>SRI – A²</td>
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</table>
WESTERN DIGITAL (NYSE: WDC)
Computer Hardware & Storage

Company Overview
• Western Digital, founded in 1970, is a global provider of solutions for the collection, storage, management, protection and use of digital content, including audio and video
• It operates through 2 main segments: Flash (48%), and HDD (52%)
• Headquartered in California, but operates around the world with 71% of its revenue coming Internationally, and the remainder 29% in the United States

Investment Theses
1. The market predicts the CAGR for data storage at 12.5%, far less than the analyst consensus at 23%.
2. Western Digital is the only major player in both Hard-Disk Drive and Solid-State Drive markets
   • They are best suited to exploit this disparity.
3. Since SSDs are smaller and faster, the new age of computing will replace HDDs with SSDs
   • This creates higher profit margin for Western Digital.
4. The forecast reduction in NAND Pricing will lower SSD price
   • Thus increase the application of SSD.

Catalysts & Risks
Catalysts
Kioxa merger: Negotiations with Kioxa to merge the Kioxa manufacturing joint venture with their flash memory operations could highly benefit WDC given the reopening of China’s economy

Risks
Inventory correction in leading markets and dropping prices: Short term future outlook is pessimistic for WDC due to an inventory correction in the cloud, PCs and consumers markets in addition of declining prices in the flash memory market

1 Year Stock Performance

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary

Source: Bloomberg, Company Filings
The S&P 500 Materials sector declined 12.3% in 2022, outperforming the S&P 500 index by 5.8%, which declined by 18.1%. The Metals & Mining subsector declined the least, finishing the year down 7.4%. Meanwhile, the Chemicals subsector declined 11.3%. Constructions Materials declined by 18.8%, Paper and Forest products declined by 17.0%, and Containers and Packaging declined the most by 21.4%.

Metals & Mining's relative outperformance was due to stocks which were able to benefit from the effects of inflation. For example, companies involved in gold and steel production were able to sidestep the damage done to equities in other areas of the market, by directly hedging or passing on the costs of inflation. Conversely, the Containers and Packaging subsector was impacted both by supply chain challenges and high inflation, which could not be fully passed through to their customers.

Our only holding in the SRI fund, Freeport-McMoRan Inc (NYSE: FCX), was purchased on December 19, 2022 at a price of $37.48. It closed on December 30, 2022 at a price of $38.00, representing a gain of 1.4%. This outperformed DCM's SRI benchmark for the Material's sector by 10.5%, which returned -9.1% in 2022. However, as of the writing of this report on January 31, 2023, FCX is trading at $44.62, representing an unrealized gain of 19% on our position. This is due to FCX's exposure to copper, which has rallied 11% YTD.
**MATERIALS**

**2023 Outlook**

**Metals and Mining**

The relative outperformance of the Metals & Mining subsector was in large part a result of strength in both precious and base metal prices. Gold and silver acted as weak hedges against inflation, but nonetheless outperformed other asset classes. Pro-cyclical base metals like copper performed strongly at the start of the year, as inflation and economic activity surprised to the upside. Despite a decline in 2H22 due to recessionary fears, copper prices finished the year relatively unchanged. The subsector is also aided by the solid performance of companies which are able to pass inflation on to customers, like steel manufacturers. In addition, the search for alternative sources of energy after the invasion of Ukraine has been a tailwind for Uranium companies.

The start of 2023 has seen a set of conflicting narratives which appear to be both benefiting defensive and pro-cyclical aspects of the Metals & Mining subsector. Declining bond yields and recessionary fears have provided a tailwind for gold. Meanwhile, the reopening of China has simultaneously introduced the possibility of additional growth, which has been a boon for copper. Other base metals are also well positioned to benefit from the increased demand for materials to build power generation facilities, electric vehicles, batteries, solar panels and other green solutions. This transition towards a sustainable future will be a continuing tailwind for these metals. Demand for copper, aluminum and nickel is expected to grow at an annual rate of 10% for the next decade. Lithium demand is expected to increase at an annual rate of 30%. The largest risk to this subsector is that of a growth slowdown, induced by the effort of central banks across the globe to curb inflation. One key consequence of a growth slowdown is a significant reduction in infrastructure investments. However, this is not our base case for 2023. Valuation wise, the Metals & Mining subsector is currently trading at 5x EV/EBITDA, which is lower than the 10-year average of 6.7x. We are overweight the Metals & Mining subsector as the market has not fully priced in the degree to which this subsector will benefit from the transition towards a greener future.

**Chemicals**

Over 96% of goods produced in the United States use outputs from the Chemical Sector, thus reinforcing the correlation between the performance of the economy and the returns of the sector. As economies started leaving behind the COVID pandemic and consumption recuperated pre-pandemic levels, the demand for goods, and thus for chemicals products soared (US chemicals output grew by 3.9%). The Russia-Ukraine conflict forced American natural gas producers to increase their production, surpassing their pre-COVID peak.

Natural gas demand is another catalyst for chemicals, as the two have had strong historical correlation. The bio-based chemicals market has grown rapidly in recent years and these chemicals, derived from natural sources, are an alternative to petroleum-based products. Bio-based chemicals boost utilization of by-products from industries such as agriculture and reduce fossil fuel use. This increased focus on sustainability will increase demand. In 2023, US chemical companies will prioritize sustainability and decarbonization. They are likely to ramp up R&D investments to enhance their ability to reduce waste through decarbonization and recycling of plastics. Although this will come with a high cost, it is believed to bring untapped opportunities not reflected in current market pricing. Valuation wise, the Chemicals subsector is currently trading at 10.5x EV/EBITDA, below its 10-year average of 10.9x. Based on the reasons above, we are overweight the Chemicals subsector.

**Paper and Forest Products**

The global paper industry is constantly growing due to the increasing consumption of paper products in the consumer market. The trends in different industries, such as hoteling, packaging, online market, and personal hygiene awareness are positively impacting the pulp and paper industry. To keep up with the demand, leaders in the industry must be innovative and stay updated with the latest trends. In 2023, the paper and pulp industry is expected to thrive with the growth of anti-plastic sentiment and the increasing use of biodegradable pulp and paper alternatives. There is also an increasing demand for online transactions and packaging, which is being driven by e-commerce. The use of big data and digital technology is also playing a significant role in the growth of the industry. The paper and pulp industry is benefiting from the digital revolution and has seen an increase in productivity with the advent of new technologies. In 2023, the global production of pulp and paper is expected to reach 490 million tonnes. Additionally, the demand for lightweight packaging is increasing, and businesses are focused on adopting more sustainable and eco-friendly practices, such as recycling used products.

However, despite a rally in the price of lumber in the first half of 2022, the industry has been struggling to overcome the increasing pressure on prices in the form of higher tariffs to export into the United States as well as headwinds in the real estate market as a consequence of higher interest rates. Valuation wise, the Paper and Forest Products subsector is currently trading at 1.99x EV/EBITDA, justifiably below its 10-year average of 6.89x. Based on the reasons above, we are neutral the Paper and Forest products subsector.
MATERIALS

2022 HOLDING REVIEW

Patrick Bisson
Analyst

Delilah Dias
Analyst

Riad Diab Garcia
Analyst

Allen Li
Analyst

DESAUTELS CAPITAL MANAGEMENT
Desautels Capital Management  
MMF Annual Report 2022

Franco-Nevada Corp (NYSE/TSE: FNV)  
Metals & Mining

Company Overview

- Franco-Nevada is the largest precious metal “Royalty and Streaming” company in the world by market cap.
- “Royalty and Streaming” refers to the company paying a non-dilutive (non-equity, non-debt) capital investment to a specific mining project, and in return, receiving a percentage of revenue or a percentage of production.
- 70% of its revenue is from gold royalty/streaming investments, with the rest from silver, base metals and energy.

Investment Theses

1. Gold price forecast to be stable with an upward bias
   - In a recessionary scenario, gold will act as a defensive asset.
   - If inflation persists, gold will act as a hedge.
   - In the uncertain environment of 2023, we believe that gold will be one of the safest commodities.

2. Attractive business model becoming a popular financing source for mining companies
   - The business is not exposed to large operating or capital costs and is hence able to generate large free cash flows.
   - Due to deriving most of its revenue from royalty/streaming investments, FNV has high margins and low overhead, and suffers little cost inflation.
   - FNV’s portfolio is diverse in geography and operator, and exposed to assets beyond gold which allows the business to be scalable.

Catalysts & Risks

Catalysts

- Franco-Nevada remains focused on precious metals but announced that it is open to other opportunities in base metals, battery metals, and other commodities.
- Declining bond yields may provide a tailwind for commodities like gold.

Risks

- Changes in the spot rates of commodities will significantly affect FNV.
- FNV has invested a good amount of capital in early-stage mines.

1 Year Stock Performance

- Price target: -40% to 40%
- Dec/21: 13%
- Feb/22: 3%
- Apr/22: 3%
- Jun/22: 3%
- Aug/22: 3%
- Oct/22: 3%

Source: Bloomberg, Company Filings
**FREEPORT McMoRAN (NYSE: FCX)**
Metals and Mining

**Company Overview**
- Founded in 1987 & headquartered in Phoenix, Arizona
- Leading international mining company of copper, gold and molybdenum
- Main centers of operations located in Indonesia, North America and South America
- Over 30% of the revenue is generated from sales in the United States

**Investment Theses**
1. **FCX has an outstanding refining ability** that simplifies its clients’ supply chains. We deem that this is an important factor in increasing its attractiveness as a provider of copper going forward.
2. **We see possible negative shocks on the global supply of copper**: the top two global producers, Chile and Peru, have both elected governments generally hostile to markets. Having a smaller footprint in Latin America, FCX stands to benefit from increases in the price of copper resulting from a geopolitical supply crunch.
3. **We see this American supplier of critical minerals as a potential beneficiary from the reshoring of manufacturing activities** from abroad, as battery technologies are increasingly seen as strategically important to western countries.

**Catalysts & Risks**

*Catalysts*
- Expansion of the Electric Vehicle industry
- Investment in renewable energy infrastructures
- Simplification of supply chain gives added value to the refining ability of suppliers

*Risks*
- Increased cost of capital leading to less capital expenditure
- Strengthening of the USD
- Geopolitical instability of regions such as Indonesia and South America

**1 Year Stock Performance**

<table>
<thead>
<tr>
<th></th>
<th>FCX: (7.3%)</th>
<th>METL: (7.4%)</th>
<th>S&amp;P 500: (18.1%)</th>
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**Revenue Breakdown**

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**Financial Ratios**

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<th>Metrics (LTM)</th>
<th>FCX</th>
<th>Comps</th>
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<tr>
<td>EV/EBITDA</td>
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<td>P/E</td>
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<tr>
<td>EPS</td>
<td>$2.44</td>
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<tr>
<td>Div. Yield</td>
<td>1.36%</td>
<td>2.89%</td>
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<tr>
<td>EBITDA Margin</td>
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<td>35.5%</td>
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**Valuation Summary**

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**Position Summary**

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<td>SRI – A²</td>
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*Source: Bloomberg, Company Filings*
REAL ESTATE

2022 REVIEW & 2023 OUTLOOK

Pranav Jawa
Analyst

Jung Min Kim
Analyst

Aidan McCann
Analyst

Hira Suman
Strategist
The REIT sector performance was poor in 2022 due to the broad tightening of global central bank policy which led to rapid interest rate hikes to combat runaway inflation. This affected all parts of the global economy, leading to equity and bond price declines. The first half of the year saw REITs turn in their worst performance ever, with a decline of 29.4%. This was worse than the 2008 global financial crisis and the 2020 COVID pandemic. Despite this, the resilience of commercial and residential real estate cash flows was revealed through positive earnings revisions. However, this did not stop the outflow of over $18 billion from REIT mutual funds and ETFs due to investor pessimism surpassing the lows of the 2008 financial crisis. Office REITs, which faced structural demand concerns, performed the worst in the sector with a 38.8% drop. The REIT sector performed better in Q4 2022, gaining 8.5% due to potentially slowing inflation and moderating future interest rate increases.

**Benchmark Performance**

The Real Estate sector in the A² fund outperformed the benchmark. This was mainly due to its exposure to Equinix which provides ‘must-have’ infrastructure to a diversified customer base. This REIT therefore maintained robust demand amid weakening economic conditions and a generally subdued real estate sector.

**2022 DCM Sector Performance**

The Real Estate sector in the A² fund outperformed the benchmark. This was mainly due to its exposure to Equinix which provides ‘must-have’ infrastructure to a diversified customer base. This REIT therefore maintained robust demand amid weakening economic conditions and a generally subdued real estate sector.

**Figure 1: A2 Real Estate vs. A2 Real Estate Benchmark**

The Real Estate sector in the SRI fund performed in line with the benchmark. Higher interest rates affected the fund’s holdings which include Weyerhaeuser (timberland REIT) and Nexus (industrial REIT), in tandem with the monetary policy’s impact on the real estate benchmark. Full holdings details are provided after our Sector Outlook.

**Figure 2: SRI Real Estate vs. SRI Real Estate Benchmark**
REAL ESTATE
2023 Outlook

Overall REIT Sector
In 2023, the Real Estate Investment Trust (REIT) sector is expected to face several challenges, including rising interest rates, a frozen transaction market, and the impact of remote work on commercial office vacancies. Despite these challenges, our team remains optimistic and bullish on the industry's prospects in the year ahead. We believe that the challenges present growth opportunities for REITs, particularly in the industrial, residential, and healthcare sectors, as well as some specialized REITs. Our outlook on the REIT sector is positive and we anticipate that these REIT sectors will perform well in 2023 and beyond. The robust financial position of many REITs mitigates the potential impact of rising interest rates on REITs' access to funding, enabling them to capitalize on investment opportunities. REITs with long-term leases and rent escalators are relatively protected from inflation and interest rate hikes, while multifamily REITs with short-term leases can pass on costs to tenants through higher rent, reducing the negative effects of interest rate hikes.

Healthcare REITs
The sector is expected to experience strong growth in 2023, driven by favorable factors such as an aging population, medical advancements, value-based care, and growing demand for mental health services. Health-care REITs with a focus on senior housing are expected to outperform the broader REIT index and deliver impressive growth. Occupancy levels are expected to continue to improve, with revenue and profit growth driven by sequential gains and elevated rent growth. The gap in occupancy caused by COVID-19 is expected to continue to narrow, with pre-pandemic levels expected to be restored by 2025. Positive absorption is expected to persist into 2023, with move-ins outpacing pre-pandemic levels and move-outs remaining below average.

Residential REITs
The residential real estate market is facing affordability challenges, driving the demand for rental units, and leading to growth in the Residential REIT sector. The multifamily sector is facing a shortage of supply, leading to historic lows in vacancies and rising rental rates. The sector is expected to grow in 2023, with apartment REITs in the Sun Belt poised for higher growth. The main driver of multifamily REITs revenue in the last fiscal year was the rising rents that hit double-digit growth in mid-2022. As a result, the outlook for the Residential REIT sector remains positive, with a revenue growth floor expected to be about half of the gains generated in 2022, due to the contribution from leases signed in 2022 which will endure into 2023.

Hotel REITs
The hotel industry has seen notable progress in its recovery from the COVID-19 pandemic, with revenue per available room surpassing pre-pandemic levels in specific markets. The recovery has been fueled by the leisure and group segments, as well as the resumption of in-person conferences and meetings. Nevertheless, economic uncertainty and a potential reduction in consumer discretionary spending could have a substantial negative impact on the sector. Additionally, the growing trend of remote work may affect the recovery of hotels catering to corporate travel. Although the sector has had a strong recovery, we remain cautious due to these challenges.

Industrial REITs
Industrial REITs are expected to continue their growth trajectory in 2023, providing a positive outlook for the sector. The increased demand for warehouse space due to the pandemic will lead to higher occupancy and rental rates. Industrial REITs, with a focus on long-term, recession-resistant leases, are expected to generate steady cash flow. Despite the challenges, the sector remains attractive and trades at a premium, and the sector is expected to expand through acquisitions. Rent growth may slow, but revenue and net operating income gains are expected to be strong due to established leases and a low national vacancy rate.
REAL ESTATE

2023 Outlook

Office REITs
The sector had a poor performance in 2022, with declining share prices and contraction due to reduced tenant demand and falling property values. This has resulted in office REITs trading at a low multiple and discount to the overall REIT average. The rise in debt costs and reduced liquidity may lead to a further decline in office values in 2023. Top-quality assets are better positioned, but older, poorly located properties may lose tenants. The accelerating layoffs pose a new challenge for office leasing, putting additional pressure on landlords.

Retail REITs
The outlook for the retail real estate sector in 2023 is cautiously optimistic, with a hold recommendation. The demand for retail real estate is expected to be strongest at high-quality, off-mall locations, benefiting shopping-center REITs. The main driver of net operating income is rent growth, and shopping center REITs are best positioned to increase rents. However, the uncertainty surrounding occupancy levels and net operating income growth may result in retail REIT price-to-FFO multiples remaining at a discount.

Specialized REITs
The demand for data center space continues to rise, driven by the increasing amount of digital data being created and stored, and the increasing use of cloud computing, the Internet of Things, and artificial intelligence. With a growing number of corporations and governments outsourcing their IT infrastructure, the demand for secure and reliable data center solutions is expected to remain strong in the coming years. Our team views this sector as poised for growth, with high barriers to entry, strong demand, and a favorable outlook for continued technological advancement.

Additionally, investment in Farmland REITs in 2023 holds promise as a potential hedge against inflation. The historical data reveals a strong correlation between the value of U.S. farmland and the consumer price index, implying that an increase in inflation could result in a corresponding increase in the value of the farmland. This relationship is especially pronounced in the case of farmland investments that have participation rents, as the rise in food prices can translate into a higher selling price for crops produced on the farm. The demand for crops produced by farmland REITs is expected to remain robust, even in the face of decreased consumer discretionary spending.
REAL ESTATE

2022 HOLDING REVIEW

Pranav Jawa
Analyst

Jung Min Kim
Analyst

Aidan McCann
Analyst

Hira Suman
Strategist
BSR REIT (TSE: HOM.U)
Multifamily

Company Overview

- BSR Real Estate Investment Trust is an open-ended real estate investment trust that focuses on acquiring and operating multi-family residential rental properties in the Sunbelt region of the United States, specifically in Arkansas, Texas, and Oklahoma.
- The company has a portfolio of approximately 31 multifamily garden-style residential properties located in both primary and secondary markets of the South Atlantic and Southwest regions.

Investment Theses

1. Market has not priced in BSR REIT ability to grow rents & the quality of their revamped portfolio
- Experienced double-digit rent growth of 14.5% YoY due to the multifamily short lease duration, strong rental growth in the Sunbelt region, and population growth in primary markets
- Implementing an acquisition strategy focused on high-return opportunities and primary markets with strong forecasted rent growth,
- Targeting garden-style assets in suburban areas with diversified employment, low unemployment rates, and high renter migration, and focusing on middle-market properties that are recently constructed or refurbished
- Divestment of all non-core assets, reducing age of the portfolio and capex spending
- Repositioning its portfolio from 52% located in primary markets in 2018 to 97% in 2022

Catalysts & Risks

Catalysts
- The markets in which BSR REIT operates are expected to experience high growth, providing potential for revenue growth.
- The trend towards remote work and the high costs of homeownership are driving demand for rental properties in the Sun Belt region, providing potential for increased demand for BSR REIT’s properties.

Risks
- The increasing competition in the Sun Belt region from other multifamily REITs and private equity firms can result in higher acquisition costs and lower returns for BSR REIT.

1 Year Stock Performance

Financial Ratios

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<tr>
<th>Metrics (LTM)</th>
<th>BSR</th>
<th>Comps</th>
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<td>FFOPS</td>
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<td>Div. Yield</td>
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<td>EBITDA Margin</td>
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Position Summary

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<td>SRI – A²</td>
<td>2520 (A²)</td>
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</table>
**Equinix Inc. (NASDAQ: EQIX)**

Specialized

**Company Overview**

- Equinix is a digital infrastructure company that provides colocation space and related offerings, connecting information assets for global enterprises, content providers, financial companies and network service providers, with a global footprint of data centers and interconnection solutions across Americas, EMEA, and Asia-Pacific regions.
- Equinix has over 10,000 customers, 443,000+ interconnections, 2,100+ networks and 3,000+ cloud and IT companies operating in 71 metro areas across 32 countries and 6 continents, owning and operating 249 data centers.

**Investment Theses**

1. **Transformation into a digital world will raise the demand for data**
   - Remote work prompted a surge in online business and increased demand for industry services, as companies require more room for servers and data storage and rely on outsourced data centers for data security. The rise in mobile device usage and bandwidth-intensive activities such as video streaming and social media have increased the need for secure and reliable data and server storage.

2. **Equinix's strong fundamentals and hyperscale growth**
   - Equinix xScale data centers cater to the specific needs of hyperscale companies, offering a single global vendor for streamlined expansion and additional customer access points to their core deployments.
   - Equinix expands with a $525M JV investment in Seoul to build hyperscale data centers and bring 5G, IoT, AI, and ML to the Asian-Pacific market and meet demand for global connectivity.

**Catalysts & Risks**

**Catalyst**
- Public demand drives demand for increased hardware and connections in Equinix's data centers.
- Shift to cloud-based services and need for multi-provider connectivity drives demand for Equinix's colocated data centers, creating a barrier to competitors.

**Risks**
- Equinix's reliance on cloud service providers may lead to vulnerability and limited control.
- The growth in competition from other data center providers and advancements in technology, such as IaaS platforms and virtualization, may reduce the demand for individual companies to have physical space in Equinix's data centers.

**1 Year Stock Performance**

**Revenue Breakdown**

**Financial Ratios**

<table>
<thead>
<tr>
<th>Metrics (LTM)</th>
<th>EQIX</th>
<th>Comp</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV/EBITDA</td>
<td>25.9x</td>
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<tr>
<td>P/FFO</td>
<td>36.7x</td>
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<tr>
<td>FFOPS</td>
<td>$19.74</td>
<td>$9.26</td>
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<tr>
<td>Div. Yield</td>
<td>1.70%</td>
<td>3.17%</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>43.8%</td>
<td>59.2%</td>
</tr>
</tbody>
</table>

**Position Summary**

- Rating: Hold
- Price Target: $748.00
- Price Dec-31: $655.03
- Shares: N/A (SRI)
- SRI – A²: 52 (A²)
NEXUS INDUSTRIAL REIT (TSX: NXR-U)
Industrial

Company Overview

- Nexus Industrial REIT, headquartered in Oakville, ON, is a diversified REIT based in Canada. The company owns 80 industrial, 13 office, and 18 retail properties throughout Canada. 74.8% of the Net Operating Income derives from three central locations: Ontario, Quebec, and Alberta.
- The REIT is currently in the process of transitioning into a pure-play industrial REIT by selling office and retail properties and using the proceeds to acquire warehouses, distribution centers, and manufacturing facilities. The company is implementing growth through acquisition strategy.

Investment Theses

1. **Market overestimates company’s financing and tenant concentration risk**
   - Nexus refinanced most of its debt in the beginning of 2022 at a low fixed interest rate with swap agreements.
   - 40% of rent comes from the top 10 tenants, which results in tenant concentration risk. However, the tenants have a solid revenue stream to rent Nexus’ properties.

2. **Market underestimate growth potential for fulfillment centers**
   - 2022 was marked by aggressive inflation and subsequent hike in interest rate which spurred fear about lower disposable income and negative growth in the e-commerce sector. Unlike what market believe, the sector increased cost efficiency through automation. We observed a recent upward trend of consumer spending in e-commerce sector. As such, their demand for fulfillment centers that has proximity to metropolitan areas is expected to grow significantly.

Catalysts & Risks

*Catalyst*

- Search for industrial properties near metropolitan areas to maximize supply chain efficiency promotes rent growth in Nexus REIT’s key regions.
- Transition into fully automated warehouses and call for newly built facilities that has capacity to implement innovative software and hardware

*Risks*

- Nexus REIT’s revenue dependency on Industrial properties indicates lack of diversification in its portfolio.
- Upcoming supply of industrial properties may overflow the market in case of prolonged periods of lower growth in e-commerce sector.

1 Year Stock Performance

<table>
<thead>
<tr>
<th>Month</th>
<th>Nexus</th>
<th>Industrial REIT</th>
<th>S&amp;P/TSX</th>
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<tr>
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<tr>
<td>Jan-22</td>
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<tr>
<td>Feb-22</td>
<td>0%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>Mar-22</td>
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<tr>
<td>Nov-22</td>
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<td>5%</td>
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Revenue Breakdown

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<th>Nexus</th>
<th>Industrial REIT</th>
<th>S&amp;P/TSX</th>
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<tbody>
<tr>
<td>Industrial Properties</td>
<td>10.1%</td>
<td>85.1%</td>
<td>4.8%</td>
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<tr>
<td>Retail Properties</td>
<td>85.1%</td>
<td>10.1%</td>
<td>90.2%</td>
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<tr>
<td>Office Properties</td>
<td>8.8%</td>
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Financial Ratios

<table>
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<tr>
<th>Metrics (LTM)</th>
<th>Nexus</th>
<th>Comp</th>
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<tbody>
<tr>
<td>EV/EBITDA</td>
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<tr>
<td>P/FFO</td>
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<td>NOI Growth</td>
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<td>Div. Yield</td>
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<td>Debt/Equity</td>
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Position Summary

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<th>Rating</th>
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<tr>
<td>Price Target</td>
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<td>SRI – A²</td>
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UDR Inc. (NYSE: UDR)
Multifamily

Company Overview

- UDR is a leading multi-family REIT with 160 apartment communities and 60,000 units, focusing on high-quality apartments with innovative technologies and desirable locations across the Sunbelt, East Coast, and West Coast in the US.
- Operates in two segments: Same-store communities and Non-Mature communities, with a strategy of owning a diversified portfolio in target markets.

Investment Theses

1. NextGen operating platform will drive top- and bottom-line efficiencies.
   - Improving the resident experience through self-service: The effort is built on a self-service model which improves the resident experience, which can lead to higher retention and less turnover.
   - Expansion of margins and reduction of expense growth: The use of new technologies and data science helps drive revenue and expense upside, which results in expanded margins and reduced expense growth.
   - NOI opportunity: There is a potential NOI opportunity of $140 million, with $40 million already captured and identified.
   - Optimization of pricing and reduction of controllable expenses: The effort focuses on optimizing pricing through demand-based pricing and reducing expenses by using technology and outsourcing costs. Additionally, cross-selling amenities increases resident spending.

Catalysts & Risks

Catalyst

- Growing demand for rental apartments due to rising number of young adults and singles who favor renting over homeownership and prefer living in cities.

Risks

- Retiring baby boomers also support industry demand by selling homes in suburbs and moving into apartments for better financial management in retirement.
- Luxury unit oversupply in coastal regions may remain unrented, causing rent prices to decline and leading to reduced industry revenue, due to the impact of COVID-19 and increased rental vacancy due to unaffordability.

1 Year Stock Performance

Market Mix of NOI

Financial Ratios

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<tr>
<th>Metrics (LTM)</th>
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<tr>
<td>Div. Yield</td>
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<td>3.59%</td>
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<tr>
<td>EBITDA Margin</td>
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Valuation Summary

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<td>DCF</td>
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<td>Street’s view</td>
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<td>52 week H/L</td>
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Rating Hold

Price Target $46.90
Price Dec-31 $38.93

Shares 1400 (SRI)
SRI – A² N/A (A²)
WEYERHAUSER (NYSE: WY)
Specialized

Company Overview

- Weyerhaeuser is a leading company in the timber, land, and forest products industry.
- The company operates in three segments: Timberlands, Real Estate, Energy and Natural Resources, and Wood Products.
- They own or control over 11 million acres of timberlands and have 35 manufacturing facilities in the US and Canada, and offer a wide range of products, from logs and timber to building materials and energy products.

Investment Theses

1. Market undervalues potential sales growth for lumber
   - Revenue for the lumber industry is expected to grow at a CAGR of 1.8% to reach $192.2 billion by 2028, with profit expected to reach 3.5% in the same period.
   - The demand for lumber will remain steady with continued growth in nonresidential construction, as well as the high number of housing starts despite the decline in residential demand due to higher interest rates.

2. Carbon capture incentives increase the value of timberlands
   - Weyerhaeuser is strategically positioned to participate in two emerging markets focused on the mitigation of carbon emissions: the forest carbon offset market, and carbon capture and storage.
   - The global carbon offsets market size is projected to reach $700.5M by 2027 at a CAGR of 11.7%, while the global carbon capture and storage market size is expected to be $5.61B by 2030 at a CAGR of 6.9%.

Catalysts & Risks

Catalyst
- Increased mill capacity in the Southeast US reduces exposure to trade disputes and export taxes.
- Shift from plywood to OSB in single-family housing drives growth in engineered wood products business and Pacific Northwest timberlands benefit from rising demand from Asia and shortage of Canadian logs.

Risks
- Economic weakness may impact profitability due to reliance on lumber
- Decreased demand for wood products and overpayment for acquisitions due to shift towards multifamily units and high timberland prices.

1 Year Stock Performance

Revenue Breakdown

<table>
<thead>
<tr>
<th>Revenue Breakdown</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood Products</td>
<td>66.5%</td>
</tr>
<tr>
<td>Timberlands</td>
<td>18.2%</td>
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<tr>
<td>Unallocated Items</td>
<td>11.6%</td>
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<tr>
<td>Real Estate, Energy &amp; Natural Resources</td>
<td>3.6%</td>
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Financial Ratios

<table>
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<tr>
<th>Metrics (LTM)</th>
<th>WY</th>
<th>Comps</th>
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<td>P/FFO</td>
<td>10.8x</td>
<td>13.9x</td>
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<td>EPS (US$)</td>
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<td>$2.76</td>
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<tr>
<td>Div. Yield</td>
<td>2.1%</td>
<td>3.4%</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>30.0%</td>
<td>37.1%</td>
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Valuation Summary

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<th>$ 80</th>
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<td>P/FO LTM</td>
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<td>$46</td>
<td>$67</td>
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<td>DCF</td>
<td>$11</td>
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<tr>
<td>Street’s view</td>
<td>$34</td>
<td>$42</td>
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<td>52 week H/L</td>
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<td>$43</td>
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Position Summary

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<td>Acquisition Date</td>
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<tr>
<td>Shares</td>
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<td>SRI – A²</td>
<td>N/A (A²)</td>
</tr>
</tbody>
</table>
2022 REVIEW & 2023 OUTLOOK

UTILITIES & RENEWABLES

Pascal Audette
Chief Operating Officer

Baihan Wang
Analyst

Fenton Garvie
Analyst

Tyler Yu
Analyst

Hugo Laprés-Chartrand
Analyst

Tian Yuan Zheng
Analyst

Shreya Vaidya
Analyst

Fang Zhou
Analyst

DESAUTELS CAPITAL MANAGEMENT
Utilities & Renewables
2022 Review

Benchmark Performance

The Utilities sector outperformed the S&P 500 Index by 19.7% in 2022. Within the Utilities sector, the North American and Europe Clean Energy Index outperformed the S&P 500 index by 13.3%.

The utilities sector benefited from its defensive characteristics as investors sought shelter against volatile markets. It also received a significant legislative boost through the Inflation Reduction Act as the US aims to reduce greenhouse gas emissions by increasing the availability of clean energy sources and accelerating the electrification of the economy. The renewables sector declined slightly primarily due to rising costs and project delays driven by supply chain issues, continued U.S. – China trade uncertainty, inflation, and rising interest rates. However, many renewable electricity producers were able to benefit from the high electricity prices as their input prices remained stable. Additionally, the strong policy support from both federal and state governments has provided strong tailwinds amid rising demand for clean energy. In particular, residential solar performed well and we expect demand in in this segment to continue.

Figure 1: S&P Utilities Index vs. S&P 500 Index

2022 DCM Sector Performance

The sector benchmark for the SRI fund gained 16.6% in 2021, while our holdings in the sector decreased by 8.4%. However, our holdings outperformed the Renewables sub-sector by 11.4% as the sub-sector had significantly higher negative returns. The fund’s negative returns were primarily driven by the poor performance of two of our current holdings: Canadian Solar (NASDAQ: CSIQ) and Boralex Inc. (TSE: BLX). Canadian Solar underperformed the benchmark by 55.5%, while Boralex underperformed by 41.9% in 2021. The fund added Enphase Energy (NASDAQ: ENPH) to its holdings in 2021, which had a positive holding period return of 12.7%, significantly outperforming our other holdings.

Figure 1: SRI Real Estate vs. SRI Real Estate Benchmark

The benchmark for the Alpha Squared fund increased by 14.3% in 2021, while the holdings of the fund decreased by 22.4%. The holdings of the Alpha Squared fund marginally underperformed the Renewables sub-sector by 2.7% as well. In addition to the poor performance of Canadian Solar, the negative returns of Innergex Renewable Energy Inc. (TSE: INE) impacted the performance of the fund. Canadian Solar underperformed the benchmark by 53.2%, while Innergex underperformed by 43.9%. Enphase Energy was also purchased for the Alpha Squared fund and had a positive holding period return of 11.1%.

The negative returns of our holdings in both the funds were primarily driven by supply chain issues and increasing tensions from the US-China trade war. Other contributing factors include the increase in raw material costs as well as labor shortages. However, the outlook for the holdings and the sector is positive due to the strong demand for renewables as well as easing supply chain issues. These factors have been further discussed in the holdings review section.
UTILITIES & RENEWABLES
2022 Review

2022 DCM Performance Continued

Capital expenditure records were set to address this issue, with a group of the largest Utilities spending an estimated $142B to modernize the grid. The American Society of Civil Engineers gave the U.S.’s transmission and distribution infrastructure a grade of “C-” for 2021, citing distribution failures and gas delivery constraints as factors, indicating much room for improvement.

2022 Sector Review Recap

The Renewables sector enjoyed tailwinds due to favorable government policies and pledges from companies to transition to net-zero carbon emissions. Solar added a record 160 GW of production, accounting for half of all new renewable capacity. However, higher shipping prices and supply chain shortages pose a risk to wind and solar farms that depend on overseas manufacturers. The price of polysilicon, a manufactured input for solar panels, has more than quadrupled. Nine of the ten largest polysilicon manufacturers are located overseas, further complicating procurement. These rising costs hurt the value proposition of solar energy, which needs to be cheaper than traditional energy sources to entice residential users and governments. The price of fossil fuels, such as natural gas and WTI, have increased, partially offsetting the blow dealt to Renewables.

Natural gas generation as a percentage of total generation is still at a higher percentage than Renewables (35% vs 23%). The transition has fueled a record year for Renewables and Utilities M&A, with an increase in demand for clean assets such as battery storage and microgrids. Also contributing to the rise in M&A was a demand for rate regulated assets, such as those of The Narragansett Electric Company which were acquired by PPL corporation for $5.17B. The Utilities sector was hurt financially by climate conditions, namely wildfires and snowstorms. Each of the 18 extreme weather investments experienced in the first three quarters of 2021 caused $1B in damage.
Utilities & Renewables
2023 Outlook

2023 Sector Outlook

There are several exciting technologies that are receiving more attention from both investors and governments, namely green hydrogen and innovative battery storage. The Infrastructure Investment and Jobs Act allocates 9.5B to clean hydrogen projects and future legislation may include a hydrogen tax credit. Advances in battery technology will further offset the intermittent nature of renewable energy sources and facilitate grid integration. The Biden administration’s favorable rulings on wind energy projects have sparked numerous investments in offshore wind farms from private equity firms, utilities companies, and governments. The states spending the most on offshore wind are Massachusetts, North Carolina, New Jersey and New York. With this spending and expansion, the current number of 415,000 workers employed by the clean energy industry is expected to increase to 1 million by 2030. Utilities will keep transitioning their business strategies toward Renewables, with state mandates and federal legislation playing a role in 48 of the 55 large investor-owned utilities pledging to reduce carbon emissions by 2050. Several utilities have announced plans to build a network of electric vehicle charging stations along major highways in the United States.

Infrastructure modernization and hardening will be a key theme in 2022, as investment in regulated assets is needed to improve system safety and prevent future disruption in the face of extreme weather events. Possible solutions include burying wires underground and adopting non-wire solutions, such as battery storage and rooftop solar. Customers should expect to see an increase in their utility bills, as regulated utilities are permitted to pass on a certain percentage of these costs to customers. However, utilities and customers will not directly bear the full cost, as the U.S. government has pledged $65B to tackle this issue through the Infrastructure Investment and Jobs Act.
Boralex (TSX: BLX)
Renewable Energy and Power Generation

Company Overview
- Boralex is a Canadian company that specializes in the development, construction, and operation of renewable energy power facilities, primarily in Canada, the northeastern United States, and France.
- The company's portfolio includes wind(60% of revenue), solar(10-15%), and hydroelectric power projects(20-25%), with a total installed capacity of over 1,500 MW.

Investment Theses
1. The market underestimates their leadership position in France wind market
   - Immense growth potential in France wind market
   - Technology improvements in wind energy
2. The market is underestimating the capacity factor of Boralex
   - Boralex's wind turbines are more efficient in France than the market
   - 2% premium of efficiency
   - 177 hours more production for each wind turbine installed

Catalysts & Risks
Catalysts
- Prioritizing the US market while extending its European presence
- Expand solar pipeline and enter energy storage market
- Increase installed capacity to more than 4,400 MW by 2025, and 10,000 MW to 12,000 MW by 2030
- The pipeline of projects in various stages of development comes to 3.2 GW, more than the current asset capacity of 2.5 GW

Risks
- Weather conditions
- Concentrated asset portfolio

1 Year Stock Performance

Revenue Breakdown

Financial Ratios

Valuation Summary

Position Summary

Rating: Hold
Price Target: $29.72
Price Dec-31: $40.02
Acquisition Date: 2019-12-23
Shares: (SRI)
SRI – A²: N/A (A²)
**Canadian Solar (NASDAQ: CSIQ)**
Semiconductors & Semiconductor Equipment

**Company Overview**
- Canadian Solar, founded in 2001, manufactures solar modules, delivers system solutions such as inverters, energy storage solutions, EPC Services and runs large scale solar projects.
- It is headquartered in Ontario and has presence in over 160 countries and regions.
- The company has a market capitalization of $2B and strives to provide sustainable energy all over the globe.

**Investment Theses**
1. **There is strong growth potential internationally** as the market underestimates the strong and innovative global project pipeline of Canadian Solar in a growing industry
   - More diversified than competitors
   - Vertical integration is a strength for the company
   - Canadian Solar will benefit from industry consolidation
   - Strong footprint in key under-penetrated markets
2. **The market overestimates the company’s exposure to China**
   - Trading at a significant discount to peers
   - US-listed solar companies with manufacturing in China trade at a significant discount relative to China-listed peers but, the gap is narrowing

**Catalysts & Risks**

**Catalysts**
- **Start of production of TOPCon solar modules** which will provide best-in-class energy conversion for utility-scale, commercial and residential use.
- **The strong solar project pipeline** of the company will further be boosted by the growing adoption of battery storage systems

**Risks**
- **Energy curtailments** experienced in Asia in 2022 have the potential to persist in the case of economic downturns slowing the production of goods.
- **Tariffs imposed on solar panels manufactured in China**, imported into the U.S, Canada and Europe threaten margins.

**1 Year Stock Performance**

**Financial Ratios**

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<th>Metrics (LTM)</th>
<th>CSIQ</th>
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<td>Div. Yield</td>
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<td>EBITDA Margin</td>
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**Valuation Summary**

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**Position Summary**

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<td>Acquisition Date</td>
<td>2020-10-12</td>
</tr>
<tr>
<td>Shares</td>
<td>1,600 (SRI)</td>
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<tr>
<td>SRI – A²</td>
<td>1,685 (A²)</td>
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</table>

*Catalysts & Risks*

**Catalysts**
- **Start of production of TOPCon solar modules** which will provide best-in-class energy conversion for utility-scale, commercial and residential use.
- **The strong solar project pipeline** of the company will further be boosted by the growing adoption of battery storage systems

**Risks**
- **Energy curtailments** experienced in Asia in 2022 have the potential to persist in the case of economic downturns slowing the production of goods.
- **Tariffs imposed on solar panels manufactured in China**, imported into the U.S, Canada and Europe threaten margins.
CLEARWAY ENERGY INC. (NYSE: CWEN/A)  
Renewable Energy and Power Generation

Company Overview

- Clearway Energy, Inc. is one of the largest renewable energy owners in the US with over 5,500 net MW of installed wind and solar generation projects.
- The Company’s over 8,000 net MW of assets also include approximately 2,500 net MW of environmentally-sound, highly efficient natural gas generation facilities.
- Clearway’s extensive experience with all aspects of project development, project finance, operations, and customer service has made us a leader in the renewable energy industry

Investment Theses

1. The market is unsure how to quantify growth in the wind and solar market
   - We have done it through a holistic energy market analysis. The market is already pricing in existing regulations, but ignoring wind and solar’s role in bridging the demand-supply gap.

2. Clearway is well-positioned to maintain its market share thanks to its funds, focus and facilitation
   - The market is already pricing in some aspects of Clearway’s growth potential, but over-reacting to certain risk factors. The company’s strong funds from operations, focus on maintaining market share and presence of ROFOS are not priced in by the market.

Catalysts & Risks

Catalysts
- Successful acquisitions drive top line growth
- Potential environmental legislation and regulatory requirements
- Unexpected significant population growth

Risks
- Higher costs of O&M, capex, and purchase
- Unstable dividend due to seasonality
- Change in governmental regulation Inflation Reduction Act 2022

Valuation Summary

<table>
<thead>
<tr>
<th>Metrics (LTM)</th>
<th>CWEN/A</th>
<th>Comps</th>
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</thead>
<tbody>
<tr>
<td>EV/EBITDA</td>
<td>6.9x</td>
<td>22.2x</td>
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<tr>
<td>P/E</td>
<td>15.9x</td>
<td>12.8x</td>
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<tr>
<td>EPS</td>
<td>$0.48</td>
<td>$0.96</td>
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<tr>
<td>Div. Yield</td>
<td>4.7%</td>
<td>4.34%</td>
</tr>
<tr>
<td>EBITDA Margin</td>
<td>76.4%</td>
<td>61.9%</td>
</tr>
</tbody>
</table>

Position Summary

Rating: Hold
Price Target: $45.65
Price Dec-31: $31.78
Acquisition Date: 2022-12-20
Shares: (SRI) N/A (A²)

1 Year Stock Performance

Revenue Breakdown

- Renewables: 55.7%
- Conventional Generation: 13.7%
- Thermal: 30.6%

Financial Ratios

- EV/EBITDA: 6.9x vs. 22.2x
- P/E: 15.9x vs. 12.8x
- EPS: $0.48 vs. $0.96
- Div. Yield: 4.7% vs. 4.34%
- EBITDA Margin: 76.4% vs. 61.9%
Enphase Energy, Inc. (NASDAQ: ENPH)
Hardware & Equipment

Company Overview

- Enphase, headquartered in California, designs, develops, manufactures, and sells home energy solutions that manage energy generation, energy storage, and control and communications on one intelligent platform.
- Enphase has shipped more than 42M micro-inverters and approximately 1.9M Enphase residential and commercial systems have been deployed in more than 130 countries.
- Major products include micro inverters, communication gateways, cloud-based monitoring service, storage solutions, and EV charging solutions

Investment Theses

1. Industry tailwinds:
   - Continued unit growth in solar, energy storage penetration, and EV adoption
   - Micro inverter gains shares against string inverter, because of its superior performance, in terms of yielding higher power output for solar panels, and lower long-run average costs, will drive demand

2. Company tailwinds:
   - International expansion opportunities: significant clean energy demand in Europe caused by the Russia and Ukraine Conflict

Catalysts & Risks

Catalysts

- Increase in R&D spending driving top line growth and margin expansion
- Capture production tax credits through building new manufacturing lines

Risks

- Supply chain constraints could possibly lead to delay in critical components and inventory, longer lead times and increased cost

1 Year Stock Performance

Revenue Breakdown

Financial Ratios

Metrics (LTM) | ENPH  | Comps
---|---|---
EV/EBITDA | 69.0x | 27.8x
P/E | 100.5x | 41.2x
EPS | $2.07 | $0.69
Div. Yield | N/A | N/A
EBITDA Margin | 20.0% | 5.15%

Valuation Summary

Street’s view

Price target

Position Summary

Rating | Hold
Price Target | $294.86
Price Dec-31 | $264.96
Acquisition Date | 2021-03-15
Shares | 450 (SRI)
SRI – A² | 450 (A²)

Source: Bloomberg, Company Filings
MMF Alumni
2017 - 2021
Graduating Class of 2017

Razan Alobaidi
Alorica
Care Agent

Yilan Cai
Ontario Teacher’s Pension Plan
Investment Associate

Jesse Ehrlick
McGill University
Program Officer

Ting Huang
Fosun
Equity Analyst, Internet & Media

Sarah McCullough, CFA, CFA
BDC
Seed Fund & IT Fund

Vivek Sharma, CFA
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Associate, Investment Banking

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Vice President of Operations

Hannah Cheng
Coursera
Data Scientist

Kisa Giebink
Okra Solar

Yixiao Li

Munjal Patel

David Yan
Restaurant Brands International
Global Treasury

Gang Zhao

Mostafa Barakat
SWEB Development
Project Finance Manager

Peiyao Dai
Guangzhou Dev. District Bureau
Associate Officer

Mohamad Hijazi
Sherpa
Business Operations Lead

Sophie Mahdavi
Give and Go Prepared Foods
Marketing Manager

Anthony Rago
Invesco Canada
Associate Portfolio Manager

Tian Yang
Affirm
Tech Lead, Manager
# Graduating Class of 2018

<table>
<thead>
<tr>
<th>Name</th>
<th>Company / Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riyad Allimamode</td>
<td>DNA Capital Investment Banking Associate</td>
</tr>
<tr>
<td>Nicolas Claveau</td>
<td>CDPQ Senior Associate, Private Debt</td>
</tr>
<tr>
<td>Fred Gatali</td>
<td>Raymond James Ltd. Equity Research Associate</td>
</tr>
<tr>
<td>Joanie Grimard</td>
<td>BMO Capital Markets VP, Institutional Equity Sales</td>
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<tr>
<td>Mario Hennessey, CIM</td>
<td>Letko Brosseau Investment Counsellor</td>
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<tr>
<td>Shuaibo Huang</td>
<td>Wealthsimple Product Manager, Client Onboarding</td>
</tr>
<tr>
<td>Shivi Lakhtakia</td>
<td>BCI Associate, Active Global Equities</td>
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<tr>
<td>Mengdie Lyu</td>
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<tr>
<td>Rock Regimbald</td>
<td>EY Manager, Strategy &amp; Transactions</td>
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<tr>
<td>Simranjit Saluja</td>
<td>Mount Murray Investment Portfolio Analyst</td>
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<tr>
<td>Xianyue Shi</td>
<td>Shenzhen Securities Information Co. Data Analyst</td>
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<tr>
<td>Jamie Steinmetz</td>
<td>CAPREIT Director, Investments</td>
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<tr>
<td>Jordan Arnold-Andrasko</td>
<td>BCI Analyst, Infrastructure &amp; Renewable</td>
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<tr>
<td>Raphaël Doyon</td>
<td>National Bank Financial Investment Banking Associate</td>
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<tr>
<td>Nicolas Genest</td>
<td>GardaWorld Associate, Corporate Development</td>
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<tr>
<td>Julie Hazard</td>
<td>Astorg Private Equity Associate</td>
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<tr>
<td>Wanyi Hu</td>
<td>Canadian Tire Corporation Senior Financial Analyst, FP&amp;A</td>
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<tr>
<td>Geetanjali Kanwar</td>
<td>MKB &amp; Co. Senior Associate</td>
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<tr>
<td>Zacharie LeBlanc</td>
<td>SeaFort Capital Inc. Associate</td>
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<tr>
<td>Quan Nguyen</td>
<td>Fitch Ratings Senior Analyst, Industrials</td>
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<tr>
<td>Mark-Anthony Sagaria</td>
<td>WSP Principal Consultant, Real Estate</td>
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<td>Erika Savage</td>
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<td>Yidan Song</td>
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<td>Adeetya Kaul</td>
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<td>Sheng Li</td>
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<td>Dorart Piro</td>
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<td>Hagen M. Sagli</td>
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<td>Justin Spielman</td>
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<td>Yi Sun</td>
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<tr>
<td>Sarah Travis</td>
<td>DIF Capital Partners, Associate</td>
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<td>Siyun Wang</td>
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<td>Daoran Wang</td>
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<tr>
<td>Kevin Yulianto, CFA, FRM</td>
<td>TD, Portfolio Manager</td>
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<td>Xiang Zhang</td>
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<tr>
<td>Yasmine Abdellaoui</td>
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<td>Arnold Cheung</td>
<td>Juno Capital Partner Associate</td>
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<tr>
<td>Wenjia Duan</td>
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<td>Louis Goulet</td>
<td>National Bank Financial Senior Advisor, Business Strategy</td>
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<tr>
<td>Karl Kilajian</td>
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<td>Kaili Ma</td>
<td>Beutel Goodman &amp; Company Ltd. ESG Analyst</td>
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<td>Yassine Nassiri</td>
<td>Monitor Deloitte Consultant</td>
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<td>Carlos Panozo</td>
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<td>Laura Santiago</td>
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<td>Parth Shah</td>
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<td>Roy Sun</td>
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<td>Emilio Acosta</td>
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<td>Maud De Witte</td>
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<td>Wissam El Khatib</td>
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<td>Zakaria Hammama</td>
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<td>Jaewon Kim</td>
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<td>Loïc Martel</td>
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<td>Allan Obuchowski</td>
<td>KPMG Belgium Advisory, Deals</td>
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<td>Celec Soriano-Francis</td>
<td>Optimum Asset Management Investment Analyst</td>
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<td>Garima Syal</td>
<td>Intersect Power Finance Specialist</td>
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<td>Josh Diamond</td>
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<td>Patrick Elliott</td>
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<td>Jean-Baptiste Foul</td>
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<td>Nipun Kalra</td>
<td>Real Vision India BDR</td>
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<td>Yan Kobel</td>
<td>PartnerOne Portfolio Management Analyst</td>
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<td>Alexandra Melendez</td>
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<td>Qianqi Pan</td>
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<td>Salman Zia Rana</td>
<td>TD Securities Equity Research Associate</td>
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<td>Youssef Sennaji</td>
<td>Fairstone Specialist, Data Scientist - Scoring</td>
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<tr>
<td>Jingying Sui</td>
<td>MSD China Business Analyst, SFE</td>
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<td>Jiaqi Wang</td>
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</table>
Graduating Class of 2019

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Harris Computer
M&A Research

Jiaxi Zhou

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Bruce Chen

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Hanjing Hu

Keyliam Ngassa Djonjue

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Investment Banking Analyst

Dahui Sun

Kuei-Chun Xu
Maples Group
Financial Accountant

Amine Zemzami
Huron
Consulting Analyst
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