Carroll Fund

Half 1 Performance Report

Presented by Fund Managers

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Ashleigh Skipper
Dylan Isaacs
Emily Barnes
Giovanna Rondinelli
John Wade
Liam Decker
Maxwell Baker
Ned Morgan
Simon Heeran
Tristan Damron
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Dear Mr. Larry and Mrs. Vivian Carroll,

As we complete yet another semester on the Carroll Torch Fund, we want to thank you both for your continued generosity and support of this program and for allowing us such an incredible and meaningful academic experience at the University of Tennessee. None of the success of this program would be possible without your unwavering support for the finance department as a whole and specifically for us student managers in Torch Fund. Through participating in the Carroll Fund, we get a unique glimpse into the responsibilities and expectations of investment managers. Consistent communication and research on the Carroll Fund further deepens our understanding of capital markets, monitoring investments, and creating effective strategies to fulfill our fiduciary duties. We’re thankful this program has instilled us with a bundle of skills and tools which we can directly translate to our professional careers upon graduation.

During H1, which includes the time period between October 1, 2022, and March 31, 2023, the Carroll Fund portfolio had a total return of 9.12%. Our performance relative to our benchmark was at -2.17%. H1 has offered a rather challenging environment in which we conducted our research for investment decisions, and we have all since learned a tremendous amount about market sensitivities and how to construct a more resilient portfolio. In this period, the Carroll Fund invested more time and effort into our team dynamics and communication, which inspired more meaningful conversations and group strategies.

The Carroll Fund portfolio has experienced ample change over the course of the first half of our fiscal year 2023 (October 1 through March 31). We purchased new positions in Halliburton Co. (HAL), Verizon Communications Inc. (VZ), Alphabet Inc. Class A (GOOGL), Palo Alto Networks Inc. (PANW), iShares 20 Plus Year Treasury Bond ETF (TLT), Prologis Inc. (PLD), UnitedHealth Group Inc. (UNH), iShares U.S. Insurance ETF (IAK), Dollar General Corporation (DG), Tractor Supply Co. (TSCO), and Eli Lilly and Co. (LLY). We increased our prior position in PayPal Holdings Inc. (PYPL). We fully liquidated positions in Fidelity MSCI Communication Services Index ETF (FCOM), Visa Inc. (V), Organon & Co. (OGN), Amplify Transformational Data Sharing ETF (BLOK), First Trust NASDAQ Cybersecurity ETF (CIBR), and Tyson Foods Inc. (TSN). In December 2022, the Carroll Fund portfolio also underwent a portfolio rebalance, changing positions in 30 of our holdings. We acknowledged how our portfolio allocation wasn’t a true reflection of what sectors and asset classes we wanted to more intently target which encouraged this portfolio shift.

Thank you both again for the time and resources you pour into us Carroll Torch Fund managers. For those of us who were able to attend this year’s visit to the Wealth Enhancement Group in Charlotte, thank you for being such thoughtful and attentive hosts. This has been an invaluable experience for all students in the program, and we will never forget the many opportunities given to us that will indefinitely advance us throughout our careers.

Sincerely,
Anthony Torres, Ashleigh Skipper, Dylan Isaacs, Emily Barnes, Giovanna Rondenelli, John Wade, Liam Decker, Maxwell Baker, Ned Morgan, Simon Heeran, and Tristan Damron
Economic Outlook

Domestic Economy
The Carroll Fund maintained a pessimistic outlook on the United States economy during H1 (October 1, 2022, through March 31, 2023) due to the combination of FOMC decisions, a rampant labor market, inflation data, and the response to Silicon Valley Bank’s collapse. The Federal Reserve remained hawkish in the final months of 2022, increasing interest rate hikes by 50-75 basis points at each meeting. It wasn’t until February 2023 when the Federal Reserve reduced the size of new rate hikes, and they have raised the fed funds rate by 25 basis points at both FOMC meetings in 2023 so far, and are expected to do so again in May. The current effective rate is 4.83%, and derivatives markets predict a terminal rate of 4.92% expected to come in June 2023. United States unemployment has remained at historically low levels, around 3.50% - 3.70% throughout H1. The Federal Reserve’s goal in rate hikes was to handle stubbornly high inflation rates, and we have seen YoY CPI drop from 8.20% last September to 6.00% in February. In March, Silicon Valley Bank’s collapse disrupted the banking industry when the venture capital focused bank was unable to meet investor withdrawals due to unrealized losses in long duration treasuries that had not been immunized. It was the first major banking crisis since 2008, and after subsequent runs on the uninsured deposits at a number of other regional banks, the FOMC has proceeded with increased caution when considering additional rate hikes. The culmination of these economic indicators has created exciting opportunities for our portfolio, which are discussed at length in our weekly meetings.

Global Economy
The Carroll Fund maintained a pessimistic outlook on the global economy during H1, with expectations lagging slightly behind that of the United States economy. Global supply-chain issues have remained since the Russian invasion of Ukraine in early 2022, as Russian oil sanctions have sent Europe into an energy crisis with record price increases for heating and industrial power. The Russia-Ukraine war is still in effect with no clear end in sight for 2023. China has reopened its borders to tourists, ending the three-year-long shut down following its “zero COVID-19” policy implementation. The country’s industrial output increased 2.40% YoY and retail sales increased 3.50% in the first two months of 2023, indicating China may bring some momentum back into the global economy. Although China’s positioned itself for steady economic growth in 2023, they remain in opposition to independence in Taiwan and in political conflict with the United States. With high inflation and interest rates weighing on the United States economy, the dollar faces a continuation of the depreciating cycle experienced in H1 when currency markets saw a 6% decline in value over the period.

Outlook
We are remaining pessimistic amidst this challenging and ambiguous market environment. We plan to continue proactively seeking sound investment opportunities, with a focus on swift action to implement asset allocation priorities. We believe this cautious but opportunistic approach will benefit the fund as we try to continue our recent outperformance into the remainder of our fiscal year.
Performance Summary

Overarching Mission
To manage the funds provided to us by our benefactor in ways that demonstrate our dedication to proper fiduciary management and keen financial inquiries while outperforming our benchmark.

<table>
<thead>
<tr>
<th>Our Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
</tr>
<tr>
<td>1. Achieve Positive Return</td>
</tr>
<tr>
<td>2. Outperform Benchmark</td>
</tr>
<tr>
<td>3. Outperform Competing Funds on Relative Basis</td>
</tr>
<tr>
<td>4. Outperform Competing Funds on Absolute Basis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Period</th>
<th>Carroll Fund Return</th>
<th>Benchmark Return</th>
<th>S&amp;P 500 Return</th>
<th>Spread from Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>9.12%</td>
<td>11.29%</td>
<td>15.55%</td>
<td>-2.17%</td>
</tr>
</tbody>
</table>

The Carroll Fund’s benchmark is a weighted average of the S&P 500 Index and Bloomberg Barclays U.S. Aggregate Total Return Value Unhedged Index, weighted at 60% and 40%, respectively.

*H1 refers to the time period October 1, 2022 - March 31, 2023
### H1 Best & Worst Performers

<table>
<thead>
<tr>
<th>Holding</th>
<th>$ Return</th>
<th>% Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPL</td>
<td>$ 6,762.84</td>
<td>19.65%</td>
</tr>
<tr>
<td>MRK</td>
<td>$ 6,234.73</td>
<td>25.76%</td>
</tr>
<tr>
<td>TSM</td>
<td>$ 5,836.31</td>
<td>36.69%</td>
</tr>
<tr>
<td>MSFT</td>
<td>$ 5,619.24</td>
<td>24.37%</td>
</tr>
<tr>
<td>CAT</td>
<td>$ 4,589.94</td>
<td>44.40%</td>
</tr>
<tr>
<td>DG</td>
<td>$(605.41)</td>
<td>-8.41%</td>
</tr>
<tr>
<td>PYPL</td>
<td>$(1,832.38)</td>
<td>-12.12%</td>
</tr>
<tr>
<td>UNH</td>
<td>$(2,291.49)</td>
<td>-12.00%</td>
</tr>
<tr>
<td>CVS</td>
<td>$(2,863.48)</td>
<td>-18.53%</td>
</tr>
<tr>
<td>AMZN</td>
<td>$(4,273.96)</td>
<td>-12.61%</td>
</tr>
</tbody>
</table>
## Risk Metrics

### Carroll Risk Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>H1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharpe Ratio</td>
<td>1.12</td>
</tr>
<tr>
<td>Treynor Ratio</td>
<td>0.16</td>
</tr>
<tr>
<td>Information Ratio</td>
<td>-1.61</td>
</tr>
<tr>
<td>Tracking Error</td>
<td>0.16</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.14</td>
</tr>
<tr>
<td>Beta vs. Benchmark</td>
<td>0.97</td>
</tr>
<tr>
<td>R² of Beta</td>
<td>0.96</td>
</tr>
<tr>
<td>Beta vs. S&amp;P 500</td>
<td>0.63</td>
</tr>
<tr>
<td>R² of Beta</td>
<td>0.95</td>
</tr>
</tbody>
</table>

### Comparable Risk Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>H1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benchmark</strong></td>
<td></td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>1.42</td>
</tr>
<tr>
<td>Treynor Ratio</td>
<td>0.20</td>
</tr>
<tr>
<td><strong>S&amp;P 500</strong></td>
<td></td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>1.34</td>
</tr>
<tr>
<td>Treynor Ratio</td>
<td>0.29</td>
</tr>
<tr>
<td><strong>BETFX</strong></td>
<td></td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>1.10</td>
</tr>
<tr>
<td>Treynor Ratio</td>
<td>0.23</td>
</tr>
</tbody>
</table>
Carroll Fund Returns

H1 Carroll Fund Return

Torch Fund Returns

<table>
<thead>
<tr>
<th>Torch Fund H1 Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>H1</td>
</tr>
</tbody>
</table>
Allocation of Funds

**CARROLL FUND**
- Information Technology, 15.87%
- Real Estate, 3.08%
- Financials, 6.71%
- Industrials, 4.02%
- Consumer Discretionary, 6.06%
- Communication Services, 3.86%
- Energy, 2.38%
- Healthcare, 8.41%
- Fixed Income, 43.01%
- Consumer Staples, 5.06%

**BENCHMARK**
- Information Technology, 15.26%
- Real Estate, 1.54%
- Financials, 7.8%
- Industrials, 5.14%
- Consumer Discretionary, 5.86%
- Communication Services, 4.90%
- Energy, 2.91%
- Healthcare, 8.84%
- Fixed Income, 40.00%
- Consumer Staples, 4.39%
- Materials, 1.59%
- Utilities, 1.78%
## Portfolio Breakdown

<table>
<thead>
<tr>
<th>Security</th>
<th>Value on 03/31/2023</th>
<th>% of Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity Holdings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAPL</td>
<td>$ 41,060.10</td>
<td>6.21%</td>
</tr>
<tr>
<td>AMZN</td>
<td>$ 22,517.22</td>
<td>3.41%</td>
</tr>
<tr>
<td>ARKG</td>
<td>$ 4,059.45</td>
<td>0.61%</td>
</tr>
<tr>
<td>CAT</td>
<td>$ 7,094.04</td>
<td>1.07%</td>
</tr>
<tr>
<td>COP</td>
<td>$ 4,861.29</td>
<td>0.74%</td>
</tr>
<tr>
<td>CVS</td>
<td>$ 10,626.33</td>
<td>1.61%</td>
</tr>
<tr>
<td>DG</td>
<td>$ 4,630.12</td>
<td>0.70%</td>
</tr>
<tr>
<td>FDX</td>
<td>$ 5,483.76</td>
<td>0.83%</td>
</tr>
<tr>
<td>GOOGL</td>
<td>$ 21,160.92</td>
<td>3.20%</td>
</tr>
<tr>
<td>HAL</td>
<td>$ 5,125.68</td>
<td>0.78%</td>
</tr>
<tr>
<td>IAK</td>
<td>$ 8,904.48</td>
<td>1.35%</td>
</tr>
<tr>
<td>J</td>
<td>$ 5,522.97</td>
<td>0.84%</td>
</tr>
<tr>
<td>JPM</td>
<td>$ 9,382.32</td>
<td>1.42%</td>
</tr>
<tr>
<td>LLY</td>
<td>$ 13,049.96</td>
<td>1.97%</td>
</tr>
<tr>
<td>LMT</td>
<td>$ 8,509.14</td>
<td>1.29%</td>
</tr>
<tr>
<td>MRK</td>
<td>$ 13,192.36</td>
<td>1.99%</td>
</tr>
<tr>
<td>MSFT</td>
<td>$ 28,541.70</td>
<td>4.32%</td>
</tr>
<tr>
<td>NKE</td>
<td>$ 5,886.72</td>
<td>0.89%</td>
</tr>
<tr>
<td>PANW</td>
<td>$ 13,782.06</td>
<td>2.08%</td>
</tr>
<tr>
<td>PCH</td>
<td>$ 10,642.50</td>
<td>1.61%</td>
</tr>
<tr>
<td>PEP</td>
<td>$ 22,240.60</td>
<td>3.36%</td>
</tr>
<tr>
<td>PLD</td>
<td>$ 4,990.80</td>
<td>0.75%</td>
</tr>
<tr>
<td>PSX</td>
<td>$ 5,778.66</td>
<td>0.87%</td>
</tr>
<tr>
<td>PYPL</td>
<td>$ 10,935.36</td>
<td>1.65%</td>
</tr>
<tr>
<td>SPGI</td>
<td>$ 15,169.88</td>
<td>2.29%</td>
</tr>
<tr>
<td>TSCO</td>
<td>$ 7,051.20</td>
<td>1.07%</td>
</tr>
<tr>
<td>TSM</td>
<td>$ 21,580.64</td>
<td>3.26%</td>
</tr>
<tr>
<td>UNH</td>
<td>$ 14,650.29</td>
<td>2.22%</td>
</tr>
<tr>
<td>VZ</td>
<td>$ 4,355.68</td>
<td>0.66%</td>
</tr>
<tr>
<td>WELL</td>
<td>$ 4,731.54</td>
<td>0.72%</td>
</tr>
<tr>
<td>WMT</td>
<td>$ 11,206.20</td>
<td>1.69%</td>
</tr>
<tr>
<td>XLU</td>
<td>$ 10,085.81</td>
<td>1.53%</td>
</tr>
<tr>
<td><strong>Fixed Income Holdings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGG</td>
<td>$ 61,378.24</td>
<td>9.28%</td>
</tr>
<tr>
<td>PFFV</td>
<td>$ 61,150.50</td>
<td>9.25%</td>
</tr>
<tr>
<td>TLT</td>
<td>$ 32,655.59</td>
<td>4.94%</td>
</tr>
<tr>
<td>USFR</td>
<td>$ 126,881.48</td>
<td>19.19%</td>
</tr>
<tr>
<td>SPAXX</td>
<td>$ 2,417.59</td>
<td>0.37%</td>
</tr>
</tbody>
</table>
Communications Services

Managed by Emily Barnes

Sector Overview
The Communications sector consists of firms that create and maintain critical infrastructures that enable local and global connectivity, widespread access to information, and entertainment for consumers. There are two main industry groups within the Communications sector, together having five subsequent industries. Telecommunications accounts for 13.84% of the sector and includes the Diversified Telecommunications and Wireless Communications industries. Media & Entertainment accounts for 86.16% of the sector and includes the Media, Entertainment, and Interactive Media & Services industries.¹ The Carroll Fund currently holds two Communications stocks: Verizon Communications Inc. and Google Class A, and we fully liquidated our position in Fidelity MSCI Communication Services Index ETF in early H1. This sector’s market capitalization is $2.99 trillion and has an S&P 500 weight of 8.11% as of March 31, 2023.² The Carroll Fund Communications’ weighting is currently at 7.01%, making us slightly underweight.

Impacts from H1
The S5TELS Index had an 18.22% total return over the H1 period, outperforming the S&P 500 Index total return of 14.61% in H1, and illustrating a stark difference in the sector’s 2022 total return of -20.17%. Optimism in the sector moving into 2023 is largely due to drops in United States CPI YoY prints (since peaking at 9.00% in June), fed fund rate increases falling to 25 basis points per meeting, and record low unemployment (3.50% in March). Key trends for the sector experienced in H1 were layoffs, 5G scalability, and artificial intelligence adoption. Media & Entertainment firms such as Meta Platforms Inc., Walt Disney Co., and Alphabet Inc. made substantial workforce cuts in early 2023 as a cost-cutting initiative to correct over-hiring post-pandemic.³ Big players in Telecommunications face further competition for 5G rollouts. With interest rates remaining high, firms like AT&T, Verizon, and T-Mobile have competed on pricing and consumer expansion in hopes of mitigating headwinds for these capital intensive projects.⁴ ChatGPT’s November release by OpenAI took the sector by storm, spurring a rush to innovation for firms such as Alphabet Inc. Artificial intelligence technology will remain a critical economic moat for these firms.⁵

Performance

![Performance Chart](chart.png)
Fidelity MSCI Communication Service Index ETF (FCOM)

**Holding Description**
Fidelity MSCI Communication Service Index ETF (FCOM) is a United States exchange-traded fund that strives to follow the performance of MSCI USA IMI Telecommunication Services 25/50 Index.¹ FCOM includes specifically selected securities within the underlying index that demonstrate investment, fundamental, and liquidity characteristics like the original fund. This method is referred to as “representative sampling.”² Listed below are FCOM’s top ten holdings:

<table>
<thead>
<tr>
<th>Top 10 Holdings</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Meta Platforms Inc.</td>
<td>15.60%</td>
<td>Verizon Communications Inc</td>
</tr>
<tr>
<td>Alphabet Inc</td>
<td>13.10%</td>
<td>Netflix Inc</td>
</tr>
<tr>
<td>Alphabet Inc</td>
<td>11.41%</td>
<td>Comcast Corp</td>
</tr>
<tr>
<td>Walt Disney Co</td>
<td>5.73%</td>
<td>T-Mobile US Inc</td>
</tr>
<tr>
<td>AT&amp;T Inc</td>
<td>4.34%</td>
<td>Activision Blizzard Inc</td>
</tr>
</tbody>
</table>

**Thesis for Exiting**
FCOM generated a 2.01% total return for the Carroll Fund in H1, though the ETF was only held for a brief period of time until it was liquidated mid-October 2022.³ FCOM had a full year 2022 total return for the portfolio of -41.95%, largely due to consistent earnings misses throughout the year by many of the ETF’s holdings: Meta Platforms Inc., Alphabet Inc.,⁴ and Netflix Inc.⁵ Our fund no longer saw our broad exposure to the volatile Communications sector through FCOM as reasonable, as our economic outlook was pessimistic, specifically for industries such as Media and Entertainment. We decided to fully liquidate our position in FCOM and invested funds into two stocks within the Digital Advertising industry (GOOGL) and the Telecommunications industry (VZ). Since our purchase of GOOGL and VZ, these holdings have already generated comparably higher returns for the portfolio than that of FCOM over the period, 3.47% and 10.09% respectively.

**New Transactions**
The Carroll Fund sold 805 shares of FCOM at $31.91 on October 21, 2022 thus liquidating their full position in FCOM.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$25,180.40</td>
<td>$26,106.15</td>
<td>2.01%</td>
<td>$</td>
</tr>
</tbody>
</table>
Alphabet Inc. Class A (GOOGL)

Holding Description
Alphabet Inc. is the holding company of Google, a multinational technology company known for its online search engine capabilities. Since its inception, Google platforms have become integral to consumers’ lives, providing simple interfaces for more complex technical functions such as cloud computing and artificial intelligence. The company’s key competitive advantage is its vast consumer reach, with over one billion people using Google products and services every month. Google has two main reportable business segments: Google Services (90% of sales revenue) and Google Cloud (10% of sales revenue).¹ Google Services includes products and services related to advertising, Google Search, YouTube, and other features. Google Cloud includes developed infrastructure and data platforms used by Google Cloud Platform (GCP) and Google Workspace collaboration tools. Alphabet Inc. Class A (GOOGL) belongs to the Internet Media & Services industry within the Communications sector. The stock has a market capitalization of $1.33 trillion as of March 31, 2023.²

Impacts from H1
GOOGL generated a 3.47% total return for the Carroll portfolio during H1.³ We secured our position in GOOGL, mid-October of 2022, when we saw the potential undervaluation of its share price. GOOGL’s price has fluctuated as the company faces immense pressure in terms of recent legal scrutiny, an earnings miss, and competition from innovations in the artificial intelligence space. The Department of Justice filed an antitrust suit against Alphabet Inc. for monopolizing digital advertising technology products, and a trial is scheduled for 2023.⁴ GOOGL’s Quarter 4 2022 earnings release showed missed EPS estimate by -12.33% and revenue by -0.58%.⁵ This was largely due to the company’s failure to manage expectations regarding costs, and they initiated a 6% cut in workforce late January to account for this.⁶ GOOGL’s share price dropped over 10% after the company’s demonstration of new ChatGPT competitor “Bard” had an unfavorable public reception. A flaw was found in the artificial intelligence's generated answer regarding a prompt given, sending investors weary of Google’s ability to compete with OpenAI and Microsoft.⁷

Outlook
The Carroll Fund remains confident in GOOGL being a material contributor to our portfolio. Although the company faces ample media scrutiny, Google’s strong leadership, commitment to long-term profitable growth, and undeniable market influence assures this to be a long-term hold.

New Transactions
The Carroll Fund sold 30 shares of GOOGL at $89.48 on December 21, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$23,664.42</td>
<td>$21,160.92</td>
<td>3.47%</td>
<td>$</td>
</tr>
</tbody>
</table>
Verizon Communications Inc. (VZ)

Holding Description
Verizon Communications Inc. (VZ) is an American multinational company within the Wireless Telecommunications industry. Verizon provides wireline voice, data services, wireless, and internet services for customers within the United States. Verizon has 115 million retail connections, seven million broadband connections, and four million Fios video connections. As of 2022, Verizon had the leading United States industry market share of 21.90%.¹ Verizon has two main reportable segments: Verizon Consumer Group (70% of sales revenue) and Verizon Business Group (25% of sales revenue).² Verizon Consumer Group provides for individual consumers, whereas Verizon Business Group targets businesses. The stock has a market capitalization of $163.38 billion as of March 31, 2023.³

Impacts from H1
VZ generated a 10.09% total return for the Carroll portfolio during H1.⁴ We secured our position in the company in mid-October of 2022 as a way to gain exposure to the Telecommunications industry and hedge against potential headwinds for the sector, as Telecommunications stocks are more defensive in nature. VZ experienced headwinds in Quarter 3 2022. In the corresponding earnings release, despite 4% revenue growth, they recorded an adjusted EPS YoY decline of 7%, slimmed EBITDA margins, and a lower new subscriber base compared to competitors, AT&T and T-Mobile.⁵ The stock gained some momentum moving into January as investors generally became more bullish for Communications stocks, arguably due to the Federal Reserve’s public recognition of disinflation along with a reduction in the size of rate hikes.⁶ The company’s 2023 forward guidance was disappointing. They suggested a decline in adjusted EPS, flat EBITDA, and only 3.50% in wireless service revenue growth. However, they also told investors to expect tailwinds for FCF as capital spending is projected to decrease. The share price has since fluctuated downward but remains above cost basis.

Outlook
The Carroll Fund remains confident in VZ as a long-term option for Telecommunications exposure. We think VZ’s pricing power abilities, 5G scalability, and consumer churn rates will be crucial for its 2023 performance; however, we believe the company’s strong fundamentals and market dominance will provide a favorable position in this tumultuous market.

New Transactions
The Carroll Fund bought 75 shares of VZ at $34.75 on October 21,2022, bought 54 shares of VZ at $37.01 on November 4, 2022, and sold 17 shares of VZ at $37.68 on December 21, 2022.

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Consumer Discretionary
Managed by Giovanna Rondinelli

Sector Overview
Consumer Discretionary is a highly cyclical sector where performance is heavily correlated to current economic conditions. In times of economic turmoil and market uncertainty, the Consumer Discretionary sector underperforms and overperforms in times of economic expansion. It is made up of four industry groups: Consumer Durables & Apparel, Retailing, Consumer Services, and Automobiles and Components. Success is dependent on consumer confidence and the resulting discretionary spending. The Consumer Discretionary sector makes up 9.27% of our equity allocation and 5.24% of the total portfolio, making us slightly underweight. During H1, the Carroll Fund held Amazon (AMZN), Dollar General (DG), Nike (NKE), and Tractor Supply Co (TSCO). The sector’s market capitalization is $3.76 trillion.

Impacts from H1
The Consumer Discretionary sector experienced a fairly volatile H1 due to hiking interest rates, continued economic uncertainty, and waning consumer confidence. At the end of the period, the Consumer Discretionary sector started to show some resiliency. This could partly be due to increasing consumer confidence as interest rate cuts are expected to occur sooner than initially estimated and increasing unemployment rates signaling the Federal Reserve’s initiatives are starting to prove successful. Over the H1 period, the Consumer Discretionary sector has underperformed compared to our S&P 500 benchmark. This is from decreased consumer spending as consumers are increasingly concerned about recession risk. This sector weakness is expected, due to the sector being highly cyclical. Despite these challenges, we have seen a 4.21% return in the sector over H1. The key trends illustrated during H1 were waning demand, layoffs, and rising costs. It’s important to note that the Consumer Discretionary sector is likely to experience higher returns moving forward as the CPI YoY Index has shown a continuous decline from 9% in June 2022 to 6% in March 2023.

Performance
Amazon (AMZN)

**Holding Description**
Amazon is a strong global company and competitor in the Consumer Discretionary sector with innovative capabilities driving their success over the years. Amazon’s revenue services are E-Commerce, Subscription Services, Amazon Web Services, Third Party Seller Services, and Physical Stores. Amazon’s main business strategy is to prioritize and satisfy customer needs in order to provide an efficient and friction free shopping experience. They have a strong moat that helped propel their growth in comparison to competitors through the use of economies of scale, a large network base, and leveraging subscription services. Amazon’s biggest competitors are Walmart, Target, and eBay. Amazon makes up 3.30% of the Carroll portfolio weight.

**Impacts from H1**
Amazon has been harshly impacted from the ongoing market uncertainty in which it has seen a total return of -12.61% during H1. Amazon had to announce layoffs in 2022 and 2023 totalling about 18,000 jobs cut. In Amazon’s Quarter 4 2022 earnings report, they reported a net sales 9% YoY growth to $149.20 billion. Amazon had beat both analysts’ and management’s expectations of net sales growth, however, they fell short when looking at net income. Their decrease in net income resulted from their operating income taking a hit due to high supply chain costs in which it fell to $2.70 billion in Quarter 4 2022. Their net income dropped to $.03 per diluted share. This is highly attributed to their shrinking margins of Amazon Web Services. Amazon’s E-Commerce has also taken a hit internationally. United States E-Commerce revenue increased 13% YoY with international revenue falling behind with a 8% YoY increase. Due to the major headwinds Amazon is facing, they have halted their expansion in the grocery industry for the meantime.

**Outlook**
Despite Amazon’s low performance over H1 and missing expectations, the Carroll Fund stays optimistic with Amazon while moving forward with caution. We think as inflationary pressures diminish and consumer confidence levels increase then Amazon will start to see a slow recovery. As of right now, we think they’re setting themselves up to hedge any future risk that they may face if the market continues to sink by pausing expansion in different sectors and announcing layoffs to lower their operating costs.

**New Transactions**
The Carroll Fund sold 82 shares of AMZN at $86.70 on December 21, 2022.

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Holding Description
Dollar General is a large discount retailer in the Consumer Discretionary sector although it has many Consumer Staples characteristics. Dollar General offers a wide variety of products that are typically necessities in consumers’ day to day lives from cleaning products all the way to pet supplies. Dollar General has been able to capitalize on their strong business model. Their key business strategy consists of strategic locations, time-saving shopping, diversity of products, and low prices. Dollar General's main target customer base is typically lower income bracket consumers in which it is likely that in times of economic uncertainty they will capture a proportion of middle-income bracket consumers as well. Dollar General’s weight in the portfolio is 0.70%. Their main competitors are Dollar Tree, Dollarama, and Five Below. In comparison, Dollar General has a much larger market capitalization standing at $46.11 billion and an enterprise value of $67.26 billion.

Impacts from H1
Dollar General experienced a tough H1 as they had a total return of -8.41%. Their poor performance reflects the impact they had from the high interest rate environment. Their stock price rallied at the end of January as consumer confidence was optimistic, but it shortly took a hit when the Federal Reserve announced more interest rate hikes. In Dollar General’s Quarter 4 earnings, they beat analysts’ expectation in regard to EPS yet fell short in revenue. They reported an EPS of $2.96 and revenue of $10.20 billion. They also recorded market share gains in both consumables and non-consumables which translates to a net sales increase of 17.90%.

Outlook
The Carroll Fund is confident in Dollar General moving forward as they are demonstrating a slow yet consistent recovery since hitting their lowest price point ($202.85) during H1 in the middle of March. They have outperformed the Consumer Discretionary sector during H1 which demonstrates their Consumer Staples characteristics that have helped them during such poor market conditions. We are also confident as Dollar General has had very similar price movements to the S&P 500 benchmark which shows their performance is primarily due to external forces such as market conditions and investor confidence levels, and that is not due to any internal business concerns.

New Transactions
The Carroll Fund sold eight shares of DG at $244 on December 21, 2022.

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Holding Description
Nike is a large brand name that operates in the Athletic Sport Apparel industry where its revenue sources stem from multiple geographic locations around the world. The top three regions that contribute the most towards their revenue are North America & Europe, Middle East, and Africa & Greater China. Nike currently leads with the highest revenue at $50 billion in the industry. Nike’s main strategy that is a part of their strong moat is their use of marketing and branding. Nike invests heavily into their marketing campaigns in which they have invested $3.58 billion in 2022, and they have been one of the most successful companies in doing so. Nike’s top competitors in the industry are Adidas, Puma, and Under Armor. Nike has been able to dominate their competitors through their strong economic moat that consists of product innovation, cost saving strategies, and strong brand recognition. Nike accounts for 0.89% of our portfolio.

Impacts from H1
Nike has managed to have a successful H1 despite poor economic conditions. Nike saw a total return of 46.02%. This can primarily be attributed to their consumer direct acceleration strategy, and how it acts as a moat because of their ability to gain high amounts of consumer insight to propel growth even in times of low consumer spending. They have also managed to grow healthy inventory levels which has contributed to their high returns. Nike did, however, see a decrease in their gross margin which dropped to 43.30% in their Quarter 3 2022 earnings which is due to increasing supply chain costs. They also saw an increase in revenue of 14% compared to prior year while their digital sales grew by 20%. Nike continues to have a strong relationship with shareholders in which in Quarter 3, in which they returned to $2 billion back to shareholders in forms of dividends and share repurchases.

Outlook
Moving forward Nike will experience some challenges like the rest of the sector, but the Carroll Fund believes with how well they have managed to perform in the recent months and with their ending H1 return, they will be able to still outperform competitors and beat analyst expectations. Nike has positioned themselves very strongly moving forward by leaning into consumer insight and lowering inventory levels in order to stay on top of possible drops in consumer confidence and inflationary pressure.

New Transactions
The Carroll Fund sold 18 shares of NKE at $115.64 on December 21, 2022.

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Holding Description
Tractor Supply operates in a fragmented industry, the Farm and Ranch industry, as the largest retail farm store chain in the United States. They are based right outside of Nashville in Brentwood, Tennessee. As a rural lifestyle retailer in the United States, they provide farm maintenance, animal/pet supplies, general maintenance, lawn & garden, light truck equipment, work clothing, and machine parts for agricultural use. Their targeted customer base are ranchers, farmers, rural customers, contractors, and tradesmen. Their revenue is distributed amongst their three store types: Del’s Feed & Farm Supply stores, Tractor Supply, and Petsense stores. Roughly 70% of their revenue is derived from their Livestock/ Pet Products and Proprietary Brands. Their top competitors are Home Depot and Lowes even though Tractor Supply has a much more niche business model which has allowed them to mitigate a proportion of risk that their competitors have recently seen. Tractor Supply holds 1.05% of weight in our portfolio.

Impacts from H1
Since opening a position in Tractor Supply in late March, we have seen a total return of 3.06%. Looking at recent performance, in their Quarter 4 2022 earnings they announced 20.70% increase in net sales along with increasing their gross margin to 34% despite the harsh market they were operating in with rising interest rates. Tractor Supply is also moving forward with a $1.20 billion capital investment to develop their stores, distribution centers, and technology. Tractor Supply has continued to beat analysts' expectations, even in times of economic downturn, through the implementation of their “Life Out Here” strategy which consists of utilizing consumer insight to market appropriate products in the correct period of time.

Outlook
The Carroll Fund has a very optimistic outlook moving forward with Tractor Supply. They have proven to stay not only profitable but growing even in times of economic uncertainty. Where other of their main competitors such as Home Depot and Lowes have seen significant turmoil from the state of the market, Tractor Supply has shown its resiliency through increasing revenues and tightening margins even with inflationary pressure. Tractor Supply has many Consumer Staple characteristics which has allowed them to be resilient as consumers limit their discretionary spending which is why we are confident in Tractor Supply’s performance moving forward.

New Transactions
The Carroll Fund bought 30 shares of TSCO at $228.07 on March 24, 2023.

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<td>$</td>
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Sector Overview
The Consumer Staples sector provides our “life necessities.” These life necessities come from the six industries within it: Food & Staples Retailing, Food Products, Beverages, Household Products, Personal Products, and Tobacco.\(^1\) The sector is viewed as non-cyclical since it produces things that consumers deem to be essential to life and everyday needs. Therefore, the demand for Consumer Staples products is always present, regardless of how good or bad the economy may be at a given point in time. The sector has consistent growth, earnings, and dividends. The sector is known to outperform relative to other sectors during bear markets and recessionary periods. However, the opposite is true during bull markets.\(^2\) The sector’s market capitalization is $2.80 trillion, making up 7.23% of the market.\(^3\) The Carroll Fund was invested in three companies within Consumer Staples at the beginning of H1: PepsiCo (PEP), Tyson Foods (TSN), and Walmart (WMT). During H1, the Carroll Fund decided to liquidate all holdings in TSN, which resulted in the Carroll Fund finishing with just two Consumer Staples holdings: PEP and WMT.

Impacts from H1
Amid a turbulent market, the Consumer Staples sector has proven itself as a defensive sector. During H1, the sector performed well. When considering total returns, PEP (+13.05%) and WMT (+14.04%) were right in line with the S5CONS Index (+13.60%). When compared to SPX (+15.55%), S5CONS slightly underperformed. The Consumer Staples sector is driven by the strength of the consumer, prices, demographic trends, product innovation, and new markets. The consumer remained resilient even during times of inflation, interest rate hikes, and an overall gloomy economy. However, many companies were still seeing rising input costs, which has either caused them to have slimmed down profit margins or higher prices, which can hurt demand. Consumer Staples companies have also found their way into emerging markets to help them weather the recent economic turmoil.\(^4\) Moving forward, we expect this sector to remain resilient despite recessionary headwinds.

Performance

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\(^1\) Food & Staples Retailing, Food Products, Beverages, Household Products, Personal Products, and Tobacco.\n
\(^2\) The opposite is true during bull markets.

\(^3\) The market capitalization is $2.80 trillion, making up 7.23% of the market.

\(^4\) Consumer Staples companies have also found their way into emerging markets to help them weather the recent economic turmoil.
PepsiCo, Inc. (PEP)

Holding Description
PepsiCo is a top food and beverage company that oversees and controls the operations of a multitude of brands that consumers around the globe use daily. Some of the many notable brands in their portfolio are Lays, Doritos, Cheetos, Gatorade, Pepsi-Cola, Aquafina, and Mountain Dew.¹ PepsiCo’s market capitalization is $251.21 billion,² making them the largest food and beverage company in North America and the second largest in the world behind Nestlé.³ PepsiCo operates in over 200 countries and territories around the world.¹ Operations in these countries and territories are divided into their seven business segments: (1) PepsiCo Beverages North America, (2) Frito-Lay North America, (3) Quaker Foods North America, (4) Europe, (5) Africa, Middle East, and South Asia, (6) Latin America, and (7) Asia Pacific, Australia, New Zealand, and China.⁴ Pepsi’s mission is to be “faster, stronger, and better.” Firstly, they strive to grow faster by beating out competition in the marketplace, penetrating new markets, expanding their portfolio, and focusing on the consumer. Secondly, they strive to be stronger by eliminating costs so they can re-invest more in their business. Thirdly, they strive to be better by being mindful of the environment and conducting their business with a purpose.⁵ The Carroll Fund currently holds 122 shares of PEP, making up 3.36% of the portfolio.

Impacts from H1
PepsiCo generated a 13.05% total return for the Carroll portfolio during H1, right in line with the S5CONS Index (+13.60%). While the effects of inflation drove prices up 15% on average, PepsiCo was able to use their strong pricing power to see 10.90% YoY growth in sales in Quarter 4 ending on December 31, 2022.⁶ Quarter 4 2022 was a strong one for PepsiCo as they reported an EPS of $1.67 and revenue of $28 billion, both beating analyst expectations. They also announced a 10% increase in their annualized dividend, raising it to $5.06.⁷ Through these results in a volatile market, PepsiCo displayed their resiliency and gave investors confidence in their ability to roll over this success into the 2023 fiscal year. Analysts anticipate that the EPS for Quarter 1 2023, which will be released on April 25, 2023, will be $1.39, with revenue of $17.25 billion.⁸

Outlook
The Carroll Fund holds PepsiCo due to its strong business model, brand leverage, and ability to perform well during market downturns. They have shown a strong ability to innovate and differentiate themselves in the market, which has offered success in a highly competitive sector. They also lead the sector in terms of profitability, risk, and dividend payout. The Carroll Fund views PepsiCo as a long-term hold.

New Transactions
The Carroll Fund sold five shares of PEP at $182.40 on December 21, 2022.

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Holding Description
As one of the leading food companies in the world with a market capitalization of $21.10 billion, Tyson Foods has established itself through the production, distribution, and marketing of a multitude of food products. While the majority of Tyson's revenue comes from the United States, the company also has customers in 140 other countries worldwide. Tyson's revenue is generated from its four business segments: Chicken, Beef, Pork, and Prepared Foods. Beef is the largest revenue generator for the company, representing 35% of revenue, followed by Chicken at 30%, Pork at over 15%, and Prepared Foods at 15%. The Beef segment’s operations consist of processing live fed cattle. The Chicken segment’s operations consist of raising and processing live chickens. The Prepared Foods segment’s operations consist of manufacturing and marketing frozen and refrigerated food products. The Pork segment’s operations consist of processing live hogs.

Thesis For Exiting
TSN was liquidated due to the risk it presented to the portfolio. While they had a successful overall 2022 fiscal year, which ended on September 29, 2022, their Quarter 4 earnings report was very underwhelming compared to previous years and quarters. Their GAAP EPS and net income were down 60% YoY. The stock price had been on a consistent decline for most of the 2022 calendar year and the Carroll Fund decided to cut losses before they got worse. In addition to Tyson’s financial disappointments, they had bad publicity in November of 2022 due to their CFO being arrested for public intoxication and trespassing. After considering these things, the Carroll Fund concluded that liquidating TSN would be the best course of action. In H1, TSN generated a total return of -0.43% for the portfolio. It seems like the Carroll Fund made the right call, as TSN is still struggling to produce returns for shareholders.

New Transactions
The Carroll Fund sold all 113 shares of TSN at $65.17 on December 5, 2022.

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Walmart, Inc. (WMT)

**Holding Description**
With over 10,500 total retail units in 20 countries and 2.10 million associates, Walmart is the largest and most well-known retailer in the world with a market capitalization of $397.47 billion. Every day, over 230 million people visit Walmart’s stores or websites. Walmart provides its customers with an abundance of goods such as food, beverages, clothing, household items, hygiene products, electronics, toys, pharmaceutical products, and more. These products are divided into three broad categories: Grocery, Health and Wellness, and General Merchandise. Walmart’s operations are divided into three segments: Walmart United States (~70% of sales), Walmart International (~20% of sales), and Sam’s Club (~15% of sales). The cornerstone of Walmart’s strategy is “Every Day Low Prices on a Broad Assortment – Anytime, Anywhere.” Walmart’s supply chain is also one of the most efficient in the world as they can get products to their store in a consistent, timely manner at a low cost thanks to their 210 distribution centers. Through this value they provide for their customers, they have gained mass levels of brand loyalty. The Carroll Fund currently holds 76 shares of WMT, making up 1.69% of the portfolio.

**Impacts from H1**
Walmart generated a 14.04% total return for the Carroll portfolio during H1, beating the S5CONS Index (+13.60%). In Walmart’s Quarter 4, ending on January 31, 2023, Walmart had a 13.24% surprise in EPS and a 2.71% surprise in revenue, after reporting an EPS of $1.71 and revenue of $164.05 billion. This quarter topped off a massive year for Walmart, as they reported a record $611 billion in fiscal year 2022. They also announced that they would be raising their annual dividend to $2.28 per share. Walmart also saw leaps in their Advertising business segment, as it grew over 20%. Their E-Commerce business segment is also on the rise and chipping away at Amazon’s lead due to their competitive advantage of having 5,000 distribution centers and 90% of the United States population living within ten miles of a Walmart store. While Walmart’s leadership offered a conservative outlook on fiscal year 2024, the retail giant finished off H1 on a positive note and looks to continue this success.

**Outlook**
The Carroll Fund holds Walmart because of its massive revenue stream, proven ability to stay at the top of retail, and their ability to perform even during market downturns. They also seem to be innovating in spaces like logistics and e-commerce, so they can continue to perform at the highest level in the years to come. Especially in today’s market, they are a good stock to have in the Carroll Portfolio considering our defensive outlook. Given the company's healthy revenue growth and consistent dividend payments, the Carroll Fund considers Walmart a long-term hold. These factors are expected to continue supporting the company's performance, which we believe will translate into continued positive returns in the future.

**New Transactions**
The Carroll Fund sold three shares of WMT at $144.98 on December 21, 2022.

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Energy
Managed by Dylan Isaacs

Sector Overview
The Energy sector is arguably the most important sector of the economy, as developments within this sector impact businesses globally. The sector includes companies operating in the following areas: exploration/development of oil and gas reserves, oil and gas drilling/refining, nuclear energy, distribution of energy, as well as renewable energy such as, wind, solar and hydroelectric energy. Overall, the Energy sector is separated into the Energy, Equipment & Services (EES) industry and the Oil, Gas & Consumable Fuels industry (OGS). The ESS industry is composed of companies that provide technology and engineering solutions to aid in the exploration, extraction and transportation of energy. Alternatively, the OGS industry contains companies that are involved in the exploration, extraction, refining, and/or distribution of energy. The Energy sector is a $6 trillion industry that represents 4.50% of the SPX Index and 4.33% of the Carroll equity holdings.¹ The Carroll Fund currently owns COP, HAL, and PSX within the Energy sector.

Impacts from H1
Over the H1 period, the S5ENRS Index had a return of 22.77%. This was much higher than the 14.61% return of the SPX Index. WTI Crude as well as Brent Crude declined by about 6% during H1. After the sector experienced negative margins in 2020, energy prices have rebounded. Though the price of the barrel has slightly declined over the period, companies maintained near record operating and profit margins.² Energy margins typically increase in times of geopolitical volatility, which this market has provided in the form of the continued Russia-Ukraine war, United States-China tension and OPEC oil production cuts.³ Overall, companies within the Energy sector hold relatively high levels of debt on their balance sheets, so it will be important to monitor the fed funds rate in the coming year. The Energy sector is still experiencing high levels of FCF, so debt service is not currently a major concern. Wide spread pushes for clean energy threaten the current global portfolio of energy production. However, it is unclear how long it will take for the transition away from fossil fuels to unfold, and clean energy does not currently represent a reliable source of energy for meeting growing global demand.⁴

Performance

![Graph showing the performance of SPX Index and S5ENRS Index from 9/30/2022 to 3/31/2023. The graph indicates that the S5ENRS Index outperformed the SPX Index throughout the period.]
Holding Description
ConocoPhillips (COP) engages in the exploration, production, and distribution of oil and natural gas. Though headquartered in Houston, Texas, COP has operations in 13 countries. Operations in the United States and Gulf of Mexico represent more than 65% of firm revenue and account for most liquids and natural gas production (55% and 65% respectively).\(^1\) Overall, COP is one of the world's largest oil and natural gas companies with a market capitalization of $141 billion. The profitability of COP is heavily dependent on fluctuations in the price of oil and gas. It should be noted that market volatility and higher oil related commodity prices often lead to higher margins for the firm. Acquiring project sites for future production is also crucial to COP’s long-term growth and success. Crude Oil represents COP’s largest product segment by revenue. Over the past three years, Natural Gas has become an increasingly important segment now accounting for about 37% of sales.

Impacts from H1
During the Quarter 4 2022, COP was able to increase their EPS on a YoY basis by over 31%. Full year 2022 earnings of $14.57 dwarfed 2021 EPS of $6.07.\(^2\) Much of this success can be attributed to the increase in the price of Crude Oil running from $75 a barrel in January of 2022 to a peak of nearly $120 in early June. During the H1 period, Crude Oil experienced a slight decline of 5%, and returned to $75 barrel price. COP has taken proactive measures to secure project sites, including increasing their stake in QatarEnergy’s NorthField East and South projects, as well as their stake in the Australia Pacific LNG.\(^3\) In total, these projects and others yield a 176% preliminary reserve replacement ratio. Production during the period was approximately 1.70 million BOEPD (barrels of oil equivalent per day), which represents a substantial increase from the previous four-year average of approximately 1.30 million BOEPD. Altogether, COP returned 4.80% during H1, which was less than the Energy sector’s return of 17.09%.

Outlook
COP is well positioned to capitalize on continued elevated energy prices. In COP’s Quarter 4 earnings call, management predicted an average crude oil price of $80 per barrel throughout 2023. Further, COP approximates that they will produce an average of 1.80 million BOEPD over the year. The company’s total expected capital expenditures are $11 billion during 2023, with $9.20 billion allocated for base capital and $1.80 billion for new project sites.\(^2\)

New Transactions
The Carroll Fund sold 12 shares of COP at $119.24 on December 5, 2022 and an additional seven shares at $115.95 on December 21, 2022.

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Halliburton (HAL)

Holding Description
Headquartered in Texas, Halliburton (HAL) operates as one of the world’s largest energy services firms. The company provides complex engineering and construction services, as well as products to customers in the exploration, development, and production of oil and natural gas. Through North America accounts for more than 40% of sales, HAL operates in over 70 countries. Main business segments are divided into two main groups: Completion & Production and Drilling & Evaluation. Through these business segments, HAL can source hydrocarbons and assist its customers by providing solutions to efficiently and effectively extract them. The Completion & Production and Drilling & Evaluation business segments account for about 55% and 45% of firm revenue, respectively. Overall, HAL generates about 70% of its revenue through services, and 30% of its revenue through product sales.

Impacts from H1
During the H1 period, our position in HAL returned -0.65%, which was substantially lower than the S5ENRS Index performance of 17.09%. The Completion & Production business segment experienced sales growth of 1%, and operating income grew by 13%. On the other hand, the revenue and operating income of the Drilling & Evaluation business segment increased by 8% and 19%, respectively, during Quarter 4. Over 2022, HAL grew its operating margin by 460 basis points while also expanding revenues by 33%. Similar to most firms, HAL too saw more growth in their international business segments over the period.

Outlook
Moving forward, HAL is growing its dividend by 33% in Quarter 1 2023. Further, the firm expects FCF growth of 20% during 2023. Management believes this will be obtained through maintaining high margins while growing revenues throughout the year. HAL is uniquely positioned to benefit from the current geopolitical climate, as nations are exploring for oil reserves to replace current dependence on Russian oil.

New Transactions
The Carroll Fund purchased 100 shares of HAL at $29.73 on October 17, 2022 and an additional 85 shares at $36.82 on December 5, 2022. The Carroll Fund then sold 23 shares at $38.55 on December 21, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$2,999.00</td>
<td>$5,125.68</td>
<td>-0.65%</td>
<td>$48.12</td>
</tr>
</tbody>
</table>
Phillips 66 (PSX)

Holding Description
Phillips 66 (PSX) has a market capitalization of $50 billion and operates in four main business segments: Marketing and Specialties (M&S); Refining; Midstream; and Chemicals. Based in Texas, PSX generates most of its revenue within the United States (80%). Marketing represents the business of selling fuel to convenience stores, and Phillips does this in both branded and unbranded fashions. PSX is involved in over 9,000 outlets globally, 8,000 of which are in the United States. On the specialties side of the business, PSX supplies lubricants, high quality graphite, anode-grade petroleum as well as polypropylene. In total, the M&S business segment accounts for more than 65% of revenues. Refining operations account for about 25% of firm revenue and involve refining crude oil into petroleum.

Impacts from H1
During the H1 period, our position in PSX returned 28.92%, and outperformed the S5ENRS Index by a spread of over 11%. Quarter 4 EPS missed analysts’ expectations by 8.11%, though expectations were rather ambitious as quarterly EPS on a YoY basis are up nearly 50%. Over 2022, PSX repaid $3.50 billion out of the total pandemic debt worth $4 billion that it had incurred. The company has been able to generate a significant profit margin from its operations with a refining capture spread of 95% in Quarter 3 and 84% in Quarter 4. In turn, PSX has returned $3.30 billion to shareholders in the form of dividends and share repurchases.

Outlook
Moving forward, it is likely that PSX will slowly see its refining capture spread revert to lower levels. Quarter 1 2023 is expected to have near 80% utilization due to heavy maintenance. PSX is on track to acquire DCP Midstream for $3.80 billion in Quarter 2 2023. This acquisition will provide PSX with valuable pipeline infrastructure in the United States, and $300 million in synergies are expected to be captured over the next two years. PSX is also currently converting the Rodeo, California refinery into one of the world’s largest renewable fuels facilities. The Carroll Fund is confident that PSX is positioned to capitalize on continued volatility within the Energy sector.

New Transactions
The Carroll Fund sold 51 shares of PSX at $103.81 on December 5, 2022 and an additional eight shares at $103.29 on December 21, 2022.

<table>
<thead>
<tr>
<th>Period</th>
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<th>% Return</th>
<th>Dividends Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$9,363.52</td>
<td>$5,778.66</td>
<td>28.92%</td>
<td>$172.37</td>
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</table>
Sector Overview
The Financials sector is a sector in the economy that includes institutions that deal in the business of offering financial services to customers. The sector makes up a sizable portion of the United States economy with a weight of 12.90% of the S&P 500. Major industries within the sector include Banking, Diversified Financials, and Insurance. Within these industries lie the more concentrated sub industries of Mortgage Finance, Capital Markets, Consumer Finance, Diversified Financial Services, and Credit Card Issuers. The sector is considered highly cyclical, as it closely follows the cycles of the economy. This is intuitive, as banks are a key component in market activity with their tight relationships to Federal Reserve interest rate changes, and the increases in investment activity as markets boom, and vice versa. Containing a diverse group of industries, revenue is generated in a variety of ways such as Interest Income from Loans, Investments, Fees and Commissions, Premiums, Wealth Management, and Asset Management.

Impacts from H1
With the Financial sector being as cyclical as it is, it can be heavily influenced or indicated by market confidence, rate hikes, and other macroeconomic factors such as GDP and CPI reports. Throughout the holding period, the fed funds rate has increased 175 basis points in attempts to combat inflation. While this is not typically a good sign for such a cyclical sector, it has still experienced positive returns of 6.12% for the holding period, underperforming the S&P 500 benchmark which gained 14.61% over the period. This recovery after 2022’s bear market can be attributed in part not to rate changes which would have direct impact on banking, but rather consumer confidence due to CPI reports throughout the holding period. Inflation peaked in June 2022 at 9.1% YoY, but dipped as low as 6.0% by February 2023. With the events of the banking crisis happening around Silicon Valley Bank and Signature on March 9, the sector experienced some drop in the tail end of March of almost 4%. Continual rate hikes and loss of confidence makes the road ahead seem rocky for the sector, but with a comeback in confidence in the Banking industry, the sector could experience some positive returns.

Performance
Holding Description
iShares U.S. Insurance ETF is an exchange traded fund that attempts to track and follow the performance of the United States insurance industry. The ETF provides exposure to United States companies that provide life, property and casualty, and full line insurance.¹ Holdings within IAK are market capitalization weighted, so that higher market capitalization firms represent a larger portion of the ETF. The ETF has an expense ratio of 0.39% and the benchmark for IAK is the Dow Jones U.S. Select Insurance Index. This index is a subset of the Dow Jones U.S. Select Financials Index, which includes companies in the Financial Services sector, such as banks, insurance companies, and investment firms. The index specifically tracks the performance of United States insurance companies.² IAK’s largest positions are Progressive Corp. accounting for 12.41% of the total net asset value, Chubb Ltd accounting for 11.85%, Travelers Cos Inc. accounting for 5.76%, MetLife Inc. accounting for 5.67%, and American International Group accounting for 5.47%.

Impacts from H1
Throughout the H1 period, IAK experienced losses for the Carroll Fund. With returns of -5.06%, the corresponding sector index, S5FINL, has outperformed with returns of 7.31%, and the market has greatly outperformed with returns of 15.56%. Through the banking crisis, IAK suffered, as insurance companies heavily rely on bond investments, and there was a great lack of consumer confidence in insurance. The Bank Term Funding Program (BTFP) has allowed banks to borrow against losses in bonds, but with insurance companies not being depository institutions, they lack access to this opportunity. We viewed that the downside from this had been incorporated into prices. IAK’s largest holding, Progressive Corp., has had a price increase of 23.10% for the period. This goes to show the pros and cons of holding an ETF; it may hedge against firm specific risk, but it doesn’t allow for full capitalization of reward from returns. One of the ETF’s largest holdings, Chubb Ltd., acquired Huatai Insurance Group Company Ltd. on the final day of the period.

Outlook
iShares U.S. Insurance ETF can be a great way to remain defensive in an otherwise highly cyclical sector. It also provides means to hedge against firm specific risk with it being diversified in nature. Despite its failure through the banking crisis, IAK may continue to have potential upsides moving into a climate of uncertainty, high inflation, and increasing rates.

New Transactions

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>H1</td>
<td>$11,705.25</td>
<td>$8,904.48</td>
<td>-5.06%</td>
<td>$92.77</td>
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</tbody>
</table>
Holding Description
J.P. Morgan Chase & Co. is the world’s largest bank. Headquartered in New York City, the bank holds around $3.70 trillion in assets. The bank provides Retail Banking and Global Financial services such as investment banking, treasury and securities services, asset management, private banking, card member services, commercial banking, and home finance. The company’s operations can be divided into four business segments. Corporate & Investment Banking offers investment banking services and other services to a global client base. This accounts for 40% of revenue. Consumer & Community Banking offers consumer banking, credit cards, loans, and other banking services. This accounts for 40% of revenue. Asset & Wealth Management accounts for 15% of revenue, and Commercial Banking brings in the rest.\(^1\)

Impacts from H1
Over the H1 period, J.P. Morgan and Chase has proved to be the reliable banking giant it always has been by generating returns that have outperformed its corresponding sector index and the market. JPM generated returns of 26.72%. This is a dramatic difference from the S5FINL Index which returned 7.31%, and the market which returned 15.56%. For the year of 2022, JPM reported a growth of net income up 6%, and net revenue up 17% for their largest segment, Corporate & Investment Banking. Interest Income is a large source of revenue for the firm, and it netted $20.30 billion, up almost 50%. This is reportedly due to higher interest rates. Their Banking and Wealth Management segment has also seen great growth with net revenue up 56% due to higher deposit margins.\(^2\) On March 9, the Banking industry experienced a crisis after the fallout of Silicon Valley Bank and Signature Bank. However, JPM was not greatly affected by this as the strength of its financial statements and the scale of its operations allowed it to be resilient while other smaller banks struggled.

Outlook
The Carroll Fund holds JPM as it is the largest bank in the world by market capitalization, and it has proved to be resilient in tough times through a strong balance sheet. Uncertainty in inflation data and fed funds rates may show a volatile market in the future, and banks are especially susceptible to rate changes as it directly affects their business. We are still confident in the long-term performance of the firm as it remains resilient in its industry.

New Transactions
The Carroll Fund sold 17 shares of JPM at $131.89 on December 21, 2022.

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<tr>
<th>Period</th>
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</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$ 9,300.50</td>
<td>$ 9,382.32</td>
<td>26.72%</td>
<td>$ 161.00</td>
</tr>
</tbody>
</table>
PayPal Holdings Inc. (PYPL)

Holding Description
PayPal Holdings Inc. is a holding company that operates an online payment platform through its subsidiaries. Subsidiaries include Honey Science Corp., iZettle, Braintree, Xoom Corp., and Hyperwallet Systems Inc.\(^1\) PayPal’s goal is to be a one stop shop financial app for consumers. With about 400 million active accounts, PYPL generates revenue from fees from Payment Transactions which accounts for over 90% of revenue, Foreign Exchange, Withdrawals from Foreign Bank Accounts, and PayPal Credit and Debit Card Usage. Around $22.30 billion is generated from these transactions yearly. Ability to grow is affected largely by consumer spending patterns and the adoption of digital payment through mobile phones by merchants and consumers among other factors.\(^2\)

Impacts from H1
For the H1 period, PYPL has greatly underperformed both the market and its corresponding sector index, S5FINL. S5FINL Index was up 7.31%, the market was up 15.56%, and PYPL has been down 12.12%. In the year of 2022, PYPL has reported some positive growth in areas such as net revenue increasing 7%, and EPS reaching $0.81 from $0.68 in 2021. Total payment volume, a large driver of growth for the holding company and other companies in the digital payment realm, grew 5% for the year. However, their net cash provided by operating activities declined 3% for the year. The company is less efficient with their main operations than previously.\(^3\) The fall of cryptocurrency markets have negatively affected the performance of PYPL, as many crypto transactions are made through the company. In January, PYPL made large investments with Tabby Inc., another fintech company located in Dubai.\(^4\) In February, PYPL continued to invest: $100 million with Aspire FT Pte Ltd, which offers an array of financial services to businesses,\(^5\) $20 million with Mintoak Innovations Pvt Ltd., Indian based software-as-a-service firm,\(^6\) and $20 million with Chaos Labs Inc, the first crypto protocols security system.

Outlook
Paypal has lost market share to competitors such as Stripe, Stripe Connect, and Adyen. However, the firm continues to hold the largest share of 30.43%.\(^7\) Paypal needs to continue to grow its user base and total payment volume at a higher rate than competitors if it wants to prove to be a good firm to hold. The fintech firm is also taking seemingly risky measures by continuing to be involved in business regarding crypto, like investing with firms like Chaos, after being so hurt by crypto markets in 2022.

New Transactions
The Carroll Fund bought 98 shares of PYPL at $84 on November 21, 2022. The Carroll Fund also sold 34 shares of PYPL at $69.11 on December 21, 2022.

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<tr>
<td>H1</td>
<td>$6,885.60</td>
<td>$10,935.36</td>
<td>-12.12%</td>
<td>$</td>
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</table>
S&P Global Inc. (SPGI)

Holding Description
S&P Global Inc. is a financial services company headquartered in New York City. SPGI provides ratings, benchmarks, and analytics to capital markets globally. The company is involved in providing services such as credit ratings, research, analytics, and any other relevant data. There are 4 major segments of operations within the business. S&P Global’s Ratings is the segment that provides credit ratings, research, and analytics to investors and other market participants. This segment also collects fees for different types of services provided related to credit ratings. 50% of revenue is generated from S&P Global’s Ratings. S&P Global Market Intelligence assists investors with investment ideas for active managers along with other services. This segment accounts for 25% of revenue. S&P Dow Jones Indices maintains stock indices for investors. This segment makes up 15% of revenue. S&P Global Platts accounts for 10% of revenue and gives benchmark prices for commodity and energy markets.¹

Impacts from H1
In the H1 period, S&P Global Inc. has remained a reliable holding within the Financials sector for the Carroll Fund. While returns have underperformed the market, they have greatly outperformed the sector. SPGI has returned 12.94% for the H1 period, while its corresponding sector index, S5FINL, has returned 7.31%. The market has returned 15.56%. Revenue in 2022 has reportedly grown 41% from the previous year. However, net income dropped 36% due to drops in ratings revenue and amortization of acquired tangibles.² Board of directors at SPGI approved a dividend of $0.90 per share on January 25, 2023. S&P Global Mobility acquired Market Scan Information Systems, Inc. in February 2023. The acquisition of the automotive payments firm will enable the integration of detailed transaction intelligence for SPGI.³ Novata Inc. and Quantified Inc. were also acquired in February and March, respectively. The banking crisis happening in March seemed to have little to no effect on SPGI, as the price from March 9 to the end of H1 had virtually no change.

Outlook
SPGI is a massive global ratings agency that sits in the Financials sector which tends to follow market trends. With uncertainties in things such as inflation data and terminal rates, there tends to be low consumer confidence in markets which can tend to lead to poor performance for more cyclical firms such as SPGI. However, the firm remains an industry giant that maintains strong financial statements and performance. Its continual activity with M&A along with dividend growth shows that this firm may continue to have the strength needed for an uncertain economic environment.

New Transactions
The Carroll Fund sold 10 shares of SPGI at $336.78 on December 21, 2022.

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<th>Period</th>
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<th>Ending Value</th>
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<th>Dividends Received</th>
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<tr>
<td>H1</td>
<td>$ 16,488.90</td>
<td>$ 15,169.88</td>
<td>12.94%</td>
<td>$ 85.50</td>
</tr>
</tbody>
</table>
Visa, Inc. (V)

**Holding Description**
Visa, Inc. is a global leader in digital payments and also manages global financial services. Payment Services is the only business segment the company reports to operate in, but the company can be seen as operating under three segments which are Services, Data Processing, and International Transactions. Thirty five percent of revenue comes from Services, 35% from Data Processing, and the remainder comes from International Transactions. Visa serves as a middleman between financial institutions and merchants. Its main products are Credit, Debit, and Prepaid Cards. Approximately 3.9 billion payment cards in over 200 countries are in circulation under Visa. Most sales are generated outside of the United States, however, the United States is the company’s largest single market, generating 45% of revenue.

**Thesis for Exiting**
For the H1 period, Visa returned 18.56% for the Carroll Fund. The corresponding index, S5FINL, returned 7.31%, while the market returned 15.56%. Visa outperformed both of these benchmarks. The Carroll Fund liquidated Visa in order to fund a transaction with insurance ETF IAK as the outlook was that with consumer spending decreasing, and rates rising, insurance would be a more defensive aspect of Financials to be invested in. While holding Visa, dividend per share increased from $0.38 to $0.45 in March. In the year of 2022, Visa increased net revenue by 19%, and increased net income by 22%. Quarter 4 payment volume and transaction growth remained strong. With high market uncertainty, increasing rates from the Federal Reserve, an inverted yield curve, along with other macroeconomic factors, moving our position from a firm that relies on consumer spending into an ETF that relies on a demand for a product as necessary as insurance seemed reasonable.

**New Transactions**
The Carroll Fund sold 96 shares of Visa at $210.18 on November 18, 2022.

<table>
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<tr>
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<td>H1</td>
<td>$17,054.40</td>
<td>$20,255.04</td>
<td>18.56%</td>
<td>$43.20</td>
</tr>
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</table>

3
Healthcare
Managed by John Wade

Sector Overview
The Healthcare sector consists of a diverse set of companies involved in the discovery and development of products and services specific to healthcare. There are two main industry groups that each have three sub-industry groups: Healthcare Equipment & Services and Pharmaceuticals, Life Sciences, & Biotechnology. The Healthcare sector currently has a weight of 14.20% in the S&P 500 and is the second largest behind Information Technology.¹ This sector is defensive by nature because it is uncorrelated to the economy’s business cycles. This is largely due to the price inelasticity of demand as companies in this sector provide products and services necessary to maintain a healthy lifestyle.² One thing to note is that the Healthcare sector is highly regulated and government implementations can have a significant impact on the performance of this sector. In H1, the Carroll Fund held ARK Genomic Revolution ETF (ARKG), CVS Health Corporation (CVS), Eli Lilly and Co. (LLY), Merck and Co. (MRK), Organon and Co. (OGN), and UnitedHealth Group Inc. (UNH).

Impacts from H1
The Healthcare sector underperformed the S&P 500 in H1 as the S5HLTH Index had a return of 7.04% and the SPX Index had a return of 15.55%.³ The stock market rallied in January in response to the December CPI report that indicated the decline in rate of inflation. Growth in the equity market at the end of H1 was a reaction to the government’s decision to stabilize the Financials sector after regional banks like Silicon Valley Bank collapsed.⁴ As a sector with a low beta, returns were not as strong as other sectors during the equity market rebound in 2023. Sector specific headwinds include the increase in the cost of doing business from inflation and labor shortages. Lastly, many companies have had to adjust to the change in payer mix as the number of Medicare users has steadily increased since the Inflation Reduction Act. Sector specific tailwinds include the reopening of China, the continued utilization of telehealth, and the investment into artificial intelligence specific to healthcare.⁵

Performance

![Graph showing SPX Index and S5HLTH Index from 9/30/2022 to 3/31/2023]
ARK Genomic Revolution ETF (ARKG)

**Holding Description**
ARK Genomic Revolution ETF (ARKG) is a fund actively managed by Cathie Wood’s ARK Investment Management. The fund's investment strategy focuses on Healthcare and Information Technology companies related to the genomic revolution. ARKG currently has exposure to DNA sequencing, gene editing, therapeutics, oncology, and instrumentation. The expense ratio for holding this fund is 0.75%.

### Top 10 Holdings

<table>
<thead>
<tr>
<th>Position</th>
<th>Company</th>
<th>% of Holdings</th>
<th>% of Holdings</th>
<th>% of Holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exact Sciences Corp</td>
<td>11.2%</td>
<td>Accolade Inc</td>
<td>4.1%</td>
</tr>
<tr>
<td>2</td>
<td>Pacific Biosciences of CA</td>
<td>6.5%</td>
<td>Adaptive Biotechnologies</td>
<td>4.1%</td>
</tr>
<tr>
<td>3</td>
<td>Schrodinger Inc</td>
<td>5.2%</td>
<td>Crispr Therapeutics AG</td>
<td>3.6%</td>
</tr>
<tr>
<td>4</td>
<td>Teladoc Health Corp</td>
<td>5.1%</td>
<td>Intellia Therapeutics Inc</td>
<td>3.5%</td>
</tr>
<tr>
<td>5</td>
<td>Ionis Pharmaceuticals Inc</td>
<td>4.7%</td>
<td>Beam Therapeutics Inc</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

**Impacts from H1**
ARKG underperformed in H1 with a return of -8.65% that was a result of recent poor performance from this fund’s larger holdings. In 2022, ARKG adjusted its portfolio balance to place a greater weight on Information Technology companies that create platforms to assist Healthcare companies. Specifically, it decreased its position in Pacific Biosciences of California Inc. (PACB) and increased its position in Schrodinger Inc. (SDGR) and Ginkgo Bioworks Holdings Inc. (DNA). PACB had a return of around 99% during this time period while SDGR and DNA had returns of 5% and -57%, respectively.

**Outlook**
Because ARKG invests in small-capital and mid-capital companies that are establishing themselves in a relatively new market, it has an estimated beta of 1.71. The combination of the fund’s high volatility and the disruption in the economy is the reason behind the underperformance over the past year, and this trend can be expected over the short-term. However, the exploration into genomics continues to gain in importance as innovative technologies like artificial intelligence create new opportunities in healthcare. The Carroll Fund believes that ARKG will generate alpha over the time horizon of three to five years and view it as a long-term hold.

**New Transactions**
The Carroll Fund sold 18 shares of ARKG at $29.70 on December 21, 2022.
CVS Health Corporation (CVS)

**Holding Description**
The Consumer Value Store (CVS) Health Corporation offers pharmaceutical and healthcare services to millions of customers across the United States. It sells a wide variety of products and services, including prescription medications, personal and healthcare products, cosmetics, pharmacy benefit management, disease management, and administrative services.\(^1\) CVS currently manages 9,600 retail and specialty pharmacy stores, 1,200 walk-in clinics, and has 110 million pharmacy benefit management plan members. The number one goal of CVS is to be able to provide all aspects of healthcare to their customers through its vertically integrated healthcare model. The company has been able to achieve this through various acquisitions. For example, CVS acquired Aetna in 2018 and Omnicare in 2015 to add insurance plans and long-term care services to its members.\(^2\)

**Impacts from H1**
CVS acquired Signify Health and announced the proposed acquisition of Oak Street Health in H1 for $8 billion and $10.60 billion, respectively. Both companies increase CVS’s involvement in the primary care industry as Oak Street Health focuses on providing care for the underrepresented older generation, and Signify Health specializes on providing primary care through in-home visits.\(^3\) However, CVS’s stock price has steadily declined after the announcement of a lower-than-expected future guidance for 2024. CVS’s Medicare Advantage star rating decreased to 3.5 which is expected to cost the company roughly $2 billion in revenue in 2024 as the lower rating ended its pharmacy benefits contract with Centene.\(^4\)

**Outlook**
CVS performed well financially in 2022 causing the company to beat EPS expectations all four quarters. Even further, the stock has already priced in the expected decrease in revenue in 2024. The use of relative valuation to compare CVS to itself and competitors over a five-year time horizon illustrates that it is currently trading at a discount.\(^5\) The recent strategic acquisitions have furthered CVS’s reach around various Healthcare industries and should improve its margins in the future by reducing costs. With all of this in mind, the Carroll Fund expects moderate growth over the short-term and high growth for the long-term.

**New Transactions**
The Carroll Fund sold 19 shares of CVS at $93.92 on December 21, 2022.

<table>
<thead>
<tr>
<th>Period</th>
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<th>Ending Value</th>
<th>% Return</th>
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</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$15,449.94</td>
<td>$10,626.33</td>
<td>-18.53%</td>
<td>$175.62</td>
</tr>
</tbody>
</table>


Holding Description
Eli Lilly and Co (LLY) researches, develops, and distributes pharmaceutical goods to humans across the world with 90% of its revenue stemming from the United States, Europe, Japan, and China. It offers a variety of products including drugs for diabetes, oncology, immunology, neuroscience, and other products and therapies. LLY is considered one of the leading providers for diabetes as its products account for over half of the company’s total revenue. It currently holds a competitive advantage in the Diabetes industry by providing medication for both treatment and prevention options.

Impacts for H1
The Carroll Fund purchased LLY on March 31 after negative earnings and company announcements caused the price to trade at a discounted price. The combination of unfavorable foreign exchange rates, lower realized prices, and lower volume caused revenue to decrease by 9% YoY in Quarter 4 2022. Specifically, the Food and Drug Administration unauthorized LLY’s COVID-19 antibodies treatment and the Chinese government lowered prices for Humalog, Verzenio, and Tyvyt. Additionally, LLY announced that they would be cutting insulin costs by 70% for various products as a response to the recent momentum towards creating affordable treatment options for diabetes from President Biden and the Inflation Reduction Act.

Outlook
LLY’s poor performance at the start of 2023 appears to be temporary as expected revenue for 2023 and 2024 is 7.40% and 18.90%, respectively. Mounjaro, the new diabetes prevention drug, recorded $480 million in sales after seven months on the market, and this number is forecasted to grow rapidly in the coming years. Even further, LLY can expect an increase in the number of insulin users as the low-cost provider which will offset some of the losses from the price cut. LLY also announced that it is expecting to release four high-potential drugs into the market in 2023 that treat Alzheimer’s, Asthma, Crohn’s Disease, and Cancer. Because of this, the Carroll Fund views LLY as a long-term investment.

New Transactions
The Carroll Fund bought 38 shares of LLY at $342.96 on March 31, 2023.

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<thead>
<tr>
<th>Period</th>
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<tr>
<td>H1</td>
<td>$13,049.96</td>
<td>$13,049.96</td>
<td>0.13%</td>
<td>$-</td>
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</table>
Holding Description
For over 130 years, Merck & Co. (MRK) has been providing its customers with innovative health solutions against various diseases through the use of pharmaceutical products. MRK’s geographic reach extends across the globe causing revenues to be evenly split between the United States and international countries including China, Japan, and European countries. Pharmaceutical sales were the main source of revenue for the company in 2022 at 87.7%. MRK relies heavily on the success of these drugs as Keytruda, Gardasil, and Lagevrio accounted for over half of the revenue. Animal Health, which is companion and livestock products, and corporate revenue from hedging activities combined for the remaining 12.3% of revenue.¹ MRK’s forward-looking investment strategy continues to place a great emphasis on research and development as this expense surpassed $13.50 billion.

Impacts from H1
MRK delivered a strong performance to end 2022 but was stagnant for all of 2023. The combination of growing products and pipeline expansion resulted in a 25.76% return. Revenue growth in Keytruda, the well-known immuno-oncology drug, increased by 21% YoY in 2022 after accumulating over $4 billion in sales.² Successful reports concerning Sotatercept, a pulmonary hypertension drug in clinical trials, illustrated the benefits from the Acceleron Pharma acquisition, expanding MRK's drug.³ However, reduced expectations in the forward guidance for earnings reports in 2023 stunted any growth for the remainder of H1.

Outlook
After two consecutive years of double-digit revenue growth, MRK is expected to have negative growth in 2023 and 6% in 2024 due to complications with Lagevrio and high interest rates. The European Medicines Agency declined to authorize the use of Lagevrio, a pill that fights COVID-19, after it reported unsuccessful results.⁴ Due to the nature of MRK’s products, the health of the economy has a small effect on the revenue streams. However, increasing interest rates makes it more expensive to finance investment opportunities. In response to these concerns, the Carroll Fund liquidated a portion of MRK’s investment to diversify the sector’s portfolio. Keytruda, Gardasil, and other established pharmaceutical drugs' ability to produce stable cash flows each year has positioned MRK for growth in the long-term, and we believe that the remaining portion is a hold.

New Transactions

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$24,199.72</td>
<td>$13,192.36</td>
<td>25.76%</td>
<td>$399.02</td>
</tr>
</tbody>
</table>
Organon & Co. (OGN) is a global healthcare company that focuses on providing innovative medicines and solutions to improve people's health and wellbeing. As an international company, 76.70% of its revenue comes from the global market with the rest deriving from the United States. The company was founded in 2021 after being spun off from Merck Pharmaceuticals and operates in three primary business segments: Established Brands, Biosimilars, and Women's Health. The established brands segment accounts for 62.70% of revenue and includes cardiovascular and respiratory products. The Women's Health segment, which sells Nexplanon, a widely used contraceptive implant, is a vital revenue source for the company. This segment contributes 27.1% of revenue and Nexplanon is responsible for half of that. Other Organon products referenced as biosimilars are linked to the remaining revenue. Successful research and development projects are critical to the company's operations, and it has more than doubled over the past two years to $471 million in 2022.

Thesis for exiting
The Carroll Fund sold OGN early in H1 because the company had continued to struggle since spinning off of Merck and Co. Revenues have consistently decreased over the past five years with the most recent year's loss at $130 million, and margins have dropped significantly. Foreign exchange rates were a headwind to international revenue streams. These rates decreased Quarter 4 revenue in Europe & Canada and Japan & Asian Pacific by 10% and 13%, respectively. Quarter 4 total revenue decreased by 6% from foreign exchange rates. As expected, OGN performed poorly during this time period and had a return of roughly -14.50% since the start of the year.

New Transactions
The Carroll Fund sold 490 shares of OGN at $24.36 on November 18, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
</tr>
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<tbody>
<tr>
<td>H1</td>
<td>$11,466.00</td>
<td>$11,720.80</td>
<td>5.28%</td>
<td>$137.20</td>
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</table>
UnitedHealth Group Inc. (UNH)

**Holding Description**
UnitedHealth Group Inc. (UNH) is the owner and operator of organized health systems across the world that focuses on providing health benefits and services to customers. It has a network of over 7,000 hospitals and facilities in the United States and is represented in 150 international countries. At a market capitalization of $490.89 billion, UNH is involved in many different industries inside of the Healthcare sector, including Managed Healthcare, Pharmaceuticals, Healthcare Services, and Technology. Specifically, UNH has four different business segments: UnitedHealthcare, OptumRx, OptumHealth, and OptumInsight.¹ Optum utilizes technology as an online platform that allows individuals to find and use its provided services.

**Impacts from H1**
UNH was one of the portfolio’s worst performers in H1 after purchasing it in early December. Even though the company showed a strong financial performance in Quarter 4 earning’s release and annual report, the stock continued to trend downwards. Revenue for the year increased by 13% YoY, net margins improved by 30 basis points, and FCF from operations was 1.3x the net income.² The stock slipped throughout H1 because of an industry-wide problem. Insurance companies struggled at the start of 2023 after Centers for Medicare and Medicaid Services (CMS) have ruled in the favor of Medicare Advantage and Medicaid users by implementing a system that identifies any excess payments to keep the insurers like UNH in check.³ UNH currently has 7.10 million people insured and this number is expected to grow by double digits in 2023.

**Outlook**
UNH has strong financials and is large enough to persevere through any headwinds. Its vast network of facilities and physicians attract and retain customers. This coupled with the growing number of users of Medicare Advantage suggest that revenue will continue to grow into the following years. The company recently announced that it would decrease the use of prior authorization by 20% for certain operations to simplify the process of getting approval for surgeries for both providers and its members.⁴ This should improve UNH’s member retention rate in the future. Lastly, it has a beta of 0.69 and is a defensive position against any future economic turbulence. The Carroll Fund views UNH as a long-term hold assuming there will not be any drastic regulatory changes.

**New Transactions**
The Carroll Fund bought 35 shares of UNH at $545.60 on December 9, 2022. The Carroll Fund also sold four shares of UNH at $525.78 on December 21, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$18,872.00</td>
<td>$14,650.29</td>
<td>-12.00%</td>
<td>$51.15</td>
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</table>
Sector Overview
The Industrials sector is composed of companies that manufacture, produce, and supply capital goods. Companies within the sector mainly focus on construction, manufacturing equipment and supplies, resource extraction, and machinery. The market capitalization of the Industrials sector is $5.44 trillion, with a market weight of 8.38%.¹ There are three main industry groups within the sector: Capital Goods, Commercial & Professional Services, and Transportation. Capital Goods makes up approximately 70% of the sector, which includes aerospace and defense, machinery, and industrial conglomerates. Commercial & Professional Services and Transportation makes up about 7% and 23% respectively. The Carroll Fund currently holds Caterpillar (CAT), FedEx (FDX), Jacobs (J), and Lockheed Martin (LMT) within the Industrials sector.

Impacts from H1
The Industrials sector has a cyclical nature, and underperforms during recessionary periods of the business cycle. Overall, the health of the economy has a large impact on the performance of the sector. Some macroeconomic indicators that affect the sector include interest rates, gross domestic product, and inflation. During H1, the Industrials sector returned 22.27%, compared to the S&P 500’s return of 14.61%.² Since the beginning of H1, the Federal Reserve has hiked interest rates four times, and is arguably one of the biggest drivers in the market currently. Gross domestic product saw an increase of 2.60% in Quarter 4, recovering from two quarters of negative growth throughout the first half of 2022. Furthermore, CPI YoY has started to see a decline from its 9.10% peak last June, which is cause for some optimism within the sector. Recent trends in the sector include aerospace and defense, artificial intelligence, and advanced automation. As the war continues between Ukraine and Russia and tensions between the United States and China grow, aerospace and defense companies like Lockheed Martin, Raytheom, and Boeing have seen increased demand for their products, likely attributed to rising geopolitical tensions.

Performance

![Graph](image-url)
Caterpillar, Inc. (CAT)

Holding Description
Caterpillar Corporation is a leading manufacturer in construction equipment, mining equipment, industrial turbines, and off-highway engines. The company has operations on all seven continents and is the largest construction equipment manufacturer in the world. Headquartered in Irving, Texas, Caterpillar has offices in over 25 countries on six continents. While most of the company's revenue comes from construction equipment, Caterpillar also provides Military Equipment to the United Kingdom and United States, among other products. Some other business lines include Agriculture, Diesel and Non-Diesel Engines, and Electronics. The company operates through four main business segments: Energy & Transportation (40% of revenue), Construction Industries (35% of revenue), Resource Industries (20% of revenue), and Financial Products (5% of revenue).

Impacts from H1
Over the course of H1, Caterpillar returned 39.47%, compared to the S5INDU Index’s return of 22.27%. On January 31, Caterpillar reported their Quarter 4 2022 earnings, reporting an earnings miss on EPS by -2.28%. This miss is likely due to a decrease in the demand for construction equipment and related products, attributed to the current macroeconomic conditions. With inflation still high and the Federal Reserve continually raising rates, the construction industry specifically has taken a hit, simply because of how expensive it is to build homes and other buildings. However, company revenue is forecasted to grow throughout 2024, as many analysts are hopeful we are coming back down from peak inflation.

Outlook
Caterpillar has a wide range of products and services, which may act as a hedge against the risk of more interest rate hikes from the Federal Reserve. Sales of Caterpillar equipment and products are typically business-to-business, meaning that other companies are their main customers. Some economic indicators to look out for are changes in commodity prices, government spending on infrastructure, and GDP growth. The company is heavily dependent on commodity prices, especially metals, in order to carry out manufacturing operations. Overall, Caterpillar is an industry leader within the manufacturing and construction industries, and with steady revenue streams and demand for products, the Carroll Fund still believes this is a long term hold.

New Transactions

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
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<tbody>
<tr>
<td>H1</td>
<td>$10,337.04</td>
<td>$7,094.04</td>
<td>44.40%</td>
<td>$112.80</td>
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</table>
FedEx (FDX)

**Holding Description**
FedEx (FDX) is a global shipping courier and it is the largest package transportation company in the world. The company is headquartered in Memphis, Tennessee, and has over 190,000 employees. FedEx operates in 200 countries and territories around the world, operating in three main business segments: FedEx Express, FedEx Freight, and FedEx Ground. FedEx Express accounts for approximately half of the revenue for the company, and is involved in delivering packages and express delivery services. The FedEx Freight segment accounts for 10% of yearly revenues and includes less-than-truckload services in North America. Lastly, the FedEx Ground segment is responsible for 40% of yearly sales and includes shipping services by truck. The company has the capability to deliver to any address in North America regardless of the location through its extensive fleet of trucks.

**Impacts from H1**
Over the course of H1, FedEx returned 53.90%, outperforming the S5INDU Index’s return 22.27%. On March 16, FedEx reported an earnings beat of 24.60%, but a revenue miss of -2.49%. A few months prior, FedEx reported earnings in November of 2022, achieving an earnings beat of 12.74%, but a revenue miss of -3.86%.¹ These earnings beats are coming off of a disastrous earnings report right before the start of H1, where FedEx saw an earnings miss of -33.08%, causing the company to withdraw its 2023 earnings forecast. CEO Raj Subramaniam and the executive team were put on the hot seat. However, the more recent earnings beats can be attributed to an effective cost reduction plan. FedEx initiated this plan throughout most of H1, with the goal of cutting costs by $4 billion by 2025.² Other cost reductions the company made include reduced headcount of 12,000 employees, including 10% cut in upper management, as well as cutting flights and optimizing shipping space.

**Outlook**
The Carroll Fund saw the company bounce back after the share price dropped 35% last September. Although we still have a negative return from FDX, we believe that due to increasing demand for services and the company’s new cost reduction strategy, we are optimistic that FDX is still a long-term hold. With the company now cutting costs more efficiently, we believe the company is set to bounce back. Some important macroeconomic indicators to watch out for include consumer spending, monetary tightening from the Federal Reserve, and crude oil prices.

**New Transactions**
The Carroll Fund sold 26 shares of FDX at $169.76 on December 21, 2022.

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<th>Period</th>
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<td>$7,423.50</td>
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<td>$115.00</td>
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</table>
Holding Description
Jacobs Solutions, Inc. is a technical engineering, construction, and related services company headquartered in Dallas, Texas. The company has 80,000 employees with offices in six continents. Jacobs Solutions operates through three main business segments: Critical Mission Solutions, People and Places Solutions, and PA Consulting Services. Critical Mission Solutions is the largest revenue segment, accounting for 65% of yearly revenue. People and Places Solutions is the second largest segment, responsible for 30% of revenue and includes water management systems, energy efficiency, and climate change solutions. PA Consulting Solutions accounts for 5% of yearly sales, which includes a range of consulting services for end-to-end customers.

Impacts from H1
Jacobs Solutions, Inc. returned 8.31% over H1, compared to the S5INDU Index’s return of 22.27%. Like most companies within the Industrials sector, the industry is heavily dependent on the overall health of the economy. Jacobs Solutions, Inc. was involved with several projects throughout the course of H1, including a $249 million contract the company secured for the United States Navy to construct buildings and provide engineering consulting.¹ Other projects Jacobs Solutions, Inc. has been involved with over the past few months include a $3.20 billion contract with the NASA Kennedy Space Center, water management systems in Los Angeles, and a partnership with Northumbrian Water Group in the United Kingdom to help consult on a project. Lastly, the company reported an earnings beat in Quarter 1 by $0.06, as well as a revenue beat by $140 million.

Outlook
The Carroll Fund has an optimistic view on Jacobs Solutions, Inc. long term. Despite recessionary fears and times of economic uncertainty, the company’s diverse products and services offerings will act as an advantage for them. Jacobs Solutions, Inc. has international exposure through various energy efficiency and consulting projects, as their customer base goes beyond the United States, which could potentially mitigate their risk exposure. The Carroll Fund will continue to monitor global tensions, as many of Jacobs Solutions’ customers are outside of the United States and could be affected by any changes in trade, war, and sovereign governments.

New Transactions
The Carroll Fund sold 50 shares of J at $120.70 on December 21, 2022.

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<tr>
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<th>Ending Value</th>
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</thead>
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<tr>
<td>H1</td>
<td>$10,523.53</td>
<td>$5,522.97</td>
<td>10.16%</td>
<td>$34.53</td>
</tr>
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</table>
Lockheed Martin (LMT)

Holding Description
Lockheed Martin, founded in 1995, is a global aerospace and defense company headquartered in North Bethesda, Maryland. The corporation is involved in the designing, manufacturing, and implementation of technologically advanced equipment, products, and services including fighter jets, helicopters, missile systems, and defense mechanisms. LMT is a global leader in military contracting, and has over 115,000 employees globally. Lockheed Martin’s business model operates through four main business segments: Aeronautics (40% of revenue), Missiles & Fire Control (15% of revenue), Rotary and Mission Systems (25% of revenue), and Space (20% of revenue).¹

Impacts from H1
Lockheed Martin performed well for the Carroll Fund over the course of H1. The company outperformed the S5INDU Index, returning 22.38% and 22.27% respectively. On January 23, Lockheed Martin reported Quarter 4 earnings, with an EPS beat by $0.42.² In other news, Lockheed Martin was awarded a $172.10 million contract from the United States Navy. This deal includes strengthening and making revisions to the F-35 fighter jet for the Navy, Air Force, and Marine Corps. Overall, Lockheed Martin has benefited from an increase in defense spending from the government, which will likely continue well into H2.

Outlook
The Carroll Fund still believes that Lockheed Martin is a financially stable company that will continue to perform well. A combination of the war in Ukraine and the United States’ involvement has been beneficial for the company, as government defense spending will likely continue to increase. Some macroeconomic indicators we will be monitoring include interest rate hikes from the Federal Reserve, geopolitical tensions with China, commodity prices, and government spending. Global tensions will be an important indicator because of the company’s international customers, as they operate in over 50 countries worldwide.³ Although Lockheed Martin does have an international presence, the United States government remains the company’s largest customer, thus the national defense budget will be an important indicator throughout H2.

New Transactions
The Carroll Fund sold 19 shares of LMT at $486.87 on December 21, 2022.

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<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
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<tbody>
<tr>
<td>H1</td>
<td>$14,292.73</td>
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<td>25.41%</td>
<td>$165.00</td>
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</table>

1. [Link to source]
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Information Technology
Managed by Maxwell Baker

Sector Overview
The Information Technology (IT) sector has a market weight of 26.08% and a market capitalization of $12.19 trillion, making it the largest sector allocation within the S&P 500 by a large margin. The sector is broken down into Software & Services, Technology Hardware & Equipment, and Semiconductors & Semiconductor Equipment. In the Carroll Fund, IT has a weighting of 27.68% within the equity portion of our portfolio, putting us overweight in equities by about 1.6%.

Impacts from H1
Last year, the United States passed the CHIPS bill to bolster the United States Semiconductor industry and begin to build a new infrastructure for semiconductor production domestically. While the full effects of this bill will likely not be seen for at least a decade, this is a step in the right direction, especially considering the risk of Chinese invasion of Taiwan. Another trend in IT has been layoffs. While layoffs overall are a concerning trend in the market, in the short-term it could mean cost cutting for major tech companies. A few firms who have had major layoffs are Amazon/AWS, Accenture, Microsoft, IBM, Unity Engine, Okta, and Dell. Long-term, this may stagger growth for these firms, but price rally’s have been a common result of these cuts. Arguably the largest development in IT over H1 has been the rise of artificial intelligence in popularity and consumer use with products such as Microsoft’s Chat GPT, Google Bard, and Mid Journey. Increased interest in this new and controversial tech has spurred a wave of price jumps for firms at the forefront of artificial intelligence technology, such as Microsoft and Nvidia.

Performance
Apple, Inc. (AAPL)

Holding Description
Apple was founded in 1976 by Steve Jobs and Steve Wozniak in a garage. Now, Apple is one of the world's most recognized brands due to its global presence and quality products it offers in the consumer electronics and software markets. Apple sets the bar for smartphone and personal device innovation and design, and as result is able to charge a premium against competitors due to their superior offerings. Apple has a market capitalization of $2.61 trillion and is priced at $164.90 as of market close March 31, 2023.

Impacts from H1
In 2022, Apple’s stock price fell 23.97%, but has experienced a 27.11% increase since the beginning of this year. Apple has outperformed both the Information Technology sector index as well as the S&P 500 benchmark over the last five years, especially from March 2020 to now. Apple experienced a large jump in value as a firm due to massive sales numbers in late 2020 and 2021. These sales are largely attributed to the increased consumer spending during COVID-19 lockdowns, especially seen in 2021 with universal stimulus checks. Since their record performance in 2021, Apple has since continued growing, but at a decreasing rate. In 2022, Apple had the biggest drop in sales since 2016 and had higher research and development costs as a result of increased “headcount.” In 2022, 52.10% of Apple’s revenues came from iPhone sales. Over the last five years, the percentage of iPhone sales revenue over total revenue has fallen. Despite growing iPhone sales, this is due to the increasing sales in other categories such as wearables, Macs, and services. Apple set a record for service revenue in Quarter 4 2022 with $20.80 billion in sales. These services include Apple TV, AppleOne, Apple Music, iTunes, Apple Arcade, Apple Fitness, and Apple Book/Podcasts. Total Apple subscription counts are now at 935 million worldwide. This is a great trend for Apple as Service revenues specifically have an extremely high gross margin of 70.80%. Going forward, Apple expects this service revenue to continue this trend.

Outlook
Apple makes a great long-term holding of Carroll Fund. They are more than just a technology company at this point. Their products are social symbols. With an extremely loyal customer base willing to pay premiums for new phones that are released on an annual basis, Apple has managed to create value outside of the physical products themselves.

New Transactions
No new transactions in H1.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
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<tr>
<td>H1</td>
<td>$34,411.80</td>
<td>$41,060.10</td>
<td>19.65%</td>
<td>$114.54</td>
</tr>
</tbody>
</table>
Amplify Transformational Data Sharing ETF (BLOK)

Holding Description
Amplify Transformational Data Sharing ETF, or BLOK, is an exchange traded fund focused specifically on blockchain technology and business utilizing blockchain within their firms. The fund is actively traded and has an expense ratio of 0.75%. Nearly half of the fund is made up of firms in blockchain transaction and cryptocurrency mining.

<table>
<thead>
<tr>
<th>Top 10 Holdings</th>
<th>%</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>International Business Machs Com</td>
<td>6.64</td>
<td>CME Group Inc</td>
<td>4.57%</td>
</tr>
<tr>
<td>Accenture Plc Ireland</td>
<td>5.96</td>
<td>Microstrategy Inc</td>
<td>4.48%</td>
</tr>
<tr>
<td>Overstock Com Inc Del</td>
<td>5.30</td>
<td>Digital Garage</td>
<td>3.65%</td>
</tr>
<tr>
<td>SBI Holdings Inc</td>
<td>5.23</td>
<td>Block Inc</td>
<td>3.46%</td>
</tr>
<tr>
<td>GMO Internet Group</td>
<td>5.10</td>
<td>Coinbase Global Inc</td>
<td>2.79%</td>
</tr>
</tbody>
</table>

Thesis for Exiting
The end of 2022 was one of the worst periods for cryptocurrency in years, with the collapse of one of the largest cryptocurrency exchanges in the world, FTX, and not short after the collapse of crypto-lender Silvergate Capital, along with other crypto exchanges and banks who were heavily affiliated with celebrity backed FTX. Investor sentiment took a dive in late 2022 and early 2023, but has since recovered a bit as a result of the SVB debacle. The reason being Bitcoin and other leading crypto currencies such as Ethereum have built in “smart-contracts” that allow users to transact without a need for banks. While BLOK did not directly hold FTX, one of its larger holdings was Silvergate Capital, and many smaller firms held within BLOK were severely affected by the situation. While crypto currencies have performed well this year, the Carroll Fund still stands behind our decision to sell any blockchain related assets, as the concerns around liquidity and lack of regulation in the cryptocurrency space proved to be valid. While blockchain technology and firms utilizing it may themselves not be risky, a majority of firms within this ETF have direct ties to crypto.

New Transactions
The Carroll Fund sold 274 shares of BLOK at $17.05 on December 1, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
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</thead>
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<tr>
<td>H1</td>
<td>$ 5,069.00</td>
<td>$ 4,636.08</td>
<td>-7.84%</td>
<td>$</td>
</tr>
</tbody>
</table>
Holding Description
The First Trust NASDAQ Cybersecurity ETF, or CIBR, is an exchange traded fund that tracks the performance of the cybersecurity industry within the United States. Equities must have a market capitalization of at least $500 million and have a three month average daily trading volume that exceeds $1 million. Equities are reevaluated on a quarterly basis. CIBR has an expense ratio of 0.60%.

<table>
<thead>
<tr>
<th>Top 10 Holdings</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortinet Inc</td>
<td>6.62%</td>
<td>Akamai Technologies Inc</td>
</tr>
<tr>
<td>Broad Com Inc</td>
<td>6.44%</td>
<td>Thales SA</td>
</tr>
<tr>
<td>Palo Alto Networks Inc</td>
<td>6.06%</td>
<td>Open Text Corp</td>
</tr>
<tr>
<td>Cisco Systems Inc</td>
<td>5.97%</td>
<td>Verisign Inc</td>
</tr>
<tr>
<td>Infosys LTD-SP ADR</td>
<td>5.30%</td>
<td>Trend Micro Inc</td>
</tr>
</tbody>
</table>

Thesis for Exiting
While this fund provided needed exposure to the cybersecurity industry, the Carroll Fund ultimately decided to liquidate and invest directly into an individual cybersecurity firm. As cybersecurity is still an emerging industry, we believe the upside of investing in an industry leader is greater than the industry as a whole.

New Transactions
The Carroll Fund sold 294 shares of CIBR at $41.08 on December 2, 2022.

<table>
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<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
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<tbody>
<tr>
<td>H1</td>
<td>$ 11,321.94</td>
<td>$ 12,353.88</td>
<td>6.67%</td>
<td>$</td>
</tr>
</tbody>
</table>
Microsoft Corporation (MSFT)

**Holding Description**
Microsoft is most known for its operating system Windows, first released in 1985. Microsoft is an industry leader in artificial intelligence and cloud computing technology with Azure and OneDrive, and provides many businesses with Information Technology infrastructures, both with these services along with their Windows OS. Microsoft has a market capitalization of $2.15 trillion and a share price of $288.30 as of market close March 31, 2023.

**Impacts from H1**
Windows is the most used operating system in the world, both within business, and on personal computers. While sales may not be growing at an exponential rate, Windows license sales are very stable for Microsoft and brought in 12.50% of their revenues in 2022. Currently, Windows has a market share of about 76% in 2022 compared to OS’s like Mac OS, Chrome OS, and Linux. Outside of Microsoft’s cloud services, LinkedIn and Bing revenues grew by a considerable amount in 2022. Bing revenues are expected to grow as artificial intelligence integration strengthens with the recent acquisition of Chat GPT.

**Outlook**
Microsoft has been making headlines lately as usual, with generally positive reactions from investors. One major event the market has been fixated on is Microsoft's integration of Chat GPT into their search engine and digital advertising businesses. Investors are speculating the various ways that this new pairing will increase the efficiency of search results specifically for targeted advertisements and overall digital advertising. Recently, Microsoft's acquisition of Activision Blizzard, the game company responsible for massive titles such as Call of Duty, World of Warcraft, Overwatch, and Diablo, has received increased government approval. The back and forth is becoming increasingly political as the Japan based Sony enters the conversation, accusing Microsoft of harassment as Sony builds their case against the firm. The end outcome is still very unclear, but if the deal closes, Microsoft will benefit from owning one of the largest IP’s in the gaming industry: Call of Duty. Microsoft overall is a firm with so much value, split across many different product segments, each in different industries. The firm is one of the few “safe bets” within the Information Technology sector, and we believe it should continue to be a larger holding within the Carroll Fund.

**New Transactions**
No new transactions in H1.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>$23,057.10</td>
<td>$28,541.70</td>
<td>24.37%</td>
<td>$134.64</td>
</tr>
</tbody>
</table>
Holding Description
Palo Alto Networks is a United States based cybersecurity company, offering network security services, primarily in the form of firewalls. The firm was founded in 2005 by Nir Zuk and has since grown into one of the largest cybersecurity companies in the world, with a global market share of about 20%.1 Palo Alto has a market capitalization of $60.44 billion and is trading at a share price of $195.28 as of market close March 31, 2023.

Impacts from H1
In 2022, Palo Alto’s price fell 23.68% but still managed to outperform the Information Technology sector and the S&P 500. Palo Alto has consistently outperformed these indexes since August 2021. The firm's stock price has been bolstered by continuous revenue growth and earnings beats, even in times of economic recession like last year, when Information Technology firms typically perform the worst. Revenues for Palo Alto come mostly from Subscription & Support, with 75.2% in 2022, while product sales account for 24.80%. Subscription revenue has grown massively over the last seven years, with an average YoY growth rate of about 38.50%. Overall, this is great for the firm as gross margin on subscriptions was 69.5% in 2022, while gross margin was 66.60% for product sales.

Outlook
Cybersecurity is an inelastic service, especially with how rapidly businesses are shifting all of their primary functions online. There will always be a need for cybersecurity moving forward, and the demand for these services will continue to grow as these trends persist. Palo Alto is a leading firm with very high revenue growth YoY. While some may be concerned with their premium considering negative earnings, the offerings of Palo Alto and importance of the services they provide lead us to believe that we should continue to hold the firm within our portfolio. Bloomberg analysts estimate that the firm may even begin to report positive earnings by 2023, with the current estimated EPS of $0.29, vs 2022’s -$0.90.

New Transactions
The Carroll Fund bought 69 shares of PANW at $175.12 on December 2, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
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<tr>
<td>H1</td>
<td>$11,915.61</td>
<td>$13,782.06</td>
<td>14.06%</td>
<td>$</td>
</tr>
</tbody>
</table>

1. Figures as of December 2022.
Taiwan Semiconductor Manufacturing Company (TSM)

**Holding Description**
Taiwan Semiconductor Manufacturing Company (TSMC) is a semiconductor manufacturing firm based in Taiwan and founded in 1987 by Morris Chang. Chang formerly was a manager at Texas Instruments, a competing United States based semiconductor firm, but was given an offer by the Taiwanese government to head up the Industrial Technology Research Institute, and from there founded TSMC. TSMC managed to become a profitable firm in under two years due to its production capabilities, cost advantage, and innovative technologies. TSMC has a market capitalization of $482.44 billion and a share price of $93.02 as of March 31, 2023.

**Impacts from H1**
In the last year, TSM has underperformed in the Information Technology sector. This is a result of both the worldwide chip shortages and the increasing pressures on Taiwan from China. While a chip shortage on its own would be good for the firm, i.e. what happened in 2021 with its massively boosted sales numbers, these two conditions combined made investors very fearful for the future TSMC. Looking at some of TSMC’s financial ratios, investors can see what makes them rise above the competition. TSMC’s operating margins of 51.96% soared over competitors with the only close comparison being Texas Instruments at 46.60%. From a profitability perspective, TSMC has great ROC and ROA ratios compared to industry medians, showing how well TSMC utilizes assets and investments. Two important valuation metrics shown below are TSMC’s P/E and P/FCF. Comparatively, TSMC trades cheap, especially considering their relative performance and financial health.

**Outlook**
The United States CHIPS bill hopes to attract more semiconductor manufacturing and is providing many incentives for firms to invest more in their United States plants.¹ If TSMC is able to deliver on plans to expand in the west, risks surrounding the firm's heavy presence in Taiwan could be lowered. Overall, TSMC has an excellent business model with a serious competitive advantage. With its massive market share and cutting edge technology, TSMC is a great way for the Carroll Fund to invest in semiconductors. We should watch the areas of risk around the firm and have a plan in mind in the event of an invasion and ramped up tensions between China and Taiwan. However, the value provided by the firm's operations are superior to all its competitors.

**New Transactions**
No new transactions in H1.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
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<tr>
<td>H1</td>
<td>$15,905.92</td>
<td>$21,580.64</td>
<td>36.69%</td>
<td>$161.68</td>
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</table>
Sector Overview
The Materials sector is one of the 11 sectors of the United States stock market. This sector contains just one industry group, Materials, and then has five industries: Chemicals, Construction Materials, Containers & Packaging, Metals & Mining, and Paper & Forest products. The Materials sector has a market capitalization of $2.45 trillion and accounts for around 2.60% of the overall market. It encompasses firms across commodity-related manufacturing industries, and focuses on discovering and utilizing raw materials. These companies include those that “manufacture chemicals, construction materials, glass, paper, forest products and related packaging products, and metals, minerals and mining companies, including producers of steel.” The Materials sector is full of largely cyclical industries, meaning its stocks typically rise and fall with the general economy. Materials typically perform the best in the middle of an expansionary cycle when demand and spending are at a consistent high.

Impacts from H1
The Carroll Fund currently holds no firms within the Materials sector, though we do get some exposure through our stake in PotlatchDeltic (PCH), a REIT focused on timberlands and lumber materials, that is covered in the Real Estate sector. Over H1, the S$MATR Index, which tracks the overall Materials sector, continuously outperformed the SPX Index, which tracks the S&P 500. During this time, S$MATR Index returned approximately 19.96% compared to the SPX Index’s 14.61%. As the Materials sector does heavily rely on the demand aggregated from both the United States and global markets, the shifts we have seen in consumer spending and health of other sectors have greatly impacted the success of these industries. Booms in Chemicals & Construction Materials have largely carried the impressive returns seen, especially in the latter portion of H1. Infrastructure-friendly government regulations and funding are positively impacting the demand for the products generated within Construction Materials, and the vast population shifts, and their accompanying housing needs, being seen across the country are requiring the real estate industry to adjust their material demands accordingly.

Performance

![Graph showing performance comparison between SPX Index and S$MATR Index from 9/30/2022 to 3/31/2023]
Sector Overview
The Real Estate sector contains just one industry group, Real Estate, which then holds two industries: Equity Real Estate Investment Trusts (REITS) and Real Estate Management & Development. The Real Estate sector has a market capitalization of $1.36 trillion and makes up 2.55% of the market as a whole. It accounts for companies engaging in real estate development, operation, related services, and numerous types of REITS. REITS are companies modeled after mutual funds that finance, operate, or own income-generating real estate. These companies utilize pooled funds from multiple investors to offer steady income streams and dividends, and are publicly traded which makes them highly-liquid. The Real Estate sector operates on its own four-step cycle that is connected to both local trends and the larger macroenvironment, and is linked with traditional business cycles. The Real Estate Cycle is split into recovery, expansion, hyper-supply, and recession, and it reflects the economic changes present in the market. Due to the Real Estate cycle and its hefty connection to the economy, this sector can best be described as cyclical. As the general economy enters a phase of business, the real estate market will generally follow suit in a comparable cycle.

Impacts from H1
The Carroll Fund currently holds PotlatchDeltic (PCH), Prologis, Inc. (PLD), and Welltower, Inc. (WELL). Over H1, the S5RLST Index, which tracks the whole Real Estate sector, underperformed the SPX Index, which tracks the S&P 500, by a significant amount, measuring at 5.75% and 14.61% respectively. This vast difference has a multitude of potential causes, many of which tie back to the interest rate hikes we saw from the Federal Reserve and the wild swings of mortgage rates. During H1, the United States saw interest rates continuously be raised in hikes of 25 to 50 basis points, which impacted both consumer spending and business profits. The 30-year fixed mortgage rate peaked at almost 7.40%, which was the highest it had been in years. This rate has slowly declined, though the decrease in housing market activity remained through H1.

Performance
Holding Description
PotlatchDeltic Corporation is a Real Estate Investment Trust (REIT) that harvests timber and manages facilities that manufacture lumber-related products, while conducting a real estate development business. The firm owns over 1.80 million acres of forestland across the United States, seven mills, a residential and commercial development business, and lumber sales program. They also generate additional revenue streams from the leasing of land for various recreational activities and ecological work. The company operates in three main business segments: Real Estate, Timberlands, and Wood Products. PotlatchDeltic has a market capitalization of $3.75 billion and a per-share market price of $48.38 as of March 31, 2023. PCH operates in both the Real Estate and Materials sectors, though is considered a Real Estate firm within the Carroll Fund.

Impacts from H1
Over the Half, PotlatchDeltic did face several difficulties, likely as a result of the macroenvironment and pressures being felt within their industry of operation. In their Quarter 4 earnings report, PCH released several key numbers for the 2022 year. The firm had a net income of $333.90 million, from a total operating income of $449.10 million. These are lower than the income seen for 2021 by $90.00 million and $102.40 million, respectively. As interest rates rose and new construction/builds declined over H1, PCH also faced pressures through the increased cost of moving their lumber and continuing operations. However, the firm maintained a current ratio of 3.37x, which is higher than its key competitors and reflects their high asset balance and lower reliance on short-term debt.

Outlook
The Carroll Fund maintains the investment thesis of PotlatchDeltic providing a diverse addition to the portfolio that allows for exposure to both the Real Estate and Materials sectors. This ties them to two heavily cyclical sectors in the midst of a recessionary period, which increases their risk. However, they have weathered the storm of many economic downturns and are steadily increasing their outputs and obtaining more resources, despite the interest rate hikes and low housing demand. As long as they continue to function as normal, and increase their allocation towards ESG-related improvements, we believe that PCH will continue to serve as a positive addition to the portfolio.

New Transactions
The Carroll Fund sold 19 shares of PCH at $44.16 on December 21, 2022.
Holding Description
Prologis, Inc. is classified as an Industrial Real Estate Investment Trust (REIT). Focusing on logistics real estate within high-growth markets, the firm owns, operates, and develops industrial real estate across the globe. PLD manages over 4,700 high-quality logistics facilities in 20 different countries, while developing facilities for over 5,800 clients (including Amazon, Wal-Mart, and FedEx). They consistently develop properties to fulfill the customer’s needs, better their portfolio, and strengthen their market presence. Prologis, Inc. has a market capitalization of $115.60 billion, and a per-share market price of $122.97 as of March 31, 2023. Prologis operates in two main business segments: Real Estate Operations and Strategic Capital. Their Real Estate Operations segment generates 90% of their revenues and houses sub-segments of rental and development activities. Strategic Capital generates the remaining 10% of revenue from global partnerships and fundraising for facility development.¹

Impacts from H1
The Carroll Fund purchased our holding in Prologis, Inc. during H1, as a way to diversify our current Real Estate portfolio. The Industrial REIT provides solid dividend yields, which in the midst of interest rate hikes, is a very attractive offering. After adding PLD to the portfolio, the company reported a 2022 revenue of $5.97 billion, a 25.50% YoY growth, and an EPS increase of 86% YoY, from $2.28 in 2021 to $4.25 in 2022. The recessionary environment left a significant impact on the Real Estate sector as a whole and certainly did not overlook PLD, who faced increased interest rates and decreases in demand as they sought to expand their operations. This has not slowed Prologis down, as board of directors announced a 10% increase in their quarterly common stock dividend during H1.²

Outlook
The Carroll Fund still believes that the logic presented in the original investment thesis of PLD as a reliable, high-growth, and impressive firm. Through their continued expansion of operations and facilities, and addition of new investors into the REIT, Prologis, Inc. has a bright future and has proven that it can weather a rough recessionary period. As the economy eventually shifts, we believe that PLD will remain attractive.

New Transactions
The Carroll Fund purchased 48 shares of PLD at $117.17 on December 2, 2022, and sold eight shares at $114.01 on December 21, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
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<td>$4,990.80</td>
<td>6.25%</td>
<td>$72.72</td>
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</table>
**Holding Description**

Welltower Inc. is classified as a Healthcare Real Estate Investment Trust (REIT). The firm invests in leading senior housing operators, post-acute care providers, and various healthcare systems. Overall, Welltower has a goal of delivering the necessary infrastructure to facilitate the best treatment possible of previously underserved populations at lower costs while keeping patients out of hospitals. Welltower operates in 45 of the 50 United States, and has investments abroad in Canada and the United Kingdom, totaling to over 1,500 properties under the firm’s careful eye. The company has striven to be known for their “unparalleled relationship network and premier-quality healthcare real estate portfolio.” WELL has a market capitalization of $36.62 billion and a per-share market price of $71.25 as of March 31, 2023. Welltower operates in three main segments of healthcare: Senior Housing, Post-Acute Care, and Outpatient Medical.

**Impacts from H1**

Over the Half, Welltower, Inc. defended their standing as a top Healthcare REIT. With a 2022 revenue of $5.86 billion, up 23.60% year-over-year, WELL is continuing to see impressive growth in their rental income (up 23%), operating income (up 12%), and FFO/share (up 11.20%). While the financial performance of the firm was lower than anticipated and current forecasts are slow to reveal the upswing post-recession, it is largely believed that this decline can be attributed to the high interest rates & tightened consumer spending that greatly impacts their bottom line. Their P/FFO, or price to funds from operations ratio, of 20.05% places them at the top of their peers and demonstrates their still strong cash flow resulting from their key business.

**Outlook**

The Carroll Fund still believes that Welltower, Inc. is a beneficial addition to our current Real Estate portfolio. As a large portion of the United States population ages and demand for reputable assisted living facilities increases, WELL provides excellent exposure to the industry with a stable dividend yield and high potential for growth. However, WELL’s strong growth and positive returns led to the Carroll Fund partially liquidating the holding to fund the purchase of Prologis, Inc. Though currently at a lower percentage of the portfolio than initially proposed, we are confident that they will continue to be a successful firm.

**New Transactions**

The Carroll Fund sold 173 shares of WELL at $70.71 on December 2, 2022 and another 16 shares at $63.92 on December 21, 2022.

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<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
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<tr>
<td>H1</td>
<td>$14,343.36</td>
<td>$4,731.54</td>
<td>10.95%</td>
<td>$176.29</td>
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</table>
Utilities
Managed by Liam Decker

Sector Overview
The Utilities sector is a combination of companies that are independent producers and distributors of water, gas, and electricity to consumers and businesses. The Utility sector is made up of five individual industries with a total market capitalization of $1.56 trillion accounting for 2.84% of the S&P 500. While Utility companies are for-profit companies, they are part of public infrastructure therefore, they are highly regulated by the government. Utility companies’ success is highly independent of the economy, because of this the sector is seen as a defensive sector to invest in. Investors usually lean towards this sector during economic turmoil because Utilities offer steady returns and a high dividend yield. The Carroll Fund is invested in just the sector tracking ETF XLU. With the Federal Reserve being hawkish in the beginning of H1, we took this as a sign that we should reduce our weight in the Utilities sector, thus we trimmed our allocation within this ETF.

Impacts from H1
The Utilities sector had a lackluster performance in H1 compared to the SPX Index. S5UTIL Index only posted a return of 5.10%, while the SPX Index posted a return of 14.61%. These results do not come as a shock as Utilities is a defensive sector, it is still not immune to interest rate hikes. The main attraction of the Utility sector is the consistently high dividend in times of economic turmoil. Utilities thrive on recessionary times, but with low or lowering interest rates. Thus, with the interest rate being higher than most dividend yields that utility companies offer, investors have found better opportunities in fixed income. Utilities are great at offering investors a shield against economic turmoil, like what we experienced in 2022, but the interest rate became too high too quickly for the Utility sector to be an attractive option to investors. This is what may have contributed to the widespread returns from SPX Index and S5UTIL Index. The Utilities sector has begun to heat up as investors are betting on the Federal Reserve cutting hikes later this year, which would make the Utilities sector a very attractive option to investors. If the Federal Reserve begins rate cuts, we will begin to look for utility companies with higher dividend yields to get in on the action.

Performance
Holding Description
The XLU stock is an ETF designed to produce returns that mimic the performance of the Utilities sector of the S&P 500. The index includes companies operating in the Electrical Power Provider, Natural Gas Distributor, and Communication Services industries. The index is comprised of 32 different holdings within the Utility sector. XLU currently has $16.48 billion AUM. The fund is rebalanced on a quarterly basis to match the Utility sector as closely as possible. It is benchmarked against the SPX and another useful measure to watch is S5UTIL Index. The index also provides an average dividend yield of 3.08% to investors with quarterly dividends. XLU also has an expense ratio of 0.10%.

<table>
<thead>
<tr>
<th>Top 10 Holdings</th>
<th>NextEra Energy</th>
<th>15.34%</th>
<th>Dominion Energy</th>
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</thead>
<tbody>
<tr>
<td>Southern Co</td>
<td>7.71%</td>
<td>Excelon Corp</td>
<td>4.24%</td>
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<tr>
<td>Duke Energy</td>
<td>7.54%</td>
<td>Xcel Energy</td>
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<tr>
<td>Sempra Energy</td>
<td>4.79%</td>
<td>Consolidated Edison Inc</td>
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<tr>
<td>American Electric Power Co inc</td>
<td>4.78%</td>
<td>Public Service Enterprise Group</td>
<td>3.13%</td>
<td></td>
</tr>
</tbody>
</table>

Impacts from H1
In H1, XLU provided the Carroll Fund with a return of 5.76%, beating the S&P 500 Utility tracking Index S5UTIL, which only returned 5.10%. While beating its benchmark it still underperformed the S&P 500, which returned 14.61%. These results are no surprise as Utilities is a very defensive sector and provides investors with consistent returns even through economic turmoil. With that said, the Federal Reserve aggressively hiking interest rates even affects a defensive sector such as Utilities. Utility companies utilize lots of debt to fund operations, which when interest rates rise, makes debt much more expensive to these companies. Utilities had to compete for investor money flows with fixed income investments offering 4-5% annualized return with near zero risk.

Outlook
As the effects of the Federal Reserve’s rate hikes are beginning to be felt through the economy, the chance of the Federal Reserve beginning rate cuts is being discussed. Once this begins to happen it will make Utilities a very interesting sector. Utilities thrive in a time of economic turmoil, but with low interest rates or lowering interest rates. This is because of the non-cyclical nature of utility company business models and providing investors with a consistent high dividend. Thus, when investors can make more from utility company dividends, than they can from fixed income investments, we should see a push back into utility companies. Taking a step back further, the global push for clean energy in the future will create many interesting clean utility companies to invest in.

New Transactions
The Carroll Fund sold 44 shares of XLU at $70.52 on December 21, 2022.

<table>
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<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
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<td>$10,858.11</td>
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<td>$183.41</td>
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</table>
Fixed Income
Managed by Anthony Torres

Sector Overview
Fixed Income is a type of investment referring to securities that provide fixed or predictable returns through interest or dividend payments over a specific time frame. This market plays a crucial role in global economies as it is used to raise capital for companies and government entities. As these organizations seek to raise funds for various projects, the debt instruments issued essentially act as loans requiring issuers (borrowers) to repay the investor (lender) the amount borrowed plus contractual interest once the security matures. Common fixed income products include: government bonds, corporate bonds, asset-backed securities, mortgage-backed securities, municipal bonds, and money market funds. Differing from equities and other asset classes, debt market securities typically offer lower expected returns in comparison to alternatives. Market participants commonly accept this tradeoff to significantly reduce risk in their portfolios by receiving steady cash flows from investments as opposed to large swings in capital appreciation. Consequently, in times of economic instability, investors tend to favor these assets where they can escape the volatility of stock prices which are directly tied to the performance of the economy.

Impacts from H1
One of the most difficult years for all investors was 2022 as central banks persistently battled rapid inflation and recessionary fears widely spread throughout the markets. Since March 2022, the Federal Reserve enforced a cumulative total of nine straight rate hikes hoping to restore price stability and constrict excess monetary spending. As a result, the yield curve on treasuries has been inverted since April 1, 2022, and since then, its inversion became more intense as Federal Reserve Chair Powell signaled additional interest rate increases.1 Fixed in this aggressive rate hiking environment, last year proved to be the worst for bonds as all bond prices were slashed in value. The Total Bond Index which tracks United States investment-grade bonds, including both government and corporate, lost more than 13% in 2022 while 30-year bonds suffered the most due to their elevated sensitivity to interest rate risk losing 39.20%.2 Investor sentiment further decreased the following year on March 10, 2023 when Silicon Valley Bank failed after a bank run, marking the second-largest bank failure in the United States. The sudden news of bank failures initiated rapid falloffs in short-term bonds as investors poured money into bond markets as a “flight to safety.” This shift caused yields on two-year treasuries, peaking above 5% March 8, to fall to 3.81% in less than two weeks.3 Moving forward, markets will continue to closely monitor FOMC meeting expectations as Federal Reserve officials are forced to fight both the problems of slowing down the economy and strengthening public confidence in banks.

Performance

![Graph showing performance of SPX Index and LBUSRUU Index over time]
Holding Description
The iShares Core U.S. Aggregate is BlackRock’s exchange-traded fund which tracks the Bloomberg U.S. Aggregate Bond Index (LBUSTRUU) by investing in securities within the total United States investment-grade bond market.¹ This fund includes treasuries, government and corporate securities, MBS, ABS, and CMBS. The fund has 10,734 holdings with 72.55% boasting exceptional credit quality of AAA rating, and the remaining 27.45% is spread among corporate bonds, non-corporate credit, and municipal securities offering access to potentially higher yielding debt instruments.¹ Commonly referred to as the “S&P” of the bond market, AGG is weighted towards companies and agencies that have the most debt outstanding.

Impacts from H1
Last year’s macroeconomic conditions (e.g., rapid changes in consumer spending, unstable levels of inflation, aggressive Federal Reserve hikes, and geopolitical tension) plagued the investing environment in debt markets. Bond portfolios performed the worst they had as short-term bonds fully priced in future Federal Reserve movements, and bonds with heightened sensitivity to interest changes became less attractive to investors. As a result, AGG fell 13.06% in 2022. However, 2023 has provided fixed income investors with some hope in bonds as AGG returned 3.43% YTD and has given the Carroll Fund a return of 3.58% for H1, a significant improvement from last year.¹ Most recently, the United States experienced the sharpest rally for government debt as prices on treasuries soared post banking turmoil, signaling that bond investors anticipate an upcoming reversal to rate hikes as recession looms.²

Outlook
Big banks and global market strategists widely differ in their views as to when the Federal Reserve will begin slashing rates, but troubling signs in the economy and the banking sector suggest a pivot could be sooner than expected.³ Due to current market conditions, investors should take advantage of higher yields in short-term bonds, while aligning their expectations of a future FOMC pivot to increase exposure to long-term debt securities. AGG offers investors a winning combination of low fees and broad exposure to investment grade bonds. This ETF will serve the Carroll Fund well as it is a favorable holding for investors looking to capitalize on expected returns for both short and long-term assets, and it serves as a resource for recovery from sharp-sell offs in fixed income markets.

New Transactions
No new transactions in H1.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
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<tr>
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<td>$61,378.24</td>
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<td>$614.97</td>
</tr>
</tbody>
</table>
Global X Variable Rate Preferred ETF (PFFV)

Holding Description
The Global X Variable Rate Preferred ETF tracks the performance of the ICE U.S. Variable Rate Preferred Securities Index (PFTF). PFFV invests in a broad basket of variable rate preferred stock in the United States, and is an asset class that has historically offered high yield potential. Differing from traditional preferred stock, variable rate preferreds have a dividend rate that is not fixed, rather its yield is linked to a benchmark interest rate, such as the LIBOR or the fed funds rate. As a result, fluctuating assets typically offer lower duration profiles than fixed rate preferred issuances. The fund invests 83.68% of its assets in the Financials sector with 36.25% of its credit quality rated between BBB- and BBB+.

Impacts from H1
As 2022 approached its year-end, inflation data declined providing hopeful signs for households that price pressures were beginning to ease. According to the CPI on an annual basis, the inflation rate fell to 6.50% in December, down from 7.10% in November and a 9.10% peak in June 2022. The inflation rate continued its downward trend with the CPI YoY finishing March at 6%. Although on the decline, the annual inflation rate remains at its highest level since the early ‘80s. With nine consecutive rate hikes by the FOMC since March 2022, higher rates are squeezing corporate profit margins and causing lenders to feel pressure. All fixed income assets faced significant losses in 2022, PFFV was no exception. As the campaign for rate hikes has yet to see the finish line, the holding received notable falls in price throughout the period. However, the nature of its floating rate dividend allowed the ETF to produce higher levels of income than alternative fixed rate assets, leaving PFFV to produce a holding period return of 0.59%.

Outlook
Variable rate assets are increasing in popularity in debt markets as investors perceive these investments as a way to minimize price damage as interest rates have continued to climb this past year. As additional headwinds from surging prices, the unpredictability of monetary policy, and turmoil in the Financials sector await investors, PFFV is an optimal investment selection for Carroll’s fixed income segment as variable rate preferreds can provide a hedge against anticipated interest rate risk and salvage the purchasing power of coupon payments.

New Transactions
The Carroll Fund bought 200 shares of PFFV at $23.08 on December 21, 2022 and bought 995 shares of PFFV at $23.05 on December 22, 2022.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
<th>Ending Value</th>
<th>% Return</th>
<th>Dividends Received</th>
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<td>$37,098.40</td>
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</table>
Holding Description
The iShares 20+ Year Treasury Bond ETF tracks the investment results of the ICE US Treasury 20+ Year Index (IDCOT324), a market-weighted index composed of United States Treasury bonds with remaining maturities greater than 20 years. TLT has 34 holdings, 98.52% of which have AAA-rating, and the fund has an effective duration of 17.40 making it significantly more sensitive to changes in interest rates compared to other investments. In stable economic conditions, long-term bonds offer higher yields than alternatives with shorter maturities due to the increased exposure to interest rate and inflation risk. After investors consider their investment goals, time horizons, and risk tolerance, investing in long-term debt securities can potentially strengthen portfolios as they can provide diversification, increase duration, and reduce overall risk through stable streams of income.

Impacts from H1
At the beginning of 2022, interest rates started at the lowest levels they had been since the Great Depression in efforts to boost the economy post-pandemic. But the Federal Reserve reversed its course in March hiking rates seven times last year to subdue rapid inflation. The aggressive interest rate increases forced all bond prices to fall, particularly clobbering holdings with longer durations. As a result, long-dated treasuries in the United States were hit the hardest losing 29.30%; TLT specifically had a total return loss of 31.41%. Looking towards the remainder of 2023, investors have reason to believe the bond market is recovering, especially at the longer end of the curve, as TLT was up 6.84% YTD. However, the Carroll Fund realized a return of -0.26% for H1 after selling shares out of concern that higher rates were coming in the FOMC's March meeting, just before the banking crisis sent rates lower.

Outlook
Tracking a 20+ Year Treasury Bond Index, TLT is the riskiest fixed income asset on Carroll as it’s the most sensitive to interest rate changes because of its long duration (30 Day Volatility = 19.92). Although the Federal Reserve is still poised to continue raising interest rates, investors now widely anticipate a pivot much sooner due to the recent banking crisis. As of March 31, 2023, markets expected the FOMC to enter their final inning of its rate hiking cycle before the mid-year mark, where the anticipated federal funds rate was shown to reach a peak of 4.96%. Although the expectations for interest rates change almost daily, it’s a vast consensus that the Federal Reserve is considering a new path of reversal much sooner than predictions claimed at the start of the year. Once the horizon of a pivot becomes more clear throughout the progression of 2023, the Carroll Fund should steadily increase weight in long-term bonds to capitalize on interest rate decreases pressing upward pressure on yields.

New Transactions
The Carroll Fund bought 350 shares of TLT at $105.81 on December 2, 2022, bought 243 shares of TLT $103.64 on December 21, 2022, sold one share of TLT at $101.11 on March 7, 2023, and sold 285 shares of TLT at $101.40 on March 7, 2023.

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning Value</th>
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<th>% Return</th>
<th>Dividends Received</th>
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</thead>
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<tr>
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<td>$37,481.50</td>
<td>$32,655.59</td>
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WisdomTree Floating Rate Treasury Yield (USFR)

**Holding Description**
The WisdomTree Floating Rate Treasury Yield aims to track the price and yield performance of the Bloomberg U.S. Treasury Floating Rate Bond Index (BUSYFL). This underlying index follows the performance of floating rate United States Treasury bonds which have coupon rates that reset periodically every three-months. This ultra-short holding offers significant value in markets undergoing rapid inflation as the interest paid on these bonds adjust to reflect changes in interest rates, providing a hedge against aggressive rate hikes. Paired alongside low levels of risk, United States Treasury securities are highly liquid providing investors with the ease of quickly adjusting their portfolios. The fund essentially acts as a cash balance which benefits from greater returns on interest than traditional savings accounts or money market funds. The ETF invests solely in high-quality, short-term United States Treasuries and maintains only four holdings.

**Impacts from H1**
Last year’s macroeconomic conditions with rapid changes in consumer spending, aggressive Federal Reserve rate hikes, and geopolitical tension shattered both equity and fixed income markets. The yield curve first inverted in April 2022 when yields on the 2-year and 10-year treasury officially inverted. Towards the end of 2022 the inversion became more pronounced, and its effects carried over into 2023 as the spread widened in the opening months. As the FOMC continued to increase rates in an effort to curb inflation, investor sentiment regarding the economy deteriorated as markets moved away from long-term securities. Yields on short-term bonds continued to climb upwards as the yield on the three-month treasury closed H1 at 4.80%, up from 3.28% at the start of the period. Due to its extremely low duration and design to fluctuate with short-term borrowing rates, USFR quickly became a favorite of the Carroll Fund as the holding allowed greater control over cash flows rather than being subject to reinvestment risk.

**Outlook**
The uncertainty contributing to market volatility and liquidity challenges provide an opportunity for investors looking to capitalize on elevated yields. As a result of an unsteady investing landscape post-pandemic, yields are now significantly higher across investment-grade and high-yield markets. Rarely do investors find themselves in a macroenvironment under an inverted yield curve allowing participants to take advantage of the higher yields on short-dated bonds that exceed the interest paid on longer term bonds. While longer duration holdings carry more sensitivity to rate hikes, investing in floating-rate assets with shorter maturities not only decreases risk exposure, but also provides an additional facet of capital preservation as interest paid on bonds adjust to reflect changes in interest rates.

**New Transactions**
The Carroll Fund sold 738 shares of USFR at $50.27 on December 2, 2022, bought 726 shares at $50.37 on December 21, 2022, bought 311 shares at $50.41 on February 12, 2023, bought 576 shares at $50.32 on March 7, 2023, and sold 136 shares of USFR at $50.40 on March 24, 2023.

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<tr>
<td>H1</td>
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<td>$ 89,128.71</td>
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Carroll Fund Managers

**Anthony Torres** is a senior from Augusta, Georgia, majoring in both accounting & finance with a collateral in international business. In his second semester as a manager for the Carroll Fund, he oversees the Fixed Income holdings in the portfolio. Outside of his involvement in Torch Fund, he stays active on-campus by representing the honor’s accounting group as President of Beta Alpha Psi, and he enjoys teaching students about professional development as the VP of NABA Inc. Seeking to continue the experience he gained from his past internship in financial due diligence, after graduating this Spring, Tony is set to move to New York City starting his professional career in due diligence with PwC and plans on transitioning into private equity later in his career.

**Ashleigh Skipper** is a senior from Knoxville, Tennessee, majoring in finance with minors in entrepreneurship & leadership studies and a collateral in international business. A second-semester manager on the Carroll Fund, she monitors all information related to the Real Estate and Materials sectors. Ashleigh is heavily involved within the Haslam College of Business as a member of the Smith Global Leadership Scholars Program, Treasurer of Women of Haslam, and as a Haslam Ambassador. She is also the marketing director for the Honors & Scholars Engagement Council and is a member of the Honors Leadership Program. She has completed several internships in various financial applications, including within the mortgage industry, corporate finance, and portfolio management. After her graduation in May 2023, Ashleigh will be working as a business technology solutions analyst for Deloitte Consulting in Nashville, Tennessee.
Dylan Isaacs is a senior finance major set to graduate in May. Dylan currently covers the Energy sector for the Carroll Fund and serves as a Senior Bloomberg Analyst in the Masters Investment Learning Center. He is also a member of the Smith Global Leadership Scholars honors program and an officer of the Tennessee Investment Group. Beyond academic pursuits, Dylan enjoys playing golf, meeting new people, and cheering on Tennessee Athletics. Post-graduation, he is excited to begin his career with The Trust Company of Tennessee, where he will be joining their team as a portfolio analyst in Knoxville.

Emily Barnes is a senior from Knoxville, Tennessee majoring in finance with a collateral in international business. This is her second and final semester on the Carroll Fund and currently monitors all information regarding the Communications sector. Emily is involved with multiple student organizations on campus including Alpha Delta Pi, Haslam Ambassadors, and Student Alumni Associates. She’s previously worked as a corporate finance intern for paper packaging company WestRock in Atlanta, Georgia. Outside of the classroom, she spends her time running, hiking, cooking, and spending quality time with friends and family. She is graduating in May of 2023 and wishes to pursue a professional career within the field of investment management.
Giovanna Rondinelli is a junior from Nashville, Tennessee, studying finance with a marketing collateral. She is in her first semester on the Carroll Fund, and she currently manages the Consumer Discretionary sector. She keeps active on campus and is involved in many organizations such as Women in Finance, Tennessee Capital Markets Society, Financial Management Association, and a member of Zeta Tau Alpha. Outside of school, Giovanna likes to travel, spend time with her family and friends, and try new restaurants. In the summer, Giovanna is interning with AllianceBernstein at their headquarters in Nashville as an investment management intern.

John Wade is a senior from Union City, Tennessee, majoring in finance with a collateral in accounting. He is responsible for managing the Healthcare sector in his second semester on the Carroll Fund. He is a member of the Tennessee Investment Group and an alumnus of UTK’s Emerging Leaders. He is currently participating in an internship for financial advising with Strategic Financial Advisors. Outside of school, he enjoys traveling, tennis, golf, and Tennessee football. John will be working as a business valuation analyst at VMG Health in Nashville, Tennessee after graduation.

Liam Decker is a Knoxville Native and current Junior majoring in finance with a collateral in entrepreneurship. This is his first year on the Carroll Fund and he manages the Utilities sector for the Carroll Fund. Liam is a member of The University of Tennessee Investment Group, The Tennessee Capital Market Society, and a member of the Sigma Chi Fraternity. Outside of academics Liam likes spending time outdoors, hanging out with friends, and playing golf. Liam is still on the hunt for a summer internship, but we have no doubt he will find something. Post graduation Liam plans on pursuing private wealth management or investment banking.
Maxwell Baker is a senior from Memphis, Tennessee, majoring in accounting with a collateral in finance. He is in his final semester on the Carroll Fund and is currently responsible for the Information Technology sector. He currently works for a stealth startup focused on artificial intelligence accounting integration. Maxwell is enrolled in the Masters of Accountancy program at the University of Tennessee for 2023 and plans on returning to EY in 2024 as a technology risk consultant after obtaining his CPA. Later in his career, Maxwell hopes to own a tax planning/wealth management firm with his peers in Memphis.

Ned Morgan is a junior from Philadelphia, Pennsylvania, majoring in finance with a collateral in business analytics. This is his first semester on the Carroll Fund, and he currently manages the Consumer Staples sector. Ned is also a member of the Tennessee Capital Markets Society, Financial Management Association, and the Kappa Sigma Fraternity. Last summer, Ned worked as an intern in New York City at ONE, an independent fintech startup backed by Walmart and Ribbit Capital, and will return this summer. Outside of school, Ned enjoys spending time with friends and family, traveling, and cheering on the Vols. After graduating in May of 2024, Ned plans to pursue a career in financial services and the many avenues it has to offer.
Simon Heeran is a finance major with a collateral in information management from Nashville, Tennessee, and plans to graduate in May, 2023. He currently covers the Financials sector of the Carroll Fund after previously covering Real Estate. He is interested in all facets of business, as he has held memberships in both the American Marketing Association and the University of Tennessee Investment Group before joining the Carroll Fund in the fall of 2022. Outside of his classes, he spends a good amount of time performing live cover and original music with his six-man rock band Wasted Major around the southeast. He is the lead guitarist, singer, and songwriter for the Knoxville-based band. After graduation, he intends to pursue a position as a financial analyst for a firm in Nashville.

Tristan Damron is a senior from Knoxville, Tennessee, majoring in finance with a collateral in supply chain management. He is in his final semester on the Carroll Fund and currently monitors the Industrials holdings in the portfolio. On campus, Tristan holds leadership positions with the University of Tennessee Investment Group, Financial Management Association, and the Delta Sigma Pi professional fraternity. Tristan also works in the Masters Investment Learning Center as a senior Bloomberg analyst. Outside of academics, Tristan enjoys playing lacrosse, fishing, hiking, and spending time with family and friends. After graduation, Tristan plans to pursue his Master of Science in Finance at Vanderbilt, and will be an equity analyst intern this summer with the Thompson Research Group in Nashville.
References

Communications Services
1. Bloomberg <SPX IMAP>

Fidelity MSCI Communication Service Index ETF (FCOM)
1. Bloomberg <DES>
3. Bloomberg <PORT>

Alphabet Inc. Class A (GOOGL)
1. Bloomberg <DES>
2. Bloomberg <GP>
3. Bloomberg <PORT>

Verizon Communications Inc. (VZ)
2. Bloomberg <DES>
3. Bloomberg <GP>
4. Bloomberg <PORT>
Consumer Discretionary
1. Bloomberg <GP>
3. Bloomberg <TRA>
4. Bloomberg <CPI YoY Index GP>

Amazon (AMZN)
1. Bloomberg <TRA>

Dollar General (DG)
1. Bloomberg <FA>
2. Bloomberg <TRA>
3. https://investor.dollargeneral.com/websites/dollargeneral/English/0/investor-relations.html
4. Bloomberg <GP>

Nike (NKE)
1. https://www.trefis.com/data/companies/NKE/no-login-required/YzGQRyQ/Nike-Revenues-How-Does-NKE-Make-Money-
2. Bloomberg <TRA>

Tractor Supply (TSCO)
1. Bloomberg <TRA>

Consumer Staples
3. Bloomberg <S5CONS>

PepsiCo, Inc. (PEP)
1. https://www.pepsico.com/who-we-are/about-pepsi
2. Pep Chart YCharts.com
Tyson Foods, Inc. (TSN)
1. https://ycharts.com/companies/TSN/chart/#/?annualizedReturns=false&calcs=id:market_cap,include:true,&chartId=&chartType=interactive&correlations=&customGrowthAmount=&dateSelection=range&displayDateRange=false&endDate=&format=real&legendOnChart=false&lineAnnotations=&nameInLegend=name_and_ticker&note=&partner=basic_2000&quoteLegend=false&recessions=false&scaleType=linear&securities=id:TSN&include:true,ids:%5ESPXTR,include:false&securityGroup=&securityListName=&securityId=&source=false&splitType=single&startDate=&title=&units=false&useCustomColors=false&useEstimates=false&zoom=1&redesign=true&chartAnnotations=&axisExtremes=
2. Bloomberg <TSN>

Walmart, Inc. (WMT)
1. https://corporate.walmart.com/about
2. https://ycharts.com/companies/WMT/chart/#/?annualizedReturns=false&calcs=id:market_cap,include:true,&chartId=&chartType=interactive&correlations=&customGrowthAmount=&dateSelection=range&displayDateRange=false&endDate=&format=real&legendOnChart=false&lineAnnotations=&nameInLegend=name_and_ticker&note=&partner=basic_2000&quoteLegend=false&recessions=false&scaleType=linear&securities=id:WMT&include:true,ids:%5ESPXTR,include:false&securityGroup=&securityListName=&securityId=&source=false&splitType=single&startDate=&title=&units=false&useCustomColors=false&useEstimates=false&zoom=1&redesign=true&chartAnnotations=&axisExtremes=
3. Bloomberg <WMT>

Energy
2. Bloomberg Terminal <S5ENRS FA>

**ConocoPhillips (COP)**
1. Bloomberg Terminal <DES>
3. JP Morgan COP ConocoPhillips Focus Shifts to Growth Plan with Market.pdf

**Halliburton (HAL)**
1. Bloomberg Terminal <DES>
2. https://ir.halliburton.com/static-files/dc5c25fc-4549-46ae-9855-b9827521c48a
3. J.P.Morgan North America Equity Research

**Phillips 66 (PSX)**
1. Bloomberg Terminal <DES>
3. JP Morgan PSX Phillips 66 Heavy Turnarounds Continue into 1Q.pdf

**Financials**
3. Bloomberg Terminal <S5FINL>

**iShares U.S. Insurance ETF (IAK)**
2. Bloomberg Terminal <DES>

**J.P. Morgan Chase & Co. (JPM)**
1. Bloomberg Terminal <DES>

**PayPal Holdings Inc. (PYPL)**
2. Bloomberg Terminal <DES>

S&P Global Inc. (SPGI)
1. Bloomberg Terminal <DES>

Visa, Inc. (V)
2. Bloomberg Terminal <DES>

Healthcare
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5600717/
3. Bloomberg <GP>

ARK Genomic Revolution ETF (ARKG)
1. https://ark-funds.com/funds/arkg/
2. Bloomberg <DES>
3. Bloomberg <TRA>

CVS Health Corporation (CVS)
1. Bloomberg <DES>
2. CVS 2022 10K
5. Bloomberg <RV>

Eli Lilly and Co (LLY)
1. Bloomberg <DES>
2. LLY 2022 10-K
3. LLY 2022 10-K

**Merck & Co. (MRK)**
1. Bloomberg <DES>
2. MRK 2022 10K

**Organon & Co. (OGN)**
1. Bloomberg <DES>
2. Bloomberg <FA>
3. OGN 2022 Q4 Earnings Report

**UnitedHealth Group Inc. (UNH)**
1. Bloomberg <DES>

**Industrials**
2. Bloomberg <TRA>

**Caterpillar, Inc. (CAT)**
1. Bloomberg <DES>
2. Bloomberg <TRA>

**FedEx (FDX)**

Jacobs Solutions, Inc. (J)
1. https://www.yahoo.com/lifestyle/jacobs-j-secures-navfacs-249m-150603804.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAAImUOy0Epv-HwD7D6GfyLjePLMgFfA3kn_d69mDo2WiF9B68qCG8YWuAOwv3vg_Pi_DwVBX5o7fi1rZDm9i9GpqLhGHkh4zVAcOzBP_7F2O1P-8WPYW1sRcLo9pxxlt_2-O1aLyz_n1Cq9OshRE25MDGMY76jEzdHrRt4ewGfrX

Lockheed Martin (LMT)
1. Bloomberg <DES>

Information Technology

Apple, Inc. (AAPL)
1. Bloomberg <AAPL>

Amplify Transformational Data Sharing ETF (BLOK)

First Trust NASDAQ Cybersecurity ETF (CIBR)
Taiwan Semiconductor Manufacturing Company (TSM)
1. Bloomberg <TSM>

Microsoft Corporation (MSFT)

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1. Bloomberg <PANW>

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6. Bloomberg <Materials>

Real Estate

PotlatchDeltic (PCH)
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Prologis, Inc. (PLD)
1. Bloomberg <PLD>

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Utilities
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SPDR Fund (XLU)
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Fixed Income

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1. Bloomberg

Global X Variable Rate Preferred ETF (PFFV)

iShares 20+ Year Treasury Bond ETF (TLT)
1. Bloomberg
WisdomTree Floating Rate Treasury Yield (USFR)
2. Bloomberg