2020

Crummer SunTrust Portfolio Recommendations: Crummer Investment Management [2020]

Gerardo Abril
James Bishop
Eddie Cutillas
Shawn Fletcher
Bobby Suchor

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Crummer SunTrust Portfolio Recommendations

Crummer Investment Management

2020
The COVID-19 Edition
Dear Members of the Committee,

We would like to thank you for your service to the Crummer SunTrust Portfolio. Without your participation, Crummer students would not benefit from the unique insight you bring to managing an active portfolio.

We have been fortunate to listen and learn from some outstanding guest speakers who have been generous with their time and expertise: Phillip Rich, Chief Market Strategist, Seaside Bank; Jennifer Anderson, Investment Analyst, Merrill Lynch; Rebecca Marshall, Program Development Manager, The 4R Foundation; Jeff Shafer, Co-Founder and CEO, CommonGood Capital; Marc Miller, Partner, DePrince, Race and Zollo; Professor William Seyfried, Crummer Graduate School of Business; Robert Zhang, Senior Research Analyst, DePrince, Race and Zollo; Rick Ahl, President, Ahl Investment Management; Sean Warrington, Principal and Portfolio Manager, Gresham Partners; Jay Menozzi, Principal and Chief Investment Officer, Orange Investment Advisors, LLC; Brian Gallagher, Portfolio Manager, TIAA; Rob Roy, Senior VP and Chief Investment Officer, AdventHealth; Deryck Harmer, Managing Partner and Founder, Springlake Partners; Marc Bianchi, Managing Director, Cowen and Company; and Derek Grimm, First Vice President, Merrill Lynch.

SunTrust endowed this portfolio to provide scholarships for future Crummer students and to give current students a practical, hands-on learning opportunity. This year, we are pleased to be able to award $50,000 in scholarships. We are extremely grateful for SunTrust’s generosity and investment in higher education. We have all learned a great deal from this experience and the responsibility of managing real money.

Our first challenge is to establish a portfolio position that takes advantage of economic opportunities while avoiding unnecessary risk and conforming to the Crummer SunTrust Investment Policy Statement (IPS). We are also tasked by the IPS to operate at two levels simultaneously – tactical for the near term, and strategic for the long run. Additionally, this portfolio presents some unusual portfolio management challenges by trading only once a year, in late April.

Our tactical approach began with a top-down sector analysis. We established an economic forecast based on research and consultation with economists, including Professor William Seyfried of the Crummer School and Philip Rich of Seaside Bank. We based our stock-bond split on that forecast with a modest allocation to bonds of 15%. That forecast also drove our allocation among the eleven S&P sectors: Communication Services, Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, Information Technology, Materials, Real Estate, and Utilities. This year, we have forecast a recession within the next twelve-month period and tilted the allocation towards defensive sectors that should do well – or less poorly – in a recession.

Our asset class allocation embodies the long-run strategy of our portfolio. The IPS sets asset class ranges from low to moderate risk to keep the portfolio from being whipsawed by transitory market cycles. Our equity allocations entail a moderate level of risk, consistent with our view that the stock market will rebound in late 2020. We maintain an allocation to a sector ETF in each sector to ensure diversification. Additionally, because we are constrained by a small class enrollment this year, we actively manage only five sectors with a limit of two individual stocks in each sector. The remaining sectors are invested 100% in their sector ETF. Fixed income is our anchor sector, providing a hedge against the risk of an economic slowdown adversely impacting our equity holdings. We are at the middle of our IPS range for fixed income at 15%, which is the same as last year and down slightly from the 17% market position on March 31, 2020.
Furthermore, we have incorporated a new theme into our portfolio selection process related to the rise of Environmental, Social, and Governance (ESG) investing. Whether you believe a high ESG rating signals a company’s prospects or that ESG ratings are a popularity contest, the ESG wave is sweeping the equity markets as a self-fulfilling prophecy. Regardless of a security’s consistency with our theme, all recommendations must be undervalued after rigorous quantitative and qualitative analysis. That said, we believe that current mid-COVID-19-crisis prices are highly suspect. We have reported our quantitative results, but we put more credibility into investing in good companies with strong balance sheets and a compelling story. Also mindful of our responsibility not to jeopardize the scholarship commitment, we took care to recommend stocks that were not at risk of serious impairment.

To misquote the Chinese curse: “May you live in extraordinary times.” None of us have been here before and we do not profess to know how to navigate when markets are this volatile. Unlike recessions caused by economic profligacy or stupidity, this time it is not the market’s fault. Even so, we accept responsibility for our investment decisions. We are investing for the long-term and we have been conservative in our forecasts and recommendations. Simultaneously, in the short term, we are mindful of the need to protect the portfolio’s commitment to scholarships.

We thank you for your time and participation in this important endeavor.

Sincerely,

Crummer Investment Management Team
Gerardo Abril | Consumer Discretionary
Gerardo Abril graduated from Rollins College with a B.A. in Computer Science. He is expecting to earn his MBA in May 2020, with concentrations in International Business, Finance, and Management. After graduation, he plans to pursue a career in the Information Technology sector to combine his education and passions.

James Bishop | Consumer Staples
James Bishop currently works for Market Traders Institute as a sales presenter. He earned his B.A. in Psychology at East Carolina University and is expecting to earn his MBA in May 2020, with a concentration in Finance. Upon graduation, he plans on pursuing a career as a portfolio manager.

Eddie Cutillas | Communication Services
Eddie Cutillas graduated from Rollins College with a B.A. in Business Management. He is expecting to earn his MBA in May 2020, with a concentration in Finance. After graduation, he plans to pursue a career as a financial analyst in the investment profession. He is also pursuing the Chartered Financial Analyst (CFA) Designation.

Shawn Fletcher | Healthcare
Shawn Fletcher currently works for Disney Vacation Club – Member Accounting as an Account Servicing Operations Specialist. He earned an undergraduate degree in Vocal Performance from the University of Northwestern, St. Paul, and is expecting to earn his MBA in May 2020, with a concentration in Finance. Following graduation, Shawn plans to continue his career in Finance with The Walt Disney Company.

Bobby Suchor | Information Technology
Bobby Suchor is currently a commercial credit analyst at TD Bank, N.A. He graduated from Rollins College with a B.A. in Business Management. He is expecting to earn his MBA in May 2020 with a concentration in Finance.

Koray Simsek | Professor
Professor Simsek joined the Crummer Graduate School of Business in 2016. Before coming to Rollins, Dr. Simsek taught at Sabanci University and EDHEC Business School. He earned his BSc in Industrial Engineering from Bogazici University and a PhD in OR and Financial Engineering from Princeton University. Dr. Simsek is a consultant or instructor for various companies in asset management, banking, energy and financial technology industries.

J. Clay Singleton | Professor
Professor Singleton joined the Crummer faculty in 2002 and held the George and Harriet Cornell Chair of Finance until he retired in 2017. He teaches part-time while working with Marshall-Singleton, a fiduciary duty consulting firm. He serves on the pension committee of Rollins College, the Investment Advisory Committee for Advent Health and on the board of directors of a public mutual fund. He earned his B.A.S from Washington University in St. Louis and his MBA and PhD from the University of Missouri-Columbia.
Introduction ............................................................................................................................................................................................... 1
Crummer Investment Management Team ............................................................................................................................................. 3
Economic Outlook .......................................................................................................................................................................................... 5
Performance of the Crummer SunTrust Portfolio .................................................... 8
ESG Overview ........................................................................................................................................................................................ 11
Portfolio Design ..................................................................................................................................................................................... 12
Sector Analysis ....................................................................................................................................................................................... 18
Communication Services ........................................................................................................................................................................... 19
   Discovery, Inc. (DISCA) ......................................................................................................................................................................... 20
   T-Mobile US, Inc. (TMUS) .................................................................................................................................................................... 22
Consumer Discretionary ........................................................................................................................................................................... 24
   Darden Restaurants, Inc. (DRI) .............................................................................................................................................................. 25
   Nike, Inc. (NKE) .................................................................................................................................................................................... 27
Consumer Staples .................................................................................................................................................................................... 29
   The Coca-Cola Company (KO) ............................................................................................................................................................ 30
   Walmart, Inc. (WMT) ............................................................................................................................................................................ 32
Energy ........................................................................................................................................................................................................... 34
Financials ................................................................................................................................................................................................... 35
Healthcare .................................................................................................................................................................................................. 36
   Johnson & Johnson (JNJ) ....................................................................................................................................................................... 37
   Quest Diagnostics Incorporated (DGX) ........................................................................................................................................ 39
Industrials .................................................................................................................................................................................................. 41
Information Technology .............................................................................................................................................................................. 42
   Microsoft Corporation (MSFT) .......................................................................................................................................................... 43
   Visa, Inc. (V) ......................................................................................................................................................................................... 45
Materials ....................................................................................................................................................................................................... 47
Real Estate .................................................................................................................................................................................................. 48
Utilities ...................................................................................................................................................................................................... 49
Appendix ........................................................................................................................................................................................................ 50
   Crummer SunTrust Portfolio Investment Policy Statement ..................... 51
   Value at Risk .................................................................................................................................................................................................. 57
Economic Outlook

Introduction

The Crummer Investment Management team has the responsibility of managing the Crummer SunTrust Portfolio. Guided by the investment policy statement, our team's focus was on making appropriate investment decisions based on the portfolio's overarching objectives. This year, we were mindful of protecting the value of the portfolio during periods of economic decline. Achieving this objective will allow us to generate cash to support ongoing donations to Crummer's scholarship program. In a time of unprecedented economic uncertainty, we have created an economic outlook for the rest of 2020 through Q1 2021. We gathered information, studied economic indicators, and carefully watched the behavior of the market during the past year, especially during the first quarter of 2020.

To aid our investment decisions, we had in-depth discussions with well-respected economic analysts and industry-leading experts. Through these discussions, we formed our consensus on the coming twelve months' investment environment. The environment strongly influenced the design of the portfolio and how we selected stocks. The Crummer SunTrust Portfolio is risk-averse and, we believe, should be invested in socially responsible companies. We searched for investment opportunities that were both significantly discounted against market value and carried a high Environmental Social and Governance (ESG) rank.

Economic Thesis

Government officials are taking unprecedented measures to prevent economic contraction due to the global pandemic of the virus COVID-19. However, our team does not believe that this will be enough to stop the economy from slipping into a recession. It is this team's position that we are in the first quarter of a recession. We will see the negative growth of Q1 of 2020 continue through the end of Q3 of 2020. We believe that the deep cut of the Federal Funds Rate, the return of quantitative easing, and the $2 trillion fiscal stimulus will not be enough to overcome the lost productivity that we have seen in Q1 of 2020.

GDP

In 2019, the United States' economy was extremely volatile; we saw a trade war between the United States and China and the subsequent signing of a phase one trade deal, a decline in industrial production, and an incremental lowering of rates by the Federal Reserve. Last year's management team had expected a real GDP growth rate of 2.0%; the actual growth rate surpassed this at 2.1%. This year we gathered expert forecasts for GDP growth in 2020 from Goldman Sachs, McKinsey, and a survey of economists published by the Wall Street Journal. These forecasts, along with our position, are summarized below.

<table>
<thead>
<tr>
<th>Forecast Type</th>
<th>CIM</th>
<th>GS</th>
<th>WSJ</th>
<th>McK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Forecast</td>
<td>-0.5%</td>
<td>2%</td>
<td>-4.6%</td>
<td>-5.4%</td>
</tr>
<tr>
<td>Upside Forecast</td>
<td>0.0%</td>
<td>3%</td>
<td>0.7%</td>
<td>-2.4%</td>
</tr>
<tr>
<td>Downside Forecast</td>
<td>-0.75%</td>
<td>0.5%</td>
<td>-13.9%</td>
<td>-8.4%</td>
</tr>
</tbody>
</table>


All our forecasts are about in the middle between the most pessimistic and most optimistic. Notably, all of the expert forecasts predict a recovery in Q4 of 2020. While our strategic focus is long-term and we believe the COVID-19 pandemic will subside and the world economy will recover, we are mindful of our tactical responsibility not to subject
the portfolio to short-term losses that would impair our ability to fund scholarships. Our GDP forecast is reasonable under extreme economic uncertainty.

**Unemployment**

The unemployment rate sits at 3.5% as of March 2020. It is our team's position that the unemployment rate will rise. The outbreak of the pandemic will cause many businesses to allow people to work from home, shut down retail locations, or in the case of many restaurants, only allowing for pickup or delivery. If this pandemic continues to cause significant slowdowns for businesses, there will be a need to cut jobs until the economic slowdown recovers. Currently, as of March 25th, 2020, Congress is working on passing a $2 trillion-dollar stimulus package that could help curtail the impact of unemployment. This stimulus package that is under consideration will provide checks to Americans to help spur consumer spending, provide money to small businesses to aid in keeping people employed, and bailout the airlines and other industries in hopes of limiting the unemployment impact. There is no precedent to estimate whether or not this stimulus package will be enough. Considering all of the available information, we believe that unemployment will rise to a range of 4.5% to 5.5% by the end of Q1 2021. This range falls in line with other economic forecasts as seen in the table below.

<table>
<thead>
<tr>
<th>Unemployment Forecasts 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wells Fargo as of March 16th</td>
</tr>
<tr>
<td>Q1</td>
</tr>
<tr>
<td>3.60%</td>
</tr>
<tr>
<td>TD Bank as of March 25th</td>
</tr>
<tr>
<td>Q1</td>
</tr>
<tr>
<td>3.80%</td>
</tr>
<tr>
<td>Trading Economics as of March 26th</td>
</tr>
<tr>
<td>Q1</td>
</tr>
<tr>
<td>4.00%</td>
</tr>
</tbody>
</table>

**Inflation**

This portfolio management team believes that inflation will fall to 1.7%, aided by the impending economic slowdown from COVID-19. The rising unemployment rate will put constraints on spending; for this reason, we expect a fall in inflation.

**Interest Rates**

On Sunday, March 15th, 2020, the Federal Reserve cut rates to 0%; this was an unprecedented move by the Federal Reserve to aid in the recovery of the economy due to the rapid decline from COVID-19. We expect a marginal rise in interest rates over the next year as the economy begins to recover in the 4th quarter of 2020. Our team has forecasted the 10-year in a range between 1.00% and 1.25%, the 2-year between 0.4% and 0.5%, and the Federal Funds rate stabilizing at .25% by Q1 2021. Barring a rapid economic recovery from the pandemic, this team does not foresee a hike in interest rates by the FOMC before Q1 2021.
Fixed Income
The projected negative economic growth through 2020, supports the Crummer SunTrust Portfolio management team's decision to allocate 15% to fixed income securities. We forecast continued economic challenges that will occur due to COVID-19 and we believe that reducing allocations to 15% from our current 17% will allow us to capture the rise in equity markets that should be associated with the economic recovery. Given the IPS limit of a 20% allocation to fixed income, our proposal is modest but not overly conservative.

Market Outlook
The ten-year stock market bull run that the United States has experienced has ended. The outbreak of COVID-19 has caused significant disruption in how businesses operate, stressed supply chains, and may cause many small businesses to close. The management team's economic outlook is that we are in the first quarter of a recession. Although the FOMC and the Federal Government are trying to combat this recession with the slashing of the Federal Funds Rate, the reintroduction of the quantitative easing and unprecedented fiscal stimulus, our team still foresees this economic downturn continuing at least through Q3 of 2020. We do not know when this recession will end, only that it will end, and our long-term investments in fundamentally sound companies, underweighting sectors that do not perform well in a recession, and overweighting those that do, reflects our faith in the US economy. Equity markets may react slowly to economic recovery, but they will recover, and, in the long run, the Crummer SunTrust Portfolio needs to participate in that recovery.
Performance of the Crummer SunTrust Portfolio

The last year whipsawed the markets and the portfolio. After last year’s trades, the Portfolio stood at $928,044 on May 1, 2019, prior to our scholarship donation of $50,000 in May. Despite closing 2019 with more than $1 million, by March 31, 2020 the portfolio was valued at $853,861, 8% less than on May 1, 2019. Despite this decline, we plan to fund a $50,000 scholarship again this year.

This year marks the twenty-first anniversary of the first $100,000 SunTrust contribution in April 1999. Subsequent annual contributions brought the total investment to $500,000. Since inception, the Portfolio has generated over $485,000 in scholarships, including the 2020 contribution of $50,000.

The chart below shows the Portfolio’s performance relative to the S&P 500. With the Fed’s favorable interest rate policy, bonds returned 1.8% May 1 through March 31, with an indexed 80% equity–20% bond benchmark portfolio mirroring the S&P 500. Both indexes have outperformed the Portfolio since early 2012.
2019 – 2020 Plan Year Performance Highlights

From May 2019 through March 2020, the portfolio outperformed the S&P 500 index -4.1% to -10.6%. Moreover, the portfolio did better than an 80/20 benchmark by 2.4%. Absolute performance without considering asset allocation is incomplete and the portfolio did better on a risk-adjusted basis. From May 2019 through March 2020, the portfolio returned -4.1% with a monthly standard deviation of 4.9% (reward-to-risk of -0.82%) while the S&P 500 returned -10.6% with a monthly standard deviation of 5.8% (reward-to-risk of -1.82%) and the 80/20 portfolio returned -6.6% with a monthly standard deviation of only 4.6% (reward-to-risk of -1.42%). The portfolio’s since-inception annual return is 13.1% (with an annual standard deviation of 13.9%) versus the S&P 500 index’s return of 14.1% (with an annual standard deviation of 14.8%) and the 80/20 benchmark’s return of 14.4% (with an annual standard deviation of 11.9%) over the same period. Computing the since-inception reward-to-risk ratios, the portfolio (0.93%) is about equal to the S&P 500 (0.94%) and underperformed the benchmark (1.21%).

Equity Sector Performance

For the 2019-20 portfolio year, the portfolio’s tactical equity investments were allocated among the S&P’s eleven sectors: Communication Services, Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, Information Technology, Materials, Real Estate, and Utilities. In 2019, the portfolio was tilted toward sectors that were expected to outperform, e.g. Communication Services, Energy, Financials, Healthcare, Industrials, and Materials. The Sector Index column of the chart below shows that by March 31, 2020 almost all sectors cratered, with Information Technology the only positive performer. Energy was hit both by the COVID-19 pandemic and an oil price war. Each Crummer SunTrust portfolio sector holds the sector SPDR ETF – even so, superior stock selection allowed the portfolio to outperform in four of the eleven sectors: Communication Services, Energy, Healthcare and Utilities. The portfolio did not have any individual stock holdings in Industrials or Materials. Some of the best stock selections came from Utilities – NextEra Energy and Ormat Technology, Communication Services – NetEase, and Healthcare – Amgen.

<table>
<thead>
<tr>
<th>May 2018 through March 2019 Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
</tr>
<tr>
<td>Communication Services</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
</tr>
<tr>
<td>Consumer Staples</td>
</tr>
<tr>
<td>Energy</td>
</tr>
<tr>
<td>Financials</td>
</tr>
<tr>
<td>Healthcare</td>
</tr>
<tr>
<td>Industrials</td>
</tr>
<tr>
<td>Information Technology</td>
</tr>
<tr>
<td>Materials</td>
</tr>
<tr>
<td>Real Estate</td>
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<tr>
<td>Utilities</td>
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</tbody>
</table>
Bonds and Cash

By the end of May 2019, the Portfolio had distributed $50,000 in scholarships, leaving 1% allocated to cash, 84% allocated to equities, and 15% allocated to bonds (DoubleLine Low Duration and the Vanguard Intermediate-Term Investment-Grade funds). The bond investment gained 1.8% from May 2019 through March 2020. After the proposed trades, the Portfolio will hold less than 1.0% in cash and will generate $50,000 in scholarships – supporting future Crummer students and fulfilling the spirit of the original gift.
ESG Overview

In 2019, CIM analysts began researching companies through the lens of environmental, social, and corporate governance (ESG) policies. Ultimately, CIM determined that there was not enough economic evidence to support the conclusion that our portfolio could benefit from investing in highly-rated ESG companies. However, sensing that the growing conversation around ESG policy would continue to push companies to find methods of improvement in these areas, CIM determined that rather than investing in companies with high ESG scores, analysts would look to make recommendations for companies whose primary business was aligned with helping others meet their ESG goals. That task proved to be difficult.

In the year that has passed, ESG investing has grown to be a hot topic among investors. Although the concept of ESG investing is far from new, there has been an explosion of conversation and research around the concept of ESG investing and the value that ESG programs create for shareholders. After reviewing the data, CIM has concluded that ESG programs create both short-term and long-term value for companies and their shareholders. We also observe that ESG ratings can become a self-fulfilling prophecy, driving stock prices. Consequently, we have placed an emphasis on ESG standards at the heart of our portfolio recommendations for the coming year.

Looking at a long-term investment horizon, CIM believes that in the future, ESG policy will cease to be a differentiating factor because it will become the expectation for all companies. That being said, companies that choose to focus on ESG opportunities now will be well-positioned in the future to seamlessly drive business growth. Many ESG initiatives are focused around reducing risk, developing human capital, enhancing diversity, building up sustainability, and ultimately increasing efficiency and profitability. These concepts all help companies with high ESG ratings provide increased value for their shareholders.

The current challenge facing ESG investors and researchers is that as of right now, there is a lack of agreement on how to measure or quantify a company's ESG rating. Companies such as MSCI, Bloomberg, FTSE and Sustainalytics all offer their own metrics for measuring a company's ESG rating; however, even between these, there are significant inconsistencies from one provider to the next. While this conflict provides a challenge within the industry, CIM believes that it creates an opportunity to utilize our own research and make investments in companies that are improving their ESG position, while they are still undervalued by the market.

In each actively managed sector, CIM analysts utilized ESG ratings from Sustainalytics and FTSE as a screening tool, to supplement individual research on the activities and programs of the recommendations within that sector. Relying on Sustainalytics and FTSE restricted our universe of stocks. Many attractive opportunities were screened out either because they were not rated or had low ratings. For example, in the Communication Services sector, only 10 of the 77 companies had scores above the 50th percentile. Nevertheless, within the parameters we established, we found some investment opportunities. The recommendations that follow will compose a portfolio of undervalued companies that are either already leaders within the ESG environment or are actively taking steps to improve their ESG position.

Although the current market volatility and economic disruption resulting from the COVID-19 pandemic have temporarily distracted from the focus on ESG investing, CIM believes that, with a long-term investment horizon, ESG factors cannot be ignored. Improvement to ESG issues can drive top line growth, prevent regulatory and legal damages, improve consumer perception, drive productivity, and reduce costs. As market perception continues to shift in the direction of ESG focused funds and as investors become more willing to pay a premium for companies with strong ESG performance, CIM intends to capitalize on the opportunity to maximize growth through companies that are committed to ESG ideals.
Portfolio Design

1. Asset Allocation

Strategically, we allocated funds between stocks and bonds to reflect our economic outlook of an impending recession. The management team looked at performance and volatility to identify the most desirable asset allocation. The asset class benchmarks, and their target ranges are provided by the IPS as suitable for the portfolio’s long-term horizon.

Our overall allocation recommendation for our 2020 portfolio, as shown in our pie chart below, is 85% equity (64.62% ETFs, individual stocks 20.38%), 15% bonds, and a negligible allocation to cash to provide liquidity for possible fees. Fixed Income allocation was set at 15% to take a middle-of-the-road approach, given our IPS constraints for fixed income between 10% and 20%. With the Fed cutting interest rates and announcing they will implement unlimited quantitative easing measures to support the economy, the CIM team believes overweighting the Fixed Income sector would reduce the potential gains in the stock portfolio. Additionally, the team believes a 15% allocation provides enough buffer for the current market fluctuations.

ASSET ALLOCATION

![Pie chart showing 85% equity, 15% bonds]

2. Sector Allocation

We predict a period of recession, high unemployment, and no more interest rate changes moving forward. Consequently, we have chosen to overweight sectors that we believe will experience growth and do less poorly during a recession (communication services, consumer staples, information technology, and real estate). The sectors that we have chosen to underweight were those that do not typically perform well during an economic downturn according to the expected economic cycle (energy, financials, industrials, and materials). The sectors we decided to keep neutral (consumer discretionary, health care and utilities) reflected our economic outlook. The degree to which we weighted these sectors was based on our confidence in their performance. The most dramatic of which was the consumer staples as sales are
expected to increase as people focus on what they need. The management team chose to decrease allocation of energy in efforts to maximize portfolio growth in response to the decrease in oil prices and the ongoing conflict between Russia and Saudi Arabia.

The following charts display our sector allocations. For example, the weight of the Communication Services sector in our 2020 portfolio, which is represented by the dark blue bar, is 12.50% while its weight in the S&P 500 for this sector, which is displayed by the grey bar, is 11.00%. This allocation overweights the Communication Services sector by approximately 14% over its benchmark. The sector overweight is represented by the light blue bar above the horizontal axis. For another example, the Energy sector is assigned a 2.00% weight while its corresponding S&P 500 weight is 2.64%, underweighting this sector by 24%. Overall, we believe our recommended sector allocations offer the most desirable portfolio design consistent with our economic outlook and positioned for growth in returns throughout the next year.

**PROPOSED SECTOR ALLOCATION**
3. Sector Securities vs. Exchange Traded Fund (ETF) Allocation

The management team has decided to use risk budgeting to determine the allocation between each sector’s securities (the satellite/active asset class) and sector ETF (the core/passive asset class). Risk budgeting focuses on how risk is distributed within each sector, i.e., between the sector ETF and the securities selected for that sector. The risk budget sets the percentage invested in the sector ETF as a function of the tracking error between the two-stock portfolio and ETF in that sector based on the tracking error tolerance. The lower the active tracking error, the more risk averse the risk budget would be, meaning a higher allocation to the sector ETF.

The level of tracking error tolerance depends on the amount by which the management team is willing to let each sector’s securities perform differently from its sector ETF. For example, a tracking error of zero would indicate that the sector securities matched the sector ETF – something we want to avoid if the sector securities are to add value to the portfolio. A tracking error above zero indicates the returns of the sector’s securities differ from the ETF. A tracking error tolerance indicates how much of the independent returns the sector securities represent should be allowed. As the tracking error tolerance increases, the higher the allocation to the sector securities. We acknowledge that in many cases the sector ETF holds the individual stock recommendations, in effect doubling down on that stock. Those duplications are intentional as we believe the stock recommendations are undervalued.

The management team has decided to set our tracking error tolerance at 5% across every sector except IT, which suggests that each sector will have a different split between the securities and the sector ETF. For instance, at the 5% tracking error tolerance, 31.5% of the Communication Services sector will be allocated to the satellite assets, while 68.5% of the sector will be allocated to ETF. At the same level of tracking error tolerance, the Consumer Discretionary sector has a 24.9% satellite allocation and 75.1% ETF allocation. IT is more constrained at 4% to avoid overconcentration of a single stock. The IT sector holds most of our portfolio and maintaining it at the same tracking error tolerance would have resulted in investing more than 5% in a single stock. The graph and table below display the securities vs. ETF split for each sector:
### Sector Securities Vs. ETF

<table>
<thead>
<tr>
<th>Sector</th>
<th>Satellite / Securities Allocation [%]</th>
<th>Core / ETF Allocation [%]</th>
<th>Tracking Error [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Services</td>
<td>31.5%</td>
<td>68.5%</td>
<td>15.9%</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>24.9%</td>
<td>75.1%</td>
<td>20.1%</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>44.8%</td>
<td>55.2%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Energy</td>
<td>0.0%</td>
<td>100.0%</td>
<td>N/M</td>
</tr>
<tr>
<td>Financials</td>
<td>0.0%</td>
<td>100.0%</td>
<td>N/M</td>
</tr>
<tr>
<td>Healthcare</td>
<td>28.5%</td>
<td>71.5%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Industrials</td>
<td>0.0%</td>
<td>100.0%</td>
<td>N/M</td>
</tr>
<tr>
<td>Information Technology</td>
<td>34.5%</td>
<td>65.5%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Materials</td>
<td>0.0%</td>
<td>100.0%</td>
<td>N/M</td>
</tr>
<tr>
<td>Real Estate</td>
<td>0.0%</td>
<td>100.0%</td>
<td>N/M</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.0%</td>
<td>100.0%</td>
<td>N/M</td>
</tr>
</tbody>
</table>

[a] [b]: Equity vs. ETF split is based on a tracking error tolerance of 5%
[c]: The tracking errors for fully passive sectors are not relevant the ETFs are the only investments in those sectors
[d]: 4% tracking error tolerance was utilized for IT to ensure the VISA (V) allocation stayed below 5% of the portfolio based on IPS constraints
By adding up all security allocations and all ETF allocations, we end up with 20.38% of the portfolio in sector securities and 64.62% in sector ETFs. Although risk budgeting is not insurance against underperformance, we believe it is a rational approach to managing the allocation within each sector while assuring our portfolio remains diversified among the sectors.

4. Sector Equity Allocation – A Risk Parity Approach

We utilized the risk parity approach to allocate between the equities within each sector as risk parity is an investment strategy that focuses on the allocation of risk. This approach balances risk exposure between the two securities within each sector. We applied risk parity by assuming the securities in each sector were sources of risk and matched their allocation to their contribution to the sector’s security risk. We believe risk parity is an effective approach to allocating among risky assets.

5. Security Selection

The markets for security returns are competitive and narrowing down which securities to invest in was no easy task. While our academic setting limits the time and resources we can apply to security selection, the CIM team was able to select two securities in each sector through quantitative and qualitative analysis. We were specifically looking for stocks that were undervalued with strong growth potential. We estimated a company’s intrinsic value using a dividend discount model, or for those stocks that did not have dividends, a pro forma free cash flow model. Our economic outlook and sector performance also played a vital role in our calculations. In addition, we looked at qualitative aspects such as management expertise and the company’s competitive advantage. An important factor incorporated into the portfolio this year was ESG (Environmental, Social, and Governance) factors (also addressed in a separate section). We have applied quantitative models and compared the result to market prices to determine relative valuation. However, market prices during the pandemic have been poor estimates of investment value so we put more credibility into finding good companies with strong balance sheets and a compelling story. We also took care to recommend stocks that we did not think were at risk of bankruptcy. Although our time was limited, we believe we have recommended promising securities that will enhance the portfolio over the next twelve months.

Fixed Income Assets

2020-21 Outlook

In the first quarter of 2020, in response to the Coronavirus pandemic, the Fed cut rates to near zero and announced that they will implement unlimited quantitative easing to support the economy during this period of volatility. As a result, one-month and three-month treasury yields have fluctuated below zero as investors flock to safe assets.

As outlined in the economic outlook, the team believes the ten-year yield will be between 1.00% and 1.25% towards the end of the 12-month horizon. The increase from the current (as of March 31, 2020) 10-year yield of 0.62% is justified based on a late Q4 2020/Q1 2021 economic recovery seeing investors adjusting allocations back to stocks. Similarly, the team believes the two-year yield will be between 0.4% and 0.5%, up from the current 0.22%. These forecasts are a bit more optimistic than the future rates implied by the US benchmark bond one-year forward curve shown below.
The forward curve one year hence suggests that the market is pricing in an upward shift that slightly flattens in rates over the next year while we are anticipating a similar upward shift that slightly steepens. The yield curve suggests ultralow rates will be the new normal. Finally, we do not anticipate a change in the Feds Funds rate, for which the upper bound is currently set at 0.25%.

### 2020-21 Recommended Allocation

To capitalize on our current bond holdings (currently around 17%) that reflect last year’s market increase, the team recommends adjusting the portfolio fixed income holdings down to a moderate 15% allocation. The fixed income sector serves as a buffer against potential equity losses, and we accept that this sector probably will not add to performance due to our interest rate expectations. This fixed income strategy aligns with our overall economic outlook and long-term portfolio mandate. Additionally, an overweight of fixed income allocation would take away from the portfolio’s longer-term stock view and potential gains from a Q4/Q1 recovery.

### Logistical Constraints

This year’s team is short-handed as only five students enrolled. The faculty made the decision to drop the sector security holdings in all but five sectors with two individual securities in each of those sectors. We did not have an analyst assigned to fixed income and decided to hold our two mutual fund investments (DoubleLine Low Duration and the Vanguard Intermediate-Term Investment-Grade funds) and tweaked the split between them to match our economic outlook as shown below.

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<th>Fund</th>
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Sector Analysis
Communication Services

Introduction
The Communication Services Sector covers three main areas of communication: traditional telecommunication companies, internet-based companies, and media companies. The sector includes internet and media giants Disney, Facebook, Alphabet, and Comcast, as well as traditional telecommunications companies T-Mobile, Verizon, and AT&T. The sector represents just over 11% of the S&P 500.

Digital Advertising Trend
Companies continue to shift away from traditional advertising methods like print, TV, and radio in favor of digital advertising on the internet. According to the Interactive Advertising Bureau, internet ad revenues in the US increased by almost 17% YoY, totaling $57.9 billion in 2019 compared to $49.5 billion in 2018. Facebook and Alphabet (Google) stand to benefit the most from this trend, as they currently hold over 50% of the US digital advertising market. These stocks are not in our portfolio because of their high prices relative to valuation and our ESG screen.

Free Cash Flow models were used to evaluate the stocks held within the Communication Services sector for the Crummer SunTrust Portfolio. We estimated short-term growth rates using company historical compound annual sales growth rates.

Future of 5G
Telecommunications companies continue to work on rolling out 5G to the masses, while the competition amongst themselves continues to heat up. According to Trili, 5G is going to bring higher data-throughput rates, reduced latency, energy savings, cost reduction, increased system capacity, and massive simultaneous device connectivity — all at a practical cost. 5G brings more than just an upgrade from 4G – it brings innovation to the new way communication is done. Our portfolio takes advantage of the future of 5G, as well as the transformation of the telecommunications market.

Traditional Cable
While many investors continue to be pessimistic regarding cable television, with the rise of streaming services there is still plenty of potential. Our portfolio benefits from the adults 50+ that still consume just under 6 hours of cable TV daily.

Macroeconomic Environment
While there is a shift in the way television is enjoyed, there is still a huge market for linear television (cable). As mentioned, adults are still watching a great deal of cable television daily. As for the telecommunications industry, there is a huge competition brewing for who will bring the future to the people faster and, more importantly, better. Our portfolio takes advantage of the potential of “old-age” television, and the future of high-speed data, along with the transformation in the telecommunications sector.

Conclusion and Recommendation
The Crummer Investment Portfolio adopts a short-term tactical sector tilt relative to the sector market weights of S&P 500 index, anticipating market movements in the short-term. We believe that this sector will not be affected as much, if at all, by COVID-19, given that the ability to communicate remotely has never been more critical. Accordingly, we recommend an overweight for the sector relative to the S&P 500, making Communication Services 12.5% of the portfolio.
Discovery, Inc. (DISCA)

**Introduction**

Discovery, Inc. is a global media content company that provides original fictional and non-fictional programming with brands that include: Discovery Channel, TLC, HGTV, Motor Trend, Food Network, Animal Planet, OWN, Travel Channel, and GolfTV.

**ESG Status**

Discovery, Inc. has a record for making an impact in terms of sustainability. The company has worked with the World Wildlife Fund, the United Nations, US State Department, and US Department of Interior to combat and bring awareness to environmental issues. Discovery buildings are Platinum LEED certified with an EPA Energy Star rating of 94%, meaning they are more energy efficient than 94% of similar buildings. The company has reduced their carbon footprint by 40% since 2005 at One Discovery Place, as well as making all Discovery US offices run on one hundred percent renewable energy as of 2017. Discovery is working towards reducing its global footprint by minimizing water usage, increasing energy efficiency, and reducing waste. The value Discovery places on diversity and inclusion is further exemplified by its workforce. Forty-one percent of the global executive team is female and 42% of the US executive team is female. Discovery continues to hit on all three aspects of ESG with an ESG percentile rank of 14%.

**The Story Behind the Stock**

While cable TV consumption is unarguably on the wane for alternatives like streaming services, we believe Discovery will continue to thrive due to its passionate fans. According to Nielsen’s latest Total Audience Report, adults age 50+ still watch just under 6 hours of cable television daily. With channels like Food Network, OWN, HGTV, and GolfTV (Discovery owns all PGA for world outside of Tiger Woods master class), it delivers a strong portfolio built for those who still enjoy watching cable television and live action sports. Included in its portfolio are learning television (Planet Earth, Blue Planet, Life) and sports (cycling, golf, summer Olympics across Europe). The combination of entertainment Discovery provides gives the company a competitive edge, and they own all of their content worldwide.

While the company focuses on linear TV (cable), it is starting to transition into other distribution platforms like Hulu and free-to-air television. With the continued integration of Scripps, which they bought in 2018, Discovery is setting itself up nicely to compete in this era of streaming services.
Fundamental Analysis

Balance Sheet:
While Discovery added leverage after acquiring Scripps for $14.6 billion, it continues to have a reasonable balance sheet. Long-term debt to total assets is 46% (see graph) and appears relatively steady. However, a closer look shows that Total Assets is potentially distorted by the $6 billion in goodwill added in 2018. When adjusting for the increase in goodwill, the ratio is 56% -- justifying the credit score downgrade by S&P in November 2019. In 2019, Discovery reduced long-term debt by $1.5 billion and bought back over $600 million in shares. As a result, long-term debt to equity fell from 181% in 2018 to 158% in 2019. While we believe the barely-investment-grade rating is appropriate, the company's leverage is manageable.

Income Statement:
In Discovery's first year of owning Scripps Network, the company nearly doubled its sales, going from $6.8 billion to $10.5 billion. Discovery had a significantly better gross margin, 49%, compared to that of the industry average, 35%. The impact of Scripps is already starting to be felt in sales, without having a significant impact on COGS. COGS as % of sales increased from about 43% to 50%. Excluding the addition of Scripps, other revenues increased by 8%.

Operations:
With room to grow in the global sector, Discovery has made some key upgrades in management, introducing Peter Faircy as CEO of Global DTC, who was previously with Amazon for 13 years. With the continued growth in viewership, nearly double since 2016, and new emphasis on different distribution platforms, Discovery is set to continue to be a big player globally.

Free Cash Flows:
Discovery continues to grow its free cash flow per share (see graph), increasing from $1.72 in December 2014 to $4.74 in December 2019. As mentioned, the company has been buying back shares, improving per share ratios. Nevertheless, their cash flow position is strong.

Valuation
With well over 2 billion subscribers around the world, Discovery has demonstrated the ability to grow its brand and will continue to do so as Scripps becomes more integrated into the company. To estimate an intrinsic value for Discovery, we constructed a pro-forma Free Cash Flow to Equity model, because we do not expect the company to pay a dividend. We believe that the steady growth in sales, without having to heavily increase COGS, makes a pro-forma FCFE the best option to find an intrinsic value.

Considering the company has had solid normalized growth over the years, we believe even with a below-average sales growth rate of 3%, along with a conservative long-term rate of 2%, Discovery's intrinsic value is $58.06. Even so, this pessimistic estimate is above the current market price.

Challenges
Like all linear TV providers, there is always concerns about a growing trend of consumers that typically watch cable making the switch to streaming services. Discovery is not the only cable provider working to combat streaming services, while competitors like DirecTV are announcing cheaper cable packages and even its own streaming service. We do not believe that this is too much of a concern for Discovery, given its global presence, relationship with Hulu and other streaming services, and its passionate and loyal customer base that continues to enjoy Discovery’s portfolio of shows.

Conclusion & Recommendation
Discovery is a global media content provider with a very bright future ahead, in part due to the acquisition of Scripps, and adding additional distribution platforms for its programs. We believe that investors continue to be overly concerned with the future of streaming and that Discovery’s stock is undervalued, validated by our pro-forma FCFE model. We recommend a HOLD, as Discovery is still undervalued.
T-Mobile US, Inc. (TMUS)

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<tr>
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<th>Valuation</th>
<th>Last Price</th>
<th>Adjusted P/E</th>
<th>Style</th>
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**Introduction**

T-Mobile US, Inc. is a wireless communication services company providing service to over 86 million customers with $44 billion in 2019 revenues. Deutsche Telekom (DT) currently owns 62% of T-Mobile and will own 43% of the T-Mobile Sprint merger with SoftBank set to own 24% (although DT will have a perpetual proxy over SoftBank’s shares). This analysis considers the combined company, which will operate under the T-Mobile name.

**ESG Status**

DT has one of the best ESG scores in the communications sector, ranking in the 12th percentile. T-Mobile, with a 36th percentile ranking, is working to improve their ESG activities. T-Mobile has joined RE100 – a global initiative uniting businesses committed to using 100% renewable energy. T-Mobile has a plan to cover all of its business by 2021. According to Fortune and Glassdoor, T-Mobile is one of the most diverse and best places to work, receiving awards for best place to work for LGBT employees award nine years running. Sprint, however, ranks in the 44th percentile. Neither company has been recognized as an ESG star performer. Both rank lower than any of the other rated telecommunications companies. While we do not expect much leadership from SoftBank (not ESG-rated), we think T-Mobile, with the guidance of Deutsche Telekom, can improve its ESG rating. As it does, its stock price should rise towards fair value.

**The Story Behind the Stock**

After waiting nearly two years, the DOJ and FCC will allow T-Mobile and Sprint to merge. The new T-Mobile faces significant challenges. Sprint has lost money every year since 2012, with the exception of 2018 when it received an extraordinary tax refund. Sprint’s EBIT margins have been smaller than T-Mobile’s since 2015 (see chart), so the merger will not be accretive, at least at first.

We believe that T-Mobile sees strategic advantages beyond the negative near-term financial impact. T-Mobile claims synergies of $6 billion in annual run-rate and $43 billion in net present value. Even if these are optimistic by half, the merger still makes sense. In a recent shareholder presentation, the company claimed the merger would benefit from its “Un-Carrier” approach, resulting in increased EPS three years hence. In our view, the roll-out of 5G, based in part on combining Sprint’s mid-band with T-Mobile’s low-band and millimeter wave spectrum licenses, will be the real benefit of the merger. Furthermore, the FCC Chairman backed the merger on the premise that this merger would do two things: close digital gap in rural America.
and advance US leadership in 5G. These are opportunities that could boost the stock price.

**Fundamental Analysis**

**Balance Sheet:**
T-Mobile has carried a higher than industry average Long-Term Debt to Total Assets ratio of 41.8% for the last 10 years and a BB+ credit rating. The new T-Mobile will have a LT Debt/Total Assets ratio of 42%, compared to Verizon’s 41%, A&T’s 32%, and the industry average of 34%. This ratio should improve as merger terms include repaying $8 billion in DT loans, cancellation of a $2.5 billion revolving credit facility and the redemption of the remaining $6.6 billion of DT-held debt over time. We expect their less-than-investment-grade credit rating to improve, and T-Mobile should have the ability to finance projects such as the Un-Carrier plan, ESG initiatives, and 5G roll out on more favorable terms.

**Income Statement:**
With 126 million postpaid customers between the two companies, they will be closer to rivals AT&T (141 million) and Verizon (150 million). According to Morningstar, since 2013 T-Mobile has gained 85% of the 22 million increase in postpaid cellular customers. The company has been doing something right and the new T-Mobile should be able to increase revenues and meet their three-year target of EPS growth.

**Free Cash Flows:**
T-Mobile has been retiring debt at a much higher rate than it has been issuing debt. Over the last 2 years, the company has retired around $14 billion in debt, compared to the $11 billion issued, bringing its issuance/reduction of debt to $2 billion. We expect continued improvement due to DT’s commitment to reduce its funding of T-Mobile from $14.6 billion to $6.6 billion as a result of the merger.

**Valuation**
The merger of T-Mobile and Sprint has been in the works for almost two years now and the companies have already started to invest in the future of the combination, especially 5G. Because we do not expect T-Mobile to pay dividends, we used a Pro-Forma Free Cash Flow to Equity (FCFE) model to estimate the intrinsic value of old T-Mobile’s stock, assuming Sprint’s value is zero. We projected a near-term sales growth of 7.75%, less than T-Mobile’s past growth of 11.3%, adjusted downwards for the merger transition and the addition of Sprint’s lower growth rate. Projected sales drop through the pro forma combined income and cash flow statements to produce a FCFE growth rate of 20%. We used 7.12% as the cost of equity and a long-term FCFE growth rate of 2.5% based on industry analysts’ conservative growth rate projections. We estimated T-Mobile’s intrinsic value at $127.57. This estimate includes share repurchases worth $0.31 per share in 2018. Our sensitivity analysis suggests that the range of likely intrinsic values is $119.49 to $151.68. While the stock has yet to begin trading as a combined company, recent prices for T-Mobile ($86.45) and Sprint ($8.85) suggest that T-Mobile shareholders will see a post-merger price of $95.32 (based on the merger ratio of 0.10256 T-Mobile shares for each Sprint share). The day after the merger was approved, both T-Mobile and Sprint shares rose (see graph), signaling the market’s positive expectations. Our estimate is ultra-conservative, giving no value to Sprint.

**Challenges**
T-Mobile is relying heavily on this merger with Sprint to provide market-leading 5G capabilities. Like any business negotiation, there is a possibility the merger will not close as expected. While unlikely, due to Sprint needing this merger after years of playing “subscriber catch-up” and being a distant fourth from T-Mobile in total subscribers, there is always the risk. We believe it will not be a serious issue as both parties are motivated.

**Conclusion & Recommendation**
With the recent news of the merger being approved, and the enhanced ability for T-Mobile to compete in a tough industry, we believe the company can continue to grow. Even with relatively modest growth rates used in our pro-forma post-merger FCFE model, we estimate the company is currently undervalued. We recommend a BUY.
Consumer Discretionary

Introduction

The consumer discretionary sector encompasses industries that manufacture products and provide services that consumers regard as non-essential. According to the laws of economics, demand for non-essential products should be highly correlated with real disposable income. Demand for discretionary non-essential products and services shrinks during economic busts when personal disposable income is scarce and flourishes during periods of economic boom when personal disposable income is abundant. Industries within this sector are leisure products, automobiles and auto components, textiles and apparels, hotels and travel, restaurants, household durables and appliances, diversified consumer services, media distributors, internet and direct marketing retail, multiline retail, and specialty retail.

COVID-19

The consensus of the Crummer Investment Management Team is that the impacts from the COVID-19 outbreak are going to significantly slow down the economy until the Q4 2020 and then see a slow increase into the first quarter of 2021. People’s fear of the virus, quarantines, and the wait for a vaccine will continue to impact the way people spend money while the virus fades into the background.

Conclusion

The Crummer Investment Portfolio adopts a short-term tactical sector tilt relative to the sector market weights of S&P 500 index, anticipating market movements in the short-term. Accordingly, and because it is our group’s consensus that the economy will be impacted in 2020, impending the consumer discretionary sector, we recommend keeping the sector neutral relative to the S&P 500.

We valued individual stocks within this sector using a three-stage dividend discount model and a H model. Short-term growth rates were estimated based on a bottom-up approach, supplemented by our analysis of the company’s short- and long-term prospects. Share repurchases were incorporated in the dividend forecast as appropriate.
**Consumer Discretionary  Crummer Investment Management**

## Darden Restaurants, Inc. (DRI)

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<th>Recommendation</th>
<th>Valuation</th>
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<th>Style</th>
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### Introduction

Darden Restaurants, Inc. was founded in 1938 and is known for its portfolio of restaurants including Olive Garden, The Capital Grille, and others. Darden operates its over 1,700 locations in North America and generated approximately $8.5 billion in revenues in 2019.

### ESG Status

Darden’s focus on their people fits well with our ESG theme. In 2019, Darden was recognized by Forbes as one of the Best Employers for Diversity. The company hires its own, reporting that 50% of their general managers and 90% of their general managers come from within. Darden has an impressive 97th percentile rank in their ESG (FTSE) rating and a 27th percentile rank on Sustainalytics. These rankings also reflect Darden’s increase in energy efficiency by 17% and water conservation by 22%. Looking ahead, Darden reports it is focused on improving animal welfare outcomes by committing to purchasing chicken raised without antibiotics by 2023. Darden’s ESG performance should continue to be reflected in its stock price.

### The Story Behind the Stock

The company’s current configuration begins with Starboard’s overhaul of its board, scrapping of its ‘poison pill’, and greater disclosure of lobbying and political spending in 2014. Red Lobster was also divested in 2014. Two years later, Jeff Smith, who engineered the takeover and back-to-basics revitalization, stepped down from the board, signaling the end of the activist era. In the two years of that era, the stock price increased by almost 60%, including a $7 a share real estate spin-off. The stock has continued to do well since with a 225% increase over October 2014. The key to this company’s success is stability, even in tough times.

During the Great Recession, Darden managed to perform well. Net margins remained between 5.2% and 6.7% 2006-2010 (see chart). Net after-tax margins reached an all-time low of 2.9% following the Red Lobster sale in 2014. Since then, however, margins have recovered, increasing approximately 12% year-over-year, to 8.4% in 2019. The company is well managed and has demonstrated its ability to do well, despite difficulties in the economy. That ability is the main appeal of investing in Darden.

![Net After-tax Margins](chart1.png)

![Long-Term Debt/Assets](chart2.png)
Fundamental Analysis

Balance Sheet:
The company is financing its expansion through borrowing. Long-term debt has grown from $564 million four years ago to nearly $1.1 billion at May 2019. On a percentage basis, total debt-to-total assets (see chart) has fallen from 19.8% to 17.6% the same period, reflecting Darden’s use of the proceeds to invest in assets. Darden has maintained a credit rating of BBB for years, so its creditworthiness appears to be secure.

Income Statement:
Darden reported $719 million in earnings in 2019 with a 19.04% increase from 2018. Sales in 2019 increased by 5.32% from 2018, including 39 net new company-owned stores, while same-store sales increased 2.5%, while it maintained a net income margin of 7.28% and EBIT margins of 9.98%. As the graph above demonstrates, net margins have improved steadily since 2014. The company reported recurring EPS of $6.06 in November 2019, exceeding analysts’ forecasts of $5.90.

Over the last twelve years, including the Great Recession, Darden’s sales have increased constantly, and after-tax net income has grown from $196 in 2015 to $719 million in 2018, settling at $631 million in 2019.

Darden maintains stable gross margins ranging between 17.63% to 18.01% over a period of five years (2015-2019). The company’s 3.0% dividend yield and payment history of over ten years make Darden attractive.

Valuation
Darden restaurants diversification of products and pricing coupled with their core efficient operations have demonstrated that the company should have steady but conservative growth over the coming years. This formula has proven to be successful for Darden regardless of the way the economy is performing. Darden remains focused on growth within each of their brands (approximately 50 new restaurants coming in 2020); however, according to The Motley Fool, they are balancing this growth with an understanding of excellence in operations. Due to a history of dividends, despite a recent pause to conserve cash, we used the H-model model to arrive at an intrinsic value for Darden’s stock. A bottom-up valuation model yielded a strong 8.31% short-term internal growth rate, which can be attributed to their efficient operations producing steady growth. We estimated a conservative long-term growth rate of 3.75%, which represents the sum of the USA’s long-term GDP forecast (1.8%) and the long-term inflation rate forecast (2%). The model, using a 5.87% cost of equity, yielded an intrinsic value of $166.51, adjusted for expected share repurchases. Through our sensitivity analysis, we estimate Darden’s stock intrinsic value between $101.05 and $209.72. This range of intrinsic values is above the current stock price. Using the most likely estimated inputs, we believe that $166.51 is the most reasonable intrinsic value for Darden. Most of the 27 analysts who follow Darden agree, with an average target price of $122 and only one sell recommendation.

Challenges
As Darden sales depend largely on consumer discretionary spending, the company is sensitive to change in or uncertainty about macroeconomic conditions in the USA where the majority of its revenue is generated. We assess these challenges as low probability but still possible based on our economic outlook. Furthermore, one of the biggest challenges for the company is going to be potential quarantines following the COVID-19 outbreak. Should this occur, all restaurant chains will suffer, however, we believe that Darden can continue operating through a delivery model.

Conclusion & Recommendation

We expect Darden Restaurants strategy, regardless of the economic outlook, to remain with steady growth.

Even with our modest long-term growth forecasts, our H-model estimates that even in the most pessimistic outcome the company is currently undervalued. We recommend a BUY.
Nike, Inc. (NKE)

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**Introduction**

Nike, Inc. was founded in 1964 and is the largest seller of athletic footwear and apparel in the world. Nike operates in 120 countries and has sales that have been increasing by 8% CAR since 2010 and are on track for 2020.

**ESG Status**

Nike's stock price has been stymied by past reports of largely accurate unfair labor practices, which explains why they have been aggressive in addressing ESG issues. Looking ahead to 2020, Nike claims it is committed to transparency and purposeful impact. While direct results of Nike's efforts are difficult to measure, according to Censible, a reputable ESG reporter, Nike has been a top performer for its lack of carbon footprint, pollution prevention, and employee satisfaction. Furthermore, their overall ESG (FTSE) percentile rank is 80th, and their Sustainalytics rank is 11th, including a Governance score in the 17th percentile. Despite these favorable reviews, Nike remains a target for criticism, including a statement by a US Senator, accusing the company of paying sweatshop wages.

**The Story Behind the Stock**

Nike's controversy level has remained high due to their previous involvement with sweatshops, child labor, and ongoing unfair labor practices; however, management has worked diligently to push the company past its history. Since 1998, Nike has battled this message by being transparent about its labor issues and striving for more equal working conditions. Despite years of continued improvement, the market continues to cast an unfavorable shadow on Nike. Our thesis is that Nike ESG performance is better, and the market cannot ignore this improvement much longer. When it does, the price will rise to fair value.

**Fundamental Analysis**

**Balance Sheet:**

Nike has maintained a steady cashflow over the last five years. Current assets have increased in 2019 by 9.19% compared to 2018. The company is financing its digital expansion with a combination of profits and borrowing. Long-term debt has increased from $2 billion four years ago to nearly $3.5 billion. On a percentage basis, total debt to total assets (see chart) has risen from 5.74% to 16.9% in 2018, falling to 14.7% in 2019. This increased...
leverage has not impacted Nike’s credit rating or profit margins.

Income Statement:
Nike reported net profit margins at 10.3%, up from 5.3% last year and above the five-year average. The company’s $4 billion in 2019 earnings was a 13% increase from 2018 (normalized). Sales in 2019 increased by 7.6% from 2018 and the company reported record recurring EPS of $2.89 exceeding analysts’ forecasts of $2.59. The company attributes its strong financial performance in 2019 to its innovation and its digital growth of 42%, and we agree. The company has seen results from its investment in its NikePlus membership program and its SNKRS app which provides customers with a more personalized experience. In another positive development, the company closed stores domestically and internationally, resulting in more sales with fewer stores.

In 2019, Nike pulled its products from Amazon in an effort to gain tighter control over its product and retain better margins. Nike maintains stable gross margins ranging between 43% to 45% over a period of five years (2015-2019), and we believe these will improve following the Amazon exit.

The company’s performance continued through third fiscal quarter of 2019, with sales growth of 7.14% with a net income margin of 11.21% and EBIT margins of 12.38%.

Free Cash Flows:
Free cash flow per share in May 2019 was $3 which is significantly above the five-year trend. Most recently the company paid dividends of $0.98, and they, on average, increase about 10% year after year. Nike also has an aggressive share repurchase program that allows the company to repurchase $15 billion shares within four years.

Valuation
Nike’s focus on digital growth, brand recognition, and ESG is already in action, and the company has shown the ability to maintain its profit margins while controlling expansion and remaining global. With this premise, we used a three-stage dividend discount model to arrive at an intrinsic value for Nike’s stock. A bottom-up valuation model yielded an impressive 18.74% short-term internal growth rate, which reflects their digital growth. We estimated a long-term sustainable growth rate of 4.25%. A blend of US and World GDP and inflation rates were used because 59% of Nike sales are international. By discounting at a 7.07% cost of equity, the most likely intrinsic value was $106.30, adjusted for expected share repurchases. Our sensitivity analysis estimates Nike’s stock intrinsic value between $84.19 and $183.04. Although our most pessimistic inputs produce a value below the current market price, we believe our most likely estimates are conservative, supporting $106.30 as a reasonable intrinsic value for Nike.

Challenges
As Nike’s sales depend largely on consumer discretionary spending, their financial results are sensitive to changes in or uncertainty about macroeconomic conditions in both the US, where 41% of the company’s revenues are generated, as well as globally. We assess these challenges as low probability but still possible. Furthermore, the company must remain vigilant with China. China is one of Nike’s largest growth markets (17% of total revenue), and one of the main manufacturing locations for Nike (nearly 25%). See chart. While the company has been affected by the COVID-19 outbreak in February 2020 causing nearly half of the Chinese factories to close (11% of all manufacturing), management’s diversification of factories across the world has been effective in managing its supply chain.

Conclusion & Recommendation
Nike’s strategy of digital growth should lead to continued growth. Once the market realizes Nike is no longer an ESG pariah, we expect the price to rise.

With our intrinsic value, the company is currently undervalued. We recommend a BUY.
Consumer Staples

Overview

Consumer Staples stocks are viewed as a safe haven opportunity during market volatility or economic downturn. The start of 2020 may prove to be the first quarter of a recession. With the potential of a recession looming and our shift in the economic outlook of negative GDP growth, we believe that there is a reason to see moderate growth in Consumer Staples. We have increased the portfolio weight for this segment to exceed the Consumer Staples S&P market weight to act as a hedging measure against the increase in market volatility.

Trends and Consumer Demands

Currently faced with a global pandemic, the Federal Reserve has responded with a severe cut to federal interest rates, as well as quantitative easing to help combat the potential recession that we are entering. Fiscal policy seems poised to join the effort. Consumer Staples may benefit from this stimulus; it is all in how companies respond to consumers’ needs in this current economic environment.

Today, consumers have two immediate demands: price transparency and convenience. To meet the needs of consumers, retailers in this sector had to find a way to overcome the challenges of delivering an e-commerce experience. Companies that have evolved their e-commerce platforms would benefit by being able to spot consumer trends and adjusting supply chains. Those retailers that have adapted will see positive growth during and after these challenging economic conditions.

Dividend discount models were used to evaluate the stocks held within the Consumer Staples sector for the Crummer SunTrust Portfolio. We estimated short-term growth rates using a bottom-up valuation analysis. Share repurchases are included as future cash flows to shareholders in all models.

Conclusion

The Crummer Investment Portfolio adopts a short-term tactical sector tilt relative to the sector market weights of S&P 500 index, anticipating market movements in the short-term. Accordingly, and because it is our group’s consensus that the economy will be impacted in 2020, perhaps benefiting the consumer staples sector, we recommend overweighting this sector relative to the S&P 500.
The Coca-Cola Company (KO)

**Recommendation**
BUY

**Valuation**
- Last Price: $87.26
- Adjusted Price: $44.25
- P/E: 20.4

**Style**
Large Core

**Dividend**
- Yield: 3.8%
- Bond Rating: A+

**Earnings and Dividends**

**Product Mix**

Introduction

The Coca-Cola Company is the largest provider of non-alcoholic beverages in the world. Sold in the United States since 1886, the Coca-Cola Company now accounts for nearly 2 billion of the 6 billion beverages sold in over 200 countries.

ESG Status

Coke’s ESG program personifies environmental and social responsibility. Environmentally, Coke is focused on water conservation, recycling, and product packaging. Coke also has been reducing the amount of water it uses in the manufacturing process. Additionally, Coke has been focused on the treatment of wastewater and providing clean water for those in need. Coca-Cola also plans to reduce waste in the environment through an aggressive recycling program. The goal of this program is to recycle one bottle or can for every unit sold by 2030. This ties into their shift in product packaging. Their stated goal is to have 100% of product packaging to be made from recycled material by 2025.

Coke is making a social contribution through its Better Shared Future Program. Through this program, Coke is giving charitably and providing opportunities for women. The Coca-Cola Foundation has given more than $1 Billion to more than 2400 organizations. These organizations are focused on social change, impacting people directly. Coke, internally, has created a 5by20 outreach program that provides women with both business skills and mentors. Through this program, Coke has empowered more than 3.2 Million women across 92 countries. Coke has a connotation of sugary drink company that is only out for profit and is rather unrecognized for the good that it provides the world. The company ESG score ranks in the 40th percentile.

The Story Behind the Stock

Coke has shifted into a different company than it was prior to 2017. Coke’s business is split into two main operations: concentrates and finished products. From 2013 to 2017, around 60% of products sold were finished products. In 2019, concentrate was 55% versus 45% for finished product. In 2017, Coke invested $6.5 billion to purchase the bottling rights back from the franchisees and then refinance those bottling rights at more favorable terms. Coke now focuses on producing concentrates while the (newly) franchised bottlers provide packaging and distribution (see graph). Producing concentrate is less capital intensive, requiring less labor and overhead. Morningstar notes that Coke
needs 30 manufacturing facilities to produce 80% of its case volume while it needs 90 facilities to produce 20% of its volume. As a result of increasing franchise fees under new agreements and producing more concentrate, net after tax profit margins have increased from an average of 16% between 2014 and 2016 to 24% in 2019.

Though currently not recognized enough for it, Coke has a robust ESG program that focuses on issues that hit the core of those individuals who are cognizant of environmental issues and are demanding change from organizations. Coke is currently known as a company that is solely focused on making money by producing sugary drinks and they do not care much beyond that. While it is often overlooked Coke is focused on solving environmental issues and helping people. When people learn more about these efforts, it will become a brand people will appreciate more.

**Fundamental Analysis**

**Balance Sheet:**
From 2015 to 2019 we have seen a fall of over $7 billion in total cash, cash equivalents and short-term investments. This change was accompanied by a $2.8 billion dollar increase in goodwill due to acquisitions. Time will tell if this investment was a wise one.

Long term debt has increased slightly by $2 billion as Coke has just completed purchase of Fair Life Milk and Costa Coffee brand. Total Debt to Total Capital has remain relatively steady over the past five years with a spike in 2017, and now back to normalized 51%

**Income Statement:**
In 2016 and 2017, Coke changed the way it operated by switching the company focus from selling finished products to selling syrups and concentrates. During those two years, we see a dip of nearly 17% in sales. In just one year after completing this project, sales rose by 9%, while margins increased by over 5%. The overall increase is reflected in Coke’s earnings per share ($2.34) and dividends per share ($1.60) -- the highest they have been in the last 10 years (see graph).

**Free Cash Flows:**
In 2019, Coke reported its highest free cash flow in the last 10 years, over $8.4 billion – a 38.5% increase year over year. Dividends have increased by 21% over the last 5 years.

**Valuation**

Our valuation takes into consideration the completion of the refranchising agreements, the shift in the overall business model, and the value of Coke's ESG programs. We used a two-stage dividend discount model to arrive at Coke’s intrinsic value. A bottom up analysis estimated Coke’s short-term growth rate at 6.84%. We assumed a long-term growth rate of 3.1% representing the sum of nominal US GDP (1.9%) growth rate and a modest assumption that Coke would continue to grow faster than GNP by 1.2%. The model used a 5.4% cost of equity to arrive at an intrinsic value of $87.26, adjusted for Coke’s current share repurchasing program. A sensitivity analysis determined that Coke’s stock intrinsic value is between $195.46 and $64.54. Even our most pessimistic estimate is above the current market price. We believe that because our most likely estimate is $87.26, it is a reasonable intrinsic value for Coke.

**Challenges**

Coke’s sales are heavily weighted towards the United States with 39.3% of total revenue coming from the US and the second largest share of revenue coming from Mainland China (9.2%) The current trade war presents a challenge for Coke. Commodities are another potential challenge. While the likelihood of significant price swings is small, it could result in a material challenge to Net Income.

**Conclusion & Recommendation**

Coca-Cola has not been recognized yet for the contributions it is providing to our environment and social well-being. The recognition of this and the change in its business model, coupled with our modest forecasts all suggest Coke is undervalued. We recommend a BUY.
**Walmart, Inc. (WMT)**

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<th>Adjusted Price</th>
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**Introduction**

Walmart, Inc. claims that it exists to help individuals save money and live better. Every week, they serve 275 million customers via 11,000 stores and online e-commerce in more than 27 different countries. Walmart uses aggressive pricing and purchasing power to keep prices low for the consumer, fulfilling their slogan of everyday low pricing.

**ESG Status**

In 2014, Walmart created an ESG program primarily focused on impacting people's lives and the environment. Walmart seeks to accomplish this through fair wages, education, and emphasizing equality in the workplace. Walmart offers wages well above the US minimum wage, as well as providing employees both scholarship opportunities and access to their Walmart Academy and Pathways program. Walmart appears to be fostering equality in the workplace, with over 55% of its staff being female. Externally, Walmart has committed to purchase $250 billion worth of American made product by 2023.

Through reducing emissions, reducing waste and improving packaging Walmart is impacting climate change. Walmart has a stated goal to reduce emissions by 18% by the year 2025 and be 50% powered by renewable energy sources by 2025. Walmart also has plans to grow its supply chain with more sustainably sourced products and recycled material in packaging. While known as the everyday low-price provider, more focus can be put on what Walmart is doing to impact the world. While some claim Walmart is only reacting to political pressure, its actions are significant and helped the company achieve an ESG rating in the 50th percentile.

**The Story Behind the Stock**

E-commerce is on the rise and here to stay. Amazon has proved the concept and Walmart is not far behind. Walmart utilizes an omni-channel experience, using their existing brick-and-mortar stores to ship products to consumers in hours not days. Walmart also matches well with Amazon's Whole Foods in groceries. 56% of all of Walmart’s sales come from grocery. Walmart appeals to the convenience side of today’s society by offering both grocery pick-up and delivery services, both less expensive and more convenient than any comparable offering. Walmart does this through partnerships with Grub Hub and various other delivery services throughout the United States. If you like the
Amazon model at 80 P/E, you have to love Walmart at 22 (see graph).

Another area of potential growth is health care, something Amazon will find hard to match. In two test stores Walmart is offering x-rays, EKG, scans, dental care, and mental health counseling. Similar to offerings by CVS, Walmart aims to attract those who need services but may not have health insurance, eliminating the all-too-common fears of unknown medical costs providing costs upfront. Although there are fewer uninsured, there were 29 million in 2019 (see graph), a substantial market. In the future, as more physical locations come online, this could prove to be a very attractive revenue stream.

**Fundamental Analysis**

**Balance Sheet:**
Long-term debt has increased by $14 billion dollars due to the $16 billion acquisition of Flipkart, the Amazon of India, in 2018. Walmart has an AA credit rating, giving little concern that it will meet this long-term debt obligation. Time will tell how accretive this acquisition was. Early indications are that it will have a considerable upside impact to sales. Even with the acquisition and rise in long-term debt, total debt to total capital is still just at 50%, which is in line with the industry average.

**Income Statement:**
Over the last five years sales have increased by 8.5%. Flipkart has been cited as contributing to 1.7% sales growth. Flipkart sales have only begun to be recorded in the third quarter of 2019. Attention will need to be paid with regards to Flipkart’s profit numbers.

After-tax net income margin has increased the last three years but 2018 was slightly below the 3-3.5% Walmart has seen in the past, mainly due to a change in US tax laws that was recorded as an unusual expense. In fact, preliminary results for 2019 show margins of 3.84%, suggesting 2018 was an anomaly. There has been a 7.1% growth in dividends per share over the last 5 years. This shows Walmart is continuing to provide value to its shareholders.

**Valuation**

The acquisition of Flipkart now complete, and with continued investment and streamlining of its omni channel sales system, Walmart has positioned itself for significant growth. We used a two-stage dividend discount model to arrive at an intrinsic value for the stock price of Walmart. First, a bottom up analysis was done to calculate a short-term growth rate of 9.43%. We concluded that Walmart would grow slightly above the United States GDP growth rate of 1.9% and assumed a modest long-term growth rate at 3.2%. We then discounted the terminal value at a 5.49% cost of equity. We arrived at an intrinsic value of $126.58. Adjustments were made to account for the present value of the remaining shares that will be repurchased through their current share repurchasing program. Taking this into account, we estimated that Walmart’s intrinsic value is $130.21. A sensitivity analysis found the value of Walmart’s stock ranged between $89.61 and $166.59. Even though our most pessimistic value is slightly below Walmart’s current stock price, the predominance of values are above. Our opinion is that Walmart’s stock intrinsic value is $130.21

**Challenges**

The majority of Walmart’s revenue is derived in the United States (76.3%), followed by Mainland China (10.4%). Walmart faces challenges with trade deals and tariffs. Another challenge is supply chain issues with sourcing commodities. Natural disasters, like COVID-19, will directly impact Walmart’s supply chain.

**Conclusion & Recommendation**

Walmart’s strategic acquisition of Flipkart will allow them to continue to be a competitor in e-commerce both in the U.S and abroad. This, as well as potential new revenue in health care, and a strong ESG program will all spur on growth. Even with the modest long-term growth forecasts our two-stage dividend discount model estimates Walmart is undervalued and we recommend a BUY.
Energy

Sector Overview

The energy sector consists of various types of companies engaged in the exploration and production, refining and marketing, storage, and transportation of oil/gas, coal, and consumable fuels. This sector also includes companies that support the retrieval and transportation of those products, through equipment and services. The main drivers of this industry are global oil and gas prices, thus exposing companies to a very volatile market, creating general uncertainty around long-term investing. Historically, this sector underperforms in economic downturns and performs well in expansions and recoveries.

Sector Outlook

Crude oil price, the value of the US Dollar, overall global output, global economic conditions, and trade policies regionally and globally are all factors to consider in the Energy sector. Crude oil has seen a wide shift in price over the past several months, ranging from $63.20 in January 2020 to $28.70 in March 2020. Aside from being the global reserve currency, the US dollar is the global pricing instrument for crude oil. The recent decline of crude oil prices has reflected the inverse relationship by giving the US dollar a boost. Overall global output has been in the spotlight since Russia decided to walk away from a three-year-old pact that managed global oil supplies with Saudi Arabia. In retaliation, Saudi Arabia slashed oil prices and increased its oil output, further driving down the price of oil that was already plunging due to COVID-19. We expect global crude prices to fall due to the Saudi-Russia price war and the slowing of the world economy. We propose underweighted this sector at 2% relative to the S&P 500 weight of 2.64%.
Financials

Introduction

The Financials sector contains businesses involved in managing money including, banks, investments, and insurance companies, providing financial services to commercial and retail customers. The considerable amount of income received from mortgages and loans is highly correlated with interest rates. When rates are low, capital projects become more attractive. With the impact COVID-19 has had on the markets and the world as a whole, interest rates in the US have been cut to nearly 0%. We do not predict a fast rise in rates in the short-term.

This sector continues to be one of the largest portions of the S&P500, with a weight of 11%.

Economic Outlook

Crummer Investment Management believes the US economy will decline during 2020 due to COVID-19. We believe that Q2 and Q3 will show an economic downturn, leading into a recession, with the hope of Q4 showing positive growth if the COVID-19 pandemic can be resolved. COVID-19 will have an extreme impact on the financial sector and recovery back to where we were in February 2020 will take a bit of time.

Financial Sector Outlook

COVID-19 has brought significant challenges to the financial sector. With several countries being placed in country-wide quarantine, there will be a significant slowdown across the world. As of March 16, the US has cut interest rates to near 0% in an effort to combat the effects of COVID-19. There is expected to be massive slowdown in global trade, as well as extremely volatile times ahead for the markets. With interest rates being cut to near 0%, it will be challenging for the financial sector to make money from loans and mortgages, not to mention the potential for widespread defaults. While low interest rates are typically great for companies looking for capital projects, COVID-19 has made it difficult to justify any sort of investment. Given all this information, Crummer Investment Management recommends the financial sector constitute 9.35% of the portfolio, underweighting the S&P 500 index weight of 11.05%.
Healthcare

Introduction

On a global scale, the healthcare sector continues to expand faster than the economy. According to the World Health Organization's 2019 Global Report, from 2000-2017, global healthcare spending increased at a rate of 3.9% each year, while global GDP increased at a rate of 3% over that same period. Domestically, healthcare spending has typically outpaced GDP growth. Within the last few years, however, healthcare spending as a percent of GDP has evened out around 17%. This has been largely driven by a 2% reduction in the healthcare spending growth rate between 2015 and 2017. Given our current economic forecast (and the impact of COVID-19), CIM estimates that the healthcare sector will continue to outpace GDP growth in 2020-2021. However, the sector also faces a number of impending challenges that threaten individual companies and lead us to take a neutral position on the sector as a whole, weighting it evenly with our benchmark.

Challenges and Opportunities

The outlook for the healthcare sector is being driven by the sector's ability to respond to prominent challenges. These challenges include pricing pressures, a shrinking workforce, and the need for innovation within operations. The companies CIM has selected within this sector are positioned to capitalize on these challenges and use them as opportunities for growth.

As pressures continue to mount for lower costs throughout the healthcare industry, the ability to provide low-cost, high-quality products is becoming more and more important. Things like infrastructure investment, technological advancement, and economies of scale are going to provide a competitive advantage and help drive individual companies forward within the sector. Another challenge facing the healthcare sector as a whole is a shortage of skilled/trained workers. Current projections show increases in global population (8.5 billion by 2030), life expectancy (up to 74.7 years), and population above age 65 (above 11.8% of total population). When combined with the rising prevalence of chronic diseases, these numbers should indicate growth potential for the healthcare sector. However, due to the amount of time, education, and training required to fill many positions within the healthcare sector, there is currently a severe shortage of qualified workers, which leaves companies with a problem of not having enough supply to meet an increasing demand. The shrinking workforce within the healthcare sector has created a need for operational innovations to help meet the demands of a growing/aging population. One such innovation comes in the form of Population Health Management (PHM). Simply put, PHM is an attempt to shift the focus of the healthcare sector from treating people when they get sick, to keeping people healthy. This new model strives to achieve four goals: reduce the overall cost of healthcare, improve the health of the entire population, create a better care experience, and increase the health and well-being of the workforce. PHM is being driven by big data to provide an understanding of the needs and current experiences of the population.

Conclusion

The healthcare sector will continue to experience growth similar to that of GDP, however individual companies that are positioned to capitalize on the opportunities underlying several key challenges for the industry may be able to outperform the sector. CIM believes that we have selected two such companies with the potential to drive growth within this sector.
### Johnson & Johnson (JNJ)

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#### Introduction

Johnson & Johnson is a leading healthcare holding company, with operations focused in three segments: consumer, pharmaceutical, and medical devices. A global company, JNJ has sales and operations in many countries outside of the US. Total sales in 2019 reached $82 billion, over $40 billion of which came from international markets. JNJ’s Pharmaceutical segment is their largest, producing approximately 51% of sales in 2019. Between the three segments, JNJ capitalizes on diversification of product offerings, which helps mitigate market risks associated with an individual product or segment.

CIM believes that recent media headlines have caused an overreaction within the market, driving JNJ’s price down. Headlines focused on lawsuits and possible asbestos contamination surrounding some of JNJ’s consumer goods have altered investor sentiment and created an opportunity to buy before a market correction occurs. When these headlines first broke in December of 2018, JNJ’s stock price fell 17% in 12 days. While there have been smaller reactions to additional headlines since then, the stock has rebounded close to its original price (see chart). CIM believes this trend will continue as the market brings JNJ’s price to its intrinsic value.

#### ESG Status

JNJ is seen as an ESG leader for their efforts across segments (ranking in the 93rd percentile for the healthcare sector according to FTSE). Each year, the company outlines goals for its “Health for Humanity” program, including efforts to serve underserved populations, make improvements in sustainability, work with partners in the value chain to improve their sustainability efforts, and empower employees to be the healthiest workforce.

Recently, JNJ assisted efforts to find a treatment for the new coronavirus by donating over 350 boxes of medication to institutions in China.

#### The Story Behind the Stock

With 2019 sales of $82 billion and a market capitalization of $395 billion, JNJ was ranked #37 in Forbes 2019 list of the World’s Largest Public Companies. While this alone does not tell the story of JNJ, it alludes to the fact that one of JNJ’s strengths lies in the size and diversity of their operations. Each segment helps to shield the company from the risks inherent to the other segments, while allowing them to capitalize on economies of scale, and global supply chains.
Healthcare

The pharmaceutical segment is the strongest driver of growth and revenues for JNJ, and as such, the outlook for this segment has a large impact on CIM’s valuation. The pharmaceutical industry is driven by patents, and while JNJ has patents set to expire over the next few years, they continue to secure new patents in areas that are harder for competitors to disrupt with biosimilars and generics (gaining US approval for 11 new drugs or new applications of existing drugs in 2019). As a result, JNJ’s focus on oncology, immunology, and infectious diseases positions them well for future growth.

Fundamental Analysis

**Balance Sheet:**
JNJ continues to maintain a strong cash position with $19.29 billion in cash and cash equivalents on the balance sheet for 2019. They have enough liquidity to pay off their debts if needed (1.26 current ratio and 1.01 quick ratio) and have built an accrual for any pending litigation that has been deemed “probable and reasonably estimated.” Overall, JNJ appears to have financial stability that will enable them to manage pending litigation and continue investing in the growth of their business.

**Free Cash Flow:**
Over the past 9 years, JNJ has steadily increased their FCF from $11.4 billion in 2011, to $19.9 billion in 2019. They have also increased their FCF per share to $7; which, when combined with the operational strengths and capabilities of management, indicate attractive returns for the future.

**Valuation**
JNJ’s price over the last year and a half has been anything but consistent. However, during that same time, JNJ has increased dividends and total revenues, despite negative currency impact of 2.1% to 2.7% in each segment.

CIM believes that JNJ’s price volatility is due to the impact of negative press about a very small portion of their overall business. As a result, our dividend discount model provides an intrinsic value between the range of $192.42 and $222.63. Using a bottom-up approach, we determined that JNJ has a sustainable short-term growth rate of at least 7%. We believe that industry pricing pressures have the potential to limit long-term growth to a rate of 4% and calculated a cost of equity for JNJ at 6.03%. JNJ’s most recent share repurchase program was completed in September of 2019, and at this time, JNJ has not announced any additional share repurchase program, so no adjustment for share repurchases has been made to our intrinsic value of $214.84. All of our intrinsic value estimates are above the current market price.

**Challenges**
JNJ currently faces pending lawsuits for multiple products. While it is possible that this litigation could impact the company’s future cash flows, CIM does not believe that irreparable harm will be done. It is estimated that settling all pending lawsuits would cost JNJ $6.2 billion. While this is a material amount, CIM is confident the cost will remain lower than this amount and even in a worst-case scenario, JNJ could pay these expenses with cash on hand ($17.31 billion). Additional challenges facing JNJ include government regulation, healthcare pricing pressures, and potential trade wars. CIM does not believe that these challenges will have a substantial impact on the projected growth of the company.

**Conclusion & Recommendation**
JNJ has faced adversity as the result of negative headlines involving their products. Our sentiment is that the current price of JNJ is the result of an overreaction by the market. JNJ continues to be a global leader within the pharmaceutical industry and maintains a strong pipeline of patents and approvals for future growth.

We believe that management has shown the ability to leverage JNJ’s global position into growth year over year, and we recommend a HOLD for at least one more year.
**Quest Diagnostics Incorporated (DGX)**

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**Introduction**

Quest Diagnostics Incorporated was founded in 1990 and is the world’s leading provider of diagnostic information services. Operating primarily within the US, Quest serves approximately one third of the adult population annually, and generated net revenues of $7.7 billion in 2019.

**ESG Status**

Quest Diagnostics’ goals to “promote a healthier world” and “create an inspiring workplace” are representative of their dedication to ESG ideals. Through the implementation of their GreenQuest sustainability program, Quest is focused on pollution prevention, energy efficiency, fleet conservation, and strategic sourcing. In 2018, Quest reduced plastic use by 233,690 pounds annually, when they began sourcing a new specimen cup that contains 61% less plastic. Additional efforts are being made to reduce energy usage, and switch to renewable energy sources. Through strategic route optimization, Quest was able to reduce their fleet miles driven by an annualized rate of 2.7 million miles, cutting fuel consumption by 69,231 gallons and reducing CO2 emissions by 617 metric tons annually.

In 2018, Quest Diagnostics provided $108 million in donated testing and continues to work with community health centers across the United States to provide patients with access to lab testing, regardless of their economic status or access to insurance.

Finally, Quest has been recognized as one of Fortune’s “Most Admired Companies” each of the last 6 years, while simultaneously being named one of the “Best Places to Work for Disability Inclusion” by the Disability Equality Index. These awards indicate that Quest takes responsibility not only for the external community, but also for its internal community of 47 thousand employees.

**The Story Behind the Stock**

Quest Diagnostics reported earnings of $835 million in 2019, a 13.9% increase year over year from 2018. Sales also increased by 2.59% in 2019 and EPS reached a record high of 6.29, a 19.2% increase over 2018. Much of this growth can be attributed to Quest’s two-point strategy which focuses on accelerating growth through strategic acquisition and driving operational excellence to reduce overall expenses. In 2019, the volume of requisitions went up 4.3%, with organic growth contributing to 3.1% of the volume increase and acquisitions representing the other 1.2%.
Quest continues to display steady, consistent growth; however, it is the opinion of CIM that significant growth lies within Quest's capabilities as a data provider. Due to the scale of their operations, one of Quest's largest assets is their private database of laboratory test results, containing over 50 billion patient data points. It is not apparent that Quest is currently using this asset to drive growth, providing an opportunity to expand by harnessing Quest's portfolio of de-identified data to generate additional revenue through strategic partnerships.

**Fundamental Analysis**

**Income Statement:**
Sales for 2019 reached over $7.7 billion, the company's highest to date, and a 2.6% increase over last year. This led Quest to a record Net Income of $835 million and a net margin of 10.81% that is almost double the industry average of 5.43%. These numbers indicate that Quest is continuing to expand its sales and operations in a manner that can lead to continued growth moving forward.

**Balance Sheet:**
In 2019, Quest saw a significant increase in cash to their balance sheet as the result of issuing new debt. This increase brings their current assets to $2.49 billion and their total debt of $5.12 billion. Despite this issuance of new debt, Quest's current ratio of 1.25 and quick ratio of 1.19 are right on par with the company's five-year average. While we would like to see a little more liquidity to improve the company's ability to pay off their debts, their commitment to share repurchases and consistent increases in dividend payments show a dedication to providing value to shareholders.

**Free Cash Flows:**
In 2019, Quest reported Free Cash Flows of $843 million, the company's highest in the last 7 years. With a Free Cash Flow Margin of 10.91%, Quest outperformed the industry average of 8.29% for the year. CIM believes that within their business model Quest will see continued growth and profitability, indicating consistent performance and possibly even improvement over the 12% CAGR in total returns the last 5 years.

**Valuation**

To arrive at an intrinsic value for Quest, a bottom-up approach was used to determine a sustainable short-term growth rate of 10.77%. This short-term rate was then coupled with a Cost of Equity at 6.55% and a long-term growth rate of 4.5%. Share repurchases are an important element of the valuation for Quest; the company has repurchased anywhere from $100 million to $1 billion in shares each year. CIM estimates, that share repurchases add $7.96 to the intrinsic value for Quest. Ultimately, after a sensitivity analysis, our two-stage H model provides a range of $113.07 to $192.12, and an intrinsic value of $148.60. All but our most pessimistic estimates are above the current stock price.

**Challenges**

Healthcare trends, such as consolidation, price transparency, and increased patient cost sharing, represent challenges for Quest moving forward. However, Quest has established themselves as the leading provider of diagnostic services and are positioned quite well with their level of service and competitive pricing. Quest will need to continually adapt to changes within the healthcare marketplace and seek out additional partnerships with key stakeholders in the industry (as of July 1, 2019, Quest is one of five labs in the UnitedHealthcare Preferred Lab Network).

It is important to note that Quest was recently given a credit rating of BBB+ by S&P. This rating indicates a steady outlook on Quest's credit quality, which, combined with CIM's research and analysis gives an overall positive outlook.

**Conclusion & Recommendation**

Management at Quest has displayed the ability to increase revenues and control costs. As a result, CIM is confident that Quest will continue to achieve modest growth. Our recommendation to buy is based on the growth opportunity that exists for Quest in the use of their database of test results. With an intrinsic value of $148.60, our models indicate that DGX is currently undervalued.
CIM recommends underweighting the S&P 500 industrial sector through April 2021. The industrials sector will remain one of our passively managed sectors and we will continue to invest via the diversified sector ETF. This year, our recommendation is to underweight the S&P 500 benchmark of 8.04% by 13%, leaving a total of 7% of our portfolio invested in the industrials sector ETF. The industrials sector has long-term growth potential; however, it is the belief of CIM that the sector will not see the benefits of some of its investment in artificial intelligence, cloud computing, robotics, etc. until beyond our current investment horizon. While CIM recognizes industrial companies will receive some financial assistance from the Paycheck Protection Program, the Fed’s purchase of corporate bonds and other programs, we do not believe government help will be enough to keep this sector from declining until the broader economy recovers. For these reasons, we believe it is in the best interest of the portfolio to underweight this sector at 7% relative to the S&P weight of 8%.
Information Technology

Introduction

The information technology sector is comprised of three main categories, software and services, technology hardware and equipment, and semiconductor equipment. The sector categories are then further broken-down encompassing companies who perform a wide range of services, from artificial intelligence to hardware manufacturing. The information technology sector currently has the largest weighting in the S&P 500 at 26%. With an increased focus on cybersecurity, the expected rollout of 5G technologies, and the adoption of AI-powered technologies, business spending in the sector is expected to increase over the coming years. Individually, cloud computing encompassing the larger Software-as-a-service (SaaS) segment of the information technology sector is expected to reach $266 billion in 2020 making it the fastest growing segment of the market. Additionally, recent events surrounding the rapid spread of COVID-19 have placed an increased focus on remote access and the existing technology infrastructure of many companies. To prepare for future unforeseen situations, we expect corporations to place an increased emphasis on technology in the workplace.

Macroeconomic Environment

The CIM group believes that the economy will experience negative growth caused by COVID-19 in the short term followed by a recovery in late Q4 2020 / early Q1 2021. In typical recessionary economic environments companies tend to reduce spending on IT software and services. However, as recent events have brought to light the importance of IT infrastructure, business spending in the sector is expected to remain stable throughout the downturn and recovery.

Conclusion and Recommendation

We believe that companies will continue to emphasize spending on cloud computing and other SaaS technologies in 2020. Recent events surrounding the COVID-19 have brought to focus the increased need for technology services to continue business as usual in times of hardship, we expect this to translate to increased corporate spending on technology services in the coming years. We expect consumer discretionary spending to remain stable over the next twelve months. Due to the reasons mentioned above, we recommend overweighting the information services sector by 1% to a weight of 27% compared to the S&P weight of 26.02%.
Microsoft Corporation (MSFT)

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<tr>
<th>Recommendation</th>
<th>Valuation</th>
<th>Last Price</th>
<th>Adjusted P/E</th>
<th>Style</th>
<th>Dividend Yield</th>
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<td>BUY</td>
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<td>1.3%</td>
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</table>

**Introduction**

Microsoft Corporation was founded in 1975 and provides software, services, devices, and solutions to both businesses and personal consumers. Microsoft’s computing products are widely used, and the company has long been an industry leader in innovation and software development. Microsoft is also an emerging leader in the cloud computing space.

**ESG Status**

Microsoft is considered an industry leader in ESG scoring a 94/100 by the FTSE ESG rating system. Microsoft scores particularly well in environmental impact and employee engagement. Data centers are notorious for causing large greenhouse gas emissions and producing large amounts of heat energy. Microsoft has been combating this by pushing to switch to 100% renewable power sources. Already, the servers powering Microsoft’s fast-growing cloud computing platform, Azure, are powered 50% by renewables. Microsoft continues to invest CapEx toward their goal of 100% renewal power each year.

**The Story Behind the Stock**

Microsoft’s revenues have increased by 14% on average over the last three years. This growth can be attributed in large part to success in the cloud computing space with 27% revenue growth in FY 2019. Additionally, in October 2019 Microsoft was awarded the $10 billion JEDI contract with the Pentagon to convert government systems to the cloud. Microsoft was awarded this contract over industry leader Amazon.

Additionally, in mid-2016 Microsoft acquired business networking site LinkedIn. Recently, LinkedIn surpassed 500 million global users with targets set to reach 3 billion globally. Of the 2 billion millennials around the world, only 87 million are on LinkedIn, representing a massive growth opportunity for Microsoft through the social network.

**Fundamental Analysis**

**Balance Sheet:**

Microsoft has consistently maintained a strong cash position over the past three years with 47% of total assets being held in cash & cash equivalents at FYE 2019. Current assets increased by $5.9 billion to $175.5 billion at FYE 2019. Decreased inventory levels to 5-year lows and increased receivables reflect Microsoft’s ability...
Information Technology  Crummer Investment Management

to convert inventory to sales. Fixed assets grew by $7.7 billion. It is expected that that trend will continue as Microsoft continues to expand their cloud capabilities. The company is financing its expansion through their operating cash flows and short-term borrowings as long-term debt decreased year over year. On a percentage basis, debt-to-assets has decreased from 34% to 30% year over year. The company rapidly increased their long term borrowing between 2015-2017 to finance acquisitions and growth in their cloud computing space. In 2019, debt to net worth fell below 2x for the first time since 2016 as the company paid down long-term debt.

**Income Statement:**
The company overall saw sales growth of 14% year over year in 2019 (see graph) while its gross profit margins remained flat at 75%. Net profit margin increased to 31% in 2019 from 15% in 2018. However, this was driven in large part by a decreased tax bill. This is evident in EBIT margins remaining flat year-over-year. Overall, margins remain stable and management has demonstrated good understanding of cost control through multiple economic scenarios. The trade war with China has not had a major impact on Microsoft’s margins.

**Free Cash Flows:**
Free cash flow per share in 2019 was $4.93 which is significantly above the five-year trend. Free cash flows grew 18.63% from Q2 2018 to Q2 2019. As of December 2019, rolling 12-month free cash flow growth is at 27.20% indicating this trend is continuing.

**Valuation**
Microsoft has shown the ability to adapt their product offerings to suit changing customer needs over time. This is evident in their recent 27% annual growth in cloud computing, which now is the second largest revenue stream for Microsoft. With the purchase of LinkedIn in 2016, Microsoft expanded their business offerings while also growing into the popular social networking space. With this premise, we used a three-stage dividend discount model to arrive at a plausible intrinsic value for Microsoft’s stock. A bottom-up valuation model yielded an impressive 16.55% short-term internal growth rate, which was adjusted down to 12% to be conservative and consider the heavy competition in the cloud computing space. We estimated a conservative long-term sustainable growth rate of 4%, as this is slightly higher than US GDP long-term growth rate estimates including inflation. The slight adjustment up is based on Microsoft’s continued long standing trend of innovation and Microsoft’s industry. By discounting the terminal value of the three-stage discount model at an 8% cost of equity, we arrive at an intrinsic value of $193.19. Additionally, the analysis showed over the last ten years 55% of net cash to shareholders was attributed to share repurchases. A free cash flow analysis showed Microsoft has the ability to maintain their current level of share repurchases with $11.4 billion authorized share repurchases remaining. Accordingly, the intrinsic value was adjusted up to $207.03 to reflect $13.85 of expected present value from share repurchases. Through our sensitivity analysis, we estimate Microsoft’s intrinsic value between $160.08 and $231.57. Even though our most pessimistic estimates are below the recent stock price, we believe that $207.03 is a reasonable intrinsic value for Microsoft. Additionally, Microsoft represents a relatively low-cost option for capitalizing on cloud computing growth as their top competitors all have significantly higher P/E ratios (see chart).

**Challenges**
As growth in recent years has largely been attributed to the development of cloud computing and platform integration Microsoft must continue to innovate to stay ahead of the heavy industry competition. Amazon has a commanding market share, and new arrivals Adobe and Veeva are both expanding their cloud computing.

**Conclusion & Recommendation**
Overall, we expect Microsoft’s strategy of expanding in cloud computing and platform integration to continue to provide revenue growth over the short and long term. Our model utilized a modest growth rate and still showed Microsoft as undervalued. Accordingly, we recommend a BUY.
Visa, Inc. (V)

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<th>Recommendation</th>
<th>Valuation</th>
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<th>Adjusted P/E</th>
<th>Style</th>
<th>Dividend Yield</th>
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Introduction

Visa, Inc. was founded in 1958 and provides digital payment services. Visa facilitates global commerce through partnerships with merchants, financial institutions, businesses, and governments.

ESG Status

Visa is considered an industry leader in ESG, scoring a 90/100 by the FTSE ESG rating system. Visa focuses on the entire value chain while also providing services to segments of the market other industry players have missed. Visa has helped 398 million individuals who do not have bank accounts get access to digital payment systems since 2015. They have also invested in helping small businesses grow in developing countries. The most important trait for any financial institution is having consumer trust, and Visa has invested heavily in preventing fraud and strengthening cybersecurity in the event of a cyber-attack. Recently, Visa received the highest rating from Gartner Consulting regarding their cybersecurity. Additionally, Visa has committed itself to going 100% renewable in their UK, San Francisco, and Colorado offices.

The Story Behind the Stock

Visa has seen consistent revenue growth over the last 10 years (see chart). This growth has translated to year over year dividend growth rates greater than 16% in all ten years observed. Additionally, Visa has been active in keeping up with recent industry trends toward digital payments. In January 2020, Visa acquired Plaid, an electronic payment processing software that aids in the transfer of money between bank accounts. Currently it is estimated that 25% of US bank account holders are connected to Plaid. Venmo, Betterment, Acorns, RobinHood and many other financial apps are all powered by the Plaid software. Venmo, owned by parent company PayPal, recently reported over 40 million active users. This acquisition allows Visa to share in the potential revenue related to the growing fintech industry.

Visa is widely accepted in over 200 countries and by over 40 million merchants. In 2019, Visa reported 11% transaction growth while facing uncertainty surrounding Brexit and the US-China trade war. As these challenges have shown progress in Q1 of 2020, transaction growth is expected to continue at a similar rate.
Fundamental Analysis

Balance Sheet:
Visa reports an adequate cash position with 64% of current assets being held in cash and cash equivalents at FYE 2019. Current assets increased by $2.8 billion to $20.9 billion at FYE 2019. Increased accounts receivable was the largest driver of this growth. PP&E grew by 15% as Visa continued to invest in equipment related to cybersecurity. Long-term debt remained flat as Visa has historically had little reliance on debt. Visa continued to show a strong debt to equity ratio of 1.09x FYE 2019.

Income Statement:
As previously mentioned, sales growth remained strong at 11.49% year-over-year. Net profit margin increased to 50% in 2019 from 48% in 2018, and overall net income growth was at 17.18%. EBIT growth of 13.57% shows support that this growth was not just due to favorable tax policies.

Free Cash Flows:
Free cash flow per share in 2019 was $5.00 which is in line with the five-year-trend. Free cash flows growth has slowed following an impressive 41% gain in 2018.

Valuation
Visa has invested heavily in global business partnerships and has situated themselves at the forefront of the payment industry. Visa also still has room to grow in the global space, particularly with emerging markets. With this in mind, we used a three-stage dividend discount model to arrive at an intrinsic value for Visa's stock. A bottom-up valuation model yielded an impressive 14.73% short-term internal growth rate, which was adjusted up slightly to 15.5% to reflect the new opportunities for growth via the recent acquisition of Plaid. This growth rate is higher than overall transaction growth; however, the acquisition will also give Visa access to alternative revenue streams and an increased user base. We estimated a conservative long-term sustainable growth rate of 3.5%, as this is in line with Global GDP long-term growth rate estimates, including inflation. Global GDP and Inflation rates are used to calculate the long-term sustainable growth rate, as to date, 44.7% of Visa’s revenues are generated from sales within the US. However, China and India represent the two fastest growing markets for Visa at 11.9% and 2.5% percent of global sales (see chart). Visa's continued expansion in markets outside the United States provides further support for a global long-term growth rate. By discounting the terminal value that the three-stage discount model yielded at a 7% cost of equity, we arrive at an intrinsic value of $224.30. Additionally, the analysis showed that over the last ten years 80% of net cash to shareholders was attributed to share repurchases. A free cash flow analysis showed Visa has the ability to maintain their current level of share repurchases with $4.1 billion authorized share repurchases remaining. The Board has historically authorized continued share repurchases when the existing approved amount reaches zero. Accordingly, the intrinsic value was adjusted up to $231.38 to reflect $7.07 of value from share repurchases. Through our sensitivity analysis, we estimate Visa stock's intrinsic value between $197.96 and $345.60. We believe $231.38 is the most reasonable intrinsic value for Visa. Our valuation is conservative, based on the outlined recent events that were not reflected in the 2019 financials. Additionally, our valuation is in line with the professional investment analysts’ price targets.

Challenges
The major challenge facing Visa is the global economic slowdown and consumer spending drop. Despite the COVID-19 pandemic, we believe Visa posed to recover quickly.

Conclusion & Recommendation
Overall, we expect Visa to continue to grow due to their investment in digital payment processing, as well as their continued focus on ESG, particularly with small business in emerging markets. Our model utilized a slightly high growth rate; however, it is in line with the investment community's consensus. Based on our model, Visa is undervalued resulting in a HOLD recommendation.
Materials

Overview

The materials sector comprises the lowest sector weighting within the S&P 500 benchmark at 2.45% (down from 2.65% a year ago). We recommend underweighting the sector by 18% within our portfolio to give a total weight of 2%. As of last year, CIM sold its individual holdings within this sector in favor of purchasing diversified sector ETFs. CIM believes that underweighting this sector over the course of the next year is important because the materials sector is increasingly vulnerable to the effects of the current global pandemic, COVID-19. The full effect that this pandemic will have on the global economy is still unknown and when coupled with the trade war between the US and China that remained unresolved at the end of 2019, CIM believes that we need to use caution in our approach to this sector.
Real Estate

Sector Overview

Until August 2016, the equities listed in the Real Estate sector had fallen under the Financial Sector. Given the significant performance deviation during and post-recession, GICS decided a new sector was needed that consisted mostly of Equity Real Estate Investment Trusts, or REITs. REITs consists of three segments: residential, commercial, and industrial. REITs develop, own, and operate real estate, generating income through rent, fees, and price appreciation. This sector continues to see significant positive performance, with a return of about 29% in 2019.

Sector Outlook

The COVID-19 pandemic is both good and bad news for real estate. Stocks in this sector are almost entirely REITs, and the main factors that affect the performance of REITs are interest rates, consistent dividends, and now the global pandemic. According to Market Forecasts 2020, “there is strong evidence that home prices [fell] in March . . . and realtors in Florida and California are seeing much fewer listings.” If potential home buyers do not have a job, residential REITs will suffer. If businesses do not recover quickly from the quarantine, commercial REITs will be forced to accept delays in rent and lease payments. Nothing about the pandemic is likely to be good for REITs. The good news is that we expect the pandemic to subside and the economy to recover in Q4 2020. When that happens, pent up demand for residential real estate and resumption of rent and lease payments should enable a strong recovery.

Interest rates have had an interesting year. After a few quick rises and a decrease in rates, interest rates have hit near 0 due to COVID-19. We believe that due to near 0 interest rates, the real estate sector can benefit, but in due time. With COVID-19 halting basically every aspect of life, there needs to be time given for balance to restore before buyers return to the real estate market.

Consistent dividends are a critical part of what makes REITs interesting. In order to qualify as a REIT, a company must return a minimum of 90% of its taxable income in the form of shareholder dividends each year. According to NAREIT, the FTSE NAREIT All REITs Index has a current dividend yield of 4.0%, double that of the S&P 500.

The global pandemic will not be a positive for real estate in the short-term, given COVID-19 and its effect on the global economy. While there will be certainly be room for growth in the long run, a 2020 global expansion does not look promising. We believe real estate will look similar to our economic outlook, with slow declines in Q2 and Q3, with the resumption of growth in Q4 and into Q1 2021. We want to be in a position to take advantage of that recovery.

Conclusion

After considering all factors, Crummer Investment Management recommends overweighting the sector relative to the S&P 500 Index, constituting 3% of the portfolio compared to the S&P weight of 2.81%.
Utilities

Overview

The utilities sector includes electric, gas, and water utilities, independent power producers and energy traders, and companies that produce electricity using renewable resources. This sector tends to perform well when growth and trade concerns surface, and to underperform when those concerns fade. Because the sector encompasses essentials that are necessary during all phases of business cycles, there is very little international exposure to be seen here. Panic from COVID-19 and weaknesses in the global economy could support this particular sector. Furthermore, stocks in this sector are positively affected by falling interest rates. The Federal Reserve cutting interest rates down to near 0% in March 2020 can also boost this sector throughout the rest of the year. On balance, we recommend a neutral weight be allocated to utilities.
Appendix
Crummer SunTrust Portfolio Investment Policy Statement
(Revised January 2019)

Crummer SunTrust Portfolio

1.1 History The SunTrust Banks of Central Florida Foundation contributed all of the Crummer SunTrust Portfolio’s (Portfolio) initial assets, totaling $500,000 beginning with $100,000 per year in 1999, and no additional contributions are expected. The Portfolio is part of the Rollins College endowment and is exempt from federal income taxes.

1.2 Purpose The Portfolio was established to fund periodic scholarships for students at the Crummer Graduate School of Business and to provide Crummer students with practical experience in portfolio management. The Portfolio expects to exist in perpetuity and the only required distribution is the funding of scholarships.

1.3 SunTrust Scholars SunTrust Scholarships are funded by an annual amount established by the Crummer School that generally follows the endowment distribution policy of Rollins College.

Governance

2.1 Students The students in Crummer’s portfolio management class (class) act as security analysts and portfolio managers, making recommendations on portfolio strategy and individual asset selection, subject to the guidelines and limitations set forth in this Investment Policy Statement. This statement assumes the class is only offered in the spring term (January to April).

2.2 Oversight An Oversight Committee (Committee), consisting of industry practitioners, a member of the Rollins College Board of Trustees, if the Board so chooses, a member selected by the Vice President of Finance at Rollins College and a Crummer faculty member, provides guidance for the Portfolio. The overall philosophy of the Committee is one of oversight and not direct portfolio management. When the class is not in session, however, changes in the portfolio can be made by the Committee but only in light of events with the potential to significantly impact the portfolio’s value.

2.3 Prohibited Transactions No transactions for the portfolio can be undertaken that are contrary to the SunTrust gift agreement, if any, or to applicable Rollins College Trustee policies.

Long-term and Short-term Investment Approaches

3.1 Long-term Strategy The Portfolio operates in both long-term and short-term environments. As a perpetual portfolio, its long-term investment strategy is designed for a conservative investor who seeks a real total rate of return that will maintain the purchasing power of the Portfolio after distributions and net of expenses. A long-term portfolio will inevitably encounter many market cycles, so the asset allocation is expected to be relatively constant. Table A contains the current long-term real growth and inflation expectations. These expectations are subject to an annual review by the class.

3.2 Short-term Tactics On an annual basis the Portfolio will adopt a tactical (short-term) sector tilt relative to the sector market weights of the S&P 500 Index. This investment tactic is designed to take advantage of short-term (one year or less) market movements by establishing the manager’s economic outlook and then underweighting sectors that are expected to do poorly and overweighting sectors that are expected to do well. The current S&P 500 sectors are shown in
Table B. Tactical sector targets may deviate as much as +/- 50% from each sector’s S&P 500 market weight (e.g., if the Consumer Discretionary sector has a market weight of 12%; the tactical target weighting may vary from 6% to 18% of the total equity allocation). Up to two sectors may be eliminated from any representation in the portfolio provided that the resulting re-allocation does not violate upper bound (150% weighting) of the remaining sectors. Both individual equity securities and sector exchange-traded funds (ETFs) can be used to achieve the desired sector allocations.

3.3 Objective These short-term and long-term approaches are consistent with the intent to protect the Portfolio’s value in down market environments and increase its value in up market environments while funding scholarships—all without incurring a permanent destruction of principal value.

**Long-Term Perspective and Asset Allocation**

4.1 Risk in the Portfolio comes, in part, from the allocation among asset classes and investment styles within asset classes. The Portfolio’s asset classes, strategic targets, and designated benchmarks are discussed in Section 10.2 and listed in Table C. Monitoring asset allocation, combined with a sector focus, is designed to keep the Portfolio consistent with both its short and long-term goals.

4.2 Quantitative analysis is used to address risk management. Techniques include, but are not limited to, Value-at-Risk and evaluation of portfolio alternatives such as risk parity, mean-variance optimization, minimum variance, and equal allocation. Risk should be consistent with the portfolio’s target rate of return.

**Rate of Return**

5.1 Target The Portfolio’s target rate of return incorporates the investment goals and spending policy. The target rate of return, investment goals, and expected volatility are interrelated and must be viewed as such. The long-term target rate of return goal that accommodates the Portfolio’s expenses and distributions is attached as Table A.

5.2 Horizon The investment horizon of the Portfolio is perpetual and preservation of the real value of principal is necessary with such a long-term perspective.

5.3 Investment Decisions Long term objectives guide asset allocation decisions. Short term opportunities guide sector weight decisions.

5.4 Growth The primary source of Portfolio growth is expected to be judicious and timely security selection. While the Portfolio might fund additional scholarships with a more aggressive asset allocation (e.g., all equity)—prudence, and the perpetual life of the Portfolio, suggest a less risky approach that will allow the value of the Portfolio to rise with the US economy. This organic economic growth is expected to be in line with historical experience—in the range of 2 to 2½%.

**Portfolio Transactions**

6.1 The class recommends one portfolio composition per year to the Committee. The Committee has the authority to make changes in these recommendations.

6.2 Trades in the Portfolio are made in only one batch each year, typically in mid-April, following the class presentation to the Committee. See Section 2.2 for exceptions.
Cash Requirements

7.1 Scholarship Funding Because the date of the scholarship draw varies around the end of the College’s fiscal year (May 31), as of May 1 the Portfolio will hold a cash reserve large enough to cover the annual scholarship funding rather than requiring security liquidation.

7.2 Transactions Costs and Fees Trading costs and fees will be funded in cash and incorporated into the annual transactions to avoid forced security liquidation and will usually be covered by normal sell recommendations.

Volatility

8.1 The target rate of return will ultimately dictate the level of risk in the Portfolio. If the expected volatility of the Portfolio is deemed inappropriate, the class will recommend a change in the target rate of return to the Committee.

Income, Appreciation and Taxes

9.1 The Portfolio pays no taxes on investment income and, therefore, the investments are not tax sensitive. Portfolio distributions are not limited to realized income and, therefore, the Portfolio need not generate income to fund its spending policy. The cash requirements can be met by liquidating securities (see Section 7) and usually will be covered by normal sell recommendations.

Sector and Asset Allocation

10.1 Short-term Sector Allocation To achieve its short-term tactical investment objective the Crummer SunTrust Portfolio's assets shall be managed by under- and overweighting S&P's market sectors. The current sectors are listed in Table B, but these may change from time to time. The tactical target deviations are +/- 50% of their S&P 500 market weights. Cash is a separate asset class and governed by the asset allocation policy.

10.1.1 Exchange Traded Funds To allow the class to thoroughly analyze current and prospective security holdings, each sector shall hold an appropriate ETF and, at most, three individual securities. The amount allocated to the ETF and the individual securities in each sector is subject to a risk budget. Justification of the risk budget is part of the annual report.

10.2 Long-term Asset Allocation Asset classes are outlined in Table C. In the short-term, security selections are driven by sector weights and, although stable asset class allocations are important for risk control, they are flexible enough to allow tactical sector allocations in the short run.

10.2.1 Equity Styles Asset allocation recognizes equity investment styles to help manage the risk of the portfolio. Investment styles within the equity asset class are defined as follows:

10.2.1.1 Value–companies believed to be undervalued with potential for capital appreciation.

10.2.1.2 Growth–companies that are expected to have above average long-term growth in earnings and profitability.

10.2.2 Market Capitalizations Asset allocation differentiates between securities based on the market capitalizations of different companies. Market capitalizations are defined as follows:
10.2.2.1 Small Cap—companies with total market capitalization less than one billion dollars.

10.2.2.2 Mid Cap—companies with total market capitalization between one and five billion dollars.

10.2.2.3 Large Cap—companies with total market capitalization greater than five billion dollars.

10.2.3 International—equity investments in companies domiciled outside the US are limited to American Depository Receipts (ADRs) listed on major US exchanges or to mutual funds or exchange traded funds.

10.2.4 No target allocation will be set for equity styles and market capitalizations; however, each equity selection will be identified with a style and market capitalization. Overall weightings with respect to style and market capitalization will be supported by the current economic and market outlook. Overall market capitalization weightings will not deviate excessively from those found in the overall US equity market.

10.2.5 While equity styles go in and out of favor over time, the portfolio’s strategic risk control relies on a stable asset allocation near the target. Chasing the best performing equity style is inconsistent with maintaining value in the long term.

10.3 Bonds Bonds function as both an asset class and a sector.

10.3.3 Allocation Range The portfolio relies on the bond asset class to moderate risk over the long term through diversification. Therefore, the bond allocation range is limited.

10.3.4 Bonds as a Sector Bonds are similar to a sector with an economic outlook that the managers have the flexibility to incorporate into the portfolio.

10.3.5 Risk Control The bond allocation’s ability to temper the portfolio’s risk is dependent on reasonable controls over the risk of the bond portfolio.

10.3.6 Effective Duration To establish risk control, the bond portfolio’s effective duration is bounded between 3.5 and 5.5 years.

10.3.7 Flexibility and Risk Control By varying both the bond allocation and the effective duration, the managers have enough flexibility to take a view of the bond sector’s prospects without distorting the risk profile of the portfolio.

10.4 Diversification Limit No individual asset in the portfolio may represent more than 5% of the total market value of the portfolio. This rule does not apply to mutual funds or exchange traded funds.

10.5 Derivatives The Crummer SunTrust Portfolio may contain derivative securities. Typically, the Portfolio will only use derivatives as a hedge in association with the derivatives class. In this case, a separate written proposal must be approved by the instructors involved. The cash required by these hedges will constitute no more than 10% of the Portfolio’s market value.
Rebalancing Procedure

11.1 Should the asset allocation range for a particular asset class or sector be breached by reason of gains, losses, or any other reason, the class will recommend whether to rebalance the assets to the target asset class allocation, taking into account the transaction cost. In addition, the Committee shall have the authority to review the actual allocations at any time to insure conformity with the adopted tactical and strategic allocations. See Section 2.2. The assets will not be automatically rebalanced on any set schedule.

Custodian

12.1 SunTrust Bank is the custodian for the assets of the Crummer SunTrust Portfolio.

Table A

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Table B

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<thead>
<tr>
<th>Crummer SunTrust Portfolio Equity Portfolio Sectors</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P 500 Sector</td>
<td>Benchmark</td>
</tr>
<tr>
<td>Communication Services</td>
<td>S&amp;P Communication Services Index</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
<td>S&amp;P Consumer Discretionary Index</td>
</tr>
<tr>
<td>Consumer Staples</td>
<td>S&amp;P Consumer Staples Index</td>
</tr>
<tr>
<td>Energy</td>
<td>S&amp;P Energy Index</td>
</tr>
<tr>
<td>Financials</td>
<td>S&amp;P Financials Index</td>
</tr>
<tr>
<td>Healthcare</td>
<td>S&amp;P Healthcare Index</td>
</tr>
<tr>
<td>Industrials</td>
<td>S&amp;P Industrials Index</td>
</tr>
<tr>
<td>Information Technology</td>
<td>S&amp;P Information Technology Index</td>
</tr>
<tr>
<td>Materials</td>
<td>S&amp;P Materials Index</td>
</tr>
<tr>
<td>Real Estate</td>
<td>S&amp;P Real Estate</td>
</tr>
<tr>
<td>Utilities</td>
<td>S&amp;P Utilities Index</td>
</tr>
</tbody>
</table>

Target Deviation for any sector is +/- 50% of its S&P 500 market weight.
## Table C

### Crummer SunTrust Portfolio Asset Allocation Guidelines

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Low</th>
<th>Mid</th>
<th>High</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Equity</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
<td>S&amp;P 500</td>
</tr>
<tr>
<td>International Equity</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
<td>MSCI - EAFE</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
<td>Barclays US Float Adjusted Index (Vanguard Total Bond Market Index Fund)</td>
</tr>
<tr>
<td>Cash</td>
<td></td>
<td></td>
<td></td>
<td>90-day T bill rate</td>
</tr>
</tbody>
</table>

Minimum weight for any asset class is 5% except Cash.
Value at Risk

Introduction

Value at Risk is a downside risk measure for a portfolio over a given length of time. Commonly referred to as a worst-case scenario, risk managers use Value at Risk (VaR) to measure the impact of a highly unlikely event. Additionally, Expected Shortfall estimates the average loss amount for scenarios that are worse than the Value-at-Risk, providing a more conservative perspective. We used VaR and Expected Shortfall to compare the risk of the proposed portfolio to the risk exposure of the benchmark portfolio.

Methods of Calculation

The investment horizon of the Crummer SunTrust Portfolio is one year; there is no trading done after the initial trade. VaR was calculated for the portfolio for a one-year time frame, using the proposed and benchmark sector weights. VaR will answer the following two questions: first, with a 95% confidence level, what is the most we expect to lose next year, and how does that compare to the benchmark portfolio? Second, if the VaR level is surpassed, what would be our expected shortfall losses (labeled below as Expected Shortfall) with a 95% confidence level?

Assumptions

VaR was calculated only for the equity portion of the portfolio, due to fixed assets making up 15% of our proposed portfolio with minimal downside risk. This assumes that the most significant risk is associated with the equity portion of the portfolio. As this year’s portfolio has a very low tracking error risk tolerance of 5% or less for the actively managed sectors, we decided to represent each sector with the sector ETF in our risk measurements. Lastly, we decided to exclude the Communication Services sector because this sector does not have sufficient historical data for the calculations to be statistically significant.

Results

The current value (as Of March 31, 2020) of the equity portion of the portfolio under consideration is $629,781. Through our VaR analysis, we calculated that we should not lose more than $143,100 over the next year with a 95% confidence level. This year we also calculated the expected shortfall of the portfolio, which, as seen in the table below, is higher for the benchmark. Even in these extreme loss scenarios, our proposed weighting’s expected shortfall is lower than our benchmark. The analysis shows that, through our proposed weighting, we are reducing risk as compared to the benchmark, while maintaining the same return.

<table>
<thead>
<tr>
<th></th>
<th>Benchmark</th>
<th>Proposed Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value At Risk (VaR)</strong></td>
<td>$144,356</td>
<td>$143,100</td>
</tr>
<tr>
<td><strong>Expected Shortfall</strong></td>
<td>$198,817</td>
<td>$196,366</td>
</tr>
<tr>
<td><strong>Expected Return</strong></td>
<td>8.31%</td>
<td>8.31%</td>
</tr>
<tr>
<td><strong>Volatility (Std. Dev.)</strong></td>
<td>16.24%</td>
<td>16.17%</td>
</tr>
</tbody>
</table>