

2021

Spring Semester Report

May 14, 2021



Investment Fund Management Program ^{University of Missouri}

Established 1967

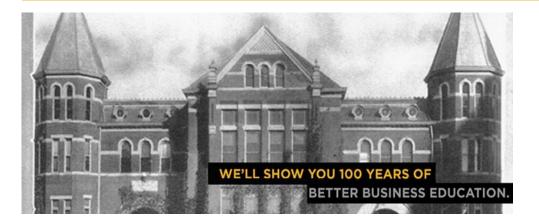
- $\bullet~$ For the Spring 2021 semester, the Fund returned 8.73% compared with the S&P 500 Index return of 9.55%
- The portfolio's top three holdings are, in order, Apple Inc. (NYSE: APPL), Salesforce Inc. (NYSE: CRM), and Berkshire Hathaway Inc. (NYSE:BRK.B) with weights of 5.58%, 4.94%, and 4.90%, respectively.
- The management team removed a total of three names from the Fund, while adding six.

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Fund History

The Board of Curators of the University of Missouri established the Truman Tracy Memorial Investment Fund in 1967 as a tribute to Professor Truman Tracy, who passed away earlier that year. Dr. Tracy was the senior investments professor at the University of Missouri. The Truman Tracy Fund was originally established with memorial contributions coming from his students, colleagues, and friends.

In the same year as Tracy's death, Arie and Ida Crown established the Crown Memorial Student Investment Fund. Students originally managed the Tracy and Crown Funds as separate accounts, but the portfolios have since been merged and are now managed as a portion of the broader pool of assets within the Mizzou Investment Fund.

Before the Investment Fund Management (IFM) class began, students in the undergraduate investments and security analysis courses managed the funds. The portfolio has been actively managed since its inception, with the exception of the period from 1980 to 1984 when the funds were passively managed before Dr. Gary Trennepohl took over as advisor.

The Student Portfolio Analysis and Management Club was formed in 1991. This club sparked enough interest that eventually a portfolio management course was created in 1999 to meet student demand. The students competed in security analysis and portfolio management competitions, and their strategy presentations earned national awards. In the Fall semester of 2005, the Department of Finance dedicated a separate course to manage the Fund, and the Mizzou IFM Program was born. Admission to the class continues to be competitive. Enrollment is typically limited and includes both undergraduate and MBA students. In 2006, the Fund saw a large increase in assets under management, as the IFM class began managing a portion of the endowment funds given to the college as a gift from the family of Robert J. Trulaske, Sr. The total value of assets under management by the Mizzou IFM Program now exceeds \$1.9 million and includes funds from the Truman Tracy Fund, Crown Fund, and Trulaske endowment. Executive Team

Carson Killday Fund Manager/ CEO

> Logan Clark Chief Economist

Abhilash Parath Chief Market Strategist

Management Team

Alex Herrera Information Technology

Brian Amaonye Information Technology

> Mason Tasset Healthcare

Adam Schlittler

Financials

Samantha Trout

Consumer Discretionary

Jessie Kingwill

Communication Services & Utilities

Vincent Biondo

Industrials

Dylan Vertner Consumer Staples

Derek Baker Energy& Materials

> Jack Gentile Real Estate

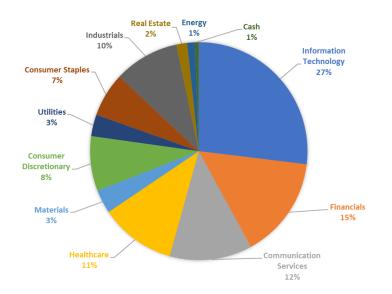
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Welcome Letter from the CEO

This semester the Investment Fund Management (IFM) Program had a very diverse and talented group of students. It was comprised of thirteen undergraduate students, which three had taken the class before and ten had not. Students were chosen through a highly competitive process to serve the fund as student managers. The IFM program grants students the opportunity to manage a portion of the University of Missouri's Endowment. This unique experience allows students to gain first-hand experience with investing in U.S equity markets. The class is often seen as a culmination of what Finance and Accounting majors have learned at Mizzou. I was honored and humbled to be selected to serve this semester as the Chief Executive Officer and Fund Manager. My role was to facilitate discussions among the class and guide it through a voting process. The voting process is key because no stock can be purchased without a majority vote. I also was tasked with providing daily overviews of the portfolio and spearheading the strategy of the portfolio. I am incredibly grateful to provide an update of the IFM portfolio as of May 14, 2021.

Description

The portfolio has grown to a roughly 2.1 million dollar market value. This has been due to detailed analyst reports and motivated student leaders providing unique and interesting stock picks. Students are in charge of analyzing specific stocks within their S&P 500 sector. They are assigned to these sectors at the beginning of the semester and analyze it until the end. Analysts are then responsible for researching current and prospective investments within their respective sectors and providing either a buy, sell, or hold recommendation. Investment recommendations are based on both quantitative and qualitative analysis. After analysts presented recommendations, I would then lead the class in thought provoking discussions on the advantages and potential investment risks of those analyst recommendations. The discussions were often centered around how these prospective investments would fit into our overall portfolio and investment strategy..





Carson Killday Fund Manager /CEO

Top 5 Holdings	
Company Name	% Weight
Apple Inc	5.58%
Salesforce Inc	4.94%
Berkshire Hathaway Inc	4.90%
Walt Disney Co	4.47%
Square Inc	4.01%

Portfolio Characteristics	
Total Assets	\$2.159 M
Number of Holdings	35

Strategy

I was responsible for determining the portfolio strategy, which was corroborated by information from our Chief Market Strategist and our Chief Economist. From there, it was presented to the IFM team and voted upon. The goal was to first change the weightings in various sectors that we felt would either underperform or overperform in the coming months. The industries of Healthcare, Information Technology, Industrials, Financials, and Real Estate were given market-outperform designations. This meant we would work to increase our weightings for these industries. This was based upon an analysis of the market and where we thought it was moving towards. These industries are poised for growth after the pandemic. Healthcare is still competitively positioned to grow from the vaccine rollout. Information Technology has consistently proven to innovate. Industrials and Real Estate are both prime targets for real estate development growth across the country that was stalled due to the pandemic. Finally, Financials are in a unique position to profit off of increased interest rates.

The industries of Consumer Discretionary, Communication Services, Consumer Staples, Materials, Utilities, and Energy were designated as market-perform or market-underperform. Because of this, we worked to decrease our weighting in these specific industries to fund the acquisitions from our new over-weight sectors. The class also voted on a strategy involving the Fama-French model of factor tilts. It was decided that the fund would strategize the fund toward more growth stocks over value stocks, medium-high beta over low beta, medium-high market capitalization over small market capitalization, and a focus on momentum based stocks. This was contingent on current market analysis and how the management team felt we could best profit from current market conditions.

We increased our total number of holdings from 30 to 35 by May 14, 2021. Trimming down companies such as Apple, Broadcom, Facebook, NextEra, PayPal, and Square allowed us to have funding to secure other stocks within the portfolio. We believed Apple, Facebook, and Broadcom had become too large of holdings in the portfolio. We used funding from those sells to purchase companies such as Microsoft, Royalty Pharma, Amazon, Otis, and Micron Technology. We sold Digital Realty Trust and Restaurant Brands because we felt they were going to market-underperform. They were going to underperform because they were not competitively positioned to grow at a rate that would be more profitable than other investments. The money from those sells could be used to invest in stocks we felt would have higher returns. Along with that, we sold the Vanguard S&P 500 ETF as a way to secure funding for those previous acquisitions.

These decreased position allocations were mainly used to create funding sources for other investments. Apple and Broadcom had both grown to over 7% of the portfolio and we felt as a class any one holding should not be above 5%. Thus, we trimmed those holdings down so that we could fund the strategies we had agreed upon, such as overweighting our positions in, Healthcare, Information Technology, Industrials, Financials, and Real Estate

When I took over the role as CEO/Fund Manager, on January 25, 2021, the portfolio stood at 1.986 million dollars. Since then, the portfolio has grown to 2.159 million dollars as of market close on May 14th, 2021.

Sells	
Company Name	Shares
Vanguard S&P 500 ETF	130
Digital Realty Trust	250
Restaurant Brands Int.	437

Buys	
Company Name	Shares
Microsoft Inc.	318
Royalty Pharma Inc.	1,543
Amazon Inc.	14
Otis Inc.	641
Micron Technology, Inc	660

Decreased Position Allocations	
Company Name	Shares
Broadcom, Inc	127
Apple Inc.	155
Facebook Inc	142
NextEra Energy Co.	472
PayPal	21
Square	23

That is a return of 8.73% percent from the time of January 2021 until May 2021. The average S&P 500 index return was 9.55% over that same period.

Closing Remarks

This class has been the defining course I have taken at Mizzou. The experience it provides and the skills it imparts staggering. This program is truly one of a kind, something that not every student is able to participate in. As a class, I know we would like to thank Professor Adam Yore for teaching and guiding us throughout the semester. I had taken this class previously with Professor O'Doherty but learning from Professor Yore added new ways of valuation and perspective that were new to me. If there is one thing I have learned in my last four years, is that there is not a single "perfect" way to invest. There are many strategies and skills used and needed for investing. Gaining as many perspectives as possible is important in your development as an investor.

Professor Yore had us read several books to prepare us for this class, but one stood out for me in particular: *What I Learned Losing a Million Dollars*. This book was unique because instead of laying out various investing strategies, (of which there are thousands) it taught how to limit your losses. That is a strategy I will use for the rest of my life. One needs to know when to liquidate a position before it is too late and set up goals for oneself when investing. Throughout these four years, I have learned many different ways of how to invest, but not many ways of knowing when to cut your losses and call it a day. If all of these investment strategies worked for every person, then would not everyone be a millionaire? There is so much involved in investing in regards to human behavior. That is why this class is so unique. The class discussion helps mitigate "group think" and allows for other opinions to be heard. When investing, one may not see every angle, of which the class discussion hopes to mitigate.

This semester was different. With in-person classes being limited and masks required at all times, it seemed a little standoffish at times. However, these students in this class were able to break through those barriers and perform remarkably well.

As a graduating senior, I am leaving Mizzou and heading into the workforce. I will definitely look back on this class as one of the greatest courses I have ever taken. It is a course that has given me so much knowledge to use in the future. Following my graduation this May, I will be working as a Financial Operations Specialist at Royal Canin, a brand of MARS Inc. This class has proven my interest in stock analysis, convinving me to pursue my CFA in the coming months. I am forever thankful to not only have had this opportunity, but to have been able to serve as the Fund Manager/CEO.

Sincerely,

Carson Killday

Semester Report, Spring 2021

Economic Commentary

Our management team primarily focused on positioning the portfolio to benefit from a post-pandemic economic rebound. In addition, a considerable amount of thought went into changes in economic policy within the new White House administration. The following factors were specifically focused on.

Inflation

Inflation is expected to increase over the next year. Typically, the Federal Reserve aims to keep inflation around 2% annually. However, when the pandemic started, inflation fell to its lowest levels since 2008, according to the breakeven inflation rate. Since the early days of the pandemic, inflation has steadily been rising in light of unprecedented levels of fiscal stimulus. The 10-Year Inflation Rate has risen to 2.42% up from .50% in March of 2020. After an unprecedented amount of fiscal stimulus since the start of the pandemic, high demand expectations, and increasing input prices for producers, my forecast for inflation is 2.70%.

Proposed Tax Plan

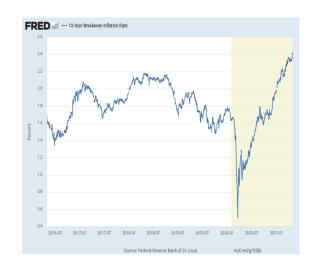
The Biden Administration has proposed increasing the corporate tax rate from 21% to 28%. If this bill were to pass, it would significantly hinder the bottom line for many of our holdings. In addition to an increase in the corporate tax rate, Biden has also proposed increasing the capital gains rate for the wealthy. This does not necessarily affect our portfolio directly, but has had a negative impact on the market already, and if passed, would likely continue to do so.

GDP Growth

My forecast for real GDP growth is 5.2% over the next 12 months and 3.5% over the next five years, with most of that growth being generated over the next two years. First quarter real GDP growth was released on April 29, 2021, increasing at an annual rate of 6.4%, which was below my estimate of 9.25%, and below general expectations. The S&P 500 sector growth rates are a very important input for our analysts to determine a growth rate for their valuation models. These were determined by observing contribution to GDP from the industries tracked by the Bureau of Economic Analysis, and mapping these industries to an S&P 500 sector. My forecasts for sector growth rates are included in the table to the right. Consumer Discretionary, Industrials, Healthcare, and Real Estate are expected to see the most growth over the next 12 months in a post-pandemic environment as consumers will likely spend more than they save. Meanwhile, in the long-term, Information Technology is expected to grow at the highest rate of the S&P 500 sectors.



Logan Clark Chief Economist



1 Yr Growth 5 Yr Growth Rate Forecast Rate Forecast

Real GDP	5.20%	3.50%
Inflation	2.70%	2.00%
S&P 500 Sector Growth:		
Communication Services	3.60%	2.50%
Consumer Discretionary	4.50%	2.75%
Consumer Staples	3.00%	2.25%
Energy	3.50%	2.30%
Financials	3.15%	2.30%
Healthcare	3.60%	2.60%
Industrials	4.20%	2.35%
Information Technology	3.80%	3.00%
Materials	2.90%	2.20%
Real Estate	3.40%	2.35%
Utilities	2.80%	2.10%

Market Report and Summary

Overall Market Commentary

Spring of 2021 was marked by volatility in both US and Foreign markets. Major catalysts included vaccine rollouts, employment reports, a rise in retail investors, and a rise in treasury yields. The S&P 500 has a YTD return of 11.83%. Foreign markets were also positive YTD. In January, an influx of retail investors "targeting" heavily shorted stocks caused a large amount of volatility. Vaccine rollout issues throughout Europe have caused indices like the FTSE 100 and DAX to trail behind the S&P 500. A rise in US treasury yields, as seen on table 2, caused a major dip in the markets in March.

Valuation ratios for the US market seem to continue to rise at an unsustainable rate. This is helped by the Fed's consistent influx of money into circulation but many companies have fears of inflation and have begun to show that in their guidance for the rest of the year. The P/E ratio of the S&P 500 as of 04/30 was 39.76. This represents a 62% increase from a year ago. Another interesting development this year has been the reemergence of value investing. Value stocks have far out performed growth stocks YTD after nearly a decade of growth dominance.

Looking to the future: vaccine rollouts, COVID-19, and new legislation are the largest short-term catalysts for change in the market. Improvements in vaccine rollout in Europe could cause positive price action in their markets. Currently, emerging countries including India and Brazil are dealing with huge numbers of COVID-19 cases and markets in these countries are in turmoil. This has also caused supply chain issues and companies are seeming to pull back on guidance as well as warning investors of potential shortfalls if the pandemic can not be contained in these countries. President Biden has revealed plans for huge infrastructure bills as well as rises on both corporate income taxes as well as capital gains taxes. We expect valuations to drop in what is usually a quieter summer season and value stocks to continue to do well until valuations return to a more reasonable state.

Segmented Market Commentary

Our fund has historically benchmarked our performance as well as our weightings against the S&P 500. For this reason, it is of great importance to track sector performance as a whole throughout the semester. At the start of the semester we expected the technology, real estate, financials, healthcare, and materials sectors to outperform the benchmark by the greatest difference.

Actual results YTD show that the energy, financials, real estate, and materials sector performed the best with the energy sector being the clear leader. The XLE out performed the benchmark by over 22%. The energy and real estate sectors seem to have finally made the recovery that they missed with the rest of the market in 2020. The XLF has performed very well after a strong earnings season in which M&A deal flow returned without a steep reduction in the increased lending banks saw in 2020. The SPAC trend has also contributed to a strong earnings season. We expect the energy sector to fall off in the long-term as continued government encouragement in both the US and abroad for greener energy increases. Currently the XLE is dominated by oil and gas titans and we believe until more sustainable energy companies grow to join the S&P, long-term growth will falter.



Abhilash Parath Chief Market Strategist

Stock Indices	4/30/2021	1 Wk	1 Mo	YTD	1 Yr
Stock Indices	4/50/2021	% Chg	% Chg	% Chg	% Chg
S&P 500	4,181.17	0.04%	5.34%	11.83%	45.96%
DOW JONES	33,874.85	-0.50%	2.78%	11.30%	42.12%
NASDAQ	13,962.68	-0.38%	5.43%	8.55%	58.36%
FTSE 100	6,969.81	0.50%	4.08%	9.26%	22.17%
DAX	15,135.91	-0.94%	0.85%	10.33%	39.35%
Euro Stoxx 50	3,974.74	-0.68%	1.93%	12.92%	39.62%
NIKKEI	28,812.63	-0.72%	-1.25%	5.66%	44.97%
SHANGHAI COMP	3,446.86	-0.77%	0.20%	-0.69%	23.42%
MSCI World ex USA	2,277.01	-0.50%	3.21%	7.54%	41.37%
MSCI Emerging Mkts	1,347.61	-0.37%	2.50%	4.79%	49.17%

		1 Wk	1 Mo	YTD	1 Yr
Interest Rates	4/30/2021	Bp Chg	Bp Chg	Bp Chg	Bp Chg
2-year	0.16%	0	0	4	-4
5-year	0.85%	3	-9	49	48
10-year	1.63%	7	-11	71	99
30-year	2.30%	6	-11	65	101
30-year Mtge Rate	3.11%	4	-16	24	-41
Avg Corporate Bond	2.18%	2	-10	44	-49
Avg High Yield Bond	3.99%	-5	-24	-19	-406

Sector	Index	YTD Return	Relative Change	Expected Change
S&P 500	SPX	12.14%	0.00%	8-10%
Industrials	XLI	16.09%	3.95%	10-12%
Information Technology	XLK	5.12%	-7.02%	5-8%
Health Care	XLV	8.59%	-3.55%	8-12%
Financials	XLF	23.04%	10.90%	8-12%
Consumer Discretionary	XLY	9.18%	-2.96%	5-7%
Communication Services	XLC	13.45%	1.31%	5-7%
Consumer Staples	XLP	4.68%	-7.46%	5-7%
Energy	XLE	34.03%	21.8 <mark>9%</mark>	3-5%
Utilities	XLU	7.18%	-4.96%	8-12%
Real Estate	XLRE	17.53%	5.39%	12-15%
Materials	XLB	16. <mark>92%</mark>	4.78%	8-12%

Information Technology

The fundamental outlook for the information technology sector remains neutral. The S&P 500 Information Technology Index (XLK) has returned 4.23% YTD, lagging behind the S&P 500 Index (SPX) YTD return of 11.51%. The Information Technology Sector accounts for 26.23% of the S&P 500, making it the largest sector. Recent performance of the technology sector indicates a rotation away from growth oriented stocks. This rotation has been driven by rises in U.S. Treasury yields, inflation concerns, and projected tax increases.

The Technology sector ranked among the top winners in 2020, following a global economic recovery as businesses started to reopen from the Covid-19 pandemic. The recovery bullish run has resulted in over-valuations to some of the growth-stocks and with current fears of inflation, the markets are rotating towards value oriented stocks. Growth oriented technology stocks are considered to be trading at over-valued multiples compared to historical values.

However, most recent Q1 and Q2 earnings in 2021 of the companies in the sector have beaten expectations. Despite recent sell-offs, earnings expectations continue to be high going into Q3 and Q4 of 2021. As we approach the end of the pandemic with the increase of vaccine rollout, markets look positive. The return to normal will create a better environment for the Information Technology Sector. After any corrections are over, Technology stocks may start to trade at a discount.

Trends

The Semiconductor Industry is experiencing a global chip shortage that was driven by a Covid-19 buying spree and a fire at a Japanese factory that controls 30% of the global supply of chips used in cars. The shortage has accounted for lower profit margins as a result of higher manufacturing prices. In the Communications Equipment industry, market participants are continuing to invest towards the inclusion of 5G, which will come with strong demand as devices able to support 5G-related technology gets rolled out. With regards to the Data Processing Industry, companies like **Paypal** (PYPL) and **Square** (SQ) are pushing peers, and major companies, to support cryptocurrency payments in their platforms. Finally, AI along with machine learning continue to be one of the

Recommendations

We used an analytical regression model to predict outperformers and underperformers based on the Price-to-Sales multiple of the 75 constituents in the sector. The model arrives at target prices based on relative market multiples. The P/S regression returned an Adjusted R-Squared of 0.46. Based on the model, **Micron Technology Inc** (MU) is currently undervalued at \$80.85/ share. Micron is trading at a 3.86 P/S multiple. The projected P/S multiple of 6.28 implies an upside of 59.6%. Contrarily, **Tyler Technologies Inc** (TYL) is projected to be overvalued at \$392.22/share, based on a 14.08 P/S multiple. The analysis projects TYL to trade at a 7.13 P/S multiple, which represents a 49.33% pullback.



Alex Herrera Information Technology Analyst

Overview

S&P 500 Information Technology (XLK)							
Percentage of S&P 500		26.23%					
Average Beta			1.13				
Number of Companies			75				
Relative Performance	1 Mo	YTD	1 Year	5 Year			
IT Sector (XLK)	-4.41%	4.23%	42.04%	221.06%			
S&P 500 (SPX)	1.45%	11.51%	42.93%	104.65%			
Sector Key Ratios	P/E	P/S	EV/EBITDA	EV/Sales			
Mean	35.72	8.61	30.6	8.75			
Median	28.75	6.69	21.89	6.9			

Name	Ticker	P/S	Proj. P/S	% Diff.
<u>Buy</u>				
Micron Technology Inc	MU	3.86	6.28	62.81%
Microsoft Corp	MSFT	11.64	13.63	17.12%
Lam Research Corp	LRCX	6.30	11.85	88.01%
Akamai Technologies In	AKAM	5.53	9.63	73.96%
KLA Corp	KLAC	7.12	13.67	91.86%
<u>Sell</u>				
Tyler Technologies Inc	TYL	14.08	7.13	-49.33%
Fidelity National Inform	FIS	7.30	3.58	-50.99%
Autodesk Inc	ADSK	16.03	9.63	-39.92%
ServiceNow Inc	NOW	19.07	10.05	-47.31%
Paycom Software Inc	PAYC	21.91	9.72	-55.64%

Ticker	Beta	Net Profit Margin	Payout	Sales Growth (y/y)
MU	1.25	17.85%	0%	0.41%
MSFT	0.79	34.63%	28.87%	27.12%
LRCX	1.28	26.39%	20.4%	37.49%
AKAM	0.41	26.84%	0%	10.52%
KLAC	1.22	31.04%	29.55%	41.23%
TYL	0.56	20.94%	0%	4.51%
FIS	0.85	27.27%	549.99%	21.48%
ADSK	1.33	23.74%	0%	15.76%
NOW	0.93	21.20%	0%	39.67%
PAYC	1.38	24.19%	0%	14.07%

Information Technology

Information Technology: Sector Overview

The Information Technology sector is compromised of three key subsectors: Technology Software & Services, Technology Hardware & Equipment, and Semiconductors & Semiconductors Equipment Manufacturers. The sector has a total of 75 constituents and a total market cap of \$14.25 trillion. The Information Technology sector consumes 27.06% of the S&P 500 which is the highest market weight amongst sectors in the index. The sector is heavily dominated by a short range of amount of stocks as the ten highest holdings control 67% of the sector.

Current Sector State/ Trends

The Internal Data Center (IDC) is projecting that the Information Technology sector's revenue will be \$5 trillion in 2021, signaling 4.2% growth from the previous year. In addition, the IDC predicts that the sector will have a compound annual growth rate of 5% through 2024 (Comptia). Despite, the negative effects of the COVID-19, the Information Technology sector's performance appears promising for years to come. As we move towards more of a digital society, enhanced capabilities in the following technologies will likely generate strong returns for constituents in this sector: cybersecurity, cloud computing, machine learning, artificial intelligence, business solutions, and channel dynamics. Threats to the Information Technology sector consist of government regulation, data security, and the recent semiconductor shortage. With the Information Technology sector being so saturated in a limited amount of constituents, the government will potentially instill antitrust regulations on high industry performers. Also, with increased data optimization strategies, there is a growing risk in confidential consumer data in which many constituents in this sector will need to combat using efficient data security implementations. Lastly, the recent semiconductor shortage has negatively affected the production of stocks within the electronic device and car manufacturing space. It will be important to monitor how Administration and the sector's supply chain respond to this economic downfall.

Investment Candidates:

I was able to use a market multiples regression analysis to compile a list of potential investment candidates. After computing P/S, P/B, and EV-EBITDA regressions, I ultimately used my P/S regression model because it generated the highest R^2 value from the other multiple vehicles signaling a strong relationship between the dependent and independent variable in my regression model. From there, I was able to compile a brief list of under/ overperformers using each stock's predicted and actual P/S.



Brian Amaonye Information Technology Analyst

Market Capitalization

	Ticker	Name	% of ETF Assets
1	AAPL	APPLE INC	22.70
2	MSFT	MICROSOFT CORP	20.54
3	v	VISA INC-CLASS A SHARES	3.84
4	NVDA	NVIDIA CORP	3.77
5	MA	MASTERCARD INC - A	3.26
6	PYPL	PAYPAL HOLDINGS INC	3.22
7	INTC	INTEL CORP	2.66
8	ADBE	ADOBE INC	2.58
9	CRM	SALESFORCE.COM INC	2.42
10	CSCO	CISCO SYSTEMS INC	2.21
		Top 10 Total % of Assets	67.18

Observation	Predicted P/S	Actual P/S
Micron Technology Inc	6.28	4.11
Microsoft Corp	13.63	11.87
Lam Research Corp	11.85	6.67
Akamai Technologies Inc	9.63	5.55
KLA Corp	13.67	7.49

Underperform				
Observation	Predicted P/S	Actual P/S		
Cadence Design Systems Inc	12.04	13.09		
Fidelity National Information Services Inc	3.58	7.58		
Autodesk Inc	9.63	16.91		
Visa Inc	17.72	23.33		
CDW Corp	1.22	1.36		

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Health Care

The fundamental outlook for the health care sector remains positive. The S&P 500 Health Care Index (XLV) constitutes, spread out over six industries, makeup roughly 12.8% of the S&P 500. The XLV has returned 8.2% YTD, lagging the S&P 500. The health care sector's performance ranks ninth, relative to the other S&P sectors, and presents compelling valuations fueled by solid earnings in Q4 2020 & Q1 2021.

Major Developments

Health care spending as a percentage of GDP is expected to increase, creating a positive environment for the sector. Regardless of Government spending, the sentiment will likely be offset by uncertainty surrounding policy changes. With a new administration in office and when pandemic stressors subside, the pre-pandemic pressure on drug prices will likely return. With a split Congress, the possibility of any drastic changes occurring as a result of passed bills is meniscal.

Through an economic recovery and global reopening, the health care sector exemplifies robust growth prospects. Due to swift and hefty investments combatting COVID-19, the high demand for vaccines, therapeutics, testing, and other PP&E continue to drive health care revenue and offset losses in other areas. With roughly 100 million Americans fully vaccinated, 300 vaccines in development and many already in production, the market will become increasingly saturated. Accumulating demand for health care operating segments including health care visits and medical procedures will flourish. Given the defensive nature of the health care sector, areas such as essential drug sales remain relatively unaffected. The pharmaceutical industry is poised for a positive recovery, with projected increases in new drugs starts and prescription fills from physician visits.

Recent merger and acquisition (M&A) activity has prospered in several sub -industries, as companies expand product lines. This M&A activity is a result of pandemic accelerated trends, including telehealth and remote patient monitoring. Furthermore, many companies are looking to offset a near -term decline in drug sales from the patent cliff in 2022 and 2023. Longterm trends consider the aging population alongside the continued innovation and growth in Government spending, fueling the baby boomer's ability to live happier and heathier lives.

Reccomendations

A regression model for the Price-to-Book factor was used to predict outperformers and underperformers within the S&P 500 Health Care sector. Adjusting for three outliers, the P/B regression gave the highest correlation between the actual and projected values of 0.901 with 79.8% of the variation in the P/B being explained. I determined **Amgen** (AMGN) is undervalued at \$245.38/share, based on a projected P/B valuation of 31.7 times the book value of equity. AMGN's ROE of 77.2% and sales growth of 8.8% (tabulated to the right), among other determinants, compare favorably to its peers. Contrastingly, **IDEXX Laboratories** (IDXX) is projected to be overvalued at \$552.06/share, based on a projected P/B valuation of 37.3 times the book value of equity. The analysis projects a pullback of 50.0%, due to IDXX's current P/B ratio of 74.5, equity beta of 0.71, payout of 0%, and among other factors.



Mason Tasset Health Care Analyst

Overview

KLV)				
Percentage of Index				
Average Market Cap \$74,357.28				
Number of Companies 62				
1 Mo	3 Mo	YTD	1 Yr	2 Yr
5.4%	6.0%	8.2%	25.4%	36.1%
Div Yld	P/E	P/B	ROE	Beta
1.6%	32.7	5.0	15.9%	0.9
	1 Mo 5.4% Div Yld	1 Mo 3 Mo 5.4% 6.0% Div Yld P/E	1 Mo 3 Mo YTD 5.4% 6.0% 8.2% Div Yld P/E P/B	12.: \$74,3 6 1 Mo 3 Mo YTD 1 Yr 5.4% 6.0% 8.2% 25.4% Div Yld P/E P/B ROE

Sector Winners and Losers

Name	Ticker	P/B	Proj. P/B	% Diff.	
Outperform					
Amgen	AMGN	14.98	31.66	111.3%	
DaVita	DVA	9.28	23.53	153.6%	
Bio-Rad Laboratorie	s BIO	1.84	14.67	696.0%	
Hologic	HOLX	6.22	17.60	182.9%	
Eli Lilly and Compan	y LLY	31.60	42.79	35.4%	
<u>Underperform</u>					
IDEXX Laboratories	IDXX	74.49	37.27	-50.0%	
Mettler Toledo Int.	MTD	108.55	87.23	-19.6%	
Incyte Corporation	INCY	7.20	-5.02	-169.7%	
Bristol Myers Squib	b BMY	3.75	-5.57	-248.6%	
Dexcom	DXCM	20.15	10.98	-45.5%	
Financial Highlights					
Ticker ROE	Payout	Equity Beta	Sales Gro	wth (y/y)	
AMGN 77.2%	52.9%	0.71	8.	8%	
DVA 55.9%	0.0%	1.29	1.	4%	
BIO 38.5%	0.0%	0.82	8.	7%	
HOLX 41.2%	0.0%	1.17	12	.1%	
LLY 109.8%	45.0%	0.25	9.	9%	
IDXX 92.0%	0.0%	0.89	12	.5%	
MTD 213.2%	0.0%	1.02	2.	5%	
INCY -11.3%	0.0%	0.81	23	.5%	
BMY -23.8%	100.0%	0.62	62	.6%	
DXCM 27.0%	0.0%	0.75	30	.5%	

All data as of 5/3/2021

Semester Report, Spring 2021

Financials

Overview

The fundamental outlook for the financial sector remains positive. After struggling for the majority of the 2020 fiscal year, many macroeconomic factors are creating positive momentum for the financial sector. With early signs of being at the beginning of the business cycle, the financial sector is set up for success due to the cyclical nature of the sector. The federal reserve has steadily increased interest rates, during the first quarter of the 2021 fiscal year. This is advantageous for banks as their primary revenue source comes from net-interest margin. Banks borrow from depositors in the short-term and lend to consumers in the long-term. The difference is the net-interest margin. Consumer confidence plays an integral role in the profitability of the financial sector. As consumers and investors outlook on the COVID-19 pandemic improves, the economy will continue to recover. Consumer and investor confidence is highly correlated with performance of the financial sector. During the 2020 fiscal year, banks increased reserves to prepare for bad loans due to the uncertainty surrounding the COVID-19 pandemic. Throughout the first quarter of 2021, banks have released the reserves they had set aside during 2020. The release of reserves have increased profits and led to a strong first quarter for banks. This year, the Financial Sector (XLF) is up 28.2% while the S&P 500 (SPY) is up 12.1%.

Trends

Recent trends have shifted the landscape, in the financial sector. SPACs have emerged as an alternative way for companies to go public. This trend has had a profound impact on companies in the investment banking industry, as a main source of revenue is generated through underwriting activities. Merger and Acquisition (M&A) activity has increased in multiple sectors. The top banks will benefit from this trend, as M&A advisory is a large source of revenue for investment banks. Blockchain technology has threatened the traditional methods of banking. Many of the top banks are adapting new technologies into their business model; however, regulation limits the capability of adopting these new technologies.

Analysis

Analytical models and qualitative factors, were used to determine overvalued and undervalued companies. Price-to-book (P/B) is the best indicator of financial performance for the financial sector. Based on a regression analysis, **Goldman Sachs** (GS) is undervalued at \$370.62/share. With a current P/B 1.24, Goldman Sachs has upward potential of 62.9%. The projected P/ B of 2.02 was determined by a regression analysis using return on equity (ROE), payout ratio, Beta, and profit margin. As a multinational investment bank, **Goldman Sachs** (GS) is the top M&A advisory firm in the world. **Goldman Sachs** (GS) will capitalize on recent trends in the financial sector and favorable market conditions. The same regression analysis determined that **MarketAxess** (MKTX) is overvalued at \$437.17/share. With a P/B of 17.55 **MarketAxess** (MKTX) has downward potential of 68.49% based on a projected P/B of 5.52. As a trading platform for credit markets, **Market-Axess** (MKTX) will struggle as credit markets lag behind equity markets.



Adam Schlittler Financials Analyst

Overview							
S&P 500 Financials (XLF)							
Percentage of Index10.4%Average Market Cap\$66,874.74							
Number of Companies 65							
Sector Perfor-	1 Mo	3 Mo	YTD	1 Yr	2 Yr		
XLF	8.4%	20.7	28.2	69.5	37.5		
Sector Key Metrics	P/B	P/E	Beta	ROE	ROA		
XLF	1.34	16.8	1.22	10.9%	4.3%		
Sector Winners and Losers							

Ticker P/B Proj. P/ % Diff.				
	Ticker	P/B	Proj. P/	% Diff.

Outperform						
Goldman Sachs	GS	1.24	2.02	62.9%		
JPMorgan Chase	JPM	1.91	2.87	50.26%		
Citigroup	С	.84	1.23	46.43%		
Underperform						
MarketAxess	MKT	17.55	5.52	-68.49%		
Zion Bancorporation	ZION	1.29	.97	-24.81%		
First Republic Bank	FRC	3.18	1.86	-41.51%		

Financial Highlights

Name

Ticker	ROE	Payout	Beta	Profit Margin
GS	15.64%	12.43%	1.5	29.32%
JPM	14.97%	28.57%	1.20	34.24%
С	8.35%	27.98%	1.92	25.37%
MKTX	34.15%	30.75%	.37	42.62%
ZION	11.00%	27.87%	1.58	30.25%
FRC	10.13%	13.60%	1.11	29.11%

Semester Report, Spring 2021

Consumer Discretionary

Overview

The fundamental outlook for the Consumer Discretionary sector remains positive, with more upside due to the economy reopening leading to increased travel and increased consumer spending. The Consumer Discretionary Sector contains 61 different companies within 4 sub-sectors. This sector comprises 9.94% of the S&P 500, which is the 5th largest portion of the index. The top 10 holdings in this sector make up 67.45% of the entire sector. Retail is the largest of the Consumer Discretionary sub-sectors, making up 65% of the sector, followed by Consumer Services (19%), Consumer Durables & Apparel (11%), and Automobiles and Components (5%). This sector is about 60% value companies and 40% growth companies.

Key Financial Metrics

Looking at the current averages for the sector, it is looking healthy. Very high sales growth, about average ROE and Profit Margin, and a slightly high EV/Sales, insinuating the sector may be overvalued at this time.

Trends

One of the most notable trends was the increased acceleration to online shopping from in-store shopping. Caused by the on-going Covid-19 pandemic, e-commerce is continuing to become a larger portion of retail sales, and it is expected to continue to grow. Other trends that are happening in this sector are the increased priority of health and wellness. Stores like **Nike**, **Dicks Sporting Goods**, and **Lululemon** are benefiting from this trend, as consumers are buying more of their products to promote their start of a healthy lifestyle, also probably driven by the current pandemic. The last notable trend that is worth mentioning is the increase of home improvement and home store sales. As more consumers are working from home, they are spending money on improving their space. Stores like Lowes, Home Depot, and **Restoration Hardware** are seeing increased sales because of this trend.

Risks

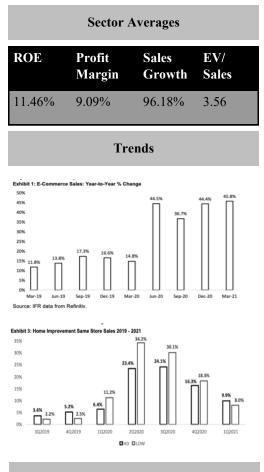
Risks for the Consumer Discretionary sector include inflation, delays in the economy reopening, and decrease in consumer spending as stimulus checks run out.

Sector Winners and Losers

The companies to watch have several different quantitative measures that point to a buying opportunity. **Dominos** has a profit margin of 11.93%, has a very good outlook regarding sales growth. **General Motors**, after running multiple regressions, is considered very undervalued, and considering their recent entrance into the electric vehicle business, it is definitely a company to watch. **Tapestry Inc**, has a ROE at 18.31%, a net profit margin of 10.68%, and extremely high sales growth. **Aptiv PLC** also has an excellent ROE, at 25.92%, as well as a great PEG ratio of .91. Lastly, **Home Depot** has an EV/Sales ratio of 2.77, and has done extremely well during the pandemic, and is expected to continue doing well after the fact. The companies to avoid all have very low Altman Z scores, indicating financial distress, as well as low current and cash ratios. The companies overall are just not able to compete with other firms.



Samantha Trout Consumer Discretionary Analyst



Companies to Watch	Companies to Avoid
Dominos	AutoZone
Aptiv PLC	Carnival Corp.
General Motors	Newell Brands
Tapestry Inc.	Marriot International Inc.
Home Depot	O'Reilly Automotive Inc.

Communication Services

The outlook for the sector is generally positive. Majority of companies within all three subsectors performed very well during 2020, primarily those that helped ease the transition from normal life to stay-at-home orders brought about by COVID-19. As the world shifted toward virtual life, internet providers, social media platforms, and online entertainment services performed better than before. The industry is dominated by a few firms making up the majority of the market share, such as **Google**, **Facebook**, **Disney**, **Comcast** and **Verizon**. The industry continually performs above the S&P 500, with a 2020 return of 16.18% YTD, while the benchmark S&P 500 returned 11.55% YTD.

The main firms within the <u>Telecommunications</u> subsector like **AT&T**, Verizon, and **T-Mobile** have been aggressively working out the details of the 5G rollout. The new data network is anticipated to transform the way people consume data through faster, innovative technologies connecting more devices than ever. T-Mobile acquired Sprint in April of 2020. CapEx spend for the industry is expected to increase 13.5% through 2022.

Movie and TV streaming services are the most popular type of online entertainment that users seek out. The <u>Media & Entertainment</u> subsector is highly competitive. The successful first-movers of the industry were **Netflix**, Hulu and Amazon Prime. Newer streaming services include Disney+, Peacock (from CBS) and HBO Max. The COVID-19 pandemic greatly increased demand for streaming services and also led to more households cutting the cord on cable television as live events were cancelled. At least 80% of US consumers have one video streaming platform.

The <u>Interactive Media & Services</u> subsector is arguably the most successful subsector. The main players, **Facebook** and **Google**, established high barriers to entry early on to eliminate competitors and have found ways to keep users engaged longer by staying on top of consumer online trends. As of October 2020, there were 4.8B internet users, and it is projected to reach over 5B by 2023. Majority of revenues come from digital advertisements and revenue for 2021 is projected to grow 23.4%.

Several firms have been undergoing legal battles against the FTC over illegal monopolization. Investors should be aware of the new iOS14 software update that will soon require apps to ask users for consent before tracking their online data. I recommend limiting exposure to **Facebook**. While the company performs very well financially and recently released strong 2021 Q1 results, the new iOS14 Apple software update could do damage to the company's ad revenues.

The company that should be purchased is **Google**. This relative valuation was more complicated compared to my other industry, Utilities, as not all of the CS firms post P/E values. I used ROE to determine the winners and losers since it was an equity metric that covered all the companies. Google should be purchased because it is lower risk, with strong sales growth, promising innovation, and a loyal customer base that will unlikely switch to one of Google's competitors.



Jessica Kingwill Communication Services Analyst

Data as	of 5/1	0/2021
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Overview	
<u>S&P 500 Utilities</u>	
Percentage of Index	12.45%
Average Market Cap	4.46T
Number of Companies	26

Winners		ROE	Proj.	% Diff.
Alphabet (GOOGL)		19.00%	6 26.12%	37.47%
Walt Disney Comp (DIS))	4.77%	3.94%	-17.40%
News Corp (NWSA)		1.54%	3.76%	144.16%
Netflix (NFLX)		29.62%	6 35.92%	21.27%
Losers				
Lumen Technologies (LU	JMN)	21.13%	6 13.25%	-37.29%
Discovery (DISCA)		21.13%	6 20.22%	-4.31%
Omnicom Group (OMC)		36.78%	6 36.23%	-1.50%
Facebook (FB)		25.42%	6 25.75%	1.30%
Financial Highlights GOOG	PE	Beta	Sales Growt	th ATOM
L	29.60%	5 1.02	12.77%	18.92%
DIS	N/A	1.19	-6.01%	5.80%
NWSA	N/A	1.59	-10.24%	3.98%
NFLX	60.33%	0.75	24.01%	16.59%
LUMN	N/A	1.09	-4.44%	16.87%
DISCA	25.33%	5 1.37	5.60%	27.59%
OMC	18.81%	0.95	-2.20%	10.50%
FB	26.21%	5 1.3	21.60%	33.38%

Industrials

Industrials are the second largest of the 11 GICS sectors in the U.S. market. In the S&P 500, Industrials are the 6th largest portion at a weight of 8.47% and comprises of 73 companies from components in either capital goods, professional services, or transportation. It is the least "top heavy" with the top 10 constituent weights adding 41.52%. The sector will likely continue to perform in the top-half of all GICS sectors with less overall volatility; however, I bullish on particular sub-industries with a tilt to middle market capitalizations given the sector's weight distribution. 2020 was a capricious year for Industrials just as it was the rest of the market. From a fundamental standpoint, industrials were one of the worst hit sectors. With companies across the globe cutting their capital expenditures considerably and the immense decline in both travel and supply chains. Revenue declined 4.45%, while earnings fell a monumental 63.25%, The forward P/E of the index now sits at an inflated 128.84 The Producer Manufacturing Index is currently well over its variance from the mean, mainly due to the supply chain bottle necking. Currently backorders are building up as more dollars are chasing the same amount of goods.

Industrials tend to perform best in the early stages of the business cycle. The most pertinent measure of this growth is change in Gross Domestic Product (GDP). Nominal expectations are positive with more significant growth in emerging markets. The table from the CBO is listed below. In order to stimulate an economy after severe down turns, injections into public projects is the best way to increase current and future GDP. Equation MV=PQ. Further, overall utility would be better maximized as this method creates value. Now there is also an indication of fiscal spending for infrastructure.

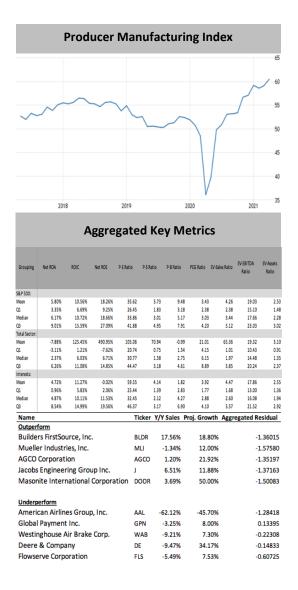
As a highly capital intensive industry, the industrials sector relies heavily on leverage to finance its operations. With such a highly levered capital structure, the sector's cost of capital is highly dependent on its interest rate paid on debt. In an environment like today where the federal funds rate sits at near all-time lows of 0.25%, companies are able to operate at a cheaper level than they could in times of heightened interest rates such as the early 1980s. Companies can also take advantage of low interest rates to increase capital expenditures to gain a competitive advantage in the space.

The table lists aggregated key metrics from every company with 10-K's in the grouping. A matrix quantified opportunities by relatively ranking specific factors to peers such as: regression analysis, analyst trends and recommendation, positive change in debt / market cap, any forex effect, order backlog, long-run growth rate, Y/Y sales growth, times interest earned, Altman Z-score, Total Asset Turnover, ROIC minus WACC, P-E ratio, P-S ratio, and PEG.

The companies of interest were determined qualitatively with intent to maximize an intersection of an opportunity subset including inflation, falling U.S. dollar, and a booming economy. Therefore, Capital Goods were given emphasis. For example, Builders FirstSource is in homebuilding as well as a supplier of lumber. Mueller is an international sub-contracting copper fabrication and distributer. In relation to trade agreements and the world's growing middle class's propensity to consume more, AGCO manufactures farm equipment.



Vincent Biondo Industrials Analyst



Consumer Staples

The fundamental outlook for the Consumer Staples Sector is low growth and safe investments. The Consumer Staples Sector has been outperformed by the S&P 500 in recent years, but performed well through the COVID-19 Pandemic. These firms serve a strong purpose in a portfolio as a safety net to economic downturn and inflation.

Economic Drivers and Recent Trends

Outside of the ordinary drivers, the Consumer Staples Sector is greatly affected by trends with consumer behavior. When it comes to Consumer Staples it is not a matter of if there will be consumption, but rather what the demand is for at specific periods of time. Trends like healthy eating have a major affect on the individual firms within this sector. Additionally, this is a sector that is a safer investment in times of inflation. While the sector does experience minimal effects from inflation, a large amount of the effects are passed on compared to firms in sectors such as Consumer Discretionary or Financials. With the recent actions of the Fed and high government spending, this could be a beneficial time to invest in Consumer Staples as a protection against inflation.

Performance and Future Outlook

As seen in the chart to the right, the Consumer Staples Sector has been outperformed by the rest of the S&P 500 over the course of the past year. As most industries did, it took a major dip during the beginning of the COVID-19 pandemic, then temporarily outperformed the S&P 500. This is primarily due to the low beta, as well as most companies in the sector selling essential goods that were in high demand during the pandemic. As the economy continues to recover, I expect the sector to continue to get outperformed, but provide safe holdings. I see the Consumer Staples Sector as being a great investment option if we are to experience another economic downturn. In addition, the Consumer Staples Sector has seen new firms such as Amazon (AMZN) enter into the market through the acquisition of Whole Foods. These additions to the market should be beneficial in improving competition in the sector and increasing market efficiency. This could be seen as a risk to some specific firms who now have to directly compete against these new firms such as Walmart Inc. (WMT) and other larger grocery providers.

Investment Opinions

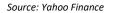
The graphics to the right show a list of firms I believe will be the best and worst investment opportunities from this sector. This list was determined by evaluating regression analysis based on the Price to Book Ratio. Additional analysis was done on **Costco Wholesale (COST)** and **Coca-Cola (KO)** with BUY recommendations and intrinsic values higher than current trading prices with the Dividend Discount Model. The valuation for Coca-Cola yielded a target price of \$55.47 with a current price of \$53.98. I am very optimistic about **Coca-Cola (KO)** as a safe investment with high upside growth potential for the sector. I believe that **Coca-Cola (KO)** has a large amount of opportunities in developing market to expand its product line and grow into a little touched market. Costco yielded a target price of \$476.77 compared to a current price of \$379.32.



Dylan Vertner Consumer Staples Analyst

Overview





Name	Ticker	EV/EBITDA P	rojected EV/EBITDA	%Diff
Outperform				
Coca-Cola	КО	20.85	23.09	10.74%
Costco Wholesale	COST	21.69	23.11	6.55%
Constellation Brands	STZ	17.69	21.43	21.14%
Altria Group	MO	13	20.35	56.54%
Colgate-Palmolive	CL	17.09	18.56	8.60%
Underperform				
PepsiCo	PEP	17.86	17.51	-1.96%
Campbell Soup	CPB	12.24	11.29	-7.76%
Kellogg Company	К	12.34	12.26	-0.65%
The Kraft Heinz	КНС	21.1	12.36	-41.42%
Kimberly-Clark Corp.	KMB	14.19	11.54	-18.68%
Ticker	Beta	P/E	Sales Growth	P/B
КО	0.63	27.77	-0.11%	6.55
COST	0.65	36.57	9.21%	0.94
STZ	1.21	25	2.80%	5.48
MO	0.63	93.07	0.86%	30.72
CL	0.61	25.19	0.96%	4.28
PEP	0.61	26.92	3.87%	2.78
CPB	0.56	19.96	7.20%	1.64
К	0.63	15.63	0.23%	1.44
КНС	1.08	119.48	-4.91%	1.74
KMB	0.53	19.33	3.74%	2.35

Semester Report, Spring 2021

Energy

Overview

The outlook for the Energy Sector is neutral. As this is a very cyclical sector that is highly influenced by changes in commodity prices and the overall economy. This can be a difficult sector to gauge as a whole. After one of the largest revenue hits in history due to Covid-19, the energy sector is continuing to make a slow climb back to pre-Covid-19 price levels. As crude oil prices were seeing lower prices they had not seen in over 30 years, many Large-Cap firms were following suit such as Chevron. As the world progresses and moves to more clean and sustainable energy, many of these firms will need to adapt to keep their relevancy and protect their revenue streams.

Major players

Some major players in the sector include Exxon Mobile and Chevron Corporation, who had rumored reports of a possible merger. Other large firms include Royal Dutch Shell, BP, and Schlumberger. These firms all have a common theme of being involved with oil and gas exploration and production. One large event to note is the removal of Exxon Mobile from the Dow Jones to be replaced by a software company. This can be a sign of the times and where the future of growth is headed.

Key Metrics

Some key metrics to take into account when looking at the energy sector are the price-to-earnings ratio and cash-ratio. This year's price-to-earnings ratio for the sector is estimated to be around 20.30. Many firms within this sector will have a negative P/E ratio due to the Covid-19 revenue hit, so this may not be as strong of a metric to take into account at a time like this. That is when we take into account the cash-ratio. As the world continues to evolve into new forms of renewable, clean energy, many firms will need a strong cash balance to enter into this new, emerging category. The Biden administration will continue to push for new forms of energy, which can in return hurt firms who do not adapt.

Outperform and Underperform

We came to the conclusion of the top 5 firms to consider and avoid through a few metrics. One, a regression was ran using the firms price-to-book ratio. Other ratios were considered such as price-to-earnings ratio, cash-ratio, and their current-ratio. Finally, a discounted cash flow model was ran for each firm to find their fair-value. Using all of these metrics allowed for us to come to the conclusion of these ten firms.



Derek Baker Energy Sector Analyst

Overview							
S&P 500 Energy (XLE)							
Percent of Index					2.28%		
Average Market Cap					\$45,857,363.35		
Number of Companies					22		
Sector Performance	1 MO	3 MO	YTD	1 YR	2 YR		
XLE	11.30%	22.30%	41.56%	38.34%	-16.24%		
Sector Key Metrics	P/E Ratio	Div Yield	P/B Ratio	nse Ratio	Beta		
XLE	30.31	3.88%	1.78	0.12%	1.84		

Sector Winners and Losers

Name	Ticker	Current Sha	re Price
Outperform			
Chevron Corp	CVX	\$	109.57
ConocoPhillips	COP	\$	57.00
Marathon Petroleum Corp	MPC	\$	59.81
Valero Energy	VLO	\$	79.64
Devon Energy Corp	DVN	\$	26.01
Underperform			
Oneok Inc.	OKE	\$	53.96
the Williams Company	WMB	\$	25.54
Hess Corporation	HES	\$	82.56
Phillips 66	PSX	\$	85.59
Kinder Morgan, Inc.	KMI	\$	18.25

Ticker	EPS	Equity Beta	Projected Sales Growth (Y/Y)
CVX	-4.17	1.3	3.50%
COP	-0.16	1.8	19
MPC	-1.25	2.36	5.40%
VLO	-0.69	2.15	5.10%
DVN	-1.98	3.46	6.40%
OKE	2.62	2.47	9.10%
WMB	0.95	1.53	-2.60%
HES	-1.33	2.29	13.50%
PSX	-4.89	1.67	4.90%
KMI	0.81	1.17	-6.50%

All data as of 5/10/2021

Semester Report, Spring 2021

Utilities

The outlook for the utilities industry is neutral. The S&P 500 utilities index returned 5.06% YTD and trailed behind its benchmark index, the S&P 500, which produced a return of 11.55% YTD. There was an overall sector decline in revenue growth of -4.75% for 2020, but as the US economy rebounds after the COVID-19 pandemic, we anticipate incremental upticks in the demand for electricity, along with increased capital spending. However, given the sector's predictable and more stable nature, its overall growth may lag compared to the post-pandemic growth of the overall market.

Residential consumption of electricity rose in 2020 while the demand for Commercial & Industrial end users fell. The COVID-19 pandemic shut down office spaces and more people were working from home. Annual residential, commercial, and industrial electricity retail sales are forecast to grow by 2.2%, 0.9%, and 1.2%, respectively, in 2021, according to estimates from the U.S. Energy Information Agency (EIA).

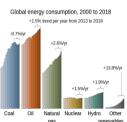
There has been a shift in recent years from coal to cleaner energy sources. As greenhouse gas emissions continue to rise to threatening levels, administrations are turning their attentions toward investments in greener technologies to help reduce their carbon footprints. Selling off securities in the business of coal and oil and investing in renewable energy companies, like **NextEra Energy**, will be a wise move that will pay off in the long run.

President Biden is entering the oval office with determination to reform how the US consumes energy. The Green New Deal aims to tackle the climate challenges we face by investing in clean energy companies and research. His plan is to reach net-neutral carbon emissions by 2050. The proposal is expected to make a federal investment of \$1.7 trillion over the next 10 years.

NextEra Energy is a recommended utility investment. It is the largest firm in the industry by market cap and is the leading producer of renewable energy. The company paid an annual dividend of \$2.03 in 2020 and produced EPS values of \$2.31, offers a low-risk stock to a diverse portfolio and has announced plans to invest in the infrastructure for over 5,000 MW of electricity from its wind and solar sections of its business through 2022. It is a wise investment to make because **NextEra Energy** is the most equipped company to take advantage of the broad decarbonization of the US.

The utility firm to sell and will perform below market averages is **WEC Energy Group**. The company shows negative growth predictions for its Return on Invested Capital (ROIC). ROIC is a valuable valuation metric utilities companies rely on high capital expenditures and debt funding. A higher ROIC generates higher return for shareholders based on all the capital at a company's disposal.

Data as of 5/10/2021





Jessica Kingwill Utilities Analyst

Sector Overview

S&P 500 Utilities

Percentage of Index	3.10%
Average Market Cap	927.25 B
Number of Companies	28

Winners		R	DIC	ROIC Proj.	% Diff
Sempra Energy (S American Water V	/	6.1	10%	7.60%	24.59%
(AWK)		6.1	13%	8.30%	35.40%
NextEra Energy (NEE)	6.2	28%	7.30%	16.24%
Losers Ameren Corp (AEE)		63	30%	6.40%	1.59%
· · /	TO		90%	7.70%	11.59%
Atmos Energy (A	10)	0.5	9070	/./070	11.39%
WEC Energy Gro	up (WEC	C) 5.9	93%	5.41%	-8.77%
Financial High- lights	ROE	Payout	Beta	Sales Growth (y/y)	ATOM
SRE	11.02	55.91	0.65	-7.34%	20.96

SRE	11.02	55.91	0.65	-7.34%	20.96
AWK NEE	10.15 7.99	58.29 82.49	0.21 0.17	4.94% -6.29%	25.15 29.44
AEE			0.27	-6.06%	17.60
ΑΤΟ	8.86	46.96	0.39	-2.78%	23.53
WEC	11.60	62.08	0.17	-3.74%	19.80

Semester Report, Spring 2021

Real Estate

Overview

The outlook for the real estate sector is fairly negative. The real estate sector has shown signs of decline during 2020-2021, and is not expected to rebound from COVID-19 as quickly as other sectors. The decline is expected to continue due to an oversupply of housing and rising rental prices. Most revenue models of real estate firms revolve around renting their space to tenants or renting equipment. The only barrier to entry within real estate is capital. Excessive capital is required to construct and operate the real estate.

Major Players

Market share concentration in the real estate sector is very low. The top four players in this sector are United Rentals, CBRE, Realogy Corporation, and Avis Budget Group Inc. Together these four companies account for only 2.1% of total market share making it very difficult for one company to gain control of the market.

Trends

Over the next five years, the profitability of this sector is expected to decrease due to current market conditions. The cost of rent is growing at a pace faster than wage growth leading to evictions hurting landlords and companies focused on residential real estate. There has also been a move towards e-commerce in the past ten years, leading to significant losses in companies that own brick and mortar stores and shopping centers. The interest rate is also a notable factor. Interest rates are expected to rise causing lending to become more expensive, and decreasing homeownership rates and increasing the rate of vacant rentals. The revenue of the real estate sector is expected to increase, but very slowly at an annualized rate of .1%.

Key Statistics

When it comes to real estate the important factors to consider are the enterprise values/EBITDA, depreciation rate, reinvestment rate, weighted average cost of capital, the sales growth, and the primary holdings of the company.

American Tower Corporation (AMT)

My top winner is American Tower Corporation. American Tower owns and operates over 186,000 wireless towers worldwide to provide cellular coverage for their clients. Their primary business stems from leasing space on their tower sites to multiple cellular companies as well as radio and television broadcast companies. This company's growth is dependent on the increasing need for faster data service speeds. In the past three years, American Tower has made significant acquisitions to expand its tower coverage globally.

Host Hotels & Resorts (HST): Host Hotels & Resorts in my top loser. It owns 80 upscale hotels. COVID-19 has hurt the hotel business tremendously and the return to pre-covid business will be stunted for at least the next five years.



Jack Gentile Real Estate Analyst

Overview							
S&P 500 Real Estate							
Percentage of Index					2.42%		
Average Market Cap				\$	33.909 Billion		
Number of Companies					30		
Sector Performance	1 Mo	3 Mo	YTD	1 Yr	3 Yr		
	8.31%	17.50%	18.14%	30.80%	15.49%		
Sector Key Metrics	Div Yld	P/E	EV/EBITDA	ROE	Beta		
XLRE	3.12%	50.73	3 43	11.25%	0.7		

Sector Winners and Losers

Name	Ticker	r	EV/EBITD	A Proj. EV/I	EBITDA	% Diff.
Outperform .						
American Tower	A	MT	31.47	44.5	59	41.69%
Ventas Inc.	١	/TR	39.59	66.5	55	68.10%
Alexandria Real Estate	ŀ	ARE	12.01	25.7	75	114.40%
CBRE Group Inc.	C	BRE	17.19	34.2	21	99.01%
Crown Castle International		CCI	33.25	45.9	92	38.11%
Underperform						
Host Hotels & Resorts	ł	IST	1.96	-22.	15	-1230.10%
Avalonbay Communities Inc.	ļ	AVB	0.87	-40.	57	-4763.22%
Realty Income Corporation		0	220.02	114.	37	-48.02%
Extra Space Storage Inc.	E	XR	3.94	-13.4	42	-440.61%
Federal Realty Investment Tr	ust l	RT	4.98	-5.3	6	-207.63%
Financial Highlights						
	Depreciation	Rein	vestment	WACC	Sales	Growth
Ticker	Depreciation		Rate	WACC	(у	/y)
AMT	39.49%		2.56%	2.26%		42.06%
VTR	108.62%		-175.10%	6.09%		845.20%
ARE	247.76%		-197.82%	4.45%		-73.89%
CBRE	23.86%		-3.43%	7.59%		383.80%
CCI	50.36%		6.51%	2.75%		-44.32%
HST	84.38%		-51.30%	7.63%		-26.41%
AVB	79.05%		-47.76%	3.62%		-78.07%
0	79.99%		-104.23%	4.52%		18.24%
EXR	34.65%		-98.90%	2.25%		-45.01%

102.57%

16.22%

5.80%

-66.79%

FRT

All data as of 5/10/2021

Semester Report, Spring 2021

Materials

Overview

The outlook for the Materials sector is positive. With the continuous appreciation of precious metals as well as the newfound social awareness of hygiene due to Covid-19, many special chemical firms will continue to grow and see strong revenue growth. Materials such as metals will continue to become more in demand with the growth of new sectors such as electric vehicles, batteries, and other form industries.

Major players

Some major firms in the special and industrial chemicals sub-categories are Ecolab and Air Products & Chemicals. These firms are world leaders in water, hygiene, and industrial gases. They will continue to grow and be world leaders as we continue to push the narrative of finding ways for sustainability in water and energy. Other major firms in the precious metals sub-category are Newmont Corporation and Free-Port McMoRan Inc. The price of gold has continued to appreciate due to supply and demand as well as serves as a hedge against inflation. Copper will also continue to be a strong play due to being a strong component in electric vehicle motors, batteries, and charging stations.

Key Metrics

A few key metrics to take into account when looking at the materials sector are the price-to-sales ratio, cash-ratio, and the debt-to-equity ratio. The price-to-sales ratio allows an investor to compare the market cap of a firm verses their revenues from the past twelve months. Strong firms with high revenues will have lower ratios. The cash-ratio shows the strength of a firm's cash position versus their current liabilities. A firm with a strong cash-ratio will have the opportunity to grow at a fast rate and expand revenue streams. Finally, the debt-to-equity ratio can help evaluate a firms financial leverage. A lower debt-to-equity ratio proves a stronger chance to not go bankrupt in the chance there is an economic downturn.

Outperform and Underperform

We came to the conclusion of the top 5 firms to consider and avoid through a few metrics. A regression was ran comparing the firm's price-to-sales ratio. Next, a discounted cash flow model was ran for each firm to predict future cash flows. Lastly, other financial ratios were considered in finding each firms fair-value, as well as if they will outperform or underperform the market.



Derek Baker Materials Sector Analyst

Overview

S&P 500 Materials (XLB)					
Percent of Index					2.64%
Average Market Cap					\$36,930,189.89
Number of Companies					27
Sector Performance	1 MO	3 MO	YTD	1 YR	2 YR
XLB	9.30%	18.90%	20.80%	66.69%	58.65%
Sector Key Metrics	P/E Ratio	Div Yield	P/B Ratio	P/CF Ratio	Beta
XLB	92.08	1.50%	3.27	12.38	1.07

Name	Ticker	Current Share Pri	ce
Outperform			
EcoLab	ECL	\$	224.96
Air Products & Chemicals	APD	\$	293.53
Newmont Corporation	NEM	\$	68.35
Free-Port McMoRan Inc.	FCX	\$	42.74
Packaging Corporation	PKG	\$	154.56
Underperform			
Martin Marietta Materials Inc.	MLM	\$	375.39
Ball Corporation	BLL	\$	89.87
DuPont de Nemours Inc.	DD	\$	81.68
International Paper Company	IP	\$	62.08
Westrock Company	WRK	\$	59.68

Ticker	EPS	Equity Beta	Projected Sales Growth (Y/Y)
ECL	-4.5	0.95	6.609
APD	8.52	0.76	8%
NEM	3.19	0.21	0.20%
FCX	1.23	2.15	9.50%
PKG	5.1	0.92	2.70%
MLM	12.17	0.71	7.90%
BLL	2.29	0.41	7.50%
DD	5.72	1.58	4.20%
IP	2.46	1.08	2.10%
WRK	-2.78	1.32	4.50%

Schedule of Investments

As of May 14, 2021	Shares	Value \$	% of Assets
Communication Services			
ACTIVISION BLIZZARD INC	330	\$30,805.50	1.43%
FACEBOOK INC	258	\$81,512.52	3.77%
T-MOBILE US INC	400	\$56,608.00	2.62%
WALT DISNEY CO	556	\$96,577.20	4.47%
Consumer Discretionary			
MC DONALDS CORP	325	\$70,309.00	3.49%
STARBUCKS CORP	493	\$54,821.60	2.55%
AMAZON COM INC	14	\$45,120.60	2.09%
Consumer Staples			
COSTCO WHOLESALE CORP	100	\$38,442.00	1.78%
ESTEE LAUDER COMPANIES INC	200	\$59,296.00	2.75%
PROCTER & GAMBLE	315	\$43,473.15	2.24%
Energy			
TC ENERGY CORPORATION	500	\$25,260.00	1.17%
Financials			
ALLY FINL INC	1,300	\$70,200.00	3.25%
BERKSHIRE HATHAWAY INC	364	\$105,807.52	4.90%
KKR & CO INC	1,340	\$75,421.90	3.49%
SCHWAB CHARLES CORP	1,020	\$74,898.60	3.47%
Health Care			
ABBOTT LAB	390	\$46,316.40	2.14%
ENCOMPASS HEALTH CORP	600	\$51,816.00	2.40%
UNITEDHEALTH GROUP INC	200	\$81,960.00	3.79%
ROYALTY PHARMA PLC	1,540	\$62,724.20	2.90%

Schedule of Investments

s of May 14, 20	21	Shares	Value \$	% of Asset
Industrials				
	DYCOM INDS INC	500	\$46,035.00	2.13
	HONEYWELL INTL INC	139	\$31,603.04	1.479
	RAYTHEON TECHNOLOGIES CORP	537	\$46,117.56	2.14
	S.W. AIRL CO	580	\$36,134.00	1.67
	OTIS WORLDWIDE CORP	628	\$49,536.64	2.29
oformation Tec	hnology			
	APPLE INC	945	\$120,440.25	5.58
	BROADCOM INC	128	\$56,527.36	2.62
	PAYPAL HLDGS INC	324	\$79,797.96	3.69
	SALESFORCE COM INC	490	\$106,653.40	4.94
	SQUARE INC	440	\$86,673.45	4.01
	MICROSOFT CORP COM	318	\$78,911.70	3.65
	MICRON TECH INC COM	660	\$52,602.00	2.44
laterials				
	ECOLAB INC	340	\$76,180.40	3.53
eal Estate				
	AMERICAN TOWER CORP	140	\$34,546.40	1.60
tilities				
	NEXTERA ENERGY INC	948	\$69,317.76,	3.21
lisc				
	Cash and Cash Equivalents		\$11,297.07	0.55

Total

\$2,159,999.28

Investment Fund Coordinator



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