



Sellinger  
Applied  
Portfolio  
Fund

Spring  
2021

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# OVERVIEW

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# Sellinger Applied Portfolio

## Background

The student-managed Sellinger Applied Portfolio Fund at Loyola University Maryland, also known as the “SAP Fund,” was established to provide students with actual portfolio management experience. Students are exposed to the various aspects of the portfolio management process, including asset valuation, diversification, portfolio optimization, asset selection, risk management, performance evaluation, and rebalancing. Each year, the University may provide the SAP Fund with up to \$500,000 to invest. These funds are a component of the University’s endowment. All investments within the SAP Fund are liquidated annually at the end of the course.

## Process

The Sellinger School of Business and Management selects 20 top Finance students to manage the SAP Fund every semester. Each member participates by researching, preparing, and analyzing stock pitch recommendations with a small team. After every stock recommendation, each member votes on whether the security should be added to the portfolio and how to allocate the funds. Members monitor the fund throughout the semester and discuss the current economic, political, technological, and social conditions impacting the market.





# ECONOMIC CONDITIONS

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# Major Indices Return

## Year to Date Return (S&P 500)



↑ S&P  
10.32%

1 year  
analysis:  
The S&P is  
up 44.51%  
since April  
2020.

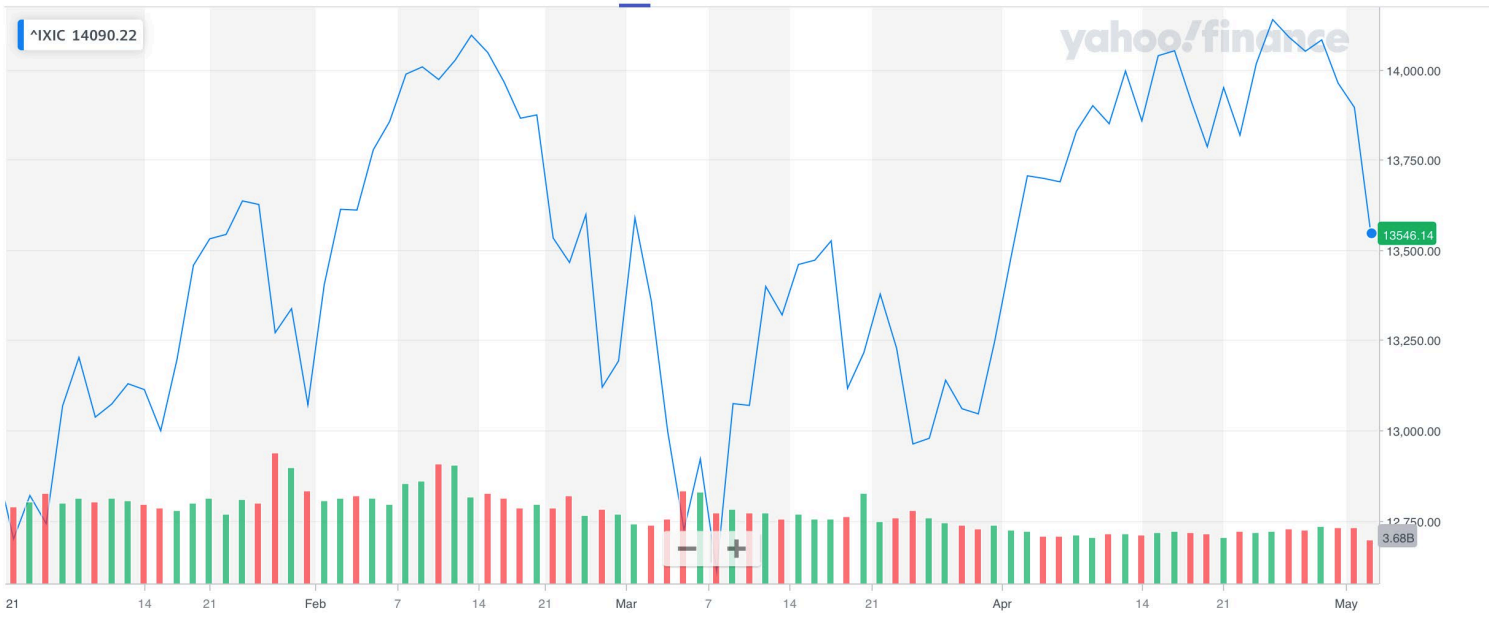


# Major Indices Return

## Year to Date Return (NASDAQ)

 **NASDAQ**  
5.14%

1 year  
analysis:  
**NASDAQ is**  
**up 53.82%**  
**since April**  
**2020.**



# Major Indices Return

## Year to Date Return (Dow Jones)

↑ DJI  
11.12%

1 year  
analysis:  
**The Dow is  
up 42.41%  
since April  
2020.**





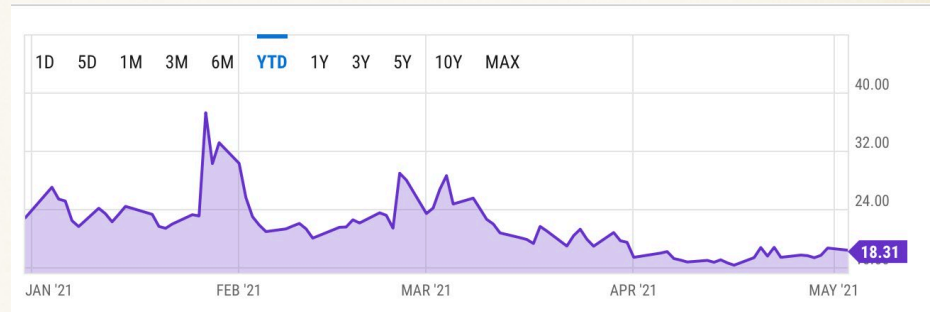
# Market Overview

Last year, the market showed a false beginning due to the pandemic.

The vaccination rollout and stimulus news showed higher bond yields, and the Fed was expected to tighten monetary policy

The Volatility Index (VIX), an indicator of the expected market volatility currently at a level of 18.31, which is a very significant decline from the level of 37.19 a year ago to date.

**Vix YTD: 18.31 (on 5/4/21)**



# Market Overview

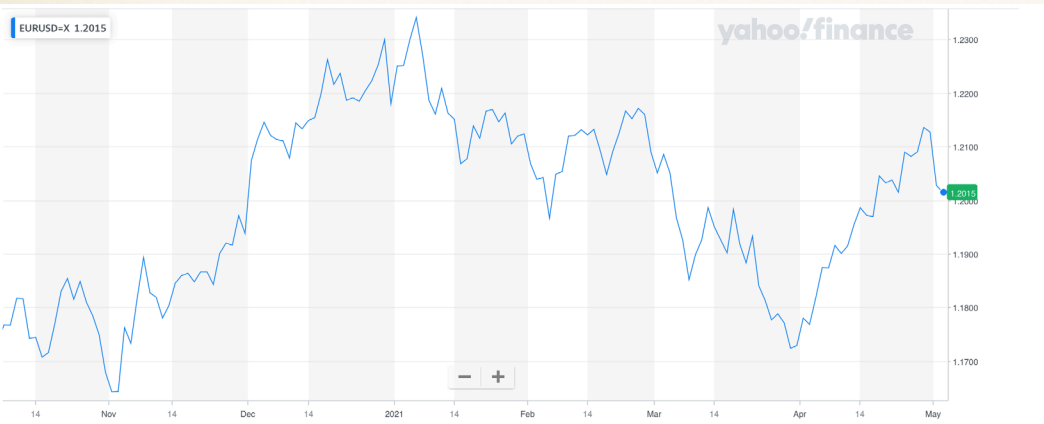
- The U.S. dollar value is expected to increase throughout 2021 according to analysts
  - Strategists expect the currency to increase to \$1.15 per Euro.

**EUR/USD YTD: \$1.20 (on 5/4/21)**

**Brent Crude Oil YTD: 65.00 (on 5/4/21)**

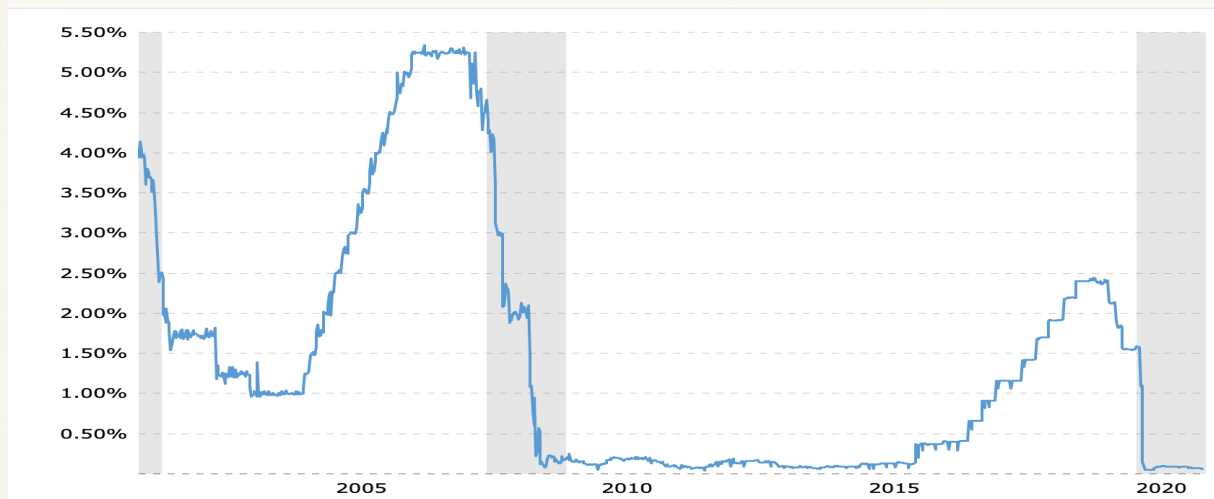


- Oil prices are rising
  - Brent crude oil prices averaged \$65.00 per barrel in March 2021, which is up \$3.00 from February's average



# Federal Reserve Policy

## Federal Funds Rate over the last 20 Years



- Current Federal Funds Rate: 0.25%
- As of April 2021, the Federal Reserve has maintained its target for the rate at a range of 0% to 0.25%
- The Federal Reserve meeting on April 27, 2021, showed implications that the Fed plans to keep rates near zero through 2023
- They expect inflation to increase to 2.4% this year. Their previous estimate was 1.8%.



# Employment

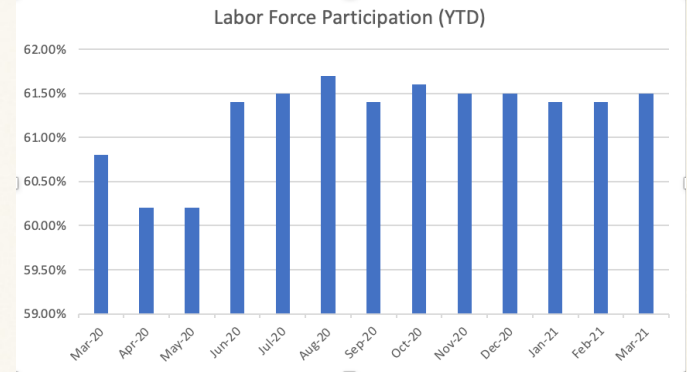
**Labor force participation:** as of March 2021, participation stands at 61.5%  
This is a 1.1% decrease from March 2020.

**Labor force unemployment:** as of March 2019, unemployment was at 6.0%

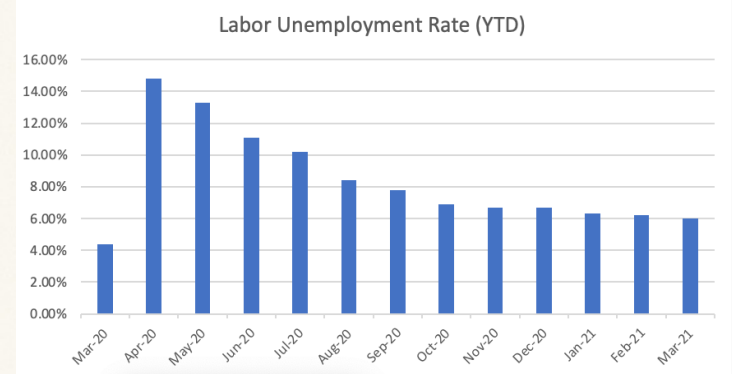
Due to the pandemic, there has been a 36.36% change from one year ago.

The U.S. Unemployment rate is at 6.0%, compared to 4.40% last year. This is higher than the long-term average of 5.77%. The industries with the highest unemployment as of March 2021 are mining, quarrying, and oil and gas extraction.

## Labor force participation rate



## Labor force unemployment rate



# Stimulus Package

- The Biden Administration released a \$1.9 trillion economic rescue plan that included \$1,400 for eligible persons, seven child tax payments and \$300 monthly checks to make up for lost wages and unemployed workers.
- On April 28th, Biden announced two new stimulus proposals for 2021 that would send more money directly to American citizens, possibly putting over \$2 trillion dollars into the economy.
- In response to the first stimulus this year, Goldman Sachs predicted at 7% GDP growth in 2021.
- Goldman Sachs also predicted a decrease of the unemployment rate to 4% by the end of 2021

## Other predicted economic effects of the stimulus:

- Schools could receive the means to reopen
- The minimum wage could rise
- \$440 billion to help communities and localities
  - Expansion of paid leave



# International News

## Russia

On April 16, 2021, President Biden announced a myriad of sanctions on Russia due to the 2020 election interference and a cyberattack. These sanctions were placed on 16 entities and 16 people who are accused of attempting to interfere in the 2020 U.S. presidential election. It also sanctioned five people and three entities who were involved in the Crimea annexation while removing 10 Russian diplomats from the United States. Economists, according to CNBC, have called these sanctions a "symbolic exercise." This is due to the fact that the individuals involved have no ties to the United States nor the intention to use the U.S. dollar. Thus, there are very little macroeconomic implications, contrary to popular belief.

## Europe

Eurozone GDP shrunk much less than expected in Q1. The GDP calculated for the European Central Bank which includes 19 countries decreased 0.6%. It was expected to decrease by 0.8%.

The US stimulus package is expected to impact Europe in a positive manner with an expected GDP 0.3% above horizon.





# SECTOR SUMMARIES

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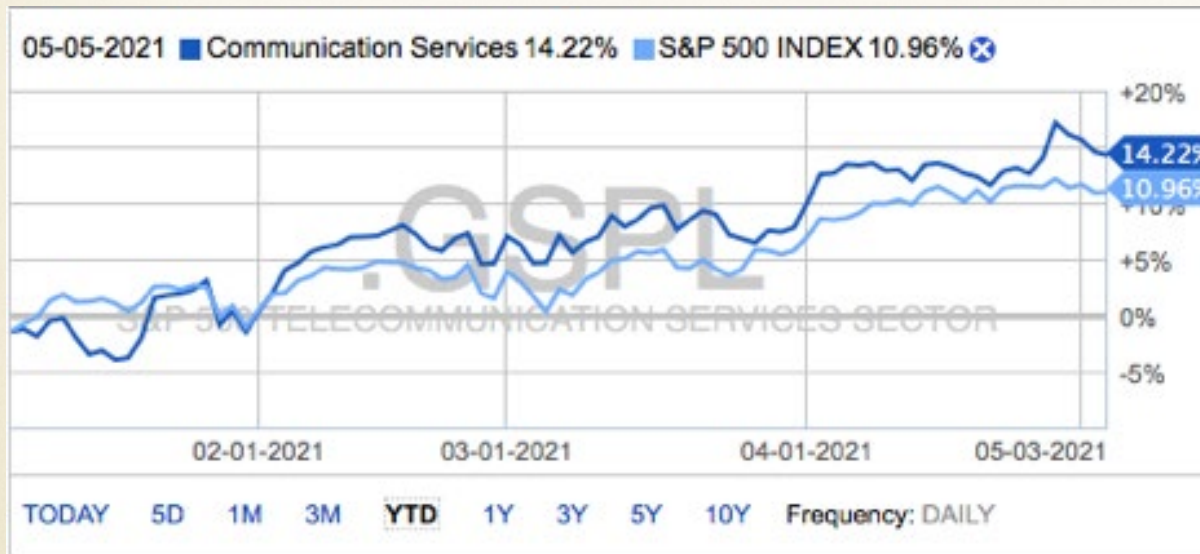
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# Communication Services

The Communication Services Sector of the S&P 500 is made up of companies that make communication possible on a global scale primarily through fixed-line, cellular, wireless, high bandwidth, and/or fiber-optic cable networks. The largest companies in this sector include telephone operators (both wired and wireless), satellite companies, cable companies, and internet service providers. Historically, this sector was dominated by large national and regional operators but deregulation and innovation since the turn of the century has lowered barriers to entry and led to incredible growth in the sector.



Performance (YTD):  
14.22%

Portfolio Contribution:  
18.26%

Stocks Held in Portfolio:  
Sel Sector: Com Svc  
SPDR (ARCX:XLC)  
Snap Inc. (SNAP)  
Verizon Communications  
Inc. (VZ)

Stocks to Watch:  
Netflix (NFLX)  
Alphabet (GOOG)





# Consumer Discretionary

The Consumer Discretionary Sector of the S&P 500 consists of businesses that sell products and services such as appliances, cars, and entertainment that are non-essential to humans but desirable if they have the disposable income for them. Due to the nature of these products and services, the sector is very broad consisting of companies ranging from Tesla (TSLA) to Starbucks (SBUX) to Nike (NKE). The demand for these goods is much more elastic compared to those in the Consumer Staples Sector so these companies are greatly affected by the state of the economy.



Performance (YTD):

7.74%

Portfolio Contribution:

(4.60)%

Stocks Held in Portfolio:

D.R. Horton (DHI)

Lululemon Athletica Inc.  
(LULU)

Nike, Inc. (NIKE)

Sel Sector:C Dsc SPDR  
(ARCX:XLY)

Stocks to Watch:

Apple (APPL)

Amazon (AMZN)



# Consumer Staples

The Consumer Staples sector consists of companies that sell everyday essential products. These goods are products that people are unable to live without despite the state of the economy such as food, beverages, personal products, household staples, and tobacco. Consumer staple stocks are noncyclical as there remains a stable demand despite market and economic conditions. Due to the stability of these stocks, consumer staples tend to perform well during times of economic uncertainty as they typically provide investors with a sense of security.



Performance (YTD):

2.75%

Portfolio Contribution:

(7.63)%

Stocks Held in Portfolio:

Sel Sector: C Stp SPDR  
(ARCX:XLP)

Tyson Foods, Inc. (TSN)

Walmart INC. (WMT)

Stocks to Watch:

Apple (APPL)

Amazon (AMZN)



# Energy

The Energy sector has a vast definition and delves into multiple segments of the economy. Companies specialize in the exploration and development of natural resources, mining of those resources, and the refining and power utility. These companies are broken into two categories, renewable and non-renewable power. The pricing models all depend on the supply and demand of each commodity.



Performance (YTD):

38.13%

Portfolio Contribution:

0.0%

Stocks Held in Portfolio:

Sel Sector: C Stp SPDR  
(ARCX:XLP)

Tyson Foods, Inc. (TSN)

Walmart INC. (WMT)

Stocks to Watch:

ExxonMobile (XOM)

Chevron (CVX)



# Financials

The financial sector is made up of firms and companies that provide financial services to customers. This sector includes banks, investment companies, insurance companies, and real estate firms.

Most of the revenue within this sector comes from loans and mortgages. With that, the most success within this sector comes when there is a low-interest-rate. When the financial sector is strong, it is a sign of a healthy market.



Performance (YTD):

25.42%

Portfolio Contribution:

(8.87)%

Stocks Held in Portfolio:

Alliancebernstein Holding

UNT (AB)

Sel Sector: Finl S SPDR

(ARCSX:XLF)

Discover Financial

Services (DFS)

Stocks to Watch:

JPMorgan Chase (JPM)

Mastercard (MA)



# Healthcare

The healthcare sector includes companies that provide medical services, manufacture medical equipment or drugs, provide medical insurance, or facilitate healthcare to patients. The sector has seen a 7% YTD gain due to mass testing and vaccinations as a result of the COVID-19 pandemic. Companies in the healthcare sector specialize in biotechnology, research services, home health care, hospitals, and medical equipment and supplies. The sector has experienced a period of both explosive and steady growth since the start of the pandemic.



Performance (YTD):  
8.25%

Portfolio Contribution:  
18.47%

Stocks Held in Portfolio:  
Alexion Pharmaceuticals,  
Inc. (ALXN)  
Anthem, Inc. (ANTHM)  
Cigna Corporation (CI)  
CVS Health Corporation  
(CVS)

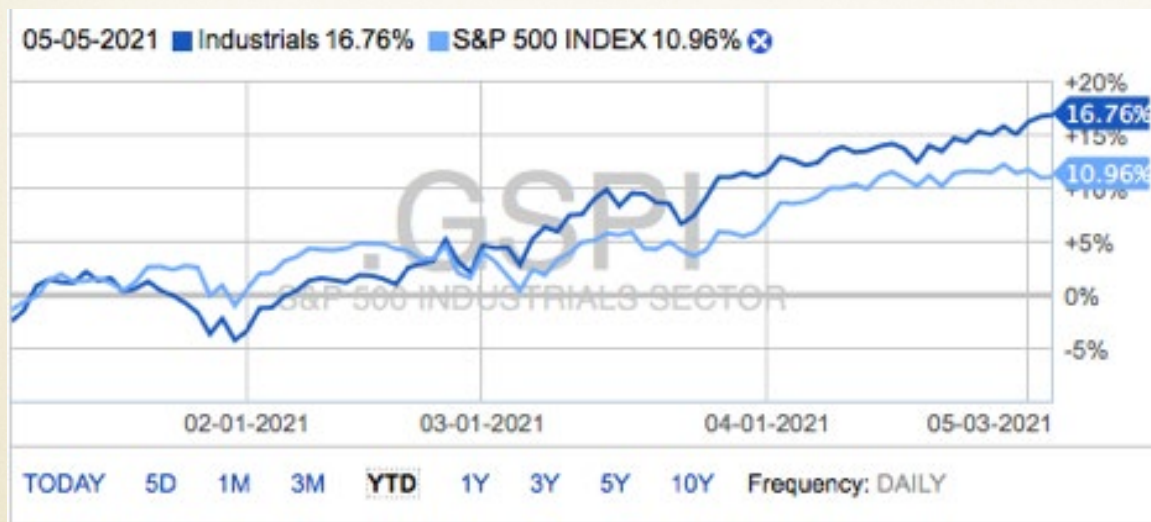
Medtronic Public Limited  
Company (MDT)  
Pfizer (PFE)  
Sel Sector: H Car SPDR  
(ARCX: XLV)

Stocks to Watch:  
Quidel Corp (QDEL)



# Industrials

The Industrials sector is somewhat complex as it is made up of a large amalgamation of different manufacturing industries. Currently, there are fourteen distinct industries within the industrials sector. Companies in the industrials sector tend to be involved in the manufacturing or sale of aerospace, defense, machinery, tools, lumber production, construction, waste management, manufactured housing, and cement and metal fabrication. Due to the wide array of industries under the sector umbrella, the performance of each sub-sector varies. During times of economic uncertainty, it is likely that at least one industry within the sector will experience growth when compared to the Industrials sector as a whole.



Performance (YTD):

16.76%

Portfolio Contribution:

7.5%

Stocks Held in Portfolio:

Carlisle

Companies Incorporated (CSL)

General Motors Company (GM)

L3Harris Technologies Inc.  
(LHX)

Sel Sector: Indust SPDR (ARCX:  
XLI)

Stocks to Watch:

3M (MMM)

Waste Management (WM)



# Information Technology

The Information Technology sector covers stocks relating to the research, development and distribution of technological based goods and services. This sector is a broad category, covering a wide range of products and services. With the tech sector, there are 4 subcategories; these categories include semiconductors (chips), software, networking and internet, and hardware. The hardware category is further developed into companies that make communications equipment, computers and peripherals, networking equipment, technical instruments, and consumer electronics.



## Performance (YTD):

4.62%

## Portfolio Contribution:

(28.50)%

## Stocks Held in Portfolio:

Advanced Micro Devices, Inc.  
(AMD)

Applied Materials, Inc.  
(AMAT)

Fiserv, Inc. (FISV)

Intellibridge Technology  
Corporation (INTL)

Intel Corporation (INTC)

SEL Sector: Tech SPDR (XLK)

Square, Inc. (SQ)

## Stocks to Watch:

Shopify (SHOP)

PayPal (PYPL)



# Materials

The materials sector encompasses companies that manufacture chemicals, building materials, paper products, and other companies that engage in commodities and exploration. In this sector, companies are known for supplying most of the materials that are used in construction. As a result, this sector is heavily affected by business cycles and the overall health of the economy. Furthermore, during strong economic times, the steel sector specifically benefits. During times of uncertainty and poor economic performance, gold sees an increase in value as it is considered a hedge against inflation.



Performance (YTD):

18.84%

Portfolio Contribution:

(1.72)%

Stocks Held in Portfolio:

Vale SA (VALE)

Stocks to Watch:

Rio Tinto (RIO),

Lyondellbaseball (LYB)





# Real Estate

The real estate sector has three different types of components which include commercial, residential and industrial. The residential sector relies on the purchase of residences. These include townhouses, single-family homes apartments, etc. which are all a part of the residential property market. The commercial segment is made up of real estate used for business purposes such as malls, retail, workspaces, hotels, or other surfaces used for predominantly business agendas. The industrial real estate segment consists of investing in factories or buildings to help with manufacturing, distribution, etc.



Performance (YTD):  
14.15%

Portfolio Contribution:  
0.0%

Stocks Held in Portfolio:  
0

Stocks to Watch:  
Equity Commonwealth (EQC)  
Kimco Realty Corp.



# Utilities

The utilities sector is comprised of companies considered electric, gas, or water utilities, or companies that operate as independent producers or distributors of power. The utilities sector only made up about 3% of our portfolio as we were focused in different areas this semester. The utilities sector has under gained the S&P 500 this whole year.

Performance (YTD):  
**4.02%**  
Portfolio Contribution:  
**3.11%**  
Stocks Held in Portfolio:  
**0**  
Stocks to Watch:  
**Essential Utilities Inc.  
(WTRG), Sempra Energy  
(SRE)**





# PORTFOLIO STRATEGY & COMPOSITION

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# Growth Strategy Overview

BUY CRITERIA		SELL CRITERIA	
Conservative Mentality	Expect stock to perform better than the Industry	Price	Price reaches 10% below target price or 20% above purchase price
Revenue Growth	Industry Average and forecasted to continue to grow	Leadership	The company's leadership position changes
Strong Earnings	5 years of CAGR	Business Fundamentals	Business fundamentals deteriorate
ROE	$\geq 15\%$ and $>$ Industry Average	Company slowdown	Slowing unit volume, revenue decline, weak earnings, etc.
PEG	$\leq 1.2$ and $<$ Industry Average	Alternative Investments	Superior investment alternatives are identified
Debt/Equity	$< 1.5$ (or Acceptable Interest Coverage Ratio when D/E $> 1.0$ )		
Report Beta	Beta must be reported		



# Spring 2021: Growth Acquisitions

## Stop Loss Criteria

20% loss

## Acquisitions

Lululemon Athletica (LULU)

Snap Inc. (SNAP)

Square Inc. (SQ)

Vale S.A. (Vale)



# Lululemon Athletica (LULU)

<b>Date Purchased:</b>	<b>03/22/2021</b>
Number of Shares:	32.00
Price/Share at time of purchase:	\$310.87
Market Value at Purchase:	\$9,947.72

Along with its subsidiaries, Lululemon designs and distributes athletic apparel and fitness related accessories for both men and women. The company operates in two segments, its company-operated stores such as outlets, warehouse sales, yoga studios and health clubs, and direct to consumers through its own website and mobile apps. Revenue growth in Q4 for 2020 exceeded expectations as online sales spiked 94% and international sales rose 47%.

Lululemon's recent acquisition of the digital workout MIRROR in 2020 is expected to further increase company revenue as it begins to aggressively invest in its rollout through 2021.

Buy Criteria	Industry Average	LULU
Revenue Growth	24.29%	18.44%
ROE	214.45%	26.11%
PEG	7.05	-8.43
Debt/Equity	0.72	0.25
Beta	1.55	1.34



# Snap Inc. (SNAP)

<b>Date Purchased:</b>	<b>02/24/2021</b>
Number of Shares:	150.00
Price/Share at time of purchase:	\$56.97
Market Value at Purchase:	\$8,545.50

Previously known as Snapchat Inc., Snap Inc. is an American camera and social media company whose flagship product is the application Snapchat. Snap operates internationally and offers functionalities such as camera, snap map, stories and communication through short videos and images. The company forecasts annual revenue growth of 50% for the year due to its latest investments in R&D and focus on augmented reality. Snapchatters using its AR lenses rose by 40% year over year in the first quarter, setting the company up to become a market leader and become more widely embraced as technology improves.

<b>Buy Criteria</b>	<b>Industry Average</b>	<b>SNAP</b>
Revenue Growth	18.18%	44.84%
ROE	2.54%	-48.33%
PEG	9.9%	N/A
Debt/Equity	0.43	1.48
Beta	1.28	1.48

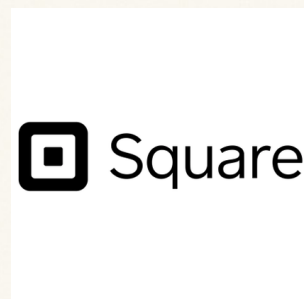


# Square Inc. (SQ)

<b>Date Purchased:</b>	<b>03/22/2021</b>
Number of Shares:	40.00
Price/Share at time of purchase:	\$236.85
Market Value at Purchase:	\$9,474.00

Square creates technology tools that enable sellers to accept card payments, provides reporting and analytics and offers next day settlements on payments. It's hardware products include Magstripe readers, contactless and chip readers, the Squad Stand and Square Terminal. Its software products include Square Point of Sale, Square Appointments, Square for Retail and more. The company's stock surged in 2020 with the growth of its Cash App users, news of its acquisition of a majority stake in Tidal and its increased investments in Bitcoin, which now represent 5% of the company's total assets.

<b>Buy Criteria</b>	<b>Industry Average</b>	<b>SQ</b>
Revenue Growth	21.19%	62.48%
ROE	45.77%	9.69%
PEG	0.59	-13.39
Debt/Equity	0.30	1.11
Beta	1.28	2.44





## Vale S.A. (VALE)

<b>Date Purchased:</b>	<b>03/10/2021</b>
Number of Shares:	585.00
Price/Share at time of purchase:	\$17.00
Market Value at Purchase:	\$9,945.00

Buy Criteria	Industry Average	VALE
Revenue Growth	4.46%	5.62%
ROE	1.35%	12.88%
PEG	0.10	0.002
Debt/Equity	0.46	0.51
Beta	1.30	0.94

Vale S.A. is one of the world's largest mining companies. It operates internationally, producing and selling iron ore as a raw material for the purpose of steelmaking. Its Ferrous Minerals segment produces and extracts these iron ore pellets and provides related logistics services. Its Base Materials segment produces and extracts nickel as well as its by products like copper, gold, silver, cobalt and other precious metals.



# Value Strategy Overview

BUY CRITERIA		SELL CRITERIA	
Price/Sales	< Industry Average	Merger or acquisitions	Any news in regards to M&A activity
Price/Book	< Industry Average	Earnings	Significant restatement
Dividends	> Industry Average	Executive Management	Changes to management
Free Cash Flow	Positive	Price Targets	Exceeds initial price target
Report Beta	Beta must be reported	Price	Trending downwards towards a stop loss mark



# Spring 2021: Value Acquisitions

## Stop Loss Criteria

20% loss

## Acquisitions

Anthem, Inc. (ANTM)

Discover Financial Services (DFS)

D.R. Horton, Inc. (DHI)

Verizon Communications Inc.  
(VZ)

Walmart Inc. (WMT)



# Anthem Inc. (ANTM)

Date Purchased	03/23/2021
Number of Shares:	30.00
Price/Share at time of purchase:	\$353.52
Market Value at Purchase:	\$10,605.60

Buy Criteria	Industry Average	ANTM
Price/Sales	8.01	0.78
Price/Book	4.35	2.71
Dividends	5.11%	1.20%
Free Cash Flow	Positive	Yes
Beta	1.04	1.04

Anthem is one of the largest private health insurance organizations nationwide, providing medical benefits to roughly 43 million medical members. The company offers employer, individual, and government-sponsored coverage plans. Anthem differs from its peers in its unique position as the largest single provider of Blue Cross Blue Shield branded coverage. Through acquisitions, Anthem's reach expands beyond those states through government-sponsored programs such as Medicaid, too.



# Discover Financial Services (DFS)

Date Purchased	04/13/2021
Number of Shares:	100.00
Price/Share at time of purchase:	\$99.69
Market Value at Purchase:	\$9,969.00

Buy Criteria	Industry Average	DFS
Price/Sales	5.45	3.01
Price/Book	1.60	2.72
Dividends	2.54%	1.63%
Free Cash Flow	Positive	Yes
Beta	0.99	1.80

Discover Financial Services is a bank operating in two distinct segments: direct banking and payment services. The company issues credit and debit cards and provides other consumer banking products including deposit accounts, student loans, and other personal loans. It also operates the Discover, Pulse, and Diners Club networks. The Discover network is the fourth-largest payment network in the United States as ranked by overall purchase volume, and Pulse is one of the largest ATM networks in the country.



# D.R. Horton, Inc. (DHI)

Date Purchased	04/13/2021
Number of Shares:	100.00
Price/Share at time of purchase:	\$92.77
Market Value at Purchase:	9,277.00

Buy Criteria	Industry Average	DHI
Price/Sales	1.70	1.52
Price/Book	3.63	2.78
Dividends	2.08%	0.80%
Free Cash Flow	Positive	Yes
Beta	1.55	1.64

D.R. Horton is a leading homebuilder in the United States with operations in 90 markets across 29 states. D.R. Horton mainly builds single-family detached homes representing over 90% of home sales revenue and offers products to entry-level, move-up, luxury buyers, and active adults. The company offers homebuyers mortgage financing and title agency services through its financial services segment. D.R. Horton's headquarters are in Arlington, Texas, and it manages five regional homebuilding offices across the United States.



# Verizon Communication Inc. (VZ)

Date Purchased	02/24/2021
Number of Shares:	260.00
Price/Share at time of purchase:	\$56.97
Market Value at Purchase:	\$14,812.20

Buy Criteria	Industry Average	VZ
Price/Sales	3.40	1.80
Price/Book	3.54	3.27
Dividends	2.29%	4.46%
Free Cash Flow	Positive	No
Beta	1.28	0.48

Verizon is a U.S. Company that provides broadband, wireless and cable services. Verizon is now primarily a wireless business (more than 70% of revenue and nearly all operating income). It serves about 91 million postpaid and 4 million prepaid phone customers and connects another 25 million data devices, like tablets, via its nationwide network, making it the largest U.S. wireless carrier. Fixed-line telecom operations include local networks contributing to 12% of revenue in the Northeast, which reach about 25 million homes and businesses, and nationwide enterprise services representing 10%.




# Walmart Inc. (WMT)

Date Purchased	04/07/2021
Number of Shares:	70.00
Price/Share at time of purchase:	\$139.91
Market Value at Purchase:	\$9,793.70

Buy Criteria	Industry Average	WMT
Price/Sales	2.11	0.70
Price/Book	6.87	4.79
Dividends	2.42%	1.60%
Free Cash Flow	Positive	Yes
Beta	0.80	0.47

Walmart is America's largest retailer by sales, Walmart operated over 11,400 stores under 54 banners at the end of fiscal 2021, selling a variety of general merchandise and grocery items. Its home market accounted for 78% of sales in fiscal 2021, with Mexico and Central America (6%) and Canada (4%) its largest external markets.

In the United States, around 56% of sales come from grocery, 32% from general merchandise, and 10% from health and wellness items. The company operates several e-commerce properties apart from its eponymous site, including Flipkart and shoes.com. Combined, e-commerce accounted for about 12% of fiscal 2021 sales.





# Dividend Strategy Overview

BUY CRITERIA	
Dividend Yield	$\geq$ SPDR S&P Dividend ETF
Quick Ratio	$\geq$ Industry Average
Cash Dividends	Positive total cash Dividends paid annually
Positive Total Cash	From investing and operating activities
Constant Dividend	Yes
Dividend Growth	Historical and potential Dividend growth
Report Beta	Beta must be reported

SELL CRITERIA	
Dividends	Dividends are cut
Free Cash Flow	Diminishes or is no longer positive
Alternative Investments	Superior investment alternatives are identified



# Spring 2021: Dividend Acquisitions

## Stop Loss Criteria

20% loss

## Acquisitions

N/A





# RISK ANALYSIS

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# Portfolio Risk Analysis: Beta

SAP  
 $\beta 1.13$

vs.

S&P 500  
 $\beta 1.0$

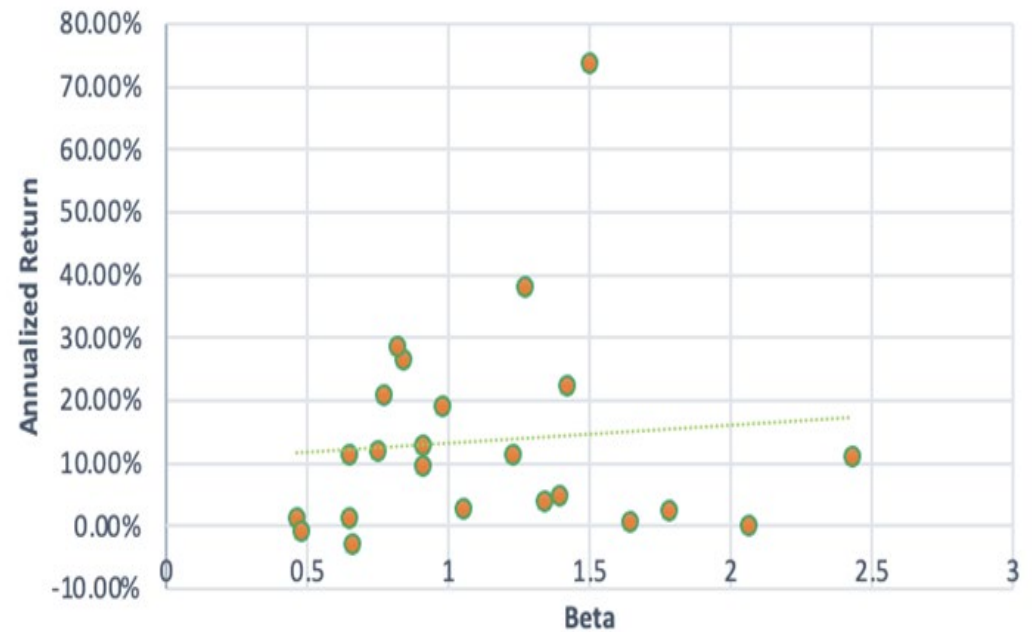
Square (SQ), Advanced Micro Devices (AMD), and Discover Financial Services (DFS)

- Highest betas in the Spring 2021 SAP fund

Risk = Reward

- Observe a higher return with higher risk

## Annualized Return and Beta



# Portfolio Risk Analysis: Weighted Beta

SAP  
 $\beta$  1.11

vs.

S&P 500  
 $\beta$  1.0

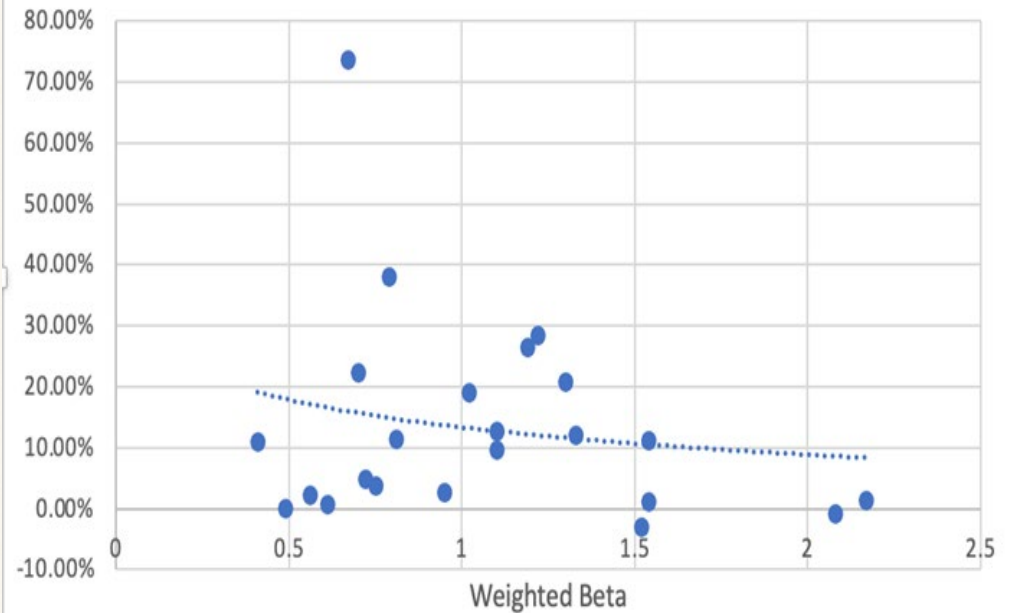
Verizon Communications Inc. (VZ),  
Vale SA (VALE), and  
AllianceBernstein Holding Unit (AB)

- Highest weighted betas in the SAP portfolio

Risk = Reward

- The high risk stocks in our portfolio with higher weights did usually generate the highest reward as shown by the positive trend-line.

Annualized Return and Weighted Beta



# Covariance Matrix

	VZ	DHI	TSN	WMT	AB	DFS	ANTM	CVS	MDT	PFE	LHX	FISV	INTC	SNAP	LULU	ALXN	CI	CSL	GM	AMD	AMAT	SQ	VALE	SPY
VZ	0.0192	-0.015	0.0082	0.0186	-0.009	-0.019	0.0022	0.0088	0.0102	0.0137	0.0108	0.0062	0.0134	-0.003	-0.006	-0.004	0.0062	0.0042	-0.008	-0.027	-0.011	-0.038	0.0137	0.0036
DHI		0.0116	-0.006	-0.014	0.0066	0.0147	-0.002	-0.007	-0.008	-0.011	-0.008	-0.005	-0.01	0.0024	0.0048	0.0033	-0.005	-0.003	0.0059	0.021	0.0084	0.0293	-0.011	-0.003
TSN			0.0035	0.008	-0.004	-0.008	0.0009	0.0038	0.0044	0.0059	0.0046	0.0027	0.0057	-0.001	-0.003	-0.002	0.0027	0.0018	-0.003	-0.012	-0.005	-0.016	0.0059	0.0015
WMT				0.0181	-0.008	-0.018	0.0021	0.0085	0.0099	0.0133	0.0105	0.006	0.013	-0.003	-0.006	-0.004	0.006	0.0041	-0.007	-0.026	-0.011	-0.037	0.0133	0.0035
AB					0.0038	0.0084	-1E-03	-0.004	-0.005	-0.006	-0.005	-0.003	-0.006	0.0014	0.0028	0.0019	-0.003	-0.002	0.0034	0.012	0.0048	0.0168	-0.006	-0.002
DFS						0.0187	-0.002	-0.009	-0.01	-0.014	-0.011	-0.006	-0.013	0.003	0.0061	0.0041	-0.006	-0.004	0.0076	0.0267	0.0107	0.0372	-0.014	-0.004
ANTM							0.0002	0.001	0.0011	0.0015	0.0012	0.0007	0.0015	-3E-04	-7E-04	-5E-04	0.0007	0.0005	-9E-04	-0.003	-0.001	-0.004	0.0015	0.0004
CVS								0.004	0.0047	0.0063	0.005	0.0028	0.0062	-0.001	-0.003	-0.002	0.0028	0.0019	-0.004	-0.012	-0.005	-0.017	0.0063	0.0016
MDT									0.0055	0.0073	0.0058	0.0033	0.0072	-0.002	-0.003	-0.002	0.0033	0.0022	-0.004	-0.014	-0.006	-0.02	0.0073	0.0019
PFE										0.0098	0.0077	0.0044	0.0096	-0.002	-0.004	-0.003	0.0044	0.003	-0.005	-0.019	-0.008	-0.027	0.0098	0.0026
LHX											0.0061	0.0035	0.0076	-0.002	-0.004	-0.002	0.0035	0.0024	-0.004	-0.015	-0.006	-0.021	0.0077	0.002
FISV												0.002	0.0043	-1E-03	-0.002	-0.001	0.002	0.0013	-0.002	-0.009	-0.004	-0.012	0.0044	0.0012
INTC													0.0094	-0.002	-0.004	-0.003	0.0043	0.0029	-0.005	-0.019	-0.008	-0.026	0.0096	0.0025
SNAP														0.0005	0.001	0.0007	-1E-03	-7E-04	0.0012	0.0043	0.0017	0.006	-0.002	-6E-04
LULU															0.002	0.0014	-0.002	-0.001	0.0025	0.0088	0.0035	0.0122	-0.004	-0.001
ALXN																0.0009	-0.001	-9E-04	0.0017	0.0059	0.0024	0.0083	-0.003	-8E-04
CI																	0.002	0.0013	-0.002	-0.009	-0.004	-0.012	0.0044	0.0012
CSL																		0.0009	-0.002	-0.006	-0.002	-0.008	0.003	0.0008
GM																			0.0031	0.0108	0.0043	0.0151	-0.005	-0.001
AMD																				0.038	0.0153	0.0531	-0.019	-0.005
AMAT																					0.0061	0.0213	-0.008	-0.002
SQ																						0.0741	-0.027	-0.007
VALE																							0.0098	0.0026
SPY																								0.0007

Name	Beta (5Y Monthly)
VERIZON COMMUNICATIONS INC. (XNYS-VZ)	0.46
D.R. HORTON, INC. (XNYS:DHI)	1.64
TYSON FOODS, INC. (XNYS:TSN)	0.84
WALMART INC. (XNYS:WMT)	0.48
ALLIANCEBERNSTEIN HOLDING UNT (XNYS:AB)	1.42
DISCOVER FINANCIAL SERVICES (XNYS:DFS)	1.78
ANTHEM, INC. (XNYS:ANTM)	1.05
CVS HEALTH CORPORATION (XNYS:CVS)	0.82
MEDTRONIC PUBLIC LIMITED COMPANY (XNYS:MDT)	0.77
PFIZER INC. (XNYS:PFE)	0.65
L3HARRIS TECHNOLOGIES, INC. (XNYS:LHX)	0.75
FISERV, INC. (XNAS:FISV)	0.91
INTEL CORPORATION (XNAS:INTC)	0.66
SNAP INC. (XNYS:SNAP)	1.23
LULULEMON ATHLETICA INC. (XNAS:LULU)	1.34
ALEXION PHARMACEUTICALS, INC. (XNAS:ALXN)	1.27
CIGNA CORPORATION (XNYS:CI)	0.91
CARLISLE COMPANIES INCORPORATED (XNYS:CSL)	0.98
GENERAL MOTORS COMPANY (XNYS:GM)	1.39
ADVANCED MICRO DEVICES, INC. (XNAS:AMD)	2.06
APPLIED MATERIALS, INC. (XNAS:AMAT)	1.5
SQUARE, INC. (XNYS:SQ)	2.43
Vale SA (XNYS:VALE)	0.65
SPDR S&P 500 Trust (SPY)	1



# Correlation Matrix

Correlation Matrix  
Start Date 2/1/2021  
End Date 4/30/2021

		Verizon Communications Inc	D.R. Horton Inc	Tyson Foods Inc Class A	Walmart Inc	AllianceBernstein Holding L	Discover Financial Services	Anthem Inc	CVS Health Corp	Medtronic PLC	Pfizer Inc	L3Harris Technologies Inc	Fiserv Inc	Intel Corp	Snap Inc Class A	Lululemon Athletica Inc	Alexion Pharmaceuticals Inc	Cigna Corp	Carlisle Companies Inc	General Motors Co	Advanced Micro Devices Inc	Applied Materials Inc	Square Inc A	Vale SA ADR	SPDR® S&P 500 ETF Trust
VZ	Verizon Communications Inc	1.000																							
DHI	D.R. Horton Inc	0.706	1.000																						
TSN	Tyson Foods Inc Class A	0.982	0.557	1.000																					
WMT	Walmart Inc	0.535	0.976	0.364	1.000																				
AB	AllianceBernstein Holding LP	0.802	0.989	0.673	0.934	1.000																			
DFS	Discover Financial Services	-0.967	-0.501	-0.998	-0.301	-0.623	1.000																		
ANTM	Anthem Inc	0.951	0.890	0.875	0.769	0.947	-0.841	1.000																	
CVS	CVS Health Corp	0.831	0.980	0.710	0.914	0.999	-0.661	0.962	1.000																
MDT	Medtronic PLC	-0.852	-0.230	-0.936	-0.013	-0.371	0.957	-0.649	-0.417	1.000															
PFE	Pfizer Inc	0.487	0.963	0.311	0.998	0.912	-0.248	0.733	0.891	0.042	1.000														
LHX	L3Harris Technologies Inc	0.977	0.537	1.000	0.341	0.655	-0.999	0.863	0.692	-0.944	0.288	1.000													
FISV	Fiserv Inc	-0.227	-0.850	-0.036	-0.944	-0.763	-0.030	-0.516	-0.730	-0.317	-0.961	-0.012	1.000												
INTC	Intel Corp	0.389	-0.378	0.558	-0.570	-0.238	-0.612	0.086	-0.189	-0.814	-0.615	0.578	0.809	1.000											
SNAP	Snap Inc Class A	-0.974	-0.847	-0.913	-0.711	-0.916	0.884	-0.996	-0.935	0.712	-0.671	-0.903	0.440	-0.172	1.000										
LULU	Lululemon Athletica Inc	-0.381	0.387	-0.550	0.578	0.247	0.605	-0.077	0.198	0.809	0.622	-0.570	-0.814	-1.000	0.163	1.000									
ALXN	Alexion Pharmaceuticals Inc	-0.556	0.196	-0.705	0.405	0.050	0.750	-0.273	0.000	0.909	0.455	-0.722	-0.683	-0.982	0.355	0.980	1.000								
CI	Cigna Corp	0.905	0.940	0.807	0.843	0.980	-0.766	0.992	0.989	-0.548	0.812	0.793	-0.619	-0.039	-0.978	0.049	-0.150	1.000							
CSL	Carlisle Companies Inc	0.227	0.850	0.037	0.944	0.764	0.029	0.516	0.730	0.317	0.961	0.013	-1.000	-0.809	-0.440	0.814	0.683	0.620	1.000						
GM	General Motors Co	1.000	0.691	0.985	0.517	0.790	-0.972	0.945	0.819	-0.863	0.469	0.981	-0.206	0.408	-0.969	-0.400	-0.574	0.896	0.207	1.000					
AMD	Advanced Micro Devices Inc	-0.924	-0.382	-0.980	-0.172	-0.514	0.991	-0.762	-0.556	0.987	-0.117	-0.985	-0.162	-0.711	0.815	0.705	0.831	-0.675	0.161	-0.932	1.000				
AMAT	Applied Materials Inc	0.211	-0.544	0.394	-0.713	-0.415	-0.454	-0.101	-0.368	-0.692	-0.751	0.416	0.904	0.983	0.014	-0.984	-0.930	-0.225	-0.904	0.231	-0.568	1.000			
SQ	Square Inc A	0.706	1.000	0.557	0.976	0.989	-0.501	0.890	0.980	-0.230	0.963	0.537	-0.850	-0.378	-0.847	0.387	0.196	0.940	0.850	0.691	-0.382	-0.544	1.000		
VALE	Vale SA ADR	0.982	0.557	1.000	0.364	0.673	-0.998	0.875	0.710	-0.936	0.311	1.000	-0.036	0.558	-0.913	-0.550	-0.705	0.807	0.037	0.985	-0.980	0.394	0.557	1.000	
SPY	SPDR® S&P 500 ETF Trust	0.535	0.976	0.364	1.000	0.934	-0.301	0.769	0.914	-0.013	0.998	0.341	-0.944	-0.570	-0.711	0.578	0.405	0.843	0.944	0.517	-0.172	-0.713	0.976	0.364	1.000





# PERFORMANCE REVIEW

Spring 2021

Overview

Economic  
Conditions

Sector Summaries

Portfolio Strategy  
& Composition

Risk Analysis

Performance  
Review

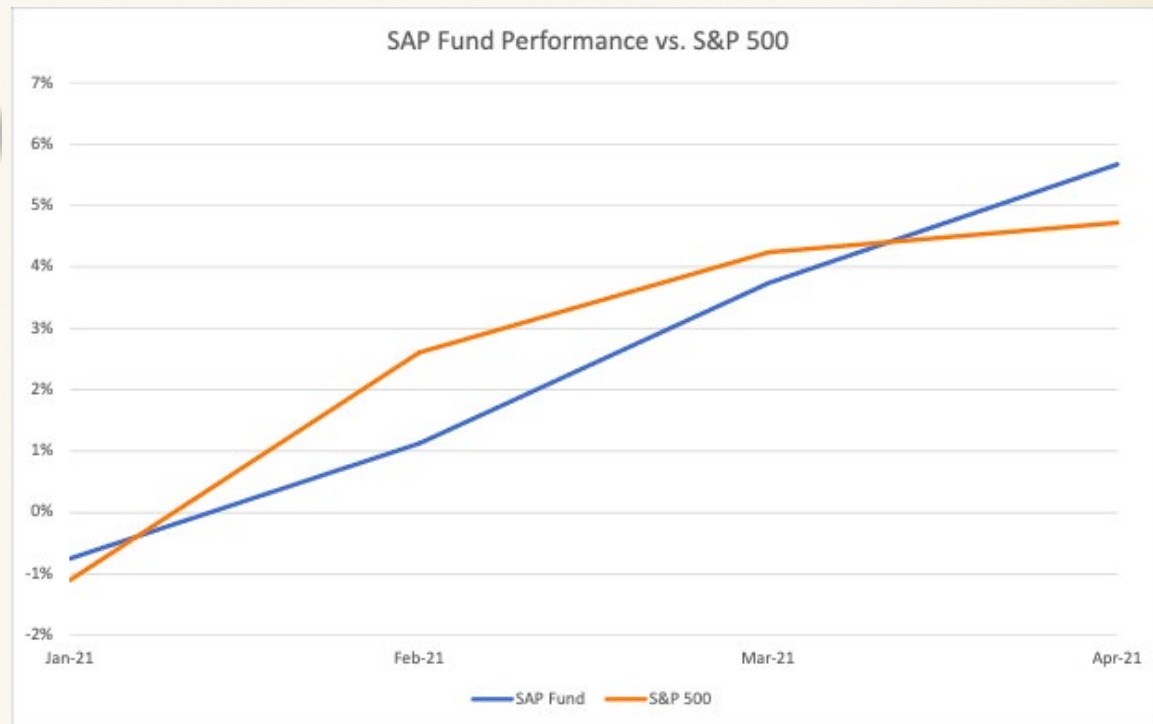
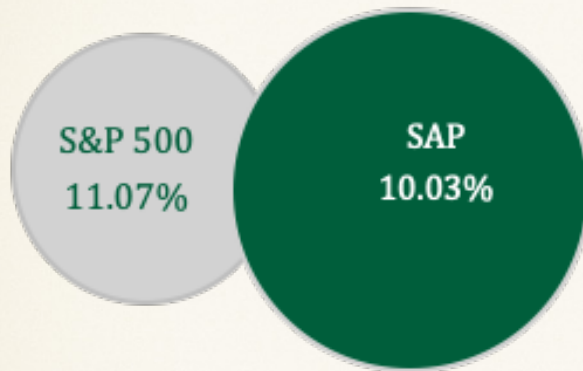
Student  
Biographies



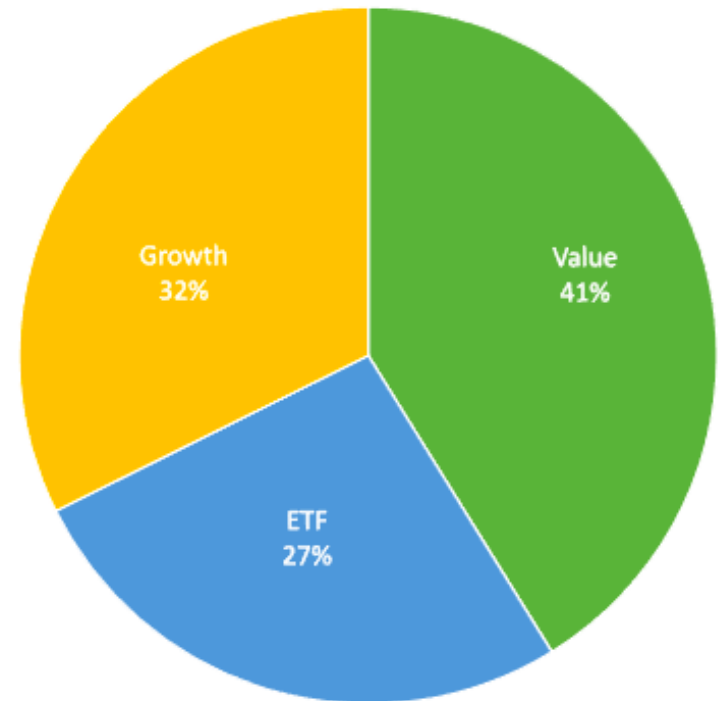
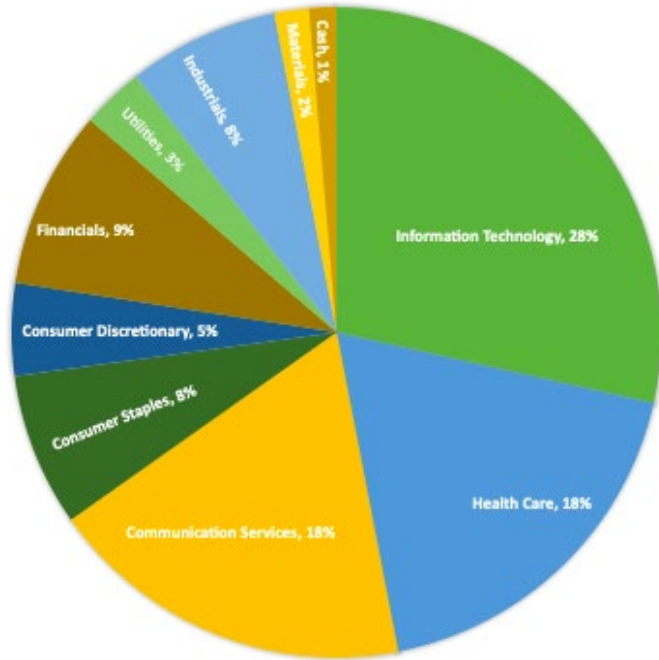


# Portfolio Performance Spring 2021

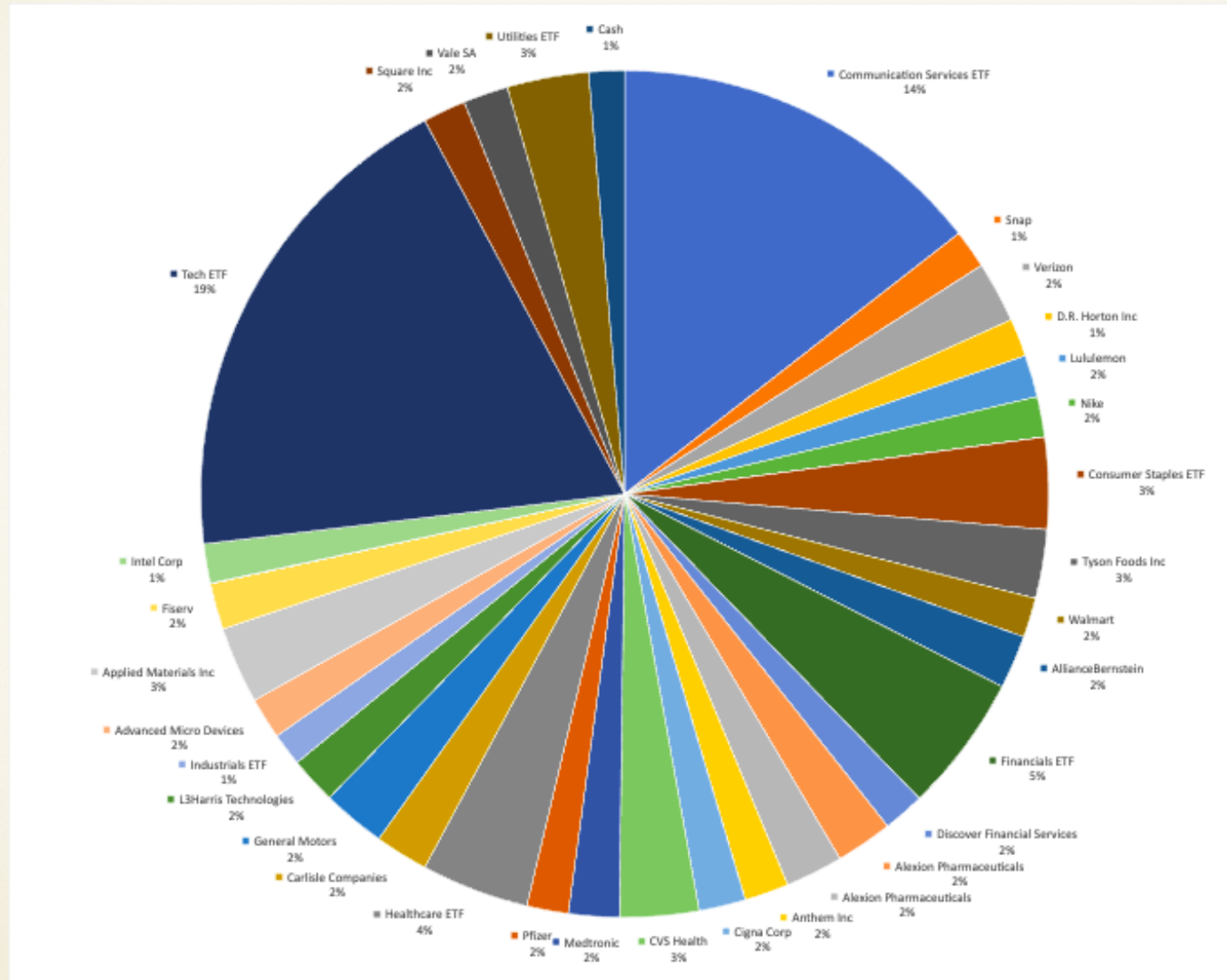
## Gross Return vs. S&P 500



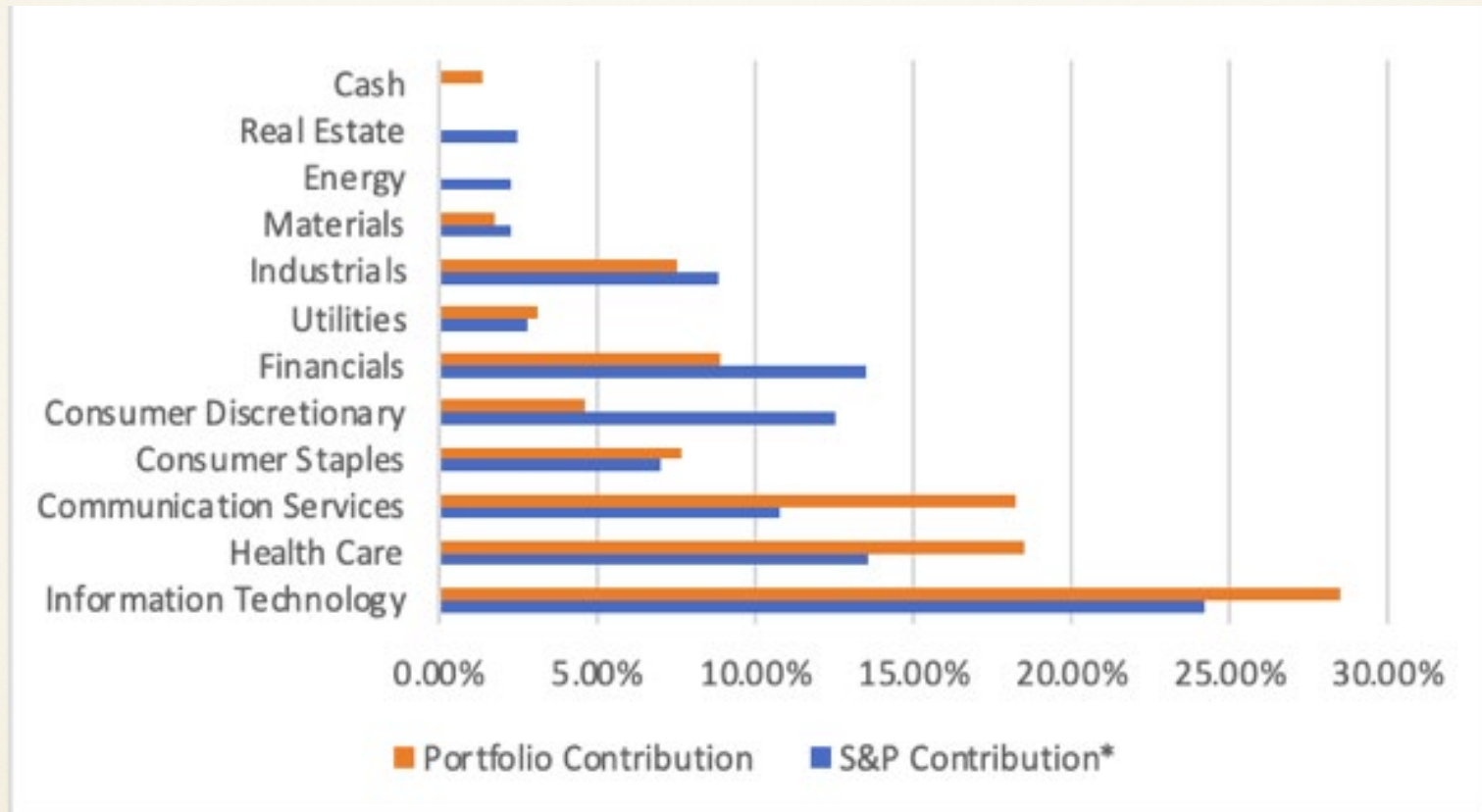
# Portfolio Weights



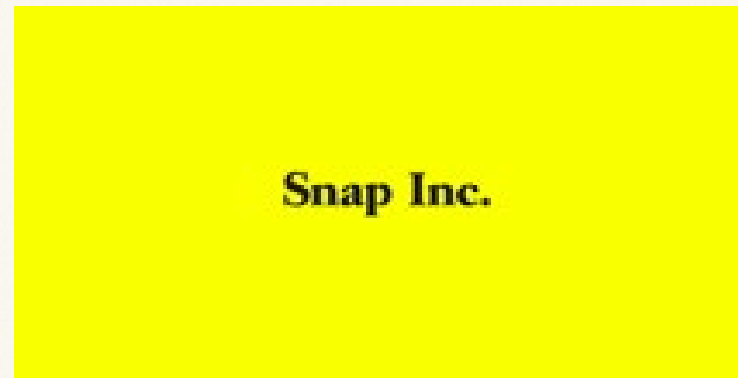
# Portfolio Allocation



# Sector Allocation



## Top Outperformers

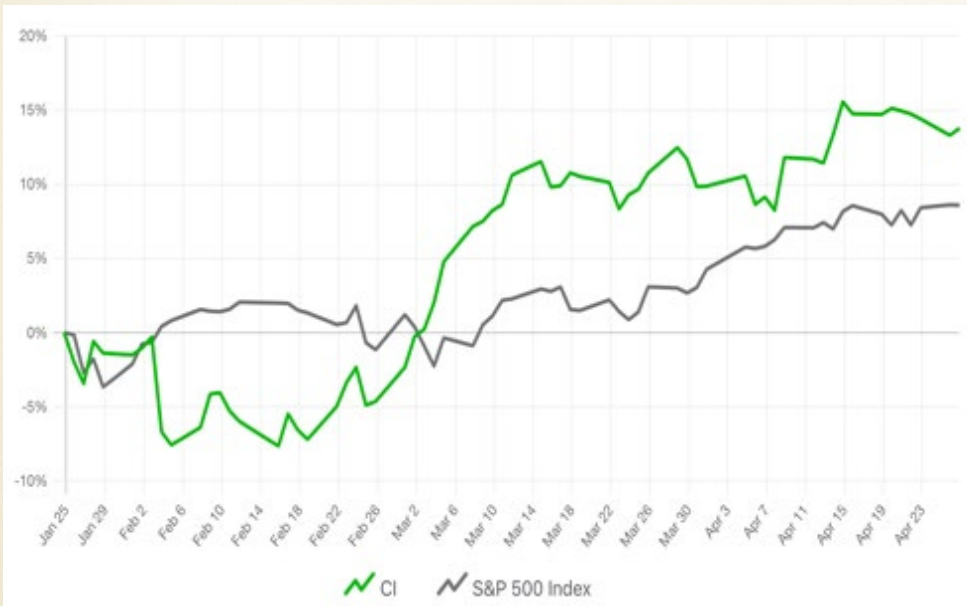


# Top Outperformers

## CIGNA | (CI)

**Position**  
46 Shares(\$221.29) | \$11,484.83

Shares of Cigna Corp were purchased on March 30th, 2021. Since the purchase date the investment has had a 12.82% return.



Cigna's main offerings include medical care administration and health benefits. Its offerings, which are mainly offered to health care providers and employees, were significantly extended by its 2018 merger with Express Scripts. The Department of Defense is its biggest client. Cigna mostly supports workers by self-funding plans of health insurance and other services, but it also participates in federal schemes such as Medicare Advantage. The corporation is mostly based in the United States, with 15 million medical clients by the end of 2020, but its offerings still range worldwide, with another 2 million individuals insured.

The stock was pitched as a growth stock and has been steadily climbing since. As the health care industry continues to garner attention during the post pandemic climate the stock is predicted to surge. Cigna has recently announced they will be joining companies who are offering incentives to vaccinated workers. Cigna is projected to record quarterly sales of \$40 billion.



# Top Outperformers

## VALE SA|(VALE)

**Position**  
585 Shares(\$17.22) | \$11,071.13



585 shares of Vale were purchased on March 10th, 2021, at around \$17 per share. Since this purchase the stock has given an 11.32% return on our investment.

Vale was established on June 1, 1942 and became one of the largest private miners in the world. Currently Vale is trading on the NYSE and is one of the world's largest producer of iron ore and nickel. Operations abroad cover around 30 countries, and their mission is to "transform natural resources into prosperity and sustainable development".

Vale was pitched as a growth stock and over the past month the stock price has increase by \$4. This is large in part due to an outstanding first-quarter performance in 2021 and with cost of goods sold totaling around \$4627 million, up 8%. The stock price is also being impacted by the iron ore supply concerns that are raising prices, this will most likely continue in the second quarter of 2021. Vale has reportedly seen an opportunity to grow in the electric vehicle supply chain and is hoping to channel 30% to 40% of its high-quality nickel to the EV space.

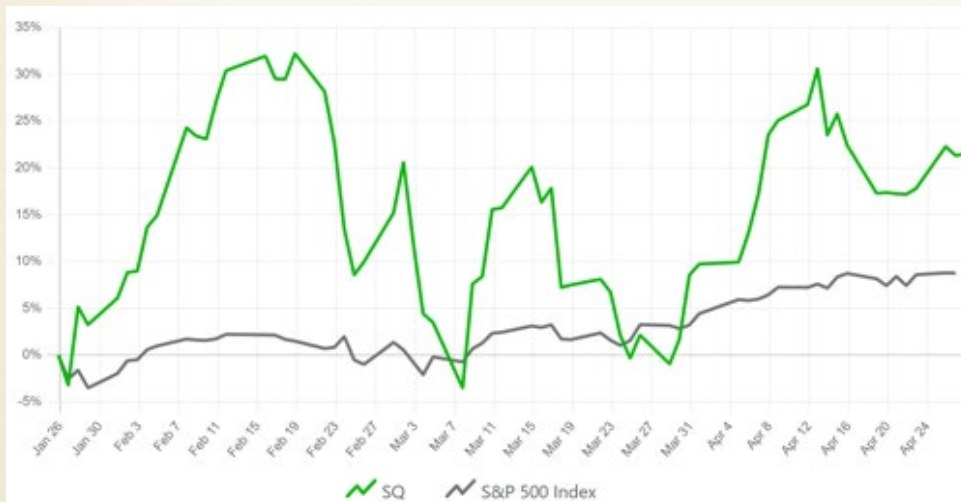


# Top Outperformers

## SQUARE,INC|(SQ)

**Position**  
40 Shares(\$236.85) | \$10,522,00

40 shares of Square Inc. were purchased on March 22nd, 2021, at around \$237 per share. Since this purchase the stock has given an 11.06% return on our investment. There has been some major fluctuations over the past three months.



Square was founded in 2009 and launched its first platform in 2010. It has been publicly traded since 2015 on the NYSE. The CEO and cofounder of Square is also the CEO and co-founder of Twitter, and as of 2020 Square's market capitalization is valued at over \$100 billion.

Square Inc. was pitched as a growth stock and has been quickly increasing since the end of March. Recently, there have been reports that Square, along with several other financial firms are forming a new trade group in hopes of shaping the way bitcoin is regulated. Additionally, there have been reports of Cathie Wood's Ark Investment Management selling \$35.7 million of their holdings in Square. Square's next earning release is expected to be May 6th, 2021, with estimated revenues of \$3.37 billion, up 143.69% from the prior-year.

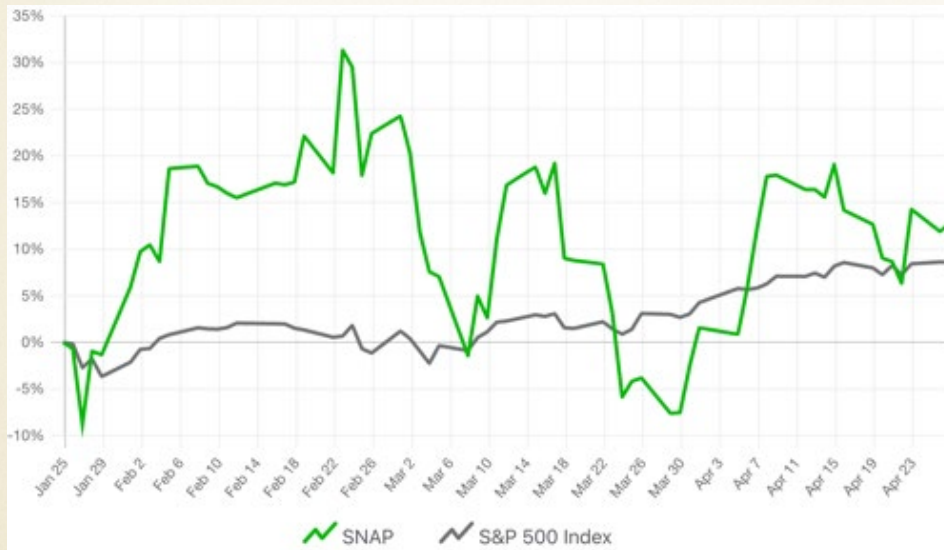




# Top Outperformers

## SNAP INC|(SNAP)

**Position**  
150 Shares(\$56.97) | \$9,523.50



Shares of Snap Inc were purchased on February 24th, 2021. Since the purchase date the investment has had a 11.44% return.

Snap Inc. has been publicly traded on the NYSE since its IPO on March 2, 2017. Snap is an American camera and social media company most widely recognized for its products and technology services such as Snapchat, Spectacles, and Bitmoji. An average of 280 million users per day interact with Snapchat and currently, over 75% of the population of 13–34-year-olds in the US use Snapchat. Snap Inc provides platforms for users to express themselves creatively, learn about the world, and have fun collaboratively.

This stock was pitched as a growth-strategy stock, expected to grow and outperform competitors. Since the purchase of Snap Inc in February, there have been some fluctuations in its stock price, but at the close of the SAP portfolio, Snap Inc has proved to be a strong outperformer.



# Top Underperformers



# Top Underperformers

## INTEL|(INTC)

**Position**  
150 Shares(\$66.33) | \$9,655.50

Shares of Intel were purchased on April 12th, 2021. Since the purchase date the investment has had a -2.95% return.

Intel is the biggest chipmaker in the world. It creates microprocessors for the personal computer and data center markets around the world. Although the transition to the cloud has helped Intel's server processor industry, the company has also been pushing into new technologies as the personal computer sector has steadily declined. They have started to gear towards artificial intelligence and automobiles.

The stock was pitched as a value stock. As you can see in the graph to the left, intel has been on the climb as of early March but has now been on a gradual decline as of late April due to a plunge in their data center sales. After a 93% revenue surge for AMD following Q1 earnings, this will be problematic, as intel is one of AMDs top competitors.



# Top Underperformers

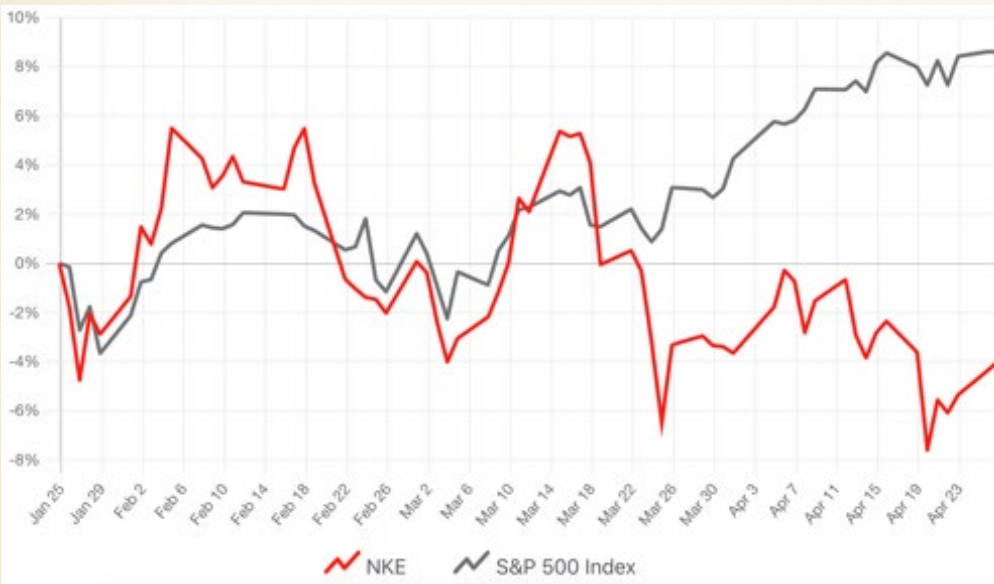
## NIKE INC|(NKE)

**Position**  
75 Shares(\$136.84) | \$9,951.00

Shares of Nike Inc were purchased on March 10th, 2021. Since the purchase date the investment has had a loss of 3.04%

Nike Inc has been publicly traded on the NYSE since its IPO in December of 1980. Nike is engaged in the design, manufacturing, and sales of athletic footwear, apparel, equipment, and accessories as a market leader. In 2020, Nike was valued at over \$32 Billion, which makes it the most valuable sports brand in the world. The company operates globally with stores in many countries, but is headquartered in Beaverton, Oregon.

This stock was pitched as a growth-strategy stock, expected to grow and outperform competitors. Since the purchase of Nike Inc. in March, there was an initial period of growth in its stock price. However, this changed when it became quite volatile, ending the investment period with a loss of 3.04%



# Top Underperformers

## Advanced Micro Devices, INC. |(AMD)

**Position**  
130 Shares(\$78.53) | \$10,208.90



Shares of Advance Micro Devices, Inc. were purchased March 23, 2021. There were a total of 130 shares of AMD purchased at a price of \$78.53 a share, making the total cost basis \$10,208.90. Since the acquisition date AMD has had a return of 0.07%.

Advanced Micro Devices, Inc. is an American multinational semiconductor company based in Santa Clara, California. Their business focuses on designing and producing microprocessors for the computer and customer electronic industries. AMD is the only company in the world who produces both high-performance microprocessors and high-performance graphics technology. Since being founded in 1969 AMD's mission is to build great products that accelerate next-generation computing experience.

Although AMD experienced a positive return since March the return was minimal. Since AMD was pitched as a growth stock the expectations were for the stock to outperform the S&P 500 index. In reality, AMD underperformed and did not meet expectations through the course of the semester.



# Top Underperformers

## D.R. Horton INC | (DHI)

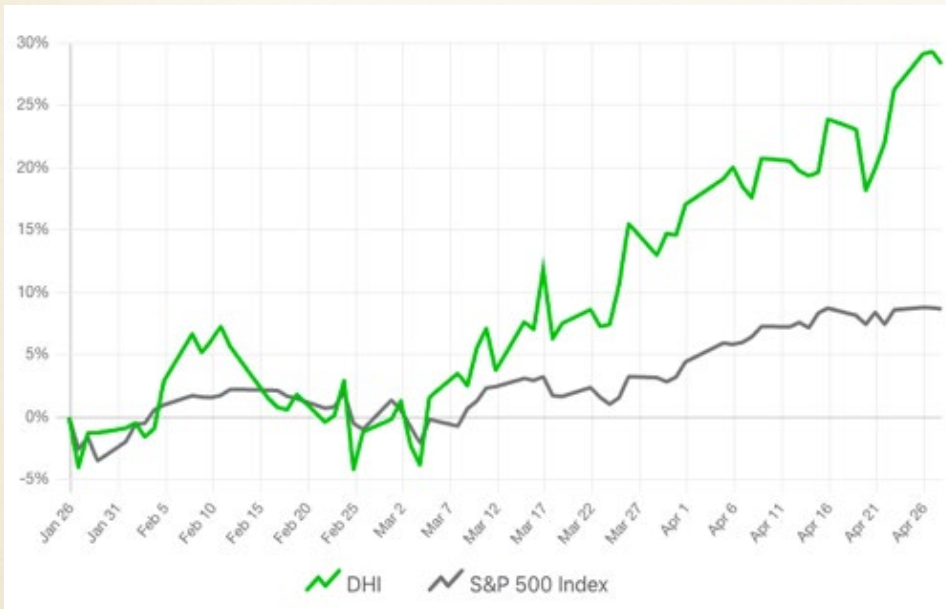
### Position

100 Shares(\$93.47) | \$9,947.72

Shares of D.R. Horton Inc were purchased on April 13th, 2021. Since the purchase date the investment has only given a return of 0.75%.

D.R. Horton is a home construction company that is based out of Arlington, Texas. They are focused on creating homes for all levels of homebuyers through their diverse set of real estate that ranges from entry-level to luxury. Since 2002, Horton has been the largest homebuilder, in volume, in the United States. The company has been public since 1992 and has acquired multiple companies throughout its reign.

D.R. Horton was pitched as a growth stock and did not have much time to mature before we began the performance review. As of April 29th, 2021, the stock price has reached a value of \$101.47. This would mark an 8.5% increase in price since the purchase in only 2 weeks. Due to the nature of Covid-19 driving people out of the cities and into rural homes, the home prices have increased immensely. This paired with the interest rates set at near 0% has driven home prices up and D.R. Horton has capitalized off of this.

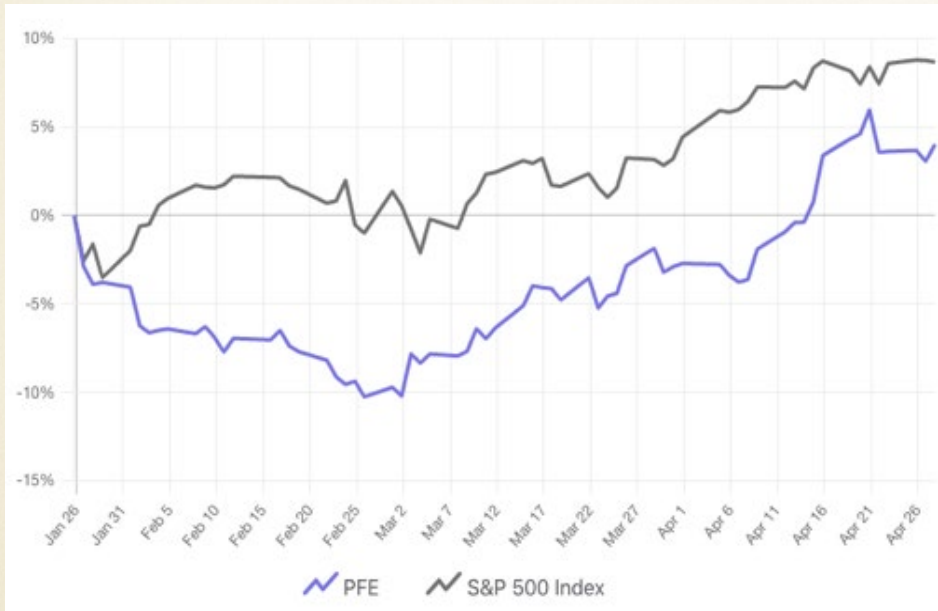


# Top Underperformers

## Pfizer INC | (PFE)

**Position**  
275.72 Shares(\$37.06) | \$10,084.86

Shares of Pfizer Inc were purchased on October 15th, 2020. Since the purchase date the investment has had a return of 1.33%.



Pfizer Inc is multinational pharmaceutical corporation that was ranked 64th on the Fortune 500 list of top companies by total revenue in 2020. Headquartered in Manhattan, Pfizer operates in a wide range of medical disciplines including immunology, cardiology, oncology, endocrinology and neurology. In the past year they have made huge headlines with their ability to create and disperse the Covid-19 vaccines. A favorable aspect for Pfizer is that it is the preferred vaccine among people getting vaccinated. Recently people have even decided they would wait to find locations that are specifically offering the Pfizer vaccine.

Unfortunately, Pfizer's stock was purchased at a high premium, but was pitched as a value stock so its small return is not horrible. It remains a little more volatile than the S&P 500 itself and has recently been making its way back to previous highs. With the recent preference towards Pfizer vaccines, we could see a continued uptrend in the stock price of Pfizer.

