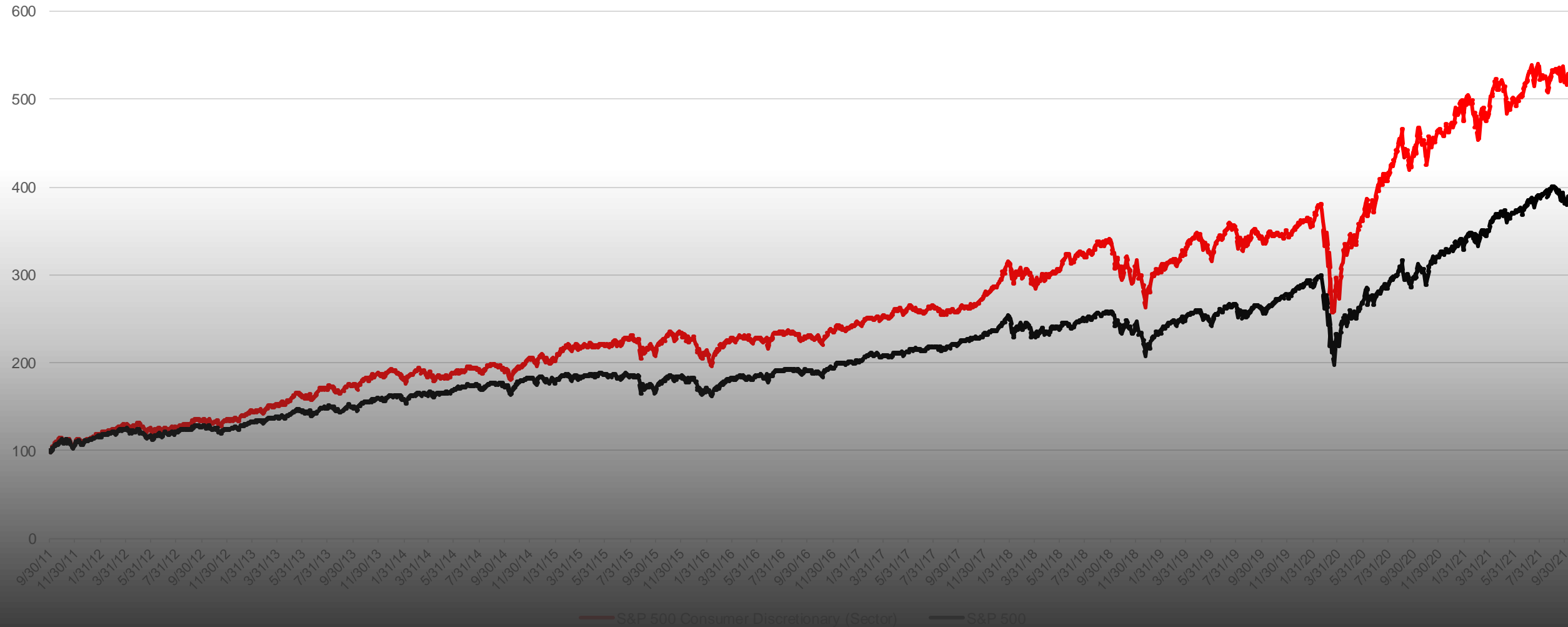


Price Return (As of 10/15/21)



# Consumer Discretionary

Stock Recommendations

Ryan Ackerman | Julia Aepli | John Aerni | Aayush Bansal

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Chips & Guacamole	2.95
Chips & Salsa	1.75
Guacamole	1.90
Chips	1.25
Bottled Drinks	2.50 2.50
Soda	1.60 1.90
Kid's Drinks	1.65 2.20

Served with MFI's chips and a drink	
1. Cheese Quesadilla	3.25
2. Meat Quesadilla	3.75
3. Single Taco	3.75
4. Taco Kit	4.25
Kid's Drinks: Juice, Plain or Chocolate Organic Milk	

<b>BURRITO BOWL</b>	
Naturally raised grilled chicken, with cilantro-lime rice, black beans, roasted chili-corn salsa and cheese.	
6.25	

CILANTRO-LIME RICE	
PINTO* OR BLACK BEANS	
SALSA	
CHEESE OR SOUR CREAM	
GUACAMOLE (ADD 1.80)	
<small>*Cooked With Bacon</small>	

<b>BURRITO BOWL TACOS SALAD</b>	
CHICKEN	6.25
STEAK	6.65
CARNITAS	6.65
BARBACOA	6.65
VEGGIE	6.25

**ADVENTURRITO**  
WIN FREE BURRITOS FOR 20 YEARS\*

IT'S OUR 20<sup>TH</sup> ANNIVERSARY TREASURE HUNT

It starts on July 12th, Chipotle's Anniversary, and the grand prize is 20 years of FREE Burritos (not a typo).  
Go to [adventurrito.com](http://adventurrito.com) to play.

# Sector Recap

# Valuation and Returns

Discretionary Sector: Absolute and Relative Valuation <sub>3</sub>				
	High	Low	Median	Current
<b>Price/Earnings</b>				
S5COND	57.74	15.21	21.58	43.55
SPX	30.97	13.47	19.28	25.89
S5COND/SPX	1.86	1.13	1.12	1.68
	High	Low	Median	Current
<b>Price/Book</b>				
S5COND	12.48	2.94	4.99	12.48
SPX	4.84	2.02	2.89	4.84
S5COND/SPX	2.58	1.46	1.73	2.58
	High	Low	Median	Current
<b>Price/Sales</b>				
S5COND	3.10	1.03	1.54	3.10
SPX	3.15	1.24	1.95	3.15
S5COND/SPX	0.98	0.83	0.79	0.98
	High	Low	Median	Current
<b>Price/EBITDA</b>				
S5COND	23.93	6.87	10.22	20.84
SPX	16.81	6.67	10.75	15.36
S5COND/SPX	1.42	1.03	0.95	1.36

Annualized Returns	10Y	5Y	3Y	1Y	3M	YTD
Cons. Discretionary (S5COND)	17.80%	20.65%	24.01%	35.41%	47.73%	31.11%
S&P 500 (SPX)	13.90%	16.73%	19.33%	40.97%	20.60%	30.04%
Alpha	3.90%	3.92%	4.68%	-5.56%	27.13%	1.07%

10/29/2021	MTD	Trailing 3MO	Calendar YTD	Fiscal YTD	Trailing 12MO	3YR	5YR	10YR	15YR	Inception
SIM (Gross of fees)	3.92%	-0.84%	17.21%	0.04%	37.55%	18.24%	17.02%	13.76%	8.21%	9.27%
SIM (Net of fees)	3.92%	-1.09%	16.34%	-0.21%	36.23%	17.09%	15.87%	12.65%	7.32%	8.56%
<b>Net Performance</b>	<b>-3.08%</b>	<b>-6.22%</b>	<b>-7.71%</b>	<b>-7.84%</b>	<b>-6.68%</b>	<b>-4.39%</b>	<b>-3.06%</b>	<b>-3.57%</b>	<b>-3.30%</b>	<b>-2.41%</b>



Securities Allocation			
Sector	S&P 500 Weight	SIM Weight	+/-
Information Technology	27.94%	25.37%	-2.57%
Financials	11.41%	13.02%	1.61%
Health Care	13.02%	13.65%	0.63%
<b>Consumer Discretionary</b>	<b>12.82%</b>	<b>11.75%</b>	<b>-1.07%</b>
Consumer Staples	5.60%	5.63%	0.03%
Industrials	8.03%	8.07%	0.04%
Energy	2.86%	4.19%	1.33%
Utilities	2.41%	1.89%	-0.52%
Materials	2.49%	3.23%	0.74%
Communication Services	10.83%	11.23%	0.40%
Real Estate	2.59%	1.98%	-0.62%
Total	100.00%	100.00%	0.00%

# Our Recommendation

*It is our recommendation that the portfolio goes **neutral** on the overall consumer discretionary sector. Within the sector, it would make sense to go overweight into e-commerce retailers which have the scale to combat inflationary and supply chain concerns.*

- Over the past 5 years, Consumer Discretionary has outpaced the broader S&P 500 index, and currently has a P/E of 40.00x significantly higher than the market's 26.56x
- Traditionally, Q4 is the largest quarter for Consumer Discretionary, as holiday shopping drives consumer spending to its highest levels of the year
- However, due to inflationary concerns and supply chain disruptions from COVID-19, there are some headwinds the industry would not usually face
- Major online retailers like Amazon should be overweight their traditional holdings within the sector. We believe that this is because they will have the scale to combat inflationary and supply chain concerns, and will likely only separate themselves further from the competition this holiday season
- We recommend going underweight the Automobiles & Components industry because we believe that uncertainty around supply chain and chip shortages will drag on the sector throughout the next year

# Current SIM Holdings

 <div style="text-align: center;">                     The Ohio State University                      Fisher College of Business                      Student Investment Management Portfolio                      Portfolio Appraisal Record                      October 29, 2021                 </div> <div style="text-align: right;">   <b>THE OHIO STATE UNIVERSITY</b>                      FISHER COLLEGE OF BUSINESS                 </div>													
Quantity	Security	Ticker	Unit Cost	Total Cost	Market Price	Market Value	Unrealized Gain/(Loss)	Unit Income	Est. Ann. Income	%age Assets	Eq shares out	Market Cap (In Millions \$)	Beta
118	AMAZON.COM INC	AMZN	796.41	\$93,976.09	3,372.43	\$397,946.74	\$303,971	-	\$0.0	4.01%	507.148	1,710,319.8	0.69
8,790	GENERAL MOTORS CO	GM	29.54	\$259,682.29	54.43	\$478,439.70	\$218,757	-	\$0.0	4.82%	1,451.860	79,024.7	1.45
1,500	TJX COS INC	TJX	69.06	\$103,584.00	65.49	\$98,235.00	(\$5,349)	1.04	\$1,560.0	0.99%	1,202.539	78,754.3	1.33
910	WHIRLPOOL CORP	WHR	234.21	\$213,126.55	210.83	\$191,855.30	(\$21,271)	5.60	\$5,096.0	1.93%	60.743	12,806.5	1.36
<b>AGGREGATE PORTFOLIO METRICS</b>													
Average P/E		26.51											
Average P/BV		6.43											
Avg. Mkt. Cap. (\$m)		349,750.70											
Avg. Wtd. Mkt. Cap (\$m)		462,348.08											
Portfolio Beta		1.07											
Dividend Yield		1.32											

Securities Allocation			
Sector	S&P 500 Weight	SIM Weight	+/-
Information Technology	27.94%	25.37%	-2.57%
Financials	11.41%	13.02%	1.61%
Health Care	13.02%	13.65%	0.63%
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Consumer Staples	5.60%	5.63%	0.03%
Industrials	8.03%	8.07%	0.04%
Energy	2.86%	4.19%	1.33%
Utilities	2.41%	1.89%	-0.52%
Materials	2.49%	3.23%	0.74%
Communication Services	10.83%	11.23%	0.40%
Real Estate	2.59%	1.98%	-0.62%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>

~12% in November

# Stock Considerations





**Amazon**



# Amazon

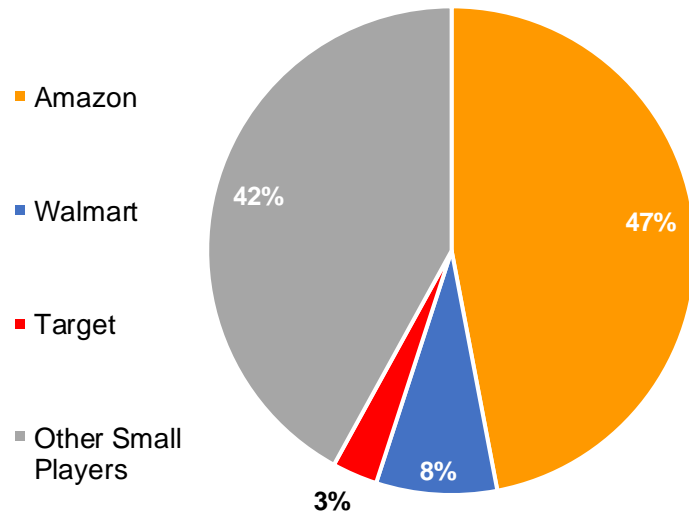
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Ticker	AMZN	Share Price	\$3,545.68
Founded	1994	Market Cap	\$1.798 T
Sector	Consumer Discretionary	Industry	Internet & Direct Marketing
Revenue	\$457.9 B	E.P.S.	26.9x
52 Week High	\$3,773.08	P/E	69.0x
52 Week Low	\$2,881.00	Beta	1.11
Dividend Yield	N/A	One-Year Return	13.24%

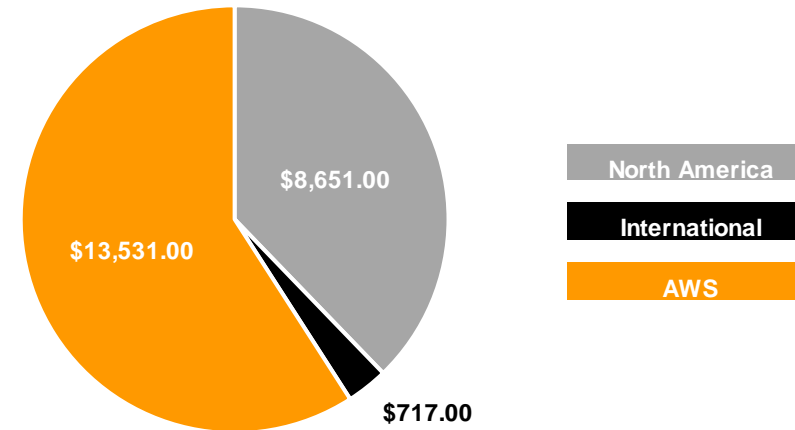
# Business Analysis

- **Headquarters:** Seattle, WA | **Employees:** 1,298,000
- Amazon operates under three main segments: North America, International, and Amazon Web Services.
- North American retail is responsible for 61% of sales, while Amazon Web Services is responsible for 59% of operating income.
- Amazon Retail has seen immense growth from its Amazon Prime membership, which includes Prime Video and free 2-day shipping.
- The Amazon Basics product line has also allowed Amazon to directly manufacture and distribute products to consumers.
- The company has been highly acquisitive in recent years, with notable acquisitions including MGM Studios, Whole Foods and Twitch.

## E-Commerce Market Share



## Operating Income



## Company News

- Unionization attempt in New York City Warehouse was withdrawn last week, marking another victory for Amazon, similar to the Bessemer, Alabama warehouse this summer.
- On October 28th, the Company reported earnings that were seen as a disappointment compared to Wall Street Consensus.
- Earnings per share of \$6.12 was significantly less than consensus of \$8.92, while the \$100.81 billion in revenue also fell short of an estimate of \$111.6 billion.
- Fourth quarter guidance also disappointed analysts, with the range of \$130 - \$140 billion falling below consensus expectations of \$142.1 billion.
- Management believes that earnings will be impacted by increased costs from labor shortages, as well as increased freight and shipping costs due to supply chain constraints.

# Financial Analysis - Historical

Key Income Statement (\$ in millions, except per share data)	
Revenue	\$457,965
COGS	\$268,793
Other Operating Expenses	\$160,880
EBIT (Operating Profit)	\$28,292
Operating Margin	6.18%
Net Income	\$26,263
Diluted E.P.S.	\$51.10

Key Balance Sheet	
Cash	\$29,944
Current Assets	\$138,531
Current Liabilities	\$123,994
Total Debt	\$136,238

Key Balance Sheet	
Capital Expenditures	\$56,941
Depreciation and Amortization	\$32,112

# Financial Analysis - Projections

(000\$)	FY 2023E	FY 2022E	FY 2021E	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
<b>Consensus</b>	<b>\$659,924.0</b>	<b>\$563,967.0</b>	<b>\$476,358.0</b>					
Net product sales	303,345.03	270,843.78	241,824.80	215,915.00	160,408.00	141,915.00	118,573.00	94,665.00
Net service sales	373,817.35	287,551.81	221,193.70	170,149.00	120,114.00	90,972.00	59,293.00	41,322.00
<b>Total net sales</b>	<b>\$677,162.4</b>	<b>\$558,395.6</b>	<b>\$463,018.5</b>	<b>\$386,064.0</b>	<b>\$280,522.0</b>	<b>\$232,887.0</b>	<b>\$177,866.0</b>	<b>\$135,987.0</b>
Cost of sales	402,911.6	335,037.4	277,811.1	233,307.0	165,536.0	139,156.0	111,934.0	88,265.0
Fulfillment	93,109.8	78,175.4	64,822.6	58,517.0	40,232.0	34,027.0	25,249.0	17,619.0
Technology and content	59,251.7	50,255.6	41,671.7	42,740.0	35,931.0	28,837.0	10,069.0	7,233.0
Marketing	52,480.1	44,671.6	37,041.5	22,008.0	18,878.0	13,814.0	22,620.0	16,085.0
General and administrative	12,188.9	10,383.7	8,610.1	6,668.0	5,203.0	4,336.0	3,674.0	2,432.0
Other operating expense	572.1	471.8	391.2	(75.0)	201.0	296.0	214.0	167.0
<b>Total operating expenses</b>	<b>\$620,514.3</b>	<b>\$518,995.5</b>	<b>\$430,348.1</b>	<b>\$363,165.0</b>	<b>\$265,981.0</b>	<b>\$220,466.0</b>	<b>\$173,760.0</b>	<b>\$131,801.0</b>
<b>Operating income</b>	<b>\$56,648.1</b>	<b>\$39,400.1</b>	<b>\$32,670.4</b>	<b>\$22,899.0</b>	<b>\$14,541.0</b>	<b>\$12,421.0</b>	<b>\$4,106.0</b>	<b>\$4,186.0</b>
Interest income	1,105.7	911.7	756.0	555.0	832.0	440.0	202.0	100.0
Interest expense	(5,412.8)	(4,463.5)	(3,701.1)	(1,647.0)	(1,600.0)	(1,417.0)	(848.0)	(484.0)
Other income (expense), net	7,990.2	6,588.8	5,463.4	2,371.0	203.0	(183.0)	346.0	90.0
<b>Total non-operating income (expense)</b>	<b>\$3,683.0</b>	<b>\$3,037.0</b>	<b>\$2,518.3</b>	<b>\$1,279.0</b>	<b>(\$565.0)</b>	<b>(\$1,160.0)</b>	<b>(\$300.0)</b>	<b>(\$294.0)</b>
<b>Income before income taxes</b>	<b>\$60,331.1</b>	<b>\$42,437.2</b>	<b>\$35,188.7</b>	<b>\$24,178.0</b>	<b>\$13,976.0</b>	<b>\$11,261.0</b>	<b>\$3,806.0</b>	<b>\$3,892.0</b>
Provision for income taxes	(11,616.8)	(8,171.3)	(6,775.6)	(2,863.0)	(2,374.0)	(1,197.0)	(769.0)	(1,425.0)
Equity-method investment activity, net of tax	(17.8)	(17.8)	(17.8)	16.0	(14.0)	9.0	(4.0)	(96.0)
<b>Net income</b>	<b>\$48,696.4</b>	<b>\$34,248.0</b>	<b>\$28,395.2</b>	<b>\$21,331.0</b>	<b>\$11,588.0</b>	<b>\$10,073.0</b>	<b>\$3,033.0</b>	<b>\$2,371.0</b>
<b>EPS</b>								
<b>Basic</b>	<b>93.64</b>	<b>66.73</b>	<b>56.05</b>	42.66	23.46	20.68	6.32	5.00
<b>Diluted</b>	<b>91.81</b>	<b>65.42</b>	<b>54.95</b>	41.83	22.99	20.15	6.15	4.90
<b>Consensus - GAAP</b>	<b>89.3</b>	<b>65.8</b>	<b>52.4</b>					
Operating Margin	8.4%	7.1%	7.1%	5.9%	5.2%	5.3%	2.3%	3.1%

# Valuation Analysis - DCF

		Growth Rate				
		2.50%	2.75%	3.0%	3.25%	3.50%
Discount Rate	5.80%	\$5,589.63	\$5,959.91	\$6,396.31	\$6,918.27	\$7,553.71
	6.30%	\$4,804.73	\$5,069.52	\$5,374.43	\$5,729.33	\$6,147.60
	6.80%	\$4,203.56	\$4,400.18	<b>\$4,622.69</b>	\$4,876.53	\$5,168.83
	7.30%	\$3,728.65	\$3,878.98	\$4,046.80	\$4,235.34	\$4,448.68
	7.80%	\$3,344.24	\$3,461.88	\$3,591.79	\$3,735.96	\$3,896.90

# Valuation Analysis – Relative Valuation

Absolute Basis	High	Low	Median	Current
P/E	662.73	0	139.78	61.17
P/B	23.79	10.15	17.24	15.47
P/S	4.22	1.61	2.78	3.98

Ticker	P/E	P/S	P/B	P/CF	EV/ EBITDA
AMZN	61.16	3.98	15.47	29.73	27.7
WMT	23.75	.73	5.12	14.04	12.5
TGT	18.98	1.21	8.00	13.7	11.33
GOOGL	44.1	8.83	8.11	24.05	23.77
MSFT	37.67	13.48	15.9	29.51	26.37
AAPL	30.69	7.6	40.36	25.29	22.62
Average	36.06	5.97	15.49	22.72	20.7

Absolute Valuation	Current Stock Price	Current Multiple	Your Target Multiple	Target/Current	Target Price
P/E	3,478.05	61.16	50.0	0.82	2,843.40
P/B	3,478.05	15.47	20.0	1.29	4,496.51
P/S	3,478.05	3.98	6.5	1.63	5,680.23
EV/EBITDA	3,478.05	27.7	25.0	0.90	3,139.03

# Recommendation

## Growth Drivers

- Amazon has continued to stay entrenched in its position as the e-commerce industry leader, even as major legacy retail competitors like Walmart and Target spend significantly to grow their presence.
- The cloud computing space represents a highly profitable and growing industry for Amazon, as AWS boasts impressive margins and revenue growth year-over-year.
- The Company has a proven acquisition strategy, enabling the company to make net positive investments such as its recent stake in electric vehicles manufacturer Rivian.

## Risks

- A prolonged inflationary environment will lead the Company to continue to raise prices. If costs cannot successfully be passed onto the end-consumer, margins on the retail business will shrink.
- A prolonged labor shortage could inhibit the company's ability to operate efficiently, as well as lead to increased labor costs.
- A continued reopening of the world economy could result in a decline to e-commerce revenues, as consumer may prefer to begin returning to traditional brick-and-mortar retailers.

Current SIM Weight	Current S&P Weight	Proposed Weight	Current Price	Target Price	Buy / Hold / Sell	Expected Return
401 bps	390 bps	450 bps	\$3,545.68	\$4,500	<b>BUY</b>	26.9%



**Whirlpool**



# Company Overview

- Ticker: WHR
- Sector: Consumer Discretionary
  - Current Weight in S&P500: 3.6 bps
  - Current SIM weight: 193 bps
  - Industry: Home Appliances
- Market Cap: \$13.81B
- Stock Price: \$232.18
- Shares Outstanding: 63.3m
- 52 Week High: \$257.68
- 52 Week Low: \$171.33
- One Year Return: 24.33%
- Beta: 1.43
- Dividend Yield: 2.57%
- P/E: 7.92



\*Whirlpool Corporation ownership of the Hotpoint brand in EMEA and Asia Pacific regions is not affiliated with the Hotpoint brand sold in the Americas.

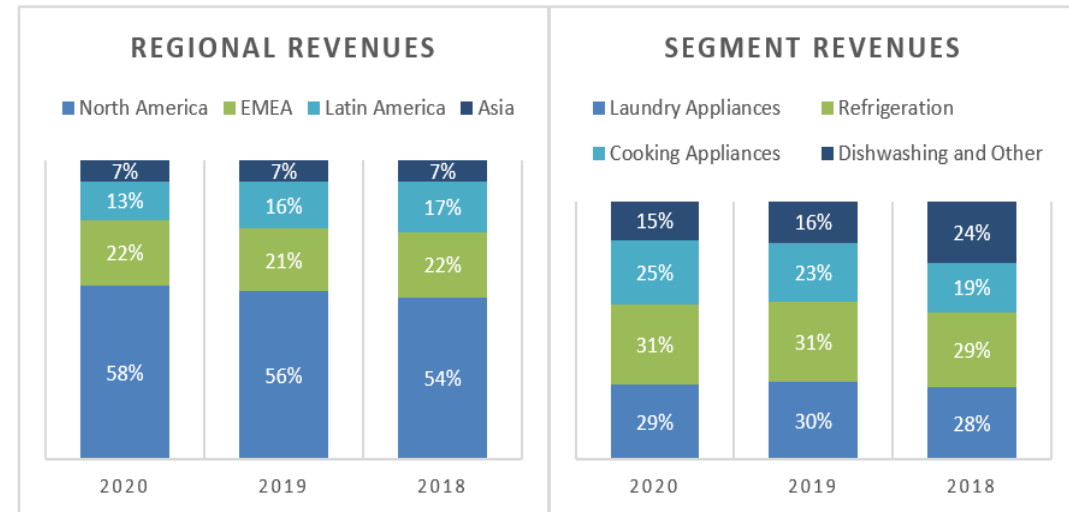
# Business Analysis

- Founded in 1911, Whirlpool has a continued legacy of market dominance and disruption in the home appliance space
- Worldwide, Whirlpool has over 78,000 employees (90+% outside the US), 57 manufacturing and technology research centers, and over \$19bn in 2020 sales (with \$17.08 in diluted EPS)
- Hybrid work trend -> spike in e-commerce distribution, as well as continued investment in Whirlpool's D2C business (\$1bn value growing at 25% a year)
- Business Strategy: Currently, KitchenAid and Whirlpool brands enable the company's position as a market leader in kitchen and laundry appliances
  - From there, Whirlpool houses regionally distinguished brands (like Indesit, Maytag, and Consul) to further diversify product offerings based on local customer fit and enter new markets

## Sustained Competitive Edges

- Innovation and R&D
  - Legacy and pipeline (space kitchens, digital)
  - Target 3% of net sales to R&D (\$580m in 2020)
- Strong brand portfolio
  - Whirlpool, KitchenAid, Maytag, Indesit, Hotpoint
- Economies of scale and cost position

## Revenue Composition



## Key Business Drivers

- 3 primary purchasing factors:
  - 1) New housing construction
    - Supply-demand
  - 2) Product replacement demand
  - 3) Discretionary spending habits
- Other macro factors: GDP, CPI, PPI, trade policy

# Financial Analysis

- Fairly stagnant sales growth over the past few years, but with aforementioned business drivers, we forecast increased sales and EPS in-line with Wall Street consensus
  - Per Whirlpool's Q3 2021 earnings, Whirlpool appears on track to meet and exceed 2021 expectations, with YTD sales of \$16.17bn and diluted EPS of \$23.47 going into the holiday season
- We also predict steady growth in gross profit margin that tapers off, as Whirlpool is working to compress its operating expenses by making products more modular and using optimized manufacturing processes over the next few years
- While SG&A growth seems relatively stagnant historically, we gradually increase our growth projections given Whirlpool's plans to steadily ramp up components like marketing

INCOME STATEMENT	Historical Data					Projections		
	2016A	2017A	2018A	2019A	2020A	2021P	2022P	2023P
Fiscal year								
Net sales	20,718	21,253	21,037	20,419	19,456	22,472	22,730	22,969
<i>Consensus</i>						22,584	22,780	22,481
Cost of products sold	17,026	17,651	17,500	16,886	15,606	17,696	18,127	18,375
Gross Margin	3,692	3,602	3,537	3,533	3,850	4,775	4,603	4,594
Selling, general and administrative	2,080	2,112	2,189	2,142	1,877	2,191	2,387	2,584
Operating profit	1,368	1,136	279	1,571	1,623	2,408	2,038	1,828
<u>Other (income) expense</u>								
Interest and sundry (income) expense	93	87	108	(168)	(21)	-	102	103
Interest expense	161	162	192	187	189	225	227	230
Earnings before income taxes	1,114	887	(21)	1,552	1,455	2,183	1,708	1,495
Income tax expense (benefit)	186	550	138	354	384	535	419	366
Net earnings	928	337	(159)	1,198	1,071	1,648	1,290	1,129
Less: Net earnings (loss) available to noncontrolling interests	40	(13)	24	14	(10)	-	-	-
Net earnings available to Whirlpool	888	350	(183)	1,184	1,081	1,648	1,290	1,129
<u>Per share of common stock</u>								
Diluted net earnings available to Whirlpool	11.50	4.70	(2.72)	18.44	17.08	27.63	22.81	20.70
<i>Consensus</i>						27.59	23.15	19.9

# Valuation

Historical Price Ratios	High	Low	Median	Current
P/E	18.74	3.01	11.49	7.92
P/B	3.96	0.85	2.66	2.68
P/S	0.84	0.2	0.58	0.62
P/EBITDA	11.32	2.35	6.35	4.42

## Comparable Companies

Comparable Companies	P/E	P/B	P/S	P/CF	EV/
WHR US	7.92	2.68	0.62	5.73	5.36
<i>Peers</i>					
GE US (General Electric)	62.92	3.19	1.58	26.38	12.58
ELUXB SS (Electrolux)	9.72	3.30	0.47	5.63	4.82
6752 JP (Panasonic)	11.94	1.16	0.45	6.84	6.20
Average	28.19	2.55	0.83	12.95	7.87

## DCF

Sensitivity Analysis - Implied Share Price						
		Perpetual Growth Rate				
		2.00%	2.50%	3.00%	3.50%	4.00%
WACC	8.50%	\$ 304.15	\$ 318.24	\$ 334.88	\$ 354.86	\$ 379.27
	9.00%	\$ 283.08	\$ 294.66	\$ 308.18	\$ 324.15	\$ 343.31
	9.50%	\$ 264.81	\$ 274.45	\$ 285.56	\$ 298.53	\$ 313.86
	10.00%	\$ 248.83	\$ 256.92	\$ 266.17	\$ 276.84	\$ 289.28
	10.50%	\$ 234.72	\$ 241.58	\$ 249.34	\$ 258.22	\$ 268.46
	11.00%	\$ 222.18	\$ 228.03	\$ 234.61	\$ 242.07	\$ 250.59

## Future Expectations

Absolute Valuation	Current Price	Current Multiple	Target Multiple	Target / Current	Target Price
P/E	\$232.18	7.92	9.25	1.17	\$271.17
P/B	\$232.18	2.68	3.25	1.21	\$281.56
P/S	\$232.18	0.62	0.68	1.10	\$254.65
P/EBITDA	\$232.18	4.42	5.10	1.15	\$267.90
<b>Equal Weighted Valuation</b>					<b>\$268.82</b>

# Recommendation

## Growth Drivers

- Continued legacy of disruptive innovation; strong R&D pipeline and repute; services consumer, commercial, and government markets; and digital integration
- Incredibly strong and market-leading brand portfolio with highly acquisitive history and entrances into new markets
- Economies of scale and continued focus on cost optimization
- Fundamental drivers like new housing construction, product replacement demand, and discretionary purchasing habits

## Risks

- Macroeconomic pressures like unfavorable monetary policy, inflation, and supply-chain woes
- Market share loss due to insufficient innovation
- International risk given highly globalized operations
- Concentration of sales (13%) and receivables (14%) with Lowe's
- Longer-term economic scarring of COVID-19 and its impact on household discretionary income
- Fire and other product risks to brand

Current SIM Weight	Current S&P Weight	Proposed Weight	Current Price	Target Price	Buy / Hold / Sell	Expected Return
193 bps	3.6 bps	100 bps	\$232.18	\$266.17	<b>SELL</b>	14.64%



**General Motors**

# Company Overview

- Ticker: GM
- Sector: Consumer Discretionary
  - Current Weight in S&P500: 21.47 bps
  - Current SIM weight: 482 bps
  - Industry: Automotive
- Market Cap: \$86.531B
- Stock Price: \$59.60
- Shares Outstanding: 1,442B
- 52 Week High: \$64.30
- 52 Week Low: \$38.63
- One Year Return: 69.20%
- Beta: 1.19
- Dividend Yield: 0%
- P/E: 7.82

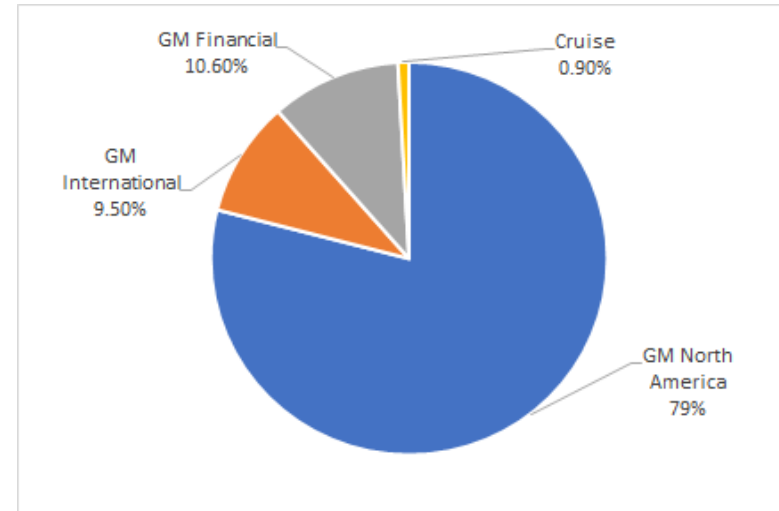
# Business Analysis

- General Motors
- Design, manufacture, and sell trucks, crossovers, cars, and automobile parts
- 4th largest automaker per vehicle production and 6th per market cap
- North American automotive sales represent 79% of General Motors annual revenue
- Pivoting to complete electric vehicle fleet by 2035 and making strides to enter the autonomous vehicle market through its purchase of Cruise in 2016.
- Purchased Cruise for \$1 billion which now has a valuation of \$30 billion

## Sustained Competitive Edges

- Margin Expansion
  - Gross margin % range of 15-20% last 5 years
  - Future operating margin % expectations of 12-14% from 6-10%
- OnStar Connectivity & Data-Gathering
- Ultium Battery Technology
- Commercialization of Cruise

## Revenue Composition



## Key Business Drivers

- Economic Conditions
- Consumer Demand
- Technological Innovation
- Governmental Regulation
- Other macro factors: GDP, CPI, Oil Prices, U-3, U-6, and Interests Rates



# Financial Analysis

- General Motors has seen declining or stagnant sales over the last 5 years as the company sold off unprofitable business pieces. The plan was to lower fixed costs and increase profitability through the sale of high-price trucks and SUVs.
  - Wall Street consensus expects 2021 sales of \$122.575B and EPS of \$6.27, 2022 sales of \$147.097B and EPS of \$6.41, and 2023 sales of \$155.120 and EPS of \$6.90. We predict gross margins to stay within the 15-20% range but operating margin to increase from the 6-10% range to the 12-14% range.
  - We predict net income over the next three years to increase 34.51% in 2021, 9.07% in 2022, and 15.7% in 2023. Fast initial growth to make up for the stagnated growth during the pandemic as the company returns to operations as usual. Estimated long-term growth of 3% per year following.

GM	FY	FY	FY	FY	FY
(000\$)	2023E	2022E	2021E	2020	2019
<b>Consensus</b>	<b>\$ 155,120</b>	<b>\$ 147,097</b>	<b>\$ 122,575</b>		
<b>Net Sales</b>	<b>\$ 166,103</b>	<b>\$ 147,717</b>	<b>\$ 123,087</b>	<b>\$ 122,486</b>	<b>\$ 137,237</b>
Cost of Goods Sold	116,327	111,526	93,554	91,339	103,851
Research & Development	7,755	7,386	6,155	6,200	6,800
<b>Gross Profit</b>	<b>\$ 31,021</b>	<b>\$ 28,806</b>	<b>\$ 23,388</b>	<b>\$ 24,948</b>	<b>\$ 28,588</b>
Automotive and Other Selling, General, and Administrative Expenses	7,755	7,386	6,155	7,038	8,491
Other Operating Expenses	11,167	9,602	6,770	10,514	10,693
<b>Operating Income</b>	<b>\$ 12,098</b>	<b>\$ 11,817</b>	<b>\$ 10,488</b>	<b>\$ 7,384</b>	<b>\$ 7,402</b>
Non-Operating Income	(2,171)	(2,068)	(1,600)	(1,461)	(1,955)
Abnormal Losses	1,241	2,659	1,723	760	1,921
<b>Income Before Income Taxes</b>	<b>\$ 13,029</b>	<b>\$ 11,228</b>	<b>\$ 10,340</b>	<b>\$ 8,096</b>	<b>\$ 7,438</b>
Provision For Income Tax	2,736	2,358	2,171	1,774	769
Net Extraordinary Losses	-	-	-	-	-
<b>Income After Taxes</b>	<b>\$ 10,293</b>	<b>\$ 8,889</b>	<b>\$ 8,189</b>	<b>\$ 6,321</b>	<b>\$ 6,667</b>
Less: Net Inc attributable to non-cont interests	(155)	(133)	(98)	(106)	(65)
Net Loss From Pref Stock Dividends	310	295	234	180	151
<b>Net Income</b>	<b>\$ 10,603</b>	<b>\$ 9,164</b>	<b>\$ 8,403</b>	<b>\$ 6,247</b>	<b>\$ 6,681</b>
<b>EPS</b>					
Basic	\$ 7.27	\$ 6.27	\$ 6.81	\$ 4.38	\$ 4.82
Diluted	\$ 7.22	\$ 6.23	\$ 6.77	\$ 4.33	\$ 4.67
<b>Consensus - EPS</b>	<b>6.90</b>	<b>6.41</b>	<b>6.27</b>		

# Valuation

General Motors	High	Low	Median	Current
P/E	\$ 18.67	\$ 6.09	\$ 11.90	\$ 7.82
P/B	1.84	1.35	1.63	1.57
P/S	0.70	0.52	0.61	0.65
P/EBITDA	27.66	20.59	23.62	6.31
Relative to S&P500	High	Low	Median	Current
P/E	Lower	Lower	Lower	Lower
P/B	Lower	Lower	Lower	Lower
P/S	Lower	Lower	Lower	Lower
P/EBITDA	Higher	Higher	Higher	Lower

# Comparable Companies

Company	Price	Market Cap (\$B)	P/E	P/B	P/S
GM	\$ 59.60	\$ 86,531	\$ 7.82	\$ 1.57	\$ 0.70
Ford	20.12	77,090	27.56	2.11	0.57
Toyota	176.32	247,660	9.66	1.17	0.95
Honda	29.35	51,640	6.09	0.63	0.40
Average			\$ 12.78	\$ 1.37	\$ 0.66

# DCF

Sensitivity Analysis		Terminal Discount Rate					
	\$	70.85	12%	12.50%	13%	13.50%	14%
Terminal Growth Rate	2.8%	\$ 77.24	\$ 73.21	\$ 69.57	\$ 66.27	\$ 63.27	
	2.9%	78.03	73.91	70.21	66.85	63.79	
	3.0%	78.83	74.63	<b>70.85</b>	67.43	64.33	
	3.1%	79.66	75.37	71.52	68.03	64.87	
	3.2%	80.50	76.12	72.19	68.64	65.42	

# Future Expectations

Company	Quarterly Revenue Growth (YOY)	Quarterly Earnings Growth (YOY)	Operating Margin	Forward Annual DIV Yield	Return on Equity (TTM)
GM	-24.50%	-40.20%	9.52%	N/A	20.26%
Ford	-4.80%	-23.20%	1.67%	2.07%	8.15%
Toyota	11.40%	33.20%	10.94%	2.49%	13.60%
Honda	-6.80%	-30.80%	6.49%	3.42%	10.32%

Source: Yahoo Finance

# Recommendation

## Growth Drivers

- General Motors's sheer size has been its downfall in the past. The company has spent years shedding unprofitable parts of the business and pivoting to the future of electric vehicles. Estimating \$90 billion annually from EV sales by 2030.
- Investment in autonomous-vehicles through Cruise gives GM a head start in this potential new industry. Recent partnerships/investment partners with Walmart and Microsoft give General Motors future customers and technology access needed to standardize the roll out of AVs. Estimated \$50 billion annual revenue by end of the decade.

## Risks

- General Motors's \$87.3 billion pension is funded by \$12.4 billion as of December 31st, 2020. Mandatory contributions over next 5 years total \$366 million. Total contribution could go up if interest rates decline.
- Continued supply-chain disruptions are expected to continue into 2022, which will cut future revenues. Many new cars being built must sit unfinished in warehouses waiting on computer chips.
- Internal combustion engine vehicles are facing increased scrutiny from ESG regulators, likely causing an increase in future production costs.

Current SIM Weight	Current S&P Weight	Proposed Weight	Current Price	Target Price	Buy / Hold / Sell	Expected Return
482 bps	21.5 bps	450 bps	\$59.60	\$70.85	<b>SELL</b>	18.9%



# TJX Companies

# Company Overview: TJX Companies

- Ticker: TJX
- Business Segments
  - Marmaxx (60.25%)
  - HomeGoods (18.97%)
  - TJX Canada (8.82%)
  - TJX International (11.96%)
- Sector:
  - Current Weight in S&P500: 0.21%
  - Current SIM weight (as of 10/31/21): 0.99%
  - Industry: Retail
- Market Cap: \$83.36 Billion
- Stock Price: \$68.80
- Shares Outstanding: 1214.70 Million
- 52 Week High: \$76.16
- 52 Week Low: \$59.12
- One Year Return: -22.96%
- Beta: 0.96
- Dividend Yield: 1.151%
- P/E: 33.91

# Business Analysis

Stock is currently undervalued because of COVID-19 pandemic related issues, such reduced brick-and-mortar shopping, and supply chain shortages (like labor shortages, factory shutdowns, etc.)

Some factors that will drive up the demand are increases in consumer confidence, a continued increase in spending of disposable income/increase in in-person shopping and global expansion

# Financial Analysis

Consensus revenue estimates are expected to grow, after a decrease in revenue in the year 2021, relating to the COVID-19 pandemic and fears of uncertainty.

TJX					
	FY	FY	FY	FY	FY
Millions	2024E	2023E	2022E	2021	2020
Consensus	54,110.00	51,532.75	48,222.10		
Net Sales	54,767.97	51,848.02	47,900.70	32,137.00	41,717.00

# Valuation

Price Target: \$79.71  
Price appreciation of 15.86%

TJX Companies' and the consumer discretionary market are trading at premium multiples compared to the S&P500, and TJX Companies' multiple trades similarly to competitors.

TJX Company	
P/E	24.18
P/S	1.95
P/B	13.12
P/CF	15.81
P/EBITDA	19.35

# Recommendation

We recommend a **HOLD** position on TJX stock.

TJX Companies' current stock price is slightly undervalued, but we would like to hold our position of 99 basis points, as there are risks relating to a decrease in brick-and-mortar shopping, supply chain delays and the COVID-19 pandemic. There are some potential upsides that may increase value like increased consumer confidence.



**Nike, Inc.**

# Company Overview: Nike, Inc.

- Ticker: NKE
- Sector: Consumer Discretionary
  - Current Weight in S&P500: 0.54%
  - Current SIM weight: 0.00%
  - Industry: Shoe Manufacture
- Market Cap: \$216,097,020
- Stock Price: \$169.09
- Shares Outstanding: 1.278M
- 52 Week High: \$174.38
- 52 Week Low: \$118.80
- One Year Return: 19.08%
- Beta: 0.90
- Dividend Yield: N/A
- P/E: 43.36



# Business Analysis

Stock is currently undervalued because of COVID-19 pandemic related issues, such as supply chain shortages, labor shortages, factory shutdowns, port delays, and container shortages

Some factors that will drive up the demand are increases in consumer confidence, a continued increase in spending of disposable income, an increase in online retail, and innovation and market growth that will raise the value of Nike, Inc.

# Financial Analysis

Consensus revenue estimates are expected to grow, after a decrease in revenue in the year 2020, relating to the COVID-19 pandemic and fears of uncertainty.

NIKE	FY	FY	FY	FY	FY	FY
Millions	2024E	2023E	2022E	2021	2020	2019
Consensus	59,800.00	54,200.00	47,100.00			
Revenue	59,721.00	54,291.82	47,210.28	44,538.00	37,403.00	39,117.00

# Valuation

Price Target: \$277.31  
Price appreciation of 64.00%

Nike, Inc. and the consumer discretionary market are trading at premium multiples compared to the S&P500, and Nike's multiple trades higher than most of its competitors.

Nike Inc.	
P/E	43.36
P/S	5.717
P/B	18.04
P/CF	46.30
P/EBITDA	31.91

# Recommendation

We recommend a **BUY** rating of Nike, Inc. stock

Nike's stock price is currently undervalued and faces risks of continued supply chain issues and delays that may hurt how Nike gets products to consumers. We think the benefits outweigh the risk because of continued advances into new markets (the athleisure market, expanding globally, and online growth, as well as their consistent high-quality name that has led them to be the 14th most valuable company in the world.

We would like to raise the 0.00% SIM weight to 1.01%, 101 basis points



# Final Recommendation

# Final Recommendation

	Current SIM Weight	Current S&P Weight	Proposed Weight	Current Price	Target Price	Buy / Hold / Sell	Expected Return
Amazon	401 bps	390 bps	450 bps	\$3,545.68	\$4,500	<b>BUY</b>	26.9%
Whirlpool	193 bps	3.6 bps	100 bps	\$232.18	\$266.17	<b>SELL</b>	14.64%
GM	482 bps	21.5 bps	450 bps	\$59.60	\$70.85	<b>SELL</b>	18.9%
TJX	99 bps	21 bps	99 bps	\$68.80	\$79.71	<b>HOLD</b>	15.86%
Nike	0.00 bps	54 bps	101 bps	\$169.09	\$277.31	<b>BUY</b>	64.00%

"Trimming"



# Appendix

# Amazon DCF

Analyst: Ryan Ackerman 11/8/2021											
(000s)											
		Terminal Discount Rate = 6.8%									
		Terminal FCF Growth = 3.0%									
Year	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>Revenue</b>	463,019	558,396	677,162	812,595	954,799	1,098,019	1,207,821	1,328,603	1,428,248	1,499,660	1,537,152
% Growth		20.6%	21.3%	20.0%	17.5%	15.0%	10.0%	10.0%	7.5%	5.0%	2.5%
<b>Operating Income</b>	32,670	39,400	56,648	69,071	82,113	95,528	106,288	118,246	128,542	136,469	141,418
Operating Margin	7.1%	7.1%	8.4%	8.5%	8.6%	8.7%	8.8%	8.9%	9.0%	9.1%	9.2%
<b>Interest Expense (Income)</b>	2,945	3,552	4,307	4,063	4,774	5,490	6,039	6,643	7,141	7,498	7,686
Interest % of Sales	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
<b>Other Expense (Income)</b>	(5,463)	(6,589)	(7,990)	(9,588)	(11,266)	(12,627)	(13,890)	(14,615)	(15,711)	(14,997)	(15,372)
% of Sales	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%	-1.1%	-1.1%	-1.0%	-1.0%
<b>Income Before Taxes</b>	35,189	42,437	60,331	74,596	88,605	102,665	114,139	126,217	137,112	143,967	149,104
<b>Taxes</b>	6,776	8,171	11,617	14,919	17,721	20,533	22,828	25,243	27,422	28,793	29,821
Tax Rate	19.3%	19.3%	19.3%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
<b>Equity Investment of Activity</b>	18	18	18	21	25	29	32	35	38	39	40
% of Sales	0.004%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%	0.003%
<b>Net Income</b>	28,395	34,248	48,696	59,655	70,859	82,103	91,279	100,939	109,652	115,134	119,243
% Growth		20.6%	42.2%	22.5%	18.8%	15.9%	11.2%	10.6%	8.6%	5.0%	3.6%
<b>Add Depreciation/Amort</b>	30,852	37,208	45,122	54,146	63,621	71,371	78,508	79,716	85,695	89,980	92,229
% of Sales	6.7%	6.7%	6.7%	6.7%	6.7%	6.5%	6.5%	6.0%	6.0%	6.0%	6.0%
<b>Plus/(minus) Changes WC</b>	(8,167)	3,303	4,113	3,250	3,819	4,392	4,831	5,314	5,713	5,999	6,149
% of Sales	-1.8%	0.6%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
<b>Subtract Cap Ex</b>	32,072	38,678	46,905	55,256	63,972	71,371	78,508	79,716	85,695	89,980	92,229
Capex % of sales	6.9%	6.9%	6.9%	6.8%	6.7%	6.5%	6.5%	6.0%	6.0%	6.0%	6.0%
<b>Free Cash Flow</b>	19,009	36,080	51,026	61,795	74,328	86,495	96,111	106,253	115,365	121,133	125,391
% Growth		89.8%	41.4%	21.1%	20.3%	16.4%	11.1%	10.6%	8.6%	5.0%	3.5%

# Amazon DCF

NPV of Cash Flows	580,542	25%								
NPV of terminal value	1,760,387	75%							Terminal Value	3,398,761
Projected Equity Value	2,340,929	100%								
Free Cash Flow Yield	1.08%								Free Cash Yield	3.69%
Current P/E	62.2	51.6	36.3						Terminal P/E	28.5
<i>Projected P/E</i>	82.4	68.4	48.1							
Current EV/EBITDA	28.3	23.5	17.7						Terminal EV/EBITDA	14.7
<i>Projected EV/EBITDA</i>	37.4	31.0	23.3							
Shares Outstanding	506									
Current Price	\$ 3,488.98									
Implied equity value/share	\$ 4,622.69									
Upside/(Downside) to DCF	32.5%									
Debt	123,247									
Cash	89,894									
Cash/share	177.52									



# Whirlpool DCF

Whirlpool Corp. (WHR): DCF

Analyst: Aayush Bansal

11/12/2021

\$ mm except per share

Terminal Discount Rate (WACC) = 10.0%

Terminal FCF Growth = 3.0%

Year	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>Revenue</b>	22,472	22,730	22,969	23,221	23,477	23,759	24,044	24,404	24,892	25,515	26,280
% Growth		1.15%	1.05%	1.1%	1.1%	1.2%	1.2%	1.5%	2.0%	2.5%	3.0%
<b>Operating Income</b>	2,408	2,038	1,828	1,858	1,878	1,901	1,923	1,952	1,991	2,041	2,102
Operating Margin	10.72%	8.97%	7.96%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
<b>Interest Expense (Income)</b>	225	227	230	232	235	238	240	244	249	255	263
Interest % of Sales	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
<b>Income Before Taxes</b>	2,183	1,708	1,495	1,625	1,643	1,663	1,683	1,708	1,742	1,786	1,840
<b>Taxes</b>	535	419	366	398	403	407	412	419	427	438	451
Tax Rate	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%
<b>Net Income</b>	1,648	1,290	1,129	1,227	1,241	1,256	1,271	1,290	1,316	1,348	1,389
% Growth		-21.8%	-12.5%	8.7%	1.1%	1.2%	1.2%	1.5%	2.0%	2.5%	3.0%
<b>Add Depreciation/Amort</b>	640	648	655	662	669	677	649	659	622	638	657
% of Sales	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.7%	2.7%	2.5%	2.5%	2.5%
<b>Plus/(minus) Changes WC</b>	(662)	669	53	53	54	54	55	56	57	58	60
% of Sales	-2.9%	2.9%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
<b>Subtract Cap Ex</b>	640	648	655	673	681	689	649	659	622	638	657
Capex % of sales	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.7%	2.7%	2.5%	2.5%	2.5%
<b>Free Cash Flow</b>	987	1,959	1,182	1,269	1,283	1,298	1,326	1,346	1,373	1,407	1,449
% Growth		98.5%	-39.7%	7.4%	1.1%	1.2%	2.1%	1.5%	2.0%	2.5%	3.0%

NPV of Cash Flows	8,627	51%			
NPV of terminal value	8,221	49%	Terminal Value	21,323	
Projected Equity Value	16,848	100%			
Free Cash Flow Yield	6.71%		Free Cash Yield	6.80%	
Current P/E	8.9	11.4	13.0	Terminal P/E	15.4
Projected P/E	10.2	13.1	14.9		
Current EV/EBITDA	4.1	4.7	5.1	Terminal EV/EBITDA	7.0
Projected EV/EBITDA	4.8	5.5	5.9		
Shares Outstanding	63.3				
Current Price	\$232.18				
Implied equity value/share	\$266.17				
Upside/(Downside) to DCF	14.64%				
Debt	814				
Cash	2,924				
Cash/share	46.19				



# Home Depot DCF

Home Depot (HD)

Analyst: Aayush Bansal

11/12/2021

\$ mm except per share

Terminal Discount Rate (WACC) = 8.0%

Terminal FCF Growth = 3.0%

Year	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>Revenue</b>	145,982	149,631	154,120	163,367	171,536	178,397	185,533	192,954	198,743	203,711	208,804
% Growth		2.50%	3.00%	6.0%	5.0%	4.0%	4.0%	4.0%	3.0%	2.5%	2.5%
<b>Operating Income</b>	21,094	21,248	21,885	23,198	24,358	25,332	26,346	27,399	28,221	28,927	29,650
Operating Margin	14.45%	14.20%	14.20%	14.2%	14.2%	14.2%	14.2%	14.2%	14.2%	14.2%	14.2%
<b>Interest Expense (Income)</b>	1,460	1,496	1,541	1,634	1,715	1,784	1,855	1,930	1,987	2,037	2,088
Interest % of Sales	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
<b>Income Before Taxes</b>	19,737	19,856	20,452	21,564	22,643	23,548	24,490	25,470	26,234	26,890	27,562
<b>Taxes</b>	4,835	4,865	5,011	5,283	5,547	5,769	6,000	6,240	6,427	6,588	6,753
Tax Rate	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%
<b>Net Income</b>	14,901	14,991	15,441	16,281	17,095	17,779	18,490	19,230	19,807	20,302	20,809
% Growth		0.6%	3.0%	5.4%	5.0%	4.0%	4.0%	4.0%	3.0%	2.5%	2.5%
<b>Add Depreciation/Amort</b>	2,920	2,993	3,082	3,267	3,431	3,568	3,618	3,763	3,776	3,871	3,967
% of Sales	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	1.9%	1.9%	1.9%
<b>Plus/(minus) Changes WC</b>	(3,301)	465	(325)	(345)	(362)	(377)	(392)	(407)	(420)	(430)	(441)
% of Sales	-2.3%	0.3%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
<b>Subtract Cap Ex</b>	2,920	2,993	3,082	3,267	3,431	3,568	3,618	3,763	3,776	3,871	3,967
Capex % of sales	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	1.9%	1.9%	1.9%
<b>Free Cash Flow</b>	11,601	15,457	15,116	15,936	16,733	17,402	18,098	18,822	19,387	19,872	20,369
% Growth		33.2%	-2.2%	5.4%	5.0%	4.0%	4.0%	4.0%	3.0%	2.5%	2.5%

NPV of Cash Flows	116,302	37%		
NPV of terminal value	194,352	63%		Terminal Value 419,591
Projected Equity Value	310,654	100%		
Free Cash Flow Yield	2.89%			Free Cash Yield 4.85%
Current P/E	27.0	26.8	26.0	Terminal P/E 20.2
Projected P/E	20.8	20.7	20.1	
Current EV/EBITDA	18.0	17.8	17.3	Terminal EV/EBITDA 13.4
Projected EV/EBITDA	14.2	14.0	13.6	
Shares Outstanding	1,078.0			
Current Price	\$372.65			
Implied equity value/share	\$ 288.18			
Upside/(Downside) to DCF	-22.7%			
Debt	37,238			
Cash	7,895			
Cash/share	7.32			

# GM DCF

General Motors (GM)											
Analyst: John Aemi 11/8/2021 (000s)											Terminal Discount Rate = 13.0%
											Terminal FCF Growth = 3.0%
Year	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>Revenue</b>	123,097	147,717	155,103	159,756	164,549	169,485	174,570	179,807	185,201	190,757	196,480
% Growth		20.0%	5.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>Operating Income</b>	10,463	11,817	12,098	12,461	12,835	13,220	13,616	14,025	14,446	14,879	15,325
Operating Margin	8.5%	8.0%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%
<b>Interest Expense (Income)</b>	(1,600)	(2,068)	(2,171)	(2,237)	(2,304)	(2,373)	(2,444)	(2,517)	(2,593)	(2,671)	(2,751)
Interest % of Sales	-1.3%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%	-1.4%
<b>Income Before Taxes</b>	10,340	11,226	13,029	14,698	15,138	15,593	16,060	16,542	17,038	17,550	18,076
<b>Taxes</b>	2,171	2,358	2,736	3,219	3,315	3,415	3,517	3,623	3,731	3,843	3,959
Tax Rate	21.0%	21.0%	21.0%	21.9%	21.9%	21.9%	21.9%	21.9%	21.9%	21.9%	21.9%
<b>Net Income</b>	8,403	9,164	10,603	11,479	11,823	12,178	12,543	12,919	13,307	13,706	14,117
% Growth		9.1%	15.7%	8.3%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>Add Depreciation/Amort</b>	\$ 6,155	\$ 8,863	\$ 9,616	\$ 9,905	\$ 10,202	\$ 10,508	\$ 10,823	\$ 11,148	\$ 11,482	\$ 11,827	\$ 12,182
% of Sales	5.0%	6.0%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
<b>Plus/(minus) Changes WC</b>	\$ 4,855	\$ (2,462)	\$ (1,108)	\$ (1,917)	\$ (1,975)	\$ (2,034)	\$ (2,095)	\$ (2,158)	\$ (2,222)	\$ (2,289)	\$ (2,358)
% of Sales	3.9%	-1.7%	-0.7%	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%	-1.2%
<b>Subtract Cap Ex</b>	\$ 5,293	\$ 7,090	\$ 8,220	\$ 8,467	\$ 8,721	\$ 8,983	\$ 9,252	\$ 9,530	\$ 9,816	\$ 10,110	\$ 10,413
Capex % of sales	4.3%	4.8%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
<b>Free Cash Flow</b>	\$ 14,120	\$ 8,475	\$ 10,891	\$ 11,000	\$ 11,329	\$ 11,669	\$ 12,019	\$ 12,380	\$ 12,751	\$ 13,134	\$ 13,528
% Growth		-40.0%	28.5%	1.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>NPV of Cash Flows</b>	61,124	60%									
<b>NPV of Terminal Value</b>	41,047	40%								<b>Terminal Value</b>	139,338
<b>Projected Equity Value</b>	102,171	100%									
<b>Free Cash Flow Yield</b>	16.43%									<b>Free Cash Yield</b>	9.71%
<b>Current P/E</b>	10.2	9.4	8.1							<b>Terminal P/E</b>	9.9
Projected P/E	12.2	11.1	9.6								
<b>Current EV/EBITDA</b>	10.2	8.2	7.8							<b>Terminal EV/EBITDA</b>	8.1
Projected EV/EBITDA	11.1	8.9	8.5								
<b>Shares Outstanding</b>	1,442										
<b>Current Price</b>	\$ 59.60										
<b>Implied equity value/share</b>	\$ 70.85										
<b>Upside/(Downside) to DCF</b>	18.9%										
<b>Debt</b>	111,870										
<b>Cash</b>	29,038										
<b>Cash/share</b>	20.14										

# Ford DCF

Ford Motor Company (F)											
Analyst: John Aerni				Terminal Discount Rate =		10.0%					
10/5/2021				Terminal FCF Growth =		3.0%					
(000s)											
Year	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
<b>Revenue</b>	127,520	153,400	155,960	160,639	165,458	170,422	175,534	180,800	186,224	191,811	197,565
% Growth		20.3%	1.7%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>Operating Income</b>	2,550	4,449	5,147	5,301	5,460	5,624	5,793	5,966	6,145	6,330	6,520
Operating Margin	2.0%	2.9%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
<b>Interest Expense (Income)</b>	1,403	1,994	1,872	1,928	1,985	2,045	2,106	2,170	2,235	2,302	2,371
Interest % of Sales	1.1%	1.3%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
<b>Income Before Taxes</b>	3,953	6,443	7,018	3,373	3,475	3,579	3,686	3,797	3,911	4,028	4,149
<b>Taxes</b>	830	1,353	1,474	600	618	637	656	676	696	717	738
Tax Rate	21.0%	21.0%	21.0%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%
<b>Net Income</b>	3,123	5,090	5,544	2,773	2,856	2,942	3,030	3,121	3,215	3,311	3,410
% Growth		63.0%	8.9%	-50.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>Add Depreciation/Amort</b>	7,141	8,437	8,422	8,674	8,935	9,203	9,479	9,763	10,056	10,358	10,669
% of Sales	5.6%	5.5%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%
<b>Plus/(minus) Changes WC</b>	883	(9,712)	(211)	(1,606)	(1,655)	(1,704)	(1,755)	(1,808)	(1,862)	(1,918)	(1,976)
% of Sales	0.7%	-6.3%	-0.1%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
<b>Subtract Cap Ex</b>	6,248	7,517	7,642	7,871	8,107	8,351	8,601	8,859	9,125	9,399	9,681
Capex % of sales	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%	4.9%
<b>Free Cash Flow</b>	4,898	(3,702)	6,113	1,970	2,029	2,090	2,152	2,217	2,283	2,352	2,423
% Growth		-175.6%	65.1%	-67.8%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
<b>NPV of Cash Flows</b>	11,200	45%									
<b>NPV of terminal value</b>	13,743	55%									
<b>Projected Equity Value</b>	24,943	100%									
<b>Free Cash Flow Yield</b>	8.63%										
<b>Terminal Value</b>											35,646
<b>Free Cash Yield</b>											6.80%
<b>Current P/E</b>	18.2	11.2	10.2								
Projected P/E	9.0	8.2	9.0								
<b>Current EV/EBITDA</b>	12.1	9.1	8.6								
Projected EV/EBITDA	9.8	9.6	9.5								
<b>Terminal P/E</b>											10.5
<b>Terminal EV/EBITDA</b>											5.6
<b>Shares Outstanding</b>	3,973										
<b>Current Price</b>	\$ 14.29										
<b>Implied equity value/share</b>	\$ 6.28										
<b>Upside/(Downside) to DCF</b>	-56.1%										
<b>Debt</b>	110,341										
<b>Cash</b>	49,961										
<b>Cash/share</b>	12.58										

# TJX Companies DCF

The TJX Companies, Inc. (TJX)											
Analyst: Julia Aepli						Terminal Discount Rate		9.00%			
Date: 11/12/2021						Terminal FCF Growth =		4.00%			
Millions											
Year	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
<b>Revenue</b>	47,900.70	51,848.02	54,767.97	57,780.21	60,958.12	64,006.03	67,206.33	70,566.64	73,389.31	76,324.88	79,377.88
% Growth		8.24%	5.63%	5.50%	5.50%	5.00%	5.00%	5.00%	4.00%	4.00%	4.00%
<b>Operating Income</b>	1,389.12	3,525.67	3,943.29	4,044.61	4,267.07	4,480.42	5,376.51	5,645.33	5,871.14	6,105.99	6,350.23
Operating Margin	2.90%	6.80%	7.20%	7.00%	7.00%	7.00%	8.00%	8.00%	8.00%	8.00%	8.00%
<b>Interest Expense (Income)</b>	119.75	25.92	27.38	28.89	30.48	32.00	33.60	35.28	36.69	38.16	39.69
Interest % of Sales	0.25%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
<b>Income Before Taxes</b>	1,269.37	3,499.74	3,915.91	4,015.72	4,236.59	4,448.42	5,342.90	5,610.05	5,834.45	6,067.83	6,310.54
<b>Taxes</b>	323.69	892.43	998.56	1,024.01	1,080.33	1,134.35	1,362.44	1,430.56	1,487.78	1,547.30	1,609.19
Tax Rate	25.50%	25.50%	25.50%	25.50%	25.50%	25.50%	25.50%	25.50%	25.50%	25.50%	25.50%
<b>Net Income</b>	945.68	2,607.31	2,917.35	2,991.71	3,156.26	3,314.07	3,980.46	4,179.49	4,346.67	4,520.53	4,701.35
% Growth		175.71%	11.89%	2.55%	5.50%	5.00%	20.11%	5.00%	4.00%	4.00%	4.00%
<b>Add Depreciation/Amort</b>	1,197.52	1,036.96	1,095.36	1,155.60	1,219.16	1,280.12	1,344.13	1,411.33	1,467.79	1,526.50	1,587.56
% of Sales	2.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
<b>Plus/(minus) Changes WC</b>	520.79	(749.99)	(554.79)	(585.30)	(617.50)	(648.37)	(680.79)	(714.83)	(743.42)	(773.16)	1.50
% of Sales	1.09%	-1.45%	-1.01%	-1.01%	-1.01%	-1.01%	-1.01%	-1.01%	-1.01%	-1.01%	-1.01%
<b>Subtract CapEx</b>	958.01	1,036.96	1,095.36	1,155.60	1,219.16	1,280.12	1,344.13	1,411.33	1,467.79	1,526.50	1,587.56
CapEx % of sales	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
<b>Free Cash Flow</b>	1,705.98	1,857.32	2,362.56	2,406.41	2,538.76	2,665.70	3,299.67	3,464.66	3,603.24	3,747.37	4,702.85
% Growth		8.87%	27.20%	1.86%	5.50%	5.00%	23.78%	5.00%	4.00%	4.00%	25.50%
<b>NPV of Cash Flows</b>	18,464.77	30.89%									
<b>NPV of terminal value</b>	41,319.95	69.11%								Terminal Value	97,819.35
<b>Projected Equity Value</b>	59,784.72	100.00%									
<b>Free Cash Flow Yield</b>	3.31%									Free Cash Yield	4.81%
<b>Current P/E</b>	54.56	19.79	17.69							Terminal P/E	20.81
<i>Projected P/E</i>	63.22	22.93	20.49								
<b>Current EV/EBITDA</b>	21.55	12.22	11.07							Terminal EV/EBITDA	12.85
<i>Projected EV/EBITDA</i>	24.72	14.01	12.69								
<b>Shares Outstanding</b>	750.00										
<b>Current Price</b>	\$ 68.80										
<b>Implied equity value/share</b>	\$ 79.71										
<b>Upside/(Downside) to DCF</b>	15.86%										
<b>Debt</b>	11,259.00										
<b>Cash</b>	7,106.00										
<b>Cash/share</b>	9.47										

# Nike, Inc. DCF

Nike, Inc. (NKE)											
Analyst: Julia Aepli						Terminal Discount Rate=		8.00%			
11/12/21						Terminal FCF Growth =		4.50%			
Millions											
Year	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
<b>Revenue</b>	47,210.28	54,291.82	59,721.00	65,693.10	72,262.42	78,043.41	84,286.88	89,344.09	94,704.74	99,439.98	104,411.98
% Growth		15.00%	10.00%	10.00%	10.00%	8.00%	8.00%	6.00%	6.00%	5.00%	5.00%
<b>Operating Income</b>	11,153.43	12,500.69	13,750.76	15,125.84	16,638.42	17,969.49	19,407.05	20,995.86	22,255.61	23,368.39	24,536.81
Operating Margin	23.63%	23.03%	23.03%	23.03%	23.03%	23.03%	23.03%	23.50%	23.50%	23.50%	23.50%
<b>Interest Expense (Income)</b>	118.03	108.58	89.58	98.54	108.39	117.07	126.43	134.02	142.06	149.16	156.62
Interest % of Sales	0.25%	0.20%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Other (income) expense, net</b>	94.42	108.58	119.44	131.39	144.52	156.09	168.57	178.69	189.41	198.88	208.82
Other (income) % sales	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<b>Income Before Taxes</b>	10,940.98	12,283.52	13,541.74	14,895.91	16,385.50	17,696.34	19,112.05	20,683.16	21,924.15	23,020.35	24,171.37
<b>Taxes</b>	1,531.74	1,719.69	1,895.84	2,085.43	2,293.97	2,477.49	2,675.69	2,895.64	3,069.38	3,222.85	3,383.99
Tax Rate	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
<b>Net Income</b>	9,409.24	10,563.83	11,645.89	12,810.48	14,091.53	15,218.85	16,436.36	17,787.52	18,854.77	19,797.50	20,787.38
% Growth		12.27%	10.24%	10.00%	10.00%	8.00%	8.00%	8.22%	6.00%	5.00%	5.00%
<b>Add Depreciation/Amort</b>	873.39	988.11	1,086.92	1,195.61	1,315.18	1,420.39	1,534.02	1,626.06	1,723.63	1,809.81	1,900.30
% of Sales	1.85%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%
<b>Changes in Working Capital</b>	(600.21)	(2,212.98)	(1,696.62)	(1,866.28)	(2,052.91)	(2,217.14)	(1,264.30)	(1,340.16)	(1,420.57)	(1,491.60)	1.50
% of Sales	-1.27%	-4.08%	-2.84%	-2.84%	-2.84%	-2.84%	-1.50%	-1.50%	-1.50%	-1.50%	-1.50%
<b>Subtract CapEx</b>	1416.31	1,628.75	1,791.63	1,970.79	2,167.87	2,341.30	2,528.61	2,680.32	2,841.14	2,983.20	3,132.36
CapEx % of sales	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<b>Free Cash Flow</b>	8,266.11	7,710.21	9,244.57	10,169.02	11,185.93	12,080.80	14,177.47	15,393.09	16,316.68	17,132.51	19,556.82
% Growth		-6.73%	19.90%	10.00%	10.00%	8.00%	17.36%	8.57%	6.00%	5.00%	14.15%
<b>NPV of Cash Flows</b>	83,941.73	23.69%									
NPV of terminal value	270,463.65	76.31%								Terminal Value	583,910.73
<b>Projected Equity Value</b>	354,405.38	100.00%									
<b>Free Cash Flow Yield</b>	3.83%									Free Cash Yield	3.35%
<b>Current P/E</b>	22.97	20.46	18.56							Terminal P/E	28.09
Projected P/E	37.67	33.55	30.43								
<b>Current EV/EBITDA</b>	17.63	15.72	14.29							Terminal EV/EBITDA	21.93
Projected EV/EBITDA	29.13	25.97	23.61								
<b>Shares Outstanding</b>	1,278.00										
<b>Current Price</b>	\$ 169.09										
<b>Implied equity value/share</b>	\$ 277.31										
<b>Upside/(Downside) to DCF</b>	64.00%										
<b>Debt</b>	9,413.00										
<b>Cash</b>	13,476.00										
<b>Cash/share</b>	10.54										