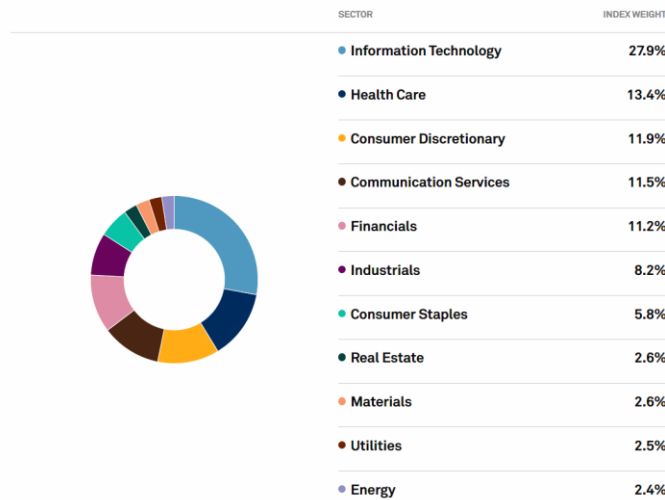


# Information Technology Sector Report

Ryan Waguespack

## Investment Management Program (IMP) 2021 Fall Semester

### Sector Breakdown



### Size and Composition:

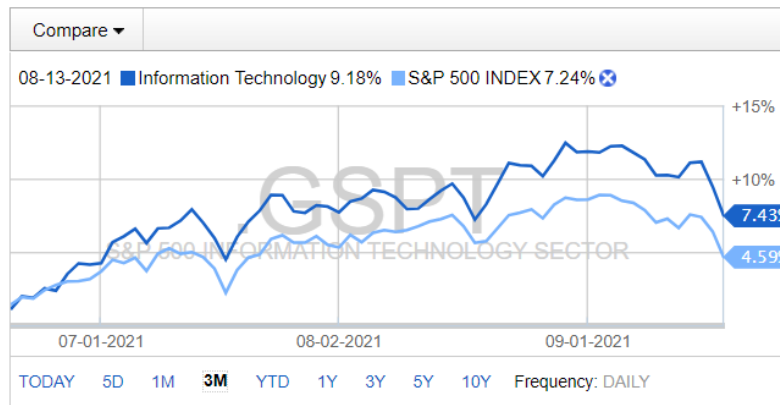
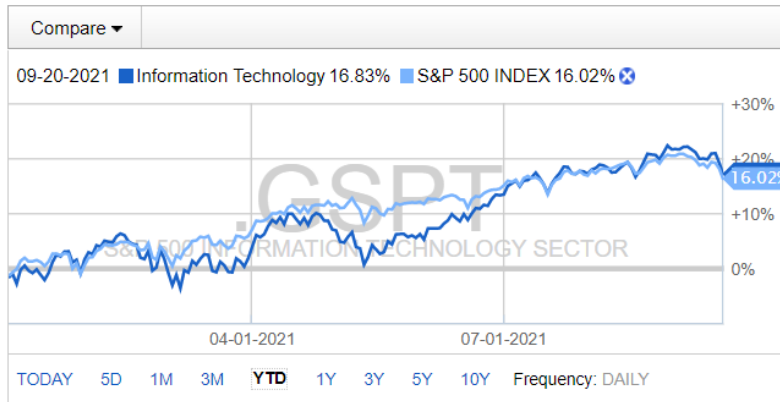
- The above chart shows the 11 sectors in the S&P 500 index. As of July 31<sup>st</sup>, 2021, the information technology sector is the largest sector making up 27.82% of the total index. In the Wisman Fund, the information technology sector makes up 31.89% of the entire portfolio as of July 31<sup>st</sup>, 2021.
- There are 6 industries within the information technology sector. These are communications equipment, electronic equipment & components, IT services, semiconductors & semiconductor equipment, software, and technology hardware & storage.
- We own two stocks in the semiconductor & semiconductor equipment industry (NVIDIA and Taiwan Semiconductor Manufacturing Co). We own one stock in the IT services industry (Accenture), one stock in the software industry (Microsoft), and one stock in the technology hardware & storage industry (Apple).
- As of September 20<sup>th</sup>, 2021, the information technology sector is slightly outperforming the S&P 500 YTD with a return of 16.83%, compared to a 16.02% return YTD from the S&P 500.
- The information technology sector is outperforming the S&P 500 in the past 3 months with a return of 7.43% compared to 4.59%.

# Information Technology Sector Report

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## Investment Management Program (IMP) 2021 Fall Semester

Industry ▲	Last % Change 05:09 PM ET 09/20/2021	% CHANGE			
		YTD	1 - Year	3 - Year	5 - Year
<b>Information Technology</b>	<b>-1.86%</b>	<b>+16.83%</b>	<b>+36.35%</b>	<b>+105.86%</b>	<b>+238.79%</b>
Communications Equipment	-1.60%	+25.66%	+43.31%	+23.26%	+90.11%
Electronic Equipment, Instruments & Components	-1.84%	+20.72%	+49.96%	+56.48%	+132.31%
IT Services	-1.07%	+4.31%	+16.95%	+50.16%	+141.65%
Semiconductors & Semiconductor Equipment	-2.69%	+20.49%	+46.16%	+111.57%	+231.66%
Software	-1.62%	+28.66%	+42.95%	+144.05%	+351.64%
Technology Hardware, Storage & Peripherals	-2.11%	+8.17%	+34.79%	+145.04%	+354.08%
S&P 500 © Index	-1.70%	+16.02%	+31.28%	+49.86%	+103.72%



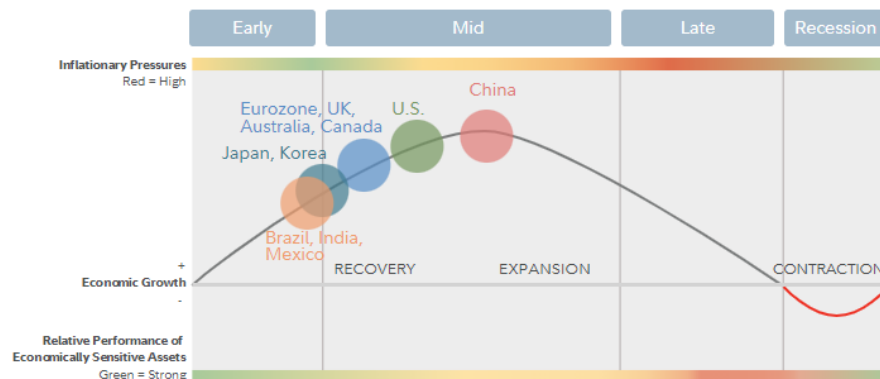
# Information Technology Sector Report

Ryan Waguespack

## Investment Management Program (IMP) 2021 Fall Semester

### Business Analysis:

- There are four stages in the business cycle: early, mid, late, and recession. According to Fidelity, the USA is currently in the mid stage of the cycle.
- At the end of 2020 we entered the early stage as COVID-19 restrictions began to die down and people began to go out again and spend more money. We then moved into the mid stage recently.
- Historically, the information technology sector has been the best performer of all the sectors during this phase, having certain industries, such as semiconductors and hardware, that typically pick up momentum once companies gain more confidence in the stability of an economic recovery and are more willing to make capital expenditures.
- Some external factors that would affect the information technology sector would be tariffs and government regulations, as a lot of the companies manufacture products in foreign countries.
- The information technology sector barriers of entry include brand loyalty, capital-intensive production, and research and development.



# Information Technology Sector Report

Ryan Waguespack

## Investment Management Program (IMP) 2021 Fall Semester

Sector	Early Rebounds	Mid Peaks	Late Moderates	Recession Contracts
Financials	+			
Real Estate	++			--
Consumer Discretionary	++	-	--	
Technology	+	+	--	--
Industrials	++			--
Materials	+	--	++	
Consumer Staples			++	++
Health Care	--		++	++
Energy	--		++	
Communication Services		+		-
Utilities	--	-	+	++

### Economic Analysis:

- During COVID-19, the information technology sector did not take as big of a hit as other sectors. This is mostly due to the fact that many schools and businesses moved to an online environment where technology became very important.
- Many companies continue to use a hybrid workplace, working partially from home and partially in person. This will mean the technology hardware, services, and software will still be heavily relied on.

### Financial Analysis:

- The EPS of the information technology sector are \$4.94, the revenue growth is 38.61%, the ROE is 46.84% and the ROI is 21.45%.
- For the IT services industry, which Accenture is part of, the EPS are \$4.64, the revenue growth is 25.31%, the ROE is 34.34%, and the ROI is 16.32%.
- For the technology hardware, storage & peripherals industry which Apple is part of, the EPS are \$4.91, the revenue growth is 24.68%, the ROE is 124.20%, and the ROI is 43.31%.
- For the software industry which Microsoft is part of, the EPS are \$4.71, the revenue growth is 59.94%, the ROE is 29.89%, and the ROI is 13.43%.
- For the semiconductors & semiconductor equipment industry which NVIDIA and Taiwan Semiconductor Manufacturing Co are both part of, the EPS are \$5.94, the revenue growth is 33.94%, the ROE is 36.69%, and the ROI is 23.25%.

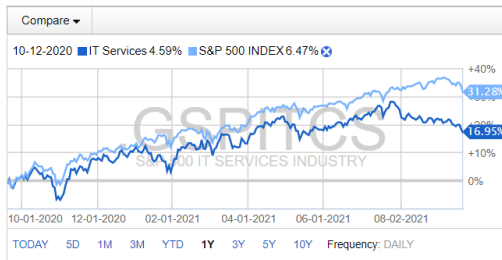
# Information Technology Sector Report

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## Investment Management Program (IMP) 2021 Fall Semester

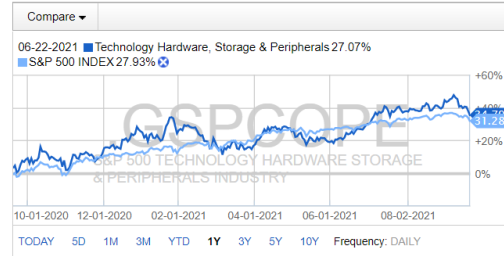
### Sector Fundamentals AS OF 09/20/2021

P/E (Last Year GAAP Actual)	40.26
P/E (This Year's Estimate)	37.09
Enterprise Value	\$857.27B
EPS (TTM)	\$4.94
EPS Growth (TTM vs. Prior TTM)	53.60%
Revenue Growth (TTM vs. Prior TTM)	38.61%
Return on Equity (TTM)	46.84%
Return on Investment (TTM)	21.45%
Total Debt/Equity (TTM)	93.12
Dividend Yield	1.05%



### Industry Fundamentals AS OF 09/20/2021

P/E (Last Year GAAP Actual)	54.98
P/E (This Year's Estimate)	50.93
Enterprise Value	\$204.73B
EPS (TTM)	\$4.64
EPS Growth (TTM vs. Prior TTM)	16.14%
Revenue Growth (TTM vs. Prior TTM)	25.31%
Return on Equity (TTM)	34.34%
Return on Investment (TTM)	16.32%
Total Debt/Equity (TTM)	34.13
Dividend Yield	1.19%



### Industry Fundamentals AS OF 09/20/2021

P/E (Last Year GAAP Actual)	26.23
P/E (This Year's Estimate)	25.08
Enterprise Value	\$2.16T
EPS (TTM)	\$4.91
EPS Growth (TTM vs. Prior TTM)	55.70%
Revenue Growth (TTM vs. Prior TTM)	24.68%
Return on Equity (TTM)	124.20%
Return on Investment (TTM)	43.31%
Total Debt/Equity (TTM)	260.58
Dividend Yield	0.73%

# Information Technology Sector Report

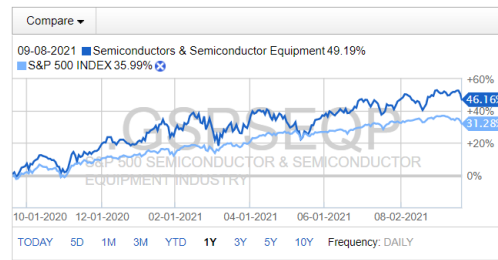
Ryan Waguespack

## Investment Management Program (IMP) 2021 Fall Semester



### Industry Fundamentals AS OF 09/20/2021

P/E (Last Year GAAP Actual)	61.13
P/E (This Year's Estimate)	60.25
Enterprise Value	\$975.17B
EPS (TTM)	\$4.71
EPS Growth (TTM vs. Prior TTM)	42.20%
Revenue Growth (TTM vs. Prior TTM)	59.94%
Return on Equity (TTM)	29.89%
Return on Investment (TTM)	13.43%
Total Debt/Equity (TTM)	69.22
Dividend Yield	0.84%



### Industry Fundamentals AS OF 09/20/2021

P/E (Last Year GAAP Actual)	31.60
P/E (This Year's Estimate)	28.11
Enterprise Value	\$206.51B
EPS (TTM)	\$5.94
EPS Growth (TTM vs. Prior TTM)	83.68%
Revenue Growth (TTM vs. Prior TTM)	33.94%
Return on Equity (TTM)	36.69%
Return on Investment (TTM)	23.25%
Total Debt/Equity (TTM)	68.72
Dividend Yield	1.27%

### Valuation Analysis:

- The trailing P/E ratio for the information technology sector (31.84) is slightly higher than the S&P 500's trailing P/E ratio (30.99). However, the projected P/E ratio for the information technology sector (27.51) is a bit higher than the projected P/E ratio for the S&P 500 (22.12).
- The information technology sector has a very high price-to-book ratio at 10.14 compared to the S&P's price-to-book ratio of 4.29
- The dividend yield for the information technology sector is not very high at just 0.81% compared to the S&P average of 1.33%
- The information technology sector has a very high P/S ratio at 6.46 compared to just 2.85 as the P/S ratio for the S&P. However, the P/CF ratio is much more similar to the S&P 500's P/CF ratio at 29.71 compared to 27.95

# Information Technology Sector Report

Ryan Waguespack

## Investment Management Program (IMP) 2021 Fall Semester

### Information Technology

P/E (TRAILING)	P/E (PROJECTED)	P/B	INDICATED DIV YIELD	P/SALES	P/CASH FLOW
31.84	27.51	10.14	0.81%	6.46	29.71

P/E (Projected) and Dividend Yield are as of August 31, 2021; P/E (Trailing), P/B, P/Sales, and P/Cash Flow are as of March 31, 2021. Fundamentals are updated on approximately the fifth business day of each month.

### S&P 500

P/E (TRAILING)	P/E (PROJECTED)	P/B	INDICATED DIV YIELD	P/SALES	P/CASH FLOW
30.99	22.12	4.29	1.33%	2.85	27.95

P/E (Projected) and Dividend Yield are as of August 31, 2021; P/E (Trailing), P/B, P/Sales, and P/Cash Flow are as of March 31, 2021. Fundamentals are updated on approximately the fifth business day of each month.

### Recommendation:

Equity Sector Weights		
Sector	IMP	S&P 500
Communication Services	6.50%	11.24%
Consumer Discretionary	14.13%	12.05%
Consumer Staples	6.29%	5.85%
Energy	2.45%	2.55%
Financials	12.94%	10.95%
Health Care	10.90%	13.42%
Real Estate	2.21%	2.63%
Industrials	6.22%	8.41%
Information Technology	31.89%	27.82%
Materials	4.55%	2.59%
Utilities	1.92%	2.48%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>

	Year 2021		
	Performance Attribution		
	Sector Allocation	Security Selection	Total
Communication Services	-0.23%	-1.12%	-1.35%
Consumer Discretionary	-0.22%	-1.44%	-1.66%
Consumer Staples	-0.04%	-0.03%	-0.07%
Energy	0.00%	-0.13%	-0.13%
Financials	0.11%	0.04%	0.14%
Healthcare	0.02%	-0.33%	-0.31%
Real Estate	-0.04%	-0.02%	-0.06%
Industrials	0.01%	-0.40%	-0.39%
IT	0.01%	1.84%	1.86%
Materials	-0.02%	0.49%	0.47%
Utilities	0.07%	-0.06%	0.01%
<b>Total</b>	<b>-0.33%</b>	<b>-1.16%</b>	<b>-1.49%</b>

- We are currently overweighting the information technology sector at 31.89% compared to the S&P 500 weight of 27.82%. The current target weight is set at 28.5%.
- Our security selection for the information technology sector was much better than any other sector as of July 31<sup>st</sup>.
- I believe we should continue to overweight the information technology sector because it has been performing very well over the past year and I believe it will continue to perform well as we move through the mid stage of the business cycle.
- We should move the target weight up to 30% since we are already well over the current target weight and won't need to sell much to get down to it.

# **Information Technology Sector Report**

**Ryan Waguespack**

**Investment Management Program (IMP) 2021 Fall Semester**

## **Resources:**

<http://www.sectorspdr.com/sectorspdr/sectors>

[https://eresearch.fidelity.com/eresearch/markets\\_sectors/sectors/sectors\\_in\\_market.jhtml](https://eresearch.fidelity.com/eresearch/markets_sectors/sectors/sectors_in_market.jhtml)

<http://library.morningstar.com/Markets/MarketsHome.aspx>

<https://www.spglobal.com/spdji/en/indices/equity/sp-500/#overview>