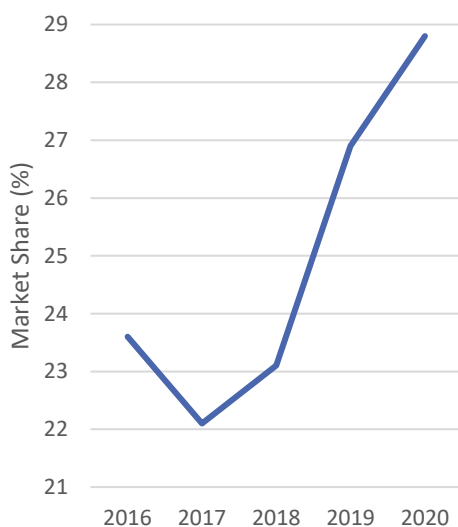


Market Snapshot

Shares Outstanding (mn)	4,443
Market Cap (USD T)	\$1.200
52-week low	\$142.00
52-week high	\$268.25
TTM P/E	22.34
Beta	1.1

Source: Bloomberg

APPLE'S MARKETSHARE



Source: Company Data

Investment Thesis

We issue a HOLD recommendation on APPL with a target price of \$279.83, presenting 9.84% upside. Our opinion is based on a 90%/10% mix of intrinsic (FCFF) and relative (EV/EBITDA & P/E) valuation respectively. Our target price implies a 22.34x 2019F P/E, which is below APPL's historical valuations of 16.0x P/E (ave. 2013A-2018A).

Diversified Business Portfolio:

APPL operates mainly in two business lines creating a diverse portfolio that reduces the probability of shocks in its growth should there be an economic downturn. Additionally, the ecosystem for customers to integrate APPL's various products across different devices successfully fulfills people's strong desire for convenience—a strong contribution to APPL's position as the world's first trillion-dollar technology company.

Thriving Service Segment:

APPL's booming service segment is diversified into Digital Content and Service; it includes Apple news+, Apple Arcade, Apple Care, Apple Music, Apple Card, and iCloud. The integration along all APPL products makes experimenting and moving from on premises to the cloud more painless than that of competitors. An all-time high for services segment with growth accelerating to 18% in 2019. The double-digit services revenue growth surpasses APPL's expectations in addition to an achieving an all-time record in all five of its geographic segments. APPL Service segment posted the second-largest increase in growth rate after Wearables. It saw a 13% year-over-year growth in Q3 2019. Revenue growth is attributed to the App Store, licensing, and AppleCare.

iPhone/iPad Sales Bouncing Back in Sales

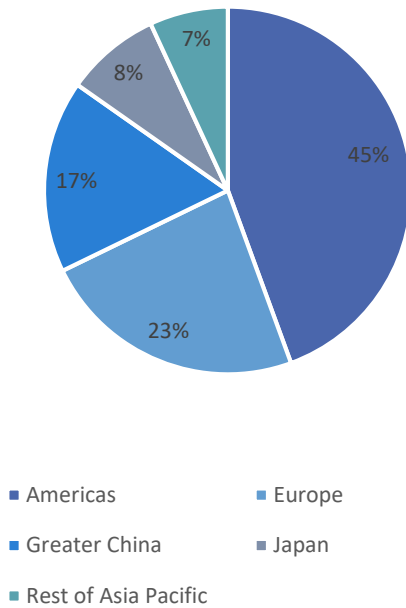
APPL's iPhone, the biggest moneymaker, saw a continual decline in sales compared to last year bringing in \$33.36 bn in revenue compared to \$36.76 bn last year. This is a drop of roughly 9.2%. Global smartphone shipments fell 6.8% in Q1 2019 marking a sixth consecutive quarter of decline. In addition, the total number of units shipped was the lowest in five years coming in at 313.9 million units. With a 15% decline in iPhone revenue across first three quarters of 2019, iPhone revenue in September quarter was \$33 bn; only a 9% decline over last year—a significant improvement. In fiscal 2020, APPL expects iPhone sales to grow up to 6%. Leading the positive momentum will include the iPhone 11 sales and promises of APPL's first 5G iPhone model to be launched in September 2020. Hopes that iPhone sales in 2020 will record modest growth is in APPL's sights.

Valuation

Methodology	Weight	Price
Intrinsic	90%	\$ 279.42
Relative	10%	\$ 507.70
Target Price		\$ 302.25

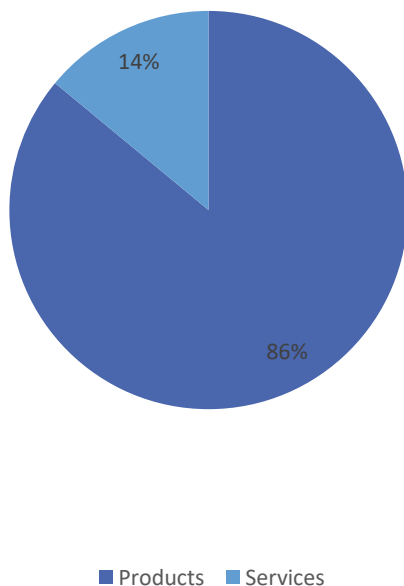
Source: Team Analysis

REVENUE BY GEOGRAPHY



Source: Company Data

REVENUE BY SEGMENT



Source: Company Data

Business Description

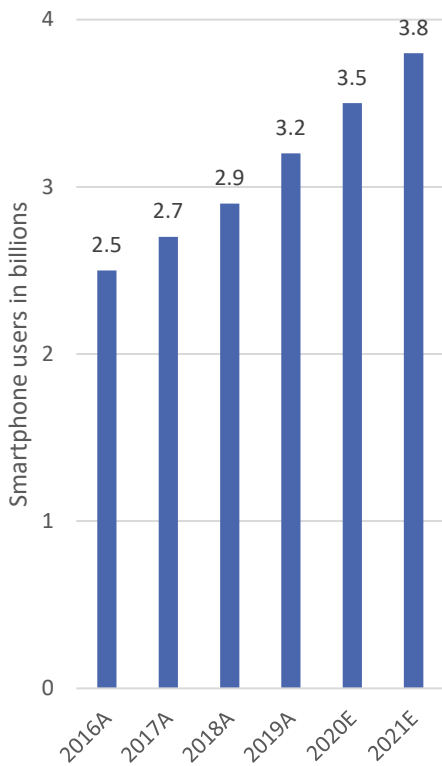
APPL Incorporation is a technology company that was founded in 1976 in Cupertino, CA with the mission to bring the best user experience to its customers through its innovative hardware, software, and services. APPL's customers are primarily in the consumer, small and mid-sized business, education, enterprise and government markets. This is achieved through the various product lines that APPL offer such as iPhone, iPad, Mac, Apple Watch, Apple TV, a portfolio of consumer and professional software applications, iOS, iCloud, Apple Pay. Currently, the company has retail stores in 24 countries globally and employs about 137,000 employees. It provides products and services globally with 45% of its sales in the United States and 55% internationally.

iPhone Catalyst May Arrive in 2020: The introduction of 5G iPhone is likely to occur in September 2020; it will represent a potential catalyst to help drive the next cyclical upturn in iPhone sales. APPL's choice to not introduce 5G iPhone in 2019 is a wise decision due to the limited 5G subscriber base which would not justify the investment until late 2020. As companies are looking for new ways to attract consumers, such as foldable screens, a new wave of technology is expected from Apple in the future.

APPL's Service Segment is Growing: APPL's Wearables, Home and Accessories segment continues to show gains into positive growth outlook for the company. Strong Watch and Airpod sales help offset a 14.9% YTD decline in iPhone revenue. The September 10th, 2019 launch of Watch Series 5 and March 2019 update of Airpods will be main contributing factors for growth. The recent growth in Apple Watch and Airpods helped drive a 36.5% YTD gain in this segment through 3Q 2019, in-line with a 36.6% increase in the same period last year. As the focus is now shifted to the Service's segment, the company has rich opportunities to stretch themselves into new categories such as medical devices. With APPL's venture to improve its health-care apps, devices categories such as heart rate monitors, hearing aids, etc., are plans for APPL to explore in the future.

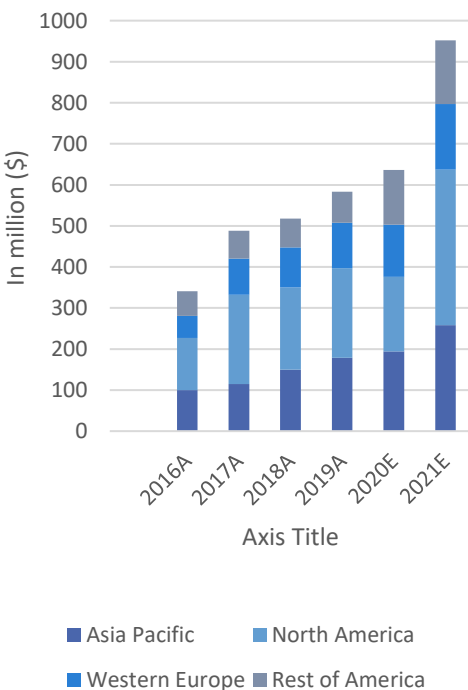
APPL's effort to expand high-margin Services is a growth in recurring revenue to help mute the iPhone's volatile sales cycle. Services segment helps lock users into APPL ecosystem and set it apart from Android, which lacks the same multitude of services.

NUMBER OF SMARTPHONE USERS
WORLDWIDE



Source: Statista

WEARABLE DEVICES IN USE BY
REGION



Source: Statista

Industry Overview

Smartphones: The global smartphone shipments fell 6.8% in Q1 2019, marking a sixth consecutive quarter of decline. The total number of units remained the leading vendor, but its shipments fell 10% to 71.5 million units. Huawei was the chief beneficiary with a 50.2% surge to 59.1 million units. iPhone shipments dropped 23.2% to 40.2 million units. Smartphone sales will continue to remain sluggish through 2019 and into the next year as U.S.-China tensions take toll on smartphone saturated market.

Overall, the smartphone industry is expected to growth exponentially in the near future with the rollout of new smartphones with the compatibility of faster 5G networks in 2020. According to KPMG, the reality of 5G will be a significant catalyst to major long-term changes in the way people communicate, and what gets communicated. With word that 5G can be deployed in closed ecosystem environments such as manufacturing plants and healthcare facilities, 5G will be able to deliver private, secure and reliable communications, massive M2M and IoT communications, real-time data transmission, and enhanced tracking of assets. An estimated \$4.3 trillion in value is to be unlocked through the assessment of 5G implementation in the next 5 years,

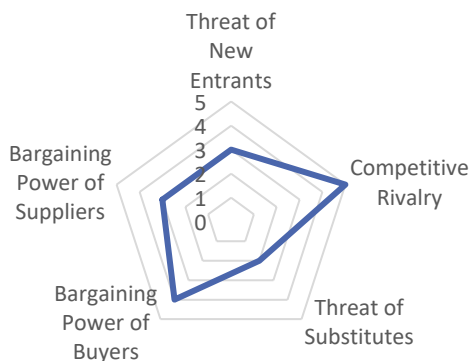
Wearables: The wearables market has started to taken flight the past few years. From 27.4 million devices shipped in 2015 to now more than 178 million wearables devices purchased in 2018, the future in the next 5 years are on tract for a 25.8% increase in sales volume corresponding to about 255 million units. According to Business Insider, the 39.5 million adults in the US were reported using some sort of wearable device back in 2015. It has grown to 81.7 million in 2018 implying a good portion of growth in the future years to come.

The smartwatch segment has contributed to about 30% of the total sales volume of wearable devices in the US. In raw volume, this amounts to 74 million units out of 225 million units of wearable devices in 2019. Experts expect this number to reach 115 million units by 2022; sales of ear-worn devices are forecasted to reach 158 million units sold by 2025. Smart eyewear also forecasted to boost segment's market share to 50% by late 2020.

Competitive Positioning

Threat of New Entrants: An emerging, cheaper phone that has high technology may be a risk to APPL. However, for a new business to compete against APPL, it requires a high capitalization. It is extremely costly to develop a strong brand to compete against large companies already in the smartphone market. However, there are large firms with the financial capability to enter the market. Google has shown its capacity to enter through products the Nexus smartphone.

PORTER'S FIVE FORCES



In this industry, APPL has internal operations with sales outside of the U.S that represents a majority of APPL’s total net sales. A majority of APPL’s supply chain, manufacturing, and assembly activities are located outside of the U.S. We believe a new entrant may not encounter APPL anytime soon with this industries’ need for competitive advantage and big volume suppliers—all which APPL has built up in the past.

Bargaining Power of Suppliers: The global size of its supply chain APPL has garnered has created a variability of suppliers across the globe. The resulting high number of suppliers is an external factor that presents a low force against APPL. The overall supply of semiconductor inputs makes the individual suppliers very low in imposing their demands from big firms like APPL. Mostly APPL utilizes its custom components from only one source.

Another aspect is their supply of Mac computers mainly being manufacture by outsourcing partners located in Asia. The significant consolidation of this manufacturing is handled by a small number of outsource partners, often in a single location. The timing and supply to obtain resources from its distinct suppliers is crucial for APPL to continue forward.

Bargaining Power of Buyers: In the smartphone industry, customers have limited power due to the highly concentration power that APPL has on the optimal phone technology. However, it is easy for customers to change brands, thereby making customers powerful in compelling APPL to ensure customer satisfaction. The availability of comparative information about competing products incentivize buyers to shift from one provider to another.

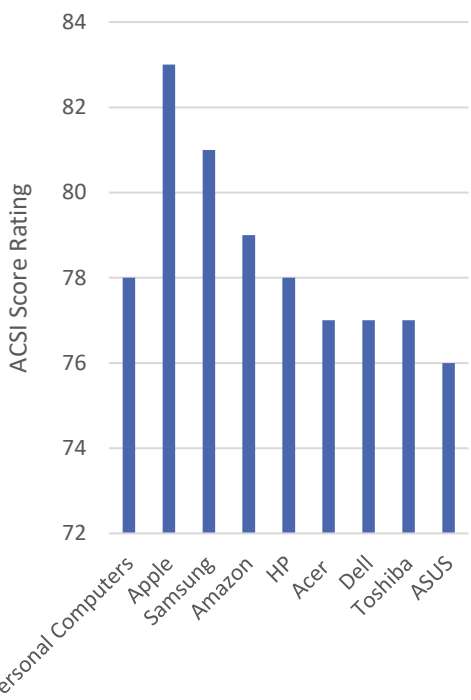
According to American Customer Satisfaction Index (ACSI), APPL has continued to earn a high customer satisfaction rating with a stable rating score of 83. APPL increases its efforts for continual improvements in customer satisfaction to decrease consumer switching.

Threat of Substitute: Due to the concentration in the software space on several companies, there is low risk of new players in the market. There are few companies that can compete with computing technology, consumer electronics, and online services business quite like APPL. Readily available substitutes include digital camera and landline telephone; however, these substitutes have low performance as they have limited features.

In company spaces, specific substitutes like landlines may still have life. Overall another disruptor technology will be needed to replace smartphones.

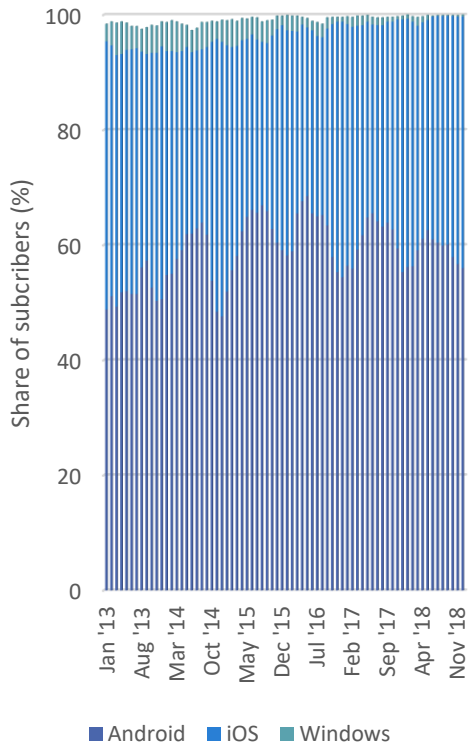
Source: Team Analysis

AMERICAN CUSTOMER SATISFACTION INDEX 2019



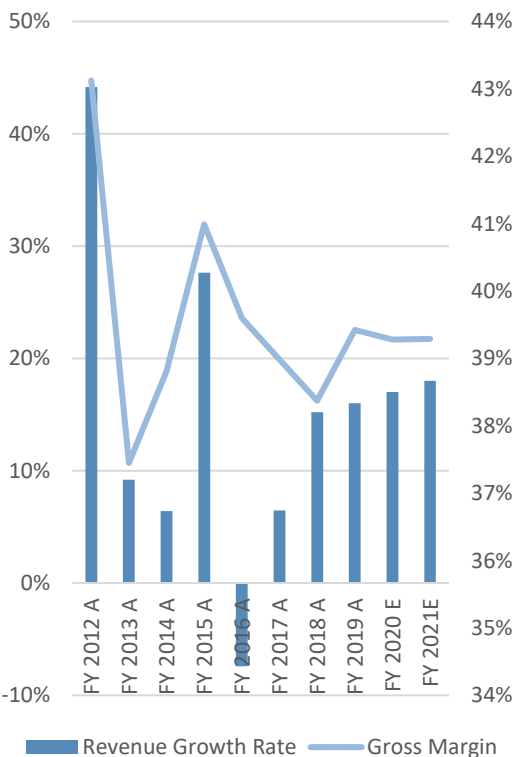
Source: ACSI

MARKET SHARE OF SMARTPHONE SUBSCRIBERS



Source: Statista

REVENUE GROWTH & GROSS MARGIN



Source: Team Analysis

Competitive Rivalry: Companies like Samsung and Android aggressively compete with Apple. The aggressive advertising, imitation of products, and rapid innovation poses a strong risk in the industry environment. One example would be popular apps that are available for Android and iOS devices. On a different note, Tariffs can also cause products to be more expensive for customers, which can make APPL products less competitive and reduce consumer demand. In Q1 2019, iPhone shipments dropped 23.2% to 40.2 million units while Huawei had a 50.2% surge to 59.1 million units.

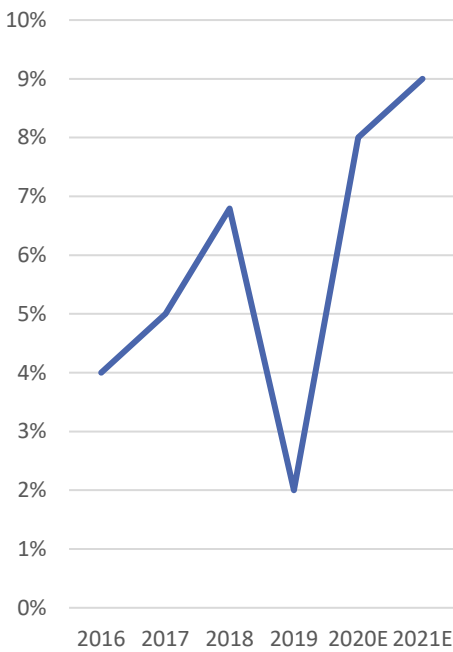
Low switching cost is a big factor; customers have the freedom to switch phones with ease and low risk. Options to switch relate to price, function, accessibility, network externalities, and other related concerns. The combination of all these strong risks proceeds to be the most significant consideration APPL has for strategic management.

Valuation

We issue a HOLD recommendation for APPL with a target price of \$302.25, representing an upside of 5.4% from \$275.15 per share on December 13th, 2019. Our target price is driven out on the relative valuation model with a target price of \$507.70 and the intrinsic valuation model with a target price of \$279.42. We weighted the intrinsic valuation model at a weight of 90% and absolute valuation model at a weight of 10%. We decided to weight the intrinsic valuation model at a higher percentage due to the multiple business lines and economies of scale that APPL has that other companies do not have.

Revenues: We forecasted APPL’s revenue for each of its segmented as reported by the company. Due to the anticipation of 5G in late 2020, we expect iPhone sales to pick up the pace, growing as strong as 6% in the future. Along with the introduction of the iPhone 12 with 5G compatibility will drive revenue to new highs. We also anticipate services to cross the \$50 billion threshold in fiscal 2020 due to its wide variety and APPL’s integration into the streaming services market. Advertising is another source that APPL is starting to gain traction on—and will continue on in the future. Wearables, Home and Accessories establishes another selling point for APPL; Q4 2019 established record highs with \$6.5 billion, up 54% year-over-year. We believe the iPhone sales and services segment with drive revenues along with consumer optimism for the company.

CAPEX/REV



Source: Team Analysis

EFFECTICE TAX RATE



Source: Team Analysis

Margins

We estimate that APPL’s future margin to maintain around 39-42% as it requires for smartphones manufacturing. Changes in exchange rates and the strengthening of the dollar will negatively affect the Company’s net sales and margins as expressed in U.S dollars. We do expect APPL’s gross margin to bounce back from 2017 low growth rate and margin rates of around 38.5%. We believe this won’t result in a major downside into 2020. As trade war escalates, the Chinese government could make it difficult for APPL to manufacture in China, reducing margins.

Capital Expenditures:

We expect APPL to grow its Capital Expenditure greatly from FY19’ due to the anticipated roll out of iPhone 12 supporting 5G. Slowdown of spending on Capex in 2019 was due to the trade tariffs regarding U.S and China. Now with the expected tariffs to be lowed due to Phase One on Jan 15th, 2020— we believe APPL will gain confidence in spending. Additionally, Capex will to grow as APPL expands its research on Internet of Things & improving its Service segment.

Taxes:

APPL has operations globally in multiple tax jurisdictions and has effective tax rates that fluctuate over the past couple of years. Most recently, the Tax Cuts and Jobs Act of 2017 reduced APPL’s company tax rate to 16.49% in 2019. Due to recent. We decide to increase the effective tax rate gradually over the next 5 years, approaching a 20% effective tax rate in 2020 to maintain a more conservative approach due to the uncertainty of the 2020 US presidential election which could affect the corporation tax rates in the United States.

Terminal Growth Rate:

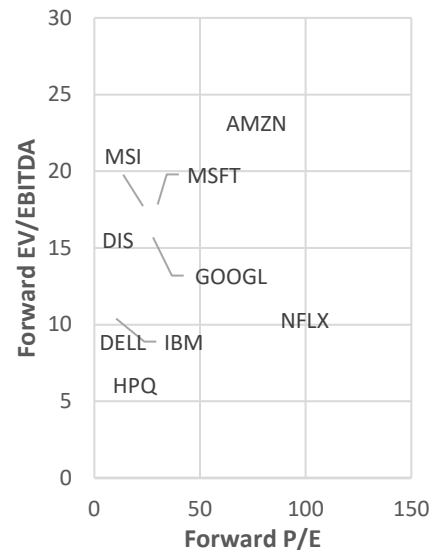
Our 2.5% terminal growth rate assumption takes into account the long term growth rate released by Bloomberg 2.1% until 2050. Additionally, we added a 0.5% premium to the terminal growth rate as we believe the use of technology is only going to accelerate in the future and APPL will be in a position to grow as a company being one of the largest smartphone companies globally.

WACC:

We arrived at a WACC of 7.80% for APPL. A detailed breakdown of our WACC is presented below:

ASSUMPTION	RATE	METHODOLOGY
Risk-Free Rate	1.77%	US 30-year Treasury Bond
Equity Risk Premium	5.96%	Excess Return of S&P500 over risk-free rate
Beta (x)	1.1	Value Line
Cost of Equity	8.33%	Calculated via CAPM
Cost of Debt	2.19%	Estimated future borrowing rate of APPL based on AAA Standard & Poor's Rating
Tax Rate	15.90%	Effective Tax Rate
WACC	7.80%	

COMPARABLE ANALYSIS



Source: Morningstar

Relative Valuation:

We identified 9 peers which have product lines operating in the smartphone/tablet and services industry. Due to the different sales mix that APPL has, we included businesses that revolved around APPL's main competitors alongside smartphones and streaming services with the launch of APPL TV plus. We use P/E due to its common use in industries to determine a price and EV/EBITDA due to the high capital intensity nature of the industry.

Financial Analysis

Less cash and increasing amount of debt:

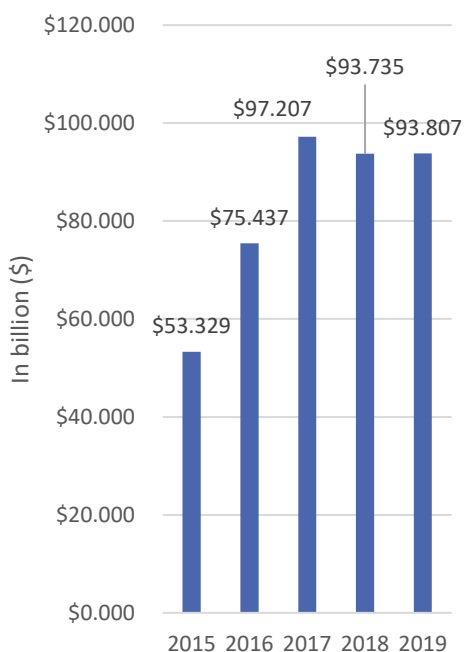
Cash was listed at \$205.9 billion, \$237.1 billion, \$277.0 billion, \$237.6 billion at the end of fiscal 2019, 2018, 2017, 2016 respectively. The steady decline of cash from 2017 is due to APPL's investment into new products including MacBook and iPad pro series.

Debt was \$93.807 billion at the end of 4Q19. APPL plans to use the money for its latest bond issuance for general corporate purposes, such as share buybacks, dividend payments, and acquisitions.

Cash Flow:

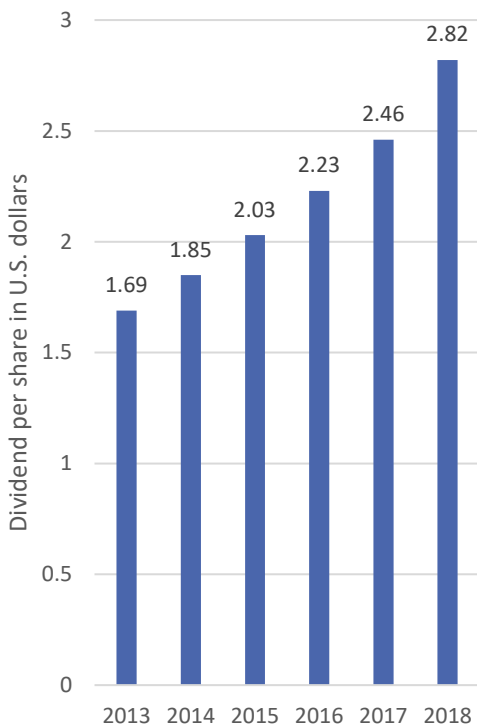
According to Jefferson Research, an equity and model portfolio service, cash flow quality for APPL remains strong. The operating cash flow quality improved this fiscal year with reported number of 69,391M, around 8% higher than fiscal year of 2018. As APPL continues to generate positive operating margins and cash flow, investors are hopeful for the future.

ANNUAL LT DEBT



Source: Company Data, Team Analysis

DIVIDEND PER SHARE



Source: Company Data

Increased share repurchases:

Apple added \$75 billion in share repurchase authorization in April 2019. In April 2018, Apple announced a new \$100 billion share repurchase authorization. It also boosted its capital return program by \$50 billion in both April 2017 and April 2016

Raising of quarterly dividends:

In April 2017, Apple raised its dividend by 10.5%, to \$0.63 per share and in April 2018 hiked its quarterly dividend by 16%, to \$0.73 per share. In April 2019, Apple raised its quarterly dividend by 5%, to \$0.77 per common share. Our dividend forecasts are \$3.20 for FY20 and \$3.36 for FY21.

Investment Risk

Market Risk | Competitive market

The market for APPL's products and services are highly competitive in this age—rapid technological smartphones with aggressive pricing and low-cost structures is what all companies in this segment are fighting for. An important note in management development was the news regarding the resignation of the chief of design, Jon Ive. Ive was an important factor of the phones distinct design. With smartphones needing to have a “wow” factor every yearly release, consumer demand may vary in the future.

Market Risk | Dependent on overseas

The news revolving around the 2020 election is set to be painstaking for major technology companies. The democratic candidates are focused on limiting the power and influence of Big Tech such as Amazon, Google, Facebook, and APPL. However, APPL's strong corporate governance structure under the leadership of Tim Cook has ensured that the company stays focused and pushes for more innovative ways to manufacture in the future.

Market Risk | Slowdown in global smartphone sales: According to Bloomberg, it was reported that global sales of smartphones declined 1.7% in the second quarter of 2019, totaling 368 units. This slowdown revolves around consumer demand—less consumers feel the need to upgrade from the accustomed 2 yearly upgrade now turned to 3-4 years. However, APPL has caught on quickly and shifted its business towards the service segment.

U.S and China trade war may impact manufacturing in the near future, making it more difficult for APPL to operate through regulatory pressures and taxes. Chinese consumers could also resist the iPhone and other APPL products due to anti-American sentiment.

SHARE OF APPLE'S REVENUE BY PRODUCT

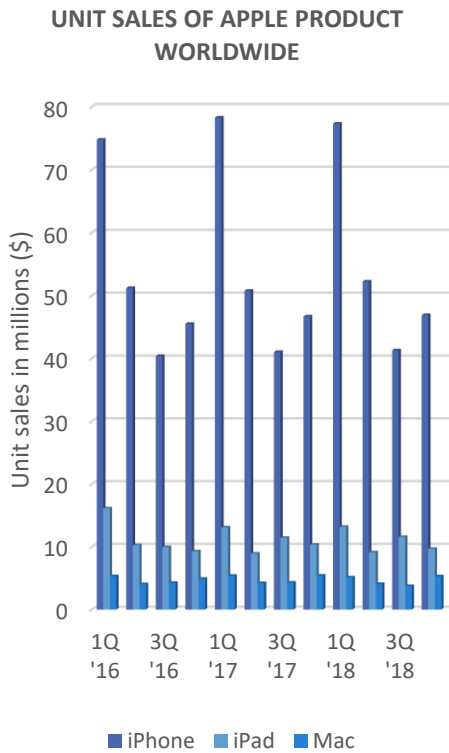


Source: IMF

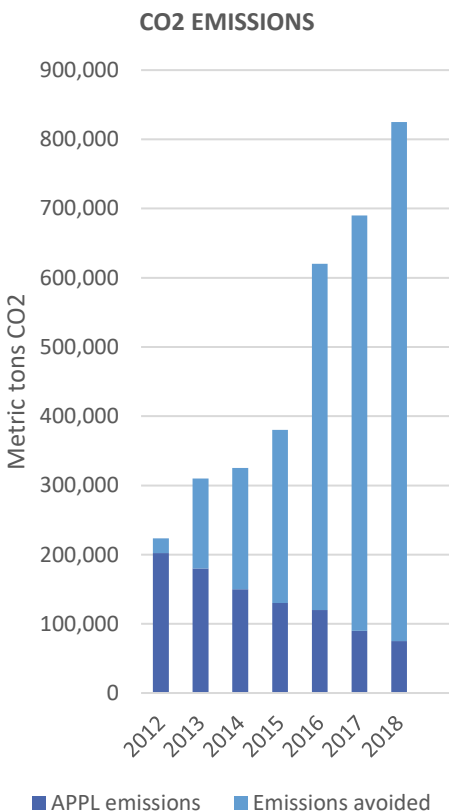
Operational Risk | iPhone Security Risk

APPL's products and services are designed to include intellectual property owned by third parties which requires licensing from third parties. As APPL competes for IP now or and in the future, APPL's products and services may infringe existing patents or IP rights of other companies. It is crucial for APPL to secure the right to use third-party IP to protect APPL's rights to promote ethical use of creative property.

In August 2018, Apple's market cap reached USD 1 trillion, backed by continuous revenue growth from its services and hardware segments. Problems arising operational challenges may be tied to labor relations, ongoing tax avoidance investigations and cybersecurity risk. Apple is still highly exposed to the risk of being implicated in labor and human rights controversies; however, APPL's extensive supply chain and brand visibility sets a high bar in supply chain transparency and compliance monitoring for the industry.



Source: Company Data



Source: Company Data

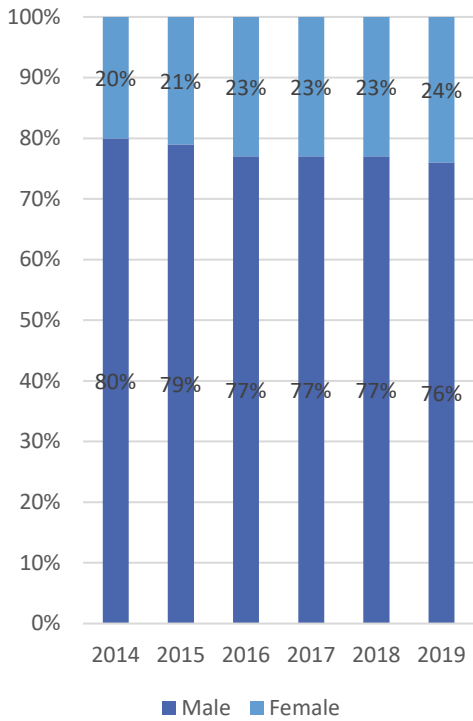
Environmental and Corporate Governance

Environmental:

Earlier this year, APPL announced its 2019 Environmental Responsibility Report which details the progress it made of the last years regarding reduction of pollution. It was reported that 35% reduction in carbon footprint occurred over the last 3 years. The future of APPL upholds goals of a mining-free future, transition to 100% renewable energy, transition products to low-carbon alternatives, and more.

Since 2011, APPL has reduced its emissions ranging from offices to data center by 64%—even when its energy use has increased more than 3 times. With business focusing on sustainability, APPL is on the right track to succeed their goal of limiting waste in the future.

GLOBAL GENDER



Corporate Governance:

Since Tim Cook took over as Chief Executive Officer of APPL in 2011, he serves alongside 15 other members on the Board of Directors. APPL’s Board of Directors oversees the Chief Executive officer and other senior management including ethical operation of Apple on a day-to-day basis. Under Cook’s leadership, APPL has engaged in major investments towards a sustainable future such as renewable energy. Cook has instilled firm values into APPL—discouraging ideas of a ‘surveillance society’ by not allowing government to create backdoor on APPL’s own encrypted software. We believe this is beneficial for the company as APPL has a big global presence. A solid stance on its value is necessary to keep a company from succumbing to allegations. Additionally, in 2017, APPL has effectively empowered women by sponsoring health education at several supplier facilities in China and India. This created the ability for women in factories to take charge of personal health and well-being.

APPENDIX 1: FINANCIAL RATIOS

	FY 2012A	FY 2013A	FY 2014A	FY 2015A	FY 2016A	FY 2017A	FY 2018A	FY 2019A	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E
Gross Margin	43.87	37.62	38.59	40.06	38.92	38.30	38.34	37.81	38.19	38.95	40.12	40.52	41.33	42.57	43.85	45.16	46.52	47.91	49.35
Operating Margin	35.30	28.67	28.72	30.48	27.65	26.56	26.61	24.44	24.03	26.43	29.10	32.01	35.21	38.74	42.61	46.87	51.56	56.71	62.38
Return on Assets	19.68	22.84	27.06	28.54	19.34	18.01	20.45	13.87	16.07	17.6734712	19.44082	21.3849	23.52339	25.87573	28.4633	31.30963	34.4406	37.88466	41.67312
Return on Common Equity	30.54	35.28	41.67	42.84	30.64	33.61	46.25	36.87	49.36	39.4908664	31.59269	34.75196	38.22716	42.04987	37.84489	34.0604	30.65436	27.58892	27.56133
Revenue Growth Rate	44.58	9.20	6.95	27.86	-7.97	6.28	16.19	-2.50	9.99	10.7904441	11.65368	12.58597	13.59285	12.23357	11.01021	9.909189	8.91827	8.026443	7.223799
Current Ratio	2.74	2.01	1.61	1.50	1.68	1.08	1.11	1.28	1.13	1.2462186	1.233756	1.221419	1.209205	1.197113	1.185141	1.17329	1.290619	1.419681	1.561649
Net Debt/Equity		0.13	0.26	0.41	0.56	0.82	0.79	1.01	0.56	0.13	0.26	0.41	0.56	0.82	0.79	1.01	0.56	0.13	0.26
Dividend Payout Ratio	0.00	0.00	0.00	5.94	28.48	27.92	21.41	25.98	22.64	29.01	31.00	32.99	34.97	36.96	38.95	40.93	42.92	44.90	46.89

APPENDIX 2: INCOME STATEMENT

In Millions of USD except Per Share	FY 2017	FY 2018	FY 2019E	FY 2020E	FY 2021E	FY2022	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E	FY 2029E	FY 2030E
Revenue	228,594.00	265,595.00	286,842.60	309,790.01	334,573.21	361,339.07	386,632.80	413,697.10	442,655.89	473,641.81	502,060.31	532,183.93	558,793.13	586,732.79
+ Sales & Services Revenue	228,594.00	265,595.00												
- Cost of Revenue	141,048.00	163,756.00	168,668.68	173,728.74	178,940.60	184,308.82	189,838.09	195,533.23	201,399.22	207,441.20	213,664.44	220,074.37	226,676.60	233,476.90
Gross Profit	87,546.00	101,839.00	118,173.92	136,061.27	155,632.61	177,030.24	196,794.71	218,163.87	241,256.67	266,200.60	288,395.88	312,109.56	332,116.53	353,255.89
- Operating Expenses	26,842.00	31,177.00	32,464.26	33,817.34	35,239.99	36,736.13	38,309.93	39,965.83	41,708.49	43,542.87	45,474.22	47,508.09	49,650.36	51,907.28
+ Selling, General & Admin	15,261.00	16,705.00	17,707.30	18,769.74	19,895.92	21,089.68	22,355.06	23,696.36	25,118.14	26,625.23	28,222.75	29,916.11	31,711.08	33,613.74
+ Research & Development	11,581.00	14,236.00	14,520.72	14,811.13	15,107.36	15,409.50	15,717.69	16,032.05	16,352.69	16,679.74	17,013.34	17,353.60	17,700.68	18,054.69
+ Other Operating Expense	0.00	236.00	236.24	236.47	236.71	236.95	237.18	237.42	237.66	237.89	238.13	238.37	238.61	238.85
Operating Income (Loss)	60,704.00	70,662.00	85,709.66	102,243.92	120,392.62	140,294.12	158,484.78	178,198.04	199,548.18	222,657.73	242,921.66	264,601.48	282,466.16	301,348.61
- Non-Operating (Income) Loss	-2,646.00	-1,985.00	-1,534.09	-991.40	-341.06	435.54	1,360.15	2,458.23	3,759.57	5,299.03	7,117.42	9,262.47	11,790.03	14,765.47
+ Interest Expense, Net	-2,878.00	-2,446.00	-2,008.92	-1,480.48	-844.80	-83.31	825.73	1,907.77	3,192.60	4,715.05	6,515.92	8,642.92	11,151.90	14,108.20
+ Interest Expense	2,323.00	3,240.00	3,790.80	4,435.24	5,189.23	6,071.39	7,103.53	8,311.13	9,724.02	11,377.11	13,311.22	15,574.12	18,221.73	21,319.42
- Interest Income	5,201.00	5,686.00	5,799.72	5,915.71	6,034.03	6,154.71	6,277.80	6,403.36	6,531.43	6,662.06	6,795.30	6,931.20	7,069.83	7,211.22
+ Foreign Exch (Gain) Loss	0.00	0.00												
+ Other Non-Op (Income) Loss	232.00	461.00	474.83	489.07	503.75	518.86	534.43	550.46	566.97	583.98	601.50	619.55	638.13	657.28
Pretax Income (Loss), GAAP	64,089.00	72,903.00	75,090.09	77,342.79	79,663.08	82,052.97	84,514.56	87,049.99	89,661.49	92,351.34	95,121.88	97,975.54	100,914.80	103,942.25
- Income Tax Expense (Benefit)	15,738.00	13,372.00	13,773.16	14,186.35	14,611.95	15,050.30	15,501.81	15,966.87	16,445.87	16,939.25	17,447.43	17,970.85	18,509.98	19,065.27
+ Current Income Tax	9,772.00	45,962.00	47,340.86	48,761.09	50,223.92	51,730.64	53,282.56	54,881.03	56,527.46	58,223.29	59,969.99	61,769.08	63,622.16	65,530.82
+ Deferred Income Tax	5,966.00	-32,590.00	-33,567.70	-34,574.73	-35,611.97	-36,680.33	-37,780.74	-38,914.16	-40,081.59	-41,284.04	-42,522.56	-43,798.23	-45,112.18	-46,465.55
Income (Loss) from Cont Ops	48,351.00	59,531.00	54,330.87	54,951.18	94,275.02	97,103.27	100,016.37	103,016.86	106,107.37	109,290.59	112,569.31	115,946.39	119,424.78	123,007.52
Income (Loss) Incl. MI	48,351.00	59,531.00	54,330.87	54,951.18	94,275.02	97,103.27	100,016.37	103,016.86	106,107.37	109,290.59	112,569.31	115,946.39	119,424.78	123,007.52
- Minority Interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Income Avail to Common, GAAP	48,351.00	59,531.00	54,330.87	54,951.18	94,275.02	97,103.27	100,016.37	103,016.86	106,107.37	109,290.59	112,569.31	115,946.39	119,424.78	123,007.52

APPENDIX 3: BALANCE SHEET

In Millions of USD except Per Share	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Total Assets													
+ Cash, Cash Equivalents & STI	66,301.00	67,627.02	68,979.56	70,359.15	71,766.33	73,201.66	74,665.69	76,159.01	77,682.19	79,235.83	80,820.55	82,436.96	84,085.70
+ Cash & Cash Equivalents	25,913.00	27,208.65	28,569.08	29,997.54	31,497.41	33,072.28	34,725.90	36,462.19	38,285.30	40,199.57	42,209.55	44,320.02	46,536.02
+ ST Investments	40,388.00	41,599.64	42,847.63	44,133.06	45,457.05	46,820.76	48,225.38	49,672.15	51,162.31	52,697.18	54,278.09	55,906.44	57,583.63
+ Accounts & Notes Receiv	23,186.00	23,649.72	24,359.21	24,846.40	25,343.32	25,850.19	26,367.19	26,894.54	27,432.43	27,981.08	28,540.70	29,111.51	29,693.74
+ Inventories	3,956.00	4,074.68	4,196.92	4,322.83	4,452.51	4,586.09	4,723.67	4,865.38	5,011.34	5,161.68	5,316.53	5,476.03	5,640.31
+ Other ST Assets	37,896.00	40,548.72	43,387.13	46,424.23	49,673.93	53,151.10	56,871.68	60,852.69	65,112.38	69,670.25	74,547.17	79,765.47	85,349.05
Total Current Assets	131,339.00	135,900.14	140,922.82	145,952.60	151,236.10	156,789.04	162,628.24	168,771.62	175,238.34	182,048.84	189,224.95	196,789.97	204,768.80
+ Property, Plant & Equip, Net	41,304.00	53,492.72	68,590.53	87,235.82	110,201.43	138,422.38	173,029.19	215,388.05	267,149.04	330,304.23	407,257.51	500,908.53	614,753.70
+ Property, Plant & Equip	90,403.00	108,483.60	130,180.32	156,216.38	187,459.66	224,951.59	269,941.91	323,930.29	388,716.35	466,459.62	559,751.55	671,701.86	806,042.23
- Accumulated Depreciation	49,099.00	54,990.88	61,589.79	68,980.56	77,258.23	86,529.21	96,912.72	108,542.25	121,567.32	136,155.39	152,494.04	170,793.33	191,288.53
+ LT Investments & Receivables	170,799.00	182,754.93	195,547.78	209,236.12	223,882.65	239,554.43	256,323.24	274,265.87	293,464.48	314,007.00	335,987.48	359,506.61	384,672.07
+ Other LT Assets	22,283.00	24,288.47	26,474.43	28,857.13	31,454.27	34,285.16	37,370.82	40,734.20	44,400.27	48,396.30	52,751.96	57,499.64	62,674.61
Total Noncurrent Assets	234,386.00	260,536.12	290,612.74	325,329.07	365,538.35	412,261.97	466,723.26	530,388.11	605,013.79	692,707.52	795,996.96	917,914.78	1,062,100.38
Total Assets	365,725.00	396,436.26	431,535.56	471,281.68	516,774.45	569,051.01	629,351.49	699,159.74	780,252.13	874,756.36	985,221.90	1,114,704.75	1,266,869.19
Liabilities & Shareholders' Equity													
+ Payables & Accruals	53,752.00	63,570.08	69,738.69	76,522.28	83,982.33	92,186.46	101,209.06	111,131.96	122,045.17	134,047.70	147,248.47	161,767.27	177,735.89
+ Accounts Payable	55,888.00	61,476.80	67,624.48	74,386.93	81,825.62	90,008.18	99,009.00	108,909.90	119,800.89	131,780.98	144,959.08	159,454.99	175,400.49
+ Other Payables & Accruals	-2,136.00	2,093.28	2,114.21	2,135.35	2,156.71	2,178.28	2,200.06	2,222.06	2,244.28	2,266.72	2,289.39	2,312.28	2,335.41
+ ST Debt	20,748.00	22,822.80	25,105.08	27,615.59	30,377.15	33,414.86	36,756.35	40,431.98	44,475.18	48,922.70	53,814.97	59,196.47	65,116.11
+ Other ST Liabilities	41,429.00	44,329.03	47,432.06	50,752.31	54,304.97	58,106.32	62,173.76	66,525.92	71,182.74	76,165.53	81,497.11	87,201.91	93,306.05
Total Current Liabilities	115,929.00	128,628.63	140,161.62	152,754.82	166,507.74	181,529.36	197,939.11	215,867.80	235,458.81	256,869.21	280,271.16	305,853.36	333,822.64
+ LT Debt	93,735.00	96,547.05	99,443.46	102,426.77	105,499.57	108,664.56	111,924.49	115,282.23	118,740.69	122,302.91	125,972.00	129,751.16	133,643.70
+ Other LT Liabilities	48,914.00	51,848.84	54,959.77	58,257.36	61,752.80	65,457.97	69,385.44	73,548.57	77,961.48	82,639.17	87,597.52	92,853.38	98,424.58
Total Noncurrent Liabilities	142,649.00	148,395.89	154,403.23	160,684.12	167,252.37	174,122.52	181,309.94	188,830.80	196,702.18	204,942.09	213,569.53	222,604.54	232,068.27
Total Liabilities	258,578.00	277,024.52	294,564.85	313,438.94	333,760.10	355,651.88	379,249.04	404,698.60	432,160.99	461,811.29	493,840.69	528,457.90	565,890.92
Total Equity	107,147.00	110,361.41	113,672.25	117,082.42	120,594.89	124,212.74	127,939.12	131,777.30	135,730.61	139,802.53	143,996.61	148,316.51	152,766.00
Total Liabilities & Equity	365,725.00	387,385.93	408,237.11	430,521.36	454,354.99	479,864.62	507,188.16	536,475.90	567,891.60	601,613.83	637,837.30	676,774.41	718,656.92

APPENDIX 4: INTRINSIC VALUATION

In Millions of USD except Per Share	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030
Cash from Operating Activities																		
Net Income	37,037.0	39,510.0	53,394.0	45,687.0	48,351.0	59,531.0	54,330.9	54,951.2	130,412.3	134,324.7	138,354.4	142,505.0	146,780.2	151,183.6	155,719.1	160,390.7	165,202.4	170,158.5
Depreciation	6,757.0	7,946.0	11,257.0	10,505.0	10,157.0	10,903.0	12,547.0	10,010.3	10,475.0	10,836.3	10,776.2	10,815.0	10,909.0	10,909.8	10,676.0	10,771.1	10,813.3	10,810.1
Deffered Income Taxes	1,892.0	2,863.0	1,382.0	4,938.0	5,966.0	-32,590.0	340.0	510.0	525.3	541.1	557.3	574.0	591.2	609.0	627.2	646.1	665.4	685.4
Change in Non Cash Working Cap	-900.00	-9,076.00	-12,839.00	-6,459.00	-7,058.00	-4,541.00	-9,464.51	-7,862.85	-8,943.01	-9,876.60	-10,904.01	-12,034.58	-13,278.63	-14,647.46	-16,153.54	-17,810.57	-19,633.59	-21,639.18
Cash Flow from Operations	44,786.0	41,243.0	53,194.0	54,671.0	57,416.0	33,303.0	57,753.4	57,608.6	132,469.6	135,825.5	138,783.9	141,859.4	145,001.8	148,054.9	150,868.8	153,997.2	157,047.6	160,014.7
Capital Expenditures	-9,076.0	-9,813.0	-11,488.0	-12,734.0	-12,451.0	-13,313.0	-11,112.4	-11,959.8	-12,219.7	-12,314.0	-12,211.2	-12,183.8	-11,963.4	-12,177.7	-12,178.4	-12,170.0	-12,142.9	-12,134.7
FCFF	35,710.0	31,430.0	41,706.0	41,937.0	44,965.0	19,990.0	46,641.0	45,648.8	120,249.9	123,511.4	126,572.7	129,675.7	133,038.4	135,877.2	138,690.3	141,827.2	144,904.7	147,880.1
Discount Rate	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%
Time Amount							0.07	1.07	2.07	3.07	4.07	5.07	6.07	7.07	8.07	9.07	10.07	11.07
PV of FCFF							46635.02	48034.07	49475.09	50959.35	52488.13	54062.77	55684.65	57355.19	59075.85	60848.12	62673.57	64553.77

APPENDIX 5: RELATIVE VALUATION

Ticker	Forward P/E	Forward EV/EBITDA
GOOGL	27.76	15.69
MSI	23.02	17.73
MSFT	29.96	17.83
IBM	10.32	10.39
DELL	5.68	10.84
HPQ	9.06	7.48
NFLX	99.58	12.6
DIS	25.03	16.22
AMZN	76.82	25.42

DCF Method	Price	Weighted	Weighted Price
	\$ 279.42	90%	\$ 251.48
Relative Valuation Method	\$ 507.70	10%	\$ 50.77
Target Price			\$ 302.25