

Discounted Cash Flows Model using (Income Statement, Balance Sheet, and Statement of Cash Flows)

Introduction

The discounted cash flow (DCF) model is a financial valuation method that estimates the value of an investment or asset based on its future cash flows. It is based on the idea that the value of an investment is the present value of the expected future cash flows it will generate.

DCF analysis uses financial statements such as the income statement, balance sheet, and statement of cash flows to forecast future cash flows and determine the discount rate to use in the calculation. The income statement shows a company's revenues and expenses over some time and is used to forecast future earnings. The balance sheet presents a company's assets, liabilities, and equity at a specific point in time, and is used to forecast future changes in these items. The statement of cash flows shows a company's inflows and outflows of cash and is used to forecast future cash flows.

DCF analysis is useful because it allows investors to make informed decisions about whether to invest in a company by considering the potential future returns. It is commonly used in investment and financial analysis to evaluate the potential returns of an investment, such as stocks, real estate, or other assets.

DCF analysis can provide valuable insights into a company's financial health and prospects. It can help investors understand the company's growth potential, risk profile, and overall financial performance. It can also highlight potential areas of concern, such as declining revenues or increasing debt levels. Overall, DCF analysis is a powerful tool that can help investors make informed decisions about whether to invest in a company.

Assumption

In this analysis, I am assuming that Apple stock is currently undervalued and I will be using the Bloomberg Excel Discounted Cash Flow (XDCF) method to determine whether my assumption is correct. The XDCF method involves forecasting the expected future cash flows of a company and discounting them back to the present value using a discount rate. By estimating the present value of the company's future cash flows and comparing it to the current market price of the stock, I can determine whether the stock is undervalued or overvalued.

To support my assumption that Apple stock is undervalued, I will be carefully reviewing the company's financial statements, industry trends, and other relevant information on Bloomberg Terminal. I will also consider any potential risks or uncertainties that could impact the company's future cash flows, such as changes in consumer demand or competitive pressures. By thoroughly analyzing these factors, I hope to gain a better understanding of the value of Apple stock and whether it presents a good investment opportunity.

Apple Inc (U.S.) APPL US Equity



Figure 1: Source - Bloomberg Terminal

For this project, I have selected Apple Inc., which is a leading technology company that designs and develops a range of innovative products and services for consumers and businesses around the world. The company is best known for its iPhone, iPad, and Mac personal computers, which have set the standard for design and functionality in their respective markets. Apple also offers a range of other products and services, including the Apple Watch, Air Pods, Apple Music, and iCloud, which help to create a seamless and integrated experience for users. In addition to its consumer products and services, Apple is also a major player in the enterprise market, with a range of products and services designed for business customers. The company has a strong presence in the education market as well, with a range of products and services tailored to the needs of educators and students. Overall, Apple is a global leader in the technology industry, with a strong brand, innovative products, and a loyal customer base.

Bloomberg Excel Discounted Cash Flow (XDCF)

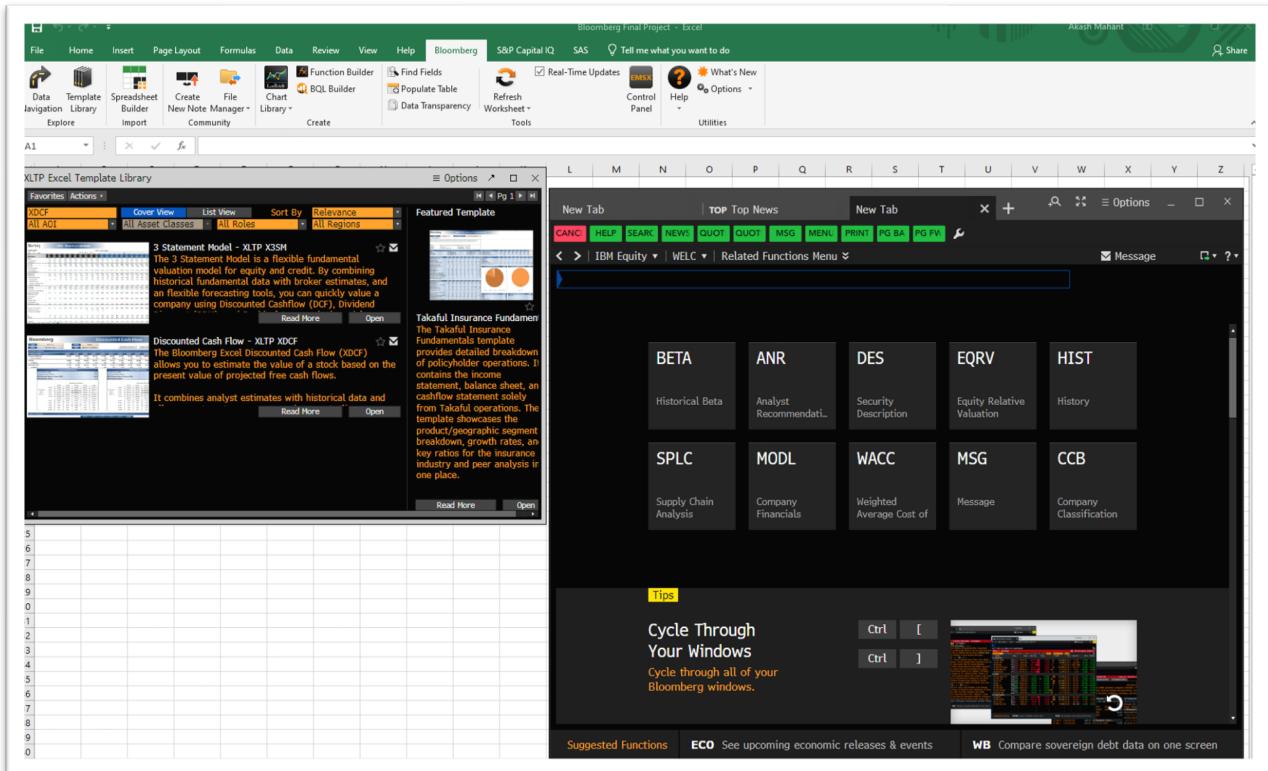


Figure 2: Source - Bloomberg Terminal

Bloomberg Excel Discounted Cash Flow (XDCF) is a financial tool provided by Bloomberg that allows users to perform discounted cash flow (DCF) analysis in Excel. DCF analysis is a financial valuation method that estimates the value of an investment or asset based on its expected future cash flows. XDCF provides users with pre-built templates and functions that can be used to perform DCF analysis within Excel.

To use XDCF, users need to have a Bloomberg Terminal subscription and the Bloomberg Excel Add-In installed on their computer. XDCF is accessed through the Bloomberg Excel Add-In, which is a set of functions and tools that allow users to access Bloomberg data and functionality within Excel.

XDCF provides a range of templates and functions that can be used to perform various types of DCF analysis, such as terminal value calculations, dividend discount model analysis, and multi-stage growth models. It also provides a range of tools and functions for working with financial data within Excel, such as functions for retrieving data from Bloomberg, calculating financial ratios, and generating charts and graphs.

Overall, XDCF is a powerful tool that can be used by financial professionals, investors, and analysts to perform DCF analysis and work with financial data within Excel.

Summary Analysis of Apple Inc (U.S.)

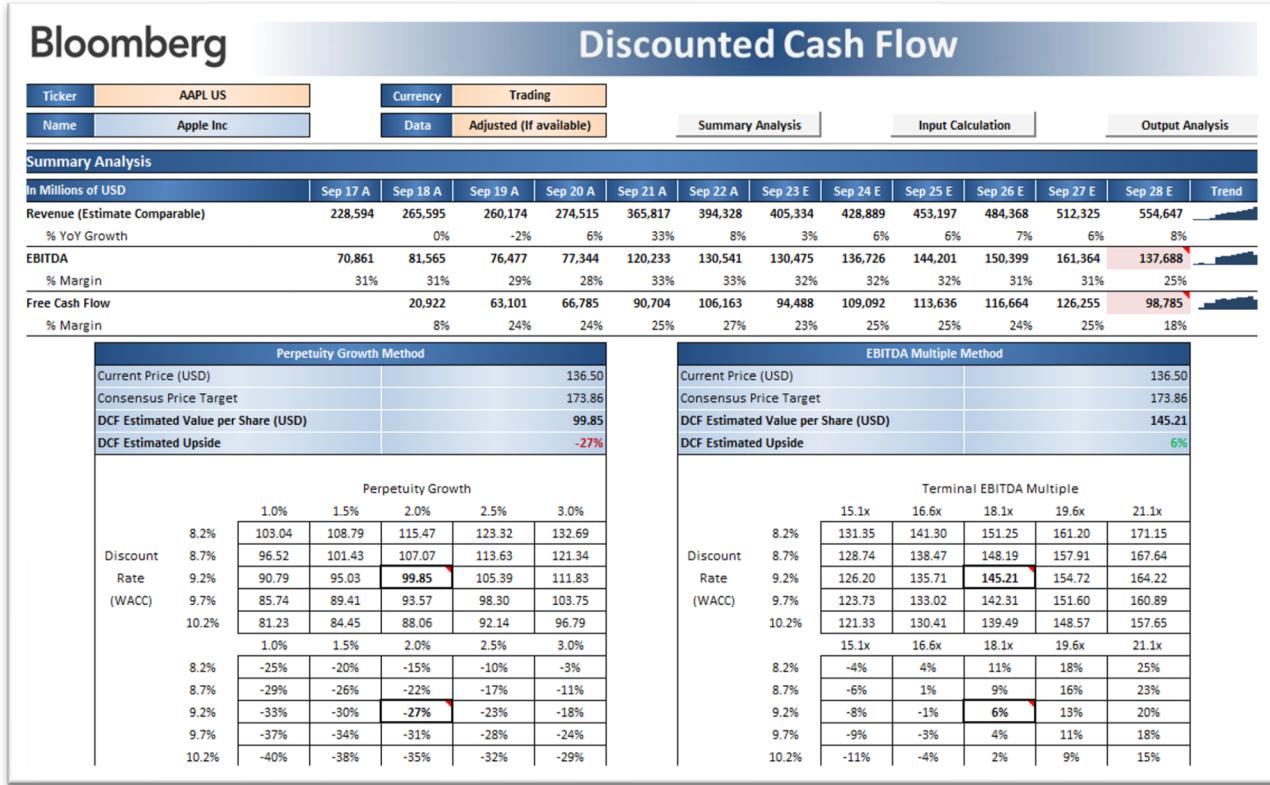


Figure 3: Source - Bloomberg Terminal

In figure 3, a summary analysis is provided that compares the results of two different methods for calculating the DCF Estimated Value per Share and DCF Estimated Upside. These methods are the Perpetuity Growth Method and the EBITDA Multiple Method. According to the Perpetuity Growth Method, the DCF Estimated Value per Share is \$98.37 and the DCF Estimated Upside is -27%. On the other hand, the EBITDA Multiple Method calculates the DCF Estimated Value per Share as \$144.50 and the DCF Estimated Upside as 7%.

Input Calculation

Input Calculation											Auto Input Selection	
	Input	Peers	Px Implied	Tgt Implied	Default	Current Choice						On
Weighted Average Cost of Capital		8.6%			9.3%	9.3%						(Perpetuity Growth Method only)
Perpetuity Growth Rate			4.4%	5.7%	2.0%	2.0%						(EBITDA Multiple Method only)
Exit Enterprise Value / EBITDA		7.2x	16.5x	22.8x	18.1x	18.1x						
In Millions of USD												
Revenue (Estimate Comparable)	228,594	265,595	260,174	274,515	365,817	394,328	405,334	428,889	453,197	484,368	512,325	554,647
Revenue (Adjusted)	228,594	265,595	260,174	274,515	365,817	394,328						
% YoY Growth			-2%	6%	33%	8%	3%	6%	6%	7%	6%	8%
(-) Cost of Revenue	141,048	163,756	161,782	169,559	212,981	223,546	231,162	243,677	256,427	275,731	290,622	310,193
(-) Cost of Revenue (GAAP)	141,048	163,756	161,782	169,559	212,981	223,546						
% of Revenue	62%	62%	62%	62%	58%	57%	57%	57%	57%	57%	57%	56%
(=) Gross Profit	87,546	101,839	98,392	104,956	152,836	170,782	174,172	185,212	196,770	208,636	221,703	244,454
% Margin		38%	38%	38%	42%	43%	43%	43%	43%	43%	43%	44%
(-) Operating Expenses/Income	26,842	31,177	34,462	38,668	43,887	51,345	56,216	60,257	65,769	69,643	73,333	78,991
% of Revenue		12%	12%	13%	14%	12%	13%	14%	14%	15%	14%	14%
% YoY Growth		16%	11%	12%	13%	17%	9%	7%	9%	6%	5%	8%
(=) Operating Income	60,704	70,662	63,930	66,288	108,949	119,437	117,956	124,954	131,001	138,994	148,370	165,464
% Margin		27%	27%	25%	24%	30%	30%	29%	29%	29%	29%	30%
(-) Tax on Operating Income	15,479	13,309	10,488	9,663	14,467	19,300	18,442	18,865	19,556	20,890	22,817	25,173
% Tax Rate		24%	18%	16%	14%	13%	16%	15%	15%	15%	15%	15%
(=) NOPAT	45,225	57,353	53,442	56,625	94,482	100,137	99,514	106,089	111,445	118,104	125,553	140,291
% Margin		20%	22%	21%	21%	26%	25%	25%	25%	25%	24%	25%
(+) Depreciation & Amortization	10,157	10,903	12,547	11,056	11,284	11,104	12,519	11,771	13,200	11,405	12,994	(27,776)
% of Revenue		4%	4%	5%	4%	3%	3%	3%	3%	3%	2%	3%
% YoY Growth		7%	15%	-12%	2%	-2%	13%	-6%	12%	-14%	14%	-314%
(-) Capital Expenditure	12,451	13,313	10,495	7,309	11,085	10,708	11,701	12,336	12,882	12,985	13,582	13,823
% of Revenue		5%	5%	4%	3%	3%	3%	3%	3%	3%	3%	2%
% YoY Growth		7%	-21%	-30%	52%	-3%	9%	5%	4%	1%	5%	2%
(-) Changes in Net Working Capital	(190)	(2,266)	2,927	(10,177)	1,250	(7,965)	(4,145)	(4,532)	(6,766)	(5,086)	(6,806)	(6,601)
% of Revenue		0%	-1%	1%	-4%	0%	-2%	-1%	-1%	-1%	-1%	-1%
(+) Changes in Net Long Term Deferred Tax Liabilities	(36,287)	10,534	(3,764)	(2,727)	(2,335)	-	9,989	-	964	-	4,947	-
% of Revenue		-14%	4%	-1%	-1%	-1%	-2%	0%	-1%	-1%	-1%	-1%
(+) Other User Estimated Non-Cash Adjustments							-	-	-	-	-	-
% of Revenue							0%	0%	0%	0%	0%	0%
(=) Free Cash Flow	20,922	63,101	66,785	90,704	106,163	94,488	109,092	113,636	116,664	126,255	98,785	120,385
% Margin		8%	24%	24%	25%	27%	23%	25%	25%	24%	25%	18%
% YoY Growth		202%	6%	36%	17%	-11%	15%	4%	3%	8%	5%	-22%
% of the Free Cash Flow to be discounted						79%	100%	100%	100%	100%	21%	
Period for Discount Factor (Mid-Year Convention)						0.39	1.29	2.29	3.29	4.29	4.89	
Discount Factor @ 9.3% WACC						0.97	0.89	0.82	0.75	0.68	0.65	
Present Value of Free Cash Flow (5 Years)						71,745	97,307	92,740	87,114	86,258	13,665	
EBITDA	70,861	81,565	76,477	77,344	120,233	130,541	130,475	136,726	144,201	150,399	161,364	137,688
% Margin		31%	29%	28%	33%	33%	32%	32%	32%	31%	31%	25%
% YoY Growth		15%	-6%	1%	55%	9%	0%	5%	4%	7%	7%	-15%

Figure 4: Source - Bloomberg Terminal

Figure 4 shows the projected present value of the company's future cash flows for the next five years, starting in 2023 and ending in 2028.

- Gross profit is a measure of a company's profitability that reflects the amount of revenue that is left over after deducting the cost of goods sold (COGS). The gross profit formula is:

$$\text{Gross Profit} = \text{Revenue} - \text{COGS}$$

- Operating income, also known as earnings before interest and taxes (EBIT), is a measure of a company's profitability that reflects the amount of revenue that is left over after deducting operating expenses. Operating expenses include the cost of goods sold (COGS), selling, general, and administrative expenses (SG&A), and research and development (R&D) expenses. The formula for operating income is:

$$\text{Operating Income} = \text{Revenue} - \text{Operating Expenses}$$

- NOPAT (Net Operating Profit After Tax) is a measure of a company's profitability that reflects the amount of profit that is generated from its core operations, after taking into account taxes. It is calculated by deducting taxes from the company's operating income, which is a measure of profitability that reflects the amount of revenue that is left over after deducting operating expenses. Operating expenses include the cost of goods sold (COGS), selling, general, and administrative expenses (SG&A), and research and development (R&D) expenses. The formula for NOPAT is:

$$\text{NOPAT} = \text{Operating Income} \times (1 - \text{Tax Rate})$$

- Free cash flow (FCF) is a measure of a company's financial performance that reflects the amount of cash that is available for the company to use for investments or to distribute to shareholders. It is calculated by subtracting capital expenditures (CAPEX) from the company's net operating profit after tax (NOPAT). CAPEX represents the funds that a company invests in its business, such as purchasing new equipment or upgrading facilities. NOPAT is a measure of profitability that reflects the amount of profit that is generated from a company's core operations, after taking into account taxes. The formula for free cash flow is:

$$\text{Free Cash Flow} = \text{NOPAT} - \text{CAPEX}$$

Output Analysis

In the output analysis, the estimated value per share is calculated using two methods: the Perpetuity Growth Method and the EBITDA Multiple Method. The Perpetuity Growth Method estimates the value of a company by attaching a constant growth rate to the forecasted cash flows of the company after the explicit forecast period. This method uses the terminal value, which can be calculated using the formula: Terminal Value = Final year FCF * (1+perpetuity growth rate)/(discount rate- Perpetuity growth rate). The EBITDA Multiple Method, on the other hand, assumes that the business will be sold for a multiple of a financial metric, such as EBITDA, based on currently observed comparable trading multiples for similar businesses. The formula for calculating the terminal value using the exit multiple approach is: TV = Financial Metric (e.g., EBITDA) x Trading Multiple. In addition, sensitivity analysis is also performed in the next table to assess the impact of changes in key assumptions on the estimated value per share.

Output Analysis	
Perpetuity Growth Method - Value per Share	EBITDA Multiple Method - Value per Share
Free Cash Flow at Year 5 120,385	Terminal EBITDA at Year 5 156,304
WACC 9.3%	WACC 9.3%
Perpetuity Growth Rate 2.0%	Exit Enterprise Value / EBITDA 18.1x
Perpetuity Value at End of Year 5 1,683,296	Terminal Value at End of Year 5 2,827,846
Present Value of Perpetuity (@ 9.3% WACC) 1,079,354	Present Value of Terminal Value (@ 9.3% WACC) 1,813,256
(+) Present Value of Free Cash Flows (@ 9.3% WACC) 448,828	(+) Present Value of Free Cash Flow (@ 9.3% WACC) 448,828
(=) Current Enterprise Value 1,528,183	(=) Current Enterprise Value 2,262,084.9
Short Term Debt 22,773	Short Term Debt 22,773
(+) Long Term Debt 109,707	(+) Long Term Debt 109,707
(-) Cash and Marketable Securities 169,109	(-) Cash and Marketable Securities 169,109
(-) Current Net Debt (36,629)	(-) Current Net Debt (36,629)
(-) Current Preferred and Minority Interest -	(-) Current Preferred and Minority Interest -
(=) Equity Value 1,564,812	(=) Equity Value 2,298,714
Shares outstanding 15,908	Shares outstanding 15,908
Estimated Value per Share (USD) 98.37	Estimated Value per Share (USD) 144.50
Current Price (USD) 134.51	Current Price (USD) 134.51
Estimated Upside -27%	Estimated Upside 7%

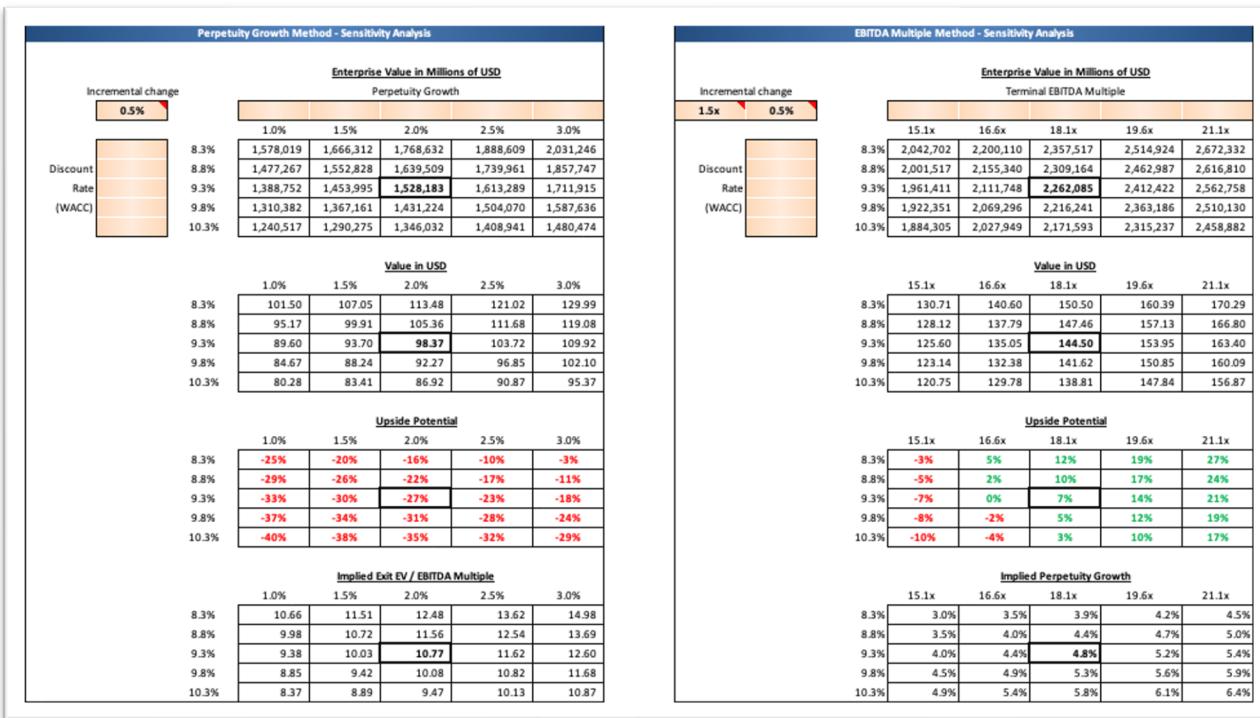


Figure 5: Source - Bloomberg Terminal

There are various financial statements and inputs that can be used to calculate a DCF. Some of the key financial statements that may be used in a DCF analysis include:

Income statement: This financial statement shows a company's revenues, expenses, and profits over a specific period of time. It can be used to project future revenues, expenses, and profits.

Balance sheet: This financial statement shows a company's assets, liabilities, and equity at a specific point in time. It can be used to determine a company's financial position and help project future cash flows.

Cash flow statement: This financial statement shows a company's inflows and outflows of cash over a specific period of time. It can be used to project future cash inflows and outflows.

Bloomberg Financial Statements (XIDF)

XLTP XIDF is a Bloomberg Terminal function that allows users to retrieve and display information about an investment or a financial instrument. When you enter XLTP XIDF followed by the ticker symbol for the investment or financial instrument, the Terminal will display a summary of information about the investment, including its name, ticker symbol, market value, and other relevant details.

You can also use XLTP XIDF to view information about a company's financials, including its income statement, balance sheet, and cash flow statement. To do this, you can enter XLTP XIDF followed by the ticker symbol for the company and select the "Financials" tab on the company's page. This will display a summary of the company's financial statements, which you can then view in more detail by selecting the specific financial statement you want to view (e.g. "Income Statement," "Balance Sheet," or "Cash Flow Statement").

XLTP XIDF is a useful tool for quickly retrieving and reviewing information about an investment or a financial instrument. It can be used by financial analysts, investors, and other professionals to help them make informed decisions about their investments.

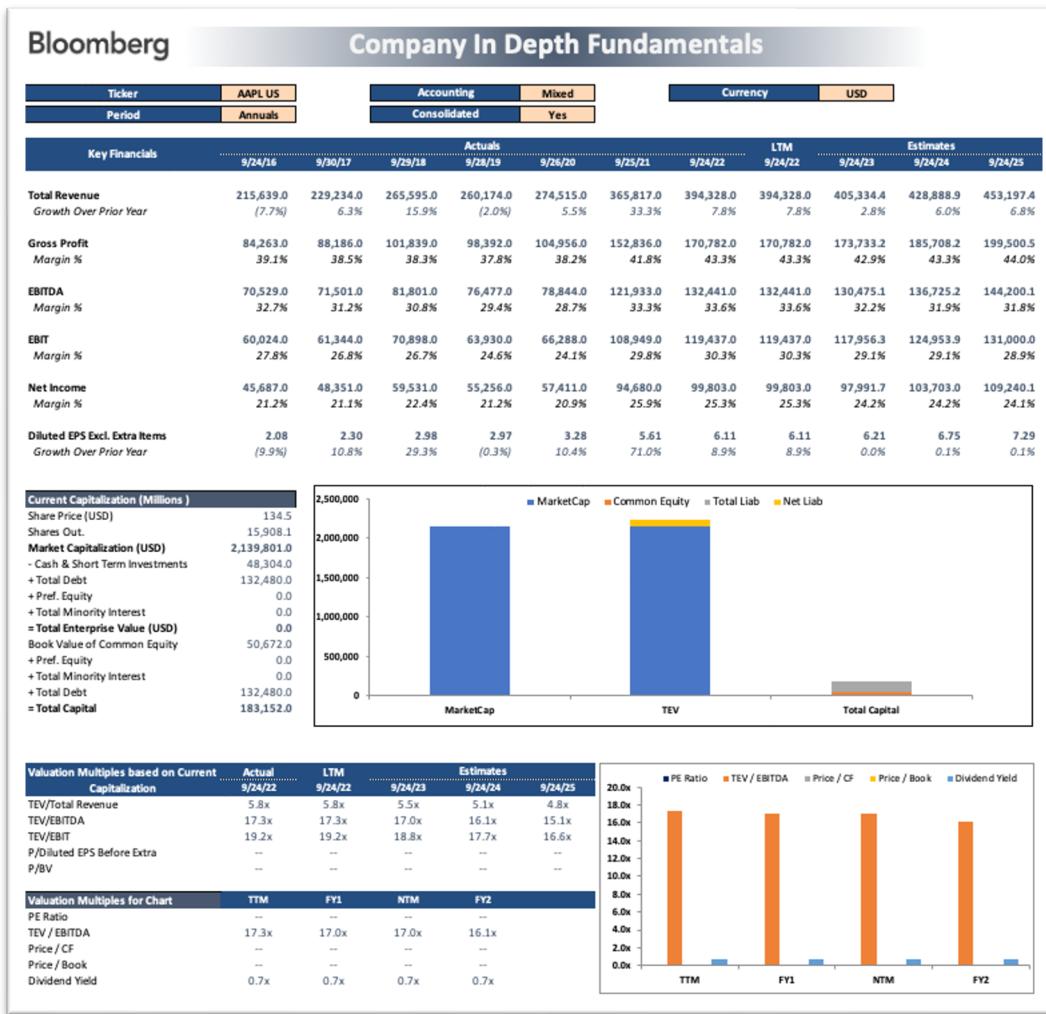


Figure 6: Source - Bloomberg Terminal - Key Stats

Income Statement of Apple Inc (U.S.)

Bloomberg

Company In Depth Fundamentals

Ticker	AAPL US	Accounting		Mixed	Currency		USD
Period	Annuals	Consolidated		Yes			
Income Statement		FY 2012 9/29/12	FY 2013 9/28/13	FY 2014 9/27/14	FY 2015 9/26/15	FY 2016 9/24/16	FY 2017 9/30/17
Revenue	156,508.0	170,910.0	182,795.0	233,715.0	215,639.0	229,234.0	265,595.0
Other Revenue	-	-	-	-	-	-	-
Total Revenue	156,508.0	170,910.0	182,795.0	233,715.0	215,639.0	229,234.0	265,595.0
Cost Of Goods Sold	87,846.0	106,606.0	112,258.0	140,089.0	131,376.0	141,048.0	163,756.0
Gross Profit	68,662.0	64,304.0	70,537.0	93,626.0	84,263.0	88,186.0	101,839.0
Selling General & Admin Exp.	10,040.0	10,830.0	11,993.0	14,329.0	14,194.0	15,261.0	16,705.0
R & D Exp.	3,381.0	4,475.0	6,041.0	8,067.0	10,045.0	11,581.0	14,236.0
Depreciation & Amort.	2,600.0	5,800.0	6,900.0	9,200.0	8,200.0	9,300.0	11,300.0
Other Operating Expense/(Income)	(2,600.0)	(5,800.0)	(6,900.0)	(9,200.0)	(8,200.0)	(9,300.0)	(11,300.0)
Operating Expense., Total	13,421.0	15,305.0	18,034.0	22,396.0	24,239.0	26,842.0	30,941.0
Operating Income	55,241.0	48,999.0	52,503.0	71,230.0	60,024.0	61,344.0	70,989.0
Interest Expense	-	136.0	384.0	733.0	1,456.0	2,323.0	3,240.0
Interest Income	1,088.0	1,616.0	1,795.0	2,921.0	3,999.0	5,201.0	5,686.0
Net Interest Exp.	(1,088.0)	(1,480.0)	(1,411.0)	(2,188.0)	(2,543.0)	(2,878.0)	(2,446.0)
Currency Exchange (Gains) Loss	-	-	-	-	-	-	-
Other Non-Operating Exp. (Inc)	(522.0)	(1,292.0)	(1,364.0)	(2,018.0)	(2,804.0)	(5,068.0)	(5,245.0)
EBT Excl. Unusual Items	56,851.0	51,771.0	55,278.0	75,436.0	65,371.0	69,290.0	78,589.0
Impairment of Goodwill	-	-	-	-	-	-	-
Gain (Loss) On Sale Of Assets	-	-	-	-	-	-	-
Asset Write-down	-	-	-	-	-	-	-
Legal Settlements	-	-	-	-	-	(178.2)	-
Other Unusual Items	1,088.0	1,616.0	1,795.0	2,921.0	3,999.0	5,201.0	5,864.2
EBT Incl. Unusual Items	55,763.0	50,155.0	53,483.0	72,515.0	61,372.0	64,089.0	72,903.0
Income Tax Expense	14,030.0	13,118.0	13,973.0	19,121.0	15,685.0	15,738.0	13,372.0
Earnings from Cont. Ops.	41,733.0	37,037.0	39,510.0	53,394.0	45,687.0	48,351.0	59,531.0
Extraord. Item & Account. Change	-	-	-	-	-	-	-
Minority Int. in Earnings	-	-	-	-	-	-	-
Net Income	41,733.0	37,037.0	39,510.0	53,394.0	45,687.0	48,351.0	59,531.0
Pref. Dividends	-	-	-	-	-	-	-
Other Adj	-	-	-	-	-	-	-
NI to Common Incl Extra Items	41,733.0	37,037.0	39,510.0	53,394.0	45,687.0	48,351.0	59,531.0
Abnormal Losses (Gains)	-	-	205.0	91.0	(461.0)	(739.0)	(256.0)
Tax Effect on Abnormal Items	-	-	(71.8)	(31.9)	161.4	258.7	62.7
NI to Common Excl. Extra Items	41,733.0	37,037.0	39,643.3	53,453.2	45,387.4	47,870.7	59,337.7
Per Share Items							
Basic EPS	1.59	1.43	1.62	2.32	2.09	2.32	3.00
Basic EPS Excl. Extra Items	1.59	1.43	1.62	2.32	2.09	2.32	3.00
Weighted Avg. Basic Shares Out.	26,175	25,909	24,342	23,014	21,883	20,869	19,822
Diluted EPS	1.58	1.42	1.61	2.31	2.08	2.30	2.98
Diluted EPS Excl. Extra Items	1.58	1.42	1.61	2.31	2.08	2.30	2.98
Weighted Avg. Diluted Shares Out.	26,470	26,087	24,491	23,172	22,001	21,007	20,000
Normalized Basic EPS	1.58	1.42	1.61	2.31	2.08	2.30	2.97
Normalized Diluted EPS	1.58	1.42	1.62	2.31	2.06	2.28	2.97
Dividends per Share	0.1	0.4	0.5	0.5	0.5	0.6	0.7
Payout Ratio %	5.9	28.5	27.9	21.4	26.2	25.9	22.6
Supplemental Items							
EBITA	55,918.0	49,956.0	53,549.0	73,287.0	62,229.0	63,301.0	72,501.0
EBIT	55,241.0	48,999.0	52,503.0	71,230.0	60,024.0	61,344.0	70,989.0
As Reported Total Revenue*	-	-	182,795.0	-	215,639.0	229,234.0	265,595.0
Effective Tax Rate %	25.2	26.2	26.1	26.4	25.6	24.6	18.3
Normalized Net Income	41,733.0	37,037.0	39,643.3	53,453.2	45,387.4	47,870.7	59,337.7
Interest Capitalized	-	-	-	-	-	-	-
Supplemental Operating Expense Items							
Net Rental Exp.	-	-	-	-	-	-	-
Stock-Based Comp., Unallocated	1,740.0	2,253.0	2,863.0	3,586.0	4,210.0	4,840.0	5,340.0
Stock-Based Comp., Total	1,740.0	2,253.0	2,863.0	3,586.0	4,210.0	4,840.0	5,340.0
6,068.0	6,068.0	6,068.0	6,068.0	6,068.0	6,829.0	7,906.0	9,038.0

Figure 7: Source - Bloomberg Terminal

Balance Sheet of Apple Inc (U.S.)

Bloomberg

Company In Depth Fundamentals

Ticker	AAPL US	Accounting		Mixed	Currency		USD				
Period	Annuals	Consolidated		Yes							
Balance Sheet		FY 2012 9/29/12	FY 2013 9/28/13	FY 2014 9/27/14	FY 2015 9/26/15	FY 2016 9/24/16	FY 2017 9/30/17				
							FY 2018 9/29/18				
							FY 2019 9/28/19				
							FY 2020 9/26/20				
							FY 2021 9/25/21				
							FY 2022 9/24/22				
ASSETS											
Cash And Equivalents	10,746.0	14,259.0	13,844.0	21,120.0	20,484.0	20,289.0	25,913.0	48,844.0	38,016.0	34,940.0	23,646.0
Short Term Investments	18,383.0	26,287.0	11,233.0	20,481.0	46,671.0	53,892.0	40,388.0	51,713.0	52,927.0	27,699.0	24,658.0
Total Cash & ST Investments	29,129.0	40,546.0	25,077.0	41,601.0	67,155.0	74,181.0	66,301.0	100,557.0	90,943.0	62,639.0	48,304.0
Accounts & Notes Receivable	10,930.0	13,102.0	17,460.0	16,849.0	15,754.0	17,874.0	23,186.0	22,926.0	16,120.0	26,278.0	28,184.0
Total Receivables	10,930.0	13,102.0	17,460.0	16,849.0	15,754.0	17,874.0	23,186.0	22,926.0	16,120.0	26,278.0	28,184.0
Inventories	791.0	1,764.0	2,111.0	2,349.0	2,132.0	4,855.0	3,956.0	4,106.0	4,061.0	6,580.0	4,946.0
Prepaid Exp.	-	-	-	-	-	-	-	-	-	-	-
Restricted Cash	-	-	-	-	-	-	-	-	-	-	-
Other Current Assets	16,803.0	17,874.0	23,883.0	28,579.0	21,828.0	31,735.0	37,896.0	35,230.0	32,589.0	39,339.0	53,971.0
Total Current Assets	57,653.0	73,286.0	68,531.0	89,378.0	106,869.0	128,645.0	131,339.0	162,819.0	143,713.0	134,836.0	135,405.0
Net Property, Plant & Equipment	15,452.0	16,597.0	20,624.0	22,471.0	27,010.0	33,783.0	41,304.0	37,378.0	45,336.0	49,527.0	52,534.0
Long-term Investments	92,122.0	106,215.0	130,162.0	164,065.0	170,430.0	194,714.0	170,799.0	105,341.0	100,887.0	127,877.0	120,805.0
Deferred Charges, LT	-	-	-	-	-	-	-	-	-	-	-
Other Long-Term Assets	10,837.0	10,902.0	12,522.0	14,431.0	17,377.0	18,177.0	22,283.0	32,978.0	33,952.0	38,762.0	44,011.0
Total Assets	176,064.0	207,000.0	231,839.0	290,345.0	321,686.0	375,319.0	365,725.0	338,516.0	323,888.0	351,002.0	352,755.0
LIABILITIES											
Accrued Exp.	11,414.0	13,856.0	18,453.0	25,181.0	22,027.0	25,744.0	-	-	-	-	-
Short-term Borrowings	-	-	6,308.0	10,999.0	11,605.0	18,473.0	20,748.0	16,240.0	15,229.0	17,141.0	22,773.0
Accounts Payable	21,175.0	22,367.0	30,196.0	35,490.0	37,294.0	49,049.0	55,888.0	46,236.0	42,296.0	54,763.0	64,115.0
Curr. Income Taxes Payable	1,535.0	1,200.0	1,209.0	-	-	-	-	-	-	-	-
Other Current Liabilities	4,418.0	6,235.0	7,282.0	8,940.0	8,080.0	7,548.0	39,293.0	43,242.0	47,867.0	53,577.0	67,094.0
Total Current Liabilities	38,542.0	43,658.0	63,448.0	80,610.0	79,006.0	100,814.0	115,929.0	105,718.0	105,392.0	125,481.0	153,982.0
Long-Term Debt	-	16,960.0	28,987.0	53,329.0	75,427.0	97,207.0	93,735.0	91,807.0	107,049.0	119,381.0	109,707.0
Unearned Revenue, Non-Current	2,648.0	2,625.0	3,031.0	3,624.0	2,930.0	2,836.0	-	2,578.0	3,557.0	4,288.0	4,488.0
Other Non-Current Liabilities	16,664.0	20,208.0	24,826.0	33,427.0	36,074.0	40,415.0	48,914.0	47,925.0	42,551.0	38,762.0	33,906.0
Total Liabilities	57,854.0	83,451.0	120,292.0	170,990.0	193,437.0	241,272.0	258,578.0	248,028.0	258,549.0	287,912.0	302,083.0
Pref. Stock, Non-Redeem.	-	-	-	-	-	-	-	-	-	-	-
Total Pref. Equity	-	-	-	-	-	-	-	-	-	-	-
Minority Interest	-	-	-	-	-	-	-	-	-	-	-
Common Stock	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.2
Additional Paid In Capital	16,422.0	19,764.0	23,312.9	27,415.9	31,250.9	35,866.9	40,201.0	45,174.0	50,778.8	57,364.8	64,848.8
Retained Earnings	101,289.0	104,256.0	87,152.0	92,284.0	96,364.0	98,330.0	70,400.0	45,898.0	14,966.0	5,562.0	(3,068.0)
Treasury Stock	-	-	-	-	-	-	-	-	-	-	-
Comprehensive Inc. and Other	499.0	(471.0)	1,082.0	(345.0)	634.0	(150.0)	(3,454.0)	(584.0)	(406.0)	163.0	(11,109.0)
Total Equity	118,210.0	123,549.0	111,547.0	119,355.0	128,249.0	134,047.0	107,147.0	90,488.0	65,339.0	63,090.0	50,672.0
Total Liabilities And Equity	176,064.0	207,000.0	231,839.0	290,345.0	321,686.0	375,319.0	365,725.0	338,516.0	323,888.0	351,002.0	352,755.0
Supplemental Items											
Total Shares Out. on Filing Date	26,297.8	25,178.0	23,464.6	22,315.0	21,344.7	20,504.8	19,019.9	17,772.9	16,976.8	16,426.8	15,943.4
Total Shares Out. on Balance Sheet Date	26,297.8	25,178.0	23,464.6	22,315.0	21,344.7	20,504.8	19,019.9	17,772.9	16,976.8	16,426.8	15,943.4
Book Value/Share	4.5	4.9	4.8	5.3	6.0	6.5	5.6	5.1	3.8	3.8	3.2
Tangible Book Value	112,851.0	117,793.0	102,789.0	110,346.0	119,629.0	126,032.0	107,147.0	90,488.0	65,339.0	63,090.0	50,672.0
Tangible Book Value/Share	4.3	4.7	4.4	4.9	5.6	6.1	5.6	5.1	3.8	3.8	3.2
Total Debt	-	16,960.0	35,295.0	64,328.0	87,032.0	115,680.0	114,483.0	108,047.0	122,278.0	136,522.0	132,480.0
Net Debt	(121,251.0)	(129,801.0)	(119,944.0)	(141,338.0)	(150,553.0)	(153,215.0)	(122,617.0)	(97,851.0)	(69,552.0)	(53,994.0)	(36,629.0)
Total Minority Interest	-	-	-	-	-	-	-	-	-	-	-
Inventory Method	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out	st-in-first-out
Raw Materials in Inventory	124.0	683.0	471.0	-	-	-	-	-	-	-	-
Work in Progress Inventory	-	-	-	-	-	-	-	-	-	-	-
Finished Goods Inventory	667.0	1,081.0	1,640.0	-	-	-	-	-	-	-	-
Other Inventory Accounts	-	-	-	-	-	-	-	-	-	-	-
Accum. Allowance for Doubtful Accts	98.0	99.0	86.0	63.0	53.0	58.0	-	-	-	-	-
Full Time Employees	72,800	80,300	92,600	110,000	116,000	123,000	132,000	137,000	147,000	154,000	164,000

Figure 8: Source - Bloomberg Terminal

Cash Flow of Apple Inc (U.S.)

Bloomberg

Company In Depth Fundamentals

Ticker	AAPL US	Accounting		Mixed	Currency		USD	
Period	Annuals	Consolidated		Yes				
Cash Flow	FY 2012 9/29/12	FY 2013 9/28/13	FY 2014 9/27/14	FY 2015 9/26/15	FY 2016 9/24/16	FY 2017 9/30/17	FY 2018 9/29/18	FY 2019 9/28/19
Net Income	41,733.0	37,037.0	39,510.0	53,394.0	45,687.0	48,351.0	59,531.0	55,256.0
Depreciation & Amort., Total	3,277.0	6,757.0	7,946.0	11,257.0	10,505.0	10,157.0	10,903.0	12,547.0
Other Non-Cash Adj	8,697.0	7,915.0	11,220.0	14,411.0	8,783.0	6,414.0	10,332.0	1,249.0
Changes in Non-Cash Capital	(2,851.0)	1,957.0	1,037.0	2,204.0	1,256.0	(697.0)	(3,332.0)	339.0
Cash from Ops.	50,856.0	53,666.0	59,713.0	81,266.0	66,231.0	64,225.0	77,434.0	69,391.0
Cash from Investing	(8,295.0)	(8,165.0)	(9,571.0)	(11,247.0)	(12,734.0)	(12,451.0)	(13,313.0)	(10,495.0)
Capital Expenditure	(8,295.0)	(8,165.0)	(9,571.0)	(11,247.0)	(12,734.0)	(12,451.0)	(13,313.0)	(10,495.0)
Sale of Property, Plant, and Equipment	-	-	-	-	-	-	-	-
Cash Acquisitions	-	-	-	-	-	-	-	-
Proceeds from Investment	-	-	-	-	-	-	-	-
Divestitures	-	-	-	-	-	-	-	-
Invest. in Marketable & Equity Securt.	-	-	-	-	-	-	-	-
Other Investing Activities	-	-	-	-	-	-	-	-
Cash from Investing	(8,295.0)	(8,165.0)	(9,571.0)	(11,247.0)	(12,734.0)	(12,451.0)	(13,313.0)	(10,495.0)
Net Short Term Debt Issued/Repaid	-	-	6,306.0	2,191.0	(397.0)	3,852.0	(37.0)	(5,977.0)
Long-Term Debt Issued	-	16,896.0	11,960.0	27,114.0	24,954.0	28,662.0	6,969.0	6,963.0
Long-Term Debt Repaid	-	-	-	-	(2,500.0)	(3,500.0)	(6,500.0)	(8,805.0)
Total Debt Issued/Repaid	-	16,896.0	18,266.0	29,305.0	22,057.0	29,014.0	432.0	(7,819.0)
Pref. Dividends Paid	(2,488.0)	(10,564.0)	(11,126.0)	(11,561.0)	(12,150.0)	(12,769.0)	(13,712.0)	(14,119.0)
Total Dividends Paid	(2,488.0)	(10,564.0)	(11,126.0)	(11,561.0)	(12,150.0)	(12,769.0)	(13,712.0)	(14,119.0)
Increase in Capital Stocks	2,016.0	1,231.0	1,469.0	1,292.0	495.0	555.0	669.0	781.0
Decrease in Capital Stocks	-	(22,860.0)	(45,000.0)	(35,253.0)	(29,722.0)	(32,900.0)	(72,738.0)	(66,897.0)
Special Dividend Paid	-	-	-	-	-	-	-	-
Incr(Decr) in Deposits	-	-	-	-	-	-	-	-
Incr(Decr) Insurance Reserves	-	-	-	-	-	-	-	-
Other Financing Activities	(1,226.0)	(1,082.0)	(1,158.0)	(1,499.0)	(1,570.0)	(1,874.0)	(2,527.0)	(2,922.0)
Cash from Financing	(1,698.0)	(16,379.0)	(37,549.0)	(17,716.0)	(20,890.0)	(17,974.0)	(87,876.0)	(90,976.0)
Net Change in Cash	40,863.0	29,122.0	12,593.0	52,303.0	32,607.0	33,800.0	(23,755.0)	(32,080.0)
Supplemental Items								
Cash Interest Paid	-	-	339.0	514.0	1,316.0	2,092.0	3,022.0	3,423.0
Cash Taxes Paid	7,682.0	9,128.0	10,026.0	13,252.0	10,444.0	11,591.0	10,417.0	15,263.0
Free Cash Flow	42,561.0	45,501.0	50,142.0	70,019.0	53,497.0	51,774.0	64,121.0	58,896.0
Change in Net Working Capital	(2,851.0)	1,957.0	1,037.0	2,204.0	1,256.0	(697.0)	(3,332.0)	339.0

Conclusion

Based on the analysis performed using the Bloomberg Terminal and various financial statements, we have concluded that the share price of Apple Inc. is currently undervalued. We accessed the Bloomberg Template Library through the Bloomberg Excel Add-in and searched for the XLTP XDCF template, which allowed us to review the discounted cash flow model for Apple. Additionally, we also reviewed the company's income statement, balance sheet, and cash flow statement using the XLTP XIDF tool. After careful consideration of all the available data, we believe that the current market price does not accurately reflect the value of the company and that there is potential for the share price to increase in the future.