1. Historical Analysis

1.1 Revenue: From historical analysis, revenue in the last three years sees a drop with an average of 26%.

1.2 Profit Margin: In the meantime, profit margins see a stable position with gross margin at an average around 45%, operating margin 4%, EBIT 5%. SGA plays the largest operating expense proportion at an average margin around 35%.

1.3 Efficiency Ratios: It sees a slightly decrease in its working capital assets over the last three years, with AR days dropping from 27 to 26.7, Inv Days dropping from 58.1 to 49.7. It also sees a slightly decrease in its working capital liabilities with AP days dropping from 125.3 to 114.

1.4 Profit Ratios: It sees a stable ROA around 7% but a decreasing ROE from 36% to 27% in year 2019. With no news about dividend policy, this is mainly due to the 7M issues in year 2018 with a considerable capital surplus. Its EBIT/Assts are stable at 10%.

1.5 Liquidity and Interest: For current ratio, it slightly rises from 1.04 to 1.10. For debt and equity structure, the ratio becomes less than 1 (0.8) in 2019 possibly due to the large increase in retain earning and the maturity of some outstanding debts. The interest coverage ratio stays healthy at an average of 7.2 and an increase trend in 2018.

1.6 EPS: Its current EPS stands at 23.0x, a big jump over the last three years from 4.6x, mainly due to the incredible rise in stock price (over 168% return over the last three years)

1.7 Dividend and repurchase: It discloses no dividend and stock repurchase plan over the last three years. This can be a common trend for tech company as is Amazon.

1.8 Bond Analysis: Amazon has 13 outstanding debts due in the next five years. The average YTM is 1.517%, a relative low return indicating a relative low risk.

1.9 WACC Analysis: By consensus estimator, the WACC of amazon is at around 7.49%. The beta of amazon is at around 1.2. The industrial WACC average is at 7.15%, the industrial beta average is at 1.39.

1.10 Earning Calls Summaries from its 2019 Q4 and 2020 Q1: 2019 Q4 is a strong quarter in revenue, led by AWS, Prime and holiday sales. For AWS the growth is still in line with expectation. Supply chains can take tests in the future. 2020 Q1 focuses mainly on the Covid-19 impact. Sales grow strong due to household demand and essential shopping. Cost also grow strong (600m) due to the effort amazon has invested in to fight the disease, protective equipment, employee cares and wages, supply chain management, etc. It expected in Q2 the cost grows to 4b or more. The long-term influence of the disease is still unclear. **It had another $400m of costs related to increased reserves for doubtful accounts, which in our analysis can be seen as a non-recurrent event.**

2. COMPS Analysis

2.1 PE: Amazon's PE stands at 104.3x, an industry highest. The average of tech retail stands at 30.0x, and by average PE Amazon is trading at over 200% premium to its competitors.

2.2 EV: Amazon's EV/EBITDA stands at 37.28, the industrial average is at 14.28. Amazon's EV/Sales is at 4.25, the industrial average is at 1.61. By using industrial average of EV/Sales, Amazon's performance is almost in line with the industry. By using EV/EBITDA, Amazon's performance is largely overtraded by a premium of -62% (current price at 2317.54 vs 875.68 projected.

2.3 COMPS selection: We select Wayfair (W-N), Best buy (BBY), Target (TGT), Groupon (GRPN), ETSY (ETSY), Costco (Cost), Nordstrom (JWN), Macy's (M), KOHL (KSS) and Sears (SHLDQ) to be Amazon's competitors based on its publicity, similar business mode, similar size and the fact they all select amazon as their competitors. Amazon's stock price is more expensive than most of its COMPS.

3. Major Estimators

3.1 Revenue: By major estimators, the revenue growth rate for 5 years in the future will be 20% 17% 16% 15% 14%, converging gradually.

3.2 Gross Margin: it will be 41.5%, 42.5%, 43.5%, 44.0%, 45% gradually, in correspondence with the revenue projection.

3.3 EBIT, EBITDA Margin: By major estimators, the EBIT margin is up from 5% to 10% gradually, and EBITDA is from 15% to 19%

3.4 Effective Tax Rate: They also project a 20% in the first three years and 18% in the last two years.

3.5 Capex: As a near constant rate of 5% in the next five years.

3.6 Depreciation: It is reasonable to assume that they use EBITDA-EBIT to get depreciation instead of using as % of capex because the latter is much more volatile.

3.7 Implied Price by major estimators:

Implications	2020	2021	2022	2023
Implied MKT CAP	1126448.69	1043848.96	1276199.57	1354960.75
Implied # of shares	514.98	522.22	534.15	527.59
Implied Stock Price Per Share	2187.37	1998.87	2389.21	2568.22
Current Price	2317.54	2317.54	2317.54	2317.54

3.8 EPS:

EPS - Fully Reported	**27.26**	**39.01**	**52.13**	**72.87**	**97.63**

3.9 Based on major estimators, the stock price Amazon is being traded at the moment is pretty much in line with its projected price and the fluctuation will be within a suitable range in the coming five years.

4. DCF Analysis

4.1 Assumptions:

4.1.1 Revenue: [20% 17% 16% 15% 14%]

4.1.2 Gross Margin: [41.5%, 42.5%, 43.5%, 44.0%, 45%]

4.1.3 EBIT Margin: [5%, 6%, 7%, 8%, 9%]

4.1.4 EBITDA Margin: [15% 16% 17% 18% 19%]

4.1.5 Effective Tax Rate: Stay at 20%

4.1.6 Capex: Stay at 5% of sales

4.1.7 Non-Operating Income: Stay at 1077M

4.1.8 Non-recurrent Adjustments: 6,000 M in 2020

4.1.9 WACC: 7.49%

4.1.10 Interest Exp: 14% of EBIT

4.1.11 Outstanding Shares:

Implied Outstanding Shares	**514.98**	**522.22**	**534.15**	**527.59**	**524.73**

4.1.12 **Working Capital:** Use last three year's average

4.1.13 **Perpetual growth rate:** 0.0%

4.1.14 **Other operating CF:** Stay constant as history

4.1.15 **Dividend and Repurchase:** No Major Dividend and Repurchase plans

4.2 Results of Free Cash Flows:

Free Cash Flows	**37014.65**	**41469.13**	**50318.43**	**61041.06**	**72363.99**
Growth Rate		12%	21%	21%	19%

4.3 Results of DCF:

NPV	$ 833,368.09
Net Debt	15332
Mkt Cap	$ 818,036.09
Outstanding Shares	504
Price Per Share	$ 1,623.09
Current Price	2317.54
Premium	-30%

5. Results Summary

Methodology	Stock Price	Equity Value	EV	EV/EBITDA	Premium
COMPS - P/E	$ 767.44	$ 386,788.30	$ 402,120.30	12.57	-66.9%
COMPS - EV/Sales	$2,335.83	$ 1,177,256.00	$ 1,192,588.00	37.28	0.8%
COMPS - EV/EBITDA	$ 875.68	$ 441,341.70	$ 456,673.70	14.28	-62.2%
DCF - Consensus	$2,187.37	$ 1,126,448.69	$ 1,141,780.69	35.70	-5.6%
DCF - Under Assumptions	$1,623.09	$ 818,036.09	$ 833,368.09	26.05	-30.0%
Average	$1,557.88	$ 789,974.16	$ 805,306.16	25.18	-32.8%

6. Conclusions

6.1 Buy-Hold-Sell: Amazon's prospect is not very clear based on the analysis above, especially over the COVID times and Post-Covid times. As far as its current price, the analysis shows that by a large probability that it is already trading above its intrinsic values or at least the price currently is the cash-in price by the market. My conclusion is to hold or sell Amazon in the long run if it stands still at a high position.

7. Criteria

A	Data is correctly extracted. Historical Analysis is within a minimum bias. DCF assumptions are reasonably stated and the evaluation method is correct. The conclusion is at least in agreement with major estimators. All the questions asked in the final are answered. The format is easy to follow up.
B	Data is extracted with some mistakes. Historical analysis is correct in general. DCF assumptions are at least clear stated and the formula for DCF is correctly employed. The conclusion is at least in agreement with its own assumptions. All questions asked are answered. The format is not hard to read.
C	Data is extracted at least. Historical analysis is correct in formula. DCF assumptions are made and the model is presented in a readable order. The conclusion is at least in agreement with its own assumptions. Most of the questions are answered. The format is readable

Unless major academic misconduct, every work should be at least C level.