Creative Investment Research

Amazon Stock Report

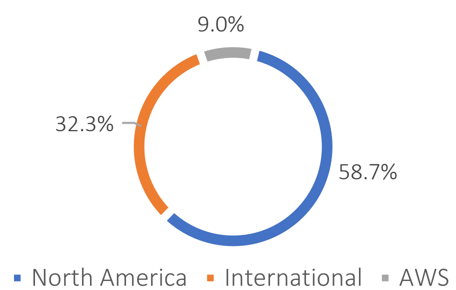
Research Analyst: Austin (Zhuoxi) Wu

Date: Jul 1, 2017   Recommendation: BUY

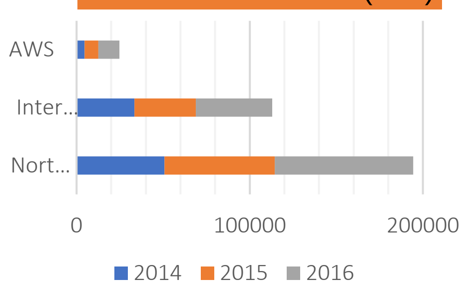
Market Profile	
Ticker	NASDAQ: AMZN
Price	$998.91
52 Wk. Low	$682.12
52 Wk. High	$1,017.00
Mkt. Cap	477.33B
P/E (TTM)	188.07

Trading Information	
Levered Beta	1.41
Shares Outstanding	477.98M
Floating Shares	397.69M
Dividend Rate	N/A
52-Week Change	38.66%
SP500 52-Week Change	16.67%

Net Sales 2016



Net Sales Breakdown (in m)



	Gross Margin	Price/Earnings	DSO
Amazon	35.58%	162.97	18.76
Walmart	25.66%	17.01	3.93
Alibaba	62.78%	39.26	N/A
Industry Mid	34.96%	22.52	2.99

Company Profile

Amazon engages in the sale of consumer products and subscriptions internationally. It operates three (3) major segments: North America, International, and Amazon Web Services (AWS). The company went public on May 15, 1997 at $18.00. With the recent surge in share price, CEO, Jeff Bezos became the second richest man in the world with a net worth of $85.2 billion. He is also CEO and the biggest shareholders, with around 80 million shares, more than the top 3 institutional holders combined.

Investment Summary

The company has been performing remarkably well, and we believe it will continue to outperform the market. Amazon recently announced that it will purchase Whole Food Market (WFM) for $13.7 billion, or $42 per share. This acquisition signifies the first attempt by Amazon to step into the brick-and-mortar market. With its position as the biggest e-commerce company in the U.S. and the largest provider of cloud computing services in the world, the company is on the verge of becoming the largest retailer in the world (it is currently ranked #3). We note a recent announcement pushed Amazon's stock price upward: the $50 million streaming deal with the NFL. This is only available for Amazon prime members (subscription fee: $99 per year). Prime has always been a double-edged sword: it helps Amazon to get more subscription and more customers, but the free shipping provided has proven to be the second biggest contributor to operating costs (behind cost of goods sold), and has grown more than 25% since 2014 ($16.1 billion in 2016). Shipping cost was the reason Amazon did not record a profit until year-end 2015, and reportedly the firm is looking to reduce costs by building its own shipping network. With the NFL's huge fan base, Amazon may be able to recover part of shipping costs.

While the stock isn't cheap, we see upward momentum in the company's operation. Based on our projected share price of $1257.46, **we recommend Amazon shares as a BUY.**

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Business Description
In terms of Net Sales, North American made up 59%, International was 32%, and AWS was 9%. Operating income-wise, AWS made up more than 74%, while North American made up 56% and International incurred a loss of -31%. All three segments enjoyed a high growth rate -AWS grew 55%, North America 25%, and international 24% in from 2015 to 2016.

Amazon categorizes Net Sales into product and service sales. Product sales represent revenue from the sale of products and related shipping fees, along with digital media content. Service sales represents third-party seller fees and related shipping fees, AWS sales, digital content subscriptions, advertising services, and credit card agreement fees. Within the retail sector, a sector that has a relatively stable growth rate of 3.5% annually, Amazon has constantly surpassed that rate, and by a large margin. It is the second largest company in the sector, only trailing Wal-Mart. Knowing the limitations of traditional retailing, Amazon also develops its own tech gadgets, such as Kindle and Echo, to appeal to a younger demographic. The firm enjoys a market leading position in e-books, with a 65% market share, and 70% market share in the smart speaker market. We see those leading positions as catalysts for the company going forward.

CAPM & WACC	
Risk free rate	2.14%
Market Premium	6.00%
Unlevered Beta	1.45
Cost of Equity	*10.84%*
YTM on bonds	2.67%
Interest Coverage	9.04
Bond Rating	AAA
Spread vs. 10yr	0.75%
Cost of Debt	*3.42%*
Debt-to-Equity	0.8
WACC	7.544%

Assumptions	
LT Growth	2.00%
Shares Outstanding	477.98M
Depreciation	8% of Rev
Change in NWC	0.12% of Rev
Change in CAPEX	6.8% of Rev
COGS	Decline to 50% of Rev
Non-Op Income/Loss	Around 38% of Rev
Income Tax Expense	Around 0.85% of Rev

Valuation Results	
Current Price	$975.93
DCF Projected Price	$1,257.46
Upside Potential	28.85%
Based on Sensitivity Analysis:	
Best Case	$1,733.73
Worst Case	$948.91
Recommendation	BUY

Revenue Growth Assumptions	
North America	24% (2017) to 3% (2024)
International	31.61% to 8.65%
AWS	45.78% to 4%
WFM	3.35% to 2%

Operating Expense As % of Revenue	
Selling, General & Admin	7.00%
Selling & Marketing	6.34%
General & Administrative	2.00%
Research & Development	11.77%
Other Operating Expense	14.00%

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Governance and Management

Jeff Bezos, the CEO who once simply wanted to create a nice bookstore to compete with Barnes & Nobles, is now CEO of the fifth largest company in the world. The company has been running smoothly, thanks to the fact that all of the executive members (7) have been with the company for the last ten years. Due to stellar performance, company's total executive compensation has been rising steady: in 2016 the figure reached $120.73 million. Currently, 55% of the total shares belong to institutions, 31% belong to mutual funds, and the rest, 14%, belong to insiders.

Industry Overview and Competitive Positioning

We place Amazon in the U.S. E-Commerce industry due to the portion of revenue generated from the sale of goods and services online. Amazon is the biggest company in the industry with a market share of 22%. The industry has enjoyed an annualized growth rate of 13.3% over the last 5 years to 2017, leading to a revenue of $393.9 billion. As the E-Commerce industry continues to grow, traditional brick-and-mortar companies are forced to make the transition online, giving the industry high competition and high growth environment. Barriers to entry are low, due to the rapid development of technology and the popularity of mobile devices. Over the next 5 years, to 2022, we expect the industry to continue its fast growth, but at a lower rate, about 8%, due to mobile shopping saturation.

Financial Analysis and Projections

Revenue Growth

The company had a growth rate of 27% in operations, compared to industry growth of 16.3%. Given the potential for growth in the E-Commerce sector, and given Amazon's leading position, we believe the firm will continue to grow faster than the industry (which is the 8% growth projection cited above). We used an 8-year forecast period, since E-Commerce industry is still growing, and the effect of its acquisition of Whole Foods Market (WFM) will not be seen immediately.

Operating Efficiency

The company has turned loss into profits by increasing gross margin from 24.8% to 35.1% over the last 5 years, and, although SG&A and R&D expense have been growing, the rise in gross margin has outpaced the growth in operating costs. This has resulted in the company's operating margin growing from 1.11% to 2.89% over the past 5 years. With further refinement in logistics, and given the economy of scale inherent in its AWS sector, we think operating margin will keep rising into 2023.

Discount Rate

Assuming a constant debt-to-equity ratio, using a CAPM model, we derived the Cost of Equity (Ke) to be 6.56%. We used 3.42% as the cost of debt, based on the current YTMs for all outstanding Amazon corporate bonds, and the credit spread over the 10-year Treasury bond based on the interest coverage ratio and bond rating. Combining cost of debt and cost of equity with their respective weights, the cost of capital to discount Amazon's FCF is 7.544%.

Sensitivity Analysis (WACC vs. LT Growth)

$1,257.46	5.50%	6.50%	7.54%	8.50%	9.50%
1%	1239.19	1158.35	1080.16	1013.66	948.91
1.50%	1332.22	1245.44	1161.50	1090.11	1020.61
2%	1441.99	1348.19	1257.46	1180.32	1105.20
2.50%	1573.44	1471.25	1372.40	1288.35	1206.51
3%	1733.73	1621.29	1512.54	1420.07	1330.04

1. Sensitivity Analysis (above)

Results and Recommendation

Our DCF model (shown next page) shows a projected share price of $,1257.46, which represents a 28.85% upside. Given this, we recommend buying the stock. We also include a sensitivity analysis table based on different WACC and long-term growth rates. The results shows that, even in the worst case (highest WACC and lowest LT growth rates cases, Amazon's share price is only 2.76% lower than the current price. Therefore, our buy recommendation is confirmed.

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2. DCF Model

Amazon.com Inc (AMZN US) - Adjusted				Forecast Period							
In Millions of USD except Per Share	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
12 Months Ending	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
Revenue	**88,988.0**	**107,006.0**	**135,987.0**	191,002.7	246,416.1	310,518.7	383,592.7	452,134.3	509,727.1	557,305.9	587,949.2
Growth (YoY)		*20.2%*	*27.1%*	*40.5%*	*29.0%*	*26.0%*	*23.5%*	*17.9%*	*12.7%*	*9.3%*	*5.5%*
+ Sales & Services Revenue	88,988.0	107,006.0	135,987.0								
North America	50,834.0	63,708.0	79,785.0	99,053.1	122,281.0	148,669.3	175,400.0	199,640.3	216,290.3	228,964.9	235,833.8
International	33,510.0	35,418.0	43,983.0	57,886.0	81,219.9	108,071.2	142,502.7	176,233.0	209,347.2	239,325.7	260,027.4
AWS	4,644.0	7,880.0	12,219.0	17,812.9	25,741.4	35,155.0	45,321.8	54,359.0	60,702.7	64,618.0	67,202.7
Whole Foods Market	0.0	0.0	0.0	16,250.8	17,173.8	18,623.3	20,368.3	21,902.0	23,387.0	24,397.3	24,885.2
- Cost of Revenue	62,582.0	71,651.0	88,265.0								
COGS as a % of Rev	*70.3%*	*67.0%*	*64.9%*	*63.7%*	*61.5%*	*59.4%*	*57.3%*	*52.4%*	*51.8%*	*50.7%*	*50.0%*
+ Cost of Goods & Services	62,582.0	71,651.0	88,265.0	121,668.7	151,545.9	184,448.1	219,798.6	236,918.4	264,038.6	282,554.1	293,974.6
Gross Profit	**26,406.0**	**35,355.0**	**47,722.0**	**69,334.0**	**94,870.2**	**126,070.6**	**163,794.1**	**215,215.9**	**245,688.5**	**274,751.8**	**293,974.6**
- Operating Expenses	26,058.0	33,122.0	43,536.0	**78,528.2**	**101,310.6**	**127,665.6**	**157,709.0**	**185,888.9**	**209,567.4**	**229,128.8**	**241,727.4**
+ Selling, General & Admin	5,884.0	7,001.0	9,665.0	13,370.2	17,249.1	21,736.3	26,851.5	31,649.4	35,680.9	39,011.4	41,156.4
+ Selling & Marketing	*4,332.0*	*5,254.0*	*7,233.0*	12,109.6	15,622.8	19,686.9	24,319.8	28,665.3	32,316.7	35,333.2	37,276.0
+ General & Administrative	*1,552.0*	*1,747.0*	*2,432.0*	3,820.1	4,928.3	6,210.4	7,671.9	9,042.7	10,194.5	11,146.1	11,759.0
+ Research & Development	9,275.0	12,540.0	16,085.0	22,488.0	29,012.2	36,559.4	45,162.9	53,232.7	60,013.5	65,615.3	69,223.1
+ Other Operating Expense	10,899.0	13,581.0	17,786.0	26,740.4	34,498.2	43,472.6	53,703.0	63,298.8	71,361.8	78,022.8	82,312.9
Operating Income (Loss)	**348.0**	**2,233.0**	**4,186.0**	**-9,194.2**	**-6,440.5**	**-1,595.0**	**6,085.1**	**29,327.0**	**36,121.0**	**45,623.0**	**52,247.2**
Non-Operating (Income) Loss as a % of Rev	*0.32%*	*0.62%*	*0.21%*	*0.38%*	*0.40%*	*0.33%*	*0.37%*	*0.37%*	*0.36%*	*0.37%*	*0.37%*
- Non-Operating (Income) Loss	289.0	660.0	286.0	733.4	994.7	1,032.9	1,432.5	1,672.5	1,828.2	2,047.2	2,147.8
EBIT	**59.0**	**1,573.0**	**3,900.0**	**-9,927.6**	**-7,435.2**	**-2,627.9**	**4,652.7**	**27,654.5**	**34,292.8**	**43,575.8**	**50,099.4**
Income Tax Expense (Benefit) as a % of Rev	*0.19%*	*0.89%*	*1.05%*	*0.71%*	*0.88%*	*0.88%*	*0.82%*	*0.86%*	*0.85%*	*0.85%*	*0.85%*
- Income Tax Expense (Benefit)	167.0	950.0	1,425.0	1,351.9	2,171.3	2,729.3	3,155.6	3,892.5	4,353.9	4,714.3	5,019.1
+ Depreciation & Amortization	8% of Rev	8% of Rev	8% of Rev	15,280.2	19,713.3	24,841.5	30,687.4	36,170.7	40,778.2	44,584.5	47,035.9
- Changes in NWC	0.12% of Rev	0.12% of Rev	0.12% of Rev	229.2	295.7	372.6	460.3	542.6	611.7	668.8	705.5
- Capital Expenditure	6.8% of Rev	6.8% of Rev	6.8% of Rev	26,688.2	16,756.3	21,115.3	26,084.3	30,745.1	34,661.4	37,896.8	39,980.5
Free Cash Flow				**-22,916.6**	**-6,945.2**	**-2,003.6**	**5,639.9**	**28,645.0**	**35,444.0**	**44,880.4**	**51,430.1**
Discount Factor				0.9299	0.8646	0.8040	0.7476	0.6951	0.6464	0.6010	
Long-term Growth											2.0%
Terminal Value										925,002.3	
Present Value				-21,309.1	-6,005.0	-1,610.9	4,216.3	19,912.2	22,910.0	582,929.4	
NPV			**601,042.8**								
Shares Outstanding			477.98								
Share Price			**$ 1,257.46**								

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Environmental Social and Governance Factor Analysis

STRATEGIC REVELANCE

As a multinational company destined to leave an environmental impact on the world, Amazon has consistently sought to make its footprint greener. In 2016, Amazon was the leading corporate purchaser of renewable energy in the U.S. To power its growing Amazon Web Services (AWS) business, Amazon announced over 20 green construction projects, building solar farms to create renewable energy. Sources estimate that 10 renewable energy construction projects will generate 2.6 million megawatt hours of energy annually. That is equivalent 222,222 households' annual electric consumption. Amazon has also joined with Apple, Microsoft, and Google in support of the Clean Power Plan, an Obama administration policy aimed at combating anthropogenic climate change (global warming) that was first proposed by the Environmental Protection Agency in June 2014

Amazon Fulfillment Centers (AFC) have also been the site of green developments: by 2020, the firm will have rooftop solar system installed in more than 50 AFCs, providing renewable energy to these power-intensive fulfillment centers.

INVESTOR MATERIALITY

Materiality is defined as information that a company discloses and which, if omitted or misstated, can influence an investor's decision. Understandably, a one size fits all strategy does not work here, since different investors have different criteria as to what information is 'material', but Amazon has been able to explain its business and related risks in a transparent way through its website and via 10-K and 10-Q documents. Risk factors that Amazon perceives as meaningful are listed in its 10-K and 10-Q, giving investors detail on items, macro or a micro, may negatively affect the business.

Amazon also discloses tax arrangements and taxes due amounts by quarter in its 10-K, and explicitly notes which revenue is taxed differently, given different taxation rules in various geographical location.

From a human rights perspective, Amazon is supporting and to contributing to communities where its employees and customers live. To recognize veterans, the firm has specifically sought to employ veterans and military spouses and now has over 10,000 employees in this category.

Amazon also supported The Seeing Eye, a school in Morristown, NJ that trains service dogs and their disabled owners. The firm provides its innovative Echo – a smart speaker which can perform various tasks through voice command – to all disabled service dog owners at the school.

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INVESTMENT GRADE DATA

We evaluate the validity of the data that the company provides to investors, who then use that data to make capital allocation and investment decision. Evaluation factors include data accuracy, boundaries, comparability, timeliness and balance.

Amazon's annual reports, over time, have shown a high degree of accuracy. The firm's financial statements are audited by Ernst & Young LLP (EY), one of the Big Four accounting firms.

We note that generalized items, like revenue and cost of goods sold, are broken down into components. This provides investors with a clearer picture of operating trends.

Boundaries involve reporting data that are aligned to fiscal year and business ownership model. As most companies do, Amazon reports data in a consistent way, including specific items that are generally viewed as important metrics for investors. The consistency of the financial data can be verified by examining prior year 10-Ks.

Comparability denotes the consistency of financial reporting. This allows the firm's data to be compared to that of other companies in the same industry. While no company includes valuation ratios in their 10-Ks, they usually include items that can be used to calculate valuation ratios, and Amazon is no exception: balance sheet, income statement and statement of cash flow data are all included in its 10-K.

Timeliness refers to the idea that a company should provide data in a prompt fashion to avoid any doubt about the stability of operations. Amazon usually reports its 10-K two months after yearend, typical in the industry, since accounting firms need time to examine the validity and quality of financial statement data and may require clarification on certain items.

Finally, balance refers to the desire that a company provide an objective picture of its performance, presenting both favorable and unfavorable information. Amazon does so in its revenue section by elaborating on the factors that cause AWS to attain higher growth. The firm also revealed that its North America and International suffered slower growth.

GLOBAL FRAMEWORK

Since ESG reporting has not been adopted by most companies, it is difficult to compare ESG standards used in Amazon's reports. There are, however, global ESG reporting frameworks that are becoming industry standard. Among those are: CDP (Carbon Disclosure Project), CDSB (Climate Disclosure Standards Board), GRI (Global Reporting Initiative), Integrated Reporting, SASB (Sustainability Accounting Standards Board), and UNGC (UN Global Compact). We note that Amazon hasn't adopted any of these standards, nor has it participated in any programs sponsored by these reporting agencies. However, this should not be interpreted to imply that

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Amazon is unwilling to report using these ESG standards, rather given the fact that ESG reporting is, at present unregulated, many companies choose to ignore the existence of ESG standards and report ESG data in a manner that suits the firm first. We believe that once these ESG standards become more widespread, more companies will participate. We expect Amazon to follow.

ESG REPORTING FORMATS

A company may choose to report ESG data in one or more of the following ways: via the firm's annual report; via a standalone sustainability report, which is a separated ESG report that a company issues, in addition to its annual report; and via an integrated report, which fully incorporates ESG information and data within the annual report.

Currently, many companies choose to include or to introduce ESG concepts in their annual report, although they do not explicitly identify them as ESG factors. Amazon is one of those companies. Since traditional 10-K reports have been widely standardized, we believe integrating ESG factors into annual reports will cause information overload; investors may be overwhelmed. Standalone sustainability reports separate financial data from ESG data and provide investors with a clear distinction between a company's operation and the company's efforts with respect to ESG factors. This reduces confusion, and is our preferred method.

For more information, please refer to: http://business.nasdaq.com/media/ESG-Reporting-Guide_tcm5044-41395.pdf

Saturday, July 1, 2017

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