Investment Analysis of Amazon and J.P. Morgan Chase Based on Stock Market Analysis

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Abstract. Contemporarily, Amazon and JPMorgan are top companies in their industries. However, the investment chosen among the top corporations remains an unsolved topic. In this paper, we will evaluate the effusiveness of different evaluation models based on the data collected from the annual statements of the companies. Specifically, the quantitative analysis method is applied to the research between Amazon and JPMorgan. According to the analysis, we believe that JPMorgan has a better investment value, while we can also keep focusing on Amazon since Amazon has made rapid progress in multiple aspects. These results shed light on guiding the way of using data to analyze which company to invest in.

Keywords: Amazon; JPMorgan; Investment suggestion.

1. Introduction

Amazon and JP Morgan are two well-known companies, and both are industry leaders [1-4]. The purpose of this research is to find out which of the two companies has more investment value. Amazon covers a wide range of businesses: Online store, offline store business, retail third-party sales service, Amazon network service, and subscription service. At the beginning of its founding, Amazon rapidly grew into the world's largest bookstore through mergers and acquisitions of competitors. This business is still a major part of the market and occupies a large share in the market. Sadq stated that Amazon has become a leader in the book industry and will continue to lead in the coming years. Meanwhile, the data in the article points out that the sales growth rate of Amazon books has been at an annual growth rate of more than 10% from 2004 to 2011, and reached 29% in 2007 [5].

Subsequently, Amazon expanded its business categories: from books to audio-visual products, toys, and clothing, basically including various categories involved in people's daily life. We know from "Why Amazon Is the World's Most Innovative Company Of 2017" that Amazon has entered the film and television and live broadcasting industry and achieved great success. Besides, Prime is taking an important role in Amazon, according to some estimates, 60% of the total dollar value of all merchandise sold on the site, is used by around 45 million people in the United States [6].

JPMorgan Chase & Co is one of the world's leading financial services companies. It relies on investment banking, financial services for consumers, commercial banking, transaction processing, and asset management. Chase is an absolute dominator within the consumer banking market in the US. It sells the most credit card, besides, its website also has the highest visits [7]. According to the research done by Rana and Ghildiyal, the distance-to-default of JP Morgan is very low, which means JP Morgan is not likely to default when asset value and volatility change [8]. JPMorgan has a department called the Chief Investment Office, which managed $350 billion in portfolios, almost double the equity of all JPMorgan's shareholders by December 2011 [9].

Out of interest in the two industry leaders, after we have done some research, we want to judge which company has more investment value by comparing some parameters of the two companies. To draw a conclusion, we collect the financial data of the two companies from 2016 to 2020, and calculate the data with the formula, then compare them. Investors generally use these parameters to measure a company. Gross Profit Margin, Dividend per Share, and Earnings Before Interest, Tax,

Depreciation, and Amortization (EBITDA), and these are the parameters utilized to compare. EBITDA is normally used to calculate the valuation and debt of a company [10]. It is a way to show the operation, profitability, and performance of an enterprise. The advantage of EBITDA is that it is neutral to the capital structure. It reduces the risk of factors affected by capital investment and other financing variables [11]. The dividend per share reflects the size of the dividend obtained by each common share of the listed company. It is important for a company to pay dividends since the dividend is a direct income for the investors. They can easily calculate how much they will benefit from investing in stock [12]. Moreover, shareholders preferred higher dividends, and the dividend is considered an important factor that determines the shareholders' wealth according to Khan's study [13]. The dividend yield is another important parameter based on dividend per share. It is a ratio of a company's dividend to the company's share price. The higher the dividend rate, the stronger the profitability of the company. Continuous high dividends indicate that the company has good sustainability and long-term investment value.

Gross profit margin is the proportion of a company's gross profit in operating income. Through gross profit margin, we can judge the quality of a business. The higher the gross profit margin, the fewer competitors the company has, which means it is really a good business. The company has a continuous competitive advantage; the lower the gross profit margin, the more competitive the market is. These are the three main parameters utilized to compare the data between the two companies. According to the analysis, these parameters are commonly used and can describe a company's investment value properly. The rest part of the paper is organized as follows. Sec. II will focus on the detailed data. Sec. III will focus on the analysis of the data as well as the discussion of the analyzed data. Sec IV is the conclusion and future exploration.

2. Methodology

We use the data from annual reports of the two companies from 2016 to 2020. Functions will be used to calculate the data or the indicators will be collected directly to do the comparison. As for the definition of the variables, Curcd means currency, revt means revenue, cogs mean cost of goods, at means total assets, Ebitda means earnings before interest, tax, depreciation, and amortization, prccf means price/ share, csho means common shares outstanding, and dvc means all dividends paid by the company. We will use one main functions:

Gross Profit Margin: Gross Profit Margin= (Revenue- Cost of Goods)/Revenue.

Dividend per Share= dvc/csho

Dividend Yield= Dividend per Share/ prccf

As shown in the Table I, Revenue of Amazon from 2016 to 2020 are 135987, 177866, 232887, 280522, and 386064. Cost of goods of Amazon from 2016 to 2020 are 81865, 103134, 127056, 150436, and 217107. By calculation, Revenue of JPMorgan from 2016 to 2020 are 105486, 113254, 131412, 142422, and 129503. Cost of goods of JPMorgan from 2016 to 2020 are 15179, 19565, 27254, 32380, and 27440. By calculation, the GPM of Amazon from 2016 to 2020 are 0.398, 0.42, 0,454, 0,464, and 0.438. The average is 0.4348. The median is 0.438. The GPM of JPMorgan from 2016 to 2020 are 0.86, 0.83, 0.79, 0.77, 0.79. The average is 0.808. The median is 0.79. The average of GPM of Amazon is less than 50% of which in JPMorgan. Though JP Morgan's GPM decreased about 2% in the first four years, it is still way better than Amazon, and it increased in 2020. As mentioned earlier, the higher GPM of JPMorgan indicates that JPMorgan has a better continuous competitive advantage.

As summarized in the Table I, the EBITDA of Amazon from 2016 to 2020 are 10753, 13120, 24817, 29842, and 39024. The average is 22711, and the median is 24817. The EBITDA of JPMorgan from 2016 to 2020 are 56690, 58957, 67089, 71565, and 62626. The average is 50585, and the median is 62626. From 2016 to 2019, JPMorgan has triple or even four times EBITDA than Amazon's. Though Amazon has an amazing increasing rate at around 65% per year, there is still a gap between

two companies. Maybe one day Amazon will have a better EBITDA, but for now, JPMorgan is obviously a better choice.

According to Table I, Amazon never pays Dividend, so the data from 2016 to 2020 is always 0. According to the statement of Jonathan mentioned in Ref. [12] that Amazon grows fast, and have lots of cash and cash equivalence, but it seems that it never considered paying dividend. However, it is also mentioned that maybe Amazon will follow Apple to pay dividend one day. On the other hand, JPMorgan pays a high dividend. It pays 1.94, 2.2, 2.8, 3.53, 3.65 from 2016 to 2020. The price per share of JPMorgan from 2016 to 2020 are 86.29, 106.94, 97.62, 139.4, and 127.07. By calculation, the dividend yield of JPMorgan from 2016 to 2020 are 2.4, 2.1, 2.9, 2.5, and 2.9. These data proves that JPMorgan has a better continuous competitive advantage.

Table. 1 Important data of Amazon and JPMorgan from 2016 to 2020

datadate	fyear	tic	curcd	At(million)	dvc(million)	ebitda(million)	cogs(million)	csho(million)	prcc_f	revt(million)
20161231	2016	AMZN	USD	83402	0	10753	81865	477	749.87	135987
20161231	2016	JPM	USD	2490972	6912	56690	15179	3561.19	86.29	105486
20171231	2017	AMZN	USD	131310	0	13120	103134	484	1169.47	177866
20171231	2017	JPM	USD	2533600	7542	58957	19565	3425.3	106.94	113254
20181231	2018	AMZN	USD	162648	0	24817	127056	491	1501.97	232887
20181231	2018	JPM	USD	2622532	9214	67089	27254	3275.766	97.62	131412
20191231	2019	AMZN	USD	225248	0	29842	150436	498	1847.84	280522
20191231	2019	JPM	USD	2687379	10897	71565	32380	3084.021	139.4	142422
20201231	2020	AMZN	USD	321195	0	39024	217107	503	3256.93	386064
20201231	2020	JPM	USD	3386071	11119	62626	27440	3049.434	127.07	129503

3. Results & Discussion

If an investor wants to make profit from stock, two major components will be mainly considered. The investors would consider whether the stock price will increase in the future or investors would be benefited from future dividends. The form above showed three financial indicators in the stock market between Amazon and JP Morgan. Gross Profit (GP) Margin and gross profit margin and net income with interest, taxes, depreciation, and amortization added back (EBITDA) shows the ability to make profit for the company and DPS shows the payback for stockholders of the company.

As an investor, one needs to know whether the company is able to make profits on its own, especially as a leading company in the industry. In this case, we chose the gross profit margin and net income with interest, taxes, depreciation, and amortization added back (EBITDA) as indicators. According to Figure 2, as a highly developed company in the industry, the minimum gross profit margin for JP Morgan is still above 75%, which means that the company still remains a good operating model in terms of income and expenses. This model gives investors sufficient confidence to believe that the company is still functioning in a positive direction, even with some minor fluctuations in stock price while continuing to bring positive benefits to the company. According to the data analysis, the gross profit margin of JP Morgan is 1.8 times greater than Amazon in 2020 and kept a higher level than Amazon from 2016 to 2020. On this basis, it shows that the company has a better ability in making profits in business operations. As for EBITDA, seen in Figure 1, even with the negative effect of COVID-19 the EBITDA of JP Morgan is still 1.6 times higher than Amazon. The negative effect of the pandemic and the financial shock happening from February 2020 may be the primary reason why the EBITDA in 2020 from JP Morgan dropped. Nevertheless, one sees that from 2016 to 2019 the company maintained stable growth in EBITDA when leaving the data from 2020 aside. In other words, the company is still able to expand its business and as a result, expand the revenue. After a series of lockdown and vaccination processes, it is highly likely that in the coming 2022 to 2025 JP Morgan's EBITDA will back to an increase trend. When considering about dividend

in the future, we used the dividend per share for those two companies' stock. As illustrated in Figure 3, when analyzing the DPS, we find that the especially for high tech companies like Amazon they do not give dividends and would like to put all the earning back to development or investment; whereas JP Morgan kept a continued growth in divided per share from 2016 to 2020. It means that investors who prefer dividend as major return, would like to prefer investing JP Morgan over Amazon.

Based on all the analysis above, we can see that compared with Amazon, the leading company in the high-tech industry, JP Morgan which is the leading company in the finance industry would be a better choice of investing for investors. However, when putting the market performance in the whole market, both companies maintained a stable growth in their enterprise value even though negatively affected by the pandemic, which attributed to the position of the two companies in their own industry. Therefore, it can be predicted that those two companies can still be the leading choice in the stock market with the recover from the pandemic.

As for this research paper, some constraints also need to be discussed. Since J.P Morgan Chase and Amazon are two companies working in different fields their different working field contributed to their different financial background. Thus, it would be hard to compare the leader in technology and the leader in the financial area simply using the financial indicators shown above. The core value of Amazon is its technology development, while J.P. Morgan Chase is more dependent on financial activities. This resulted in some seemingly unreasonable results, including the market value of Amazon (1.54 trillion US dollars) is much higher than J.P. Morgan Chase (370.764 billion) while the indicators were chosen to show that J.P Morgan is a better company to invest in.

In addition, the pandemic is also another factor that cannot be ignored. During pandemic most of the industries suffered with a negative effect. Especially in 2020 the unstable of the stock market would be more harm to financial companies than technology companies. Hence, the result chosen could be biased for the post-pandemic times starting from 2021.

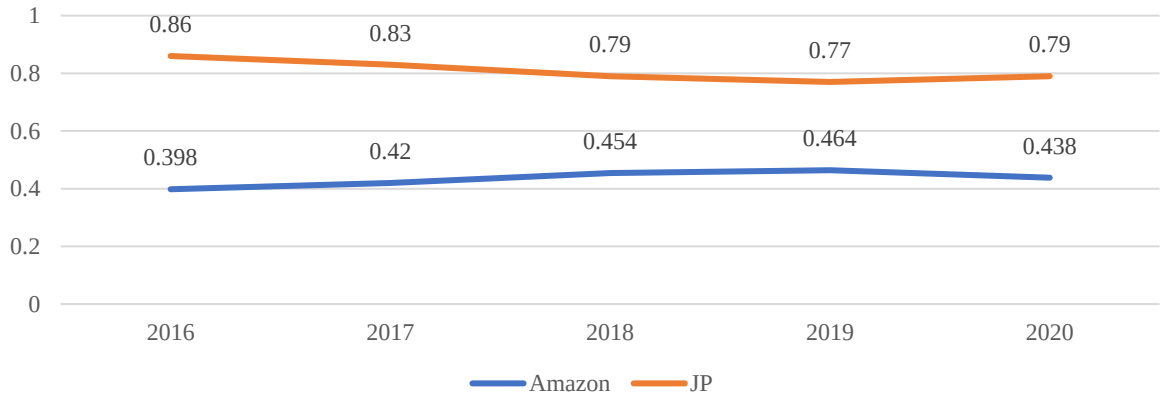

Figure. 1 GP Margin of Amazon and JPMorgan

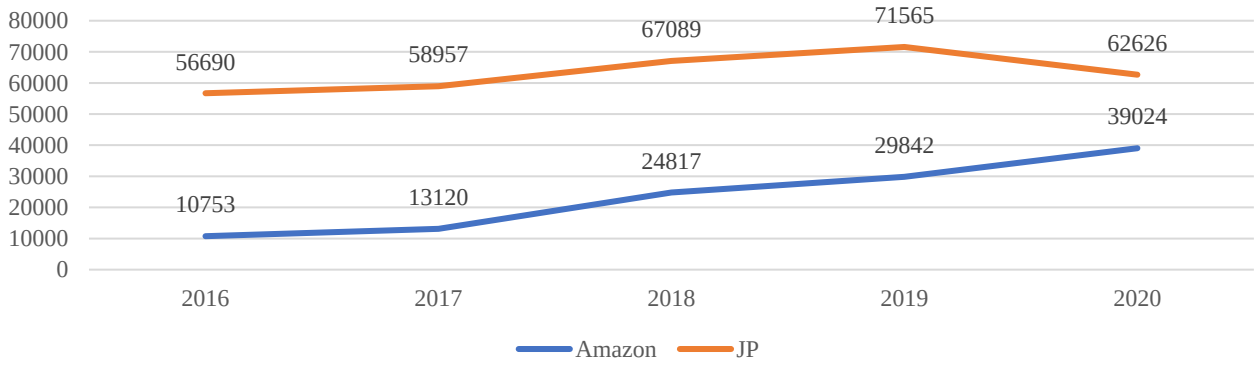

Figure. 2 EBITDA of Amazon and JPMorgan (In million US Dollar)

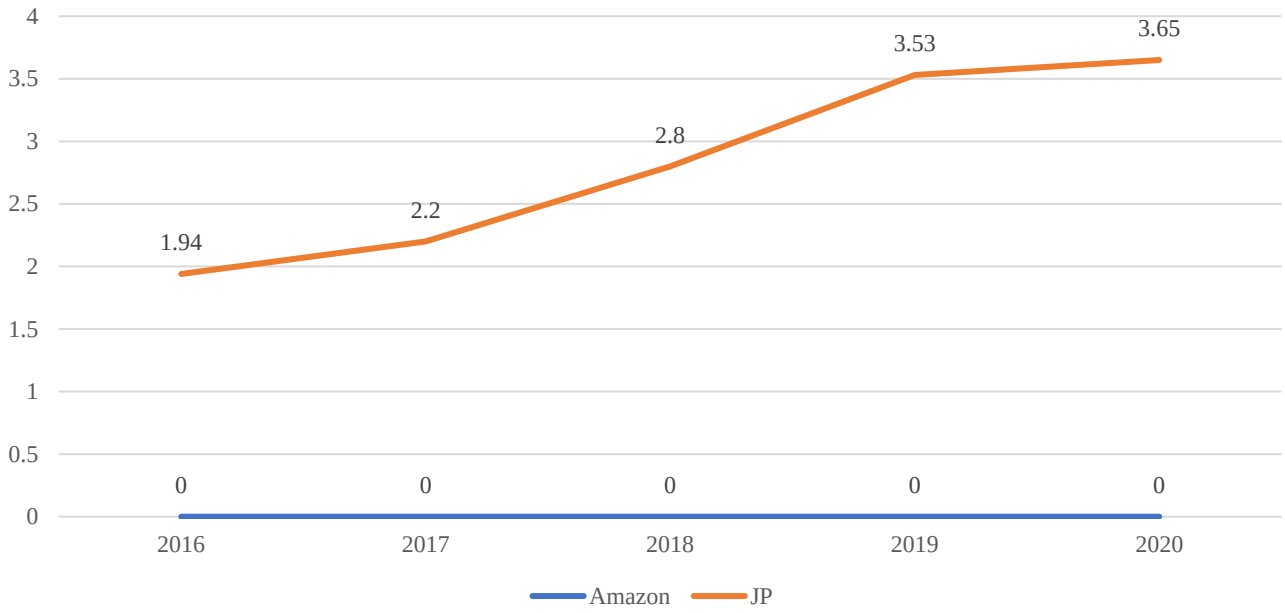

Figure. 3 EDPS of Amazon and JPMorgan Conclusion

In summary, this paper investigates the stock performance of two leading companies in financial and technological fields to provide investment preference as a potential investor. Based on the analysis, we compared the numerical indicators in both profitability and dividend. As a result, we would highly recommend choosing J.P. Morgan Chase as a primary potential investment choice after a series of comparisons. However, it is believed that the results only indicate that Amazon maybe not be as attractive as JP Morgan but is still a highly recommended invest target to hold for a long period. With this in mind, choosing Amazon as a backup or supplement or secondary investment target is also highly recommended, as Amazon still is one of the top companies in the industry with full future potential. After pandemic, we expect a full recovery in economic and financial area, which could show more positive signs for investment market. Additionally, as the two companies gradually expand their business in each other's industry, one will also find greater possibilities for the two companies in the foreseeable future. This research paper aims to discover the financial differences between those two companies as an investor. Besides, the analysis could show some of the differences between different companies concentrated in different working fields. In the future, both JP Morgan and Amazon will have a positive investment potential, which will create a positive return for both the company and the investors. Overall, these results offer a guideline for future investors to have a better understanding of the potential investment choice, especially among different industries.

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