

# A Study on the Relationship Between Capital Structure and Value of Retail Industry --Taking Amazon as an Example

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**Abstract.** The outbreak of COVID-19 has driven a change in the residents' consumption structure, prompting further transformation and upgrading of the retail industry and intensifying market competition within the industry. The transformation and upgrading of the retail industry require financial support. When business directions change and business forms are adjusted, financing channels and financing methods need to be expanded to ensure that the company can cope well with the tight capital situation when faced with high-quality financing decisions. The capital structure and financing choices made by the company have a direct bearing on the company's future development and fate in the current state of the online retail business. Additionally, making financial decisions is at the heart of business management. Businesses should pick advantageous financing options to lower borrowing costs. At the same time, the enterprise also should establish effective internal financial controls to lay the financial foundation for the future sustainable development of the enterprise. To improve the enterprise value of the online retail industry as well as the enterprise's ability to withstand risks and enhance its competitiveness, this paper examines the relationship between Amazon's asset structure and enterprise value and makes relevant recommendations to it.

**Keywords:** Amazon; retail industry; enterprise value; capital structure.

## 1. Introduction

### 1.1 Background

The COVID-19 epidemic in early 2020 had a substantial effect on the consumer market. Affected by falling incomes, higher shopping costs, and poor offline shopping channels, many consumers adopted a delayed consumption strategy, which led to a relatively significant decline in total consumption of retail social goods [1]. The growth rate of total retail social consumption continued to decline. However, the potential consumer demand will still provide good support for the development of the retail industry and the trend of transformation and upgrading will continue. The change in consumption structure under the influence of the epidemic had a greater impact on the retail industry. In terms of consumer characteristics, on the one hand, residents have higher requirements for quality and value for money; on the other hand, the stratification of the consumption structure is becoming apparent, with different age groups having different product preferences, increasing the chances for the retail market's growth. Retail businesses are modernizing their supply chains, products, and channels in response to this environment. In recent years, retail channels have become more varied, and merging online and offline sales is a prominent trend. Brand management has improved and the inventory mix of supermarkets and department shops have been refined. Retail businesses have strengthened their collaboration with and investment in upstream sources of goods in terms of the supply chain, with some enterprises focusing on the layout of fresh food base resources and imported goods channel resources, and the layout of logistics resources such as front-end warehouses has been gradually promoted. In addition, the reshaping of retail scenarios, business process transformation, and corporate cost control all greatly benefit from the deployment of technologies.

The administration's epidemic prevention and management procedures were strengthened in response to the spread of COVID-19. And physical retail performance declined due to government controls and residents' avoidance of gathering places. Each market category was impacted by the epidemic in a unique way due to variations in business methods and product content, with department shops and supermarkets being affected differently and online shopping penetration growing quickly.

Even though offline businesses offer a better customer experience and are more difficult to replace by online channels, users' online consumption patterns and stickiness during the epidemic will make it easier for e-commerce platforms to continue to dominate the consumer market after the epidemic is over. This will have an effect on how physical retailers conduct their business. Although COVID-19 did not completely change the development trend of the retail industry, it accelerated the transformation of the shopping habits of some people. It also promoted the sinking and landing of retail shops and contributed to the further integration, digitalization, and modernization of the retail supply chain.

## 1.2 Objection

For the retail industry, maximizing corporate value is the aim of optimizing capital structure. And the long-standing discussion on the relationship between capital structure and enterprise value has been controversial in academic circles. In the actual management and control of enterprises, the fierce competition in the external market and the adjustment of the internal management mode will make them show dynamic development and change. The capital of an enterprise has different requirements for control and cash flow. Analyzing the current modern enterprise capital theory, we can find that the enterprise capital structure is closely related to the enterprise value, and different capital combinations also affect the development of enterprise financial risk management and control[2]. In recent years, Amazon's corporate value has steadily increased despite the impact of multiple factors such as the new crown epidemic and the US-China trade war. This paper will analyze the relationship between Amazon's asset structure and enterprise value, and provide suggestions for the online retail industry to improve its own enterprise value.

## 2. Basic descriptions of Amazon

With the globalization of the economy and the rapid development of online marketing, the online retail market is gradually becoming more sophisticated. Currently, the online retail industry is one of the most dynamic industries and one of the most rapidly growing in terms of turnover. Due to the fierce competition from major e-commerce platforms, companies have to raise capital through various channels in order to put themselves in a favorable position in the current environment, and different financing structures can have different impacts on the value of the business.

Located in Seattle, Washington, Amazon is one of the biggest online retailers in the country. In 1994, Amazon began selling books online. Since then, it has grown to sell a wide variety of other goods, making it the largest online retailer and the second-largest Internet corporation in the world. the subsidiaries of the Internet Movie Database (IMDB). Currently, there are 14 Amazon sites around the world, including the United States, Japan, Canada, Brazil, Mexico, the United Kingdom, Germany, France, Spain, Italy, the Netherlands, India, Australia, and Turkey, covering almost all continents.

In this paper, we choose Amazon as a model of the retail industry. It is not only because of its prominent position in the online retail industry, but also because we want to understand Amazon's asset structure, analyze its relationship with enterprise value, and provide suggestions for the development of the online retail industry by learning the experience of Amazon's enterprise value increasing year by year.

## 3. Balance sheet

### 3.1 Financial Strategy Analysis

#### 3.1.1 Fundraising investment strategy analysis

Early on in its development, Amazon had a solid track record, and banks were eager to provide ample loan funds to support Amazon [3], loan funds, therefore, became a significant portion of Amazon's investment funds in its later operations for worldwide expansion. Since Amazon started its cross-border e-commerce journey in the 21st century, total assets have doubled 30 times (Total assets

from \$13.813 billion to \$420.549 billion, data from macro trends), while total liabilities have risen from \$8.556 billion in 2009 to \$282.304 billion in 2021. The total debt rose from \$8556 billion in 2009 to \$ 282.304 billion in 2021, a 32-fold increase. The above indicators show the high debt of Amazon, and it prioritizes using debt finance to raise the capital required for investment initiatives. Although this financing method makes full use of the role of financial leverage, it will also bring many problems to Amazon due to excessive debt. Once Amazon's solvency is insufficient, it will lead to the rupture of the capital chain, increase the financial risk of the enterprise, and even cause financing difficulties and high financing costs [4].

Amazon uses its long-term debt to invest in new businesses and develop new markets, while it still makes good use of short-term borrowing in the course of its operations. Since Amazon is mainly in the online retail industry, a key factor in Amazon's current asset growth from \$9.797 billion in 2009 to \$161.58 billion in 2021 is the company's aggressive working capital management policy, strong financing capability, and emphasis on information technology, logistics, and transportation improvements. Inventory accounted for more than 64% of current assets in 2009, and the ratio of cash among current assets is fairly high.

### 3.1.2 Operational Strategy Analysis

In order to get a better visualization of this Amazon development and analyze the working capital management of the business, we have studied its financial statements for 2019-2021 with the following results:

**Table 1.** Operating Capacity Indicators

Company Indicators	2021	2020	2019
Asset turnover	1.1172	1.202	1.2454
Inventory turnover	8.3439	9.8049	8.0761
Receivable turnover	14.2842	15.7308	13.4763

(Source: <https://www.macrotrends.net/stocks/charts/AMZN/amazon/financial-ratios>)

As shown in Table 1, Amazon's total asset turnover ratio is greater than 1, and inventory turnover days are faster, which is directly related to the characteristics of Amazon's inventory management. It is called a "chaotic inventory management system", that is, the order in chaos, Amazon's warehouse goods are almost disorderly arranged, but its error rate is much lower than the general fixed inventory storage system [5].

Amazon ships large items directly from suppliers, so it has a fast inventory turnover rate and customers generally receive their goods within a day or two of placing an order, which is good in that respect. But the immediate consequence is that it takes some time for the payment for the goods to be determined from the time the consumer receives it to the time Amazon.com recognizes the revenue. One of the pillar segments of Amazon.com is overseas purchases, which generally support credit card payments, and the effective credit days for credit cards are generally about 15 days, so Amazon.com's accounts receivable days are generally relatively long.

### 3.2 Cash flow analysis

To get a more visual picture of this Amazon's cash flow position, we examined its 2019-2021 financial statements and the results of our analysis are as follows:

**Table 2.** Cash Flow

Unit: million dollars	2021	2020	2019
Cash Flow From Operating Activities	46,327	66,064	38,514
Cash Flow From Investing Activities	-58,154	-59,611	-24,281
Cash Flow From Financial Activities	6,291	-1,104	-10,066
Net Cash flow	-5,900	5,967	4,237

(Source:<https://www.macrotrends.net/stocks/charts/AMZN/amazon/financial-ratios>)

As shown in Table 2, Amazon's cash flow position has been relatively poor in recent years, especially in investment and economic activity. This is large because of the sweep of COVID-19, (This is largely due to the sweep of the new crown epidemic)the global economic slowdown, and the pressure of slowing retail expansion, which has forced Amazon to rely more on its AWS to drive growth. But its AWS will continue to require significant capital investments that will last for years. Meanwhile, its cash flow is under increasing stress due to increased gasoline prices and ongoing inflation. As a result, the company will have to make some difficult decisions regarding future capital allocation. It might reduce its infrastructure spending, issue more shares at a time when share values are low, or more debt when borrowing costs are rising. But it doesn't seem to find any of those choices appealing.

### 3.3 Accounting performance analysis

To gain a better understanding of Amazon's accounting performance position, we examined its data for 2019-2021 and the results of our analysis are as follows:

**Table 3. Indicators**

Company Indicators	2021	2020	2019
Operating Margin	5.2954	5.9314	5.1836
Current Ratio	1.1358	1.0502	1.097

(Source:<https://www.macrotrends.net/stocks/charts/AMZN/amazon/financial-ratios>)

#### 3.3.1 Profitability Analysis

When a company has good profitability, it is possible to retain a larger surplus to meet the company's financing needs, rather than relying on external financing. Therefore, it can issue fewer bonds. A profitable company can also generate a large amount of after-tax profits, which can be accumulated internally to a large extent to finance the expansion of the company's reproduction needs, reducing its dependence on debt funding [6].

As shown in Table 3, in the past three years, Amazon's operating margin has remained above 5, which indicates that Amazon's merchandise sales provide more operating profit. The ability of Amazon's profitability is so strong. It is mainly because Amazon has a lucrative cloud computing AWS and advertising business in addition to retail services with better returns. According to the following development trend, Amazon is still able to maintain better development momentum.

#### 3.3.2 Development capacity analysis

The ability of a company's current assets to be converted into cash to settle liabilities prior to the maturity of short-term debt is gauged using the current ratio. Although a company's assets are more liquid the higher its current ratio, a ratio that is too high suggests that more current assets are locked up, which will have an impact on operating capital turnover efficiency and profitability. A minimum current ratio of two is typically regarded as fair.

From Table 3, Amazon's current ratio is greater than 1 and less than 2. Based on experience, we can find that Amazon still has more room to rise, and Amazon's operation is still relatively assured.

## 4. Marketing

### 4.1 Business Valuation Study

#### 4.1.1 Stock Price Analysis

The rise and fall of the stock price are determined by a variety of factors such as supply and demand, the amount of capital, performance, policy, news, etc. The stock price will increase when supply surpasses demand; on the other hand, the stock price will decline when supply outpaces demand. The

stock price will rise when the supply exceeds the demand, on the contrary, the stock price will fall when the supply exceeds the demand, the stock price will rise when the number of capital increases, on the contrary, the stock price will fall when the number of capital decreases. When the company's performance is good, the stock price will rise, on the contrary, when the performance is poor, the stock price will fall, when the policy is good, on the contrary, when the policy is not good, the stock price will fall, when the stock has good news, the stock price will rise, when the stock has negative news, the stock price will fall.



**Fig.1** the movement of stock price (Source: Yahoo Finance)

As shown in Fig.1, Amazon's stock price has fluctuated tremendously in the past two years, and mainly shows a downward trend. It is mainly caused by the following reasons.

Firstly, it is because the epidemic is improving and consumers are returning offline. When the epidemic was relatively serious, people stayed at home and went out to spend less frequently. So as an online e-commerce Amazon seized the opportunity, and revenue and profits soared, making the company's performance in the earnings report good, and eventually letting the market value soar. And now the epidemic has improved, people are more willing to go offline at Walmart supermarkets, and performance decline will naturally eventually lead to a decline in market value.

Second, Amazon blind expansion. Amazon in addition to developing its own online retail business also has its own company cloud services business to the world's first. So Bezos, who had tasted the sweetness of business expansion, started all kinds of expansion to better the company's development, but the blindness of its expansion caused people to lose confidence in it.

Third, the problem of anti-trust. Amazon's business was directly affected by a series of antitrust charges and antitrust penalties in European countries. After that, Amazon's logistics problems also directly affected Amazon's overseas business, which also directly made many people lose confidence in Amazon's investment, and then sold off Amazon's stock.

Fourth, the valuation of Amazon itself has been very high. Because the global asset bubble lasted for two years, during which Amazon's market value rose all the way. Because many investors have been exposed to the risk, so many people choose to reduce their positions.

#### 4.1.2 P/E Valuation Method

The P/E ratio is an indication of the current market's attitude toward the growth prospects of companies in confidential mode or companies that have been publicly traded for a short period of time. The P/E ratio is also known as the proportion between a stock's market price per share and its earnings per share. Through Yahoo Finance's data, we can know that Amazon's P/E is 78.94, while Walmart's P/E in the same industry is 44.24, which shows that compared to Walmart, Amazon has a

longer payback period, greater investment risk, and greater investment value of the stock and better growth prospects.

#### 4.1.3 Enterprise value multiplier method

By selecting the financial data of the company in 2021, I calculate the enterprise value multiplier of three retail industries. The data are shown in Table 4:

**Table 4.** EV/EBITDA (Source: Yahoo Finance)

Company	Market Cap	EBITDA	EV/EBITDA
Amazon	869.695B	51.55B	18.23
Alibaba	232.767B	146.09B	2.09
Walmart	387.719B	34.89B	17.34

The arithmetic average of the value multiplier of the three comparable companies is 12.55, while Amazon's enterprise value multiplier is 18.23, which indicates that Amazon's overall value is higher than the retail industry average. In recent years, Amazon has not only maintained its absolute dominance in the online retail industry but also expanded its physical retail business.

According to statistics, in 2021, Amazon sold \$600 billion worth of goods. Total merchandise volume (GMV), including Amazon's own sales and those of its platform, doubled in three years. According to Marketplace Pulse estimates, Amazon's sales reached \$210 billion, up 11 percent year-over-year, and third-party sales reached \$390 billion, up 30 percent year-over-year. In 2021, Amazon's GMV still grew by more than \$100 billion. Third parties accounted for more than 80% of incremental GMV. Its sales nearly doubled in just two years - from \$200 billion in 2019 to \$390 billion in 2021. The third-party platform business has been growing faster than Amazon's own sales for years (it accounts for nearly 65% of GMV; a decade ago, it was 38% in 2011).

It is reported that 25 cents of every dollar spent on online purchases goes to Amazon's third-party platforms. If Amazon's marketplace were a standalone platform, it would be the largest online retailer in the United States. Amazon's market share of total U.S. e-commerce spending is about 25 percent. According to eMarketer, Amazon accounted for 41.4% of all e-commerce sales in the U.S. in 2021. Since the e-commerce business accounts for at least 60% of Amazon's GMV, it has a 25% share of U.S. e-commerce.

## 4.2 SWOT

### 4.2.1 Strengths

#### 4.2.1.1 Mature cross-border e-commerce supply chain

A well-developed international e-commerce supply chain has been created by Amazon. As a US-based e-commerce business that has achieved success in a number of international markets, Amazon has developed solid partnerships with foreign suppliers and a productive shipping infrastructure. Amazon has boosted its initial investments in establishing logistics facilities, but it has also engaged logistics management specialists as corporate executives who are directly in charge of supply chain development. Amazon has been unbeatable in cross-border e-commerce pricing competition thanks to the emphasis on both hard and soft technology in logistics, which has allowed it to increase the speed of logistics delivery and lower logistics costs[7].

#### 4.2.1.2 Customer-focused business philosophy

Customer-first business principles have long been a priority for Amazon, as can be observed from two perspectives.

First, Amazon.com's first-rate customer service software system enables it to offer consumers services that are more convenient and user-friendly. Second, offline delivery also reflects the idea of putting the needs of the client first. Free shipping and unconditional returns are just two examples of services that are provided for the benefit of the customer in order to draw in both new and recurring

business. Finally, employees at Amazon.com invest just as much time, money, and effort into providing excellent customer service and cultivating long-lasting connections with their clients as they do into making sales and shipping. The business encourages its personnel to go above and beyond the call of duty when a customer requests assistance, such as checking up on a book title, a mistaken location, etc.

#### **4.2.2 Weaknesses**

##### **4.2.2.1 The volume of clients and their financial capacity**

Amazon has a sizable client base of more than 20 million people, but many of them are lower-income consumers, reducing the money generated from a single service to a negligible amount. As a result, Amazon must rely on a wide range of services repeatedly to create cash.

##### **4.2.2.2 FCF problem**

With the pressure of retail expansion, Amazon will have to rely more on its AWS to drive growth in the future. However, its AWS will continue to require significant CAPEX investments for many years, leading to worsening FCF issues.

#### **4.2.3 Opportunities**

The rapid development of network information technology and the popularity of smartphones have pushed e-commerce platforms to become the first choice of people's shopping channels. The rapid development of e-commerce can lead to changes in consumer habits, with consumers increasingly inclined to adopt e-commerce platforms to buy goods, which can bring many opportunities for Amazon's e-tailing business marketing and prompt the development and progress of its benefits [8].

#### **4.2.4 Threats**

With the development of e-commerce platforms, many traditional industries have started to settle in the e-commerce field, leading to the increase of Amazon's online retail business competitors. Under the influence of many competitors, if the network marketing innovation cannot be carried out reasonably, the number of customers will be reduced and the market share will be occupied by other competitors [9]. Another is website hacking, which is also a big problem that many e-commerce websites will encounter. Finally, there are unfavorable platform policies and regulations, many of which will restrict merchants from freer business transactions. For these challenges, merchants should take timely precautions to make platform marketing run smoothly.

## **5. Suggestion**

Based on the above analysis and in conjunction with the recommendations of Shuai Shi in his paper [9], Amazon should improve in the following areas.

### **(1) Diversify for financing**

Through the analysis of Amazon, we can see that Amazon has great financing problems, such as a high gearing ratio and a less reasonable structure of assets and liabilities. If we just rely on Amazon to improve its own management level and improve its business management level cannot solve the current financing problems, we must find an effective method suitable for the retail industry and implement diversified financing methods. From the perspective of retail as an industry, optimizing retail financing channels can be done by actively expanding bond financing, trust funds, and financial leasing to replace the common approach of over-reliance on commercial bank credit. However, before choosing which financing channel to use, enterprises should do the related work such as risk control in advance, and must analyze the pros and cons of each as well as the operability of the financing channel, and must formulate a fair and transparent policy and a clear operation process before planning to finance, so as to ensure the soundness and effectiveness of the financing methods.

### **(2) Improve the turnover rate of accounts receivable**

Channel-based working capital management can be divided into procurement channel, production channel, and sales channel, among which Amazon should pay enough attention to working capital management in the sales channel in particular. On this basis, she can broaden the payment methods of e-commerce, which can be more conducive to the turnover of accounts receivable and keep its cash flow in an adequate state.

(3) Reduce blind expansion and improve the efficiency of the enterprise

Online retail is a more flexible industry, the better the efficiency, the better the cash flow generated by the operation will be, thus supporting the business to continue to expand and invest. Therefore, in order to maintain the vitality of Amazon, blind expansion should be reduced and the utilization rate of the cash flow of this business should be increased. This will reduce the ratio of debt financing, and Amazon can then make full use of the funds belonging to the business itself to create benefits for it. Moreover, this will improve its risk tolerance and thus effectively improve its business performance.

(4) Use the characteristics of path regression

For the online retailer industry, the path of regressive adjustment of its capital structure is even more pronounced because of its own dependence on the Internet and its technological development[10]. So when Amazon's gearing is too high, the financial risk will increase and it will deviate from the optimal capital structure. The enterprise can take a new issue of shares to repay the debt through equity financing, which can reduce the enterprise's gearing.

By making improvements in these areas, Amazon can improve its ability to withstand risk while enhancing its competitiveness and continuing to lead the retail industry.

## 6. Conclusion

The study of Amazon revealed that there is a close relationship between capital structure and value in the retail industry. Using a good capital structure is strategic to the value of a business. It not only affects the profitability and working capital capacity of a business but also the volatility of the share price. This paper analyses the relationship between Amazon's asset structure and enterprise value and finds that Amazon has problems such as a high gearing ratio and a less than a reasonable asset and liability structure. In response, it puts forward relevant recommendations such as diversifying into financing, improving the turnover of accounts receivable, reducing blind expansion, and using the adjustment of the capital structure with path regression characteristics, which are conducive to the improvement of the online retail industry's own enterprise value.

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