

## Research for the Stock Performance of Tyson Foods with Multiple Valuations

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**Abstract:** Multiple valuations are the main tool to value the stock prices of a company, examining the financial situation and stock price between the company and its main competitors. During the financial ratios analyzing the financial statement of a company, the Price-Earnings (P/E) ratio and EV/EBITDA are two convincing ratios used by analysts to illustrate the stock prices of a company. In this essay, Tyson Foods' stock prices for the past three years will be analyzed if they are over-valued, under-valued, or fair by using the P/E ratio and EV/EBITDA these two main multiple valuation tools with the data from its main competitors- Hormel Foods, Pilgrim's Pride, WH group -Wanzhou International Co., Ltd.- ("Wanzhou International"). The current strategy and recent financial performance will also be considered as significant factors affecting the value of a company. The research leads to the result that Tyson Foods is considerably competitive among these competitors. Finally, the conclusion could be made that the stock prices of Tyson Foods are fair over 2021, 2020, and 2019 and the enterprise values for 2020 and 2019 were fair while the enterprise value for 2021 is over-estimated.

### 1. Introduction

The food industry especially the meat sector has become the sector that attracts people's attraction. During the COVID-19 pandemic period, the meat industry is the one that does not have much crash on the whole industry [1]. However, there are challenges and opportunities for traditional meat producers like Tyson Foods – cultured meat and plant-based meat [2]. They have to adjust their strategy to maintain the status and their profitability. To measure the company's situation, market multiples like the price-earnings (P/E) ratio and EV/EBITDA are often regarded as the most popular and simplified methods used to value a company in practice. In this passage, the P/E ratio and EV/EBITDA are the two main multiple valuation tools to analyze Tyson Foods and its main competitors. In this part, the analysis of the P/E ratio and EV/EBITDA will be introduced besides, the accuracy and risk of this method will also be illustrated.

According to Barker [3], the P/E ratio is the preferred valuation model chosen by analysts, which contributes to the importance of this method for the stock market sector. Stocks with lower P/E ratios indicate an under-estimated stock price, which means higher returns in the subsequence period. EV/EBITDA is another valuation tool to analyze the estimated value of the company. 'EBITDA (earnings before interests, taxes, depreciation, and amortization) is a cash operating profit commonly used to measure value and monitor a business, which is also a critical measure of the cash flow available to service debt' [4]. Compared with EBITA and EBIT, EBITDA is the most accurate tool as EBITDA provides additional data on a company's financial position, profitability, cash-generating ability, liquidity risk, and credit risk. It also makes it possible to compare firms in different countries and areas as the tax and other spending are not the same in the world. For the past reaches, P/E ratios are the main way of analyzing companies' performance and stock price but in this passage, EV/EBITDA would also be the rule to illustrate the performance of Tyson Foods and its main competitors.

Despite these advantages mentioned before, there are risks and situations worth considering for the price-earnings (P/E) ratio and EV/EBITDA these two multiple valuation methods. Both of these two methods need to find main competitors to do an estimation. Nonetheless, for the start-ups in a new industry, it is almost impossible to collect proper data from main competitors [5]. In this situation, Young and Zeng concluded that the competitors should be in the same industry if the multiples' valuation method is used [6]. In this passage, the main competitors chosen for Tyson Foods are Hormel Foods, Pilgrim's Pride, and WH Group, which are the companies in the same industry and they have about the same operation situation.

## **2. Data**

Founded in 1935, Tyson Foods has become one of the most successful protein-focused food companies in the world. Being one of the largest processors and suppliers of chicken, beef, and pork, Tyson Foods provides products and services to national restaurant chains and customers throughout over ninety countries in the world. According to the Crunchbase, it belongs to food and beverage, food processing, and marketing areas [7]. In 1963, Don Tyson took the company public as Tyson's Foods, Inc. To estimate the stock price of Tyson Foods is over-valued, under-valued, or fair, multiple valuations could be one of the methods to be used. This essay will introduce the current strategy first and then analyze its main competitors and current financial situations and then use multiples' valuation to estimate whether Tyson Foods' stock price is fair.

## **3. Methods**

There are two main ratios in this research, which are the P/E ratio and EV/EBITDA.  $P/E \text{ ratio} = \text{Price} / \text{Earnings}$  and  $EV/EBITDA = \text{Enterprise Value} / \text{Earnings before Interest, Taxes, Depreciation and Amortization}$  while  $\text{Enterprise Value} = \text{Market Capitalization} + (\text{Debt} - \text{Cash})$ . For the multiple valuations, the competitors' average of P/E could be calculated first, then times the EPS of Tyson Foods to calculate the estimated stock price of Tyson Foods. By comparing the estimated stock price and the real stock, the conclusion could be made. If the estimated stock price is significantly lower than the real stock price, the stock price is over-estimated while if the estimated stock price is significantly higher than the real stock price, the stock price is under-estimated. If they are around the same, then the stock price is fair. In the same way, the competitors' average of EV/EBITDA could be calculated first, then times the EBITDA of Tyson Foods to calculate the estimated enterprise value of Tyson Foods. If the estimated enterprise value is significantly lower than the real enterprise value, the enterprise value is over-estimated while if the estimated enterprise value is significantly higher than the real enterprise value, the enterprise value is under-estimated. If they are around the same, the enterprise value is fair.

## **4. Results and discussion**

### **4.1 Current strategy**

For the current strategy of Tyson Foods, like an increasing number of major argi-food firms in the US, sustainability initiatives have become one of the most important strategies for environmental-friendly development [8]. A growing number of food processing start-ups have focused on alternative protein like plant-based meat and cultured meat for sustainable development and to meet various diet restrictions. For example, Beyond Meat is a start-up company focusing on plant-based meat which grows very fast because of the growing demand and popularity of alternative protein. Not only new start-ups but also these traditional food firms have jumped into this alternative protein market. According to the report made by McKinsey, in 2019, Tyson Foods—the largest US food firm and the world's second-largest meat processor—named its first-ever head of alternative protein in order to maintain competitive [4]. Alternative protein lays the foundation of their 'future meat' agenda. Besides, Tyson Foods has invested in some start-ups in this area. However, this strategy would not

be the main development way in their future as ‘it’s an “and,” not an “or” and they fully expect that beef, pork, chicken, and turkey will continue to be on people’s plates, and alternative protein will be another great option’ [4]. Compared with new companies in the alternative protein area, a better supply chain, healthy food, and people’s brand loyalty could be the advantages Tyson Foods has. In addition, Tyson Foods sets a goal of reaching net-zero greenhouse gas emissions during its operations through the world and supply process by the year 2050 [5], which meets the UN’s 17 sustainable development goals [6]. With its great efforts, Tyson Foods has achieved the goals set for 2020 like donating more food valued at \$65 million [4]. In conclusion, the current strategies of Tyson Foods are dependent on sustainability and environmentally friendly development, showing the firm as a socially responsible company.

#### **4.2 Stock price analyzation**

After the introduction of Tyson’s current strategy, the information of their main competitors is essential to be analyzed to estimate the stock price. For its traditional industries (chicken, beef, and pork), Hormel Foods, Pilgrim’s Pride, and WH Group are its main competitors. From the statistics of P/E ratios of these four companies shown by the Table 1, Table 2 and Table [7], the P/E ratio of the WH group is the only company that is lower than Tyson Foods (10.98 to 11.42) [13]. Why could this happen? WH group -Wanzhou International Co., Ltd.- (“Wanzhou International”) is the world’s largest pork products enterprise. Its market share ranks first in the markets in China, the United States, and Europe. A complete pork industry chain including sales, and with a unique global vertically integrated business platform, has formed a leading competitive advantage in the pork industry. This might be the reason why its P/E ratio is lower than Tyson’s. Wanzhou International has a comparative advantage in the market in China as it was founded in China. As a result, people tend to have more trust in Wanzhou International instead of Tyson’s Foods. For the new sector, Tyson Foods’ main competitor is Beyond Meat, a start-up focusing on plant-based meat as the essay mentioned before. The P/E ratio of Beyond Meat is 24.51, much higher than Tyson Foods [14]. This phenomenon is reasonable and easy to illustrate. As Beyond Meat is a very new company and goes public in only 3 years, it is experiencing an unstable period. In contrast, Tyson Foods is experiencing a stable period and it has a long history, which also means that alternative protein is just a sector of its business instead of main business like Beyond Meat. Generally, Tyson Foods is very competitive though Wanzhou International may have better performance on its financial valuation.

The passage will use multiples’ valuation to estimate whether Tyson Foods’ stock price is fair. The main competitors are selected as the passage mentioned before and the average ratio could be calculated by adding competitors’ data and divided by the number of competitors. Then the estimated stock price value and estimated enterprise value could be calculated according to the formula. As shown in the Table 1, for the current year, the stock value is fair as 79.5 is close to 134.082. Nonetheless, the estimated enterprise value for Tyson Foods is much higher than the real enterprise value. One possible reason could be that the estimated enterprise value is for the whole year but the real enterprise value is up to the third quarter of 2021. For the years 2020 and 2019, the stock prices and enterprise values are both fair as the gap is not significantly high between the estimated value and the real value. From 2019 to 2020 and the current financial year, it is obvious that Tyson Foods is not significantly affected by the pandemic COVID-19 as the company and the public still have the demand for meat consumption especially compared with companies in the tourism industry. However, the cost of machines and workforce have risen so the stock price experienced a downward trend during these three years. Overall, the stock prices of Tyson Foods are fair.

Table 1. The current performance of the stock price and enterprise value.

Current	P/E	EV/EBITDA
Tyson Foods	11.42	7.55
Hormel Foods	26.59	19.75
Pilgrim's Pride	—	17.41
WH Group	12.73	4.83
Average ratio	19.66	14.00
Estimated stock value for Tyson Foods in 2021	Average P/E*EPS=19.66*6.82=134.082	
Real stock value for Tyson Foods in 2021	79.5	fair
Estimated enterprise value for Tyson Foods in 2021	67.5bil	
Real enterprise value for Tyson Foods in 2021	36.4bil	over-estimated

Table 2. The performance of the stock price and enterprise value in 2020.

2020	P/E	EV/EBITDA
Tyson Foods	11	7.52
Hormel Foods	28.08	18.44
Pilgrim's Pride	26.15	9.65
WH Group	10.32	7.38
Average ratio	21.52	11.82
Estimated stock value for Tyson Foods in 2020	Average P/E*EPS=21.52*6.02=129.5504	
Real stock value for Tyson Foods in 2020	82.63	fair
Estimated enterprise value for Tyson Foods in 2020	51bil	
Real enterprise value for Tyson Foods in 2020	33.43bil	fair

Table 3. The performance of the stock price and enterprise value in 2019.

2019	P/E	EV/EBITDA
Tyson Foods	16.49	11.2
Hormel Foods	25.06	17
Pilgrim's Pride	22.88	11.35
WH Group	14.6	11.61
Average ratio	20.85	13.32
Estimated stock value for Tyson Foods in 2019	Average P/E*EPS=20.85*5.67=118.2195	
Real stock value for Tyson Foods in 2019	91.04	fair
Estimated enterprise value for Tyson Foods in 2019	52.1bil	
Real enterprise value for Tyson Foods in 2019	44.68bil	fair

Having analyzed Tyson Foods' main competitors, the financial statements also contribute to the examination of stock price. From the income statement of the nearest 3 years of Tyson Foods shown in the Table 4 [15], the net income experienced a dramatic decrease since 2019 and 2020 compared with 2018. One of the most important reasons is the pandemic COVID-19. First of all, the company cannot promise that availability of team members to operate our production facilities (the employees have to stay at home if they are tested positive), which lead to higher labor cost and production cost because the slow down and temporary idling. In addition, the idling of pork facilities could have a downstream impact on the supply of raw materials to some of Tyson's prepared foods businesses and their ability to produce normally. Besides, related demand shifts away from food service and into retail. Though Tyson Food adjusting parts of their production capacity accordingly, higher retail volumes did not fully offset the reduced volumes in foodservice like chicken segments.

Table 4. Three Year Financial Summary of Tyson Foods.

Three Year Financial Operations	in millions		
	2020	2019	2018
Summary of operations			
Sales	\$43,185	\$42,405	\$40,052
Operating income	3008	2770	2969
Net interest expense	475	451	343
Net income	2071	1993	2971
Net income attributable to Tyson	2061	1980	2970
Net income	5.64	5.4	8.04
Class A	1.725	1.575	1.275
Class B	1.553	1.418	1.148
Balance Sheet Data	2020	2019	2018
Cash and cash equivalents	\$1,420	\$484	\$270
Total assets	34456	32918	28987
Total gross debt	11339	11932	9873
Total shareholders' equity	15386	14094	12721
Other key financial measures	2020	2019	2018
Depreciation and amortization	\$1,192	\$1,098	\$943
Capital expenditures	1199	1259	1200
EBITDA	4317	3911	3958
Return on invested capital	11.80%	11.60%	13.90%
Effective tax rate	22.35%	16.10%	-10.80%
Total debt to capitalization	42.40%	45.80%	43.70%
Book value per share	\$42.25	\$38.59	\$34.84

Despite the net income, according to the Table 5, the sales increased during the COVID-19. The main reasons are incremental volumes from business acquisitions and an additional workweek in 2020 [15].

Table 5. Three Year Financial Summary of Tyson Foods.

sales	in millions		
	2020	2019	2018
sales	\$43,185	\$42,405	\$40,052
change in sales volume	0.70%	8.80%	-
change in average sales price	1.10%	-3.00%	-
sales growth	1.80%	5.90%	-

For the cash flow statement (Table 6) [16], the statistics demonstrate that Tyson Food saw an increase in free cash Flow from 2018 to 2020, which means more free cash is controlled by the company in order to invest and avoid bankruptcy. Overall, the performance showed on the financial statements of Tyson Foods are healthy and it showed fewer impact on COVID-19 compared with companies who showed negative revenue or financial crises.

Table 6. The Cash Flow Statements of Tyson Foods.

	2018	2019	2020	TTM
Operating (Bill)	2.96	2.51	3.87	3.82
Investing (Bill)	-1.91	-3.46	-1.42	-1.06
Financing (Bill)	-1.1	1.17	-1.47	-2.42
Free Cash Flow (Bill)	1.76	1.25	2.68	2.67

## 5. Conclusion

In conclusion, by using the multiple valuations with the Price-Earnings (P/E) ratio and EV/EBITDA analyzing the Tyson Foods' stock prices and its main competitors Hormel Foods, Pilgrim's Pride, WH group -Wanzhou International Co., Ltd. - ("Wanzhou International"), it is reasonable to conclude that the stock prices of Tyson Foods are fair over 2021, 2020 and 2019 and the enterprise values for 2020 and 2019 were fair while the enterprise value for 2021 is over-estimated. As suggestions, it is hard to suggest the public to buy or sell the stock of Tyson Foods as they are fair. But the data suggest that Tyson Foods is almost the most powerful and the oddest meat supplier in the world whose stock prices perform well in a long run. The importance of analyzing these data with multiple valuations could also be seen that it could illustrate a company's status reasonably instead of only suggestions on buying or selling stocks. The company, Tyson Foods, is stable with well-performed traditional sectors like chicken and beef and well-funded new sector's exploration like alternative protein (plant-based meat). It is reasonable to predict that their stock performance will remain stable and well in the future.

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