

# *An Investigation into the Reason for the Decrease of Tesla's Stock Price Despite Obtaining a Great Sale in 2022*

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**Abstract:** Tesla, a multinational automotive and clean energy company, is one of the world's most valuable companies with its CEO Elon Musk. However, in 2022, its stock price decreased by 65% although its sales and revenue went on very well. As a result, this paper tends to find out what led to this dramatic decline through literature reviews and the author's additional analysis. This paper would solve this puzzle from the following four aspects: Musk's acquisition of Twitter, a less promising NEVs market, threatening changes in Tesla's biggest market (China), and the increase in the interest rate in the U.S.

**Keywords:** stock price, evaluation, electric cars, Tesla, Elon Musk

## 1. Introduction

Tesla, Inc. is an American multinational automotive and clean energy company headquartered in Austin, Texas. Tesla designs and manufactures electric vehicles (electric cars and trucks), battery energy storage, solar panels and solar roof tiles, and related products and services. In February 2004, via a \$6.5 million investment, Elon Musk became the largest shareholder of the company, and he has come to the position of CEO since 2008 [1]. In previous years, Tesla gained huge popularity and sales, along with support from the government, like subsidies and tax credits [2], because Tesla reduces the amount of Carbon emissions worldwide by utilizing electricity as a new car fuel.

In 2022, Tesla performed well financially according to its annual report. Its total revenue, total gross profit, earnings per share, and free cash flow all obtained a dramatic more-than-50-percent increase from the year 2021 [3]. Despite this, its stock price experienced a sharp decrease of 65 percent, which was a little shocking.



Figure 1: The trend of Tesla's stock price in 2022 [4].

There were several distinct reasons behind it. Admittedly, a few scholars have already examined some potential reasons, but none of them included all major factors in a detailed way. As a result, this paper will combine the points listed in those essays and the author's additional analysis to illustrate the major reasons.

This paper would not only offer some deep insights into Tesla's stock market but also present how some factors except for the sales performance of a business can influence its stock price in today's complicated financial world through case analysis.

## **2. Musk's Acquisition of Twitter**

### **2.1. Information About This Acquisition**

Since April 2022, Elon Musk, the CEO of Tesla, had tugged back and forth on the acquisition of Twitter, and he finally achieved this acquisition at a high price of \$44 billion in October 2022. In order to have enough cash to purchase Twitter, he in total sold more than \$19 billion of his Stock in Tesla in 2022 [5].

### **2.2. Worries from Its Shareholders**

Shareholders' confidence in Tesla had reduced due to this acquisition as Musk put so much effort into managing Twitter after the purchase. For instance, Musk tended to upgrade Twitter with a lot of new functions including private chatting, making video calls, playing video games, and making payments [6]. And, they did not believe Musk could balance well between Tesla and Twitter, who even recruited some senior managers from Tesla as well as his other companies to work for Twitter [7].

Furthermore, Tesla did not achieve the expected delivery amount set at the beginning of that year, 1.4 million cars [8]. Instead, Tesla only delivered 1.3 million cars in 2022 [8] along with a decrease in the prices of several car products and the provision of security subsidies to its consumers, which reduced the profitability and margins of Tesla. At the end of October 2022, Tesla announced the price adjustment of Model 3 and Model Y. The price reduction of Model Y was between 20,000 and 37,000 yuan, and the price reduction of Model 3 was between 14,000 and 18,000 yuan, which was not small for the cars whose prices are only more than 200,000 yuan. In addition, Tesla announced insurance subsidies of up to 8,000 yuan for owners of locally made Tesla Model 3 and Model Y cars [8]. In addition, shareholders might worry that another reason for Musk to sell his stocks was he was not confident about Tesla's future, and he is the person who knows Tesla the best with the most information. As a result, a lot of shareholders chose to sell out their stocks.

### **2.3. The Result of the Stock market**

As Musk as well as other shareholders sold numerous stocks in 2022, the supply surpassed the demand leading to a sharp decrease in the stock price.

## **3. A Less Promising New Energy Vehicle (NEVs) Market**

### **3.1. The Situation for All NEVs Brands**

Throughout the Pandemic, NEVs were in high demand and tight supply. Automakers have struggled to secure parts, like semiconductors, causing shortages of vehicles on dealer lots and thus a higher price. But in recent months, this situation has changed gradually: supplies are improving and demand is slowing [9]. As a result, the NEVs market is less attractive for shareholders.

## **3.2. Main Leading Factors**

### **3.2.1. Covid-19**

In the first place, due to Covid-19, the average working time and productivity of citizens had decreased. Therefore, the average household income decreased and many of them even lost their jobs. Global real monthly wages per capita fell by 0.9% in the first half of 2022, when the first time since 2008 that the global real wage was negative [10], which restricted consumers' consumption ability. In addition, people were more conservative than before due to unpredicted risks in society, so they were less willing to acquire large fixed assets like private cars than to save money in the bank.

### **3.2.2. The European Energy Crisis**

Furthermore, because of the European energy crisis, the price of natural gas went up dramatically, as a result, the demand and price of its substitutes, like electricity, also increased greatly in order to replace the expensive natural gas. Specifically, the electricity price had increased 8 times before the energy crisis.

Importantly, one appealing factor encouraging consumers to acquire NEVs is their lower fuel price than that of normal gasoline-based vehicles. By contrast, now, with the dramatic climb in the electricity price in a lot of regions, NEVs become less attractive than before [7].

### **3.2.3. More Fierce Competition**

Nowadays, the competition in the NEVs industry is increasingly fierce as newly established companies join the market with lower product prices. Take the world's biggest NEVs market, China, as an example. In China, there are now 605,800 NEV-related businesses, with a high growth rate in recent 10 years. In 2020, China added 75,200 new enterprises related, with a year-on-year growth of 83.37%; in 2021, 170,600 new enterprises were added, up 126.90% year on year; in 2022, 239,400 new enterprises were added, up 40.34% year on year [11]. In accordance with Yan Jinghui, a member of the expert committee of the China Automobile Dealers Association, in recent years, the renewal of new energy brands and models in the domestic market has accelerated, and the competitive pressure is increasing on a daily basis, while the entry of new brands and products is also grabbing Tesla's market share [5].

Back to its head country, the U.S., Tesla's market share of new NEVs registrations was 65% in the third quarter of 2022, compared with 79% in 2020, although it had already decreased the prices and improved the productivity in production [12]. Obviously, numerous new companies were robbing Tesla's market share worldwide.

## **4. Threatening Changes in Tesla's Biggest Market (China)**

### **4.1. The Significance of China**

China is the most important country for Tesla for its production. Tesla's factory in Shanghai, China obtains the highest production among other Tesla factories worldwide because of its high stability in production during Covid-19[13]. Furthermore, China is the second biggest sales country following America for Tesla. Tesla relies heavily on China for manufacturing; and, due to China's dominance in battery production and all kinds of materials, Tesla also depends heavily on China for supplies. As a result, any changes in China would have a great influence on Tesla.

## 4.2. Challenges in the Chinese Market

### 4.2.1. Pricing and Demand Problems

Tesla has lowered the price of its electric cars several times in 2022, but the increase in demand was not as great as Tesla expected. Ideally, investors prefer to invest in brands with high pricing power, where consumers keep purchasing the products even when the price increases [14]. However, it seems untrue for Tesla's Chinese market where consumers chose to acquire other domestic NEVs with lower prices and thus higher cost performance.

In addition, the delivery time of Tesla's vehicles in the Shanghai factory was declining, which suggests that Tesla's backlog was shrinking: fewer new orders were coming compared to the vehicles Tesla produces.

The combination of declined price and decreased delivery time implied troubles for Tesla in its biggest market. Either, Tesla would choose to continue to reduce the price, which would put heavy stress on margins, or Tesla could face a situation where it cannot fill capacity, as there are not enough orders once Tesla has worked through its backlog [14].

### 4.2.2. Tensions Between China and The West

The tension between China and the West is tighter and tighter in recent years, the same as that between Mainland China and Taiwan. Among Western companies, Tesla is among the companies that are most at risk if the Taiwan conflict escalates as it depends on Mainland China seriously. It seems possible that investors increasingly factored this risk into their investment decisions, which might lead to a decrease in Tesla's stock price.

### 4.2.3. The end of Manufacturing Subsidies in China

Starting from 1 January, 2023, the Chinese government ended the subsidies for electric vehicle production as before. Indeed, China had reduced the number and increased the standard for EV subsidies since 2018.

Table 1: China OEM electric vehicle manufacturing subsidy, Yuan per EV [15].

	150~ 200 km	200~250 km	250~300 km	300~400 km	More than 400 km	YOY Change
2018	15,000	24,000	34,000	45,000	50,000	-10%
2019	0	0	18,000	18,000	25,000	-50%
2020	0	0	0	16,200	22,500	-10%
2021	0	0	0	13,000	18,000	-20%
2022	0	0	0	9,100	12,600	-30%

The phaseout of subsidies squeezed out EV profit margin incorporating that of Tesla, which was already being squeezed by rising costs of battery materials, supply chain disruptions and Covid-19 lockdowns[16]. This phenomenon consequently means that Tesla's profit from each sale would decrease.

## **5. The Increase in The Interest Rate from The Federal Reserve System**

### **5.1. Information About The Increase**

In order to deal with the severe inflation in the U.S., the federal government had increased the interest rate a total of 7 times since 16 Mar, 2022 [17]. In 2022, the cumulative increase was 425 basis points [18].

### **5.2. Influences on Tesla**

#### **5.2.1.A Higher Discount Rate**

As the interest rate increased, the discount rate of future cash flow would also increase. As a result, the present value of Tesla's total future cash flow decreased accordingly, which means it weighed less in the present. Also, since the interest rate of saving money in the bank increased, more and more people were more willing to save money in the bank instead of putting it in the risky stock market [7].

#### **5.2.2.The Strengthening of The U.S. Dollar**

Another result of the increase in the Federal interest rate was that the U.S. dollar would be strengthened. As the interest rate increased, the number of dollars in the market reduced. Thus, U.S. dollars became more worthy, which not only discouraged export but also encouraged imports to the U.S.

The strengthening of the U.S. dollar made Tesla earn less from foreign countries because its prices became more expensive for consumers in other countries, resulting in a decline in sales. Furthermore, the increase in the import of foreign NEVs with lower prices into the U.S. exposed Tesla to fiercer competition in the U.S. market.

All in all, the strengthening of the U.S. dollar made Tesla much more difficult in both the domestic and world markets.

## **6. Conclusion**

To draw a conclusion, the decrease in Tesla's stock price came from several factors other than its sales performance, which actually improved a lot from the year 2021. The first factor was its biggest shareholders' financial decision on another business, Twitter, to which Musk devoted countless energy and money. The second reason was the fiercer competition in the ENVs market. Third, China, the most significant market for NEVs, now existed several troubles for Tesla. Last, the increase in the interest rate made Tesla less attractive to both domestic and foreign consumers. Through this real case of Tesla's stock price, it is known that when valuing a company, numerous factors needed to be considered. This is true for all companies.

Admittedly, this paper did not include all the factors contributing to the decline in Tesla's stock price in 2022. Examples of other factors: the growth rate of NEVs had slowed down after rapid expansion; and, the NEVs market needed to correct the previous economic bubbles in the stock market. The author proposes that other scholars can try to figure out these factors not incorporated in this paper.

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