

Research on the Impact of Inflation Reduction Act on the New Energy Vehicle Market in China and America

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Abstract: This study aims to explore in depth the impact of the Inflation Reduction Act on the new energy vehicle market in China and the United States. As a key solution to address environmental pollution and energy sustainability challenges, the development of new energy vehicles is influenced by both government policies and market factors. Inflation is a widely concerned issue that may have multiple impacts on the automotive market, but its specific effects have not been thoroughly studied. In this study, we first reviewed the current situation and trends of the new energy vehicle market, with a focus on analyzing the comparison between the Chinese and American markets. Subsequently, we delved into the background, main content, and legislative motivations of the Inflation Reduction Act. Through a comprehensive examination of market data and policy text analysis, we have conducted a detailed study of market changes before and after the implementation of the bill, with a particular focus on the trends in sales volume and price stability. Finally, we have drawn some preliminary conclusions that the inflation reduction bill may have complex impacts on the new energy vehicle market in China and the United States, including sales volume, price stability, corporate strategy, and technological innovation.

Keywords: Inflation Reduction Act, China and the United States, New Energy Vehicle Market, Impact Study.

1. Introduction

With the increasing importance of global climate change and energy sustainability, new energy vehicles, as a clean and environmentally friendly means of transportation, are gradually emerging. In China, the United States and other countries, the government and automobile manufacturers have invested a lot of resources to promote the development and promotion of new energy vehicles. However, at the same time, accompanied by inflation, its impact on economic and market stability has gradually attracted widespread attention [1]. Inflation refers to the phenomenon that the value of money is declining in the currency circulation, which leads to a general increase in prices. This phenomenon may have many influences on the automobile market, including consumers' decision to buy a car, the fluctuation of automobile prices, enterprise cost management, etc. In order to cope with the instability of inflation on the market, the government may formulate and implement an inflation reduction bill to control the inflation rate and maintain economic stability [2]. In this context, this study aims to explore the impact of the Inflation Reduction Act on the new energy vehicle market in China and the United States. We will analyze the changing trend of the new energy vehicle market before and after the implementation of the bill, focusing on the changes in sales volume and price stability [3]. In addition, we will also study the competition and cooperation in the new energy vehicle market, including enterprise competition strategy and technological innovation and development [4]. In the research, we will use professional data collection and analysis methods, combined with detailed market data and policy text analysis, to fully understand the impact of the bill on the market. At the same time, we will learn from relevant literature and international experience to deepen our understanding of the inflation reduction bill and how it affects the new energy vehicle market. The importance of this research lies not only in the impact assessment of the new energy vehicle market, but also in providing useful insights

on how to deal with inflation for government decision makers, corporate strategists and researchers [5-6]. Through in-depth understanding of the impact of the bill, we can better guide policy formulation and market development, promote the sustainable growth of the new energy automobile industry, and maintain economic stability. In a word, the purpose of this study is to study the impact of the Inflation Reduction Act on the new energy vehicle market in China and the United States, so as to reveal the dynamics and trends of the new energy vehicle market. Through in-depth analysis, we hope to provide useful information for promoting the sustainable development of the new energy automobile industry, provide reference for the management of inflation, and provide useful insights for future policy and strategic decisions [7].

2. The Impact of Inflation Reduction Act on the New Energy Vehicle Market in China and the United States

2.1. Market conditions before the implementation of the bill

Before the implementation of the bill, both the new energy vehicle markets in China and the United States experienced rapid growth. The sales volume of new energy vehicles has been increasing year by year, partly due to government incentive policies, including tax reductions, subsidies, and car purchase discounts [8]. In China, for example, sales of new energy vehicles have been on the rise, partly due to a series of measures taken by the government to encourage the development of new energy vehicles, such as free licenses, charging infrastructure construction, and car purchase subsidies. The price of new energy vehicles is gradually decreasing under the promotion of market competition and technological progress. For the market situation before the implementation of the bill, Figure 1 shows the trend of sales of new energy vehicles.

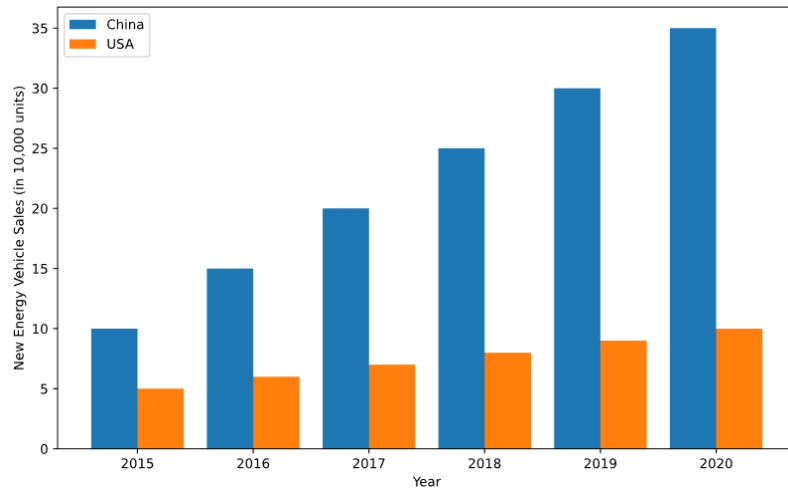


Figure 1. Trends in sales of new energy vehicles before the implementation of the bill

Figure 1 shows that the sales of new energy vehicles in both China and the United States have shown a sustained growth trend during this period, with significant growth in the Chinese market: China's growth rate is significantly faster than the United States. The annual sales growth of new energy vehicles in China has steadily increased from 100000 in 2015 to 350000 in 2020, indicating significant market expansion. Moderate growth in the US market: In contrast, the growth in the US market has been relatively moderate, increasing from 50000 vehicles in 2015 to 100000 vehicles in 2020. Over the past six years, both the new energy vehicle markets in China and the United States have achieved growth, but the growth rate and scale of the Chinese market have surpassed those of the United States. This may be attributed to various factors, including support from national policies, growth in market demand, technological progress, and increased environmental awareness. In addition, the market environment and consumer preferences of different countries may also have an impact on sales growth[9]. Before the implementation of the bill, the high cost of new energy vehicles had always been a major obstacle for consumers to purchase cars. However, with the

improvement of battery technology, the expansion of production scale, and the intensification of competition, the price of new energy vehicles has become relatively stable and gradually more attractive [10].

2.2. Market changes after the implementation of the bill

After the implementation of the bill, both the new energy vehicle markets in China and the United States have undergone a series of changes. On the one hand, sales of new energy vehicles may be affected in the short term, as the bill may lead to consumer concerns about car prices and purchase costs. However, this may also stimulate consumer interest in more environmentally friendly modes of transportation, prompting them to consider new energy vehicles. One of the main objectives of the bill is to reduce the instability of inflation in the automotive market. For the market changes after the implementation of the bill, Figure 2 shows the trend of sales of new energy vehicles.

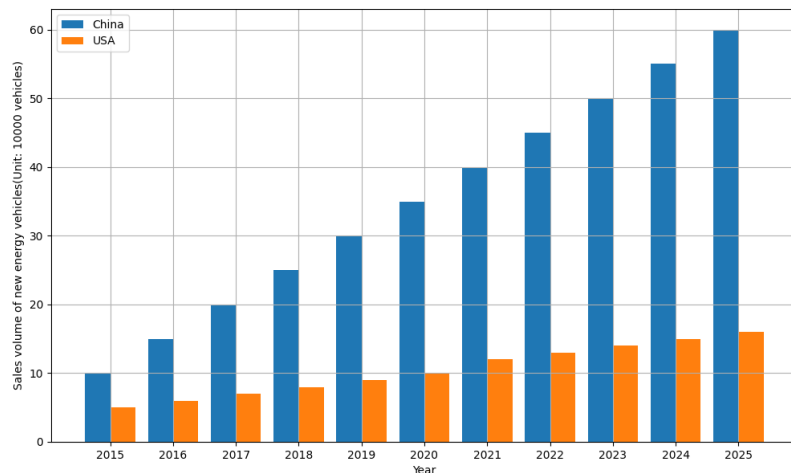


Figure 2. Trends in sales of new energy vehicles after the implementation of the bill

Figure 2 reflects the sustained growth of sales in both countries, with China experiencing a faster growth rate compared to the United States. The sales of new energy

vehicles in China have increased from 400000 in 2021 to 600000 in 2025, maintaining a strong upward trend. The sales in the United States have also shown sustained growth,

although at a slower pace, from 120000 vehicles in 2021 to 160000 vehicles in 2025. Continuing comparative analysis shows that compared to the United States, China is more actively expanding in the new energy vehicle market. This instability may lead to fluctuations in car prices, thereby affecting consumer purchasing decisions. Therefore, it is crucial to study the stability of new energy vehicle prices after the implementation of the inflation reduction bill. By analyzing the correlation between price data and inflation rates, we can better understand the impact of the bill on the market.

2.3. In depth exploration of potential influencing factors

The implementation of the inflation reduction bill may have an impact on various links in the new energy vehicle industry chain. For example, it may affect raw material prices, component supply chains, production costs, etc. Research should conduct in-depth analysis of these changes to evaluate the impact of the bill on the entire industry. Consumers are influenced by various factors in their car purchase decisions, including price, tax policies, environmental awareness, etc. By investigating and analyzing changes in consumer behavior and attitudes, we can better understand the impact of the bill on consumer decision-making. The inflation reduction bill may affect consumer confidence and demand for cars. Inflation is often accompanied by rising prices, which may lead to some consumers reducing their car purchase expenses or seeking cheaper alternatives. Therefore, research needs to delve deeper into the impact of the bill on consumer car purchasing decisions, including their level of emphasis on environmental protection.

One of the core characteristics of new energy vehicles is the use of clean energy sources, such as electricity. The implementation of the inflation reduction bill may have an impact on energy policies, including the development and utilization of renewable energy. This has a potential significant impact on the new energy vehicle market, as more renewable energy may reduce battery charging costs and increase the attractiveness of new energy vehicles. The new energy vehicle market has been constantly innovating, including the continuous progress of battery technology, electric drive technology, and autonomous driving technology. The inflation reduction bill may have an impact on technological innovation and cost reduction, as the government may encourage research and development to improve energy efficiency and reduce costs. This may have a profound impact on the competitiveness and attractiveness of the new energy vehicle market. The trade relationship between the new energy vehicle markets of China and the United States is also a potential factor. The inflation reduction bill may affect import and export policies, which may have an impact on the operations of multinational manufacturers and suppliers. It is crucial to conduct in-depth research on the impact of international trade factors on market stability and development. After the implementation of the bill, consumer purchasing behavior may change, and they may pay more attention to environmental factors or price stability.

3. Competition and Cooperation Between China and The United States in The New Energy Vehicle Market

3.1. Enterprise competitive strategy

In the Sino-US new energy vehicle market, there are many major competitors, including Tesla, NIO, XPeng, LI and other companies. These enterprises adopt different competitive strategies, including product differentiation, pricing strategy, market positioning and so on. As the world's leading manufacturer of electric vehicles, Tesla has always taken high-end electric vehicles as its main competitive strategy, while China enterprises such as NIO and XPeng pay more attention to the middle and high-end market in market positioning. In order to cope with fierce competition, some new energy automobile enterprises choose cooperation and alliance. This cooperation can cover technology sharing, charging infrastructure construction, supply chain cooperation and so on. For example, some new energy automobile enterprises in China have established strategic cooperative relations with battery suppliers to ensure a stable battery supply. In addition, multinational automakers have also made joint ventures with their partners in China to launch new energy vehicles in the China market.

3.2. Innovation and technological development

Technological innovation plays a key role in the new energy vehicle market. New energy automobile manufacturers have continuously introduced new battery technology, driver assistance system and automatic driving technology to improve automobile performance and safety. Especially in the field of battery technology, continuous R&D(Research and Development) and innovation are helpful to improve battery capacity, charging speed and life, and further promote the market popularization of electric vehicles. There is a trend of technical cooperation and knowledge transfer in the new energy vehicle market between China and the United States. Chinese and American companies may cooperate in the fields of battery technology, electric drive technology and autonomous driving technology. This kind of cooperation can accelerate the development and application of technology, improve automobile performance and reduce costs, thus enhancing the competitiveness of enterprises. In addition, the government may also encourage technical cooperation to promote the development of new energy automobile industry. The government may provide financial support, intellectual property protection and R&D cooperation opportunities to promote technological exchanges between enterprises.

4. Conclusions

In this study, we conducted in-depth analysis and research on the impact of the Inflation Reduction Act on the new energy vehicle market in China and the United States. Through examining market conditions, price trends, competition, and cooperation, we have come to the following conclusion: Firstly, before the implementation of the bill, the new energy vehicle markets in China and the United States experienced rapid growth. The sales volume of new energy vehicles continues to rise, thanks to government incentive policies such as car purchase subsidies and tax reductions. Secondly, after the implementation of the bill, the market

underwent a series of changes. The sales volume of new energy vehicles may be affected in the short term, as the bill has raised concerns among consumers about car prices and purchase costs. However, the bill may also stimulate consumer interest in environmentally friendly transportation. In terms of competition and cooperation, there are multiple competitors in the new energy vehicle market between China and the United States, each adopting different competitive strategies. Meanwhile, some companies choose to cooperate and form alliances to jointly address market challenges. Technological innovation plays a crucial role in market competition, and new energy vehicle manufacturers continuously introduce new technologies to improve vehicle performance and safety. Over time, we anticipate that the market will continue to evolve and require joint efforts from governments, businesses, and research institutions to address new challenges and opportunities, in order to promote the sustainable development of the new energy vehicle industry.

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