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Financing and Investment Analysis in Automotive Industry of China

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ABSTRACT
This study is about the auto industry of the china. In this study many analysis have been conducted for the purpose of checking industry performance and found that industry is doing well and generated enough profits and contributed heavily in the GDP of the country. In addition, the entry barrier of automotive industry is very high and the exit barrier of automotive industry is relative lower in China; this characteristic means the investors could have stable high return on their investments of automotive industry in China.

Keywords: finance, analysis, investment, automotive, China.

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INTRODUCTION

Indeed, the China's automobile industry is facing opportunities and challenges, therefore it needs adjust itself to adapt to the changing of global environments and to achieve new developments in the booming economy. As a result, investment and financing become two critical issues for the industry. Generally, investment and financing of an industry have direct impacts on the outputs, the structure, and the capabilities of the industry (Agrawal & Mandelker, 1987; De Silva et al., 2018a; De Silva et al., 2018b; Nikhashemi et al., 2013). The history includes the initiation of the industry, the circumstance when the industry was created, the changes and challengers in the industry, and the industry's responses to those challenges. The second step is to analyze industrial forces (Chambers, 1971).

As segments of industries' external environment, economic segment, sociocultural segment, and pattern of automotive industry, the changing of economy and society of China and automotive industry of the world has dramatically impacts on the Chinese industries. Automotive industry of China which has been expected as pillar industry in 2010 has experienced the impacts of changing of general environment and rapid growth (Czarnitzki & Hottenrott, 2011; Dewi et al., 2019; Pambreni et al., 2019; Tarofder et al., 2017). For these reason, huge capitals crowd into this industry. Indeed, the China's automobile industry is facing opportunities and challenges, therefore it needs adjust itself to adapt to the changing of global environments and to achieve new developments in the booming economy. As a result, investment and financing become two critical issues for the industry. Generally, investment and financing of an industry have direct impacts on the outputs, the structure, and the capabilities of the industry. Consequently, it affects the industry's performance in the long run. At this point, it is pertinent to choose a viably competitive industry, make prudent investments on it with support from financial institutions in order to survive in this emerging economy (Ding, Guariglia, & Knight, 2013; Doa et al., 2019; Maghfuriyah et al., 2019; Nguyen et al., 2019).

LITERATURE REVIEW

The first step of traditional approach of analysis is to review the industry's history. The history includes the initiation of the industry, the circumstance when the industry was created, the changes and challengers in the industry, and the industry's responses to those challenges. The second step is to analyze industrial forces. The concept of industry forces is a number of external forces that influence strategies and the profit potential of an industry, which consists of technological changes, resource availability, macroeconomic trends, business cycles, government policy and customer needs and actions. An analysis of an industry should start with analyzing the global economy (Fama, 1978). The international economy will affect an industry's performance. (Froot, Scharfstein, & Stein, 1993).

The domestic macro economy is another dimension of the macro economy segment. The macro economy is the environment in which all industries operate. Forecasting the tendency of domestic macro economy is crucial in order to determine investment performance at a significant level. A forecast of business cycle of whether the macro economy is improving or deteriorating will in the given circumstances. Generally, when economy begins to recover from a recession, the cyclical industries which are with above-average sensitivity to the situation of the economy such as automotive industry would tend to outperform other industry (Gordon, 1963).

Food, drug, medical services, and tobacco industries will have low sensitivities. On the contrary, machine tools, steel, automobiles, and transportation are highly sensitive to the state of the economy (Han, Zhang, Yu, & Wang, 2016; Pathiratne et al., 2018; Rachmawati et al., 2019; Seneviratne et al., 2019; Sudari). The second factor determining business cycle sensitivity is operating leverage, which refers to the division between fixed and

variable costs. Industries with greater amount of variables as opposed to fixed costs will be less sensitive to business conditions for these industries; which can reduce costs as output falls in response to falling sales when economy is facing a downturn. Profits for industries with high average fixed costs will wave more widely with sales because costs do not move to offset revenue variability. Industries with high average fixed costs are considered to have high operating leverage that will render large impacts on profitability with small change in business conditions. The third factor that influences business cycle sensitivity is financial leverage, which is the proportion of debt in total assets. Interest payments on debt must be guaranteed regardless of sales. Interest payments are fixed costs would increase the sensitivity of profits to business conditions. Investment should not always prefer industries with low sensitivity to the business cycle. Normally, high sensitivity means high investment return and high risk (Haugen, 1971).

In the progress of analysis industry life cycle, conventional wisdom is that the investor (individuals and institutions) should seek industries in high-growth stage (Lindley, Verbrugge, McNulty, & Gup, 1992). The traditional approach for industry analysis emphasizes on the analysis of industry life cycle and rivalry in an industry, while both of the dimensions have defects notwithstanding. In the progress of analysis industry life cycle, conventional wisdom is that the investor (individuals and institutions) should seek industries in high-growth stage. However high growth and fat profits encourage competition from others----- producers in this industry and firms in other industries which are going to enter this industry especially giants in other industries equipped with competitive advantages and can convert their advantages from their original industry to the proposed industry. The exploitation of profit must be concerning when an industry life cycle analysis is being progressed (Mayers, 1998). Failing in recognizing the dynamic of the progression in an industry life cycle might generate an over-optimistic investment decision about an industry (McCabe, 1979).

Another dimension, when investors apply five forces model to analyze the rivalry among an industry, the systematic pitfalls of five forces model might bring unappreciated shortages in today's business environment. Firstly, in the economic sense, Porter's Five Forces Model assumes a classic perfect market. Secondly, the five forces model is best applicable for analysis of simple market structures (Ming, Ximei, Yulong, & Lilin, 2014; Nikhashemi et al., 2017; Tarofder et al., 2019; Ulfah et al., 2019; Tarofder et al., 2016; Udriyah et).

METHODS

From the brief discussion in the above, the research problem of this thesis is formulated:

Is it a proper decision for financial institutions channel surplus capital to invest in the automotive industry on the pretext that the automotive industry of China is considered oversupplied?

The outline of the key objectives to be covered in this thesis is given below:

- To define the automotive industry in China and introduce the history, structure and value chain of the industry of China.
- To present business environment of China, its impacts on automotive industry of China.
- To present issues that are faced by automotive industry of China, conduct SWOT analysis and give solutions for the issues. To present industry cycle and sensitivity of China's automotive industry to macro economy.
- To analyze the entry and exit barriers for automotive industry in China and determine the return of automotive industry in China.
- To present the characteristics of investment and financing about automotive industry of China.

This thesis examines the situations of China's automotive industry which is combined with the future, current and historical factors for descriptive study need to trace over time for the purpose to link characteristics with situations. In this thesis, the deductive method, the way of application, is considered to be suitable, because a theoretical framework for industry analysis of investment exists. This thesis will adopt the theoretical framework for industry analysis of investment and generate advice about the choice whether China's automotive industry is worth investing. It also provides a basis for further investment research about the automotive industry in China (Morellec & Schürhoff, 2011).

According to the framework for industry analysis, the first step for investment and financing analysis of China's automotive industry is to define automotive industry of China, then conduct analysis of general business environment for the automotive industry, following, based on the analysis of general business environment, analyze automotive industry life cycle, sensitivity of China's automotive industry to macro economy of China, and conduct rivalry analysis (the Five Forces Model) among the automotive industry (Partington, 1985). Even though, the investment decision making procedure is at the bottom of the industry analysis framework, but it is not the end of the framework for the business circumstance is a cycle. The investment decision will affect the future general business environment for automotive industry's development (Pruitt & Gitman, 1991).

The market was full with national brand in this stage. The overall development relied on the national own effort. The total quantity of the productions was very little. The production was decided by the government plan. The management of automotive industry was unified by the nation at the beginning of this stage and, later, the management was under of the central committee and the local authority. The development was slow and production was pace back and forth.

In more than 20 years, the key scope of development of Chinese automotive industry was the truck; the passenger vehicle almost was absence for the passenger vehicle annual output was only 98 units in 1960. At that time, in lieu of the popularity of foreign etiquette and great respect for the senior leader, China made very few of passenger vehicles. In 1980, the passenger vehicle annual output increased to 5,418 units. This quantity of brands was minimal at this stage. The industry was weak and all the brands were state-owned (Rauh, 2006).

These 10 years were the initial period of the reform and open policy. The national economy developed at a high speed, the domestic demand of passenger vehicles rose rapidly. In order to solve the urgent need, the government enlarged the import of vehicles. The total import of passenger vehicles were 376,000 units, the average import were 37,600 per year. The total expenditure was more than 10 billion US dollar. This situation urged the government to start the development of national vehicle

industry. In this stage, a lot of joint venture enterprises were established one after another. The passenger vehicle annual output increased from 3,248 in 1981 to 42,409 in 1990. The total productivity was 180,000 units in 1990.

This stage was the time to establish the joint venture firms. The import of vehicles dropped observably. The overall developing approach was to establish joint venture enterprises. The output of passenger vehicle rose significantly. The degree of production concentration changed and the productivity enhanced dramatically. The quality of vehicles improved to a new level. The level of new types of vehicles enhanced unceasingly. Most of the products which were sold in the market achieved to the 1980s levels of world automotive industries. Some of them achieved to the 1990s levels. The cost of vehicles' making reduced. The price of vehicles dropped. The distribution realm of this stage accorded to the market economy principles, the supply and sales proportion by plan was under 5%. The market mechanism appeared the buyer market characteristics. Total supply of vehicles exceeded the demand for vehicles. The profitability of vehicles continuously dropped. The quantity of vehicles that were bought by individuals rapidly grew. The passenger vehicles that domestically produced developed fast and basically blocked the growth of import in vehicles. Automotive industry is an industry with high relevance with other industry. It is also an indicator of a country's capability in economy dimension. Automotive industry is the cluster with highest potential in growth in China (Wang, 2003). The development of automotive industry can stimulate other industries' developments such as engineering industry, steel industry, electron industry, rubber industry, and petroleum industry. Since 1999, the automotive industry of China grows rapidly and strengthens itself as a significant contributor to economy growth of China. The following figure presents the cluster of automotive industry.

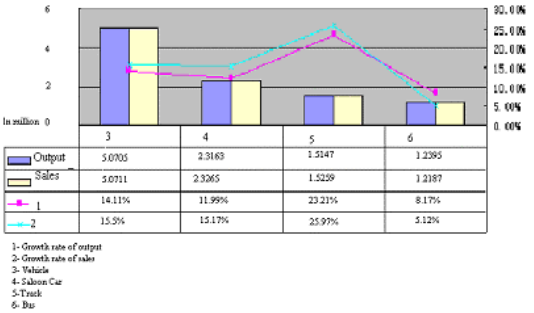
From 1999 up to now, China's automotive industry maintains a higher growth rate than the average growth of all industries. In 2002, the automotive industry contributed 11% to the average growth of all industries in China. The percentage rose to more than 13% in 2003. It ranked the second place after the electronic industry by measuring the contribution to economy growth since 2002. Automotive industry of China developed as a branch of engineering industry at beginning, and now it has become into one of major industries for the economy of China. In 1990, the total revenue of automotive industry accounted 2.2% in total revenue of all industries. The numbers were 3.3%, 3.9%, 4.4%, 5.2%, and 6.2% in 1995, 2000, 2001, 2002, and 2004, respectively. It is more obviously from the viewpoint of profits that automotive industry contributed to total profits of all industries. The proportion of automotive industry's profits to total profits of all industries was 3.6% in 1995. It was 3.9%, 5.7%, 7.8%, and 10.3% in 2000, 2001, 2002, and 2003, respectively.

The automotive industry of China ranked the 15th place by measuring sales in all commercial products in 1990. In 1995, it was the 11th place. It was the 8th in 2001 and the 7th in 2007. In 2003 and 2004, it ranked the 5th place after the electronic industry, electrical industry, metallurgical industry, and chemical industry. The total profits of automotive industry of China exceeded the electrical equipment industry and electronic industry and ranked the second place after petroleum industry among all industries if profit as measurement for ranking in 2003 whereas it was mere the 12th place in 1990, 5th in 2000, and 4th in 2001 and 2002.

With regard to this, the structure of automotive industry is dynamic. Those global players are, categorized by countries, BMW, Daimler-Chrysler, and VW from Germany; PSA, and Renault-Nissan from France; Ford and GM form US; Fiat from Italy; and Honda, Mazda, Mitsubishi, Suzuki, and Toyota from Japan. FAW was established as a truck producer on July 15, 1953. It later expanded into the light-duty truck and car sector. In 1991, FAW and Volkswagen set a joint venture company and produced saloon cars with a yearly production capacity in excess of 150,000 units under the brands of Jetta and Audi. In 2002, lots of emphasis on the production of saloon cars at the same time maintaining dominant position in the truck market. Now major percent of shares among these subsidiaries which make different components for FAW. Currently, it has 4 production bases, namely, Shiyan (Huibei Province), Wuhan (Huibei Province), Xiangfan (Hubei Province), and Guangzhou (Guangdong Province). DFM produces a wide range of automobiles from heavy-duty and light-duty trucks to cars. The company's joint venture with Nissan, Dongfeng Motor Co., Ltd., makes Teana, Sunny, Blue bird. The joint venture company between Dongfeng Motor Corporate and PSA of France makes Dongfeng Citroen Picasso, Dongfeng Citroen Elysee and Dongfeng Peugeot 307. The joint venture company between Dongfeng Motor Corporation and Honda makes CRV. The joint venture company, Dongfeng-Kia makes Optima and Carnival in the base of Yancheng City, a city of Jiangsu Province, in the east coast of China. The headquarters of Dongfeng Motor Corporation moved to Wuhan (the Capital of Hubei Province) from Shiyan on 28th, Sep, 2003. Dongfeng Motor has 9.3 billion US Dollar in total assets and 4.1 billion US Dollar in net assets. It employs 106,000 staffs.

Beijing Automobile Industry Corporation Group includes 4 subsidiaries, Beijing Hyundai Corporation Ltd, Beijing Jeep Corporation Ltd, Beiqi Foton Corporation Ltd, and Beijing Automobile Corporation Ltd. It is a state-owned corporation with total assets of 1.9 billion US Dollar and employs 50,000 staffs. It cooperates with Mitsubishi Motor to manufacture Pajero. A joint venture company with Hyundai makes Sonata and Elantra. The joint venture company between BAIC and DaimlerChrysler, Beijing Jeep Corporation, makes JEEP. And a new joint venture company between BASIC and Mercedes-Benz is going to manufacture C-class Benz in China. The total output of vehicles of China and sales were 5.0705 million units and 5.0711 million units respective. The growth rates were 14.11% and 15.5% on the total output and total sales in 2004. The total sales income was more than 121.5 billions US dollar.

The outputs of trucks were 1.5147 million. The sales of trucks were 1.5259 million units. The growth rates were 23.21% and 25.97% comparing with 2003 in output and sales of trucks. The yield and sales of bus were 1.2395 million units and 1.2187 million units respective in 2004. The growth rate of yield of bus was 8.17%. The rate of sales was 5.12%. The output of saloon car was 2.3163 million units and the sales were 2.3265 million units. The growth rates were 11.99% and 15.17% respectively comparing with 2003.



	3	4	5	6
Output	5.0705	2.3163	1.5147	1.2395
Sales	5.0711	2.3265	1.5259	1.2187
1	14.11%	11.99%	23.21%	8.17%
2	15.5%	15.17%	25.99%	5.12%

Figure 1: Growth of Car Industry

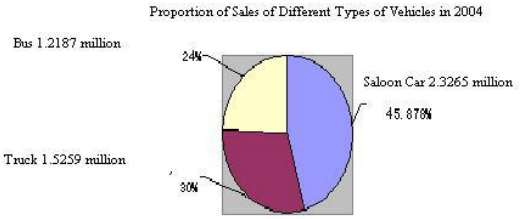


Figure 2: Proportion of Sale

The total sales of FAW (FAW Group Corporation of China) was 1.0075 million units. The sales of SAIC (Shanghai Automobile Industry Corporation) was 848.5 thousand units. The sales of Chang'an Motor was 579.5 thousand units. The sales of Beijing Automobile Industry Corporation was 531 units. The sales of Dongfeng Motor Corporation was 523.3 thousand units. The growth rates were 12.35%、8.50%、22.75%、57.73 and 6.78% in turn. The sales of the top-five firms were 3.4898 million units and occupied 68.82% of total sales of vehicles in China in 2004. The proportion of market share in saloon car of these five firms was 76.6% in 2004.

ANALYSIS

Political Segment Analysis

In order to improve the soundness in the development of automotive industry in China, the government has promulgated a series of related policies for the automotive industry to regulate the production, sales, and R&D of the industry. The emphasis on these policies transferred to exerts the automotive industry as the pillar industry among all the industries. The policies relates with automotive industry of China are presented as followed:

Social Segment Analysis

As mentioned as beginning of this paper, the social culture has changed dramatically as rapid development of domestic economy. The significant changes on consumer behavior and credit cultural can most likely represent the changes of social culture. In China, unlike the past, when most income spent on basic necessities such as food and clothing, the current Chinese consumer spends more money on entertainment and durable goods and the consumer's expectations of product quality in general have been steadily rising, owning to the increase in income and sociological forces, which have prompted high expectations of a better lifestyle. Chinese consumers today are looking for aesthetic and social value instead of just focusing on the basic needs of warmth and the protective function of products. Chinese consumers are eager to see what fashionable products are for them. There are other trends may stimulate development of automotive industry in China. First, the most important trend is growing fitness consciousness. No matter what the gender, age, occupation, and education of Chinese people, the masses tend to purchase products which can show their lifestyles and attitudes of life, including cars. Second, a second trend relates to the industry is that more and more people consider cars as necessary goods in foreseeable future. The Chinese people, especially the younger generation, are getting incentives to drive and own vehicles. Even so, the reasons of these incentives are different, some for fun, some for conveniences of their lives. Third, there is a situation that some consumers prefer for international products or foreign brands.

For foreign makers of automobiles, these customers are their potential customers. Four, despite of the customers who appreciate foreign brands, there is a growing tendency consumers prefer domestic product even though the quality of these domestic brand are not good as foreigners'. The situation is that the higher education of customers the higher acceptance of domestic brands because these customers are inspired by the developing history of Korean automobile industry.

Credit culture also has changed dramatically comparing with the past. Austerity and frugality are traditional Chinese values highly promoted by governments both past and present. In the past, to lend money was considered inappropriate behavior. However, the market economy is quickly changing people's ideas on what is acceptable. With the development of the Chinese economy and the improvement of people's living standard, wealthy members of society are being seduced by modern lifestyles. At the same time, the government has been encouraging people to purchase more in order to expand domestic demand. From a macro angle, the approximate 8 percent increase rate of GDP over several years assures its people that their expected income is guaranteed. Credit has indeed helped many people enjoy a better life. If not for credit facilities, few people can afford apartments especially in big cities.

Many of young people in big cities, who just graduated from college, would like to buy houses or cars on credit. It seems that they are very confident about their own future and the overall economic situation of China. In other hand, this also reflects the changes of Chinese consumers' behavior.

Housing and car credit are the most popular items in credit transactions, among which, housing mortgage makes up the biggest proportion of debt in many families who live in urban region of China. Automobile mortgage is another factor generates huge credit business. Currently, most households with medium level income or above have a car. Most of them buy cars on credit. According to statistics from the central bank, at the end of June 2004, Chinese car consumers' credit balance was 183.3 billion RMB, this accounted for 10.2 percent of the total consumer credit balance of all financial institutions.

SWOT Analysis of Automotive Industry of China

Strength

First, China has strong ability in manufacturing. Steel, engineering products, textile material, and other correlated products with the automobile, etc., the outputs of China occupies and arranges before the world, there are also certain advantages for the cost of goods. What is especially worth putting forward is, after entering the WTO, China took the manufacturing industries which have high additional value as the focal points. In the system of

dividing the work in the whole world, there is certain processing of technological content and additional value that assembles the manufacturing industry and progressively shifts to China. This development trend will undoubtedly increase the advantage in producing a great deal of automobile products for China.

Secondly, there is sounder marketing network. Since middle period of 1990s, the domestic automobile market is changed into the buyer's market from the seller's market, the circulation style of the foreign automobile begins to be introduced to China, the marketing method of the automobile has changed greatly, the single layer of marketing system beginning to be direct lied control from the multi-level marketing system of the pyramid to the producer is changed. The new marketing method has changed the brand marketing ideas of Chinese automobile enterprises, at a certain degree, play a guiding role for the setting-up and perfection of marketing network of the automobile industry of China.

Weakness

First, product structure is unreasonable and the price is too high. Chinese automobile product structure has inferior position. Most enterprises do not have perfect product structure and there are few the type platforms of enterprises or few styles of the same type. Meanwhile, the price of domestic car is generally higher than the similar model of overseas market. It is generally 40%-100% higher, not including the expenses of taxation

Second, the enterprise system is not perfect and brand growth is tied. It is government's administrative management system that causes serious local protectionism, hinders the trans-regional acquisition of enterprises, hinders the trans-regional flows of the products, and hinders the trans-regional action of cracking down on the fake. With the development of automobile industry, some places and departments ignore the market rule for temporary regional interests, implement the regional protectionism and strengthen the market barrier, which are unfavorable to the development of China's automotive industry. In addition to this, it is enterprise's system that causes enterprises lacking incentive mechanism for the competition.

Opportunities

First, the improvisations and reform on policies will improve the automobile-consumed environment of China. The State Economic and Trade Commission has clearly indicated that Policy of Automobile Industry which is in effect for 5 years will be perfected and supplemented, and at the same time, appropriate policies, namely, the policies of encouraging automobile consumption and of encouraging automobile purchase for private use, will be made based on the development of national economy. The improvement of national policies is bound to contribute not only to the development of automobile industry, the technological advance in automobile enterprises, but also to the diversity of their product structure.

Second, the reconstruction and modernization of cities will improve the environment for automobile use in China. Transportation is the first issue to be considered for city modernization. Three-dimension freeway, unimpeded pass, convenient parking has greatly improved environment of using automobile. Moreover, housing buildings in the cities have integrated appurtenance such as garage, pass way, which means the high standard of the new accommodation will increase the sales volume of automobiles. All those changes are a rare opportunity for the cultivation and development of China's auto companies

Threats

In sum, in an era of technological progress leap of automobile industry in the world, with the internationalization of world automobile industry and enormous potential domestic market, Chinese automobile industry should not merely train the abilities to independent development of the products and technology, innovation ability, raise technological content of the products and quality performance, the more important thing is that automakers should improve the competitive ability of Chinese automobile industry, obtain the economic scale, stabilize existing market, strengthen brand serve consciousness, realize fast market expanding, consolidate after sales service, adopt the modernized management style at the same time, structure the enterprise groups with large scale and international competitive ability..

CONCLUSION

Since the government of China has issued several related policies about the investment of automotive industry, in considerable degree, the policies have raised the entry barrier of automotive industry of China and ensured a kind of possibility that the automotive manufacturers could have relative higher returns. The analysis of entry barrier also shows that the entry barrier is very high and the exit barrier is relative lower, therefore the return of the Chinese automobile industry is high and stable. Meanwhile, multi-channel funds have been allowed to invest automotive projects. At this point, institution investors should pay more attention on this industry and assign higher priority on the investment of automotive industry in China when they have fund which can be invested in China. For the individual investors, the shares of listed companies which are mainly traded in Shanghai Stock Market, Shengzhen Stock Market, and Hong Kong Stock Market are good choice for long-term holding.

In the following years to come, Chinese automobile industry will also still maintain the momentum of lasting growth. According to the prediction of the Development Research Center of the State Council, the total demand for cars in China will reach 6,130,000 in 2005 and 8,600,000 in 2010, with annual average increasing rate of 7-8%. Among the forecasts, the demand for passenger cars will reach 3,450,000 in 2005 and 5,170,000 in 2010. The proportion of demand for passenger cars in 2004 among the total demand for automobile has broken 50% ceiling for the first time.

In addition, all sorts of signs indicate, China is gradually entering the automobile society. Within a certain period of time in future, the automobile industry will become one of important drive for China's national economic growth and social progress. The Chinese automobile industry is facing an unprecedented strategic opportunity for development; meanwhile the opportunities and challenges coexist. China has already become a great world automobile consumption country but not a powerful automobile country yet. Compared with advanced level of international automobile industry, Chinese automobile industry has not entered the mature period yet and the competitive ability of the Chinese automobile industry is relative poor.

Limitations and Suggestions for Future Research

Practically, future researchers are also recommended to try to gain access to the average financial data of automotive industry of China from the authority of China. With such data, researchers can compare the performances of automotive industry with others industries of China and also can compare the performance of automotive industry of different years to give a more feasible forecast.

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