A study of supporting legal policies for improving China's new energy automobile industry based on environmental benefits equilibrium-enlightenment from the environmental subsidies of Germany legal system

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ABSTRACT

Economic legislation is an important system factor for economic development nowadays. This paper discussed how to improve legal policy for supporting new energy automobile industry development on behalf of reducing pollutant in the atmosphere. Analysis methods used in this paper are system law methods combined with economic analytical methods to demonstrate rationality. The authors find that policies implied are more inclined to new-car sales while ignoring the potential consumers who have got a car and want to replace it. Environmental subsidies for replacement of new energy automobiles can promote consumption so as to boost its industry development. And the replacement can optimize private owned car stock to lower exhaust and improve environment. So the authors make recommendation that the nation can learn from Germany car replacement environmental subsidies legal policy by introducing it to new energy vehicles replacement. This legal policy is good for both new energy automobile industry development and social environmental benefits.

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Introduction

It is well known that automobile emissions are one of the important factors of atmospheric pollution. In recent years, China's sustaining haze caused by air pollution posed a serious threat to human health and cause a series of problems: factories limited production, primary and secondary schools temporarily suspended lessons, and people outdoor activities decreased, all of which are to some extent influence the development of economy. Even we can see some huge slogans: “If we want economic development, we should let environment protection goes first” in China's large and medium-sized cities. Visible environmental problems have become an important factor of restricting China's economic development. Since the sustainable development of economy is the basis of social sustainable development and the key factor of promoting overall national strengths in China, we should think about how to adjust auto industry to reduce the negative impact on environment.

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However, as an important vehicle, automobile play an important role in people's daily life and commercial activities. Besides, automobile industry product is in an up road of the overall industry system. Since 2001, the profit of the automobile industry began to grow rapidly and the auto industry will still in the rapid growth in the next ten years. Related research [1] shows that correlation degrees of auto industry and other industries are much higher than some other industries. The consumption ratio of steel products in auto industry is 4%–6%; ratio of pig iron products is 0.7%–1.2%; ratio of gasoline products is 80%–90%; ratio of diesel products is 20%; ratio of the machine tool products is 12%–15%; ratio of the tire products is 40%; ratio of toughened plastic products is 45%; ratio of engineering plastics products is 11%; ratio of paint products is 10%. Obviously, the development of the automobile industry can effectively promote the development of other industries. In addition, the automobile industry is a labor-intensive industry, which plays a certain role in solving the employment problem and labor transfer problems in China's industrialization. In addition, with the accumulation of national wealth and the improvement of residents' consumption level and the improvement of the infrastructure and the rapid advance of urbanization, China's auto consumption is in rapid growth and automobile consumption is still an important factor in stimulating domestic demand and in radiating the development of related services.

Under these conditions, how to fulfill residents transport demand and expand domestic consumption demand? And how to maintain auto industry as the pillar industry? A balance should be held between industrial development and environmental protection. We should comprehensively considerate contribution of automobile industry for the overall industrial production and for the drive efficiency of other industries and also the radiation effect for service industry. Traditional auto industry seems difficult to master the both: people's demand for automobile consumption and the negative effects to the environment caused by using automobiles [2]. Nevertheless, with the development of the automobile industry, new energy vehicles have stepped from experimental research into the sell market. New energy vehicules not only possess the function of the traditional cars [3,4] but also have higher emissions standards [5], which means from the angle of control and prevention atmospheric pollution are worthy of promoting. By researching and marketization, new energy vehicles raise his voice jump into the traditional car market, assisted by the national industrial policy. And the vehicles fuel source such as hydrogen has been proved are economical [6,7]. However, the market-share at this time is still too much of nothing. Related data show that the currently market share of the new energy vehicles in China is 0.4% and in the world is 3% [8].

How to improve the market share of new energy vehicles is a hard handled business. Account for the emerging industries, reasonable industry supporting policy is still the important driving force. To unify economic and environment benefits, break the environment restricts and realize economic and social sustainable development of in China, the government should fully consider environmentally friendly policies in the economic development policy making [9]. Environmental subsidies applied by Germany government is a kind of legal policy which the government subsidizes qualified private consumers who plan to change their cars to improve cars selling and cut down cars pollution by replacing high emission standard car with low emission standard one. Can China's new energy automobile industry by introducing environmental subsidies to release the purchasing power of residents for new energy vehicles, accelerate the phase-out of low environment standard cars? In the following sections, the author will analyze legislations and policies to find a reasonable supporting path that accord with the specific situation of auto industry and the environment.

**Materials and methods**

The methods employed in this study are system law methods and cost benefit method. Based on the use of legal documents and statistical data primarily and then analyze policy efficiency by cost benefit method from economic and ecological view. Though these methods, the authors analyze the relevant legal system and policies and the automobile industry situation in China. Then the authors analyze a legal policy of Germany called environmental subsidies which is an important part of economic governance in Germany. Material and data are from books, papers and authority websites.

**The present legal environment and industry supporting policy of new energy automobile in China**

Generally speaking, industrial policy law is an important means for China's macro-control economic management [10] which provides a legally basis for supporting automobile industry development. A preliminary legal system has been formed in China to support the automobile industry. This system is comprised of different levels of effective legal documents such as the Constitution, legislation, authorized legislation, administrative regulations, ministry regulations and so on. From the point of the source of legal rights, as the fundamental law, the Constitution of the People's Republic of China provides that the state has the right and responsibility to improve economic results and develop the productive forces by disseminating advanced science and technology and improving the systems of economic administration. This principle provides the power foundation for China's economic legislation and the government's economic management.

The first industry policy outline has provided a legal basis for the automobile industry support policy. Enacted and Issued according to law, the relevant industrial policy specifies the methods and measures which the government can adopt to support industry development and economic macro-control. The first Industrial support policy in China, can be traced back to “the Nineties National Industrial Policy” in 1994, which formulated and promulgated by the National Development and Reform Commission, is the first long-term industrial policy in China. This outline is an important means to maintain economy in a sustained, rapid and sound development, which plays an important role in strengthening and improving macroeconomic regulation and control, adjusting and optimizing industrial structure and improving the quality...
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