

## **The Impact of Tax Logic of Western Philosophy Thought on Tax Preferential Policies for Energy Conservation and Emission Reduction in China**

*L'impact de la logique fiscale de la pensée philosophique occidentale sur les politiques fiscales préférentielles en faveur de la conservation de l'énergie et de la réduction des émissions en Chine*

**Wang Ying**

PhD candidate of Economics, Department of Financial and Tax Management, Ural Federal University named after the first President of Russia B.N. Yeltsin (19 Mira St., 620002, Yekaterinburg, Russian Federation); ORCID: <https://orcid.org/0009-0007-8225-028X>; e-mail: [1127486294@qq.com](mailto:1127486294@qq.com)

**Igor A. Mayburov**

Doctor of Economics, Professor, Head of the Department of Financial and Tax Management, Ural Federal University named the first President of Russia B.N. Yeltsin (19 Mira St., 620002, Yekaterinburg, Russian Federation); ORCID: <https://orcid.org/0000-0001-8791-665X>; e-mail: [mayburov.home@gmail.com](mailto:mayburov.home@gmail.com)

---

### **Résumés**

English Français

This article seeks to analyse the western philosophical thinking has a profound impact on the development of the world economy. In recent years, with the emergence of global energy conservation and emission reduction targets, countries around the world have introduced a series of tax policies to promote "carbon reduction and emission reduction", and countries attach great importance to the development of low-carbon economy. These tax policies reflect the two basic principles of "fairness" and "assistance" in philosophy. Tax policies should not only ensure the fairness of taxation, but also provide assistance to relevant energy-saving and emission-reduction enterprises. Different emphasis on the two principles will result in different tax impacts. The ideas of "fairness" and "assistance" embodied in China's energy-saving and emission reduction tax incentives belong to the two basic moral demands in the theoretical resources of human ethics, and they are indispensable and interrelated in the formulation of tax incentives and support policies. However, how to balance the two is a problem worth thinking about in the academic world. In this paper, we will review the history of the development of Western philosophical thought and argue the importance of both from the viewpoints of "fairness" and "help", and based on the existing tax incentives for energy conservation and emission reduction in China. Finally, it provides some actionable suggestions for the correct handling of the relationship between "fairness" and assistance.

Cet article cherche à analyser la pensée philosophique occidentale qui a un impact profond sur le développement de l'économie mondiale. Ces dernières années, avec l'émergence d'objectifs mondiaux de conservation de l'énergie et de réduction des émissions, les pays du monde entier ont introduit une série de politiques fiscales pour promouvoir la « réduction du carbone et des émissions », et les pays attachent une grande importance au développement d'une économie à faible émission de carbone. Ces politiques fiscales reflètent les deux principes fondamentaux que sont l'« équité » et l'« assistance ». Les politiques fiscales

doivent non seulement garantir l'équité de l'imposition, mais aussi fournir une assistance aux entreprises concernées par les économies d'énergie et la réduction des émissions. Si l'accent est mis différemment sur ces deux principes, l'impact fiscal sera différent. Les idées d'« équité » et d'« assistance » incarnées par les incitations fiscales chinoises en faveur des économies d'énergie et de la réduction des émissions appartiennent aux deux exigences morales fondamentales des ressources théoriques de l'éthique humaine, et elles sont indispensables et interdépendantes dans la formulation des incitations fiscales et des politiques de soutien. Cependant, la manière d'équilibrer les deux est un problème qui mérite d'être étudié dans le monde universitaire. Dans cet article, nous passerons en revue l'histoire du développement de la pensée philosophique occidentale et argumenterons l'importance des deux du point de vue de l'« équité » et de l'« aide », en nous basant sur les incitations fiscales existantes pour la conservation de l'énergie et la réduction des émissions en Chine. Enfin, il fournit quelques suggestions concrètes pour gérer correctement la relation entre « équité » et assistance.

---

### ***Entrées d'index***

Mots-clés: Philosophie Équité Aide Logique fiscale

**Keywords:** Philosophy Fairness Help Tax logic

---

### ***Texte intégral***

1. Different times and backgrounds lead to different economic policies and form new economic thinking. At present, the development of the world economy is in the context of low carbon and environmental protection, so the economic theory on low carbon and environmental protection is also constantly enriched and innovative. "Fairness" and "help" are the two sides of tax thinking. Academics generally believe that taxation affects the development of enterprises and can activate market vitality through tax cuts. Lancelot Henry de Frahan studied the axiom of personal preference responsibility through Pareto optimality and believed that taxation can maximize the society and reduce the gap between the rich and the poor (Helmut Heit, 2016, 70-78) and Katherine Campbell studied the Starbucks tax cuts in the United Kingdom, and believed that radical tax cuts may face significant public relations problems. public relations problems, while arguing that radical than who will affect public relations (Katherine Campbell et al., 2016, 38-60).
2. Different contexts of the times lead to different economic policies and form new economic thinking. At present, the development of the world economy is in the context of low carbon and environmental protection, so the economic theory on low carbon and environmental protection is also constantly enriched and innovative. The earliest tax theory ideas originated in the 17th century, the classical school of thought pioneered the tax policy, and then the neoclassical school of thought critically inherited the classical school of thought of tax cuts, and in the framework of its marginal and equilibrium analysis to explore the deep logic of taxation and economic and social development; Keynesian era, the United States to replace the UK's economic hegemony, Keynesian economics, the neoclassical synthesis school, monetarism, and the supply of the school of thought in the Keynesian economics, neoclassical synthesis, monetarism and supply school have flourished in the North American continent and influenced the tax reform and macroeconomic policy making in the U.S., and also had an impact on the world's tax reform and macroeconomic policy changes due to the extensive radiation and great influence of the U.S. politics, economy and culture. And then, Botero and Serra are complementary and fully consistent with the spirit of the Counter-Reformation, offering a different historiographical perspective on the relations between Catholicism and the genesis of capitalist economy. (Rosario Patalano, 2024, 39-91) At present, the Chinese government supports the development of wind power industry and formulates a series of tax reduction and subsidy policies that coincide with the idea of tax reduction (Helmut Heit, 2016, 70-78).
3. Looking at the evolution of the idea of tax reduction in the past two thousand years, although different schools of thought have different distinctive positions. However, the core of the idea is still to consolidate

the rule of the existing regime. The different understanding of the economy and society by different schools and their distinctive value orientations have determined their different philosophical thoughts, and on the basis of their philosophical thoughts they hold different views on the state and the market, thus giving rise to different thinking on the issue of government intervention in the economy. The position of government intervention in the economy determines the different positioning of government functions, and the tax ideas of various schools of thought are born out of this series of ideas, implying a distinctive position on fundamental issues such as state intervention, government functions, and the nature of the state. For example, during the first and second periods, the world's leading nations increased their tax burdens. Britain's powerful interests fuelled an enduring war economy. Britain's political culture was dominated by a spirit of imperialism, a desire to acquire more territory and control more colonies. Manufacturers and exporters supported the government's 'self-assertion' in areas of the world where cheap raw materials and friendly export markets were available, but the underclasses of the British people suffered from the ravages of the war, which did not make life any better. (Aslanbeigui, Nahid, and Guy Oakes, 2016, 487-513) and then The economics of A.C. Pigou is generally regarded as an ensemble of policies—chiefly 'Pigouvian' taxes and subsidies—designed to maximize economic welfare. (Aslanbeigui, Nahid, and Guy Oakes, 2012, 123-150) Therefore, it is not desirable to study tax ideas in isolation within the scope of economics or finance without a historical background, and the understanding of tax ideas should be carried out in a broader perspective and more dimensions (Feyerabend and Paul, 1989, 393-406, Airton Pollini, 2008, 1253-1267).

## 1 Origins and development of tax policy

### 1.1 Enlightenment of tax policy in the ancient Greek period

4. Helmut Heit (Helmut Heit, 2016, 70-78) that the economic thought of the ancient Greek philosophers is the initial exploration of human society on economic activity, its research is broad, immature, although not formed a systematic economic thought and analysis of ideas, but the enlightenment of classical economics is very significant. The history of scientific thought began between 800 and 400 B.C. These ancient Greeks discovered a new model of rationality in society, which was given either a "scientific" or "rational" model, which is considered to be the basis for the development of Western culture and science.
5. Feyerabend (Feyerabend and Paul, 1989, 393-406) that the ancient Greek philosophers and modern economics focus on scarcity under the resource allocation problem is different, the ancient Greek market is not developed, the social and economic structure tends to be stable, this period of resource allocation is not determinative of the role of the market but the authority of the ancient Greek period, there is no concept of the market, so the ancient Greek more committed to the exploration of the eternal propositions of human society, such as justice, fairness, the country, the United States, beauty, education, truth, love, values, and the importance of the human society, the human society, the human society, the human society, the human society. Therefore, the ancient Greeks were more devoted to exploring the eternal propositions of human society, such as justice, fairness, country, beauty, education, truth, love, value, etc. They firmly believed that there were better and more worthwhile things than material things in human society.
6. Airton Pollini (Airton Pollini et al., 2008, 1253-1267) believes that ancient Greek philosophers generally analyzed economic behavior from a macro perspective, perceived the great conflict between private and

public property and the importance of private property rights, realized the importance of the division of labor and the positive impact of the division of labor on the improvement of economic efficiency, opened up the preliminary study on the exchange of commodities and the use of money in the exchange, and paid attention to the wealth, and the germ of taxation arose on this basis. The germ of taxation arose on this basis, with Plato, Aristotle and Xenophon as its representative figures. Plato and Aristotle initially explored the criteria and principles of taxation in their works. Unlike the two, who focused on theoretical analysis from the perspectives of ethics and politics,

7. Burckhardt (Burckhardt et al., 1999) explored the improvement of the tax system in a more comprehensive manner in the context of the Athenian reality. They argues that the Ancient Greek philosopher Xenophon has been widely noted for his philosophy of effective management, his philosophy of public finance management was equally remarkable. Xenophon insisted on the idea of taxation without tax increase, in his work "On Taxation", Xenophon systematically analyzed the problem of improving the Athenian tax system, advocated to maintain the financial balance of Athens on the premise of maintaining no increase in taxes, put forward the path of increasing revenue, attracting more foreigners to reside in Athens and granting privileges to merchants, and vigorously developing foreign trade by taking advantage of Athens's natural advantages in commerce and trade, and in addition the author believed that large-scale government expenditure to establish a fund to make full use of private capital. In addition, the author believed that large-scale government expenditure to set up a fund to make full use of private capital to make up for the shortfall in the national treasury, to manage the silver mine to obtain economic returns, and to use the public slaves as the country's public resources to generate revenue for the country. Xenophon's tax philosophy still influences the world's tax policy.

**Figure 1: Map of Ancient Greece**



**1.2 The development of tax thought in the medieval Arab period**

8. In the medieval period, although it is generally recognized in the academic world that rulers have absolute power, the contribution of the Islamic state people in philosophy, ethics, economics, etc. is extraordinary, in



this period is called the Islamic Golden Age, but this is often ignored in the Western economics. In this era Islam developed greatly in philosophy, art, geography, and humanities under the system of unity of church and state. Its keen insight into the market economy and forward-looking insights into the idea of taxation were remarkable. In the process of expansion of Islam, the widespread imposition of poll tax, which refers to the codification of a special kind of religious tax, played an important function.

9. Hossein Askari (Hossein Askari, 1982) considers the medieval Arab Ansari and Khaldun of this period to be the best of the best. Ansari's most important identity was not as an economist but as an authoritative Islamic doctrinal scholar, but that did not stop him from field, he had forward thinking on the interaction of specialization and division of labor, money and exchange in the evolution of the market, and explored fiscal issues such as public expenditure and taxation from the origin of taxation, with many positive explorations of the equity and efficiency of taxation, proposing that the burden of taxation should be spread out across the whole of society and exploring the optimization of the taxation model, which is still relevant today.
10. Metin Cosgel, Thomas Miceli Khaldun (Metin Coşgel and Thomas Miceli, 2009, 704-717) is an important founder of Arab philosophy, and like Ansari, Khaldun's economic studies were carried out in the framework of his religion, and his ideas on taxation were rooted in his extensive and profound historical studies, and in his book "Introduction to History" Khaldun argued that in the early dynastic period, the government obtained a large amount of revenue from low taxes, and at the end of the dynastic period, the government's high taxes led to a In his work "An Introduction to History", Hellerton argued that in the early dynastic period, the government received a large amount of revenue from low taxes, while in the late dynastic period, the government's high taxes led to low income, which was an important factor in the dynastic collapse. Based on this Ewan McGaughey argues that it is important to ensure fairness in the legal construction of markets and taxes. (McGaughey, Ewan, 2021, 171-189)

**Figure 2: Map of Ancient Greece**



### **1.3 Extensive exploration of taxation during the period of classical economics**

11. The classical economics of the British bourgeoisie arose in the middle of the 17th period and was completed in the early 19th century.
12. Helmut Heit (Helmut Heit,2016,70-78) argues that from the pioneers of classical economics, William Fiddi and Adam Smith to the theorist of classical economics, David Ricardo, to the master of classical economics, John Stuart Muller, classical economic thought on taxation has evolved. The classical school of economics put forward the slogan of "laissez-faire", they believe that the market can spontaneously regulate the operation of the economy, opposed to state intervention in taxation.
13. Metin Coşgel (Metin Coşgel et al., 2009, 704-717) argue that They also believed that the construction of "cheap government", the state functions and unproductive financial expenditure can promote market prosperity. On this basis, classical economics "cheap government" political philosophy and "laissez-faire" economic philosophy decided to oppose the government to impose a high tax burden and uphold the principle of tax neutrality, Smith and Gendi believe that excessive taxation will be detrimental to the accumulation of capital and economic development. The classical school made many advances in the choice of sources and types of taxation. While Gentry regarded land as the ultimate source of taxation, Smith went further and regarded rent, profit and wages as the main sources of taxation. Both were strongly opposed to the poll tax, favored the taxation of luxury goods, and emphasized the rationality of taxing land rent based on their emerging bourgeois stance. Ricardo, on the basis of his labor theory of value, suggested that capital and income were the sources of taxation.
14. With the development of the capitalist economy, there were numerous debates on income tax, progressive tax, indirect tax, differential tax, etc. in Muller's time, and Muller constructed his tax philosophy in a wider scope and from a wider perspective. The specific policies advocated by Muller can no longer be applied to contemporary tax reforms, but the sympathy for the underclasses and the pursuit of individual rights and the public interest that are embodied in his tax ideas are still found in the tax system and public policies of today. However, the sympathy for the lower class and the pursuit of individual rights and public interests embodied in his tax ideas are still traceable in today's tax system and public policies.
15. Pearce, David W., and R. Kerry Turner (Pearce, David W., and R. Kerry Turner, 1989). As a matter of fact, many reflections and debates in the field of taxation in modern society can be traced back to the tax ideas of classical economics. The philosophical kernel of moral philosophy and the idea of economic analysis under the multidisciplinary structure have had a far-reaching influence on classical economics, which has made its tax ideas both theoretical, historical and philosophical, and has made a positive exploration of the ethical dimension of tax ideas. It is undeniable that the classical school of tax thinking is not in line with modern fiscal research ideas and is very different from today's tax practice, which is determined by the historical relativity of economic thought, but it is indisputable that the classical school's tax thinking is a core part of Western tax thinking and is still traceable in contemporary Western tax reforms. They has been built on this foundation, taking into account that the tax burden should be in ensuring the sustainability of natural resources, on which classical economics created the classical circular economics, and from which it is widely used by David Pearce and Kerry Turner (Pearce, David W., and R. Kerry Turner, 1989).

### **1.4 Attention to Tax Equity in the Neoclassical Economics Period**

16. In the 1960s, the first generation of neoclassical economics emerged in a critique of traditional economics, and the first generation of neoclassical economist economics formed two schools of thought including macroeconomics and microeconomics. That is, the government must first raise money from taxes, fees, and borrowing before it can spend it on programs, i.e., the money comes from outside the government, so the government must get money from elsewhere in order to spend it.
17. Terence C. Burnham (Terence C. Burnham and Toward a neo-Darwinian, 2013) argues that the economic thought of Jevons and Edgeworth, representatives of the first-generation neoclassical economics, were both heavily influenced by Jeremy Bianchin's utilitarianism. Jevons started his economic research by calculating pleasure and pain, establishing a connection between economic thought and psychology; Edgeworth proposed the idea of minimizing the negative utility of taxation based on Bianchin and Jevons, that is, taxation should minimize the sacrifice, and this theory is a direct product of utilitarianism, but if the marginal diminution of utility is taken into account, the utility curve decreases more rapidly when income rises, especially in the high income stage. However, if the marginal diminution of utility is taken into account, the utility curve declines more rapidly as incomes rise, especially at higher incomes, so that in practice it is extremely difficult to determine the tax rate that minimizes sacrifice.
18. Legal economics is one of the most influential movements of neoclassical economics James R Hackney (James R Hackney, 2003) argues that equality and fairness are important aspects of the legal rules of society, and that the government can distribute the resources of society twice through taxation.
19. In order to maintain social stability, redistribution from the rich to the poor needs to be achieved by changing the rules of law, even if the optimal redistributive tax policy is currently implemented. Redistributing income from the rich to the poor will help to improve social welfare. Alfred Marshall is the master of neoclassical economics, his early religious beliefs triggered his deep concern for the poor, and also made him take the elimination of poverty as the primary task of economics, which is in sharp contrast to classical economists such as Ricardo, whose tax ideas on the one hand inherited the free market concept of classical economics and opposed to excessive taxation, and on the other hand, actively explored tax fairness, and had an important impact on Picard's pioneering of It also actively explored tax equity, which had an important impact on the creation of welfare economics by Picasso.
20. In terms of research methodology, Marshall inherited the deductive method of the classical school and integrated marginal analysis and partial equilibrium analysis into it. The new analytical methodology enabled neoclassical economics to actively explore the cost of taxation, tax shifting, and fate analysis, etc., and the micro-analytical framework of taxation was established, which brought about a brand-new cognition of the relationship between taxation and economic development.
21. On the one hand, Marshall used consumer surplus as a tool to analyze the cost of government taxation and its social welfare effects, and the analysis results showed that taxing certain industries with diminishing returns and subsidizing industries with increasing returns with concentrated revenues might benefit from them; he also argued that a laissez-faire market did not always produce the best resource allocation, and that there was a reasonableness and necessity of micro-intervention by the government. On the other hand, he pioneered the partial equilibrium analysis and marginal analysis of the tax pass-through and fate problem, and put forward the concept of excess tax burden. Marshall recognized the huge intervention role of taxation in the market economy. Taxation completely changes the cost and reward relationship of various economic activities, which in turn affects the market allocation of resources and income distribution, and also cuts the cost of producers and the interests of consumers, which to a certain extent implies inefficient use of resources.
22. Robert Goodland (Goodland, Robert, and George Ledec, 1987, 19-46) argues that neoclassical economics

and its application in development policy have seriously ignored or underestimated major ecological problems. The economic value of environmental services is real though. Over-consumption of natural resources in industrialized countries may undermine the long-term development prospects of developing countries. The focus of many developing countries on export crops rather than domestic food production often comes at a huge environmental cost.

## 1.5 Modern Chinese tax system and its philosophical connotation

23. According to Adam Smith, one of the advantages of the market society over the pre-feudal system was that it made life better for the poorer members of society. Similarly, the fate of the poor has been the focus of attention of classical political economists and so-called philosophical radicals of the nineteenth century. (Posner, Eric, and Eric Weyl, 2018) After the founding of the People's Republic of China in 1949, during the planned economy period, after the establishment of socialist public ownership and the planned economy system, the function of taxation to organize income and regulate the economy under the planned economy system was greatly weakened because the state could directly control the state-run enterprises and indirectly obtain the profits of the collective economy through the price mechanism.
24. At this time, Brys (Bert Brys et al., 2013) role of taxation was reflected in two aspects: one was to tax the collective economy, including agricultural tax and urban collective economy tax, in order to reflect the difference between universal ownership and collective ownership; the other was that, within the universal ownership system, taxation was used as an auxiliary means of directive planning to further regulate the costs and profits of different industries and state enterprises in the operation of the planned price mechanism. During this period, the construction of the tax system was influenced by the theory of "non-taxation" and "uselessness of taxation", and in practice, it was manifested in the over-simplification of the tax system, and the status and role of taxation in the fiscal revenue and national economy were on a downward trend, and the normal order of tax collection was impacted. The normal order of tax collection and management has been affected. With fewer and fewer tax types and a simpler and simpler tax system, it is difficult to effectively play the functional role of taxation.
25. Wang Zhiyuan (Wang Zhiyuan, 2019, 602-625) at the early stage of reform and opening, in order to adapt to the pattern of reform and opening up to attract foreign investment and the coexistence of multiple ownership systems, the establishment of a foreign-related tax system and the reform of the domestic tax system were begun. 1978~1992, after more than 10 years of efforts, a relatively complete set of foreign-related tax system was initially set up, ranging from the income tax to the turnover tax and the property tax, and from the tax law to the bylaws. With the development of commodity economy and the change of ownership pattern, the domestic tax system also underwent major adjustments.
26. A comprehensive reform of the tax system was carried out in accordance with the guiding ideology of unification of tax laws, fair tax burden, simplification of the tax system, reasonable decentralization of power, rationalization of distribution relations, and guaranteeing of fiscal revenues, with special emphasis on the requirements of unification of the tax system and fair tax burden, and through the unification of the flow-through tax system of domestic and foreign-funded enterprises, the domestic-funded enterprise income tax system, the unification of the individual income tax system, and the unification of the foreign-funded enterprise income tax system. The 1994 tax reform was an all-round and fundamental reform, which also embodied the characteristics of a package launch in time, and was the "largest and most extensive tax reform" since the founding of New China. After the 1994 tax reform, according to the requirements of economic and social development and based on the 1994 tax framework.



27. China's tax system has been continuously improved and perfected. With the gradual establishment and improvement of the market economy system, tax revenue became the main form of fiscal revenue. During this period, the establishment of a tax system compatible with the socialist market economic system and opening to the outside world was the core task of the tax reform, which gave full play to its pioneering role in promoting the reform of the economic system.
28. As socialism with Chinese characteristics enters a new era, the change of the main social contradictions requires accelerating the establishment of a modern fiscal system. The tax system, as an important part of the modern fiscal system, should not only better mobilize fiscal revenues and provide sufficient financial security in terms of providing people with better quality public services; at the same time, the formulation and implementation of the tax system should better meet the people's needs in terms of democracy, the rule of law, fairness, justice, security and the environment. Therefore, the goal of tax reform in the period of comprehensively deepening the reform since 2012 is to establish a modern tax system, modernize tax governance, and give full play to the fundamental, pillar, and safeguard roles of taxation in national governance. The first year to the third year is exempted from enterprise income tax, and the fourth year to the sixth year is halved enterprise income tax.

## **2. Methodology related to the current tax policy in the energy saving and emission reduction industry**

### **2.1 Fiscal subsidy policy**

29. Fiscal subsidy policy is an important government intervention behavior, the implementation of the main body is the government departments at all levels, is a positive incentive mechanism, through the financial subsidies to help the development of industries and enterprises (Zhang, Huiming, et al., 2015, 821-827). Financial subsidies are conducive to prompting the potential target group to strive to upgrade to the target group. In the process of government incentives, government departments gradually realize the effect and goal of financial subsidies (Song et al., 2022, 7429). Transitional financial subsidies are very likely to make enterprises dependent on subsidies, fraudulent subsidies and even financial pressure and other related problems, because of the high effectiveness and immediacy of financial subsidy policies, in 1986, the Chinese government launched the 863 program, which aimed to use advanced science and technology to enhance its competitiveness in the global market, and "renewable energy technology" was included in the program as a special research project. In 1986, the Chinese government launched the 863 Program to enhance its competitiveness in the global market by utilizing advanced science and technology, and "renewable energy technology" was included as a special research topic in the program, with an investment of 35 million RMB, which covered the fields of wind power and solar energy, etc. (Shen, Jianfei, and Chen Luo, 2015, 1478-1488). In 2008, the Chinese government subsidized Chinese and foreign enterprises manufacturing wind power equipment and components in China, based on the criteria of installed wind power capacity (more than 1,500 kilowatts) and independent research and development capability. In recent years, the government has taken a series of measures to promote the sustainable development of wind

power, including conducting wind energy testing, developing relevant technical standards for wind power, and improving the planning and construction of power grids, etc. In 2022, the Ministry of Finance is expected to allocate a total of 39.9 billion yuan in the annual budget of the State Grid Renewable Energy Tariff Additional Subsidy Funds, of which 10.5 billion yuan is allocated for wind power, which not only encourages the independent research and development of wind power generating units in China, but also improves the quality of wind power equipment and components in China (Shen Jianfei and Chen Luo, 2015, 1478-1488).

30. This has not only encouraged independent R&D of wind turbines in China, but also increased the production capacity of wind turbines. The Ministry of Science and Technology adopted a series of measures in 1999 to encourage the development of wind energy, including preferential construction loans provided by the China Development Bank, which provided financial subsidies of 2% of the loan amount, and relaxed the repayment period and return on investment for investment projects during the loan period in accordance with the principle of "repayment of the capital and interest plus a reasonable profit" (Zhao Zhen-Yu et al., 2016, 147-156). The Renewable Energy Law provides that financial institutions may subsidize loans for new energy sources. This policy was implemented in 2006. The government's policy of subsidizing interest rates can significantly reduce the operating costs of enterprises, as well as lowering the interest rate of financing, thus stimulating enterprises to invest in wind power (Zhu Zhishuang, and Hua Liao, 2016, 241-256). The Ministry of Science and Technology (MOST) adopted a series of measures to encourage the development of wind energy in 1999, including preferential construction loans provided by the China Development Bank, a 2% financial subsidy on the loan amount, and a relaxation of the repayment period and investment return rate for investment projects during the loan period, based on the principle of "repayment of the capital and interest plus a reasonable profit".(Shen, Jianfei and Chen Luo, 2015, 1478-1488). The Renewable Energy Law provides that financial institutions may subsidize loans for new energy sources. This policy was implemented in 2006. The government's policy of subsidizing interest rates can significantly reduce the operating costs of enterprises, as well as lowering the interest rates of enterprise financing, thus stimulating enterprises to invest in wind power (Zhao Zhen-Yu, 2016, 147-156).

## 2.2 Tax Preferential Policies

31. In 2014, the CPC Central Committee and the State Council issued the Circular on Cleaning Up and Regulating Tax Preferential Policies, in which any policy that violates the law or hinders fair competition is to be included in the scope of governance, and all relevant departments are to regulate the tax preferential policies of their own departments in accordance with the unified requirements. Compared to previous governance, this tax preference governance is an improved measure by the central government to deal with unconventional tax preferences, and is an important guarantee to promote fair competition among enterprises (Zhixiong Huang, 2024, 60). Up to now, China has implemented 56 tax incentives to support green development in four areas: supporting environmental protection, promoting energy conservation and environmental protection, encouraging the comprehensive utilization of resources, and promoting the development of low-carbon industries. Energy production and consumption-related activities are the most important source of carbon dioxide emissions, and vigorously promoting carbon emission reduction in the energy sector is an important measure to do a good job of carbon peaking and carbon neutrality, as well as to accelerate the construction of a modern energy system. By increasing policy support for the development and utilization of clean energy such as solar energy, wind energy, hydroelectric energy and nuclear energy, it will provide a guarantee for the scientific and orderly promotion of achieving the goals of carbon peak

and carbon neutrality and the construction of a modernized economic system as scheduled.

32. Therefore, it is feasible and typical to study the governance effect of tax incentives in the context of China. The Chinese government provides various tax incentives to support the development of energy conservation and emission reduction in China, including a direct 50% VAT refund for the sale of self-produced wind energy, three exemptions and three half-reductions, a low tax rate of 15% for high-tech enterprises, income tax reductions and exemptions for small and micro-enterprises (John Rawls, 1975), additional deductions for research and development (R&D) expenses, and a one-time tax rebate for general taxpayers. In June 2022, the State Administration of Taxation (SAT) issued the Guidelines on Tax and Fee Preferential Policies to Support Green Development, aiming to promote green development through the introduction of 56 preferential tax policies for environmental protection, energy conservation, sustainable use of natural resources, and the development of low-carbon industries (Huiming Zhang, 2015, Boqiang Lin et al., 2010, 207-283).

***Table 1: Tax Related***

<b>Taxes</b>	<b>Related</b>
Value Added Tax (VAT)	<p>From July 1, 2015, the sale of assets of electric power products produced using wind power is subject to a 50% immediate tax refund</p> <p>"Public infrastructure projects approved after 2008 shall be exempted from corporate income tax for the first three years, and shall be subject to a 50 per cent reduction in income tax for the fourth to sixth years".</p>
Income tax	<p>By 2020, the income tax rate for incentivized enterprises in the western region will be 15%.</p> <p>Income tax for state-supported high-tech enterprises is 15%.</p> <p>Deductions for R&amp;D expenses are added and deducted before tax at 100% of the actual amount incurred.</p> <p>Income tax relief for micro and small enterprises</p>
customs duties	<p>In order to manufacture WTGs of a certain power or above, the key parts and raw materials imported by domestic enterprises can enjoy the policy of first levy and then refund of import duty and first levy and then refund of import link VAT. Imported spare parts and raw materials for wind turbines of a certain power or above can enjoy customs duty exemption and import VAT</p>

exemption.

For the production of high-efficiency wind turbines, key components and raw materials purchased by domestic enterprises will enjoy the preferential policy of first levy and then refund to support their production process, except for those below 2.5 MW.

---

## **3. Philosophical Ideas Embodied in China's Energy**

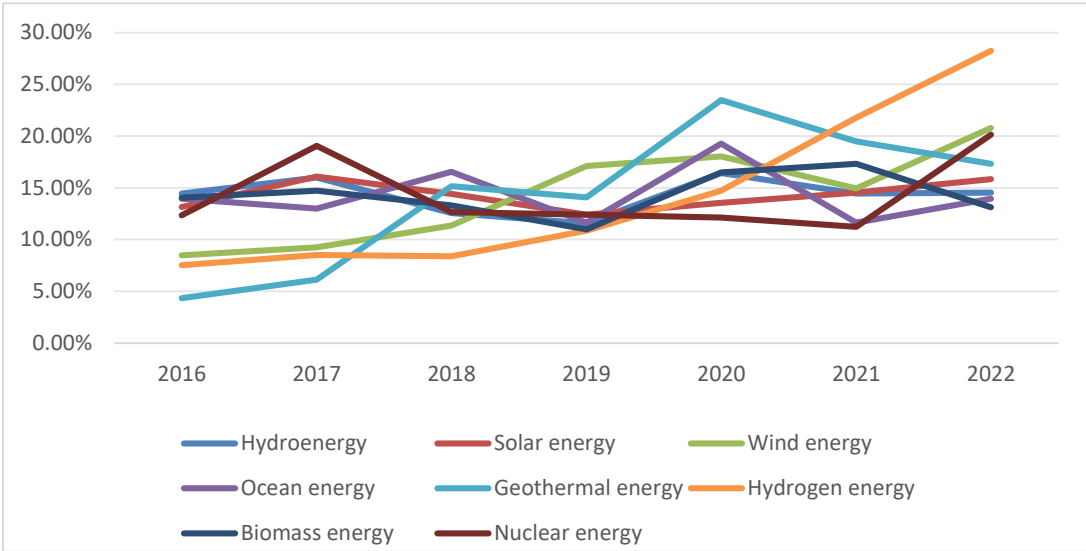
### **Saving and Emission Reduction Tax Preferences**

#### **3.1 Relevant tax incentives reflect the philosophical thinking of "fairness".**

33. "Truth, goodness, beauty, freedom, equality and justice are called the six basic values of human beings. As the "top-level" norms of values, they express those values that are considered to be the most important and universal among the value goals pursued by human beings throughout history (Boqiang Lin et al., 2010, 207-283).
34. These six concepts have so far gained a high degree of acceptance in both the East and the West as the ideals of the good of mankind (Zhixiong Huang et al., 2024, 60). However, it is not difficult to agree with them, the difficulty is how to realize them. The basic principles of tax law respond to the fundamental attributes of tax activities and are the basis for the establishment of the tax law system. The principles of tax law include the basic principles of tax law and the principles of tax law application (Galle, Brian, 2008, 1323).

*Figure 3: Distribution of Green and Low-Carbon Licensed Patent Technologies by Chinese Patent Owners,2016-2022*

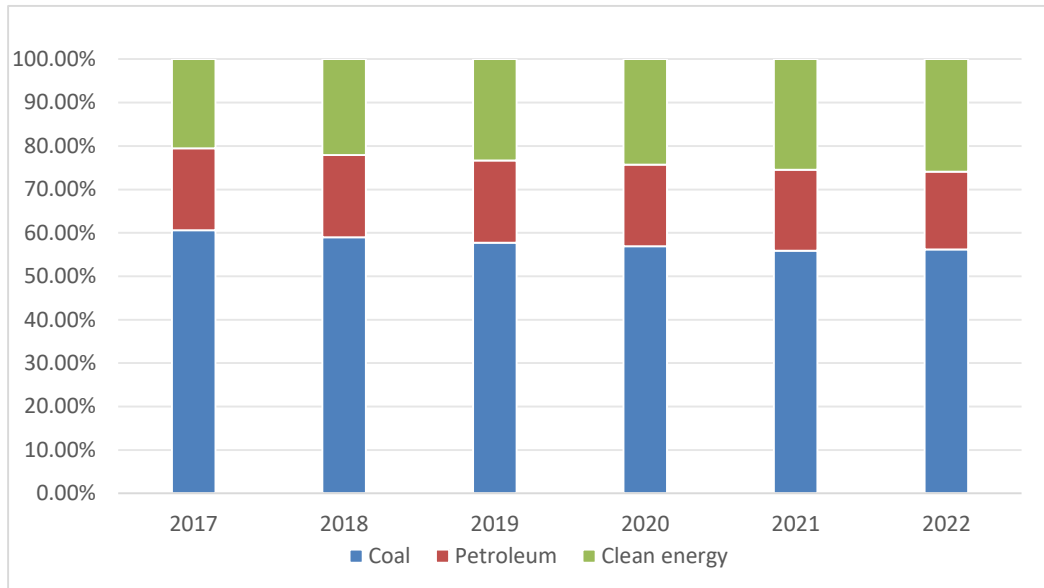




The idea of equality and fairness in the philosophical thought in the tax law is the principle of taxing according to ability, i.e., the tax burden of taxpayers should be levied according to their actual income, so as to realize the principle of

taxation that those who have more income should be levied more, those who have less income should not be levied, and those who have no income should not be levied, etc. (Rawls, John, 1975, 536-554). The basic principle of "helping" is the fundamental attribute of tax activities. The idea of "help" is the ethical basis of taxation according to law, and the legalism of taxation is the institutional basis of tax incentives for wind power generation. The right to tax is not simply based on the ruling power of the state, but also requires a certain ethical basis to justify (Francez, Nissim, 2012). The philosophical basis of its essence is the idea of fair tax burden that "everyone is satisfied", i.e., to conceive a tax law norm that all taxpayers are satisfied is the direction that should be pursued by the tax law, which reflects the problem of "fairness" in its essence. (Galle, Brian, 2008, 1323) However, wind power generation is the current national support project, so firstly, from the point of view of tax policy involving tax types, the tax policy of the United States to support the development of the wind power industry involves a number of tax types, such as property tax, corporate income tax, personal income tax, value-added tax, customs duty and surtax, which embodies the idea of assistance to the wind power industry (Jonathan, et al., 2020, 487-503). Currently, China's tax policies to support the development of the wind power industry are mostly focused on value-added tax, corporate income tax, tariffs, etc., and there are certain deficiencies in personal income tax, property tax, surtaxes, and other taxes (Farrar et al., 2020, 487-503). China combines the characteristics of the wind power industry, sets up certain tax policies to support the development of the wind power industry from the perspective of different tax types, and builds up a complete tax policy system to support the development of the wind power industry. Secondly, in terms of positive incentives and negative restrictions of tax policies, both the United States and Germany have adopted a combination of positive incentives and negative restrictions to promote the development of wind power industry (Song Yijia, et al., 2024, 310-338).

**Figure 4: Coal, oil and clean energy consumption as a percentage of total energy consumption, 2017-2023**



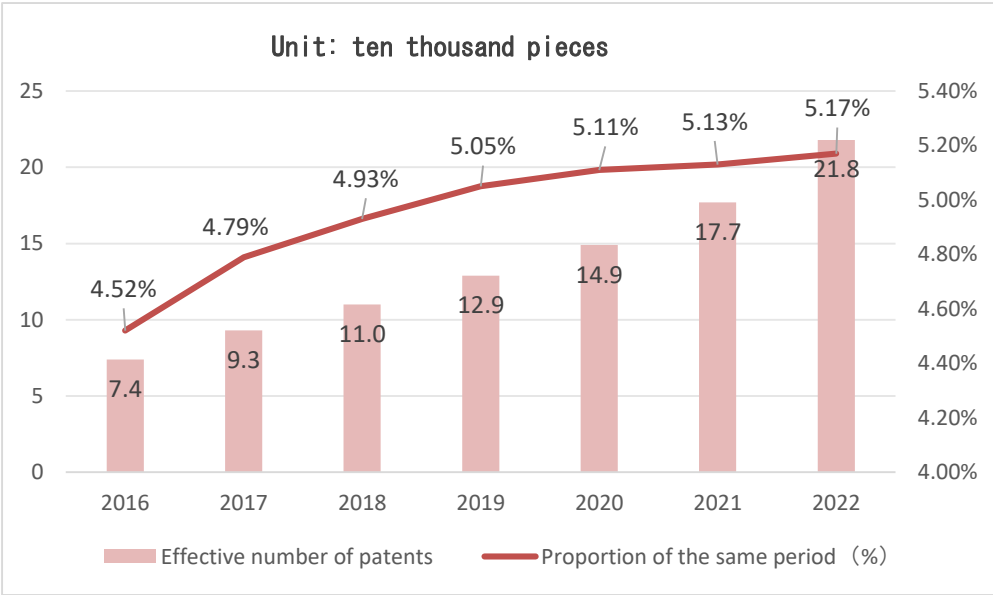
The U.S. Crude Oil Equalization Tax, High Oil Consumption Tax, Industrial or Power Generation Oil and Gas Consumption Tax, and Germany's Ecological Tax have all provided some reverse tax incentives for the development of the wind power industry (Guo Jin, 2018, 57-65, Mei Tan, 2000,

44-58). By restricting the traditional power generation industry with high pollution and high energy consumption and increasing its power generation cost, the cost advantage and market competitiveness of wind power can be realized. At the same time, combined with relevant tax incentives, further promote the development of wind power industry in China. At present, there is still a gap in China's reverse tax restrictions, relying only on tax incentives for the wind power industry is difficult to truly promote China's energy transformation, to achieve the goal of "carbon peak" and "carbon neutral". Therefore, China should start from the inhibition of high-pollution and high-energy consumption of the traditional power generation industry, set up certain tax disincentives, positive incentives and reverse restrictions organically combined, to build a more complete tax policy system to support the development of wind power industry, and better promote the development of China's wind power industry.(Li Zibiao et al.,2022). As can be seen from the tax policies of the United States and India, the tax policies of the wind power industry in the two countries have experienced many times of expiration and continuation adjustments. For example, the U.S. production tax credit, business investment tax credit and R&D investment tax credit. Whenever the expiration date of the policy is approaching, the development of the wind power industry in the U.S. will slow down; however, when the policy is slightly adjusted and renewed, the development of the industry will speed up (Dixon et al., 2010). Similarly, India's tax incentives for accelerated depreciation went through a process of lowering depreciation rates, eliminating depreciation incentives, and finally restoring accelerated depreciation at 80 percent. The fluctuation of the tax policy did have some adverse effects on the stable development of the Indian wind power industry, but after the adjustment, the accelerated depreciation at 80% depreciation rate matched the characteristics and needs of the Indian wind power industry at that time, and the Indian wind power industry became more and more prosperous (Dixon et al., 2010, 6398-6408). To a certain extent, this shows that the relative stability and adaptability of tax policies are very important for supporting the development of wind power industry. Indeed, tax incentives, as a means to regulate a certain issue in a certain period of time, do not have the characteristics of long-term application, so the stability of tax incentives is weak, and the phenomenon of continual expiration and continuation of tax incentives is very common and normal. However, from the point of view of wind power enterprises, their dependence on

the policy is greater, and the fluctuation and uncertainty of the policy will bring certain risks to the development of the industry. Will bring certain risks to the development of the industry. Therefore, China can give due consideration to the characteristics and demands of the wind power industry, and without changing the premise of tax incentives as a short-term policy tool, the relevant continuation of the policy to be introduced a little ahead of the time, so that the wind power enterprises can be given a transition period to fully receive the changes in tax policy, timely adjustment of the enterprise's development strategy, reduce the policy risks faced by enterprises, and strengthen the relative stability of tax policy (Arginelli, Paolo, 2015, 3). At the same time, we can also see from the policy continuation adjustment of the U.S. and India that the tax policy should be adapted to the stage of industrial development, and adjusted in time according to the current industrial development situation and industrial characteristics, so as to increase the adaptability of the tax policy, and not to stick to the old ways and ignore the development situation of the industry (Kalita, 2023, 15-35). Although the Chinese government has been making efforts, there are still some gaps from the world's advanced level.

*Figure 5: Effective Patents on Green and Low Carbon in China, 2016-2022*

**3.2**



**Relevant tax incentives reflect the philosophical idea of "help".**

37. The ultimate goal of developing wind power is to enable Chinese society to achieve green and sustainable development (Zhang Junyuan, et al., 2022, 205-219). Green development is a multi-dimensional, multi-level and multi-disciplinary development concept, which is the development of efficient utilization of resources and comprehensive protection of the environment, as well as the development of a balanced and comprehensive coordination (Layser and Michelle D., 2016, 453). Green development is in line with both the law of development of human society and the ultimate purpose of human social development, which is

the unity of conformity and purpose (Bird-Pollan and Jennifer, 2016, 859). "Lawfulness" means that green development reflects the nature of objective things, laws and objective conditions, and has realistic feasibility. Green development follows the laws of nature, social laws and ecological laws, emphasizes human self-discipline and self-consciousness, combines the finiteness of resources with the infinity of development, and realizes sustainable economic, social and ecological development at the lowest possible cost to resources and the environment (Bhandari and Monica, 2017). Human civilization is in a period of transition from industrial civilization to ecological civilization. Human society has experienced three civilizations, namely, primitive civilization, agricultural civilization and industrial civilization. Each transformation of civilization is a manifestation of mankind's increased ability to understand, utilize and transform nature, and the shift in technological paradigm is often accompanied by the transformation of human civilization (Dean and Steven A., 2006, 911). Primitive civilization is a form of civilization in which human beings are dependent on nature and dominated by nature; human beings are bound by nature and blindly worship nature and rely on it. Agricultural civilization is the form of civilization in which human beings utilize nature, transform nature, and damage nature to a limited extent (Bogenschneider and Bret N, 2016, 451). The traditional technological paradigm has not exceeded the carrying capacity of the natural environment, and the destruction of the ecological environment is only local and temporary, and human beings and nature are kept in a state of relative harmony. Industrial civilization is a form of civilization in which mankind controls nature, conquers nature and seriously destroys nature. The modern technological paradigm pays attention to the economic indicators of technological application and ignores the environmental indicators and resource consumption indicators, and mankind consumes a large amount of resources and energy, and crazily plunders nature, which gives rise to a series of ecological problems such as dust storms, desertification and floods and threatens the survival and development of mankind (Sidani et al., 2014, 183-196). Humankind hopes to get out of the ecological crisis and move towards a more intensive, more sustainable and more harmonious civilization, namely, ecological civilization. It is proposed that "the construction of ecological civilization should be placed in a prominent strategic position, integrated into all aspects and the whole process of economic, political, cultural and social construction, and synergistically promote new industrialization, informatization, urbanization, agricultural modernization and greening." This marks a new level of the Party's understanding of the laws of Communist (Kordana et al., 2003, 647-678). Party rule, socialist construction and human social development. "Fit for purpose" means that green development is in line with people's needs and wishes. As China adheres to the path of new-type industrialization, informatization, urbanization and agricultural modernization with Chinese characteristics, there is a huge demand for resources and green energy, as well as greater expectations for a better home with blue skies, green land and clean water. (Tian et al., 2020). The extensive use of green technology can maximize the ecological benefits while enabling human beings to obtain economic and social benefits, thus enhancing the space and dimension of human development. Green development is comprehensive, coordinated and sustainable development on the basis of following the objective law, and in the final analysis it is comprehensive human development.



## **4. Problems and Suggestions for Improvement of China's Existing Tax Policy on Energy Saving and Emission Reduction**

### **4.1 Problems in China's current tax policy for energy-saving and emission reduction industries**

38. As the world's largest primary energy consumer and carbon emitter, China faces great challenges in energy conservation and emission reduction. Countries around the world have been paying attention to the specific work of the Chinese government in energy conservation and emission reduction. (Fang Hongsheng et al., 2022, 81). The Chinese government has introduced several binding policies to curb fossil energy consumption and carbon dioxide emissions. For example, reducing energy intensity and total emissions of major pollutants was first made a binding target in the 11th Five-Year Plan. In the 12th and 13th Five-Year Plans, the Chinese government also set binding targets for reducing energy intensity and carbon emissions (Qun, L.I, 2008). In 2020, China also announced a plan to achieve peak carbon emissions by 2030 and carbon neutrality by 2060. Therefore, energy conservation and emission reduction are an issue that must be considered simultaneously to achieve high-quality development of the economy in the future. At present, the main tax incentives used for energy-saving and emission reduction related industries are simple tax incentives, and tax incentives commonly used internationally, such as accelerated depreciation and tax deferral, are less common, and the focus of the policy tends to be on the investor or producer side, which has led to a significant growth in energy-saving and emission reduction related industries (Ma Ruiyang and Boqiang Lin, 2023, 345). This is especially true for wind power producers, and due to the lack of incentives for consumers and grid establishment. Domestic wind power market, the lack of domestic demand, power consumption is not good, so that abandoned wind power has always been a major constraint on the development of wind power, the emergence of "the faster the development, the greater the loss of" the strange circle. The main performance in the early stage of wind power development is to see wind power as a new energy test or insignificant energy supply in China, and thus take a temporary, exploratory measures as a stopgap measure, resulting in a lack of systematic financial and tax policies, seemingly fragmented and not in place. The government's investment in the wind power industry is seriously insufficient, and the government's investment is customarily based on the construction of a few demonstration projects with financial contributions and the adoption of certain tax incentives for certain projects in order to accomplish certain technical improvements. Direct government investment is limited to R&D, and there is virtually no investment in wind power investment, sales, utilization, and services. Some of the policies are aging, such as the policy of investing in wind power with state bonds. China's current fiscal and tax policies mainly promote the localization of equipment, but the policies and measures to increase the supply of wind power

and to strengthen the system of grid-connected transmission of wind power are not perfect, and there is a lack of strong support for credit preferences for wind power enterprises.

## 4.2 Improvement Suggestions on Tax Policy for China's Wind Power Industry

39. Correctly handle the relationship between "fairness" and "assistance". At present, the wind power industry in China has not played its due role as a strategic emerging industry, but has instead experienced the problem of overcapacity, and the economic benefits of the industry have declined, which has dealt a serious blow to the confidence and motivation of new energy enterprises, and in the face of international new energy politics, the pressure on the cultivation of the industry will be intensified, which will affect the realization of the long-term strategic goals of the new energy industry. Under the impact of international new energy politics, the pressure to cultivate the industry will increase, affecting the realization of the long-term strategic goals of the new energy industry (Lv Zhihan, and Wenlong Shang, 2023). Now we should start from the perspective of new energy development strategy as a whole, adjust the imbalance in the development of wind power industry, shift the focus of policy to cultivate the consumer market, expand the application of wind power, improve the universality, and promote the substitution of traditional energy sources. In view of the blind spots of the current policy and the development pattern of the wind power industry, the following suggestions for tax policy improvement are summarized.
40. In terms of VAT, the VAT reform stipulates that the VAT amount of wind power equipment can be deducted, but wind power enterprises are currently in a low-profit status, and the deductible output tax amount is low, which often needs to be deducted for more than ten years. During the period of deduction, it is equivalent to the enterprise keeping the cash flow in the tax department, and the enterprise itself needs to use other means of financing, which greatly increases the enterprise's cash pressure and the cost of financing. Therefore, in terms of the VAT rate and preferential regulations, the tax incentives are relatively single, and there are fewer common international policies such as investment credit, accelerated depreciation and tax deferral. Meanwhile, compared with developed countries in the wind power industry, the tax incentives in China are of shorter duration, which is hardly enough to cover the start-up period of new enterprises, thus putting pressure on the enterprises' development and growth. It is recommended to further enrich the tax incentives and extend the duration of the incentives, so as to escort the steady growth of wind power enterprises. In terms of import tariffs, while encouraging scientific research and technological development through import tax exemptions and reductions, attention should be paid to the protection of domestic manufacturing industries of the same kind by providing them with balanced tax incentives; the policy of levy first and refund later has increased the pressure on the liquidity of enterprises, and it is difficult for the current tax rebate to ensure that the tax incentives can be practically implemented, so it is possible to consider adopting the method of tax reduction and exemption directly.
41. In the process of formulating tax policies, it is necessary to establish a systematic thinking, through the articulation and cooperation between economic policies and public service policies, to stimulate industrial investment and research and development, guide the direction of industrial adjustment, coordinate the relationship of interests in the market, and standardize the behavior of market players, so as to realize the breakthrough and development of the wind power industry. Focus on fairness and "help" at the same time (Zhu, Hongyu et al., 2023, 89).

---

## Referenes

1. Helmut Heit, 2016, Reasons for relativism: Feyerabend on the 'Rise of Rationalism' in ancient Greece, *Studies in History and Philosophy of Science Part A*,57(1):70-78.
2. Katherine Campbell. Duane Helleloid, 2016, Starbucks: Social responsibility and tax avoidance, *Journal of Accounting Education*,37(1):38-60.
3. Patalano, Rosario, 2024,"The Economic Thought in the Counter-Reformation Age: Giovanni Botero and Antonio Serra." *OEconomia. History, Methodology, Philosophy*,(14)1: 39-91.
4. Aslanbeigui, Nahid, Guy Oakes, 2012,"On Pigou' s theory of economic policy analysis." *OEconomia. History, Methodology, Philosophy*,2(2):123-150.
5. Aslanbeigui, Nahid, Guy Oakes, 2016, "The Great War and the Genesis of Pigou' s A Study in Public Finance." *OEconomia. History, Methodology, Philosophy*,6(4): 487-513.
6. Feyerabend, Paul 1989, "Realism and the Historicity of Knowledge."86(8):393-406.
7. Airtion Pollini, Sophie Montel, 2008, Europe, South Greece, Editor(s): Deborah M. Pearsall, *Encyclopedia of Archaeology*, 1253-1267.
8. Burckhardt, Jacob, 1999, The greeks and greek civilization. Macmillan.<https://academic.macmillan.com/academictrade/9780312244477/thegreeksandgreekcivilization>
9. Hossein Askari, John Thomas Cummings and Michael Glover, 1982, In Butterworths Studies in International Political Economy, Taxation and Tax Policies in the MiddleEast, Butterworth-Heinemann.<https://shop.elsevier.com/books/taxation-and-tax-policies-in-the-middle-east/strange/978-0-408-10832-4>
10. Metin Coşgel, Thomas Miceli, Rasha Ahmed, 2009, Law, state power, and taxation in Islamic history, *Journal of Economic Behavior & Organization*,71(3):704-717.
11. McGaughey, Ewan, 2021,"From 'Capital and Ideology'to 'Democracy and Evidence': a review of Thomas Piketty." *OEconomia. History, Methodology, Philosophy*,11(1): 171-189.
12. Pearce, David W., R. Kerry Turner, 1989, *Economics of natural resources and the environment*. Johns Hopkins University Press.<https://www.press.jhu.edu/books/title/1494/economics-natural-resources-and-environment>
13. Terence C. Burnham, 2013, Toward a neo-Darwinian synthesis of neoclassical and behavioral economics, *Journal of Economic Behavior & Organization*. [https://digitalcommons.chapman.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1063&context=esi\\_pubs](https://digitalcommons.chapman.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1063&context=esi_pubs)
14. Goutsmedt Aю, Guizzo D., Sergi F., 2019, An agenda without a plan. Robert E. Lucas's trajectory through the public debate. *OEconomia. History, methodology, philosophy*, 9(2): 289-314.
15. James R Hackney, 2003, Law and neoclassical economics theory: a critical history of the distribution/efficiency debate, *The Journal of Socio-Economics*,42(3):361.390.
16. Goodland, Robert, George Ledec, 1987, "Neoclassical economics and principles of sustainable development." *Ecological modelling*,1-2:19-46.
17. Posner, Eric, Eric Weyl, 2018, *Radical markets: Uprooting capitalism and democracy for a just society*. Princeton University Press,2018.<https://press.princeton.edu/books/hardcover/9780691177502/radical-markets>
18. Brys, Bert, et al. 2013,"Tax policy and tax reform in the People's Republic of China". <https://www.oecd-ilibrary.org/content/paper/5k40l4dlmnzw-en?crawler=true&mimeType=application%2Fpdf>

19. Wang Zhiyuan, Jagdeep Singh-Ladhar, and Howard Davey, 2019, "Business tax to value-added tax reform in China." *Pacific Accounting Review*,31(4):602-625.
20. Zhang Huiming, et al.2016,"The impact of subsidies on overcapacity: A comparison of wind and solar energy companies in China." *Energy*,94:821-827.
21. Song Dongdong, Boya Jia, Hongtao Jiao, 2022,"Review of renewable energy subsidy system in China." *Energies*,19(15):7429.
22. Shen Jianfei, and Chen Luo, 2015, "Overall review of renewable energy subsidy policies in China—Contradictions of intentions and effects." *Renewable and Sustainable Energy Reviews*,41:148-1488.
23. Zhu Zhishuang, and Hua Liao, 2019,"Do subsidies improve the financial performance of renewable energy companies? Evidence from China." *Natural Hazards*,95(1):241-256.
24. Zhixiong Huang, Lan Lv, Ming Yang, 2023, Governance of tax incentives: An effectiveness and differential analysis based on the Chinese context, *Finance Research Letters*. <https://doi.org/10.1016/j.frl.2023.104856>
25. Huiming Zhang, Yu Zheng, et al., 2015, The impact of subsidies on overcapacity: A comparison of wind and solar energy companies in China,*Energy*,94:821-827.
26. Boqiang Lin, Zhujun Jiang, 2011, Estimates of energy subsidies in China and impact of energy subsidy reform, *Energy Economics*. <https://doi.org/10.1016/j.eneco.2010.07.005>
27. Galle, Brian, 2008, "Tax fairness." *Wash. & Lee L. Rev*,2:273-283.
28. Rawls, John, 1975, "Fairness to goodness." *The Philosophical Review*. Francez, Nissim. *Fairness*. Springer Science & Business Media, 84(4):536-554.
29. Farrar, Jonathan, et al.,2020,"Tax fairness: Conceptual foundations and empirical measurement." *Journal of business ethics*,162:487-503.
30. Song Yijia, et al., 2024, "The unintended energy efficiency gain from tax incentives for investment: Micro-evidence from quasi-natural experiments in China." *Review of Development Economics*,28(1):310-338.
31. Guo, Jin, Limin Du, Chu Wei, 2019, "Equity-efficiency trade-off in China's energy capping policy." *Energy Policy*,126:57-65.
32. Mei Tan, Lin, and Carrol Chin-Fatt.2000,"The impact of tax knowledge on the perceptions of tax fairness and attitudes towards compliance." *Asian review of accounting*,8(1):44-58.
33. Li Zibiao, et al., 2022, "Energy conservation or emission reduction? The effects of different types of environmental regulations on enterprises' green innovation preference". <https://doi.org/10.1177/21582440221106733>
34. Dixon, Robert K., et al., 2010, "US energy conservation and efficiency policies: Challenges and opportunities." *Energy Policy*.38(11):6398-6408.
35. Cottrell, Jacqueline, and Tatiana Falcão.2018,"A climate of fairness: environmental taxation and tax justice in developing countries." [https://cadmus.eui.eu/bitstream/handle/1814/60104/STG\\_WP\\_2018\\_Falcao\\_A%20Climate%20fof%20fairness.pdf?sequence=1](https://cadmus.eui.eu/bitstream/handle/1814/60104/STG_WP_2018_Falcao_A%20Climate%20fof%20fairness.pdf?sequence=1)
36. Arginelli, Paolo, 2015,"Innovation through R&D tax incentives: some ideas for a fair and transparent tax policy." *World Tax J*. <https://heinonline.org/HOL/LandingPage?handle=hein.journals/wldtxjrn2015&div=3&id=&page=>
37. Kalita, et al., 2013, "Sustainable Industrial Development and the Idea of “Fairness” in Climate-linked Policymaking."



[https://d1wqtxtslxzle7.cloudfront.net/102006554/Economic\\_Department\\_1\\_pages\\_15\\_35-libre.pdf?1683604214=&response-content-disposition=inline%3B+filename%3DSustainable\\_Industrial\\_Development\\_and\\_t.pdf&Expires=1721401644&Signature=gNvCnDhzI1ij2Etq3T119q9LroNL4VvcvWj3Kw4Wj2ZY4fZlor-S7nLgFCyNHcDS1ry5ypm6fLiDZ0QsCbMgeS6fVdCdHn77xRxapdADNxUrbLCaby8HKiCFVEwUc~6uW2fuQrq6vCKNyhq0nECZvEx0eeEXB-vt~EnHQP9AFvIXrB7ISQZ8AEBfpqPj7PU-u6hbjpgv7~BlFdVJWTBpiFXtie0sQvbw200KzZpraNPAZ9WA9cq1T1Pkw1rShGAjt51d0zdv~EcPiWys2GLIT5ZUFguC4SlcCtp7Ckp50iV9k3BmBNYY22fGBd8ceXqFNeq8QfHfzna~9-MOXj5g\\_\\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA](https://d1wqtxtslxzle7.cloudfront.net/102006554/Economic_Department_1_pages_15_35-libre.pdf?1683604214=&response-content-disposition=inline%3B+filename%3DSustainable_Industrial_Development_and_t.pdf&Expires=1721401644&Signature=gNvCnDhzI1ij2Etq3T119q9LroNL4VvcvWj3Kw4Wj2ZY4fZlor-S7nLgFCyNHcDS1ry5ypm6fLiDZ0QsCbMgeS6fVdCdHn77xRxapdADNxUrbLCaby8HKiCFVEwUc~6uW2fuQrq6vCKNyhq0nECZvEx0eeEXB-vt~EnHQP9AFvIXrB7ISQZ8AEBfpqPj7PU-u6hbjpgv7~BlFdVJWTBpiFXtie0sQvbw200KzZpraNPAZ9WA9cq1T1Pkw1rShGAjt51d0zdv~EcPiWys2GLIT5ZUFguC4SlcCtp7Ckp50iV9k3BmBNYY22fGBd8ceXqFNeq8QfHfzna~9-MOXj5g__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA)

38. Zhang Junyuan, et al., 2022, "Implications of the development and evolution of global wind power industry for China—An empirical analysis is based on public policy." *Energy Reports*,8:205-219.
  39. Layser, Michelle D., 2016, "Improving tax incentives for wind energy production: the case for a refundable production tax credit.", 81:453.
  40. Bird-Pollan, Jennifer, 2016 "Why Tax Wealth Transfers: A Philosophical Analysis." *BCL Rev*, 57:859.
  41. Bhandari, Monica, 2017, *Philosophical foundations of tax law*. Oxford University Press. <https://academic.oup.com/book/12664?login=false>
  42. Dean, Steven A., 2006, "Philosopher Kings and International Tax: A New Approach to Tax Havens, Tax Flight, and International Tax Cooperation." *Hastings Lj*,58:911.
  43. Bogenschneider, Bret N., 2016, "A Philosophy Toolkit for Tax Lawyers." *Akron L. Rev*,50:451.
  44. Sidani, Yusuf M., Abdul Jalil Ghanem, and Mohammed YA Rawwas, 2014, "When idealists evade taxes: the influence of personal moral philosophy on attitudes to tax evasion—a Lebanese study." *Business Ethics, the Environment & Responsibility*.2(23):183-196.
  45. Kordana, Kevin A. and David H. Tabachnik, 2003, "Tax and the Philosopher's Stone." 647-678.
  46. Tian, Binbin, et al., 2020, "Tax incentive, R&D investment and firm innovation: evidence from China." *Journal of Asian Economics*,71:101245.
  47. Fang, Hongsheng, Yunqing Su, Weijun Lu, 2022,"Tax incentive and corporate financial performance: Evidence from income tax revenue sharing reform in China." *Journal of Asian Economics*,81:101505.
  48. Qun, L. I., 2008, "Tax incentive policies for foreign-invested enterprises in China and their influence on foreign investment." *Revenue Law Journal*,18;1.
  49. Ma, Ruiyang, Boqiang Lin., 2023, "Digitalization and energy-saving and emission reduction in Chinese cities: Synergy between industrialization and digitalization." *Applied energy*,345.
  50. Lv, Zhihan, and Wenlong Shang.2023,"Impacts of intelligent transportation systems on energy conservation and emission reduction of transport systems: A comprehensive review." *Green Technologies and Sustainability*. <https://doi.org/10.1016/j.grets.2022.100002>
  51. Zhu, Hongyu, et al. 2023,"Future data center energy-conservation and emission-reduction technologies in the context of smart and low-carbon city construction." *Sustainable Cities and Society*. <https://doi.org/10.1016/j.scs.2022.104322>
  52. Chang, Kai, et al., 2002, "Effects of subsidy and tax rebate policies on green firm research and development efficiency in China." *Energy*:258.
  53. Zhu, Zhishuang, and Hua Liao., 2019, "Do subsidies improve the financial performance of renewable energy companies? Evidence from China." *Natural Hazards*,(95)1:241-256.
-