



# What Are the Negative Effects of the Implementation of Old and New Functional Conversion Projects on the Performance of the Chemical Industry?

Yuhan Xu(✉)

Cambridge International Center, Ocean University of China, Qingdao 266100, China  
xuyuhan20042022@163.com

**Abstract.** Since 2018, all parts of the country have begun to grasp policies such as environmental protection and greening, and in response to General Secretary Xi's call that "lucid waters and lush mountains are invaluable assets." The local government of Shandong decided to implement projects to transform the old and new driving forces into major industries in Shandong. On July 26, 2019, the Standing Committee of the 13th People's Congress of Shandong Province adopted the *Regulations on Promoting the Conversion of Old and New Growth Drivers in Shandong Province*, which includes a total of 30 articles to restrict and control the emission of pollutants and energy consumption by enterprises. Therefore, at that time, the treaty had a great impact on the chemical manufacturing industry, leading to the decline in performance of most private companies in the industry and even bankruptcy. This study will mainly study the negative impact of the Regulations on the chemical industry and analyze how to better implement the policy under the condition of ensuring win-win situation, so as to provide reference for the local government in policy management.

**Keywords:** old and new function conversion · environmental protection greening · chemical industry · private enterprise

## 1 Introduction

The Regulations are mainly aimed at regulating water use, energy consumption, pollution treatment and discharge of the private chemical industry, promoting the reform of power and efficiency, and ensuring the sound development of the ecological environment. A differentiated resource allocation mechanism and an incentive mechanism for energy conservation and consumption reduction are implemented. Resource allocation agencies allocate resources more effectively through the interaction of some economic mechanisms, which can be used to solve the basic problems of social and economic operation, such as unequal resource allocation. And the local government is focusing on the development of new information technology and the operation of high-end operational equipment to facilitate the conversion of new drivers to replace energy-consuming and polluting former technologies.

© The Author(s) 2023

C. F. Peng et al. (Eds.): MMET 2022, ASSEHR 703, pp. 225–230, 2023.

[https://doi.org/10.2991/978-2-494069-51-0\\_30](https://doi.org/10.2991/978-2-494069-51-0_30)

Yantai Kunmao Industry and Trade Co., Ltd. was established in 2006, located in Yantai, Shandong province, the products are sold to more than 20 provinces and urban areas in China, mainly producing pharmaceutical intermediates, pesticide intermediates, polyurethane oil agent, glass bottle additives, etc. The company will be used as a specific case in this study.

## 2 Theoretical Background and Paper Review

Supply and demand are necessary to form a market. In the supply curve, when the cost of an item increases, the supply curve will shift to the left, that is, the supply will decrease, and the selling price will gradually increase, so the quantity demanded will decrease. From a macro perspective, the number of national public chemical plants is increasing day by day, the competitiveness of the industry is increasing, and environmental technology has become a substitute for non-environmental technology, so it is difficult for private chemical plants to survive without upgrading. In recent years, we can see that the pollution of chemical industry has caused a lot of global climate change, so it is taken seriously.

As a very advanced chemical production technology, green chemical environmental protection technology replaces the traditional chemical production technology, and then can construct a safe, environmental protection, green new chemical production line. [4] In order to fully reflect the advantages of green chemical technology, chemical raw materials should be selected scientifically. In chemical production, non-toxic and safe chemical raw materials should be selected and tested to ensure that chemical additives are not in the raw materials [1].

## 3 Case Data and Analysis

The company's annual net profit statement as 2019 (Table 1).

The company's annual net profit statement as 2020 (Table 2).

The company's annual net profit statement as 2021 (Table 3).

Broken line statistics chart of net profit from 2019 to 2021 [Since the draw].

Figure 1 can be made by comparing the charts of the past three years. The bar statistical chart clearly shows that the net profit of Yantai Kunmao Industry and Trade Co., Ltd. has a great downward trend due to the influence of environmental protection policies in the past three years. It can be observed from the main operating income and main operating cost of item 1 in the performance chart. The main reason for the decline in performance is that the production cost specifications and instruments were changed in the new kinetic energy conversion project, so that the chemical plant replaced the original environmentally unfriendly equipment. Therefore, the profit also gradually declined in the process of cost control. In addition, due to the higher price caused by the increase in cost, some consumers choose to refuse to buy products from the company, reducing the demand, and the net profit is also hit hard.

**Table 1.** December 2019 [Since the draw]

| Prepared by: Yantai Kunmao Industry and Trade Co., Ltd. |          | Unit: yuan           |
|---|----------|----------------------|
| Item:   | line No. | Cumulative this year |
| The main business income                                | 1        | 42,222,611.60        |
| Minus: Main business cost                               | 2        | 39,326,384.69        |
| The main business tax and surcharges                    | 3        | 103,019.28           |
| The main business profit                                | 8        | 2,793,207.63         |
| Plus: Profits form other operations                     |          |                      |
| Minus: Operating expenses                               | 9        | 651,428.42           |
| Management fees   | 10       | 795,427.96           |
| Financial expenses                                      | 11       | 9,923.54             |
| Operating profit  | 16       | 1,336,427.71         |
| Plus: investment income                                 | 17       |                      |
| subsidized income                                       |          |                      |
| Non-operating income                                    | 18       |                      |
| Minus: Non-operating expenses                           | 19       | -                    |
| Total profit  | 21       | 1,336,427.71         |
| Minus: Income tax                                       | 22       | 162.77               |
| Net profit  | 23       | 1,336,264.94         |

**Table 2.** December 2020 [Since the draw]

| Prepared by: Yantai Kunmao Industry and Trade Co., Ltd. |          | Unit: yuan           |
|---|----------|----------------------|
| Item:   | line No. | Cumulative this year |
| The main business income                                | 1        | 28,052,964.21        |
| Minus: Main business cost                               | 2        | 26,515,989.20        |
| The main business tax and surcharges                    | 3        | 69,853.82            |
| The main business profit                                | 8        | 1,467,121.19         |
| Plus: Profits form other operations                     |          |                      |
| Minus: Operating expenses                               | 9        | 630,852.39           |
| Management fees   | 10       | 807,263.95           |
| Financial expenses                                      | 11       | 10,856.93            |

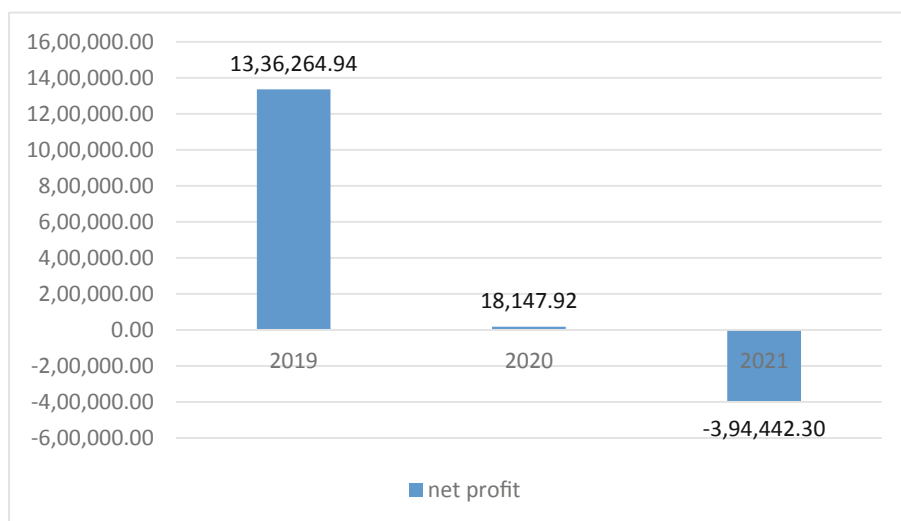
(continued)

**Table 2.** (continued)

| Prepared by: Yantai Kunmao Industry and Trade Co., Ltd. |          | Unit: yuan           |
|---|----------|----------------------|
| Item:   | line No. | Cumulative this year |
| Operating profit  | 16       | 18,147.92            |
| Plus: investment income                                 | 17       |                      |
| subsidized income                                       |          |                      |
| Non-operating income                                    | 18       |                      |
| Minus: Non-operating expenses                           | 19       | -                    |
| Total profit  | 21       | 18,147.92            |
| Minus: Income tax                                       | 22       |                      |
| Net profit  | 23       | 18,147.92            |

**Table 3.** December 2021 [Since the draw]

| Prepared by: Yantai Kunmao Industry and Trade Co., Ltd. |          | Unit: yuan           |
|---|----------|----------------------|
| Item:   | line No. | Cumulative this year |
| The main business income                                | 1        | 21,283,963.21        |
| Minus: Main business cost                               | 2        | 20,359,544.28        |
| The main business tax and surcharges                    | 3        | 52,896.25            |
| The main business profit                                | 8        | 871,522.68           |
| Plus: Profits form other operations                     |          |                      |
| Minus: Operating expenses                               | 9        | 498,563.81           |
| Management fees   | 10       | 728,444.97           |
| Financial expenses                                      | 11       | 38,956.20            |
| Operating profit  | 16       | -394,442.30          |
| Plus: investment income                                 | 17       |                      |
| subsidized income                                       |          |                      |
| Non-operating income                                    | 18       |                      |
| Minus: Non-operating expenses                           | 19       | -                    |
| Total profit  | 21       | -394,442.30          |
| Minus: Income tax                                       | 22       |                      |
| Net profit  | 23       | -394,442.30          |



**Fig. 1.** Net profit from 2019 to 2021

## 4 Conclusion

To sum up, chemical products as capital goods will not be banned altogether, but private chemical industry in the absence of any subsidies will still be affected performance decline because of the new kinetic energy conversion policy, and environmental policy in the future is always needed, so may in the short term there is a decline in GDP. And environmental protection and new kinetic energy conversion policy is beneficial, even if the act has a negative impact on the performance of the chemical industry, environmental protection green and environmental protection are always far more, thus putting forward in this paper, the policy can be appropriate for some advice on subsidies, can better promote the new kinetic energy conversion project, at the same time can also reduce the unemployment rate.

## References

1. Xu Jianwei: Study on the relationship between green chemical environmental protection technology and environmental governance, *Petrochemical Technology*, 2022, No. 4
2. Zhang Liang: Study on the management upgrading of chemical industrial parks under the background of the transformation of old and new kinetic energy, *Leather and Chemical Industry*, 2022, No. 1
3. Feng Xicheng, Ge Caixia, Wang Yanan, Zhang Baoling, Fu Guojuan, Liu Yuanyuan, Lv Yichun: Research and practice on the development of chemical industry in the service area of higher vocational chemical industry from the perspective of the transformation of old and new kinetic energy, *Shandong Chemical Engineering*, 2021, No. 9

4. Hao Mingyun, Zhu Xin: Relationship between green chemical environmental protection technology and environmental governance [J]. Petrochemical Technology, 2017, No. 5
5. Jiuming Miao: Petroleum Chemistry, Beijing, China Petrochemical Press, 2009

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

