



# 2023 ANNUAL REPORT

WANHUA CHEMICAL GROUP CO., LTD.

Company Code: 600309



## Major Accounting Data and Financial Indicators in Recent Three Years

### Major Accounting Data

Unit: RMB

Major accounting data	2023	2022	Year on year (%)	2021
Operating income	175,360,935,668.36	165,565,484,373.69	5.92	145,537,817,628.55
Net profit attributable to shareholders of the Company	16,815,755,534.31	16,233,626,024.32	3.59	24,648,748,123.08
Net profit excluding non-recurring profit or loss attributable to shareholders of the Company	16,438,841,961.03	15,797,326,614.07	4.06	24,356,144,091.02
Net cash flow from operating activities	26,796,752,552.51	36,336,824,920.33	-26.25	27,922,292,184.74
	31 December 2023	31 December 2022	Year on year (%)	31 December 2021
Net assets attributable to shareholders of the Company	88,656,204,854.29	76,844,533,840.41	15.37	68,498,529,410.78
Total assets	253,040,390,845.31	200,843,198,875.15	25.99	190,309,582,268.84

### Major Financial Indicators

Major financial indicators	2023	2022	Year on year (%)	2021
Basic earnings per share (RMB/Share)	5.36	5.17	3.68	7.85
Diluted earnings per share (RMB/Share)	N/A	N/A		N/A
Basic earnings per share excluding non-recurring profit or loss (RMB/Share)	5.24	5.03	4.17	7.76
Weighted average return on net assets (%)	20.42	22.75	Decreased by 2.33%	42.53
Weighted average return on net assets excluding non-recurring profit or loss (%)	19.96	22.14	Decreased by 2.18%	42.02

## Quarterly Financial Data for the Year 2023

Unit: RMB

	First Quarter (Jan. to Mar.)	Second Quarter (Apr. to Jun.)	Third Quarter (Jul. to Sept.)	Fourth Quarter (Oct. to Dec.)
Operating income	41,939,325,956.05	45,687,049,871.13	44,927,765,164.99	42,806,794,676.19
Net profit attributable to shareholders of the company	4,053,161,512.31	4,515,074,925.36	4,134,946,890.46	4,112,572,206.18
Net profit excluding non-recurring profit or loss attributable to shareholders of the company	3,988,672,685.13	4,321,573,881.12	4,117,870,712.43	4,010,724,682.35
Net cash flow from operating activities	4,166,884,642.68	7,054,929,475.27	5,915,057,444.24	9,659,880,990.32

## Management Discussion and Analysis

### Discussion and Analysis for Operation

In 2023, taking "the year of projects" as the management theme, the Company further optimized the management of fixed assets investment, strengthened the feasibility assessment of investment projects, project competitiveness analysis and post-project evaluation management, promoted the talent project, optimized the industrial chain structure, improved the operational efficiency of the enterprise, and successfully accomplished the tasks in safety management, talent cultivation, technological breakthrough, management innovation, construction of new projects, operation of new facilities, mergers and acquisitions and industrial integration. In the context of weak overseas markets and fiercely competitive domestic market, Wanhua unswervingly goes the path of internationalization and independent innovation, deepens the global strategic layout, optimizes the global supply chain management system, firmly expands domestic and overseas markets, continuously enhances its globalized operational capabilities and core competitiveness, and makes great strides, which have helped the Group's revenue to grow steadily. The Company actively responds to the national strategy of carbon peak and carbon neutrality, strengthens carbon footprint management from the source, and invests in the construction of photovoltaic, wind power, nuclear power and other projects to realize the social increment of low-carbon and clean power, strengthening the foundation of high-quality and sustainable development for the enterprise.

### Market and Marketing

Guided by the working policy of "focusing on development, allocating resources, fine management, and enhancing capability", the Polyurethanes Business Unit has been unswervingly expanding domestic and overseas markets. Overseas, the business unit explored the needs of end customers in-depth, continued to improve the construction of the overseas sales network, and provided systematic solutions for global customers. Domestically, led by the industry marketing policy of "gathering chains to create momentum", the business unit continuously expanded new application scenarios and the market increment. It also deepened the strategic cooperation with core customers, provided excellent services, and promoted the high-quality development of the industry to win the trust of customers. The sales volume and market share of MDI, TDI, polyether, and modified products reached a record high.

Due to the slowdown in the growth of end demand and the decline in the prices of downstream products, Wanhua Chemical Group Petrochemical Sales Co., Ltd. conducted business around the marketing strategies of "global layout and internal and external linkage to create a petrochemical industrial chain ecosystem". The C3 industrial chain has won a higher market share and industry position through ongoing development of new applications and strategic partnerships with head clients; the business related to materials of the C2 industrial chain continuously improved the product quality and market recognition under the cooperation of R&D, production and marketing. On the LPG raw material side, Wanhua Chemical (Singapore) PTE. Ltd. made full use of the advantages of time-chartered vessels, warehousing and storage capacity as well as global sourcing and trading to continuously expand the control of resources in new source areas and the sales circle in Southeast Asia.

The ADI and specialty amines business of the Performance Chemicals Business Unit encountered the adverse impact of the decline in demand, but the Company took active measures to promote increment to protect the market; at the same time, the Company focused on the long term, put more efforts into the new applications of old products and new product incubation to prepare for the future competition.

The Performance Polymers Business Unit continuously enhanced the competitiveness of its PC-type products, with domestic market share and export volume ranking among the best; formed a stable cooperation with the top five domestic customers in the medical industry.

The ADI foaming agent car coat film and PMMA products of the Performance Materials Business Unit retained the domestic leading position.

In 2023, the Company's supply chain focused on two transformations: (1) from short-term cooperation to long-term strategic mode, and (2) from domestic supply chain to global supply chain integration. In terms of long-term strategic mode, the logistics innovation mode of "big resources for big resources" has been successfully implemented, and Wanhua continued to deepen and expand direct cooperation with shipping companies. In terms of global integration, Wanhua adopted the mode of unified deployment of global sources, comprehensively optimized the overseas logistics layout, deepened the management of overseas warehouses, and improved the delivery capacity of overseas localities, so as to build a supply chain system that is agile, efficient, and low-cost.

## Production and Operation

### 1. Yantai Industrial Park

The overhaul of Yantai Industrial Park was conducted throughout the year 2023, with a total of 46 sets of facilities undertaking overhauls or technological upgrading. The Park operated at the limit through industrial chain and grouping collaboration to achieve a new high annual output of several products; vigorously implemented Amoeba operation, and greatly enhanced the operation consciousness of production units through operation daily report.

Yantai Industrial Park actively carried out micro-innovation for facilities to stimulate the wisdom and enthusiasm of employees, so that every employee can participate in the management and feel that his/her wisdom can create value, which in turn stimulates the subjective initiative and professional pride of employees; at the same time, the Park continued to deepen the work of "Three steps, three goals", and carried out special reinforcement for the process control ability of internal operation personnel. In terms of cultural construction, the Park continued to promote the deep integration of Party building and business work.

### 2. Ningbo Industrial Park

In 2023, Ningbo Industrial Park continually improved its excellent manufacturing capability, pushed the limits, and produced as much as it could. With all main products maintaining a quality record of 0 complaints for more than 3 years, the Park focused on agile manufacturing and expanded competitive advantages in the high-end differentiated market. In lean production, the energy consumption of Ningbo Industrial Park reached a new low.

The Park focused on building a new competitive advantage in digital intelligence. Formaldehyde, as the Group's first ROC pilot for chemical facilities, has achieved centralized control in Ningbo for 7 sets of facilities from three bases of Yantai, Ningbo and Fujian. Meanwhile, in the process of project planning and implementation, the value of every inch of land was maximized, and multiple measures were taken in project design, procurement and construction, which greatly saved the investment cost of projects.

### 3. Hungary BC Company

In 2023, against the backdrop of low demand, high energy prices and soaring inflation in the European market, BC Company's European sales share increased further, with record sales of solution products and increased customer satisfaction. At the same time, it successfully implemented the 400,000-ton MDI technological upgrading project and passed the product quality test. BC Company strengthened the deep integration of Wanhua Culture and good practice into its operation to improve its overall management capability, operational efficiency and cost optimization awareness.

### 4. Wanhua Fujian

Closely centered on the management theme of "the year of projects", in 2023, Wanhua Fujian paid attention to safe and efficient production and better and faster projects, and successfully completed the production, project construction goals: the start-ups of 400,000 tons/year PVC facilities, 250,000 tons/year TDI facilities, 360,000 tons/year aniline facilities were on schedule or ahead of schedule. In 2023, all products of Wanhua Fujian exceeded the product output target, and it became another new profit contribution point for the Group.

### 5. Wanhua Sichuan

In 2023, the acetylene industrial chain of Wanhua Sichuan was in high and full production, and the cost was reduced continuously. Product performance and quality of the downstream degradable plastics business were substantially improved. In terms of engineering construction, part of the battery project was put into production in 2023.



## 6. Wanhua Penglai

Wanhua Penglai Park is interconnected with Yantai Industrial Park, which undertakes the important historical mission of transforming the results of the Company's independent research and development projects. 2023, in terms of engineering construction, the Phase I project has been fully transferred from civil engineering to equipment installation stage; in terms of production preparation, production preparation personnel were all in place, and theoretical learning and on-site practical exercises were organized for production staff in accordance with the "Nine competency standards". With weekly reviews and bi-monthly tests, the growth curve of employees' ability was rapidly improving, so as to guarantee the talents for the successful start-ups in 2024.

## Technological Innovation

In 2023, each park of Wanhua broke through the optimal operation level of their faculties through the application of a number of new technologies, and continued to mature technologies, with significant cost reduction. The energy consumption of facilities decreased as the result of the utilization of a new process with the low hydrochloric acid ratio for MDI and the promotion of brine reuse technology; the new-generation TDI technology implemented in Fujian increased the purity to 99.99%, which is an industry-leading level; the continuous capability per unit of polyether reached the global highest level, 500,000 tons/year; the industrialization of the self-developed technology of green and efficient preparation of propylene oxide by isopropylbenzene co-oxidation will be started soon.

Wanhua continues to make breakthroughs in high-end new chemical materials, its self-developed facilities used to produce isocyanate curing agents, polyether amines and methylamines had a successful start-up at the first attempt, being industry-leading in all indicators. Carbomer had a successful start-up at the first attempt. And the successful development of new PMMA products for medical use results in increasing sales. XLPE and MS resins had start-ups during pilot test to make reserves for industrialization.

As the second growth curve, Wanhua has deployed a full range of products covering cathodes, anodes and electrolytes for the battery material business, building a battery materials ecosystem. The three major battery anode materials are advancing rapidly, and battery chemicals continue process innovation. Wanhua is accelerating technological innovation and upgrading to establish a "Chief Innovation Officer" image in the industry.

Wanhua continues to expand the field of external cooperation to promote technological change and the transformation of scientific and technological achievements in the basic innovation fields of new energy, electronic materials, biosynthesis, electrochemistry, emerging materials and digital intelligence, taking advantage of the basic research and original innovation of the universities and the Company's strengths in applied research, engineering amplification and industrial transformation. The Company has signed more than 40 new production, learning and research projects with many famous universities, realizing the organic combination of school and enterprise resources and deepening cooperation.

Wanhua continues to innovate, applying for 1120 domestic and foreign invention patents throughout the year, and obtaining 982 new authorizations. The ADI technology research team was awarded the first honorary title of National Outstanding Engineering Team, and one staff of Wanhua was awarded the Preeminent Science and Technology Award of Shandong Province.

## Management Innovation

### 1. Work in "the year of projects"

In 2023, taking "the year of projects" as the management theme, Wanhua Chemical continually put its efforts into project feasibility assessment, economic evaluation and accounting, competitiveness analysis and post-project evaluation, continued to optimize the fixed asset investment management process and integrated competitiveness analysis into the aforesaid management process, and achieved stringent control and lean management of fixed asset investment projects. With the goal of building international first-class projects with "safety, quality, speed and low cost" and the main line of improving and implementing the lean construction management system with "quality as the

core", the Company continued to make great efforts in the upgrading and improvement of the system, optimization and control of investments, changes in relevant rules of red and orange violations, and process quality control, etc. In the same year, the Company deepened the level of design management and optimized the investment control mechanism by upgrading the unified regulations on design, establishing a flexible organization for design review, and releasing the rules for investment control; controlled project costs by implementing the process of tracking the estimated budget, comprehensively promoting the compilation of cases of investment optimization, and carrying out lean construction and micro-innovation by the whole staff, which saving investments RMB 1.505 billion for the year. The Company achieved interconnectivity throughout the project management process through the scientific organization to ensure the efficient implementation of the project and rapid construction. During the year, the Company completed the handover of intermediate works for 24 sets of facilities, ensured the smooth commissioning of 19 sets of facilities, and laid a solid foundation for the smooth completion of Yantai Ethylene Phase II Project and Penglai High Performance New Material Integration Project next year.

## 2. Excellent operation

In terms of safety management, in 2023, based on the long-term strategy of safety management, the Company formulated the HSE work policy of "scientifically formulating the HSE target system, laying the foundation, focusing on the key points, forcible execution and improving the level", and promoted the target implementation through the key work of PSSR, PHA, PTW, capacity enhancement, and MOC, etc., based on the output indicators. Meanwhile, the Company further improved the assessment mechanism on the basis of the target system, strengthened the guiding role of the assessment by directly linking the safety performance with the bonus, innovated the implementation of management system and had 9 facilities achieving the goal of DNV Level 3 rate in the year through transformation, integration, piloting and promotion.

In terms of procurement management, in 2023, the Company established the Group Procurement Delivery Center, completed the full business coverage of Yantai Industrial Park, built the Wanhua procurement integration platform, achieving a 50% increase in efficiency from demand to order, and built a procurement business team with an international perspective through talent recruitment, professional training and targeted promotion.

In terms of digital intelligence, in 2023, the Company, for the first time, achieved full coverage of ERP for the Group's 75 companies around the world. In the field of intelligent manufacturing, Wanhua realized the centralized control of formaldehyde facilities located in Yantai, Ningbo and Fujian from Ningbo, which was the first success in the industry; the Group fully opened the e-commerce business, and Wanhua has started the "e-commerce era"; the new-generation procurement platform realizes the online full life cycle management of more than 800,000 kinds of materials and more than 4,000 suppliers; the scope of visualization of the logistics system reached the whole world, and the collaboration of the Wanhua ecosystem became more intelligent and efficient. At the same time, Wanhua actively explored the application of AI, big data and other new technologies to empower high-quality development with digital intelligence.

In terms of talent construction, based on its industry position and strength, the Company continued to play the head enterprise advantage, and deeply cultivated school-enterprise interaction and cooperation, recruiting more than 5,000 people throughout the year 2023. In terms of talent cultivation, through the construction of Wanhua University system, the Company strengthened the cultural guidance, constantly reviewed and optimized the iteration, and increased the frequency and intensity of training, with a total of 9,027 person-times of training throughout the year. The overseas HR management module was set up in August 2023 to further improve the functions of overseas HR management and services, and to strengthen the management and support of overseas production bases, branches and subsidiaries, and offices.

For audit compliance, in 2023, taking "earlier audit" as the core guiding thought and centering around the work policy of "seizing the sources, determining rules, implementing strict supervision, realizing full-coverage, finding the key points, and conducting retrospective reviews", the Company created and established a perfect mechanism for the regional head in charge of settlement, who should be in the corresponding park site. Wanhua continued to carry out unannounced audits of various economic operations and special audits of suppliers and contractors. The Audit and Compliance Department of Wanhua was awarded the title of "National Advanced Collectives of Internal Audit" by the China Institute of Internal Audit.

In terms of financial management, in 2023, Wanhua completed the organizational structure change, went online with the finance shared service center, built up the three-pillar mode of strategic finance, business finance and shared finance, and the finance staff was fully transformed into business finance, penetrated into the business, went to the front-end of the business, so as to better support the development of business units and bases, empowering the business and finance to help promote the strategy.

### 3. Enterprise culture building

The culture construction of 2023 focused on the year of service projects. Wanhua took multiple measures to promote the corporate culture to take root. Wanhua inspired all employees with the pursuit of the highest value of "Three Fors" and appealed to them with a strong cultural atmosphere. Multi-level cultural workshops and trainings were continuously conducted, and overseas employees also participated in them, so that the culture could be put into the ears, the mind and the heart. Honors for service years of Wanhua employees were officially released to motivate employees to grow up and become successful, which triggered the wide dissemination of the stories of Wanhua employees' struggles and growth; rich and diverse cultural activities loved by employees were carried out to resonate with the young employees. In 2023, Wanhua Chemical was awarded the "China Petroleum and Chemical Enterprise Culture Construction Demonstration Unit" again.

## Analysis on Principal Business

### Analysis on accounts changes in profit statement and cash flow statement

Unit: RMB

Accounts	2023	2022	Changes (%)
Operating income	175,360,935,668.36	165,565,484,373.69	5.92
Operating costs	145,926,359,223.32	138,132,222,629.60	5.64
Selling expenses	1,346,361,619.13	1,152,911,294.08	16.78
Administrative expenses	2,450,051,139.77	1,966,123,396.49	24.61
Financial expenses	1,676,471,684.26	1,234,944,690.97	35.75
Research and development expenditures	4,080,709,256.26	3,420,092,050.62	19.32
Net cash flow from operating activities	26,796,752,552.51	36,336,824,920.33	-26.25
Net cash flow from investing activities	-44,830,095,860.93	-34,324,606,636.65	-30.61
Net cash flow from financing activities	22,809,059,966.03	-17,187,540,503.08	232.71
Investment income	620,887,150.64	408,038,040.00	52.16
Profit on changes in fair value	81,566,532.81	172,955,397.70	-52.84
Impairment loss of credit	-42,877,862.46	-64,525,028.72	33.55
Income from disposal of assets	521,534.62	27,389,372.43	-98.10
Non-operating income	64,396,690.32	44,790,521.70	43.77
Income tax expenses	1,710,066,689.51	2,498,743,037.68	-31.56

The reason for changes in operating income is that: There were no significant changes.

The reason for changes in operating costs is mainly that: There were no significant changes.

The reason for changes in selling expenses is mainly that: There were no significant changes.

The reason for changes in administrative expenses is mainly that: There were no significant changes.

The reason for changes in financial expenses is mainly that: The increase in interest-bearing liabilities cause an increase in interest expenses.

The reason for changes in research and development expenditures is mainly that: There were no significant changes.

The reason for changes in net cash flow from operating activities is that: There were no significant changes.

The reason for changes in net cash flow from investing activities is that: Investment expenditure on projects under construction increased.

The reason for changes in net cash flow from financing activities is that: The cash received from borrowings for the period increased.

The reason for changes in investment income is mainly that: Investment income recognized on long-term equity investments under the equity method increased.

The reason for changes in profit on changes in fair value is mainly that: The fair value of derivative financial instruments changed.

The reason for changes in impairment loss of credit is mainly that: Changes in accounts receivable in the period were small.

The reason for changes in income from disposal of assets is mainly that: Less assets were disposed of in this period than that of same period last year.

The reason for changes in non-operating income is mainly that: Compensation for breach of contract increased in this period, compared with last period.

The reason for changes in income tax expenses is mainly that: The Company enjoyed tax incentives for investment in fixed assets in this period, resulting in a decrease in income tax expenses.

Explanations on significant changes in the Company's business types, profit composition or profit sources in this period

☐ Applicable ☒ Not Applicable

## Income and cost analysis

☒ Applicable ☐ Not Applicable

In the reporting period, since the production and sales volume increased, both operating income and operating costs had a year-on-year increase.

## Details of principle businesses by industry, product, region, and sales mode

Unit: RMB

By industry						
	Operating income	Operating costs	Gross margin ratio (%)	Change of operating income (%)	Change of operating costs (%)	Change of gross margin ratio (%)
Chemical	171,711,926,961.40	143,015,722,719.31	16.71	5.24	5.06	Increased by 0.14%
Others	1,854,885,385.40	1,609,155,234.36	13.25	37.80	28.04	Increased by 6.61%

  

By product						
	Operating income	Operating costs	Gross margin ratio (%)	Change of operating income (%)	Change of operating costs (%)	Change of gross margin ratio (%)
PU series	67,386,160,276.12	48,725,300,240.66	27.69	7.14	2.54	Increased by 3.24%
Petrochemical series	69,327,924,114.13	66,891,140,179.35	3.51	-0.44	-0.21	Decreased by 0.23%
Fine chemicals & new material series	23,836,062,497.47	18,731,475,207.07	21.42	18.45	28.62	Decreased by 6.21%
Others	27,471,413,286.23	24,807,834,230.19	9.70	7.82	14.38	Decreased by 5.17%
Offset	-14,454,747,827.15	-14,530,871,903.60	N/A	N/A	N/A	N/A

  

By geographical region						
	Operating income	Operating costs	Gross margin ratio (%)	Change of operating income (%)	Change of operating costs (%)	Change of gross margin ratio (%)
Domestic	94,361,266,551.56	75,707,260,417.16	19.77	13.31	11.41	Increased by 1.37%
Overseas	79,205,545,795.24	68,917,617,536.51	12.99	-2.49	-0.75	Decreased by 1.53%

  

By sales mode						
	Operating income	Operating costs	Gross margin ratio (%)	Change of operating income (%)	Change of operating costs (%)	Change of gross margin ratio (%)
Direct sales	148,536,941,418.09	124,981,371,317.33	15.86	4.23	2.93	Increased by 1.06%
Distribution by agents	25,029,870,928.71	19,643,506,636.34	21.52	13.79	23.06	Decreased by 5.91%

Note: Revenue classified by product above includes revenue generated by internal use between product series and costs classified by product include costs generated by internal use between product series.

Explanations on details of principal businesses by industry, product, region, and sales mode:



During the reporting period, the Company actively responded to the changes in the business environment, and deepened its regional layout and industrial layout. The sales volume of main products in polyurethane series, petrochemical series, fine chemicals and new materials series increased due to the rapid release of the capability of new facilities, with a corresponding increase in product revenue and cost, while the selling prices declined year-on-year. At the same time, affected by the decline in prices of major raw materials and energy and other factors, the production costs declined year-on-year.

The decrease in overseas revenue and cost was mainly due to the weak demand in the global market during the reporting period, product prices decreased year-on-year, while production costs also decreased year-on-year due to the impact of the decline in the prices of major chemical raw materials and energy, etc.

## Analysis on production and sales

☒ Applicable ☐ Not Applicable

Products	Unit	Production (Volume)	Sales (Volume)	Inventories (Volume)	Change of Production (Volume) (%)	Change of Sales (Volume) (%)	Change in Inventories (%)
PU series	10k tons	499	489	41	19.78	16.93	33.86
Petrochemical series	10k tons	475	472	17	5.66	4.02	21.16
Fine chemicals & new material series	10k tons	165	159	20	67.42	67.84	38.55

Note: The sales volume above includes internal use between product series.

## Fulfillment of significant procurement contracts and significant sales contracts

☐ Applicable ☒ Not Applicable

## Cost analysis

Unit: RMB

By industry							
	Items	2023	Proportion to total costs (%)	2022	Proportion to total costs (%)	Changes (%)	Remark
Chemical	Raw material	113,464,322,454.62	79.34	110,982,047,548.44	81.52	2.24	
Chemical	Labor salaries	4,175,705,542.97	2.92	3,027,916,852.09	2.22	37.91	
Chemical	Depreciation	8,543,307,105.93	5.97	6,606,711,597.23	4.85	29.31	
Chemical	Energy	9,606,979,088.51	6.72	9,106,758,781.88	6.69	5.49	
Chemical	Others	7,225,408,527.28	5.05	6,410,214,217.87	4.72	12.72	
	Total	143,015,722,719.31	100.00	136,133,648,997.51	100.00	5.06	
Other industry	Raw material	1,151,279,243.72	71.55	652,274,216.64	51.90	76.50	
Other industry	Labor salaries	88,974,409.66	5.53	80,490,733.79	6.40	10.54	
Other industry	Depreciation	86,571,485.63	5.38	81,836,974.72	6.51	5.79	
Other industry	Energy	209,376,664.29	13.01	339,155,799.88	26.99	-38.27	
Other industry	Others	72,953,431.06	4.53	102,953,441.60	8.20	-29.14	
	Total	1,609,155,234.36	100.00	1,256,711,166.63	100.00	28.04	

## By product

	Items	2023	Proportion to total costs (%)	2022	Proportion to total costs (%)	Changes (%)	Remark
PU series	Raw material	36,329,633,278.10	74.56	35,750,184,545.34	75.23	1.62	
PU series	Labor salaries	2,220,718,010.22	4.56	1,820,449,316.41	3.83	21.99	
PU series	Depreciation	3,127,710,395.56	6.42	2,739,058,213.22	5.76	14.19	
PU series	Energy	2,944,624,934.93	6.04	3,428,791,611.89	7.22	-14.12	
PU series	Others	4,102,613,621.85	8.42	3,779,841,912.29	7.96	8.54	
	Total	48,725,300,240.66	100.00	47,518,325,599.15	100.00	2.54	
Petrochemical series	Raw material	58,995,106,574.46	88.20	58,952,249,321.23	87.95	0.07	
Petrochemical series	Labor salaries	765,274,714.45	1.14	599,067,382.48	0.89	27.74	
Petrochemical series	Depreciation	2,956,484,536.81	4.42	2,845,390,058.69	4.24	3.90	
Petrochemical series	Energy	2,750,813,528.41	4.11	3,225,498,955.09	4.81	-14.72	
Petrochemical series	Others	1,423,460,825.22	2.13	1,409,870,186.09	2.11	0.96	
	Total	66,891,140,179.35	100.00	67,032,075,903.58	100.00	-0.21	
Fine chemicals & new material series	Raw material	12,870,704,709.41	68.71	11,036,057,204.63	75.78	16.62	
Fine chemicals & new material series	Labor salaries	1,096,841,668.51	5.86	642,733,571.65	4.41	70.65	
Fine chemicals & new material series	Depreciation	2,167,514,882.19	11.57	942,193,342.70	6.47	130.05	
Fine chemicals & new material series	Energy	1,343,366,010.78	7.17	956,151,987.63	6.57	40.50	
Fine chemicals & new material series	Others	1,253,047,936.18	6.69	985,867,077.15	6.77	27.10	
	Total	18,731,475,207.07	100.00	14,563,003,183.76	100.00	28.62	
Others	Raw material	17,885,234,871.52	72.10	15,211,606,381.51	70.14	17.58	
Others	Labor salaries	481,778,405.68	1.94	351,897,799.05	1.62	36.91	
Others	Depreciation	1,070,021,562.73	4.31	985,771,139.88	4.55	8.55	
Others	Energy	4,294,155,646.57	17.31	4,128,189,471.92	19.03	4.02	
Others	Others	1,076,643,743.69	4.34	1,011,380,873.42	4.66	6.45	
	Total	24,807,834,230.19	100.00	21,688,845,665.78	100.00	14.38	
Offset	Total	-14,530,871,903.60		-13,411,890,188.13			

Explanations for other information of cost analysis:

During the reporting period, the price of major raw materials and energy declined while the sales volume of products had a year-on-year increase, resulting in an increase in costs in 2023 compared to the same period of the previous year.

## Research and development expenditures

### Research and development ("R&D") expenditures

✓ Applicable    ☐ Not Applicable

Unit: RMB

R&D investments expensed in the current period	4,080,709,256.26
R&D investments capitalized in the current period	
Total R&D investments	4,080,709,256.26
Proportion of R&D investments to operating income (%)	2.33
Proportion of capitalization of R&D expenses (%)	

## Overseas assets

✓ Applicable    ☐ Not Applicable

## Assets and liabilities

Unit: RMB

Items	31 December 2023	Proportion to total assets (%)	31 December 2022	Proportion to total assets (%)	Changes (%)	Remark
Derivative financial assets	144,322,543.41	0.06	330,103,785.90	0.16	-56.28	Because the fair value of derivative financial assets changed
Financing receivables	1,697,775,630.06	0.67	1,254,427,273.12	0.62	35.34	Mainly because of the discount of acceptance receivable in the previous period
Prepayments	2,202,615,772.21	0.87	1,277,272,129.59	0.64	72.45	Mainly because of the increase in prepayments for raw materials
Other current assets	3,329,507,911.99	1.32	1,437,178,381.93	0.72	131.67	Mainly because of the increase in VAT credit in the period
Construction in progress	50,454,558,971.39	19.94	37,063,692,029.85	18.45	36.13	Mainly because of the increase in investment expenditures on construction in progress
Goodwill	2,157,538,296.26	0.85	1,292,252,201.89	0.64	66.96	Mainly because of the goodwill recognized in business combinations not involving enterprises under common control
Other non-current assets	9,338,166,613.23	3.69	5,287,396,875.20	2.63	76.61	Mainly because prepayments for projects increased
Derivative financial liabilities	417,214,699.29	0.16	12,075,405.30	0.01	3,355.08	Because the fair value of derivative financial liabilities changed
Notes payable	30,613,624,317.97	12.10	11,138,724,407.66	5.55	174.84	Mainly because of the increase in discount of notes between companies within the Group
Taxes payable	859,931,466.28	0.34	1,684,562,683.20	0.84	-48.95	Mainly because the enterprise income tax payable and VAT payable decreased
Non-current liabilities due within one year	8,533,461,851.59	3.37	3,198,230,795.72	1.59	166.82	Mainly because part of long-term borrowings and lease liabilities transferred to non-current liabilities due within one year
Other current liabilities	702,791,697.14	0.28	13,373,523,009.93	6.66	-94.74	Mainly because the Company repaid super & short term commercial papers that are due
Long-term borrowings	39,810,792,851.46	15.73	15,968,336,388.19	7.95	149.31	Mainly because the Company obtained new project loans during the period
Bonds payable			200,000,000.00	0.10	-100.00	Mainly because medium-term notes were reclassified into non-current liabilities due within one year
Deferred tax liabilities	701,636,126.62	0.28	366,577,922.86	0.18	91.40	Mainly because taxable temporary differences increased
Other comprehensive income	-148,292,722.27	-0.06	-510,433,341.57	-0.25	70.95	Mainly because the translation differences of financial statements denominated in foreign currencies changed

## Overseas assets

✓ Applicable    ☐ Not Applicable

## Asset scale

Including: overseas assets RMB 20.595 billion, making up 8.14% of total assets.

## Explanation on the high proportion of overseas assets

☐ Applicable    ☒ Not Applicable

## Restriction of significant assets as of 31 December 2023

✓ Applicable    ☐ Not Applicable

Unit: RMB

Item	Closing carrying amount	Carrying amount	Type of restriction	Restriction
Cash and bank balances	213,598,830.34	213,598,830.34	Others	Purchase deposits, deposits for bank acceptances, deposits for product registration, deposits paid to tax authorities and railway authorities, and others
Financing receivables				
Intangible assets	105,390,292.44	105,390,292.44	Mortgage	Mortgaged for obtaining borrowings
Total	318,989,122.78	318,989,122.78	/	/





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