

Credit Opinion

31 May 2024

Ratings		
Category	Corporate	
Domicile	China	
Rating Type	Solicited Rating	
Long-Term Credit Rating	: BBB _g +	
Outlook	Stable	

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Jiangsu Yangjing Petrochemical Group Co., Ltd.

Surveillance credit rating report

CCXAP upgrades Jiangsu Yangjing Petrochemical Group Co., Ltd.'s long-term credit rating to BBB_g+, with stable outlook.

Summary

CCXAP has upgraded the long-term credit rating of Jiangsu Yangjing Petrochemical Group Co., Ltd. ("Yangjing" or the "Company") to BBBg+ from BBBg-, reflecting the improved comprehensive strength of Lianyungang City and the enhanced regional significance of the Company in Xuwei New District.

The BBB_g+ long-term credit rating of Yangjing reflects (1) Lianyungang Municipal Government's very strong capacity to provide support; and (2) the local government's high willingness to provide support, based on our assessment of the Company's characteristics.

Our assessment of Lianyungang Municipal Government's capacity to provide support reflects Lianyungang City's favorable economic growth underpinned by its industrial development and port resources. It is one of the top 100 prefectural cities in China. Xuwei New District is one of seven national petrochemical industry bases with the highest economic growth rate in Lianyungang City.

The rating also reflects the local government's willingness to provide support, which is based on the Company's (1) increased importance along with the fast development of Xuwei New District; (2) essential role in the infrastructure construction of the Petrochemical Industrial Base; and (3) track record of receiving government support. However, the rating is constrained by the Company's (1) medium business risk to commercial activities such as self-operated construction in energy facilities; and (2) fast-growing debt driven by the increasing development projects.

The stable outlook on Yangjing's rating reflects our expectation that the local government's capacity to provide support will remain stable, and the Company will maintain its strategic importance in the development of Xuwei New District, especially in Petrochemical Industrial Base over the next 12-18 months.

Rating Drivers

- Essential role in infrastructure construction of the Petrochemical Industrial Base
- Medium commercial activities risk
- Track record of receiving government support
- Fast-growing debt arising from development projects
- Good access to funding channels

Rating Sensitivities

What could upgrade the rating?

The rating could be upgraded if (1) the Lianyungang Municipal Government's ability to provide support strengthens; or (2) the Company's characteristics change in a way that strengthens the local government's willingness to provide support, such as material reduction in exposure to high-risk commercial activities, or improved debt management.

What could downgrade the rating?

The rating could be downgraded if (1) the Lianyungang Municipal Government's ability to provide support weakens; or (2) the Company's characteristics change in a way that decreases the local government's willingness to provide support, such as reduced policy significance, significantly increased exposure to risky commercial activities, or weakened access to funding.

Key Indicators

	2021FY	2022FY	2023FY
Total Asset (RMB billion)	18.0	20.4	30.0
Total Equity (RMB billion)	6.9	8.1	11.3
Total Revenue (RMB billion)	3.8	5.1	7.3
Total Debt/Total Capital (%)	56.5	57.9	55.8

All ratios and figures are calculated using CCXAP's adjustments.

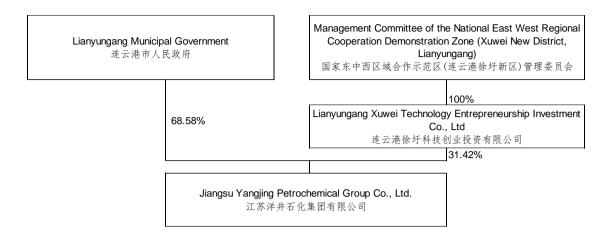
Source: Company data, CCXAP research

Corporate Profile

Established in 2014, Yangjing is one of the key development and construction entities in Xuwei New District, Lianyungang City, especially in the construction, development and operation management of Lianyungang Petrochemical Industrial Base and Strategic Emerging Industrial Park. Yangjing has a diversified business scope that covers infrastructure construction, industrial project construction, energy supply, leasing and material sales.

In 2023, the Lianyungang Municipal Government injected capitals of RMB600 million to Yangjing, increasing its direct holdings to 68.58% at end-2023, from 51.12% at end-2022. Meanwhile, Lianyungang Xuwei Technology Entrepreneurship Investment Co., Ltd., a company wholly owned by the Management Committee of the National East West Regional Cooperation Demonstration Zone (Xuwei New District, Lianyungang) ("XWND Management Committee"), acquired 31.42% of the Company's shares from Jiangsu Fang Yang Group Co., Ltd. ("Fang Yang") and Jiangsu Xianghe Agricultural Development Co., Ltd. As of 31 December 2023, Lianyungang Municipal Government remained the ultimate controller of Yangjing.

Exhibit 1. Shareholding and organization chart as of 31 December 2023



Source: Company information, CCXAP research

Exhibit 2. Revenue structure in 2023

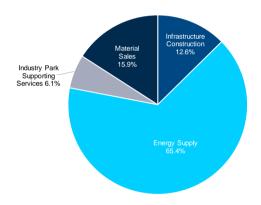
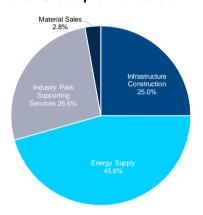


Exhibit 3. Gross profit structure in 2023



Source: Company information, CCXAP research

Rating Considerations

Government's Capacity to Provide Support

We believe that the Lianyungang Municipal Government has very strong capacity to provide support to the Company, given its GRP of over RMB400 billion with rapid growth rate, ranking one of the Top 100 among all prefecture-level cities in China. It also has good industrial development and port resources. However, Lianyungang Municipal Government's fiscal metrics are moderate.

Jiangsu Province is one of China's most advanced and prosperous provinces. Many globally renowned companies in various industries including textiles, chemicals, and electrical equipment are based here. Jiangsu Province is the second largest province in China by gross regional product ("GRP"), after Guangdong Province. In 2023, its total GRP amounted to RMB12.8 trillion, a year-over-year ("YoY") increase of 5.8%. The per capita GRP for the same period was RMB150,487, ranking first among all provinces in China.

Lianyungang City is one of the first 14 Chinese coastal cities opening to the outside world and has one of the major ports of China — the Lianyun Port. With geographic advantages, it has developed port industries such as petrochemicals, ferrous metallurgy and mechanical equipment manufacturing. Lianyungang City also promotes

emerging industries such as biomedical, new materials, new energy and high-end equipment industry. Rapid industrial growth supports Lianyungang City's economy to maintain growth. In 2023, Lianyungang City's GRP increased by 10.2% to RMB436.4 billion, where the growth rate ranked top among all prefectural cities in Jiangsu Province. Compared to last year, the general budgetary revenue increased to RMB25.6 billion from RMB21.3 billion with tax revenue rising to RMB19.6 billion from RMB12.7 billion. Tax contribution recovered to 76.5% in 2023 so the 3-year average fiscal stability (tax/general budget revenue) increased to 71.9%, indicating a strong revenue-generating ability. However, the fiscal sufficiency of Lianyungang Municipal Government was still relatively weak. The fiscal balance ratios (General Budgetary Revenue/ General Budgetary Expenditure) were less than 50% over the past three years, indicating high reliance on support from high-tier governments. In addition, the governmental fund revenue is an important supplement to the financial resources of the Lianyungang Municipal Government, which highly depends on the performance of land sales market. The local government's direct debt kept increasing and reached around RMB73.3 billion as of the end of 2023, accounting for about 16.8% of GRP.

Exhibit 4. Key economic and fiscal indicators of Lianyungang City

	2021FY	2022FY	2023FY
GRP (RMB billion)	372.8	400.5	436.4
GRP Growth (%)	8.8	2.4	10.2
General Budgetary Revenue (RMB billion)	27.5	21.3	25.6
General Budgetary Expenditure (RMB billion)	53.4	53.6	57.5
Local Government Debt (RMB billion)	65.8	68.0	73.3

Source: Statistics Bureau of Lianyungang City, CCXAP research

Xuwei New District is a functional zone under the jurisdiction of Lianyungang City with a total planned area of 467 square kilometers, located in the southeast of Lianyungang City. It is the pilot area of the National East-Central-West Regional Cooperation Demonstration Region approved by the State Council of China in 2011. It mainly develops leading industries such as petrochemicals, high-end equipment manufacturing, port logistics trade processing, and high-performance new materials. With its clear strategic position in the industrial development of Lianyungang City, Xuwei New District has received good support from high-tier governments including policy advantages and financial support. Lianyungang Petrochemical Base is one of the key functional zones in Xuwei New District and one of the seven major petrochemical industry bases in China approved by the National Development and Reform Commission in 2013. As of the end of 2023, in Lianyungang Petrochemical Base, there were a total of 23 petrochemical projects have been completed and put into operation, and formed three industrial clusters, Shenghong Petrochemical, Sinochem Lianyungang Circular Economy Industrial Park and Satellite Petrochemical. In 2023, Xuwei New District ranked 14th among China's top 30 Chemical Industrial Parks.

Xuwei New District's economic strength improved rapidly in recent years and the area plays an important role in Lianyungang City. In 2023, Xuwei New District's GRP increased by 97.7% to RMB35.5 billion and industrial output value reached RMB181.2 billion, mainly due to the implementation of Shenghong Refining and Chemical Integration Project with a total investment of RMB66.7 billion. The GRP of Xuwei New District accounted for 8.1% of Lianyungang's GRP. Meanwhile, its general budgetary revenue significantly increased to RMB902.3 million from a negative RMB3.2 billion in 2022, even though including the effect of tax rebate policy. The tax revenue of Xuwei New District is expected to grow as more production capacity becomes full operation and the effect of tax rebates is reduced.

Government's Willingness to Provide Support

Essential role in infrastructure construction in Petrochemical Industrial Base

There are two main investment and operation entities in Xuwei New District, Lianyungang City, Yangjing and Fang Yang. Yangjing has an essential role in the development, construction, and operation of the Lianyungang Petrochemical Industrial Base and the Strategic Emerging Industrial Park in Xuwei New District; while Fang Yang is responsible for constructing, operating, and managing infrastructure and industrial supporting service facilities in Xuwei New District.

Yangjing undertakes infrastructure construction by signing construction agreements with the Construction Bureau of Xuwei New District and carrying out the construction work accordingly which includes Infrastructures and public amenities such as municipal services, roads, bridges and greening works in Lianyungang Petrochemical Industrial Base. The Company typically receives payments based on the investment amount plus a certain markup (8%-20%) as a management fee upon completion. As of 31 December 2023, the Company had 24 key projects under construction, with a total investment of RMB5.8 billion and an outstanding amount of RMB3.0 billion, including the Ecological Environment Improvement Project and 300,000-ton Channel Phase II Project, which would improve the function of the port and further consolidate the sustainable development of Petrochemical Industrial Base. In addition, there were 16 projects under planning with a total investment of RMB5.4 billion, including the infrastructure construction of Strategic Emerging Industrial Park in Xuwei New District. The Company had large amount of construction project reserves, indicating relatively good sustainability of the business.

In addition, Yangjing supported enterprises moving into the park by undertaking industrial project construction for them, including soft foundation treatment work such as earthwork backfilling, vacuum preloading, and pile foundation construction. The Company conducts these projects by signing construction agreements with customers and receives installment payments with a markup in return during the construction and upon completion. As of 31 December 2023, the Company had 6 major projects under construction, with a total investment of RMB902 million and an uninvested amount of RMB80 million.

Overall, we expect Yangjing to maintain its dominant position in undertaking infrastructure construction in the Petrochemical Industrial Base and the Strategic Emerging Industrial Park given its large project reserves.

Medium commercial activities risk

Yangjing contributed significantly to the petrochemical industrial development in Lianyungang City by offering vital services such as supply of energy and materials, and operation of supporting facilities. Based on our assessment, although commercial business assets accounted for a large portion of total assets, the Company had medium business risk given some of the Company's commercial activities are policy-driven and align with the local government's plan.

Yangjing has carried out a large number of self-operated projects related to the industrial development of the Petrochemical Base, including public pipe galleries, public engineering island, public tanks, natural gas storage stations, high-pressure pipelines and berths. Such projects provide the enterprises settled in with essential production elements and petrochemical professional services, such as inspection and testing, and transport of hazardous chemicals. As of 31 December 2023, the uninvested amount of key self-operated projects under construction, with a total investment of RMB14.7 billion, was around RMB5.3 billion, of which the main investment was the Public Island Project with a total planned investment of RMB8.7 billion to provide steams

and industrial gases. With the development of self-operated projects, the Company's capacity to provide energy and ancillary services has been significantly enhanced, driving the increase in revenue from energy supply and industrial park supporting services. In 2023, the revenue from energy supply and industrial park supporting services increased by around 148% and 75.5% to RMB4.8 billion and RMB443.8 million, respectively.

The energy supply business is the largest contributor to Yangjing's revenue, including sales of natural gas, refined oil and steam that are essential in the production process of the enterprises within the Petrochemical Industrial Base. The sales of natural gas have franchise advantages in the Petrochemical Industrial Base with a 30-year franchising right. The Company has a low capital occupation as most downstream customers need to make prepayments for natural gas and steam in advance. These products are mainly provided to enterprises within the Petrochemical Industrial Base at prices guided by the government. However, the customer and supplier concentration risks for natural gas and steam remained high as the sales from the top 5 customers and procurements from the top 5 suppliers accounted for more than 75% of its total sales and its total procurement in 2023, respectively, which may lead to credit contagion risk from customers and lower bargaining power facing with suppliers.

Yangjing aims to provide full professional services to attract investments by enterprises and reduce operation costs of enterprises such as port terminals, pipeline corridors, pipeline networks, trading platforms, chemical logistics, chemical warehousing and environmental and safety services. Currently, the income from industrial park supporting services is more diversified and includes construction and services fees of environmental and safety, leasing income from pipe galleries and storage tanks, management fees of industrial park facilities and parking lots fees. The gross profit of the business is high but overall operation highly depends on the operation of local enterprises which expose the Company to certain business risks. For example, the occupancy rates of the leasable assets were still relatively low as most target clients were in their early stages of operation. In addition, the Company has future investments in this sector such as storage tanks and pipeline networks according to the regional planning of the Petrochemical Industrial Base, which may bring pressure on capital expenditure.

Yangjing's material sales business generated a considerable amount of income but a relatively small gross profit margin. The products mainly include coals, building materials, and bulk petrochemical products such as methanol, styrene, and petroleum benzene. The Company adopts demand-on-purchase mode which means orders to upstream suppliers would be placed only when the sale contracts are signed with downstream customers, and receives 10% of the contract as a guarantee margin. However, this segment faces a certain concentration risk and is susceptible to market fluctuations. As of 31 December 2023, the top 5 suppliers and top 5 customers account for more than 40% of total procurement and that of total sales. The majority of them are private-owned enterprises.

Track record of receiving government support

In recognition of the strategic importance of Yangjing's businesses to the industrial development of Xuwei New District, the Company has received comprehensive support from the local government, in terms of capital injections, project repayments, and operating subsidies. The Company is expected to continuously receive government payments in the near future for its infrastructure construction projects as the related agreement is signed with the local government. From 2021 to 2023, the Company received infrastructure construction repayments totaled to RMB58.1 million. However, the government payment was slow and was subject to annual government fiscal arrangements.

Meanwhile, on behalf of the Lianyungang Municipal Government, the XWND Management Committee made a

capital injection of RMB600 million in cash to the Company in 2023, increasing its paid-in capital and enhancing its capital strength. Furthermore, the local government provided operating subsidies of RMB30.4 million to the Company in 2023. Considering its essential role in the Petrochemical Industrial Base and ongoing large investment in infrastructure construction, we expect the Company to receive ongoing government support in the future.

Fast-growing debt arising from development projects

As a major investment and financing entity in the Lianyungang Petrochemical Industrial Base as well as the Strategic Emerging Industrial Park, Yangjing has a large scale of projects in the pipeline, bringing large capital expenditure pressure. As of 31 December 2023, the Company had 43 projects under construction, with an outstanding investment amount of RMB8.4 billion, and 16 projects under planning with a total investment amount of RMB5.4 billion. The projects include infrastructure construction, land development, and industrial park construction. The Company mainly funded these projects through external financing over the past years, resulting in an increasing debt level.

Yangjing's total debt maintains an increasing trend due to its continued investment in its infrastructure construction and self-operated construction projects. The Company's total debt increased from RMB11.1 billion at end-2022 to RMB14.2 billion at end-2023, while the total capitalization ratio (total debt to total capital) decreased from 57.9% to 55.8% over the same period mainly due to the increase in equity. The Company's minority interests amounted to RMB6.4 billion, nearly doubled over the previous year. Moreover, the Company's debt structure has improved, with an increase in long-term bond issuance and a decrease in non-standard borrowing. However, the Company's short-term debt was still relatively high and accounted for 34.2% of the total debt at end-2023. Meanwhile, the cash to short-term debt ratio was around 0.8x. We expect the Company will continue to rely on external financing to meet its future capital needs, and its debt leverage will remain at a relatively high level in the next 12 to 18 months, considering its large investments in construction projects in the pipelines and prolonged payment period from the local government.

Exhibit 5. Key projects under construction and planning as of 31 December 2023

Postorer or		Budgeted	Invested	Outstanding
Project type	No. of projects	amount	amount	amount
		(RMB billion)	(RMB billion)	(RMB billion)
Project under construction				
Infrastructure construction	24	5.8	2.8	3.0
Industrial project construction	6	0.9	0.8	0.1
Self-operated construction	13	14.7	9.4	5.3
Project under planning				
Infrastructure construction	16	5.4	-	5.4
Total	59	26.8	13.0	13.8

Source: Company information, CCXAP Research

Good access to bank borrowing and expansion to the capital market

Yangjing has good access to bank borrowing which could partially release its pressure on debt repayment and capital expenditure. Bank loans are the Company's major funding source and the Company maintained a good relationship with joint-stock commercial banks and large state-owned commercial banks. It has seen an improvement in Yangjing's financing ability with expansion in funding channels and reduced reliance on non-

standard financing. In July 2023, the Company issued a private placement bond to raise RMB600 million with a coupon rate of 4.45%. As of 31 December 2023, bank loans made up 88.5% of the total debt and the Company has obtained total credit facilities of around RMB27.4 billion, with an unutilized amount of around RMB9.1 billion, which were provided by diversified banks. At the same time, the Company also has access to non-standard financing channels, mainly financial leasing to meet its funding needs. The Company's exposure to non-standard financing has reduced from around 8.1% as at end-2022 to around 3.3% of total debt as at end-2023. Overall, considering Yangjing's essential role in the development of the Petrochemical Industrial Base in Xuwei New District, we expect the Company to maintain good access to funding.

ESG Considerations

Yangjing faces environmental risks because it has undertaken infrastructure construction projects. Such risks could be moderated by conducting environmental studies and planning prior to the start of the projects, and close monitoring during the construction phase. There are a number of measures implemented for environmental and safety protection in the Petrochemical Industrial Base, such as Biological Management and Control Platform to monitor the air quality and State-level Emergency Rescue Base to quickly handle emergency situations. In July 2023, Yangjing issued a green bond on the onshore debt capital market, raising capital for the Public Island Project. The issuance of green bond is an important example of encouraging sustainable development and promoting awareness of green finance, which could potentially reduce its environmental risks.

Yangjing bears social risks as it implements public policy initiatives by building public infrastructure in Petrochemical Industrial Base. Demographic changes, public awareness and social priorities shape the Company's development targets and ultimately affect the local government's propensity to support the Company.

Yangjing's governance considerations are also material as the Company is subject to oversight by the Lianyungang Municipal Government and must meet several reporting requirements, reflecting its public-policy role and status as a government-owned entity.

Rating Methodology

The methodology used in this rating is the Rating Methodology for China's Local Infrastructure Investment and Financing Companies (July 2022).

Appendix

Exhibit 6. Peer Comparison

	Jiangsu Fang Yang Group Co., Ltd.	Jiangsu Yangjing Petrochemical Group Co., Ltd.
Long-Term Credit Rating	BBB _g +	BBB _g +
Shareholder	Jiangsu Fang Yang Holding Group Co., Ltd. (100%)	Lianyungang Municipal Government (68.58%) and Lianyungang Xuwei Technology Entrepreneurship Investment Co., Ltd. (31.42%)
Positioning	Core entity in the construction and development of Xuwei New District	Key role in construction, development and operation management of Lianyungang Petrochemical Industrial Base in Xuwei New District
Total Asset (RMB billion)	110.2	30.0
Total Equity (RMB billion)	35.4	11.3
Total Revenue (RMB billion)	17.7	7.3

All ratios and figures are calculated using CCXAP's adjustments based on financial data in 2023.

Source: Company information, CCXAP research

Exhibit 7. Layout of key projects in Xuwei New District



Source: CCXAP research

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