

Valuation Analysis of Inspur Electronic Information in the Artificial Intelligence Server Industry

Peikun Xu

*King's Business School, King's College London, London, United Kingdom
jacksonxu0812@gmail.com*

Abstract. The rapid development of artificial intelligence (AI) has greatly increased the global demand for high-performance computing. This makes the AI server industry an important part of data centre and intelligent computing infrastructure. This study examines the valuation characteristics of the AI server industry, and pays attention to the Inspur Electronic Information Industry (IEIT), a representative enterprise from China. The study used the price-to-earnings ratio (PE) method to evaluate the company's financial performance, including its historical earnings, industry conditions and market sentiment. Analyze and use financial statement data, similar company indicators and expected returns to derive a reasonable valuation range. In addition, a qualitative assessment was also carried out to examine the company's technical capabilities, ecosystem advantages, supply chain resilience, market position, strategic initiatives and policy suitability. Research results show that the IEIT system benefits from strong technical barriers, economies of scale and favourable national policies, but it also faces challenges such as competition, technological progress and supply chain problems. The study found that the company's fair value is in a good price-to-earnings ratio range, which not only reflects its strategic advantages, but also shows that the AI server industry has cyclical characteristics.

Keywords: Artificial intelligence, price-to-earnings ratio method, valuation.

1. Introduction

The artificial intelligence (AI) server industry has quickly become a key component of modern digital infrastructure. With the growing demand for AI, high-performance computing (HPC) and large amounts of data processing, AI servers have become the most important hardware necessary for generative AI, large-scale language models and cloud-based services. These servers not only perform tasks that require a lot of processing power, but also gather new concepts of chips, system architecture and cooling technology. The industry's path is shaped by growing computing needs, energy use restrictions, and changing needs for data centres. Pilz and Heim emphasised that these infrastructure pressures are leading to significant changes in the way servers are built and resource management [1].

The rapid development of generative AI and cloud computing has led to a significant increase in sales and performance of companies such as NVIDIA, AMD, Huawei and Inspur Electronic Information (IEIT Systems), especially in product lines focussing on AI. Despite the significant

increase in the financial situation of these companies, the model used to assess them remains difficult because the industry is very unstable and fast-changing. The AI server industry is different from the traditional information technology hardware industry. It is always changing, sensitive to geopolitical factors, and has an imbalance in access to important technologies.

Traditional valuation methods often do not take these changes into account. Moro-Visconti believes that AI technology should be regarded as an asset with the nature of intangible assets, which conflicts with traditional corporate financial principles, so a customised value assessment framework is needed [2]. Standard methods such as cash flow discounting (DCF) or static price multiples do not take into account the strategic importance of technical cycles, policy implications, and data sovereignty. Chen et al. further emphasised the limitations of traditional financial modelling, explaining how large-scale language models and artificial intelligence-driven innovations challenge the assumptions of income predictability and capital intensity [3]. The capability realization rate model proposed by Fang et al. provides a valuable framework for assessing the huge differences between the market's expectations of artificial intelligence capabilities and the actual delivery performance, which will lead to valuation deviations, which are often ignored [4].

Against this background, this article takes IEIT Systems, a well-known AI server manufacturer in China, as an example, and aims to explore the quantitative and qualitative aspects of the valuation of the AI server industry. The purpose is to build a complete framework to determine its intrinsic value by combining financial indicators, peer benchmarks and strategic indicators. This includes the use of the price-to-earnings ratio (PE) indicator, which is based on financial statement analysis, industry averages and investor views. On the other hand, qualitative analysis will examine the company's technical barriers, strategic positioning, supply chain resilience, market leadership and its fit with national policies.

This method not only provides a clearer valuation range for the IEIT systems, but also helps us better understand the complexity of financial markets in the context of global digitalisation. Grand View Research predicts that the global artificial intelligence server market will grow from \$124.8 billion in 2024 to more than \$850 billion in 2030. This shows the importance of this area for strategic planning [5].

2. Valuation analysis based on the Price-to-Earnings (PE) method

The Price-to-Earnings (PE) ratio method is a widely used relative valuation approach that estimates a company's fair value by multiplying its Earnings Per Share (EPS) by an appropriate PE multiple.

$$P = EPS \times PE$$

where P is the target stock price, EPS is earnings per share, and PE is the price-to-earnings multiple. The PE method reflects the market's perception of a firm's future profitability and its associated risk premium. Compared with absolute valuation models such as the Discounted Cash Flow (DCF) model, the PE method better captures market sentiment and the cyclical characteristics of specific industries. It is therefore particularly suitable for evaluating technology and hardware companies whose performance is closely tied to business cycles, which Joshi Chauhan also mentioned [6].

3. Case study

3.1. Data source and valuation assumptions

This study is based on Inspur Electronic Information Industry Co., Ltd. (000977. SZ) is the research object, and the company's annual financial data from 2020 to 2024 and the data in the Wind database are used for analysis. As shown in Table 1, the company's net profit and earnings per share have shown an upward trend in the past five years. From 2020 to 2022, net profit increased from RMB 1.466 billion to RMB 2.086 billion, with an average annual growth rate of about 19%. However, due to the intensification of competition in the artificial intelligence server market and the limited supply of upstream chips, the net profit in 2023 fell to 1.783 billion yuan, down 14.5% from the same period last year.

Table 1. Key index of IEIT systems for valuation

Year	Net Profit (¥ Billion)	year-on-year Growth of Net Profit	EPS(Yuan)	Average PE	Lowest PE	Highest PE
2020	1.466	57.90%	1.0428	55.96	34.17	78.81
2021	2.003	36.57%	1.3777	30.28	20.14	47.13
2022	2.086	4.17%	1.3967	17.67	13.2	24.37
2023	1.783	-14.54%	1.1804	31.01	15.72	48.9
2024	2.292	28.55%	1.5568	32.3	22.23	49.43
2025E	2.937	28.15%	1.99	34.92	28.72	44.9

In 2024, with the recovery of artificial intelligence computing demand and the optimisation of product structure, net profit is expected to rebound to RMB 2.292 billion, an increase of 28.55% year-on-year. The earnings per share in 2024 is RMB 1.56, and the corresponding average price-to-earnings ratio is 32.30 times, ranging from 22.23 to 49.43 times. It can be seen from Table 1 that the PE ratio of the historical centre ranges from 28.72 to 34.17.

Therefore, the estimated fair value range of IEIT Systems shares in 2024 is about 57.15 to 68.00 yuan.

Target Price (=Expected EPSt+1×Reasonable PE Ratio)

3.2. Analysis of PE ratio trends

Judging from historical data (as shown in Table 1), the average PE ratio of IEIT systems was as high as 55.96 times in 2020, and then gradually dropped to 17.67 times in 2022, and slightly rebounded to 31.01 times in 2023, 2024 The year is maintained at a level of about 32 times. This model shows a "high-low-stable" trend, indicating that the market has dynamically adjusted its profit expectations with the changes in the industry cycle.

The high valuation in 2020 can be attributed to the strong growth in demand for data centres and cloud computing, which allows investors to take strong profit growth into price considerations. Subsequently, with the intensification of market competition, the limited supply of chips and the temporary slowdown in investment in artificial intelligence infrastructure, investors' short-term profit expectations weakened, resulting in a decrease in valuation multiples.

However, since the second half of 2023, the demand for artificial intelligence training servers has increased significantly, and government policies have increasingly supported the construction of domestic computing capacity infrastructure. These developments have re-stimulated the market's

confidence in the medium- and long-term growth prospects of IEIT Systems, thus promoting a recovery in the valuation level. The price-to-earnings ratio is expected to be about 32 times in 2024, indicating that investors are moderately optimistic about the recovery of profits and the company's strategic position in the artificial intelligence value chain.

3.3. Valuation results and discussion

To capture valuation variations under different market expectations, three valuation scenarios based on historical change are constructed as Table 2:

Table 2. Reasonable PE range in three different scenario

Scenario	Assumption	Reasonable PE Range
Optimistic	AI demand surges	40-70
Neutral	Stable Growth	28.72-34.17
Pessimistic	Industry downturn	13-22

According to the forecast data, the implicit target price range of the stock is between 25.9 yuan and 139.3 yuan. Considering the cyclical characteristics of the server industry, fluctuations in artificial intelligence infrastructure investment and the rising domestic substitution rate, the company is expected to maintain stable growth in the next one to two years. Compared with companies in the same industry such as Sugon (Dawning Information Industry Co.,Ltd.) and H3C, IEIT systems occupies a higher share in artificial intelligence server shipments and has a higher customer concentration, which makes its valuation multiple slightly higher relative to the industry average.

In short, the valuation based on the price-to-earnings ratio shows that if the company's stock price is below 43 yuan, it may be undervalued; if it exceeds 79 yuan, it is likely to reflect the market's full optimism about its artificial intelligence-related growth potential. Taking into account the macroeconomic situation, policy support and the strategic position of the company, this study concludes that the reasonable valuation range of the IEIT systems in 2025 is 57-68 yuan, and the corresponding price-to-earnings ratio is about 28-34 times.

4. Qualitative analysis of IEIT Systems

4.1. Core technological barriers: pillars of product leadership

The reason why IEIT Systems has become a market leader is that it has a strong technical foundation. The company not only integrates various components, but also proposes new methods to design high-performance AI servers at the system level. In 2025, IEIT Systems Company launched the Yuan Nao SD200, a new generation of AI servers with a unified memory architecture that can accommodate 64 cards. This design enables large-scale language models with trillion parameters to process multiple tasks at the same time, which is very important for cutting-edge AI applications such as generative AI and real-time reasoning engines. This progress has put the company on the same level as the world's top AI infrastructure companies, demonstrating its excellent ability to combine hardware and software optimisation.

In addition, it is also in a leading position in the field of green computing. IEIT Systems took the lead in adopting new liquid cooling technology to solve the problems caused by managing heat in AI workloads. Its solution can handle the heat dissipation needs of up to 3,000 watts for a single chip,

thus achieving an intensive computing environment with less energy. Cai and Gou show that cooling can account for a substantial share of data center energy use, and advanced liquid or hybrid cooling is key to improving overall efficiency [7]. In 2023, the company accounted for 36.8% of the liquid cooling market in China, ranking first for three consecutive years. In the second quarter of 2025, the gross margin of this product category exceeded 40%. This shows that the product has matured and the company has the right to price. In the first half of 2024 Chinese liquid-cooled server market, cold plate liquid cooling accounted for over 95% of the share, and IEIT Systems had the largest market share.

This advantage has been strengthened by continuous investment in research and development. The company promised to increase Research and Development (R&D) spending from 8% of revenue in 2023 to 10% in 2025, which is consistent with the practises of major technology companies around the world. These resources are used for proprietary architecture, chip compatibility layer and next-generation heat dissipation management system. The plan ensures that the technical advantages of IEIT Systems can continue to grow even if the industry competition becomes more intense.

4.2. Ecosystem synergy and supply chain resilience

A strong ecosystem and a strong supply chain strategy are among the key factors for the success of IEIT systems. In the context of the changing global semiconductor market, it is crucial to be able to obtain key components while adopting other solutions. The company's ecosystem strategy plays a role in two levels: cooperation with other countries and proposing new ideas at home.

IEIT Systems has a long-term international partnership with NVIDIA and AMD, which enables them to obtain the latest GPU and architecture roadmap in advance. By taking advantage of these relationships, the company can compete better in the high-end market and ensure that its product release meets global performance standards.

At the same time, the company has invested a lot of money in local substitution. By 2024, its AI servers will be compatible with more than 30 domestic AI chips (such as chips manufactured by Ascend and the Cambricon). It is worth noting that the cost of servers equipped with Ascend chips is nearly 40% lower than that of NVIDIA-based systems, which makes it more attractive in cost-sensitive areas such as public services and medium-sized enterprises. It can easily switch between international chips and domestic chips, which makes operations more flexible, reduces geopolitical risks, and is also in line with China's IT innovation plan at the national level.

The synergy of this ecosystem makes the IEIT systems different from other suppliers. In today's increasingly fragmented supply chain world, it forms a stable and flexible system.

4.3. Market leadership and economies of scale

IEIT Systems has a strong influence in the market. The company has the best economy of scale because it occupies more than 40% of the AI server market in China and about 18% in the global market. This leadership position is reflected in all aspects of procurement, production and distribution, bringing tangible cost and market advantages.

Its scale enables it to purchase a large number of raw materials and parts at one time, thus reducing unit costs and improving profit margins. In terms of production, its production capacity enables it to produce different types of servers in a flexible way, so as to make full use of its production capacity. In addition, the channel relationships it has established cover more than 80% of

China's provincial government cloud projects, providing a reliable source of income for the company and improving brand awareness.

These scale-driven benefits make it difficult for new entrants to enter and consolidate the company's leadership in the domestic and international markets.

4.4. Forward-looking strategic positioning

IEIT Systems is not satisfied with the achievements so far. It is investing in a number of strategic projects that will help it make progress in the areas of AI infrastructure, global expansion and ecosystem integration in its long-term development.

First of all, the company can make full use of the opportunity of the significant increase in demand for AI. For example, ByteDance has promised to invest more than 90 billion yuan in AI computing by 2025, and IEIT Systems is the main supplier of such large-scale projects. By mid-2025, its AI server business is expected to account for more than 35% of total revenue, a significant increase over previous years.

Secondly, expanding to other countries has become a key part of its plan. In 2024, overseas sales increased by 257% over the previous year, accounting for nearly 30% of total revenue. A new factory in Mexico will be put into operation soon and become a strategic base for the North American market. This helps the company avoid tariff barriers and respond more quickly to regional demand. By 2025, businesses outside the United States are expected to generate more than 35% of revenue, which will reduce the company's dependence on the U.S. market.

Finally, its "Hardware + Green Energy Saving + Domestic Substitution" strategy ensures that growth in one field will drive more demand in other fields. For example, AI servers need an efficient heat dissipation system, and domestic substitution means that they need to be used with local chips. This synergy has formed a growth flywheel that can run on its own.

4.5. Policy alignment

The favourable factors of the policy are crucial to the development of enterprises. The business plan of IEIT Systems is very similar to China's national digital infrastructure goals. Projects such as "East Data West Computing" have made regional data centres and intelligent computing centres more popular, and the company has also won a large number of contracts in these areas.

In addition, the central government's promotion of domestic innovation enables suppliers of solutions that can operate effectively in the country to obtain priority procurement rights. IEIT Systems has obtained 58% of AI server orders from the three former telecommunications companies, which shows that it is the best choice for policy-supported procurement.

In addition, the stricter PUE (Power Use Effectiveness) regulations increase the demand for the use of its liquid cooling system, which is not only more efficient but also in line with the regulations. A systematic review of data center efficiency metrics also points out that PUE remains the most widely adopted regulatory and benchmarking indicator for operators [8]. These factors ensure that policies will continue to be supported and that institutions will continue to need them in the coming period.

4.6. Risk factors

IEIT systems have many advantages, but there are also many risks [9,10]. If the AI architecture cannot keep up with the pace of new technologies, it may lose its competitive advantage. The

company also has to cope with fierce competition from large Chinese technology companies (such as Huawei and H3C), which may damage its profits.

In addition, the company's supply chain still partially depends on high-end international parts, which will also be greatly affected when encountering export restrictions or geopolitical problems. Whether due to macroeconomic shocks or reduced capital expenditures of super-large enterprises, any slowdown in artificial intelligence investment may reduce the growth expectations of IEIT Systems.

5. Conclusion

This study is valuation and analyzation for IEIT Systems (000977. SZ), comprehensively considering both quantitative and qualitative factors to determine its status in the field of global AI servers. This paper used the price-to-earnings ratio (PE) method to obtain a reasonable value range of RMB 57 to RMB 68 in 2024. This is based on expected earnings per share and reasonable price-to-earnings multiples based on past data and industry standards. This price shows that investors are moderately optimistic, but they also know that the industry is cyclical and competitive.

Qualitative analysis shows that the company has strong R&D capabilities, perfect supply chain integration capabilities and forward-looking strategic execution capabilities. IEIT Systems' excellent performance in the Chinese market, coupled with its aggressive international expansion strategy and policy fit, is expected to continue to occupy an important position in the field of global AI infrastructure.

At the same time, there are still risks, such as technological cessation of progress and geopolitical tensions, but the multiple advantages of the IEIT systems provide a solid foundation for its response to change. This case shows that to accurately evaluate the value of artificial intelligence infrastructure, it is necessary to carefully consider its financial performance, technical capabilities, strategic forward-looking and policy consistency.

With the continuous advancement of the global AI revolution, companies like IEIT Systems are not only participating in it, but also making the future of digitalization possible. Their value will continue to reflect investors' trust in the next era of intelligent computing. Future research may compare IEIT Systems with global competitors such as Supermicro, Dell, or IEIT Systems' joint venture partners. In addition, studying how new technologies such as AI accelerated chipsets, photon computing and edge AI affect the company's specific valuation model will provide more available tools for investors and analysts in this rapidly changing field.

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