

Evaluation of Jinko Solar Holding Co., Ltd: What can we expect from the rapid growth and challenges

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Abstract. This study aimed to evaluate the company of Jinko Solar and generate a purchase suggestion of its stock (NYSE: JKS). The company of Jinko Solar is currently at its growing stage and is benefiting from the high market demand, high incentives, and high sale price. However, it also faces many market challenges. This study conducted a quantitative measurement of SWOT analysis and relative valuation to understand how these elements contribute to the company's growth and how it might reflect on the stock market. The SWOT analysis indicated that the strength of the company lies on its size, market share, leading edge technology, and a growing business strategy. The opportunity outruns the weaknesses and risks in the long run, as the company suffers mostly from the current condition of the global market, in terms of economic status and high cost of business. There is one systematical risk presented, which JKS is one of a pre-delisting firm by SEC. However, evidence suggested that it is willing to cope with the regulation. In the relative valuation, Jinko Solar is ranked in the middle against 5 of its competitors in terms of the profitability. The Price to sale ratio indicated a possible undervalued condition. Other parameters, such as return on equity and gross margin, aligned with the company's growing model as there is a trade off between profit and acquiring market shares. The study concluded with a positive judgement of the growing value of Jinko Solar and the stock of JKS is likely in an undervalued position that is recommended to purchase.

Keyword: Jinko Solar; JKS; NYSE; Chinese Concept Stock; Photovoltaic Solar Energy; Renewable Energy; SWOT analysis; Relative Valuation.

1. Introduction

In recent years, the production and allocation of renewable energy became a global issue. This issue is prominent as the electricity consumption increase with the rise of EV market. People faced many alternative solutions such as hydroelectric system, wind farm, hydrogen power system, and solar module. During the pandemic, the cost of labor and construction raised high, the demand for electricity focused on the solution that requires less resource to allocate. Solar module is one of the most suitable products in this condition. The application of the solar power solution can scale from individual, household, private party, industrial factory, and more. While solar module is idea for many customers, it also creates a good business opportunity. The upstream of the solar panel supply chain include semi-conductor manufacturer and raw materials (such as silicon) sellers. There are also many related industries such as energy storage industry. This study will focus on Jinko Solar as one of a manufacturer of the solar power industry.

Jinko Solar Holding Co. Ltd. (NYSE: JKS) is one of the market leaders of the solar panel manufacture. The company is founded in 2006 and it is currently on its growing stage. The main product manufactured are silicon wafers, solar cells, and solar modules. Recently, the stock of Jinko Solar raised a high attention of investors as the company is making some significant progress of its growth. For example, in 2022 it claimed a significant technology advantage as its N-Type Mono Cell reached the efficiency of 25.7% and this is the world newest conversion rate record. (Pickerel, 2022). However, due to the market condition and other related influences, investors are having doubt of whether this is a market worthy of attention and which of the company is good for investment. In this study, I will use a SWOT analysis and relative multiples to generate an overview of the Jinko Solar's growth and its position in the competitive market. Lastly, from the evaluation result, I will discuss how the growth of the Jinko Solar is associated with a potential investment return of the stock JKS.

In an overview, the SWOT analysis suggested that the long-term value of Jinko Solar outruns the short-term concerns and risks. Its primary strength and opportunity lie upon the urgent need of clean energy. Substitution product, such as wind farm and hydroelectric facility, are proven to be unreliable

in certain conditions in the recent energy shortage of China. The solar power industry takes the advantage by obtaining more shares in the PV market and have a greater ability to raise funds. This benefit investors as funds are used to construct the supply and demand of this industry. Such construction will push the business from growth to mature and will result in a significant profit during the process. Jinko Solar, as one of the largest solar module manufacturers, will be especially benefited in this market trend. Discussed in the SWOT analysis, the risk and weaknesses are not systematic. This means they are related to fluctuate currency, price of raw material, other price offered by the upstream business, cost of labor, and more. These elements are less likely to bring any critical failure to the JKS company or the industry, but more likely to slow down the business growing model. Overall, the stock of JKS is recommended purchase.

The relative multiple in the study evaluates the relative position of Jinko Solar with the evaluation above in mind. The choice of parameter focused on the profitability of the firm, such as P/E ratio, gross margin, return on equity, and more. Jinko Solar is placed in the middle in the stock competition. However, evidence of low price to sale ratio indicated a significant undervaluing condition. Consider the Jinko Solar is one of the market production leaders, this indicated that JKS is significantly undervalued and have a high potential return for investors.

1.1 Contributions

My research focused on evaluating the growth of the company Jinko Solar and the return potential for stock investors. The growth of the company is evaluated by its strength, weakness, opportunity, and threat. In the study, I addressed the company's long-term opportunities outruns the short-term threats and weaknesses. Elements that might influence the growth of the company are retrieved from Jinko Solar's 20-F form and other sources. Due to the fluctuating market, informations are mostly retrieved from recent news forum, company's press release, product reviewer, and market analytics. For example, a review of solar panels available to general customers is retrieved from the article, The Most Efficient Solar Panels of 2022. (Karsten, 2022) The article served to examine the product competitive advantage of Jinko Solar. Article, China's worst heatwave in 60 years is forcing factories to close, is retrieved from CNN Business and is used to present the threat of natural disaster to Jinko Solar. All information distributors are listed in the reference section of the study.

The study aimed to provide implications for stock investors and other market participants. Relative valuation is used to study how Jinko Solar stand against the competition in terms of stock parameters. The parameters, such as revenue, gross margin, and more are retrieved from the platform of marketwatch.com. The result of the study indicated the profitability of Jinko Solar is ranked in the middle of the competition. However, in consider of the evidence from the SWOT analysis, JKS is in an undervalued condition and have a good potential for investors.

1.2 Section Introduction

- Section 1: Introduction
- Section 2: SWOT analysis for Jinko Solar Company
- Section 3: SWOT analysis for the Photovoltaic industry
- Section 4: Relative Valuation of JKS
- Section 5: Conclusion

2. SWOT analysis for Jinko Solar Company

2.1 SWOT Table

Measurement:

In this study, I will use SWOT analysis to evaluate the competitive position of Jinko Solar in the Photovoltaic industry. The analysis contains four sections: strengths, weaknesses, opportunities, and threats. Each section contains the factors that influence the company's growth (or shrink). They could be either internal or external factors.

Multiple sources of informations are used. Unless a new source is cited, the primary source is published by Jinko Solar in 2021 as the 20-F form of the year. (JinkoSolar Holding Co., 2022) The source can be found on the SEC's website at www.sec.gov. or at Jinko Solar's website.

Table 1. SWOT Summary Table

Qualifiers	Summarized Information
1.Strength	1. JKS is one of the biggest solar companies by revenue. 2. The company holds a significant amount of technology patent. 3. Its N-type solar panel is one of the most efficiency product available to the general consumers. 4. Consider the market cap of its subsidiary company listed in the Chinese market, the JKS in the U.S. market might be in an underestimated position. 5. Jinko Solar is increasing their total shipment and became the world largest solar module exporter.
2.Weakness	1. Due to the increasing market share overseas, the business is exposed under various local policies, taxes, demands, and exchange rate. 2. The company requires a significant amount of cash to support its growth and operation. 3. The net income have a high reliance over the price of silicon and other materials of the supply chain. 4. The high debt makes the company vulnerable to the interest rate changes.
3.Opportunity	1. In recent year, the demand for solar power product is increasing. 2. Government is increasing their funds and incentives, as JKS received \$73.1 million in 2021. 3. Jinko Solar have a strong business association with the EU market. This especially increase their profitability due to the recent power shortage. 4. Jinko Solar is expanding its market toward resident energy storage unit. 5. Jinko Solar insured the availability of its silicon raw material as it signed an agreement with Xinte energy for an \$14 Billion worth of silicon supply.
4.Threat	1. The exporting business is strongly dependent on the global political relationship. 2. The stock is currently a pre-delisting firm due to market policies. 3. Natural disaster might affect its business. For example, its Sichuan factory is currently closed for manufacture due to the power shortage of the province. This power shortage is partially caused by the high temperature and drought.

2.2 SWOT detailed information

2.2.1. Strength

According to Investopedia, Jinko Solar Holding Co.Ltd, is in the top 10 biggest solar companies in the world by total revenue. (Nathan, 2020) This proved that JKS is one of the biggest sectors in the industry.

Jinko Solar have a significant amount of technology patent, which both serves as a form of intangible asset and strength against competitors. In the April of 2022, JKS announced a breakthrough of maximum conversion efficiency of 25.7% with its solar cell. (Plamena, 2022) In comparison, First Solar—another giant in the solar industry, announced a breakthrough record of 22.1% in 2016.

For the consumers market, Jinko Solar N-type is one of the most conversion efficient product available to purchase. See Table 2. Additionally, its solar panel is among the lowest price calculated by price per watt. (\$0.5-0.8 per watt)

On the date of 2022 August 23, 6:32 A.M., the market cap for Jinko Solar is \$2.827 billion. One thing worth the attention is that Jinko Solar (SH: 688223), the subsidiary company listed in the Chinese market has a market cap of \$24.857 billion. This might be a signal for an undervalued estimation by the U.S. stock market.

Jinko solar is increasing its total solar module shipment to the global customer at a fast rate. It had a total shipment of 14.3GW, 18.8GW, 25.243GW by the year of 2019, 2020, and 2021. By the company's official estimate, it is looking for a total shipment in the range between 35 to 40 GW by

the year end of 2022. (Jinko Solar, 2022) This is a positive signal for investors, which the increasing capacity and output can be translated as the increasing of the company's value.

Table 2. Retrieved from article

Most Efficient Solar Panels	Efficiency Rating	Power
SunPower Maxeon M-Series	22.8%	420-435 W
LG NeON R	22.3%	405 W
Jinko Solar Tiger Neo	22.3%	620 W
REC Solar Alpha	21.9%	405 W
Panasonic EverVolt	21.7%	380 W
Trina Solar Vertex S	21.6%	670 W
Silfab 380-BLK	21.4%	380 W
FuturaSun FU M Zebra	21.3%	360 W
LONGi Solar Hi-MO 5	20.6%-21.4%	485-505 W
Q Cells Q.Peak DUO G9+	20.6%	360 W

Note: Table 2 is retrieved from article, *The Most Efficient Solar Panels of 2022*, published in Ecowatch.com (Karsten, 2022)

2.2.2. Weakness

JKS generated 75.2% of its revenue from overseas market, which is exposed to the various local policies (subsidies, regulations, environmental law), local tax rate, as well as fluctuate demand and exchange rate. For example, disclosed in 20-F, the company had a “net foreign exchange loss of RMB355.5 million (US\$55.8 million) in 2021. 336.5RMB in 2020. 8.8RMB in 2019.”

The company is in a strong growth model, which it wants to expand the global market shares. This requires a significant amount of cash. Thus, compared to its revenue, the growing trend of net income is not so prominent.

The selling of Solar module accounted for 92.4% of the total revenue. This indicates that JKS's net income is sensitive toward the price of Silicon and other raw material. Silicon is currently at a relatively high price compared to former years.

Because of the need for cash for business expansion, JKS is bearing a high amount of debt. This generated a weakness in terms of asset/debt ratio, current ratio, and more. This also makes JKS vulnerable to the high interest rate.

2.2.3. Opportunities

Discussed in 2021 Form 20-F, the demand of solar power product is increasing from both the government and consumers aspect. Additionally, JKS claimed that “clients are more willing to accept higher prices of solar modules”.

JKS is favored by the government, and they are willing to support its growth. “Government grants totaling RMB63.0 million, RMB192.0 million and RMB465.7 million (US\$73.1 million) for 2019, 2020 and 2021”.

JKS have a strong association with the European market. It carries large order since 2020 and is making delivery in 2021 and 2022. The current event involved with Russia and Europe triggered an extreme demand for solar energy. In addition, it signed an agreement with European memodos as to provide them with different categories of electric storage system. (Zacks, 2022)

JKS is expanding its business outside of the solar panels. It is entering the home energy storage market. In 2021, Jinko Solar's subsidiary company in China signed a strategy cooperation framework agreement with Contemporary Amperex Technology Company. (Jinko Solar Holding Co., 2021) The partnership with the giant in the battery industry guaranteed a proportion of market shares for Jinko Solar. The demand for a home energy storage is a trend as it is a critical component in the clean energy solution. In research estimating the resident energy storage market size, it states, "The global residential energy storage market is projected to reach USD 17.5 billion by 2024 from an estimated USD 6.3 billion in 2019, at a CAGR of 22.88% during the forecast period." (MarketsandMarket Research Company, 2019) It is often a requirement for solar panel customer to choose a power storage supplier, thus, the size of the market is associated with the size of solar module. Jinko Solar have the advantage if their solar module client wants their solution based on one manufacture.

The shortage of silicon raw materials is one of the industrial fears. From 2021 to 2022, many smaller sized solar power companies stopped operation due to the shortage. However, in august 2022, it signed a purchase agreement with Xinte Energy that promised a RMB 102.077 billion (approximately \$14 billion) of polycrystalline silicon supply. (Ruyi, 2022) While others fall short, it is a significant advantage for Jinko Solar to ensures its silicon supply. However, one thing to keep in mind that the contract locks availability rather than the price. The fluctuate price of silicon and other materials still contributes to Jinko Solar's weaknesses.

2.2.4. Threat

JKS is currently expanding its business toward global client. In 2021, it "generated 75.2% of our total revenue from overseas markets, and North America, Asia Pacific." Thus, it is not only under the local solar energy incentive policy but also exporting incentive. The state of the trade is relying heavily on the global government's relationships.

JKS is currently included in the pre-delisting firms (that includes over 200+ Chinese concept stock). The outcome both relying in the government's cooperation and company's decision.

In 2022, August, the Chinese government officially announced that Sichuan is in a power shortage. Local manufactures, such as Jinko Solar, CATL, Intel, Onsemi, and more are called to pause operation by the government. (He, 2022) As disclosed in 20-F, page 71, the Sichuan factory is the third largest factory of Jinko Solar. This has a negative influence toward the year goal of manufacture and shipment. The company's report also mentioned other natural disasters that might have a negative impact on its business.

2.3 Discussion of the company SWOT analysis

In the short-term, the company is facing a great uncertainty due to the temporary closing of its factory located in Sichuan. While it has 12 manufacturing factories globally, the Sichuan factory is still ranked the third largest among its Chinese factory line up. Investor should acknowledge the risk of JKS failing the market's expectation. However, in the long-term, the power shortage is a sign for opportunities. Now, the public, the market, and the government have a deeper understanding of the value of solar power. Jinko Solar has the dominant resources to quickly penetrate more of the market. The leading technology of its P-type and N-type solar module would also serve as the barriers for its competitors and new companies to the industry. Furthermore, from a personal view, Jinko Solar might temporarily shifts its tactic due to the port strikes of Europe. (Lanktree, 2022) Instead, now might be a good time for them to sell their product locally. This would largely reduce the cost of shipping and exporting taxes. The higher net income might quickly reflect in the next quarter report that is publishing in 2022 August 26 Eastern Time as to balance some of the influence of the power shortage.

Overall, Jinko Solar performed well in the SWOT analysis. The strengths and opportunities tend to outrun the weaknesses and risks in the long-term. The stock (NYSE: JKS) is likely being underestimated in value. One systematic risk is present, which is the delisting threat. However, the list is a higher threat toward Chinese government owned companies that cannot disclose their financial information while Jinko Solar is a private owned company. In addition, Jinko Solar reflected its

willingness to cope with the U.S. market in the past as it made an agreement regarding the ban on Chinese polysilicon over the concern of forced labor.

3. SWOT Analysis for the Photovoltaic industry

Table 3. SWOT Analysis

Qualifiers	Summarized Information
Strength	1. Solar energy industry is in a stage of rapid growth. The global solar energy market was valued at \$52.5 billion in 2018 and is estimated to reach \$223.3 billion by 2026. (Hariharan et al, 2019) 2. The market is in a high demand of solar power. Governments are often willing to provide funds and incentives.
Weakness	1. The manufacture of solar panel requires a large quantity of silicon. The fluctuating price would greatly influence the cost of sale. 2. The cost of transportation (of goods) is high. 3. Some countries, such as China, are posting electric consumption fee that is generated by private solar panels. This might greatly influence the demand of solar energy.
Opportunity	1. As the environmental concern of “wind farm” increase, people need a substitute product. (Elliott, 2019) Some of the market share can be taking over by solar farms. In addition, just like wind farm, hydroelectricity raised another concern. According to the history of power shortage around the world, the peak period is around summer and winter as energy are required to sustain temperature for citizens. However, drought that often comes with the summer might lead to a potential unavailable of hydroelectric and will put solar power in a more favorable position. 2. The current national electric system might not be able to pay off the growth of electric cars and thus they need more sources of energy. For example, the Chinese current power shortage in Sichuan, is partially caused by the high usage of electric cars.
Threat	1. Due to the pandemic and other health or political concerns, some solar power company might be forced to delay shipment. This might cause some inventory storage problem. 2. Solar panel is a worldwide business, which it is subject to the political and economic relationships between nations. 3. In addition, the fluctuating exchange rate would directly influence the revenue of any exporting firms.

4. Relative Valuation of JKS

4.1 Relative Valuation

Measurement:

Table 4. Relative Valuation of Competitors Size and Earning

Name	Revenue	Net Income	Market Cap
JKS	\$6.33 B	\$111.8 M	\$3.221 B
CSIQ	\$5.28 B	\$95.25 M	\$2.963 B
FSLR	\$2.92 B	\$468.69 M	\$12.57 B
DQ	\$1.68 B	\$748.92 M	\$5.39 B
SPWR	\$1.32 B	(\$37.36 M)	\$4.64 B
SEDG	\$1.96 B	\$169.17 M	\$18.39 B

The relative valuation measures a company’s position in the competition firms of the industry. The study chooses revenue and market cap to evaluate the company’s size. Net income, gross margin, P/E

ratio, earnings per share, price to sale, and return on equity are used to measure the overall business and profitability. Note that all competitors are listed in the U.S. market and data is retrieved (Aug 12, E.T.) from the source: marketwatch.com. Please note the limit of this record as some parameters fluctuate daily.

Table 5. Relative Valuation of Competitors Valuation and Profitability

Name	P/E	Gross Margin	EPS	Price/Sale	Return on Equity
JKS	72.56	16.31%	1.75	0.37	6.86%
CSIQ	34.33	17.23%	1.25	0.41	5.65%
FSLR	66.82	24.96%	1.77	3.19	8.17%
DQ	3.43	65.36%	20.80	1.84	51.14%
SPWR	N/A	16.62%	(0.90)	2.72	(9.43%)
SEDG	129.41	32.03%	2.55	8.00	14.12%

4.2 Discussion

To summarize the overall solar market, there isn't a high amount of company that matches Jinko Solar's revenue and size. In addition, the US listed stock of JKS did not account for the Chinese subsidiary company with 8 times the market cap. Thus, when searching for the competitors list, I skipped over some smaller companies or with significant negative net income in 2021.

As investor, I am interested in its rank of return on equity, which it is placed in the middle of the competition. Reflected in the income statement, this is partially due to the high cost of sale. JKS P/E ratio is among the highest, which is only under the SEDG. This reflected that it is not a relatively cheap purchase.

However, in consider of its business opportunities and the lowest price to sale ratio, I think JKS is still significantly undervalued. As of 2022, the raw material price is still at the ceiling, which JKS would be expecting a high gross margin when it goes down (or it might not). The unemployment rate of the U.S. is at its lowest in the recent year. The Chinese unemployment rate is yet to be fully disclosed to the public, but there are some significant issues on the preview. Another thing pointed out by both the 20-F report and the market is the influences of the rising interest rate. The high cost of financing is another It is important factor as less funds are willing to enter the market at this moment and the company are less favored to borrow a high debt for its growth.

I also noticed that DQ and SEDG have a high EPS and especially the trailing EPS. However, from a stock investor aspect, Jinko Solar is in a better price position consider the risk and potential price as it is currently in a lower position of its support. It had a breakthrough of one year box that fluctuate between the price 40-60 and the lowest point of the new platform is 55.94. (As recorded on Aug 23 E.T.)

5. Conclusion

The company of Jinko Solar is one of the leading manufacturers in the market. Consider adding the market cap of its subsidiary company, the size of the firm outruns most of its competitor. The technology patents (regarding the conversion efficiency of solar panel) create a major advantage in the market. While the business and the factory are currently under multiple negative influences, such as the EU port strike, high price of material, or Sichuan power shortage, the business potential outruns in the long-term. Discussed in the Table 1., Jinko Solar is expanding its business toward energy storage. This should be an equal market in consider the necessity of the component to the solar power system. While this business has yet generated prominent income, it is a good timing to purchase its stock in consider of the future value of this sector. Another implication of this study is for other

market participants or workers. The high market shares of Jinko Solar and the high demand of its product indicated a large and stable source of customer. Also, because of Jinko Solar is not in the upstream of the industry, there are many potential supply chain relationships await to be explored. In consider of the relative multiples, Jinko Solar's profitability is ranked in the middle of its competitors. However, it is in a stage of rapid growth and paying a high amount cash for market shares. Furthermore, because of the pause of operation of its Sichuan factory, the gross margin and revenue of its Q3 report of 2022 suffers from uncertainty. The company has yet to make an announcement of their respond and expected outcome of this event. In an optimistic view, investors should not be too worried as the temporary reduced production might not be a bad move as less good are facing the high price of inventory storage, high cost of shipment, and other relative elements. Overall, the industry is on a "racetrack" and JKS is one of the leading players. All elements add up, investors should expect a potential growth of its stock price and is recommended to purchase.

References

- [1] Elliott, D. (2019). Wind turbine impacts deplored. Physics world. <https://physicsworld.com/a/wind-turbine-impacts-deplored/>
- [2] Hariharan, S. & Prasad, E. (2019). Solar Energy Market by Technology (Photovoltaic Systems and Concentrated Solar Power Systems), by Solar Module (Monocrystalline, Polycrystalline, Cadmium Telluride, Amorphous Silicon Cells, and Others), by Application (Residential, Commercial and Industrial) and End-Use (Electricity Generation, Heating, Charging and Lighting): Global Opportunity Analysis and Industry Forecast, 2019-2026. Allied Market Research. <https://www.alliedmarketresearch.com/solar-energy-market>
- [3] He, L. (2022). China's worst heatwave in 60 years is forcing factories to close. CNN Business. <https://www.cnn.com/2022/08/16/economy/sichuan-factories-power-crunch-china-heat-wave-intl-hnk/index.html>
- [4] Jinko Solar Holding Co., Ltd. (2021). Jinko Solar's Subsidiary and CATL Sign Strategic Cooperation Framework Agreement. Cision PR Newswire. <https://www.prnewswire.com/news-releases/jinkosolar-subsidiary-and-catl-sign-strategic-cooperation-framework-agreement-301368349.html>.
- [5] Jinko Solar Holding Co., Ltd. (2022). Form 20-F. Retrieved from. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001481513/000141057822001053/jks-20211231x20f.htm>.
- [6] Karsten, N. (2022). The Most Efficient Solar Panels of 2022. EcoWatch. <https://www.ecowatch.com/solar/most-efficient-solar-panels>.
- [7] Lanktree, G. (2022). Wave of port strikes put global supply chains under fresh pressure. Politico. <https://www.politico.eu/article/port-strikes-put-uk-supply-chains-under-fresh-pressure/>.
- [8] MarketsandMarkets Research Company. (2019). Residential Energy Storage Market by Power Rating (3–6 kW & 6–10 kW), Connectivity (On-Grid & Off-Grid), Technology (Lead–Acid & Lithium-Ion), Ownership (Customer, Utility, & Third-Party), Operation (Standalone & Solar), Region - Global Forecast to 2024. MarketsandMarkets. Report Code: EP 7069. <https://www.marketsandmarkets.com/Market-Reports/residential-energy-storage-market-153284325.html>.
- [9] Nathan, R. (2020). 10 Biggest Solar Companies. Investopedia. <https://www.investopedia.com/10-biggest-solar-companies-5077655>.
- [10] Pickerel, K. (2022). Jinko TOPCon solar cell reaches 25.7% efficiency. Solar Power World. <https://www.solarpowerworldonline.com/2022/04/jinko-topcon-solar-cell-reaches-25-7-efficiency/>.
- [11] Plamena, T. (2022). JinkoSolar says its N-type cell achieves 25.7% efficiency record. Renewables Now. <https://renewablesnow.com/news/jinkosolar-says-its-n-type-cell-achieves-257-efficiency-record-782432/>.
- [12] Ruyi, L. (2022). China's Jinko Solar, Xinte Rally After Inking USD13 Billion Supply Deal. Yi Cai Global. <https://www.yicaiglobal.com/news/china-jinko-solar-xinte-rally-after-inking-usd13-billion-supply-deal>
- [13] Zacks Equity Research. (2022). JinkoSolar (JKS) Inks Agreement With Europe-Based Memodo. Nasdaq Inc. <https://www.nasdaq.com/articles/jinkosolar-jks-inks-agreement-with-europe-based-memodo>.