A-share Photovoltaic Sector Maintains its Decent Growth in 3Q22, Further Boosted by Energy Security Demand

【Solar Photovoltaic】A-share Photovoltaic Sector Continue its Decent Growth in 3Q22, Further Boosted by Energy Security Demand

One of the best performing sectors in A-shares, the solar photovoltaic sector, has delivered decent growth in its third-quarter earnings season.

Taking the 50 constituent stocks of the CSI Photovoltaic Industry Index as a sample**, in the third quarter of 2022, the total revenue of the A-share photovoltaic sector was 289.63 billion yuan, a year-on-year increase of 67%; the total net profit was 36.49 billion yuan, a year-on-year increase of 101%.** In the first three quarters of 2022, the revenue and profit of half of the photovoltaic constituent stocks have exceeded that of the whole year of 2021, such as Tongwei, Sungrow, LONGi Green Energy.

In the short term, the solar photovoltaic industry maintains its popularity and prosperity. The poly pricing has stabilized at a high level. The demand in European market remains strong. From January to September, China's newly installed photovoltaic capacity was 52.6GW, which has been close to the level of last year.

In the long run, the commitment to carbon neutrality, the promotion of sustainable development and the diversification of energy supply continue to support photovoltaic demand, and the intensified geopolitical conflict has created an ever-greater sense of urgency for energy supply security, giving solar photovoltaic a good long-term development prospect.

In 2022, backed by the strong fundamentals, CSI Photovoltaic Industry Index far outperformed the broader market, and the recent correction has brought the appropriate entry point. Suggest paying attention to **CSOP Huatai-PineBridge CSI Photovoltaic Industry ETF (3134.HK)**.

The YTD Performance of CSI Photovoltaic Industry Index and CSI 300 Index

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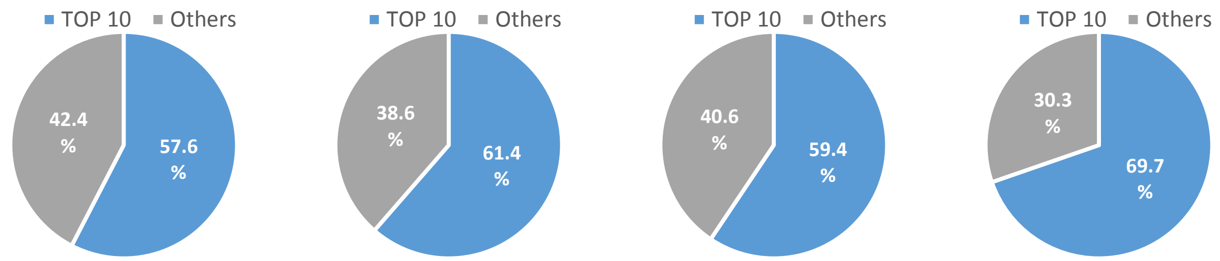
Source: Bloomberg, as of 2022/11/2

- **3Q22 Results: The market concentration in photovoltaic industry further strengthened**

The photovoltaic leaders have been the largest contributor to the photovoltaic industry. Compared with the first three quarters of 2021, the proportion of revenue and net profit of the top ten photovoltaic companies in the first three quarters of 2022 has further increased, **rising from 57.6% and 61.4% to 59.4% and 69.7% respectively**, showing that winners take all and market concentration is rising.

The Market Share of Top 10 Constituents in Revenue		**The Market Share of Top 10 Constituents in Net Profit**	
1Q21-3Q21	**1Q22-3Q22**	**1Q21-3Q21**	**1Q22-3Q22**



Source: Bloomberg, CSOP

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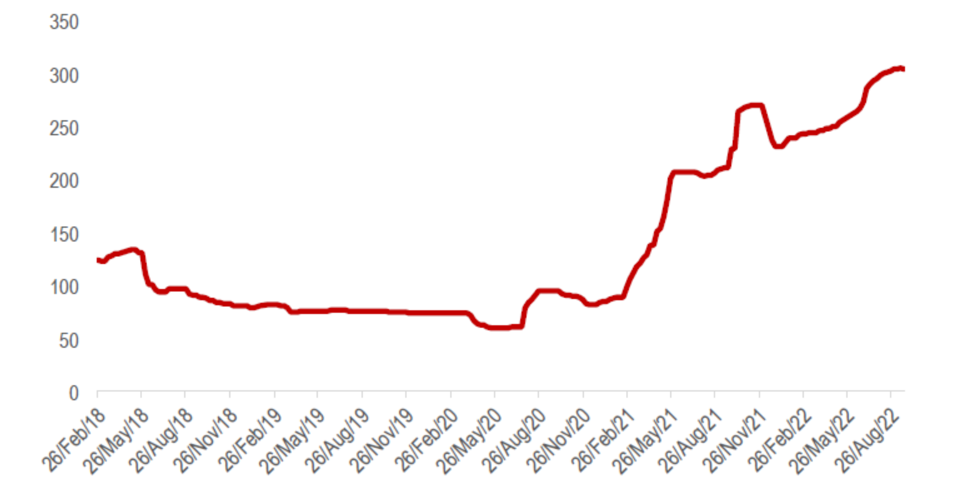
The reasons behind are mainly divided into two aspects:

1）**The upstream part gained the most profits of the photovoltaic industry chain, and there are many leading companies such as Tongwei, LONGi and Zhonghuan in the upstream**. As the supply expansion is lagging behind the growing demand, especially stimulated by the energy crisis. The mismatch of supply and demand supported the high poly price, from over RMB200/kg since June 2021 to RMB300/kg at present. Under the demand for locking the supply and controlling the cost, the sales scale of poly orders has hit new highs. For example, the total value of silicon material orders for Tongwei has reached nearly 100 billion yuan in 2022.

The Poly Pricing (RMB/kg)



Source: PV InfoLink， China Renaissance

2）Photovoltaic leaders continue to consolidate their advantages with vertical integration

In the highly competitive photovoltaic industry chain, "cost reduction and efficiency increase" is the golden rule of development. Technological innovation brings efficiency improvement, cost decline drives demand upward, and sales increase feeds back technology research and development.

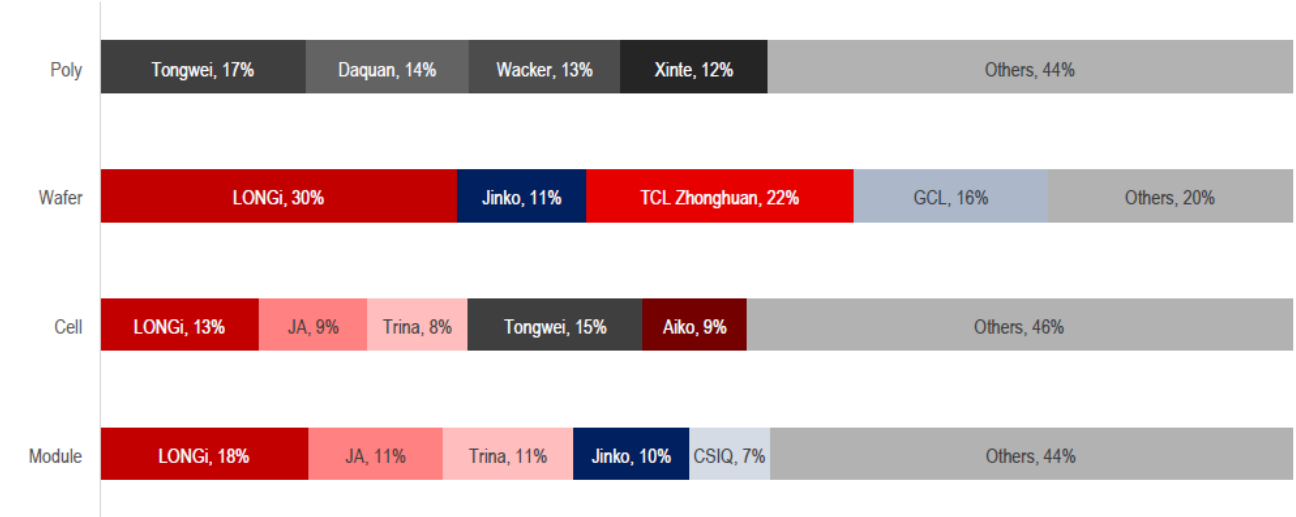
However, except for the battery cell, which has a relatively clear technological development route, the technological innovation momentum of other parts is gradually weakening. **"Cost reduction" has become the top priority to strengthen their own advantages, and the vertical integration of the industrial chain has become the important method to "cost reduction".** Relying on their inherent advantages, photovoltaic leaders have expanded to implement the strategy of vertical integration of the industrial chain, reduce the proportion of external procurement and strengthen their voice in the upstream and downstream of the industrial chain, so as to better control costs and enhance their competitiveness. For example, LONGi Green Energy, JA Solar, and JinkoSolar became the vertical integrated players earlier, and their current integration rate is over 50%; Tongwei, the leader in polysilicon materials, took the initiative to enter the module market in August this year to expand the industry chain layout.

Key Vertically Integrated Solar PV Players in China

	Poly	Wafer	Cell	Module
Tongwei				
LONGi				
TCL Zhonghuan				
JA				
JK				
Trina				

Source: Company Data, China Renaissance

Solar Supply Chain Global Market Share in Terms of Production (2021)



Note: CSIQ refers to Canadian Solar

Source: CPIA, Company Data, CRSHK compiled

- **Outlook: Photovoltaics maintain high prosperity, especially when the energy crisis accelerates energy transformation**

The solar photovoltaic industry is expected to maintain high prosperity. The supply shortage is expected to last longer than expected, and the uncertainty in the poly prices will have a limited negative impact on the investment value of the photovoltaic industry chain.

- On the demand side, under the energy crisis, the demand in the European and American markets remained strong. In the first nine months of this year, China's newly installed photovoltaic capacity was 52.6GW, which is close to the whole year level in last year.
- On the supply side, although silicon material manufacturers have been working to expand polysilicon production capacity since last year, the supply expansion lagged behind the demand growth, especially in the case of geopolitical risks and extreme climate event like high temperature this year, the market is expected to wait until the second quarter of 2023 to see significantly alleviation of supply shortages

Although the market expects that the production capacity shortage will ease next year, the poly pricing trend is uncertain. However, **according to our research, the investment value of the entire photovoltaic industry chain will not be easily affected by silicon prices.** If polysilicon prices remain high, poly manufacturers will continue to benefit from it, and the module exports will keep strong given the high price tolerance in overseas market due to the energy crisis; and if silicon prices peak in the fourth quarter and gradually fall since then, the impact is also limited. For one thing, as mentioned above, the upstream leaders have been vertically integrated players, and their business is resilient; For another, the reduction of poly prices serves the development rule of "cost reduction", which is expected to further increase the attractiveness and competitiveness of solar energy among other energy and further open up space for installed capacity growth

In the long run, the commitment to carbon neutrality, the promotion of sustainable development and the diversification of energy supply continue to support PV demand, and energy security further boost the demands growth. In addition to policy support, the recent intensified geopolitical conflict and the energy crisis have created an ever-greater sense of urgency in energy supply security, and the imminent energy transition has made photovoltaic more competitive given its advantages of high economy, easier accessibility, and a complete and sound supply system compared with other renewable energy. According to the World Energy Outlook 2022 report released by the International Energy Agency (IEA), the share of photovoltaic and wind power generation will increase from 10% in 2021 to 40% in 2030, and even reach 70% in 2050. In particular, it is expected that by 2030, the annual new installed photovoltaic capacity will more than quadruple, reaching 650GW.

In 2022, backed by the strong fundamentals, CSI Photovoltaic Industry Index far outperformed the broader market, and the recent correction has brought the appropriate entry point. Suggest paying attention to **CSOP Huatai-PineBridge CSI Photovoltaic Industry ETF (3134.HK)**.

Product Risk Disclosure:

CSOP Huatai-PineBridge CSI Photovoltaic Industry ETF

- CSOP Huatai-PineBridge CSI Photovoltaic Industry ETF (the "Sub-Fund") is a sub-fund of the CSOP ETF Series OFC ("Company"), which is a public umbrella open-ended fund company established under Hong Kong law with variable capital with limited liability and segregated liability between sub-funds. The Sub-Fund is a feeder fund and a passively managed index tracking exchange traded fund ("ETF") authorised under Chapters 7 and 8.6 of the Code on Unit Trusts and Mutual Funds. The shares of the Sub-Fund (the "Shares") are traded on the Stock Exchange of Hong Kong Limited (the "SEHK") like stocks.

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- The Sub-Fund is a feeder fund which in seeking to achieve its investment objective, will invest at least 90% of its NAV in the Huatai-PineBridge CSI Photovoltaic Industry ETF (the "Master ETF") via the RQFII status granted to the Manager. Investment in units of the Master ETF by the Sub-Fund will be made via the secondary market (i.e. through the SSE).The Master ETF is an exchange traded fund listed on the SSE that tracks the performance of the Index. The Master ETF is authorised by the SFC for the sole purpose of being master fund of the Sub-Fund and will not be directly offered to the public in Hong Kong.
- The Sub-Fund and the Master ETF are not principal guaranteed and your investments may suffer losses. There is no assurance that the Sub-Fund and the Master ETF will achieve their respective investment objectives.
- The Sub-Fund invests substantially in the Master ETF, and may therefore be subject to the risks associated with the Master ETF. The performance of the Sub-Fund depends on the price of the Master ETF. The ability of the Sub-Fund to meet its investment objective is also largely dependent on the Master ETF.
- The performance of the Sub-Fund may deviate from the performance of the Master ETF due to the Sub-Fund's holdings in investments other than the Master ETF, as well as the Sub-Fund's fees and expenses. While the Sub-Fund seeks to minimise the tracking difference / tracking error arising from the Master ETF, there is no guarantee that the Sub-Fund may achieve such objective via investments other than investment in the Master ETF, due to various factors (e.g. timing differences / delays in adjusting the Sub-Fund's investments).
- Companies related to the photovoltaic industry or photovoltaic industrial chain may be subject to significant volatility in growth rates due to rapidly changing market conditions and/or participants, more advanced or new technologies, new competing products and/or enhancements in existing products. The photovoltaic industry is heavily dependent on patents and intellectual property rights and/or licences. The profitability of companies related to the photovoltaic industry may be adversely impacted by the loss or impairment of these intellectual property assets.
- Such companies may also be subject to unpredictable changes in competition. There is no assurance that products or services offered by the issuers of the constituents of the Index will not be rendered obsolete or be adversely affected by competing products, or that such companies will not be adversely affected by other challenges, such as instability, fluctuation, or an overall decline within the photovoltaic industry.
- Companies related to the photovoltaic industry may also be affected by regulatory risks, government intervention and political risks.
- The trading price of the Shares on the SEHK is driven by market factors such as the demand and supply of the Shares. Therefore, the Shares may trade at a substantial premium or discount to the Sub-Fund's NAV.

Please note that the above listed investment risks are not exhaustive and investors should read the Prospectus and the Product Key Facts Statement in detail before making any investment decision.

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