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STUDIES

# Chinese overcapacity and industrial competitiveness: Whose problem is it?

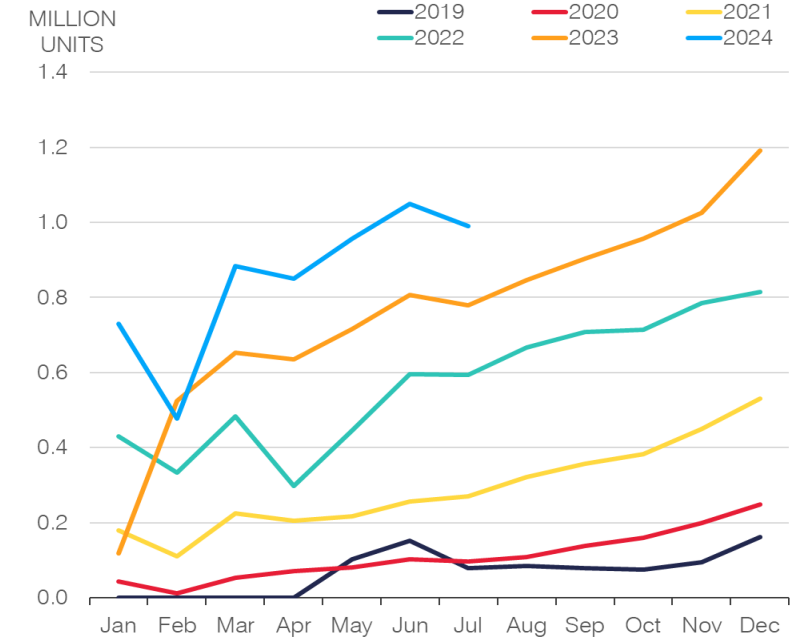
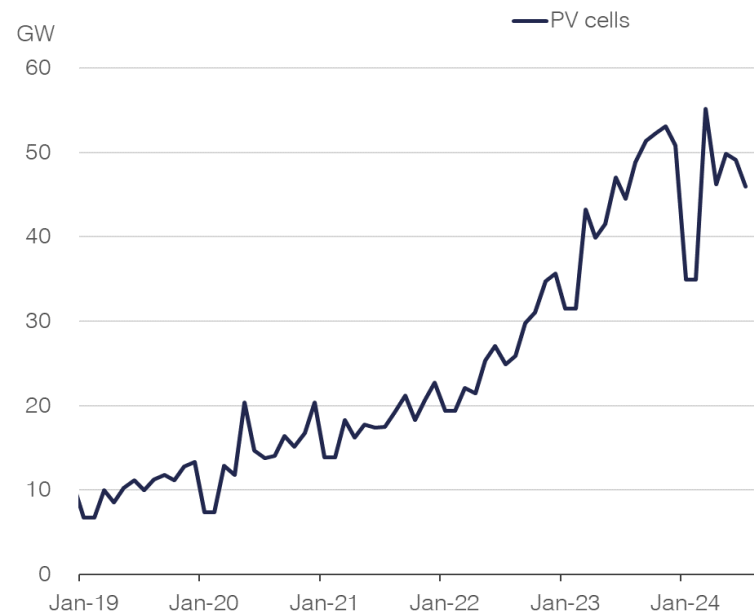
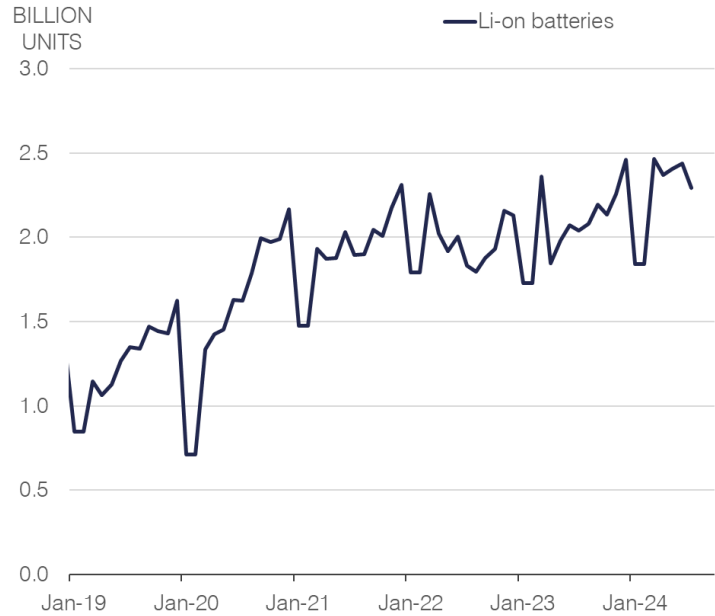
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19 September 2024



# Reliance on manufacturing

## Production of Li-on batteries, PV cells, EV sales and exports



Source: NBS, OIES

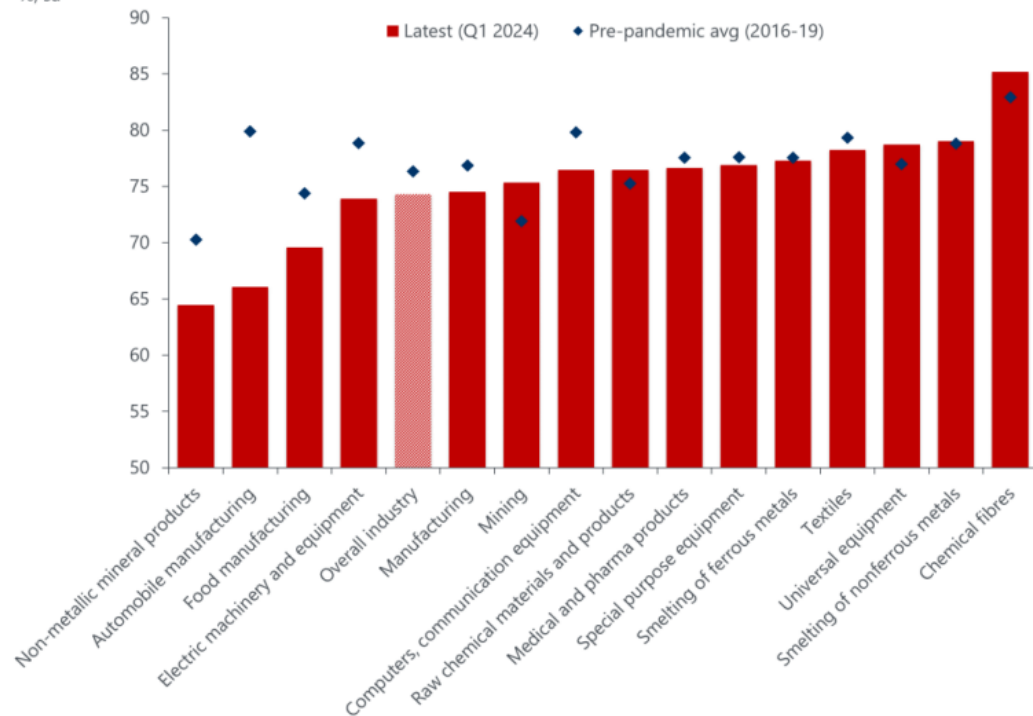
- State-led investment remains a major economic driver, with the focus shifting to higher value added industries
- Local governments pursue investments for their own growth and stability, replicating supply chains
- Supplies are increasing rapidly while demand is failing to keep up
- Chinese exports are rising, leading to trade defence measures globally



# Is overcapacity a problem?

China: Industry capacity utilisation

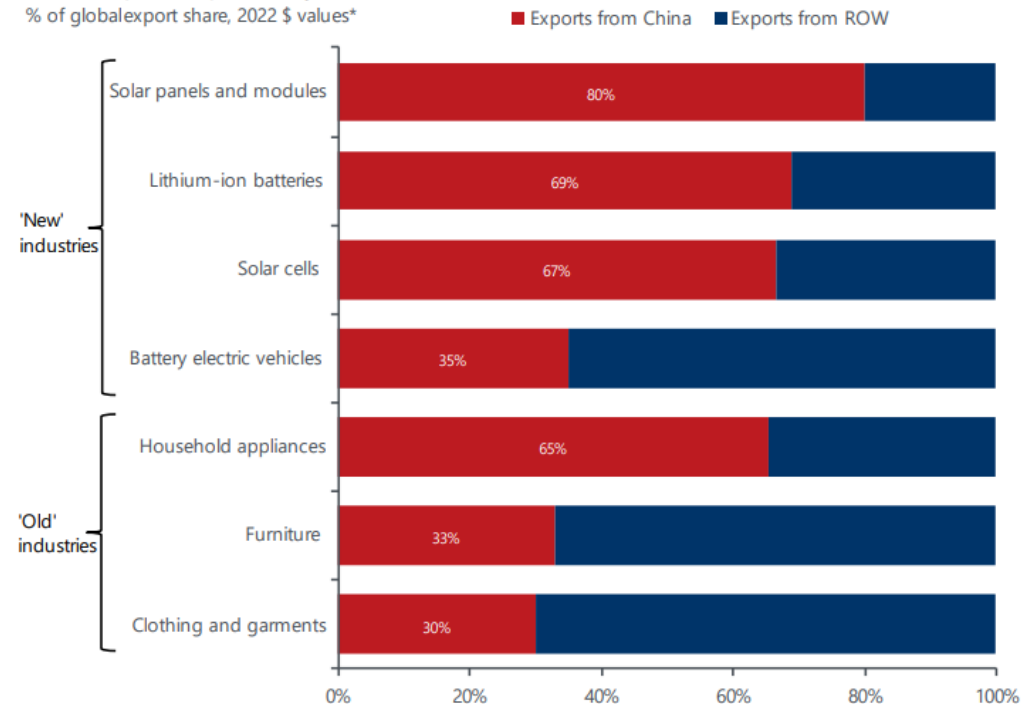
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Source: Oxford Economics

China: Export dependency

% of global export share, 2022 \$ values\*

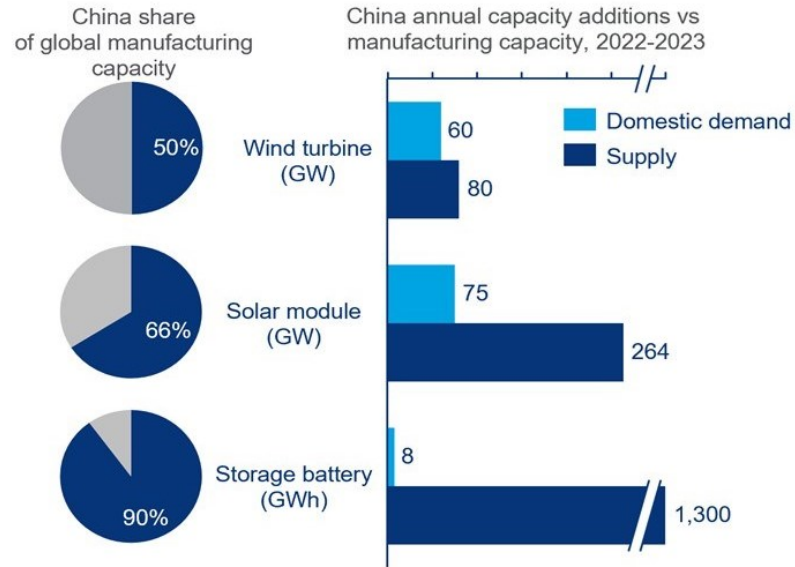


- How do you measure overcapacity? Production capacity exceeding sales? Industrial utilisation rates? Or is it measured by exports crowding out or damaging competitors globally?
- The evidence of overcapacity in China is mixed, depending on the definitions and the sector
- Utilisation rates have fallen in a number of industries in China, and its share of global exports, especially in clean tech is rising



# Is cheaper better?

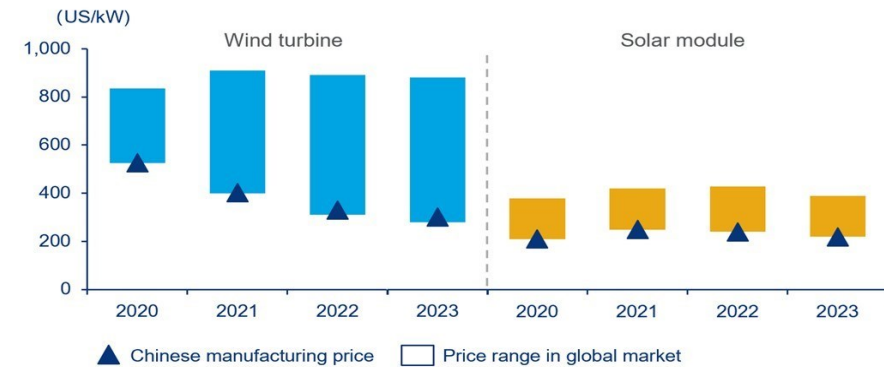
## China's renewables and battery manufacturing dominance



Note: more than 90% of the battery capacity will be used in the EV market

Source: Wood Mackenzie APAC Power & Renewables Service

## Global wind and solar equipment costs compared with China prices



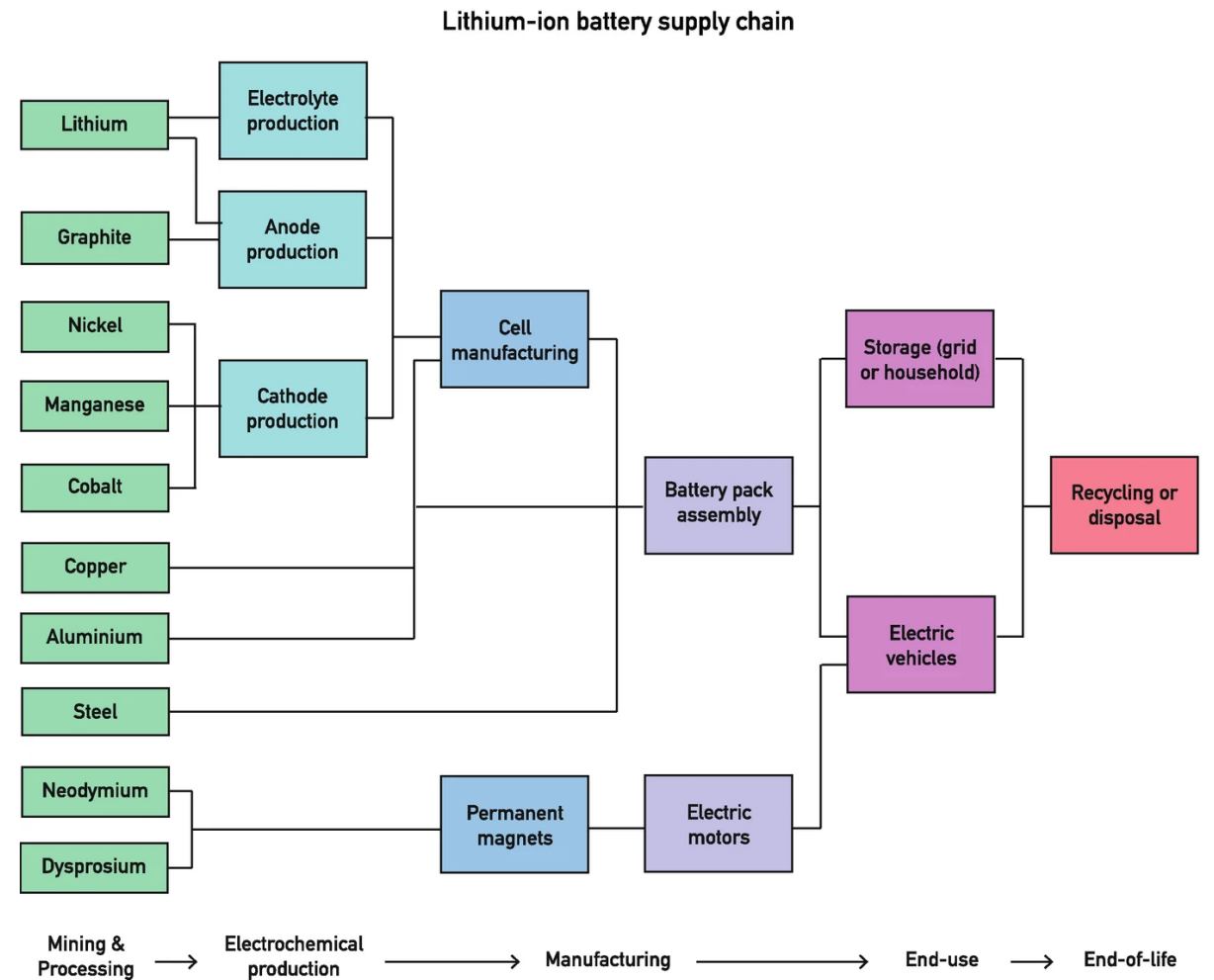
Source: Wood Mackenzie Lens Power

- The increase in production capacity in China has enabled steep cost declines globally and will allow rapid and less inflationary energy transitions
- But China is a commercial challenge as countries look to maintain or bolster their industries, especially autos and wind in Europe.
- China's cost declines in solar were achieved thanks to state support and came at the expense of industries in Europe and the US



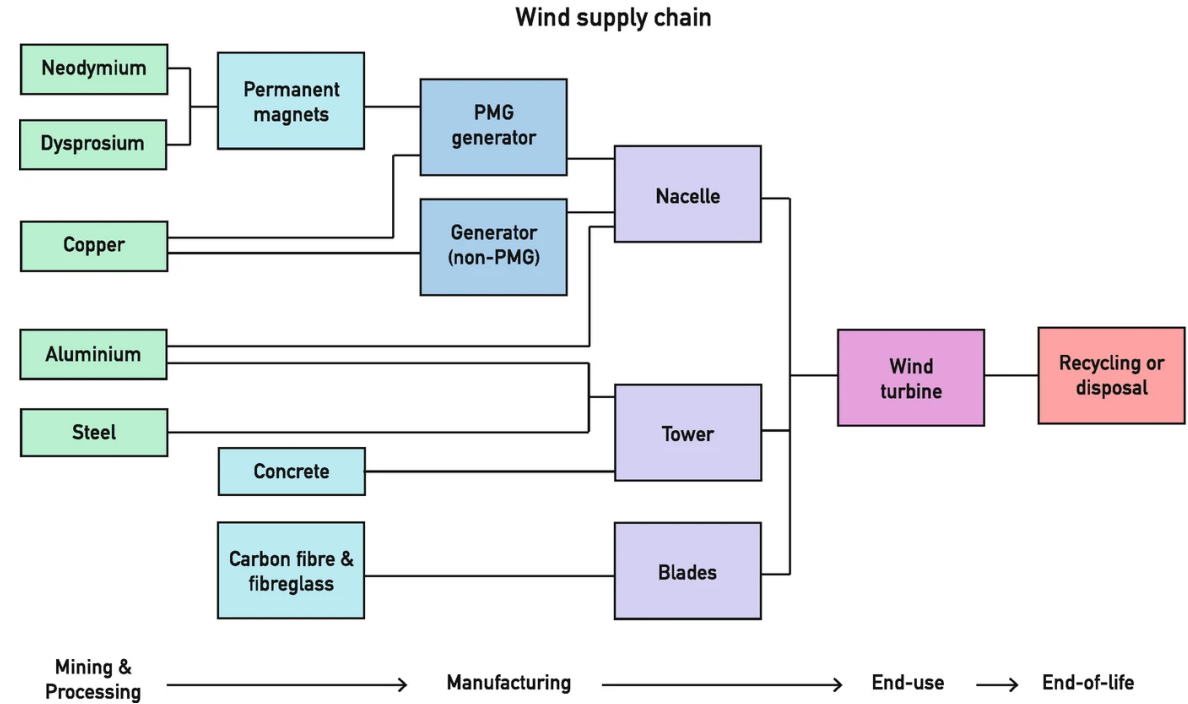
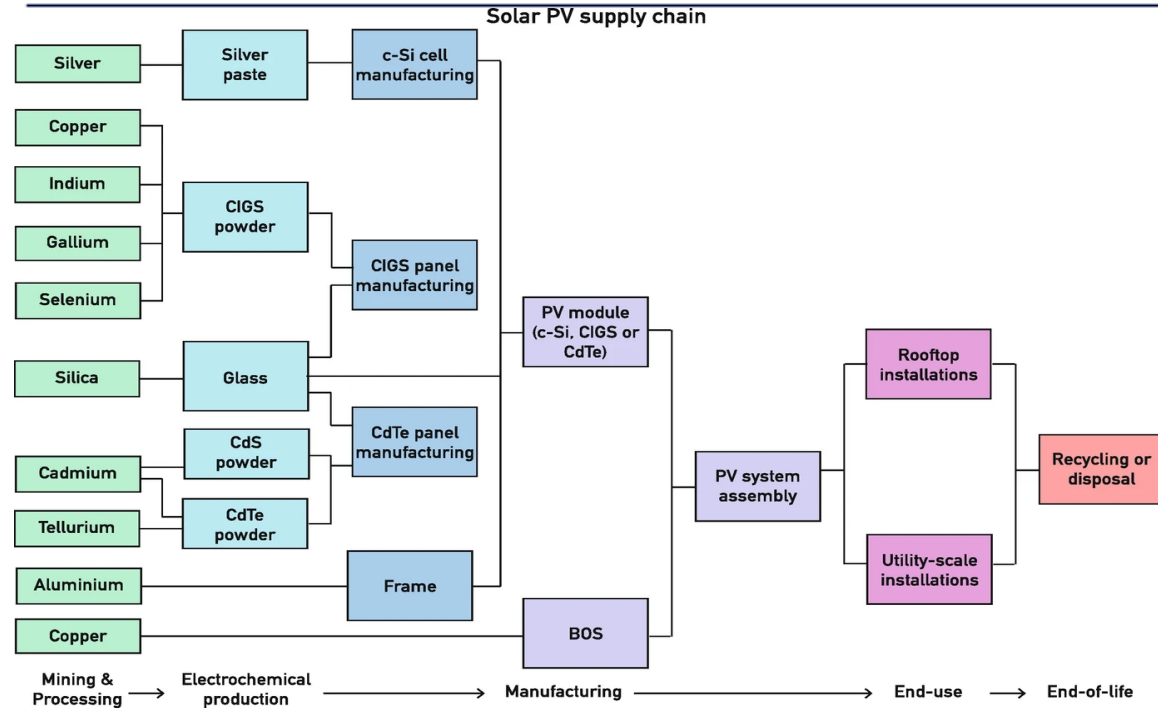
# A commercial and industrial challenge

- Dating back to the early 2000s, China issued supportive industrial policies at the central and local level.
- EVs, batteries, solar PV and wind all developed differently
- Some common factors:
  - State backing to create national champions especially when recognized as a “Strategic Emerging Industry” but many private companies in these sectors.
  - Government support for supply, demand and infrastructure.
  - Investments in R&D as well as forced technology transfers.
  - Gradual shifts from processing to upstream both domestically and overseas.





# China now leads many aspects of these complex supply chains



- There is more innovation and entrepreneurship in China than is commonly assumed/recognized
- The country has a large supply of skilled workers as well as broader eco-systems that support these supply chains.
- Manufacturing hubs and industrial clusters have led to increased efficiencies in industrial processes and rapid innovation
- Imposing tariffs and duties may keep Chinese goods and components out, but they won't necessarily lead to the creation of homegrown industries

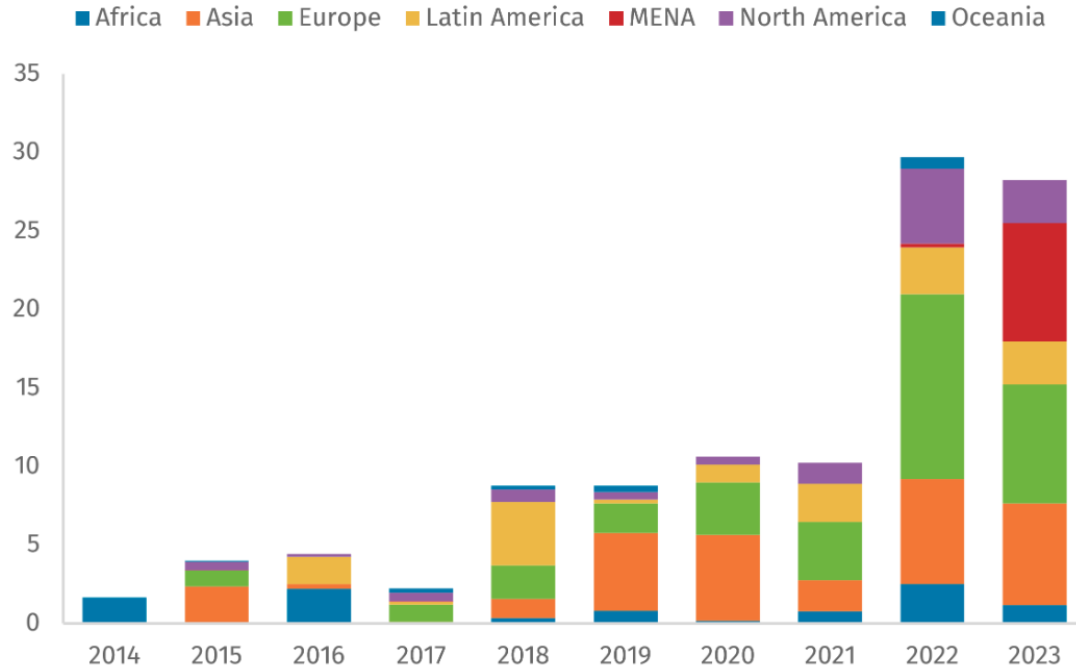




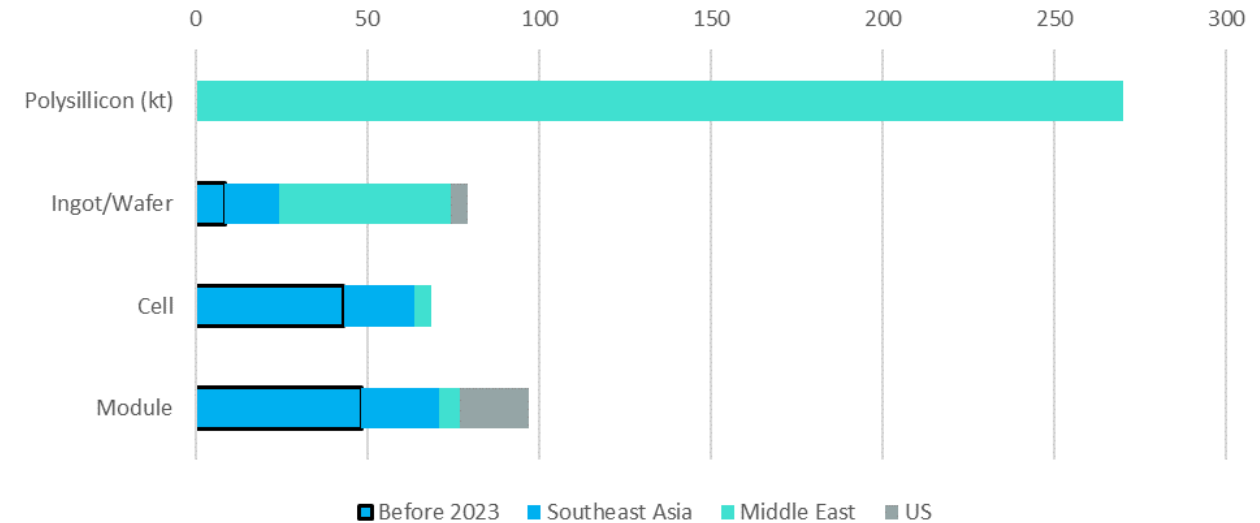
# Chinese companies are adapting rapidly

## Newly announced Chinese EV-related OFDI by host region

Billions of USD



## Chinese investments in the solar supply chain, GW

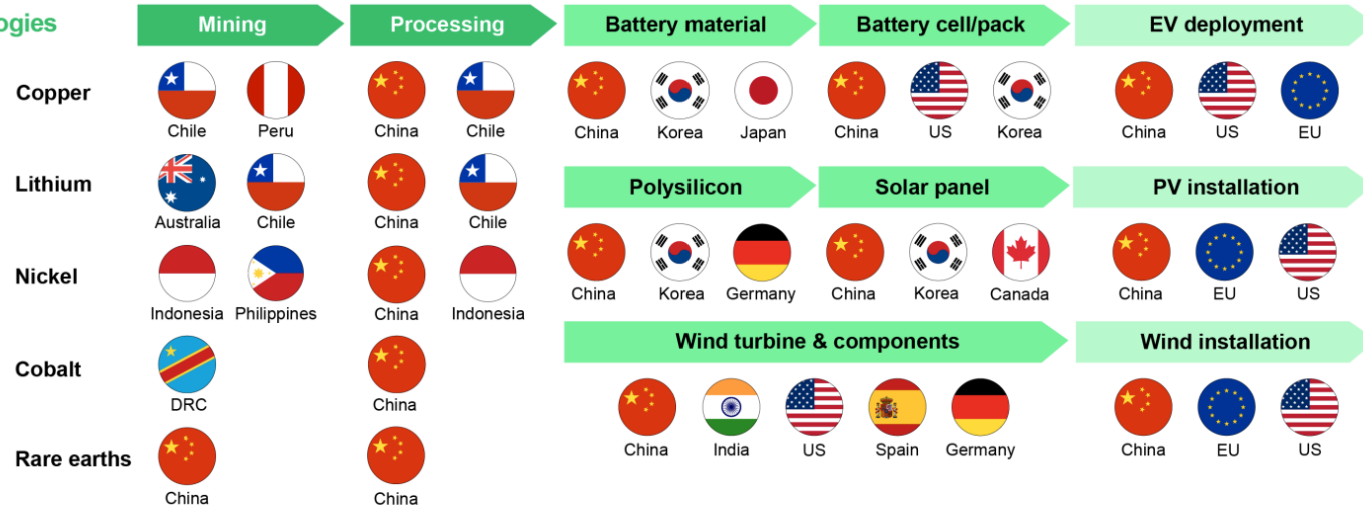


- Chinese companies are responding to trade protectionism by investing overseas.
- They are vertically integrated (often) and investing across the supply chain globally in part to deal with tariffs and duties but also in response to local government policies (Indonesia, Chile) and in response to Chinese export controls.
- The Chinese government can influence corporate actors but does not guide their every move



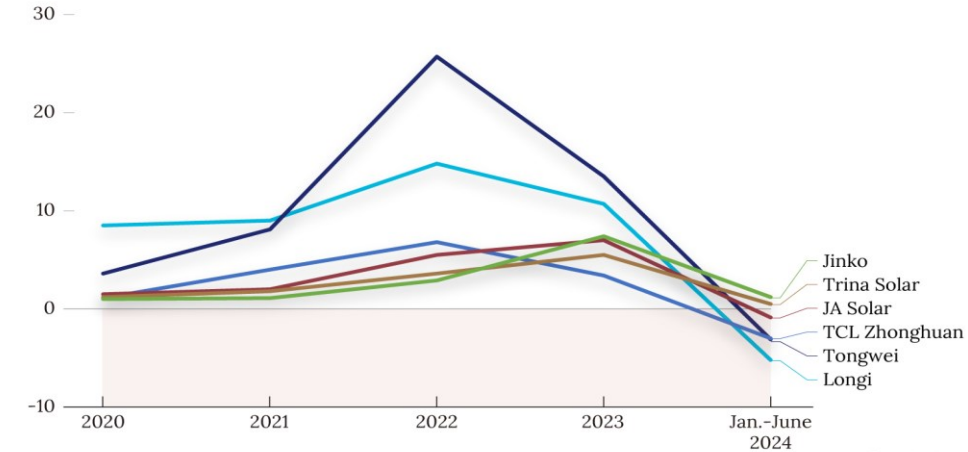
# Dependence and risk

## Clean technologies



## Profitability Plunges

Unit: billion yuan



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Source: Company financial reports

Caixin

- COVID and the Russian invasion of Ukraine highlighted the importance of diversified supply chains and energy supplies.
- Diversification is clearly required: power outages, climate risks will all impact manufacturing and industrial supplies so developing capacity outside of China is critical.
- China also has pricing power and is using it. The government regulates output and exports, sometimes to the detriment of Chinese companies.
- Is dependence on China a strategic threat? How do governments think about the trade offs between decarbonisation, de-risking and industrial competitiveness?





## Key messages

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- China continues to add industrial capacity, focusing on higher value added industries. But with slowing demand in China, exports are rising. This impacts a number of sectors including textiles, steel, aluminium, chemicals, oil products, and clean tech.
- The Chinese government is looking to beef up its industrial capabilities and ensure the resilience of its supply chains so exports will not go away.
- For the energy transition, the availability of low cost equipment is good.
- But Chinese competition is hard to rival. This is not just because of state subsidies.
- Chinese companies are innovative, entrepreneurial and benefit from highly developed manufacturing clusters in China.
- But overcapacity is impacting them too, margins are shrinking and they too need to export.
- China, which used to be a huge opportunity, is now a challenge.
- It dominates new energy supply chains, but what are the risks?
- Geographic concentration is a concern and will lead to bottlenecks.
- But supply security threats in new energy are vastly different to fossil fuels



# Thank you

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