



**CATL**

### What it does

Contemporary Amperex Technology Limited (CATL) manufactures lithium-ion batteries, which are swiftly becoming essential for the global electrification of transport and grid-level energy storage.

### Why we own it

- CATL is in the enviable position of facing two huge and consecutive growth opportunities, first EVs and then energy storage.
- CATL has astutely chosen to focus on the production of lithium iron phosphate (LFP) cells, in which it has a leading market position.
- LFP cells are increasingly attractive due to their safety characteristics, long lifecycle and are cobalt-free.
- Alignment with the Chinese government's evolving decarbonisation ambitions.
- Led by a visionary founder, Robin Zeng, who has proved adept at forming many fruitful partnerships, including VW, Ford and Tesla.

### How it could be worth many times more

- EV share of global auto market grows to 50 million vehicles by 2030, on CATL's capacity expansion goals it's on track to take a big share (blue sky maybe even 40%).
- Average price of an EV is \$30,000 by 2030. Innovation continues to lower battery prices to 15% of purchase price, implying \$90bn revenue for CATL.
- Over half of all global energy comes from renewable sources by 2030, fuelling demand for storage solutions. CATL ramps up production to secure a 40% market share - i.e. 6TWh of grid-level energy storage, over \$120bn revenue as upper bound.
- Maintaining an operating margin around 15%, the combined EV and storage revenue streams could see earnings >\$30bn by the early 2030s. By then, the wider energy transition (notably storage) is only just getting into full swing.

### Where we might be wrong

- A new battery technology disrupts CATL's competitive advantage.
- CATL are unable to maintain margins as battery costs fall.
- Automaker relationships do not bear fruit.

### Short 10 Questions

Can sales double in the next five years? 1

Absolutely, strong tailwinds backed by excellent execution. Growth is only constrained by supply, not demand.

Ten years and beyond? 2

Sustainable energy transition increases demand for CATL products, beyond EVs and into the grid. This could be a multi-decade holding.

Competitive advantage? 3

Astute and nimble R&D deployment.

Is the business culture different? 4

Yes, a highly skilled workforce obsessed with innovation.

Customers like you? Contribute to society? 5

Yes – providing cheaper solutions to their customers whilst accelerating the energy transition.

Are returns worthwhile? 6

Not yet, ramping up production capacity is expensive.

Will they rise or fall? 7

Rise with scale over the long term.

How is capital allocated? 8

Increasing capacity and R&D.

Could it be worth 5x as much? 9

Yes: 30x earnings of \$30bn = \$900bn and perhaps even more in the very long term.

What doesn't the market understand? 10

The energy storage market will add a second wind of growth.

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