China Watch

CAN ANYONE BEAT CHINA?

Rory Green

- Low costs, high tech and massive state support make China unbeatable in advanced manufacturing
- Most of the world will run on PRC-produced tech in five to 10 years
- The result? Equity winners in China and a profound shift in geoeconomic power

China has a unique combination of factors that make its firms likely to dominate across almost all areas of advanced manufacturing in the next five to 10 years (in terms of software, it is marginally less competitive). Those factors are: 1) a 30% share of global manufacturing; 2) DMlevel technology; 3) an EM like cost base; and 4) massive state support. This is an unprecedented set of advantages that means a non-Western nation will be at the forefront of world tech hardware output for the first time since before the industrial revolution. Chinese dominance in science and technology will have profound geoeconomic consequences. Protectionism may limit its reach in DMs but the rest of the world is likely to run on PRC hardware. A Huawei/BYD/CATL/DeepSeek sphere of influence is not difficult to imagine. While it will not be sufficient to power growth (unless a Chinese firm produces the EV equivalent of the Ford Model T), it will generate profits and drive equity valuations. Since November 2023, we have maintained a long-term buy and hold rating for China tech; now is a good time to add/build positions.

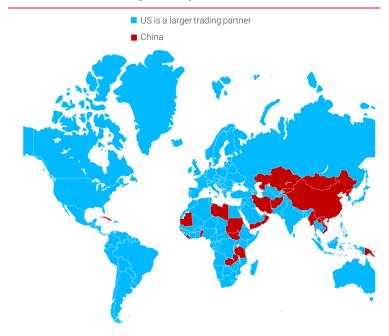
China's share of global exports is currently 17% and the country accounts for 30% of global manufacturing. No country, with the exceptions of the US during WWII and Great Britain in the early stages of the industrial revolution, has ever had a larger share of global production. China's emergence as a manufacturing powerhouse is nothing new: it has long been the factory of the world. A large, educated and until recently inexpensive workforce, coupled with stable probusiness governance, competitive supply chains, ever-improving infrastructure, persistent excess savings, and a cheap RMB, has enabled PRC firms to win, maintain and expand market share.

40% India China --- Middle East •••• W. Europe Share of world GDP PPP 30% 20% **Industrial revolution** 10% Reform & opening 0% 1000 1500 1600 1700 1820 1870 1913 1950 1973 2003 2008 2015 2020 2023

Chart 1: China sat out the industrial revolution, Xi will not miss the next one

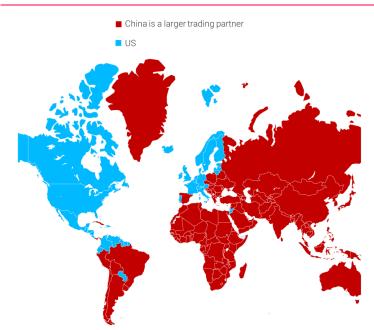
Sources: The World Economy: Historical Statistics, TS Lombard.

In 2000 the US had greater power



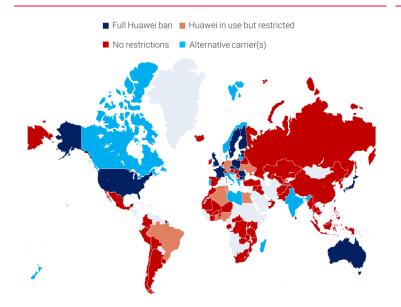
Source: CEIC, GlobalData TS Lombard

By 2024 trade had shifted to China



Source: CEIC, GlobalData TS Lombard

Technological power is moving as well



Sources: Foreign Policy, GlobalData TS Lombard

Geopolitical heft is likely to follow



Source: GlobalData TS Lombard. *Crimea shown under de facto Russian control

The PRC's rapid move up the tech value chain is the more striking development. Chinese firms have been localizing production for many years, gradually increasing the domestic value added content. For instance, the first high-speed trains and nuclear reactors each had just 30% of domestically sourced components; today, that share exceeds 90% (in both cases). Since 2015 onwards, market-driven import substitution has been replaced by active localization – a trend that has accelerated in the post-Covid years. (Chart 2)

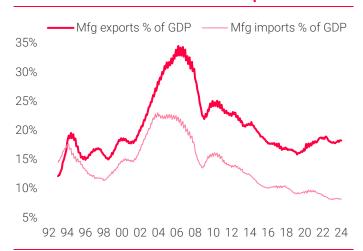
National mobilization. We have <u>written</u> about China's "Sputnik moments" triggered by the Huawei and ZTE bans and the start of America's "tech war" and we forecast that Beijing would respond with aggressive "national mobilization" to spur local innovation. Already focused on science and security, Xi Jinping went all in on "tech, tech, tech", which he sees as the panacea for an array of domestic problems – from growth and security to demographics and military.

For Xi, a historical thinker, technology is power: we attribute his focus on hardware to Chinese scholars' analysis of the country's "century of humiliation". The chart above on shares of global GDP shows that China's "lost century" came after it had missed out on the last industrial revolution. Xi is making sure his nation is at the forefront of the next one. (Chart 1)

How does China do it? As we have written numerous times (here and here), China is focused on a new economic model based on "high-quality growth". Put simply, it is seeking to reallocate resources away from property towards higher productivity industries that have long-term economic and security payoffs. Excessive savings, which in the old model were channelled into property, are now flowing into policy-favoured sectors. Both direct (equity and bond returns, state and private VC funds) and indirect (special lending by banks) financing have made high-tech sectors extremely attractive – especially relative to property. (Chart 4)

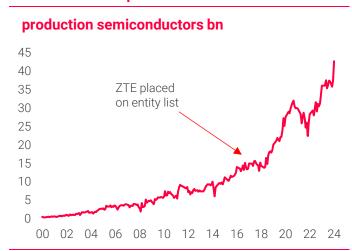
National mobilization towards tech involves not only fiscal and monetary support but also a political, human-resource and propaganda push. At the most recent Chinese New Year Gala (the most watched TV programme in the world with more than 1bn views), dancing humanoid robots were featured prominently (and predictably related equities have soared) (link here). Scientific breakthroughs are often the first item featured on CCTV news broadcasts. Cadres at all levels have seen their KPIs switched from growth to innovation. The result is that a broad array of actors within the economy – from graduates, politicians and investors to prospective founders and existing corporates – are incentivized to work towards tech goals. And while the Chinese approach to industrial policy creates waste – overcapacity (chart 9) is rife in most policy-favoured

Chart 2: Made in China 2025 cuts imports



Sources: CEIC, TS Lombard.

Chart 3: China's Sputnik moment



Sources: CEIC, TS Lombard.

sectors - it does eventually produces national champions, scientific breakthroughs and often bankrupts foreign competition.

The playbook is working. China does not need to be first to break through the scientific frontiers to enjoy success (although in many sectors it is already doing so). The PRC superpower is manufacturing. Investment in policy-favoured sectors now far outstrips that in property. China has more patents (chart 5) and STEM graduates than any other nation. Solar, generative Al, EVs, batteries were pioneered in the US but are now manufactured in China. Bain estimates that it is 20% cheaper for China to design and produce an EV. Famously, DeepSeek was built on a budget.

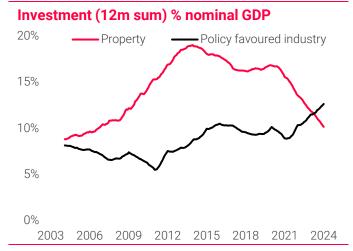
As the saying goes: the US creates, China makes and Europe regulates.

China trade shock 2.0 is just beginning. The unique amalgamation of tech prowess with EM costs (although at the upper end of EMs), enormous state support and a massive industrial base makes Chinese corporates formidable competitors in most existing and emerging manufacturing industries. Foreign firms get squeezed first in China and then in world markets. The Samsung smartphone business is a good case study: the firm's share of PRC sales went from 20% in 2013 to less than 1% by 2018; and while the Korean giant and Apple are just about holding market share globally, all the growth is from Chinese competitors. A similar dynamic has occurred in an array of industries and is now evident in EVs: BYD is less than two years from launching solidstate batteries. Robotics, aviation and semiconductors are next.

Tariffs as a first response. In DMs with large industries in direct competition with Chinese firms, trade restrictions are the logical initial response. The US is leading the way, with tariffs on EVs, solar and many other industries, coupled with outright bans on Huawei and ZTE. Europe has followed, albeit more slowly, but is now finally waking up to Chinese competition. It will become increasingly difficult for PRC corporates to sell into US and EU markets. The corollary of trade controls is a more expansive – dare we say Chinese-style – industrial policy focused on promoting domestic industry. This is a policy mix that is likely to prove inflationary in the near term, but one that we think will contribute - in Europe - at least to better-than-expected structural growth prospects.

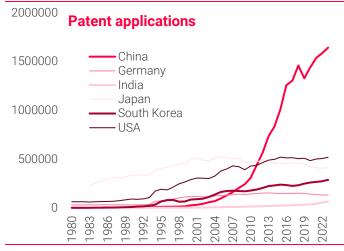
For the rest of the world, where domestic high-tech producers are few and far between, it makes sense to buy the cheaper Chinese product, especially if purchases are incentivized with promises of investment or an RMB loan. Restrictions on access to DMs will further channel PRC output towards RoW. Just as the first China trade shock delivered a disinflationary impulse globally, so,

Chart 4: The new growth model



Sources: CEIC, TS Lombard.

Chart 5: Quantity has a quality all its own



Sources: WIPO, TS Lombard.

too, will the second. Moreover, for those countries partnered with China as investment/manufacturing hubs (including Vietnam, Mexico, Hungary and Brazil), capital flows and technical know-how could prove structurally growth positive, as they did for China during the 1990s and 2000s. Outside a select group of China proxies, however, the challenge to industrialize will be intensified by Chinese competition, DM reshoring and automation. India might be able to break the mould, by utilizing the promise of its domestic market and Western firms' desires for a China +1 strategy; but even on the subcontinent, it will be increasingly difficult to follow the East Asian model to achieve middle-income status.

The US, Europe and select allies account for 60% of world GDP. Sales success in EM will be enough to deliver significant profits for individual companies but insufficient to power a US\$18trn economy. EM growth projections are decent over the time horizon of the next decade, but their growth forecasts often are; and any real catch-up to DM will take time. China could, however, break through on price. Famously, the Ford Model T was the first car that factory workers could afford, unlocking new avenues of consumption. Low-cost air travel, smartphones and PCs are among the more recent examples of cost reductions enabling significant increases in spending. China has already achieved this in solar (chart 10) and could do so in a number of other industries – EVs, arguably, are the next candidate but are hindered by EM infrastructure. Were Chinese products sufficiently cheap and/or non-Western markets sufficiently large, exports could make a viable contribution to growth. For now, US and EU tariffs pose a real threat to China GDP.

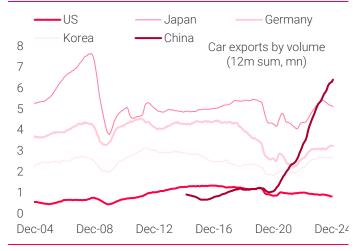
Barring a few exceptions, the West has enjoyed a monopoly on advanced manufacturing for well over 100 years. What will it mean for Chinese tech to underpin daily life for most of the world's population? Shifting geoeconomic power is one obvious consequence. As the maps above show, China has already surpassed the US in trade with most countries around the world. In the coming years, PRC firms may well do the same vis-à-vis their DM counterparts in multiple categories of advanced tech hardware – from robotics, energy and aerospace to 5G infrastructure, batteries and semiconductors. The adoption of Huawei 5G equipment by country is an indicator of this kind of progress. There is a clear EM and China overlap between trade and Huawei adoption as well as a political overlay, as the diagram plotting sanctions against Russia suggests. If the current trade, political and technology trends continue, two distinct hardware "spheres" could eventually form: a protected, higher cost DM powered by US and East Asia innovation; and the rest of the world, where cheaper Chinese goods dominate. Beijing's global power could rise even as its growth rate continues on a structural slowdown.

Chart 6: World trade share at all time high



Sources: CPB, TS Lombard.

Chart 7: China trade shock 2.0



Sources: CEIC, TS Lombard.

What about markets? China equity indexes have received a major boost from DeepSeek's breakthrough. We have long maintained a buy and hold preference for China policy-favoured tech (here). In November 2023, we wrote that "investing with the Party" into areas such as "electric vehicles, clean energy, 5G and advanced telecommunications, robotics, semiconductors" would outperform despite a structural slowdown. The HSCEI China tech index is up 48% since then. Cyclically, we have been overweight MSCI China since late October 2024 and upgraded our 2025 <u>GDP forecast in Januarv.</u> However, powerful tailwinds notwithstanding, it can be difficult making money in policy favoured sectors. Industries tend to go through three stages:

- An initial surge in valuations and funding following explicit policy backing;
- Intense competition and price wars;
- Consolidation around one or more globally competitive national champions.

Serious upside is possible when investing during Stage 1 and just before Stage 3, but identifying the next sector or price war winner can be challenging, not least as Stage 2 is characterized by overcapacity (chart 9) and slim profits that can last for a number of years. The safer approach is to back incumbents with proven track records in pivoting to new industry such as Tencent, Xiaomi, Huawei and, to a lesser extent, Alibaba.

For those looking to pick new winners, now is a good time. The "Made in China 2025" period is over as is the 14th Five-Year Plan. Beijing is working on its successor, the 15th Five-Year Plan, which will focus heavily on science and innovation. As a result, nascent industries will be pushed into Stage 1 of the scheme outlined above. We will be picking our sectoral winners in a preview of the 15th Five-Year Plan later this year (new materials is our early tip for a quasi-emerging sector). Meanwhile overcapacity and still cheap valuations make stock selection in more mature industries worthwhile. Valuations are beginning to adjust to reflect improving global prospects for PRC firms but have yet to price in China's hardware advantage.

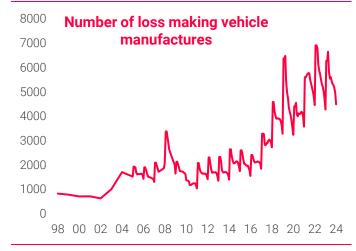
Beyond China, investors should screen portfolios for firms exposed to PRC competition - both in the Middle Kingdom and elsewhere around the globe. BYD outselling Tesla across much of Europe, Toyota losing market share in Southeast Asia and, of course, DeepSeek shaking up chip market valuations are some of the more prominent examples.

Chart 8: China tech rally



Sources: BBG, TS Lombard.

Chart 9: Overcapacity built into industrial policy



Sources: CEIC, NBS, TS Lombard.

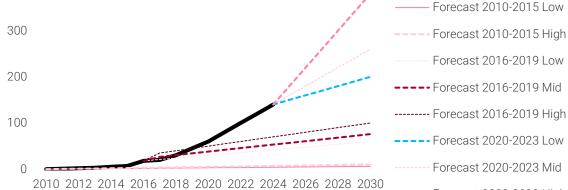
In summary, China has a unique combination of factors that makes its firms likely to dominate across almost all areas of advanced manufacturing in the next five to 10 years (in terms of software, it is marginally less competitive. Those factors are: 1) a 30% share of global manufacturing; 2) DM-level technology; 3) an EM cost base; 4) the ability to provide enormous state support. This is an unprecedented set of advantages that will lead to profound shifts in geoeconomic power, generate significant profits for Chinese firms and set off a China trade shock 2.0.

400 EIA projections for US solar capacity (GW)

——Actual Capacity (GW)

——Forecast 2010-2015 L

Chart 10: Price reductions changed the game in solar



Sources: EIA, TS Lombard calculations.

---- Forecast 2020-2023 High



Rory Green Chief China Economist Head of Asia Research

Disclaimer

This report has been issued by TSL Research Group Limited in conjunction with its subsidiaries Lombard Street Research Limited, Lombard Street Research Financial Services Limited, and Trusted Sources UK Limited (together "TSL Research Group"). This report is intended to be viewed by clients of the TSL Research Group only. The contents of this report, either in whole or in part, shall not be reproduced, stored in a data retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without written permission of TSL Research Group.

The information and opinions expressed in this report have been compiled from publicly available sources believed to be reliable but are not intended to be treated as advice or relied upon as fact. Neither TSL Research Group, nor any of its directors, employees or agents accepts liability for and, to the maximum extent permitted by applicable law, shall not be responsible for any loss or damage arising from the use of this report including as a result of decisions made or actions taken in reliance upon or in connection with the information contained in this report. TSL Research Group does not warrant or represent that this report is accurate, complete, or reliable and does not provide any assurance whatsoever in relation to the information contained in this report. Any opinions, forecasts or estimates herein constitute a judgement as at the date of this report based on the information available.

There can be no assurance that future results or events will be consistent with any such opinions, forecasts, or estimates. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied is made regarding future performance. This information is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed and it may not contain all material information concerning the company and its subsidiaries. The value of any securities or financial instruments or types of securities or financial instruments mentioned in this report can fall as well as rise. Foreign currency denominated securities and financial instruments are subject to fluctuations in exchange rates that may have a positive or adverse effect on the value, price or income of such securities or financial instruments. This is a generic research report and as such does not have regard to the specific instrument objectives, financial situation, and the particular needs of a client. Clients should seek independent financial advice regarding the appropriateness of investing in any of the types of financial instrument or investment strategies discussed in this report.

By reading this report you accept TS Lombard's terms and conditions.

Registered Office: John Carpenter House, John Carpenter Street, London, England, EC4Y 0AN. Registered in England No. 10232483

8