



China: Advancing manufacturing for a new era



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China's entrepreneurial culture, large end market and robust supply-chain are unique factors that will help advance its manufacturing industry. Together with the government's strong commitment, we are optimistic that many Chinese companies will emerge as tomorrow's global leaders across multiple sectors.

China's call to advance its domestic manufacturing industry at the October 2020 [Plenum](#) came amid the COVID-19 pandemic outbreak and heightened US-China geopolitical tensions. The early days of the pandemic had wreaked havoc in global supply chains and had raised questions in both developed and emerging countries on whether there was a need to locate production facilities closer to home. At that time, the Trump administration had succeeded in cutting off most of China's access to specialised semiconductor chips and equipment that were needed to build 5G telecommunication networks, hobbling China's 5G ambition.

THE ODDS IN CHINA'S FAVOUR

As China seeks to advance its manufacturing industry, a number of factors positions it well.

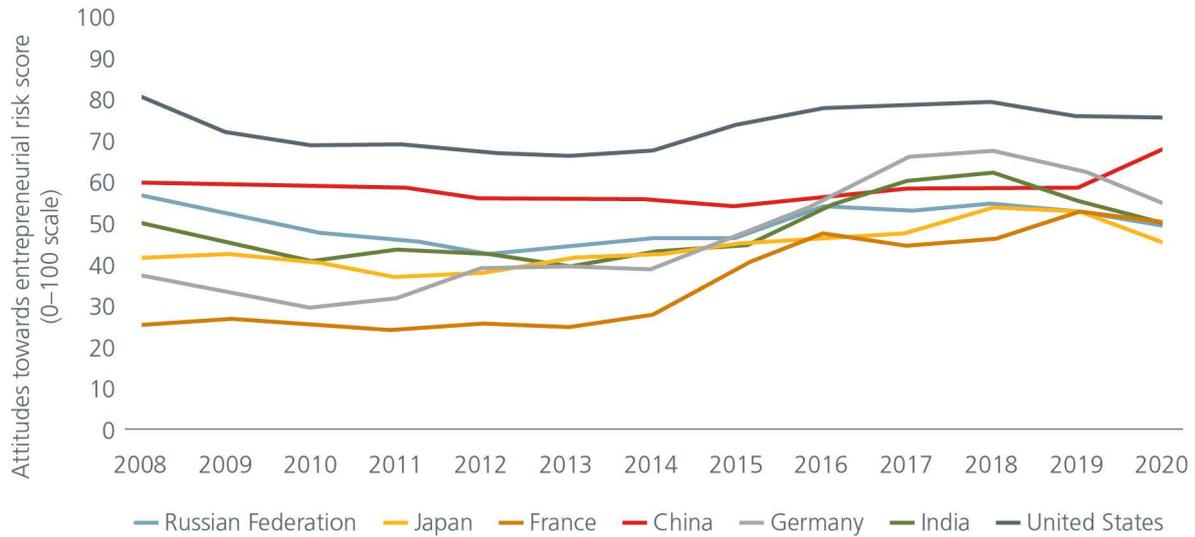
Globally, only a handful of countries has been responsible for the bulk of new inventions.

Although Japan and the US still account for the largest shares of global patent applications at 26% and 19% respectively, China's share has risen from almost zero in 2005 to 10% in 2018, in line with Germany's¹.

Meanwhile, an entrepreneurial culture, as measured by attitudes towards entrepreneurial risk, reigns high in China. See Fig. 1. Historically, a strong entrepreneurial culture has been correlated to the establishment of start-ups, unicorns and tech-hubs in other countries.

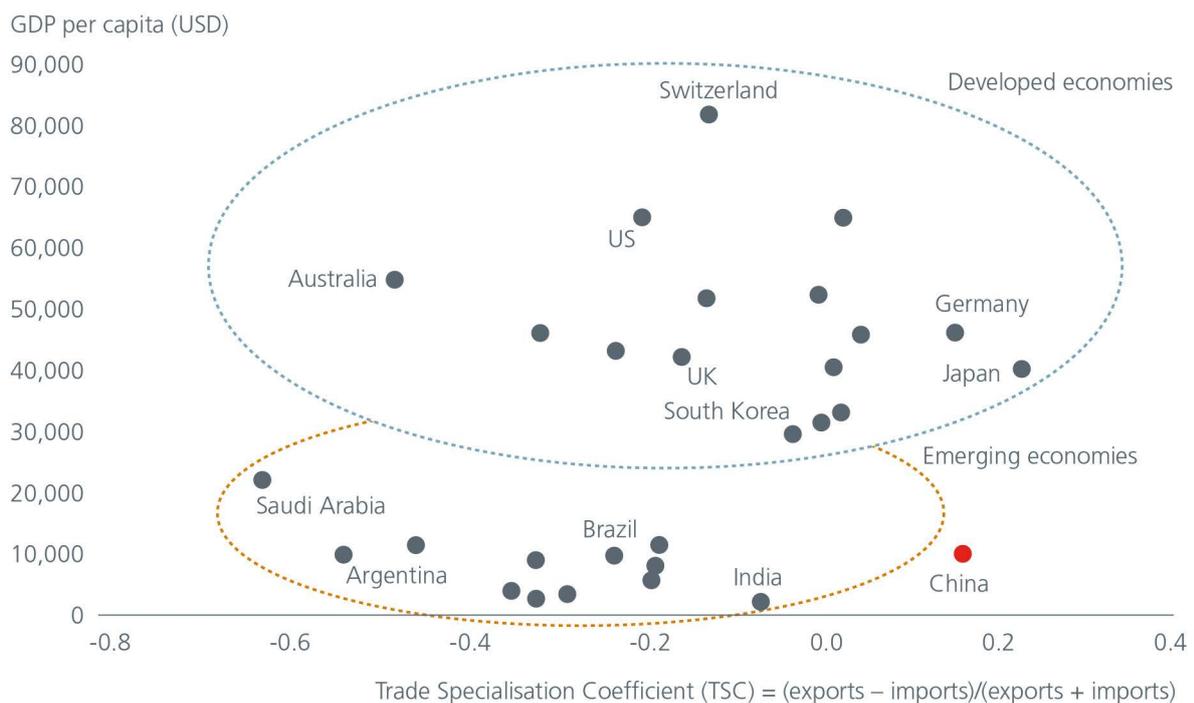
China also benefits from having a large end market (which helps to drive unit costs down), a robust supply chain eco-system as well as a relatively well-developed infrastructure. Fig 2. shows the uniqueness of China's manufacturing industry where it can offer better technologies compared to low-cost emerging countries, and at the same time, a lower cost option compared to developed countries.

Fig. 1: Trends in attitudes towards entrepreneurial risk, selected countries (2008 – 2020)



Source: World Economic Forum Executive Opinion Survey 2008 – 2020 series. Note: The Attitudes towards entrepreneurial risk indicator corresponds to responses to the survey question “In your country, to what extent do people have an appetite for entrepreneurial risk? (1 = not at all; 7 = to a great extent).”

Fig. 2: Global Trade Specialisation Coefficient vs GDP per capita



Source: Data as of 2017. Wind Info, CICC Research.

The ability of China to gain export market share during the COVID-19 pandemic reflects the resilience of China's supply chains. China's share of global exports reached 17.2%² in April 2020 and is reported to have hit a record high in the seven months to July 2020, boosted by global demand for its healthcare equipment and technology products³. For the full year of 2020, China's exports grew 3.6%yoy and its trade surplus reached a five-year high (USD585b). Meanwhile, China's competitiveness in the smartphone handset and telecommunications equipment industries is widely acknowledged and potentially presents a playbook for an increasing number of industries to become more competitive. Selected industrial companies within the Factory Automation supply chain have recently indicated that a Factory Automation upcycle is emerging in China, partly aided by accelerating import substitution and an increase in Electric Vehicle platforms⁴.

INDUSTRIAL REVOLUTION 4.0

The desire by the Chinese authorities to lift the value add and quality of China's manufacturing output could probably not come at a more opportune time, as we are in the middle of the Fourth Industrial Revolution.

The fortunes of economies have waxed and waned across the different industrial revolutions. In the First Industrial Revolution, rural, agricultural societies transformed themselves into industrialised and urban economies by harnessing steam and water power to mechanise production. In the Second Industrial Revolution, countries leveraged electric power for mass production. In the 1960s and 1970s, Japan and Germany transferred light industry, textile and other labour-intensive processing industries to the Four Asian Dragons (Hong Kong, South Korea, Singapore and Taiwan) as well as selected Latin American countries. In the 1980s, developed countries such as Europe, the United States and Japan, as well as the newly

industrialised countries in Asia (including the Four Asian Dragons) moved labour-intensive, low-tech industries to developing countries such as China. China then became known as the "world's factory".

In the past decade, as China's demographic dividend diminished, rising wages and anti-dumping duties led the textile, electronics, tires and other processing trade sectors to shift to Vietnam, India, Thailand, Cambodia and other Southeast Asian countries.

The Fourth Industrial Revolution brings technology breakthroughs in artificial intelligence, robotics, Internet of Things, 3-D printing and quantum computing. We believe that China would be able to leverage these innovative and emerging technologies to raise the quality and competitiveness of its manufacturing industry.

THE NEW "MADE IN CHINA"

In 2020, the Chinese government rolled out subsidies, tax benefits and targeted credit support to help develop the auto, New Energy Vehicles, 5G, integrated circuit, medical services/equipment and clean energy sectors. For example, USD100bn-plus worth of subsidies were made available to chip-related companies. Top universities in China also upgraded their engineering curriculum.

In March 2020, the Chinese government extended tax benefits and subsidies for New Energy Vehicles (hybrid and electric) by another two years. During 2020, China's National Energy Administration (NEA) and the National Development and Reform Commission (NDRC) had also pledged to spend more than USD360 billion developing renewable energy and creating 13 million jobs in the sector.

There has also been rising co-operation within the medical device sector among companies, research institutes, universities and medical institutions

to lift innovation, shorten the R&D process and accelerate the industrialisation of innovative medical devices. In the [medical aesthetics sector](#), the top three local players already account for 42.4% of China's Hyaluronic Acid filler market.

We expect the state, provincial and local governments to extend further policy support and to encourage greater R&D spending in key sectors. We continue to look for opportunities within the new energy, industrial automation, construction machinery, medical devices, automobiles and home appliances sectors and are optimistic that many Chinese companies will emerge to become tomorrow's global leaders.

This is the third of six articles in Eastspring's 2021 Asian Expert Series. In this new series which focuses on China, our investment teams offer insights into the opportunities and challenges facing China as it rolls out its 14th Five-Year Plan.

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