

## EXPORTING DISTORTIONS: CHINESE INDUSTRIAL POLICY AND THE EUROPEAN RESPONSE

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**T**he effects of China's industrial policy are felt beyond its borders. On the one hand, foreign companies see their trade with China reduced, while at the same time those same companies must compete in other markets with Chinese businesses that have benefited or are benefiting from its industrial policy, which tilts the playing field. So, what begins with a gradual erosion of market share in China becomes a decline in market share in other countries. In other words, market distortions that begin in China do not stay in China.

This paper focuses on Chinese industrial policy and its repercussions for the global economy. It studies the case of medical technology goods to show how Chinese industrial policy moves from the general – strategic plans and general lines – to the specific – increased market share for Chinese companies in the medical technology sector. Deciphering the Asian giant's industrial policy “playbook” in this sector allows us not only to understand how its industrial policy applies in a given industry, but also to untangle the process by which economic policy acts as a lever to position Chinese companies at the technological vanguard in other sectors.

### **1. Chinese industrial policy: plans, policies, successes and failures**

China's industrial policy is shaped by several different plans, strategies and documents. The general lines are set out in “Made in China 2025”, which was published by the government in 2015 and aims to transform Chinese companies into leading global high added-value manufacturers. More recently, the “dual circulation” policy aims to reduce China's dependence on the rest of the world and to this end promotes domestic consumption of domestic products rather than those of foreign manufacturers (García-Herrero, 2022).

These strategies are complemented by sectoral measures and plans at state and provincial levels that give concrete content to the general strategic lines mentioned above. The measures include concessional loans, government procurement that favours domestic industry and research and development (R&D) incentives in the form of public funding, tax breaks and subsidies for R&D spending.

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The success of China's economy and its industrial policy in certain sectors is unquestionable. For example, the country has become one of the world's leading exporters of active pharmaceutical ingredients (APIs). Indeed, Chinese companies' market share of European Union (EU) of EU imports of APIs grew from 5% (by value) and 12% (by volume) in 2010 to 7% and 22%, respectively, in 2019. Public procurement policies have played a part in this success, such as "China 4+7", which supported the generic medicines industry (Burton, 2019). Solar panels are another well-known example, where Chinese producers increased their share of global exports from 4% in 2002 to 42% in 2019. In its 11th Five-Year Plan (2006–2010), the government granted Chinese solar companies subsidies and favourable access to credit, while at the same time strengthening control over the raw materials that are essential to producing the panels (Erixon et al., 2021). More recently, the growth in Chinese machinery and equipment exports saw them contribute 17% of the global total in the sector in 2019, partly thanks to government subsidies (Szamosszegi, 2009).

And yet, all that glitters is not gold. For example, despite years of state support, Chinese companies continue to lag behind in the semiconductor industry and have failed to break the dominance of Airbus and Boeing in the aeronautics sector. Meanwhile, provincial governments have at times sought to foster their own industrial champions to pursue national goals, resulting in excess capacity and undermining national industrial policy objectives. Barwick et al. (2019) show how subsidies to the Chinese shipbuilding industry between 2006 and 2015 led to the entry and expansion of inefficient companies, while bringing in only mediocre profits.

Nevertheless, the gestation of industrial policy – be it the "Made in China 2025" initiative or the sectoral plans – and its successes and failures are part of a process by which the government uses public policies to shape the market so that Chinese companies can prosper. The following section presents the government's industrial policy "playbook" in the medical technology sector.

## **2. Case study: Chinese industrial policy and the medical technology sector**

In 2014, President Xi Jinping declared the need to accelerate the localisation of high-end medical devices, reduce production costs, and promote the continuous development of domestic companies (Chinese Central Government, 2014). In April 2021, the Five-Year Plan (2021–2025) set a medical technology goal of having at least six Chinese businesses in the top 50 global medical device companies. With only four Chinese companies currently in the top 100, and none in the top 50 (Chinese Department of Equipment Industry, 2021), this is an ambitious goal.

In the past, most medical devices produced in China were low-cost high-volume items, while international manufacturers supplied high-end devices to Chinese hospitals. In recent years, this commercial pattern has changed radically. The change is in part a natural reflection of Chinese companies' improved capacity for innovation and their ability to serve a market whose demand has increased substantially as a result of the COVID-19 pandemic. Between 2019 and 2020, the number of Chinese medical technology

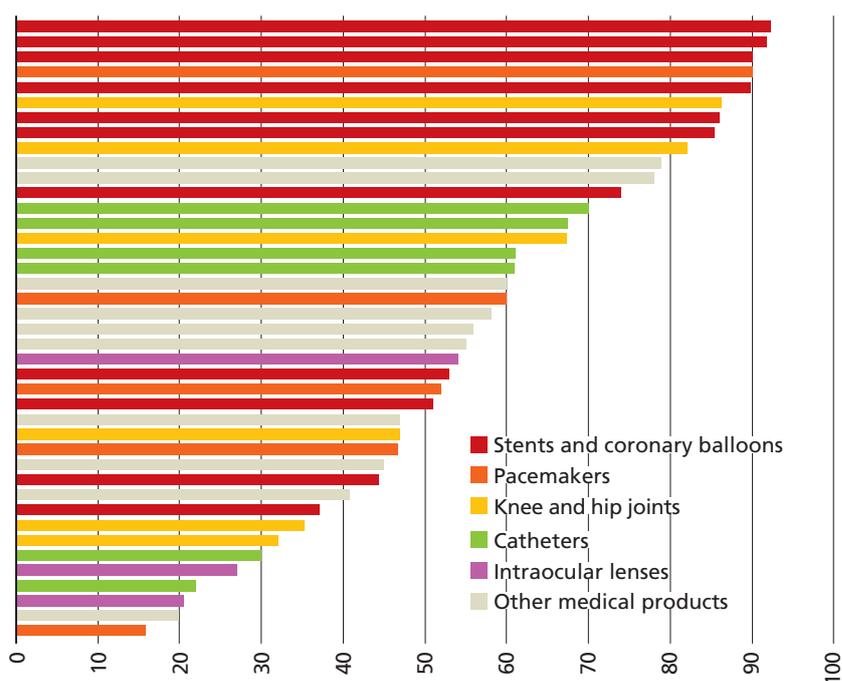
manufacturers grew by 46% and exports of these products increased by 33% (China Department of Comprehensive and Planning Finance, 2020).

But Chinese medical equipment exports grew much more strongly than those of European companies. This increase was not only down to higher sales of personal protective equipment like medical gowns, masks and gloves due to the COVID-19 pandemic. Exports of relatively sophisticated medical devices such as electrodiagnostic, radiation and dental devices rose too. China’s medical technology trade balance – the difference between exports and imports of these products – rose from a deficit of €1.3 billion in 2019 to a surplus of €5.2 billion in 2020 (Erixon et al., 2021).

One of the key industrial policy tools has been the centralisation of public tenders as a way to encourage domestic production of “Made in China” medical technology. Following the example of the pharmaceutical sector, both the central and provincial governments have used public procurement to shape the medical technology market. Former Premier Li Keqiang summed this process up: China should centralise public procurement in order to concentrate industry (Zhou Chencheng, 2020).

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**Figure 1. Falling prices in medical technology tenders in China 2019–2021**



Source: Erixon et al. 2022a

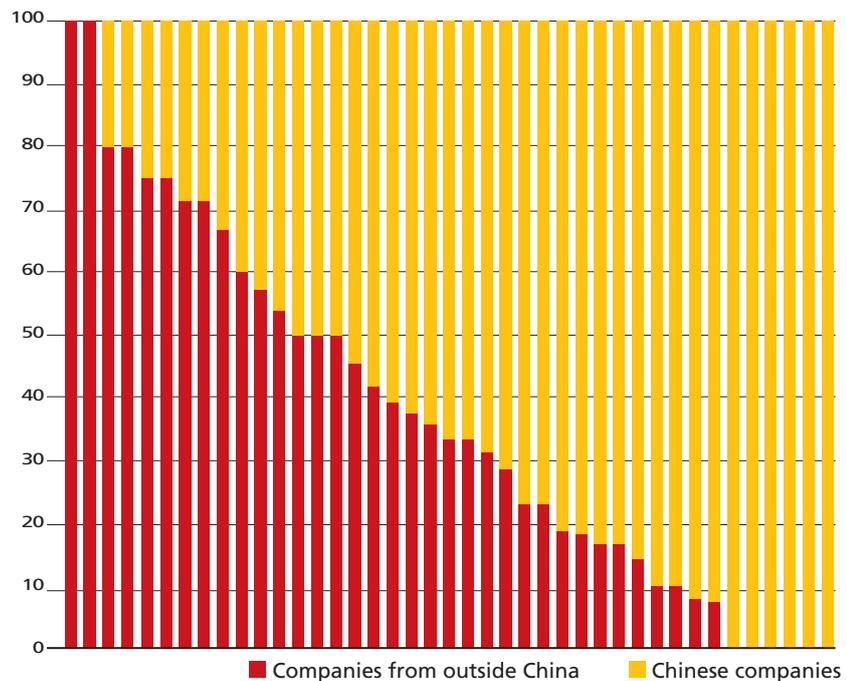
Centralised public procurement of medical supplies – which in several cases involves a single tender for groups of cities or provinces that are home to tens of millions of people – seeks to create a monopsony, which is similar to a monopoly, except that the purchaser receives most of the profit from each transaction. A monopsonic market usually contains few suppliers because the buyer tends to reduce the sellers’ margins, leading the number of companies to fall. Meanwhile, the buyer – in this case the Chinese government

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– has so much power over the market that they can introduce other objectives besides securing a lower price. With the Chinese medical technology market, centralised state procurement reinforces the industrial policy that promotes domestic production.

The effects of centralising public procurement of medical technology and making the market a monopsony are becoming clear. In recent years, medical device tender prices have fallen up to 90% (Figure 1), partly thanks to public subsidies, and an increasing number of Chinese companies have won these tenders (Figure 2). At the same time, the market is becoming consolidated, and the number of medical technology companies per million inhabitants accessing public contracts is much lower in China than in Europe (Erixon et al., 2022a). In general terms, this is the Chinese industrial policy “playbook” in the medical technology sector. The end result is a more concentrated market in which both size and economies of scale prevail when it comes to achieving cost reductions, and where Chinese companies supply a growing proportion of the national market.

**Figure 2. Percentage of Chinese and non-Chinese companies winning medical technology tenders 2019–2021**



Source: Erixon et al. 2022a

**Table 1. Chinese and European exports of medical technology to Africa, Asia and Latin America and the Caribbean (2019 and 2020, in billions of euros and as a year-on-year percentage)**

	Africa			Asia			Latin America and the Caribbean		
	2019	2020	%	2019	2020	%	2019	2020	%
<b>European Union</b>	2.5	2.6	5%	19.9	19.6	-2%	3.0	2.9	-5%
<b>China</b>	0.7	0.8	26%	5.8	7.5	29%	1.1	1.6	46%

Source: Erixon et al. 2021

Chinese industrial policy directly affects Western companies. One example is the impact on the European medical technology industry, which directly employs over 650,000 people in the sector's 33,000 companies (95% of which are SMEs). These companies are the leading exporters of medical technology to China, accounting for 34% of all Chinese imports of these products in 2020. Nevertheless, between 2019 and 2020 purchases of European medical technology decreased. The drop in Chinese imports was most notable in products for which the government organised centralised public procurement. At the same time, as Table 1 shows, Chinese exports of these products showed positive growth between 2015 and 2020. The figures not only show that foreign production was replaced by domestic production, but also that Chinese companies gained market share abroad.

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### 3. Europe's response to Chinese industrial policy

European governments are well aware that China's industrial policy distorts prices and competition in China, in third countries, and in the EU. In response to this industrial policy and the distortions it provokes in the European economy, the EU is preparing two regulations that aim both to dissuade China from using industrial policy and to tackle its negative effects: an international public procurement instrument and a foreign subsidy instrument.

The international public procurement instrument will allow the EU to restrict access to its public tender market to companies from countries where European companies face restrictive or discriminatory measures when accessing public procurement. To do this, the regulation adjusts the rating scores for the proposals for a tender, or excludes offers from countries subject to the public procurement<sup>1</sup> instrument. This measure, which is applied to public contracts worth over €5 million, could restrict Chinese companies' access to the EU public procurement market, which is estimated to be worth over €2 trillion. The European Union could use this new tool to negotiate with the Chinese government to change the public policies that discriminate against European companies in the Chinese public procurement market.

The foreign subsidy instrument, meanwhile, aims to tackle the distortions foreign subsidies create in the single market. To this end, the European Commission may impose corrective measures on foreign companies that benefit from public subsidies in mergers and acquisitions, public procurement and the sale of goods and services by foreign subsidiaries in the EU that distort the functioning of the internal market. The measures may include blocking investments or obliging subsidies to be repaid. Once this instrument is approved, the EU will be able to investigate these subsidies and respond to the tension between the EU's relatively strict rules on state aid and the growing competition in the internal market from companies from outside the EU that benefit from state subsidies, as is the case of certain Chinese companies.

In parallel, the EU has deployed a more active industrial policy. For example, it has relaxed competition rules to allow certain state subsidies in Important Projects of Common European Interest (PCEI) in sectors like microelectronics and electric batteries, and has proposed a regulation

1. A more detailed analysis of the international public procurement instrument and the international subsidy instrument, as well as other trade defence measures currently under consideration by the EU, can be found in Erixon *et al.* (2022b).

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to support the production of semiconductors in the EU. Europe's industrial policy approach is not so different from China's "dual circulation" strategy, insofar as the EU also seeks to reduce its foreign dependency. In the case of China, its dependence is limited (Guinea, 2022). The EU has, meanwhile, abandoned the competitiveness agenda, relying on a European industrial policy that prioritises the interests of dominant companies over entrepreneurship and economic dynamism.

#### 4. Conclusion

China's industrial policy creates market distortions whose effects reverberate beyond its borders. Both because of its size and the government's active role in the country's economic development, Chinese industrial policies have a direct effect not only on the Chinese market but also on third countries and on the EU itself – and by extension on foreign companies, including European ones. From the EU point of view, the measures described in this article are intended to achieve fairer competition between the EU and China, in addition to tackling distortions in China's industrial policy in the single market. However, these policies treat the symptoms of the problem, rather than the root: the only way to counter China's ability to attract business and investment is to implement policies that improve the competitiveness of Europe's economy and companies.

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