

## Financial Times 번역요약본 ('25. 6/4)

### 1. Solar market shifts in Europe could give the industry a break ('25. 5/23)

- 2000년대 초 EU는 세계 최대 태양광 패널 제조 지역이었으나 지금은 주도권을 중국에 완전히 넘겼음. (2023년 기준, 세계 태양광 모듈의 85%, 태양광 전지의 92%를 중국 기업이 생산) 그러나 최근 태양광 산업에서 윤리적 기준과 지역 조달 요건에 대한 관심이 높아지며, 가격 외의 요소들도 공급업체 선정에 영향을 줄 수 있다는 기대가 생겨나고 있음. 영국 정부는 지난 4월, 국영 에너지 기업이 중국 강제노동과 연관된 패널을 사용하지 않도록 할 것이라고 밝혔는데, 2024년 기준, 전 세계 폴리실리콘 생산량의 약 5분의 1은 중국 신장 지역에서 만들어졌고, 이곳은 위구르족 인권 탄압 의혹으로 서방 정부의 우려를 받고 있음. 또한 EU는 '넷제로 산업법 (Net Zero Industry Act)'를 통해 공공 조달 시 공급망 회복력 등 가격 외 요소도 평가 기준으로 삼도록 했으며, 이와 함께 병원이나 공공 건물의 지붕 패널을 조달할 EO는 '유럽산 우선 구매'를 요구하는 목소리가 점점 커지고 있음. 가격 경쟁력에서 여전히 열세이어서 이같은 조치가 큰 효과를 발휘할지는 미지수이나, 유럽 제조업체들의 암울한 분위기를 조금은 덜어줄 수 있을지 모른다는 기대.

### 2. Dollar notches biggest weekly drop since tariffs sell-off over US debt fears ('25. 5/24)

- 미국 달러는 5/23일 주요 통화 바스켓 (유로, 엔 포함) 대비 0.9% 하락했으며, 5월 4주 기준으로는 2% 하락하여, 트럼프 대통령의 '해방의 날' 관세 발표 이후 가장 큰 주간 낙폭을 기록하였음. 최근에는 미국과의 무역 협상에서 환율 강세를 유도하는 조치가 포함될 수 있다는 기대감에 따라 한국 원화와 대만 달러 등 아시아 통화들이 강

세를 보이고 있음. 또한 트럼프의 감세 정책이 미국의 재정 적자를 악화시킬 것이라는 우려는 이번 주 미국 장기 국채 매도세로 이어졌으며 이는 다른 시장 전반에도 부정적인 영향을 주었음. 일부 애널리스트들은 단기적으로 투자자들이 달러 노출을 헤지하고, 장기적으로는 미국 자산에 대한 구조적 과잉 투자를 재검토할 것으로 예상하며, 달러 약세가 계속될 수 있다고 전망함.

### 3. 'Rich and naive': why Singapore is engulfed in a 'scamdemic' ('25. 5/26)

- 온라인 친화적이고 규범을 잘 따르는 싱가포르 시민들이 온라인 사기 범죄조직의 주요 표적이 되고 있음. 싱가포르 경찰에 따르면, 2023년 신고된 (온라인) 사기 금액은 11억 싱가포르 달러고 전년 대비 70% 증가하였으며, 피해자 중 2/3 이상이 신고조차 하지 않아 실제 피해는 이보다 클 것으로 추정됨. 이는 연간 약 1조 달러에 달하는 전 세계적인 범죄 산업의 일부이며, 싱가포르는 부유하고 디지털 인프라가 잘 갖춰져 있으며, 규범에 순응적인 시민들이 많아 사기의 주요 표적이 되고 있음. 캄보디아, 미얀마, 라오스에는 거대한 사기 콜 센터가 운영되고 있으며, 이곳에서 일하는 인력조차도 인신 매매 피해자인 경우가 많음. 주요 사기 유형으로는 전자상거래 사기, 구직 사기, 로맨스 사기, 정부 공무원 사칭 사기, 악성코드 기반 사기, 비즈니스 이메일 해킹 사기 등이며, 싱가포르에서 신고된 사건의 80% 이상은 피해자 스스로 돈이나 암호화폐를 송금한 경우임. 대부분의 피해자는 Meta 계열의 페이스북, 왓츠앱, 인스타그램을 통해 접촉되었으며, Meta는 2024년 들어 미얀마, 라오스, 캄보디아, 필리핀 등의 사기 조직과 관련된 7백만개 이상의 계정을 차단했다고 밝힘.

### 4. BYD's aggressive push is setting baseline for what an EV should cost ('25. 5/28)

- 중국의 BYD는 자사의 전기차 및 하이브리드차 22종의 가격을 인하하며, 대표 모델인 '시걸 (Seagull)'의 가격을 고급 로드바이크보다도 낮은 수준인 5만 5,800위안 (약 7,780달러)로 떨어뜨렸으며, 이는 더 큰 전략의 일환으로 보임. 시걸은 이미 전 세계적으로 저렴한 EV로 꼽혔지만, 이번 가격 인하는 그 격차를 더욱 벌려놓았음. 이러한 가격 인하는 전기차 산업이 성장세 둔화 국면에 접어든 시점에 나왔고, 대부분의 자동차 회사라면 이 같은 상황에 생산 감축이나 프로모션 축소로 대응했겠지만, BYD는 배터리부터 반도체, 설계 및 생산까지 모두 자체 수행하는 수직통합 구조 덕분에 공격적으로 나설 수 있다는 분석. 경쟁사들이 가격을 내리면 수익성에 직접 타격을 입지만, BYD는 오히려 시장 점유율과 미래 가격 결정권을 확보하며, 실제로 BYD는 최근 수년간 최대 30%에 달하는 가격 인하를 단행했음에도 2021년 이후 총이익률이 상승세를 이어오고 있음. 이러한 가격 공세는 자동차 산업에서 보기 드문 수준이며, 2010년 대 스마트폰 시장의 변화를 떠올리게 함. 2013년 이후 하드웨어는 범용화되었고, 소비자들은 혁신보다 가성비를 중시하게 되었으며, LG, 노키아, 블랙베리, 소니에릭슨, 모토로라 등 과거 강자들은 빠르게 사라져갔고, 글로벌 규모를 갖춘 수직통합 기업인 애플과 삼성만이 생존하였음. 결국 전기차 시장은 수익률 게임으로 변하고 있으며, 이 경쟁에서 살아남을 수 있는 기업은 극히 일부일 것. 단일한 기술 혁신보다 더 강력한 파괴력은, BYD가 EV 가격의 기준점은 다시 썼다는 사실 그 자체라는 분석.

## 5. The lessons from China's dominance in manufacturing ('25. 5/28)

- 독일 자동차 제조업체인 아우디의 중국 북부 전기차 공장은 중국의 대표 산업정책인 '중국 제조 2025 (Made in China 2025)'의 성과를 상징적으로 보여주는 사례임. 창춘의 이 공장에는 중국 기업이 만든 산업용 로봇들이 곳곳에 배치되어 프레스 기계는 금속판을 도어 패널로 가공하고, 중국 소유의 쿠카 (Kuka) 로봇 800여대가 차체 용

점을 맡으며, 바퀴 장착도 중국 업체의 자동화 시스템이 담당하며, 근무조다마 로봇이 인간 노동자를 능가할 정도임. (중국은 현재 노동자 1만 명당 로봇 수에서 독일을 앞섬) 2015년부터 시작된 이 정책은 로봇, 고속철, 조선, 항공우주, 전기차, 차세대 IT 등 10대 첨단산업에서 70 이상의 국내 시장 점유율 달성을 목표로 하였고, 그 결과 전 세계 제조업 판도가 바뀌고 있으며 중국과 서방 간 무역 마찰을 야기하였음. 중국은 정부 지원, 보조금, 정책유도 자금 (국가지도펀드 약 800개, 총 2.2조 위안)에 치열한 내수 경쟁과 민간 기업의 혁신성을 결합해 다수 산업에서 기술 선진국과 대등하거나 우위에 있는 수준까지 성장하였음. 최근 한 보고서는 4가지 지표 (수입 의존도 감소, 외국 기업 의존도 감소, 기술 선도, 글로벌 경쟁력)로 각 산업을 평가하였고, 이 중 4개 지표를 모두 충족한 전면적 성공 분야는 고속철도와 전력 장비이고, 부분 성공은 로봇, 기계공구, 농기계, 전기차 등이고, 진행이 미흡하거나 혼합된 분야는 신소재, 항공우주, 바이오의료기기 분야로 분석되었음. 하지만 EU 상공회의소는 중앙정부의 정책 신호에 지방정부들이 경쟁적으로 뛰어들며, 과잉투자과 공급과잉이 나타나고 있으며, 예를 들어 전기차 시장은 112개 제조사 중 흑자 기업은 3곳뿐이고, 태양광 및 배터리 사업은 활황과 폭락 사이를 순환하며, 고부가 산업보다 생산량 확장에 치중하고 있다고 지적함. 중국은 제조업을 국가의 핵심 생존 기반으로 인식하며, 향후에도 '새로운 질적 생산력'이란 이름으로 기술 중심 산업 정책을 강화할 전망이지만, 일부 전문가들은 생산 중심 산업구조가 소비 위축과 투자 의존을 심화시키고, 고부채 및 적자기업 증가로 재정 여력이 약화되며, 단기 성과 중심 정책이 장기 생산성 및 혁신을 저해할 우려가 있다고 지적함. 이에 대해 세계는 자국 산업 보호를 위한 무역 장벽의 강화 필요성, 기후 기술, AI, 반도체 등 핵심 분야에서의 보호주의 정책 강화 필요와 중국식 모델 모방 가능성을 탐색하면서도 과도한 국가 개입 리스크도 인식하며 대응해야 한다는 주장.

## Opinion **Lex**

### Solar market shifts in Europe could give the industry a break

An increased focus on ethics and local procurement may dent the allure of cheap Chinese panels



The EU was the world's biggest solar power manufacturer in the early 2000s but long ago lost its edge to China  
© Reuters

Published 3 HOURS AGO

There has been little light relief for European manufacturers of solar panels over the past few years. A glut of cheap Chinese solar panels triggered a flurry of factory closures, [bankruptcies](#) and downsizing as the bloc's domestic companies struggled to compete.

But now, an increased focus on ethics and local procurement in the solar industry has sparked hopes that price may no longer be the defining factor when solar developers choose suppliers.

UK ministers said in April that Britain's state-owned energy company would be [forced to](#) make sure it doesn't use any solar panels linked to Chinese forced labour. In 2024, about a fifth of the world's polysilicon was produced in China's Xinjiang region, where western governments have alleged human rights abuses of the Uyghur community. Such initiatives might force some European project developers to consider sourcing from domestic solar panel manufacturers.

Further help should come courtesy of the EU Net Zero Industry Act. [Formally cleared last year](#), this will require public authorities to consider other criteria, such as supply chain resilience, when procuring clean technologies through auctions and the like. There are also calls for authorities to ['buy European'](#) when sourcing, say, rooftop panels for hospitals and public buildings.

Domestic clean technology companies struggle to compete on price. But when other factors are introduced, they have a fighting chance. In solar, the regulations could potentially create a market for products that meet resilience requirements of up 9 gigawatts of capacity as early as 2026, reckons trade body SolarPower Europe. On top of that, solar installations on public rooftops will grow over time.

### Chinese solar module prices have dropped dramatically



Source: BloombergNEF

Of course this all smacks of stable doors and horses already having bolted. The EU was the world's biggest solar power manufacturer in the early 2000s but long ago lost its edge to China. In 2023, Chinese-headquartered companies produced 84 per cent of the world's solar modules and 92 per cent of solar cells, according to BloombergNEF.

As things stand, the 'resilience market' created by new EU regulations would represent less than 14 per cent of the solar capacity added in the bloc last year. There are no guarantees that all of that will go to domestic suppliers. Panels made in countries such as India could potentially also qualify as they would not be sourced from the overwhelming global market leader.

Meanwhile, Chinese-made panels are still dirt cheap at about \$0.09 per watt, on BloombergNEF data, down from \$1/watt at the start of 2012. A focus on ethics and resilience will not a bright summer make. It may, though, take the edge off the Europeans' ghoulis pallor.

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## US dollar

# Dollar notches biggest weekly drop since tariffs sell-off over US debt fears

Currency down 2% over the five days amid concerns over impact of Trump's tax-cutting bill



The dollar has slid this year as investors have grown concerned about the impact on the US economy of President Donald Trump's sweeping tariffs © Al Drago/Bloomberg

**Emily Herbert** and **Ian Smith** in London

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Investor jitters about the state of the US's public finances spurred the dollar to its biggest weekly drop since President Donald Trump's "liberation day" tariffs announcement rocked markets at the beginning of April.

The US currency fell 0.9 per cent on Friday against a basket of peers including the euro and the yen. The move took its decline for the week to 2 per cent, the biggest drop for six weeks, as Trump's tax bill added to concerns over rising US debt levels. That has come as some investors question whether to reduce their huge overweight [positions in dollar assets](#), on concerns about erratic policymaking and the president's trade war.

“Lingering fears over the quality of US asset markets and the threat of de-dollarisation are continuing to weigh on the dollar,” said Chris Turner, global head of markets research at ING.

He cited recent data indicating outflows from US assets, as well as a statement from G7 finance ministers on Thursday that mentioned “unsustainable global macro imbalances”.

That “looked a clear reference to the large Asian trade surpluses with the US”, said Turner.

US Treasury secretary Scott Bessent on Friday sought to play down investor concerns over the weakening of the [dollar](#).

“I think a lot of it is other countries strengthening, or other currencies strengthening, as opposed to the dollar weakening,” he said in a Bloomberg TV interview. A “fiscal expansion” in Europe was boosting the euro, Bessent said, while the Bank of Japan’s interest rate increases are supporting the yen.

### Dollar slides

ICE US dollar index



Source: LSEG via markets.ft.com

Bets that some Asian countries might make trade agreements with the US that include measures to strengthen their foreign exchange rates against the greenback have supported a string of currencies including the Korean won and Taiwanese dollar in recent weeks.

“Renewed investor concerns over the US fiscal outlook, alongside speculation that the Trump administration is seeking to weaken the dollar in discussions with other countries, have contributed to the sell-off,” said Lee Hardman, senior currency analyst at banking group MUFG.

Investor anxiety that Trump’s tax-cutting bill could worsen the US deficit has fuelled a [sell-off in long-term US debt](#) this week, dragging other markets lower.

That has pushed the 30-year Treasury yield up 0.13 percentage points this week above 5 per cent.

“Investors’ concern over the escalating US fiscal burden is slowly building,” said analysts at BBH.

The dollar has slid this year as investors have grown concerned about the impact of Trump’s sweeping tariffs on the US economy. That has included periods of falling at the same time as US government bonds and stocks are dropping, which has been taken as a sign of investors shedding dollar assets. Typically, higher yields increase the attractiveness of dollar assets.

“The thing that’s most troubling is how the dollar is reacting to high US rates,” said Michael Metcalfe, head of macro strategy at State Street Global Advisors.

“When currencies and bond prices move in the same direction, that’s reflecting a dent in policy sustainability,” he added, saying the break in usual correlations “makes you think there is something more structural at play”.

Analysts at RBC BlueBay Asset Management said they expected the dollar weakening to continue as investors look to hedge their exposure to the greenback in the short term and rethink a “structural overallocation” to the US in the longer term.

*Additional reporting by Steff Chávez*

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## 'Rich and naive': why Singapore is engulfed in a 'scamdemic'

City-state residents who spend a lot of time online and are naturally compliant with authority are especially vulnerable

Owen Walker in Singapore

Published 5 HOURS AGO

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Singaporean actor Laurence Pang had always told himself to stay alert for scams, particularly online, but when he met a young Filipina woman called Mika on a dating website, he happily engaged in conversation with her.

Over the course of several months, Mika convinced Pang, who has appeared in popular sitcoms over a long career, to invest nearly S\$40,000 (US\$30,000) of [cryptocurrency](#) into an ecommerce venture.

But when he was unable to access his investment, he asked for a face-to-face call with Mika, only to discover that the person on the video bore little resemblance to the photos on Mika's profile.

"Like many people in my age group, I am used to receiving funny-looking messages," said the 78-year-old. "But this was much more subtle."

Pang is just one of tens of thousands of [Singaporeans](#) to fall foul of scams last year, who lost a total of S\$1.1bn, according to police, a 70 per cent increase on the previous year. The true figure could be even higher, according to the Global Anti-Scam Alliance, which estimates that more than two-thirds of Singaporean victims did not report their experience.

This is a small part of a global criminal enterprise worth an estimated \$1tn, but Singaporeans, affluent, digitally advanced and compliant, are particularly vulnerable to these scams. As one person involved in the recovery of assets put it: "They are rich and naive".

Huge scam centres operate in Cambodia, Myanmar and Laos, often staffed by people who are themselves victims of human trafficking.



Laurence Pang © Laurence Pang/Instagram

“Vast south-east Asian call centres are where much of this activity originates,” said Nick Court, assistant director of financial crime at Interpol, which identifies the region as the hotbed for romance, impersonation and phishing scams.

For the last two years, Singaporeans have been among the biggest scam victims worldwide. In 2023, they lost the most money of any country at \$4,031 each, compared with second-placed Switzerland at \$3,767 and third-placed Austria at \$3,484. While the figure fell in 2024, the number of scam cases reported to Singaporean police rose 10 per cent on the previous year to 51,501.

Scams have become so widespread that [Singapore's](#) government has even discussed corporal punishment for offenders. “We believe in caning as a strong deterrent,” said Loretta Yuen, chair of the fraud committee at the Association of Banks in Singapore. “It’s a deterrent, but there is also a sense of revenge to it.”

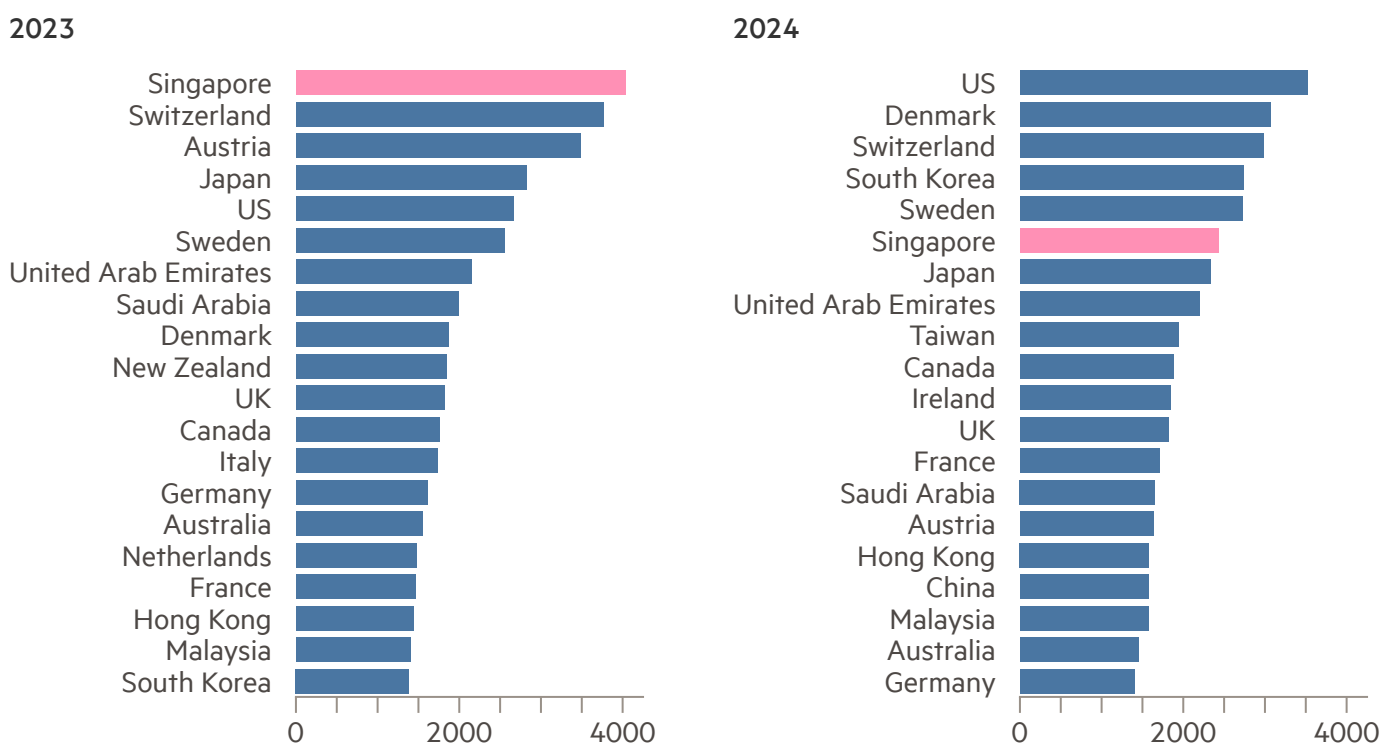
While the majority of incidents involved losses of less than S\$2,000, thousands of victims have handed over their life savings to fraudsters, who often pose as bank employees or even public officials.

[Common deceptions include](#) e-commerce scams, job scams, romance scams, government official impersonation scams, malware-enabled scams and business email compromise scams.

In more than 80 per cent of reported cases in Singapore, the victims are manipulated into transferring money or crypto assets themselves.

### Scam victims in Singapore suffer some of the highest losses in the world

Estimated average loss per victim (\$), top 20 countries in 2023 and 2024



Source: Global Anti-Scam Alliance, Feedzai • Data based on surveys of 49,459 samples from 43 countries in 2023, and 58,329 samples across 42 countries in 2024. The average amount lost was calculated by averaging the reported losses from participants in each country, excluding outliers

Increasingly, scammers are [using artificial intelligence](#) and deepfake videos. The Monetary Authority of Singapore in March warned of scammers using AI tools to impersonate regulatory officials and instruct victims to transfer money from corporate bank accounts.

The fact that Singapore's banks have invested heavily in improving their digital capabilities can mean that money transfers through the system and into criminals' hands too fast to be caught. As a result, some banks are now trying to introduce more "friction" into the system by delaying transfers and putting in more checks and balances.

It typically takes about 30 minutes for criminals to transfer stolen funds out of the Singaporean banking system.

"By the time it comes to the banks, the victims are already under such a heavy spell that it's very hard for us to stop them from making the transfers — especially in romance, investment and government impersonation scams," said Yuen, who is also head of legal and compliance at OCBC, one of Singapore's biggest banks.

Most victims in Singapore are contacted through Meta-owned Facebook, WhatsApp and Instagram, authorities say.

Meta said it was investing in new technology to remove scam content from its platforms. It added that since the beginning of 2024, it had detected and disrupted more than 7mn accounts linked to scam centres in places such as Myanmar, Laos, Cambodia and the Philippines.

But even the police initiatives to combat scams are being hijacked by fraudsters. There were more than 1,500 reported cases of scammers impersonating government officials last year, police said.

In some cases, scammers have called victims, pretending to be police officers from the Anti-Scam Centre scam itself — a hoax whose success rests in part on Singaporeans' compliance with authorities.

Reflecting on his case, Pang regrets not spotting warning signs such as receiving calls from people claiming to be from the Philippines-based e-commerce company but with Japanese phone numbers.

Pang believes the woman he was communicating with was being coerced, as she was wary of showing him around her room when they arranged a video call.

"The most important thing to remember is that any time money or crypto is mentioned, it is a massive red flag," he said. "You can be sure at that point that it is a scam."

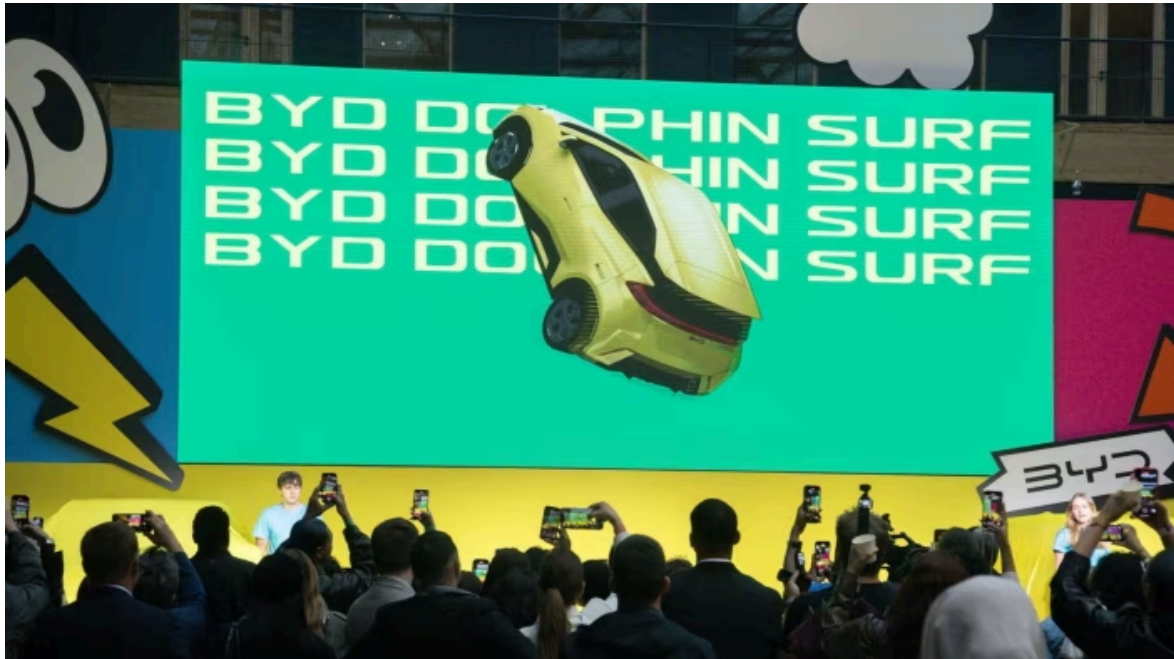
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**Opinion Business Insight****BYD's aggressive push is setting baseline for what an EV should cost**

There is a precedent in smartphones for how the Chinese maker is buying market share and future pricing power

**JUNE YOON**

The Seagull's price has dropped to just Rmb55,800 (\$7,780) in China © Cyril Marcilhacy/Bloomberg

**June Yoon**

Published 2 HOURS AGO

Car prices are on the rise around the world. Yet despite this inflationary wave, one carmaker is moving in the opposite direction. BYD has cut prices on 22 of its electric and hybrid models, bringing the price of its popular Seagull electric vehicle below that of a high-end road bike.

At first glance, it may seem like a desperate attempt to boost sales in a slowing market. But that reading misses the bigger picture.

The Seagull, already a global outlier for its low price, has dropped further to just Rmb55,800 (\$7,780) in China. The most dramatic cut was for the Seal dual motor hybrid, which fell by Rmb53,000 to Rmb102,800.

These [price cuts](#) come as the EV industry enters a new phase. While total sales remain high, growth is slowing. In China, dealerships held 3.5mn unsold EVs as of April, the highest level since December 2023.

Most carmakers would respond cautiously to a slowdown, cutting production and incentives. The reason [BYD](#) can afford to take the offensive is its unique cost structure rooted in vertical integration. It makes its own batteries, designs its chips and tightly controls operations.

That cost advantage means that when rivals cut prices, it is at the expense of fragile margins. When BYD cuts prices, it buys market share and future pricing power. Despite multiple rounds of price cuts in recent years, some as steep as 30 per cent, gross margins have continued to rise since 2021, reflecting its margin buffer.

This ability to undercut rivals without sacrificing profitability marks a broader shift in the EV value proposition. Legacy automakers have priced EVs as premium products, citing technology costs and brand value. BYD's approach challenges that assumption, leaving rivals fewer ways to justify higher prices.

Some critics argue that its aggressive pricing may not be sustainable. A concern is that ultra-low prices could trigger a race to the bottom, squeezing profits across the industry. As it expands globally, higher regulatory, labour and logistics costs could also push the limits of its efficiency.

But for now, BYD's financials remain strong. Gross margin of nearly 20 per cent in the first quarter outpaced Tesla's 16 per cent and most local rivals still operating at a loss. BYD shares are up 80 per cent in the past year, reflecting expectations that its pricing strategy could reshape the global EV market, even after a 10 per cent drop following price cuts.

Its latest round of price cuts is forcing its competitors into a corner: either match the discounts and absorb financial strain, or maintain pricing and lose volume. For weaker rivals, consolidation may become unavoidable.

There is little precedent for this level of aggressive pricing in the auto industry. But there are clear parallels with the smartphone wars of the 2010s. After 2013, smartphone hardware became commoditised and consumer expectations shifted from novelty to value. The market moved from innovation-driven growth, with more than 50 companies competing globally, to scale-driven consolidation. Brands such as LG, Sony Ericsson, Nokia, Motorola and BlackBerry, which once defined major product segments, faded quickly as margins collapsed. Only vertically integrated makers with global scale — Apple and Samsung — retained pricing power and market control.

Carmakers are coming under similar pressure: in Europe, where they are adapting to the [economics of electrification](#), BYD's price shock adds urgency. Last month, it [surpassed](#) Tesla in regional EV sales for the first time, with Tesla's volume down 49 per cent, while BYD's rose 169 per cent. In Singapore, it became the top-selling brand, outselling Toyota despite its models being priced on par.

This rapid expansion underscores how BYD is saturating the EV market across all segments, from entry level to premium, suggesting that even a premium-only strategy will no longer be a haven for global automakers.

Global legacy carmakers, many of which have operated on the sidelines of China's price wars, face an uncomfortable reality. Even outside China, they must justify significantly higher prices for comparable models in key markets such as Europe, south-east Asia and Latin America.

As a result, EV competition is becoming a game of margins that few are positioned to win. More than any single innovation, BYD's greatest disruption has been resetting the baseline for what an EV should cost.

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The Big Read Industrials

## The lessons from China's dominance in manufacturing

Beijing's aggressive investments in domestic production have strained trade relations with western partners. But can the world learn from it?

**Joe Leahy** and **Nian Liu** in Beijing and **Ryan McMorrow** in Changchun

Published 4 HOURS AGO

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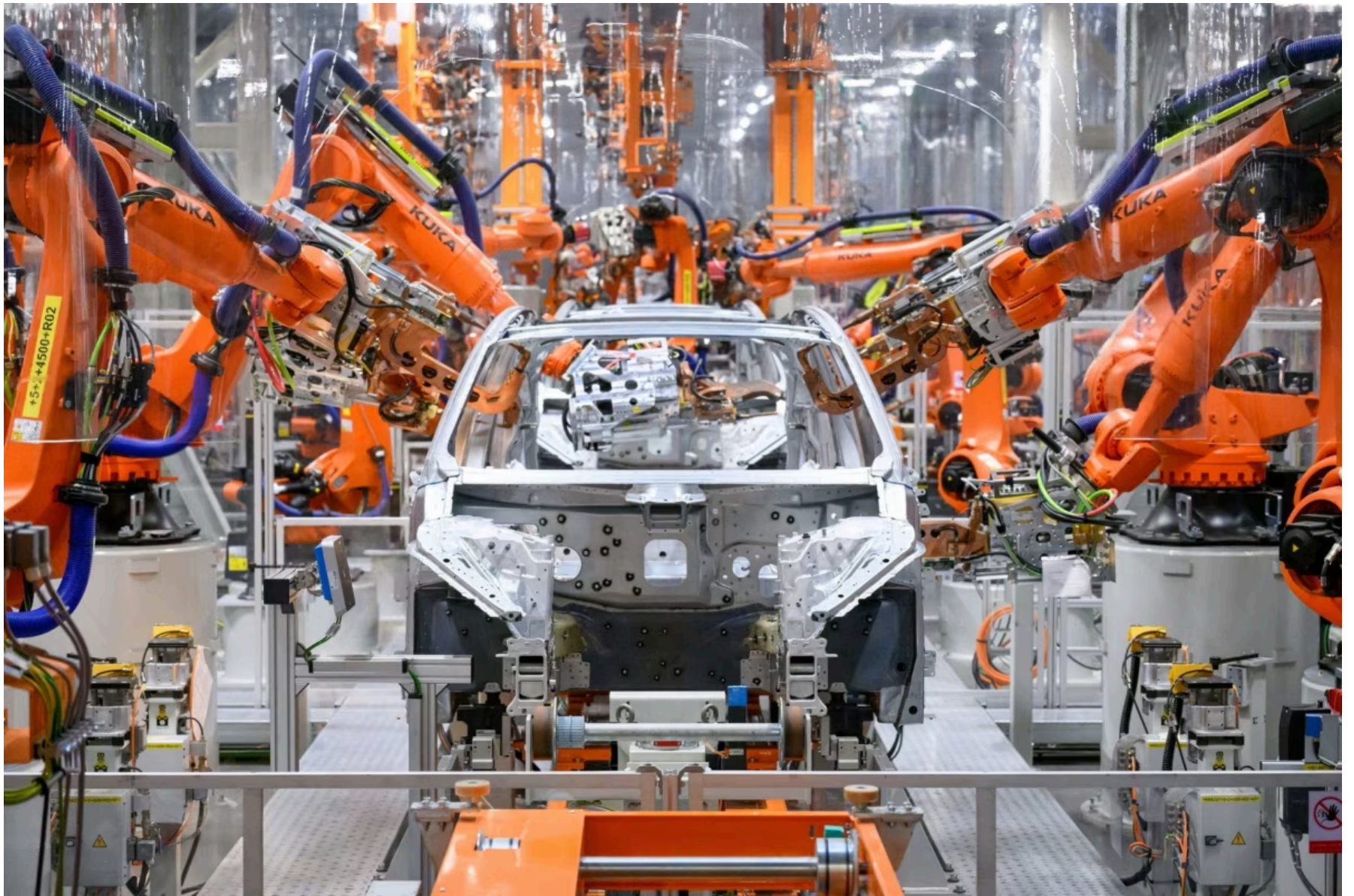
For anyone seeking to gauge the success of Beijing's flagship "Made in China 2025" industrial policy, German automaker Audi's new electric vehicle plant in northern China provides a vivid example.

Industrial robots from Chinese-owned companies — one of the key targets of the policy — dominate the production line, starting with an automated press that stamps metal sheets into door panels.

Next, more than 800 robots from Chinese-owned Kuka weld pieces into car frames, while another Chinese supplier has automated the wheel installation process. The robots outnumber the humans on each shift.

"We weren't expecting to automate so many processes in China, but the Chinese suppliers' pricing is very low," says Tobias Liebeck, Audi's head of manufacturing engineering at the Changchun plant. China now has more robots per 10,000 workers than Germany.

Launched by Beijing a decade ago with the aim of dominating 10 advanced industries, the Made in China plan sought to achieve 70 per cent domestic market share across Chinese manufacturing in "core basic components and key basic materials" by this year.



The Audi plant in Changchun. Tobias Liebeck, head of manufacturing engineering at the plant, says the company is automating processes in China because 'suppliers' pricing is very low' © Audi AG

In addition to robots, the other target sectors ranged from advanced rail equipment, high-tech maritime vessel manufacturing, and aerospace and aviation equipment to electric vehicles and next generation information technology.

The policy marked a historic turning point not only for Chinese manufacturing but for the global economy. The Made in China plan helped create a massive rupture in Beijing's trade relations with western partners and has shaped how modern governments think about industrial policy.

Trading partners criticised its market share targets as mercantilist. US President Donald Trump used the plan to help justify his trade war with China during his first term, levying \$50bn of tariffs directly targeting sectors benefiting from Made in China. His successor Joe Biden also pursued a more active US industrial policy, especially around microchips and green technology.

Beijing's targeting of industries in which the EU specialised, from machine tools to automotives and advanced shipping, directly contributed to growing trade tensions with Europe. The plan has also been criticised for creating overcapacity in the world's second-largest economy.

But despite the political controversy, two recently released reports on the Made in China programme, from the European Union Chamber of Commerce in China and the Washington-based Rhodium Group on behalf of the American Chamber of Commerce, suggest Beijing has achieved its key goal — modernising a manufacturing sector that once relied entirely on cheap labour.

## Most European companies operating in 'Made in China 2025' sectors find themselves at a disadvantage in terms of competition and market access

In the sector you selected, has your company experienced a more unlevel playing field since 2015?\*

Response	Share of respondents (%)
Yes, public and government procurement customers prefer Chinese brands more than before	25
Yes, our Chinese competitors benefit from subsidies that we cannot obtain	21
Yes, informal market access barriers have expanded, putting us at a disadvantage to Chinese competitors	20
Yes, private customers prefer Chinese brands more than before	12
Yes, due to new localisation requirements being introduced	11
Yes, formal market access barriers have expanded, putting us at a disadvantage to Chinese competitors	10
Yes, new Chinese standards give a greater advantage to Chinese competitors	10
Yes, China's new data regulations put us at a disadvantage to local competitors, as we are forced to maintain separate data and/or IT systems for China	7
Yes, China's IPR regime favours local companies more	6
No, the playing field has become more level	12
No, there has been no significant change	28

FINANCIAL TIMES

Source: European Union Chamber of Commerce in China • \*survey conducted Dec 2024-Jan 2025; excludes answer 'other'; multiple answers possible

Using a unique combination of industrial policy, subsidies and other state support coupled with private sector entrepreneurialism and ferocious competition in China's vast market, the country was able to sharply increase the share of Chinese producers domestically and internationally in many of the sectors, in some cases matching or exceeding foreign competitors' technology.

The strategic aim of China's industrial policies — to build supply chain self-reliance to resist western interference while encouraging foreign dependencies on China — was put to the test this month when President Xi Jinping stood his ground against Trump in their tit-for-tat trade war. The US president ultimately backed down, reducing tariffs that had risen to as high as 145 per cent. In the view of many analysts, the US perhaps realised that it needed Chinese imports too much to risk an embargo.

"It was Chinese exports that were the weapon," says Gerard DiPippo, acting associate director of the Rand China Research Center. "[China] was able to arguably fight the US to a draw through . . . export dominance. From a national security perspective, that very much feeds into Xi's worldview."

This export dominance means that governments around the world are closely examining Made in China's legacy. They are trying to understand the extent of resources that Beijing has put into its plans and whether the sorts of tools and measures used can be replicated elsewhere.

They also want to assess whether they need to take more steps to defend themselves from the growing competitive threat of Chinese manufacturing, including through protectionist measures.

## **The world is waking up to the competitiveness concerns that the US was maybe the first to recognise**

This is particularly true given that Beijing is now trying to use the same formula to target the technologies of the future, from advanced semiconductors and artificial intelligence to AI-enabled machines and humanoid robots.

“The world is waking up to the competitiveness concerns that the US was maybe the first to recognise,” says DiPippo. “I think there is a backlash coming.”

“There’s no one now that compares to China when it comes to manufacturing,” says Jens Eskelund, EU Chamber of Commerce in China president, noting that it accounts for 29 per cent of global manufacturing value added.

“So if the goal of ‘Made in China 2025’ was to establish China as the globally leading manufacturing nation, it is mission accomplished. But we need to realise that this success has not come without problems.”

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**Powerful countries must have strong** manufacturing sectors — that was the message from Beijing when the country’s former premier Li Keqiang launched Made in China 10 years ago.

“The history of the rise and fall of world powers and the history of the struggle of the Chinese nation has repeatedly proved that without a strong manufacturing industry, there will be no country and no nation,” the official notice of the plan said in its introduction.

Its purpose, says Li Menggang, dean of the National Economic Security Research Institute at Beijing Jiaotong University, was to drive China’s transformation from a “large manufacturing country” to a “strong manufacturing country”.

Not only was the plan more comprehensive than earlier industrial policy programmes, it came with detailed targets for market share, domestic self-sufficiency and technological development.

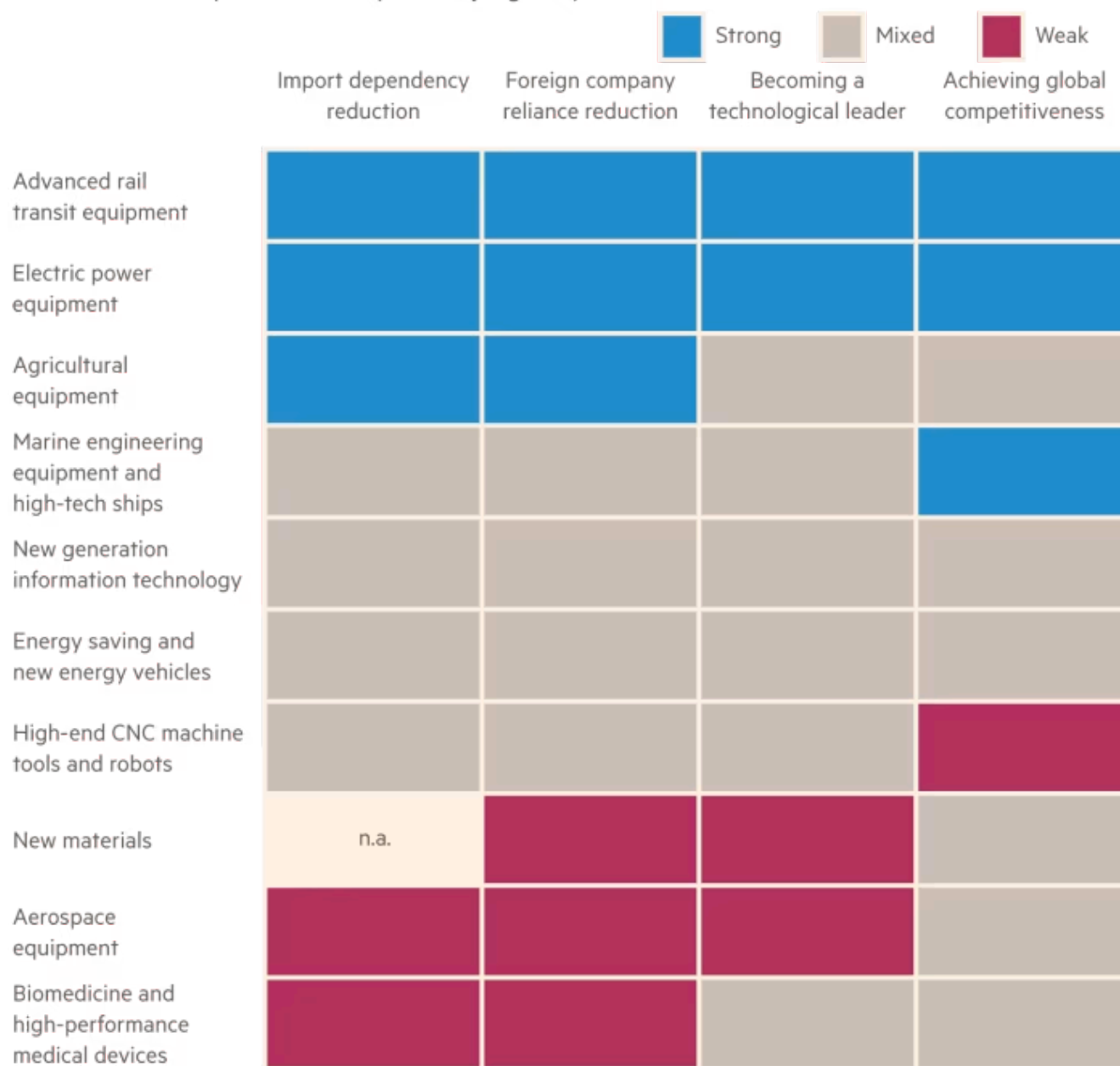
The strategy marshalled many of the tools easier to mobilise in an authoritarian Communist party-led state like China. Nearly 800 state-guided funds, with a combined value of Rmb2.2tn by 2017, were established to support favoured industries.

Tax benefits for innovation rose by an average annual rate of 28.8 per cent between 2018 and 2022, and the proportion of companies enjoying additional deductions and tax reductions more than quadrupled between 2015 and 2023, Rhodium says. State investment through government guidance funds increased more than fivefold between 2015 and 2020.

Chinese companies received state support to buy out overseas companies to tap foreign technology, state-owned enterprises were combined to form national champions in telecommunications, aviation and smart manufacturing while smaller firms with innovative potential received heavy government funding.

## Electric power and rail transit equipment have been the strongest performers under 'Made in China 2025'

Chinese industrial performance by sector, judged by four measures



Source: Rhodium Group, 'Was Made in China 2025 Successful' (May 2025); US Chamber of Commerce  
© FT

Market access was restricted for foreign firms, forcing them to enter joint ventures with local companies and offer technology transfer in sectors such as auto manufacturing, civil aviation and telecommunications.

“Foreign companies have been instrumental in enabling China to achieve its MIC2025 goals,” the EU chamber report says.

Success was greatest in areas that required high amounts of capital, which Chinese firms could access in abundance through the state-dominated banking system, and in industries in which participants could benefit from China’s huge market. Private sector participation was encouraged, which stimulated competition.

“I think the innovation in China is largely in the private sector,” says Rand’s DiPippo.

Foreign companies were incentivised to localise production, furthering Beijing’s goal of embedding domestic supply chains. Rhodium’s research shows that sales from US subsidiaries based in China have continued to climb even as US exports to the country stagnated.

“China has been very successful in reducing import dependencies but less so in reducing dependencies on foreign companies,” says Camille Boullenois, co-author of the Rhodium report. She says many foreign companies located in China operate locally rather than exporting. “In a way, they’re responsible for a huge part of its success,” Boullenois says.

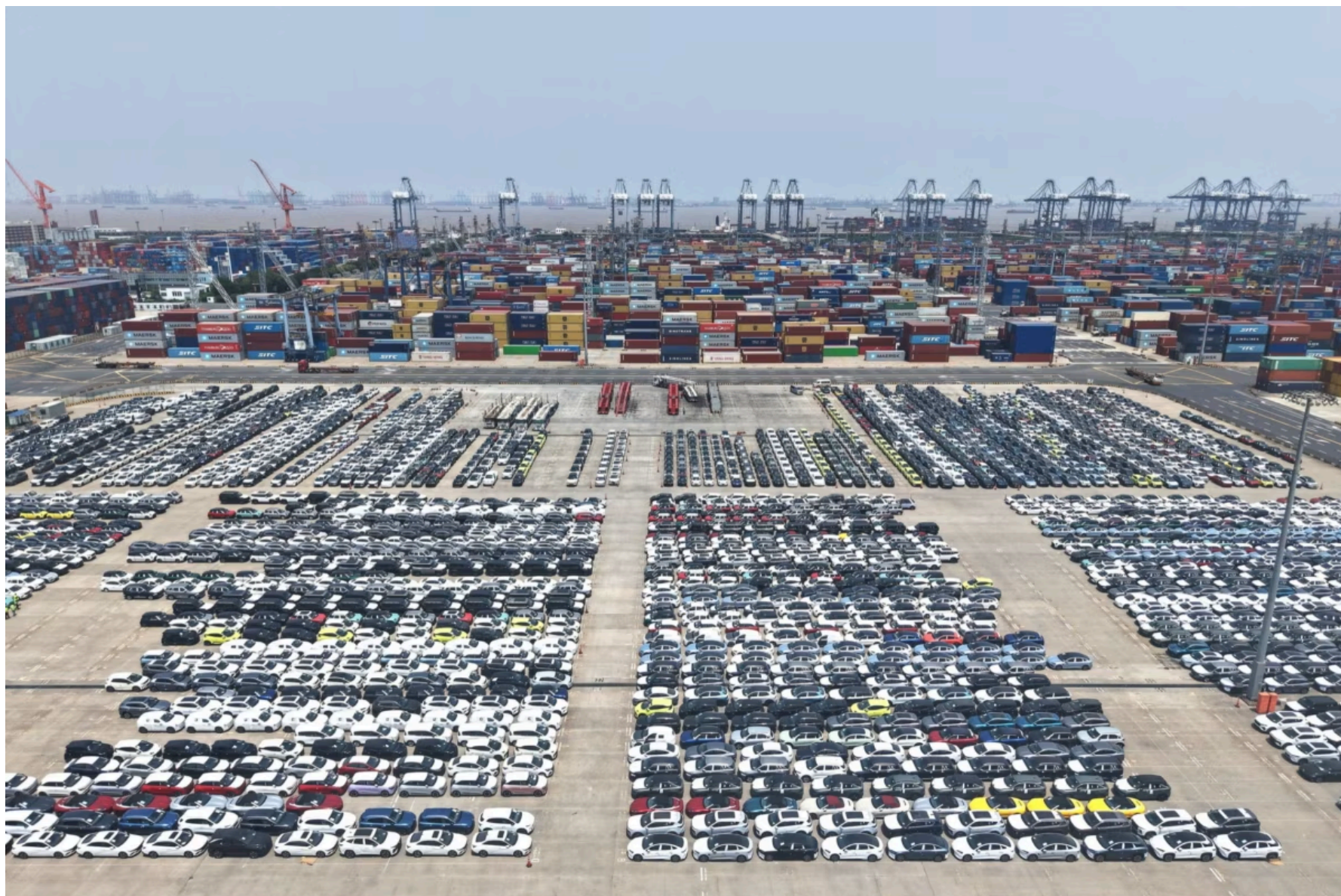
The Rhodium report rates the success of each industrial sector targeted in the plan according to four performance measures: reducing import dependence, cutting reliance on foreign companies, becoming a technological leader and achieving global competitiveness.

Rhodium rates only two of the 10 sectors — advanced rail transit equipment and electric power equipment — as strong across all four.

Another five have mixed or strong performances in the categories, including robots, machine tools, agricultural equipment and electric vehicles, while new materials, aerospace equipment and biomedicine and high-performance medical devices are weak or mixed.

But individual categories of equipment within industries can vary widely from the sector average.

For example, China set targets for the high-end Computer Numerical Control machine tools, the workhorses of manufacturing, of 70 per cent domestic company market share by 2020 and 80 per cent by 2025. Today, China has achieved self-sufficiency in low-end CNC machine tools and beat the target for mid-range machines, but for the high-end, Chinese companies only account for about 15 per cent.



Electric vehicles ready for export in Shanghai. China has enjoyed tremendous success in this area, as foreign carmakers' share of Chinese auto sales has dropped to a record low © CFOTO/NurPhoto/Reuters

China's new energy vehicle market is another area of success, growing from just 3 per cent of the broader automotive market in 2015 and forecast to be more than half this year. Meanwhile, foreign carmakers' share of Chinese auto sales has dropped to a record low of 31 per cent in the first two months of 2025, a loss of one-third of the market since 2020.

But areas that have proved challenging include civil aviation, which missed a target of 10 per cent by this year for the domestic market for aircraft, and semiconductors, which are making progress but are still lagging behind. Aviation in China is still dominated by Boeing and Airbus, while the most advanced chips come from Taiwan.

"The aircraft China is building are really western aircraft with Chinese metal over them," says Richard Aboulafia, managing director of AeroDynamic Advisory, an industry consulting firm, referring to the fact that the Chinese aerospace industry relies on foreign engines.

The EU Chamber in China report gave a similar ranking for technological leadership to the Rhodium report, giving advanced ship building, advanced rail equipment and new energy vehicles the highest marks, followed by agricultural machinery and electrical power equipment.

Yet measuring the plan's performance against China's targets fails to capture the programme's real purpose, says Max Zenglein, chief economist at Merics, a Beijing-based think-tank. "It misses the entire goal which [Made in China] is supposed to achieve, which is to become a manufacturing superpower."

**China's advances in manufacturing** have caused a series of problems, however — both for its economy and for the rest of the world. Critics say one of the main weaknesses is the propensity to produce market distortions — sometimes on a monumental scale.

Local governments, whose leaders are measured by their ability to deliver economic growth, latch on to new central government policies to attract subsidised industries to their areas.

The result is duplication and state-backed overcapacity supercharged by competition that drives prices down — good for consumers but not for corporate profitability or local government finances.

"We have seen these boom-and-bust cycles," says the EU Chamber in China's Eskelund, pointing to the solar and battery industries. "The government actually gives policy guidance and . . . everyone seems to be rushing in the same direction."

The EV sector was a case in point, he says, where only about three out of 112 manufacturers are making a profit. "We see waste at an absolutely colossal scale," Eskelund says.

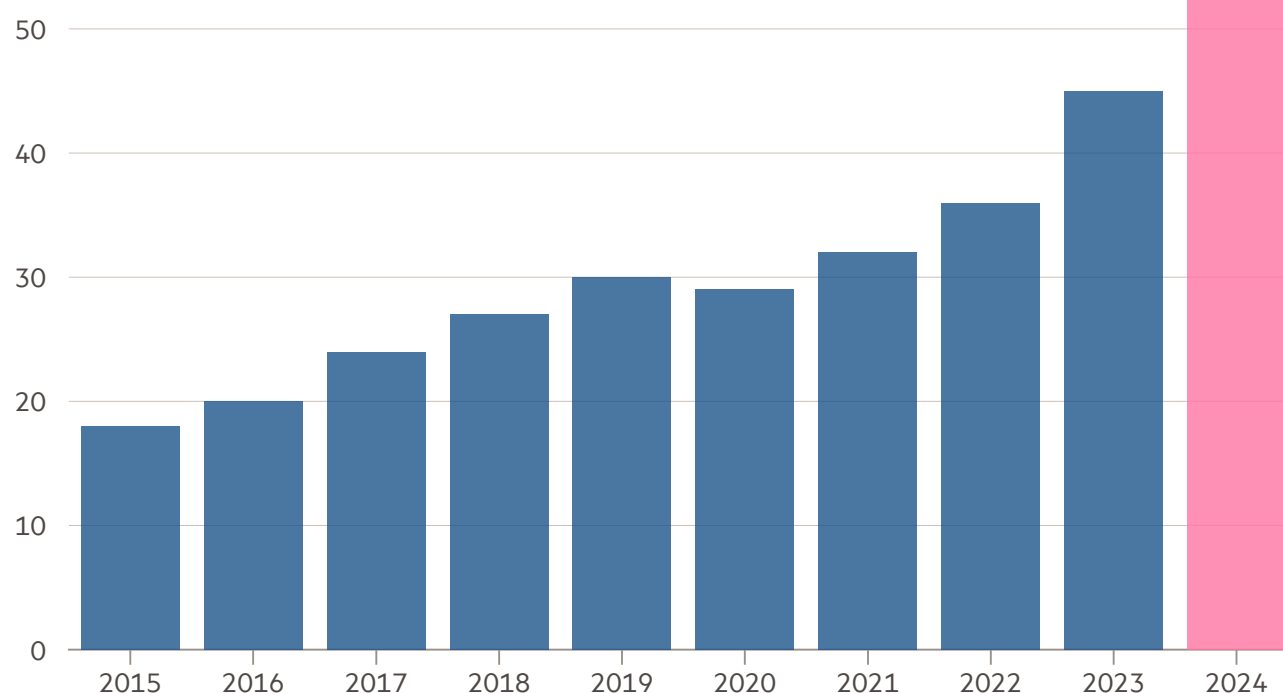
Others question whether there is a direct link between Made in China and the country's manufacturing success.

Lee Branstetter, an economist at Carnegie Mellon University, and Guangwei Li at ShanghaiTech University, searched Chinese listed firms' financial reports for the words "Made in China 2025" between 2015 and 2018. Beijing stopped publicly mentioning the plan around 2018 after it became politically sensitive in relations with the US.

While few companies disclosed subsidies related to the plan, for those that did there was "little statistical evidence of productivity improvement or increases in R&D expenditure, patenting and profitability", Branstetter and Li wrote in a working paper for the National Bureau of Economic Research, a US non-profit.

## Chinese manufacturers commanded a majority of the country's industrial robot market last year

Market share (%)\*



FINANCIAL TIMES

Source: MIR Databank • \*covers 6-axis robots, SCARA robots, collaborative robots and Delta robots

Rand's DiPippo agrees that a lack of data in China sometimes makes it difficult to determine the effectiveness of its industrial policy. "It's like there's [a] black box where you know what the plan is, you kind of know what the inputs of policy support is, and you see the output, but you don't really know the causality in between," he says.

Other Chinese scholars say that industrial policy has served China well. "Technological leadership in certain sectors forms the foundation of China's participation in global competition and aligns with global development trends. In these areas, we will stay the course [on industrial policy]," says Li of Beijing Jiaotong University.

But industrial policy needed to be refined, he says. Market share targets, for instance, had their role in encouraging industries to scale up. But they could lead to overcapacity and resource misallocation.

In the future, policy would emphasise improving the value-added of entire industrial chains, rather than merely expanding scale, focusing on metrics such as R&D, the quality of patents and other standards to help "avoid blind expansion while guiding long-term competitiveness", Li says.

The focus on pumping resources into the supply side of China's economy also has had important macroeconomic side effects, analysts say, leading to a dependence on investment over consumption.

With the bursting of China's property bubble, the emphasis on supply-side industrial policy has left the country dependent on external demand to absorb its tremendous factory output.

"China should upgrade . . . to a 'China Market 2030' strategy," says Robin Xing, chief China economist at Morgan Stanley. "Which means they should focus on expanding the consumer market by delivering deeper social security reform, and building a social safety net for farmers and migrant workers so they can unlock China's high precautionary savings and boost consumption in a more sustainable way."

That would also help alleviate growing trade tensions with the US, Europe and developing countries over China's trade surpluses, which totalled nearly \$1tn last year. "By doing that, they can probably offer a much bigger, stronger, more resilient domestic market for their own companies and for global companies," he says.

While China's manufacturing sector would continue to be dynamic and could receive a boost from artificial intelligence, the unprecedented increase in industrial policy funding over the past decade would be difficult to replicate in the next one, says Rhodium's Boullenois.

High debt levels, fiscal deficits and large numbers of lossmaking companies were weighing on public finances. She adds: "Beijing has sacrificed economic growth and productivity and probably long-term innovation for short-term gains."

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**Despite all these problems, however,** China is showing no sign of giving up on industrial policy. If anything, Xi is intensifying the country's ambitions to lead on cutting-edge technology under the slogan "new quality productive forces".

This is essentially a deepening of Made in China, but with a greater emphasis on technological innovation, says Beijing Jiaotong's Li.

The next hot area is humanoid robots although some analysts worry that key breakthroughs in the technology are still years away and near-term commercial use remains limited.



A child shakes hands with a humanoid robot in Lanzhou. China now has more robots per 10,000 workers than Germany, but key breakthroughs in humanoid robot technology are years away © Chen Kun/VCG/Reuters

This year China plans to launch a new Rmb1tn (\$137bn) state-backed venture capital fund aimed at channelling investment into humanoid robotics and other sectors prioritised by policymakers. In May, a coalition of ministries rolled out policies designed to mobilise bank lending and insurance capital into these strategic industries, part of Xi's push to build a self-reliant "strong science and technology nation".

Liang Liang, deputy director of the Beijing Economic-Technological Development Area, says the region is rolling out investment funds for robotics and other technologies. "Every region will have its own investment funds . . . to help accelerate development," he told the FT.

Audi's Liebeck says humanoid robots from a Chinese group tested at the Changchun plant featured promising technology, though their humanlike form could use changes. "We don't want [robots with] two arms, we want four or five arms," he says.

Given China's determination to double down on industrial policy, foreign countries face difficult choices after decades of emphasising services and consumerism, says Boullenois. She adds that some level of protection in sectors suffering from competition with Chinese exports that have benefited from subsidies and industrial policy would also be needed.

"The market distortions in China are so big that it prevents fair competition everywhere," she says. "You have to have higher trade barriers to protect your nascent industries. That's what many developing countries do and I think in some sectors, like cleantech, we are also in that situation now."

*Data visualisation by [Ian Bott](#) and [Haohsiang Ko](#)*

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