

# The Economist

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Breaking China's rare-earths chokehold

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Climate tipping-points

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Britain's quirky game-makers

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The glory of Pompeii

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AUGUST 16TH-22ND 2025

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**HOW TO  
WIN AT  
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# Contents



## On the cover

Donald Trump's capricious dealmaking destabilises the world: leader, *page 7*. Ukrainians fear he may give Russia what it could not win on the battlefield, *page 23*. The real risk of collusion between Mr Trump and Vladimir Putin: Lexington, *page 33*. The far north has become NATO's soft underbelly, writes John Bolton: By Invitation, *page 12*

## Breaking China's rare-earths chokehold

Xi Jinping's weaponisation of rare-earth elements will ultimately backfire: leader, *page 8*. How can the West resist? Briefing, *page 13*. Mr Xi masters the dark arts of the trade war, *page 45*

**Climate tipping-points** When climate change poses a strategic threat, it needs a strategic response: leader, *page 9*. Earth's climate is approaching irreversible tipping points. Working out how close they are is a challenge, *page 64*

## Britain's quirky game-makers

Video games are one of Britain's most overlooked assets, *page 17*

**The glory of Pompeii** The largest excavation in a lifetime is under way, *page 68*

## The world this week

- 5 A summary of political and business news

## Leaders

- 7 **Donald Trump**  
How to win at foreign policy  
8 **Trade**  
China and rare earths  
9 **Defence in the Pacific**  
Ramping up  
9 **Climate tipping-points**  
The other General Winter  
10 **South Africa**  
Time to scrap BEE

## Letters

- 11 On stablecoins and the GENIUS Act, the Onion, the spread of electricity, religion and video games, Superman

## By Invitation

- 12 John Bolton on Arctic geopolitics

## Briefing

- 13 **Rare earths**  
Roiling stones

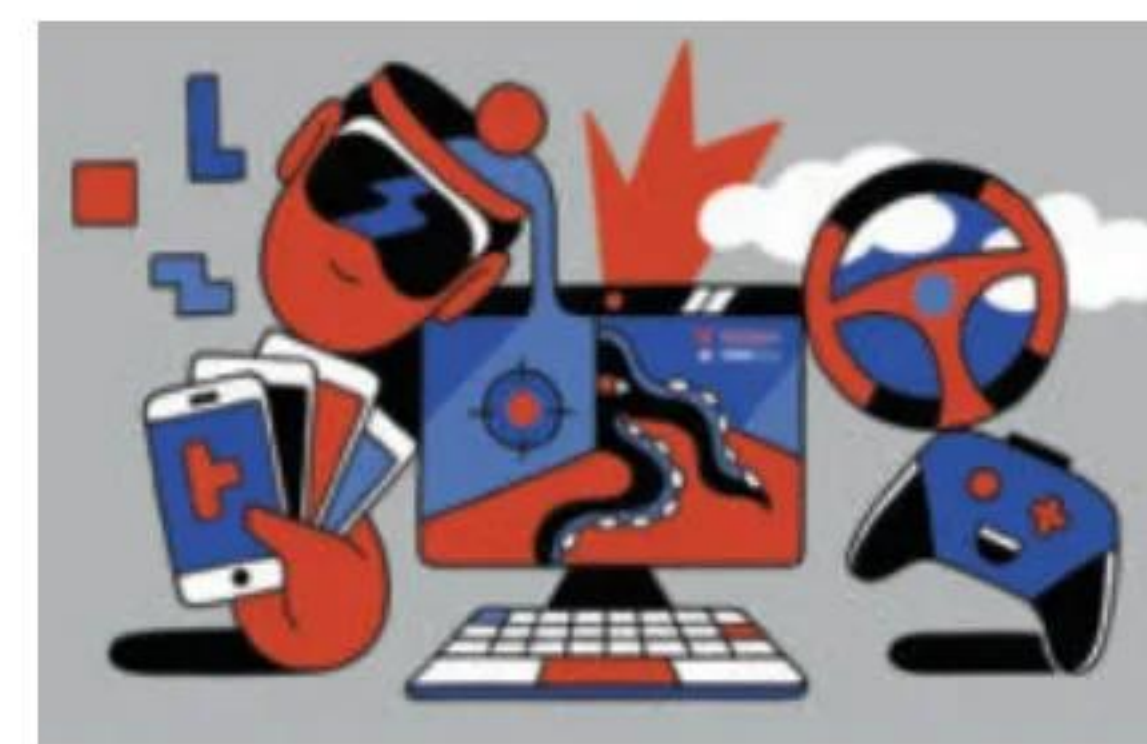


**Bartleby** Should you trust that five-star rating on Airbnb? *Page 55*



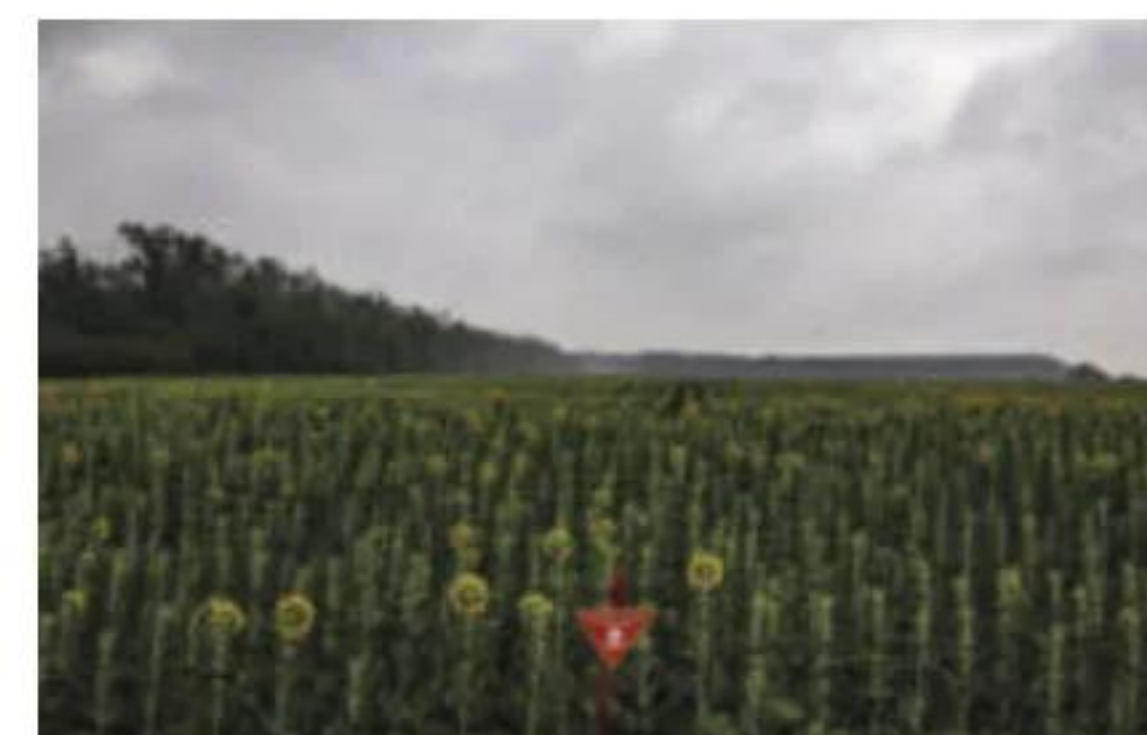
## Britain

- 17 The gaming industry  
18 Fantasy football  
19 Asian tourists  
20 HPV vaccination rates  
21 London's black cabs  
22 **Bagehot** Revolutionary retirees



## Europe

- 23 The Trump-Putin summit  
24 Peace in the Caucasus  
25 Svalbard at 100  
25 Turkish EVs  
26 Civic groups in Germany  
27 **Charlemagne** Autonomy or August off?



## United States

- 28 The capital offensive  
29 Vaccine courts  
30 Hunting pythons  
31 Texas Dems in exile  
31 From Watergate to Greenlash  
33 **Lexington** Alaska's power couple



## The Americas

- 34 Assisted dying in Uruguay  
35 Colombia's martyr on the right  
36 Bolivia's worrying election



## Middle East & Africa

- 37 Race in South Africa  
38 Protests in Ivory Coast  
39 Hamas's dilemma  
40 Taking on Hizbullah  
40 The killing of journalists in Gaza



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► Contents continues overleaf



# Contents

## Asia

- 41 The guns of Asia
- 42 US-India trade war
- 43 Sara Duterte
- 44 **Banyan** Daddy issues



## China

- 45 China's squeeze on supply chains
- 46 Looking for "mum jobs"
- 47 Superstitious Hong Kong



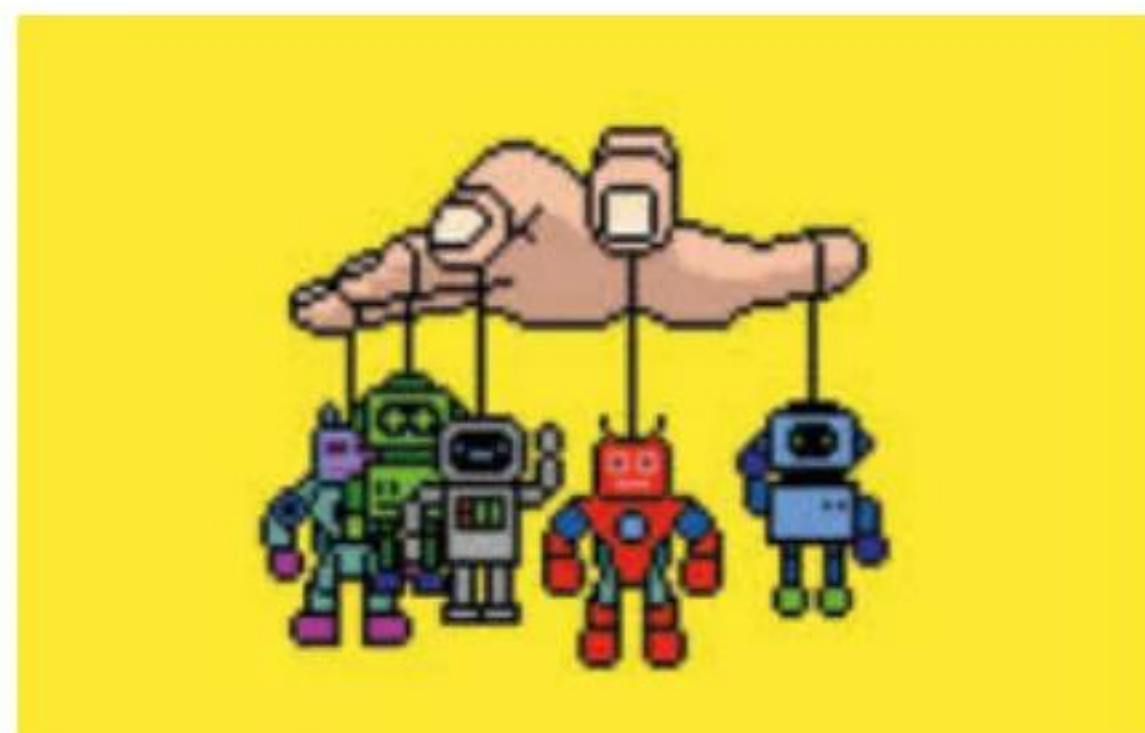
## International

- 48 America's Pacific war plan
- 50 From the archive: 1945



## Business

- 51 The one-person unicorn
- 52 Toyota's tariff tinkering
- 53 Chinese cough syrup
- 53 Italian bosses get impatient
- 54 Climate tech's next wave
- 55 **Bartleby** Customer reviews
- 56 **Schumpeter** Trump's role model



## Finance & economics

- 57 Growth-loving authoritarians
- 58 Tariff winners
- 59 Ivy League debt
- 60 Fannie and Freddie
- 61 America's housing market
- 62 Palantir's valuation
- 63 **Free exchange** Art and the economy



## Science & technology

- 64 Are climate tipping-points near?
- 66 Fires that freeze
- 66 Drones that could identify individuals
- 67 **Well informed** Nightmares



## Culture

- 68 New discoveries in Pompeii
- 69 Bombs, dinosaurs and UFOs
- 70 Not-so private chefs
- 71 New York in the 1980s
- 71 The need for 2x speed
- 72 Reinterpreting "The Crucible"



## Economic & financial indicators

- 73 Statistics on 42 economies

## Obituary

- 74 Razia Jan, fearless teacher of Afghan girls

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to take part in "a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."

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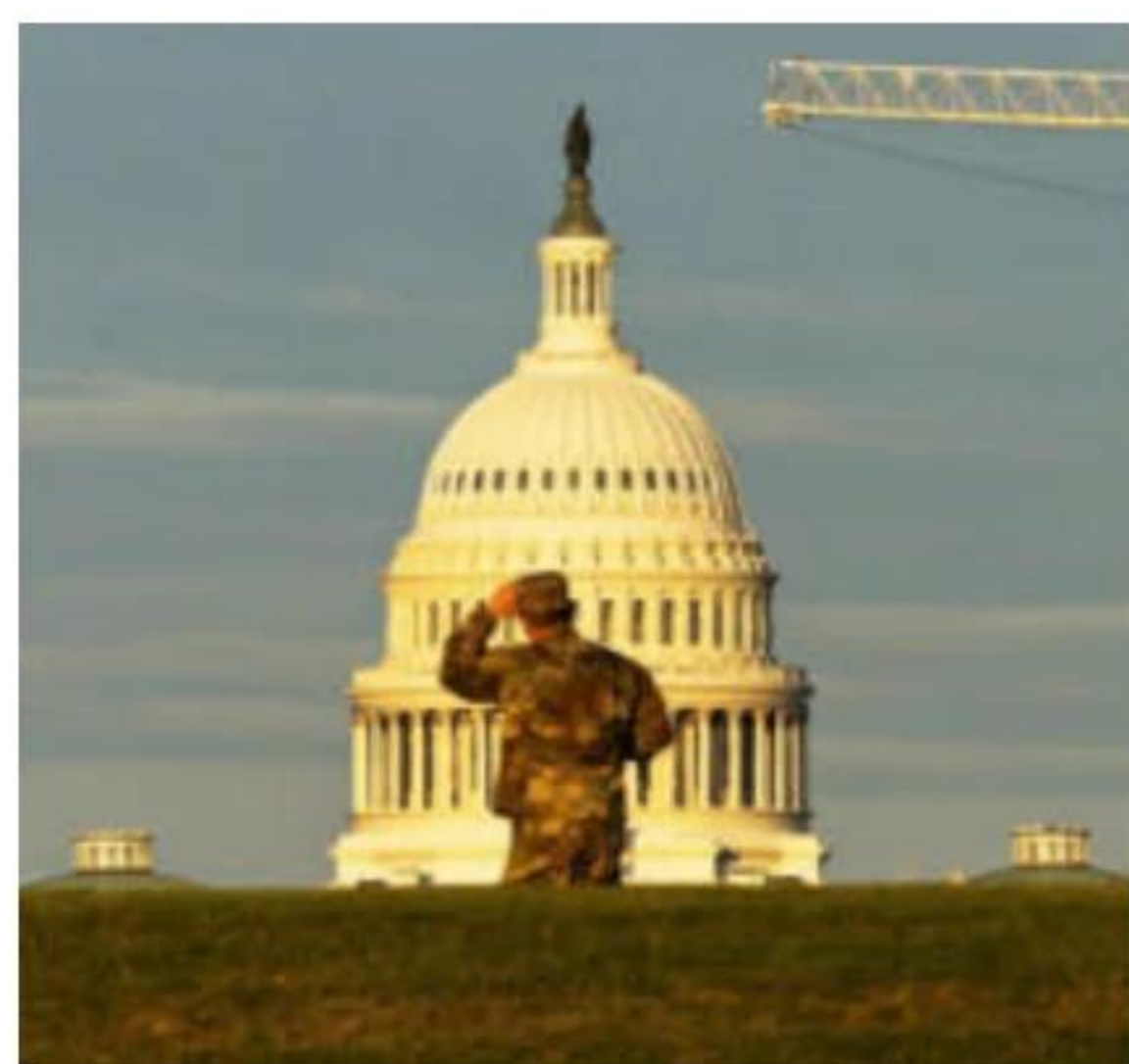


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# The world this week Politics



Donald Trump deployed the National Guard to the streets of **Washington, DC**, taking federal control of its policing operations. The order lasts for 30 days. Mr Trump evoked his authority under the 1973 District of Columbia Home Rule Act, the first time a president has used it to federalise the police, claiming that the city was awash in crime and homelessness. Violent crime surged in 2023 but fell by 35% last year to a 30-year low.

## Extra-territorial claims

Mr Trump was reported to have signed an order allowing America's armed forces to pursue drug cartels, possibly at sea or on foreign soil. Responding to the reports, Claudia Sheinbaum, **Mexico's** president, "absolutely ruled out" allowing American troops into her country. "We co-operate, we collaborate, but there is not going to be an invasion", she said. Such collaboration includes the transfer this week of 26 suspected senior drug-gang members to the United States.

Miguel Uribe, a conservative senator who was a leading contender in the presidential election due next year in **Colombia**, died in a clinic two months after being shot by an assailant at a campaign rally. In 1991 his mother, a campaigning journalist and daughter of a former president, was killed when Mr Uribe was four years old. Many Colombians fear a return to political violence.

**Ecuador's** president, Daniel Noboa, led a march to protest against the recent decision of the constitutional court to suspend parts of the country's

new security laws. The parts that are suspended include allowing intelligence officers to use fake identities, the use of surveillance technology and a presidential power to pardon security personnel convicted of criminal behaviour in their crackdown on gangs. The opposition supports the court's decision and claims that Mr Noboa's march threatened the judiciary's independence. At the demonstration the president said he had "the mandate of the people".

**Israel** launched intense air strikes on Gaza City. The war cabinet voted in favour of seizing control of the city but has not said when it plans to do so. Israel killed six journalists in one of the strikes. It claimed that one of them, Anas al-Sharif, who worked for Al Jazeera, was a Hamas operative but provided no convincing evidence for the allegation. Last year Israel banned Al Jazeera, a popular Arab satellite channel, from reporting from Israel, alleging that it was a mouthpiece for Hamas.

Hamas representatives arrived in Cairo for preliminary talks with Egyptian officials about a deal to end the **war in Gaza**. Binyamin Netanyahu, the Israeli prime minister, suggested that he hoped any agreement would secure the release of all the hostages.

Fighting continued in eastern **Democratic Republic of the Congo** between government troops and M23, a rebel group backed by **Rwanda**. Both sides accused the other of violating an agreement, signed in July, to work towards a permanent ceasefire. Congo and Rwanda also signed a peace deal in Washington in June.

At least 40 civilians were killed in an attack on el-Fasher, the capital of **Sudan's** North Darfur province, and a nearby refugee camp. The city has been under siege by the Rapid Support Forces, one of the main parties in the civil war,

since April 2024. The group has been accused of carrying out multiple atrocities there.

The White House played down expectations of Donald Trump's **summit with Vladimir Putin** in Alaska on August 15th, describing it as a "listening exercise". Volodymyr Zelensky called Mr Trump two days before the meeting and described their conversation as positive. Meanwhile, Russia was reported to have made its most significant **military advance** in Ukraine for at least a year. Russian troops gained 15km (nine miles) of ground in their drive to take a road leading to Kramatorsk, a city in the eastern Donbas region.

**Azerbaijan and Armenia** signed a peace deal brokered by Mr Trump. The two countries have been in an intermittent conflict over Nagorno-Karabakh since the fall of the Soviet empire. The agreement creates a transit corridor near the Iranian border for energy exports that America will have development rights to. Iran wasn't happy with that, and neither was Russia.

Finland became the first NATO country to lay criminal charges against a captain and crew of a ship in Russia's "**shadow fleet**" for alleged sabotage in the Baltic Sea. The captain and two officers of the *Eagle S* were charged with cutting underwater cables last December.



Rahul Gandhi, the official leader of the opposition in **India's** lower house of Parliament, and dozens of other senior opposition members were briefly detained by police

during a march on the country's Election Commission. Mr Gandhi and others say that voter lists in some states have been corrupted in order to rig elections in favour of the ruling Bharatiya Janata Party. The BJP and the commission reject the claims.

The Philippines criticised China for carrying out "dangerous manoeuvres" in the **South China Sea's** disputed Scarborough Shoal. A Chinese coast-guard ship collided with a Chinese naval vessel close to a Philippine coastguard ship that was delivering supplies to fishermen in the area. The Philippines claims that the Chinese vessels ran into each other as they tried to block its ship. China said later that it "drove away" a US destroyer that came close to the Shoal.

The Independent Investigative Mechanism for Myanmar, a UN body, reported evidence of widespread "systematic torture" in **Myanmar's** detention facilities. This includes beatings, electric shocks, strangulations, gang rape and burning sexual body parts.

Donald Trump picked E.J. Antoni to lead the **Bureau of Labour Statistics**, having sacked the former head of the agency for what he claimed was its unfavourable manipulation of job-creation data (he has offered no evidence of this). Mr Antoni is the chief economist at the Heritage Foundation, one of America's foremost conservative organisations.

## Not a Long time at the IRS

Billy Long was defenestrated as commissioner of the **Internal Revenue Service**, less than two months into the job. Mr Long, a former Republican congressman, reportedly refused to hand over tax records on certain illegal immigrants and had clashed with Scott Bessent, the Treasury secretary. Mr Bessent is now the IRS's interim commissioner, the seventh person to head the agency this year.



## The world this week Business

**America** and **China** suspended the imposition of retaliatory tariffs for another 90 days as they continue to work towards a trade deal. November 10th is the new deadline. Meanwhile, the White House confirmed that **Nvidia** and **AMD** have agreed to hand over 15% of the revenues they receive from selling chips in China to the American government. It is thought to be the first time that any company has come to such an arrangement to obtain export licences. Separately, the Chinese government has urged domestic firms not to use Nvidia's H20 chips, according to reports, but has stopped short of an outright ban.

### Wham, bam, thank you Tan

Mr Trump backed off from his call for Lip-Bu Tan to resign as chief executive of **Intel**. Mr Trump's attack came after Tom Cotton, the chairman of the Senate Intelligence Committee, questioned Mr Tan's links to Chinese companies, as well as "security and integrity" at Intel. Mr Tan, who dismissed the concerns, recently suggested that Intel may quit the higher end of chipmaking if its next-generation semiconductors do not gain enough business. But after a hastily arranged meeting, Mr Trump praised Mr Tan's "success".

Mr Tan was not the only corporate boss to take heat from Mr Trump this week. The president suggested that David Solomon should stand down as the boss of **Goldman Sachs** because of the bank's "bad prediction" on the impact of tariffs. Mr Solomon should "focus on being a DJ", he said, a reference to the bank executive's erstwhile pastime.

The British government breathed a sigh of relief as new data showed that **Britain's economy** grew by 0.3% in the second quarter compared with the first quarter (or by 1.2% on an annual basis). The figure was better than expected; weak output was recorded in April and May, but GDP rebounded

in June. Higher employer taxes came into effect during the quarter, which was also marked by uncertainty over trade.

Consumer prices in America rose by 2.7% in July on a 12-month basis, the same as June. The headline **inflation** rate was subdued by a dip in energy and food prices. Excluding those items, core inflation accelerated to 3.1%, mostly because of increases in the cost of services. Airline fares rose by 4%, for example, month on month.

Nikkei 225 stockmarket index, 2025  
May 1949=100



Source: LSEG Workspace

**Stockmarkets** cheered the inflation data, which raises the probability of the Federal Reserve cutting interest rates in September. The S&P 500 and the Nasdaq Composite both hit new all-time highs. In **Japan** the Nikkei 225 and Topix broke records amid optimism about trade and speculation that the

government will expand fiscal stimulus. **SoftBank's** share price surged to new peaks after its quarterly profit beat expectations amid its big bets on AI.

Following billions of dollars in losses at its electric-vehicle division, **Ford** announced a big shake-up of the business, which includes a \$5bn investment in factories in Louisville and Michigan. Ford will switch to a new "universal EV platform" production system that will build a "breakthrough" low-cost electric pickup truck starting at \$30,000. It expects to start selling the pickup in 2027. Some analysts think this could be a make-or-break moment for the carmaker.

**Perplexity**, one of the best-known AI-driven search tools on the web, made a surprise offer to buy Google's **Chrome** web browser for \$34.5bn. In a letter to Alphabet, Google's parent company, Perplexity said it was positioning itself as a potential buyer if Google is eventually ordered to sell Chrome in an antitrust case.

**Orsted**, the world's biggest developer of offshore wind farms, lost a third of its stock-market value after announcing

that it would have to raise 60bn Danish kroner (\$9bn) in a rights issue to boost its finances. The Danish company blamed "material adverse developments" in the American market, where the Trump administration is hostile towards renewable energy.

The long-awaited roll-out of **GPT-5**, OpenAI's latest model, didn't quite go according to plan. After social media were flooded with complaints from users, Sam Altman, the start-up's boss, admitted that its autoswitcher, which guides queries to the most suitable model, had broken for a large part of the launch day, so that GPT-5 "seemed way dumber". With the fixes now in place, GPT-5 could be the world's best model in areas such as software engineering.

### Web crawler

AOL, an internet pioneer from the 1990s, quietly announced that it would stop offering its **dial-up service** to customers. Around 160,000 Americans still use dial-up rather than broadband. AOL's decision was seen as a historic moment by some; others scratched their heads in disbelief that its dial-up service still existed.





# How to win at foreign policy

Donald Trump's capricious dealmaking destabilises the world

WHEN DONALD TRUMP meets Vladimir Putin in Alaska it will be the seventh time the two have talked in person. This time is different, though. Since their last sit-down, Mr Putin has launched an unprovoked war, lost perhaps a million Russian soldiers (dead and wounded) and inflicted ceaseless misery on Ukrainians in pursuit of an imperial dream.

Undaunted, Mr Trump hopes to get in a room with a wily dictator, feel him out and forge a deal. It is the biggest test yet of his uniquely personal style of diplomacy. It is also a reminder of how unpredictable American foreign policy has become. Will Mr Trump be firm, making clear that America and its allies will do what it takes to guarantee Ukraine's sovereignty? Or will he be in such a rush to reopen business with Russia that he rewards its aggression and leaves Ukraine vulnerable to future attacks? As everyone clamours for the president's ear (see Europe section), no one knows what he will do.

At the beginning of Mr Trump's second term his supporters had a theory about how he would wield American power. Rather than relying on deep relationships and expertise, he would rely on his gut. As a master negotiator with a knack for sensing what others want and fear, he would cut through the waffle and apply pressure ruthlessly. Everyone wants access to American markets. By threatening to shut them out, he would force recalcitrant foreigners to end wars and reset the terms of trade to America's advantage. Career diplomats and experts would be replaced by rainmakers. Yes, his transactional approach might foster a bit of corruption. But if it brought peace in Ukraine or Gaza, who cared?

Alas, there are drawbacks to this approach. Using tariffs as a weapon hurts America, too. More fundamentally, junking universal principles for might-makes-right repels friends without necessarily cowing foes. And the substitution of presidential whim for any coherent theory of international relations makes geopolitics less predictable and more dangerous. Mr Trump is not a globalist, obviously. Nor is he an isolationist, or a believer in regional spheres of influence. He simply does what he wants, which changes frequently.

One way to make sense of Trumpism is that he divides his efforts at dealmaking into three categories: high, medium and low stakes. In the first category are America's relations with unfriendly great powers, principally China and Russia. Israel is here, too, because of its importance in American domestic politics. Iran makes an appearance, because of the way it threatens its neighbours. All these relationships are complex, difficult and matter a lot to Mr Trump. If he scores a win here—if he ends the war in Ukraine, or brings peace between Israel and the Palestinians, or finds a formula for co-operating with China without endangering national security—then the pay-off is potentially staggering.

In the medium-stakes category Mr Trump puts Brazil, South Africa and, oddly, giant India. These are important countries that both America and China want in their camp. In most cases, their values are far closer to America's than to

China's. Ties with them ought to be win-win. But they are unwilling to be bossed around, and take offence when Mr Trump insults or tries to bully them.

The small stakes, for Mr Trump, are in small or poor countries. A superpower can wield great influence over such places, sometimes to good ends. Mr Trump helped cement a peace deal between Azerbaijan and Armenia, for example, and brokered a truce between the Democratic Republic of Congo and Rwanda. These are welcome achievements. Azerbaijan and Armenia had been fighting for 35 years. Mr Trump mediated a reopening of trade and transport links. The fruits may include a weakening of Russian influence in the area. The Congo-Rwanda deal is much shakier—Rwandan-backed rebels have violated it repeatedly—but not nothing. And there may be an upside for America, in the form of mineral deals.

When it comes to medium-size stakes, Mr Trump's method works less well. He has started needless feuds with the leaders of Brazil (because it is prosecuting a Trumpy ex-president for allegedly attempting a coup), with South Africa (because he believes, wrongly, that it is persecuting whites) and with India (infuriating its prime minister with painful tariffs and undiplomatic boasting). The result? India will draw closer to Russia again, and be less inclined to act as a counterweight against

China. Brazil and South Africa see China as a more reliable partner than America. Mr Trump has won headlines that play well with his most ardent supporters. But America has lost out.

And when it comes to the highest stakes, the president is floundering. He has tried to coerce China with tariffs, but it is fighting back (see China section). This week Mr Trump blinked and extended another deadline. He

also undermined his own national-security policy by lifting a ban on exports of Nvidia chips to China, while insisting that Uncle Sam gets a 15% cut.

On Ukraine, he has been wildly inconsistent, one day blaming it for having been invaded and threatening to cut military aid, then accusing Mr Putin of bad faith and threatening stiffer sanctions on Russia (see Lexington). On Israel, he has consistently given Binyamin Netanyahu everything he wants and extracted nothing in return. If Mr Trump's bombing of Iran's nuclear sites made Israel safer, well and good. But he has failed to use his leverage to restrain Israel's unending war in Gaza.

## The world is flattery

Other countries are learning how to play Mr Trump. A crypto deal and a nomination for a Nobel peace prize worked for Pakistan. A plane helped Qatar. The corruption is turning out to be as bad as almost anyone feared; the great deals have yet to materialise. Those who say Mr Trump is looking out for his own interests, not America's, have plenty of ammunition.

All this is only a preliminary judgment. If Mr Trump stands up to Mr Putin this week, perhaps he can make his greatest-ever deal, ending Europe's worst war since 1945. Sadly, the odds are against it. ■





Trade

# Breaking China's grip on rare earths

Xi Jinping's weaponisation of rare-earth elements will ultimately backfire

SOON AFTER the blockade started, the panic began. When China choked off the export of rare-earth elements in April, producers and politicians around the world were quick to sound the alarm. China provides over 90% of the world's supply of refined rare earths, which are used to make the strong magnets inside almost anything with an electric motor, from vacuum cleaners to cars, and which also appear in high-tech products from smartphones to fighter jets. Some carmakers curtailed production; the industry is in "panic mode", said one boss. Ursula von der Leyen, head of the European Commission, thundered against China's "dominance" and "blackmail".

At first glance the use of rare earths as a weapon is working—and Xi Jinping, China's president, is getting what he wants. After the flow of rare earths resumed, America's president lifted controls on the sale of some Nvidia chips, and delayed a hefty increase in import duties; on August 11th America and China further extended their trade truce. In July Mrs von der Leyen went cap-in-hand to Beijing, seeking looser restrictions. But in the long term, China's rare-earths weapon will backfire (see Briefing).

The new controls are a sign of just how sophisticated China's economic arsenal has become (see China section). After a political spat in 2010 it briefly blocked the exports of rare earths to Japan; in a fit of pique in 2020, it increased duties on Australian Shiraz and grass-fed beef. Now, however, Mr Xi has put in place a system of export controls that seek to exploit China's heft in global supply chains. A licensing scheme covering more than 700 goods, including manufacturing equipment and critical minerals, began operating in December. Officials keep careful track of the ultimate consumer of the products, and can revoke licences. Even though rare-earths exports have resumed in recent weeks, sales to Western armsmakers, for instance, are still choked off.

The aim is clear. Mr Xi wants to indigenise supply chains, so that China is not at the mercy of its enemies for critical inputs—an effort that was turbocharged after America banned the export of advanced chips to China. He also hopes to use China's control of supply chains as a source of power over others. As long ago as April 2020 he told officials that dependency on China could be a "deterrent" against foreigners who would "artificially cut off supply".

The difficulty for Mr Xi, though, is that export controls have unintended consequences. Confronted with a ban, companies and entrepreneurs find ways around the shortage. China's dominance in rare earths stems not from exclusive control of the world's deposits, nor from the technological sophistication of the refining process, but instead from efficiency and scale. And the more it uses rare earths (or indeed other commodities) as a weapon, the more it will encourage others to find alternatives—weakening its future firepower.

Start with the nature of China's chokehold. Despite their name, rare earths are relatively abundant; less than half of all known reserves are found in China. Refining is a painstaking

and polluting business, but is not as technologically complex as advanced chipmaking. China's grip on rare earths is therefore not as strong as the West's on cutting-edge chips, and easier to work around. Indeed, until the 1980s, America was the biggest supplier of the minerals. The dominance of China came about because it was more willing to accept the environmental consequences, and has since been cemented by its gargantuan size, which allows rare earths to be mined cheaply.

Efforts by China to restrict the flow of rare earths have already spurred efforts to find alternatives. After the spat in 2010, Japan invested in rare-earths mines and began building stockpiles; although it still imports rare earths from China, its dependence has fallen from 90% to 60%. Earlier this year the Pentagon took a stake in MP Materials, a miner in California, with which Apple has signed a deal. All told, 22 new mining projects are expected to be up and running by 2030.

Trendy "geoeconomic" theory points out that even a small erosion of China's dominance in rare earths could weaken its power disproportionately. Reducing its share from 90% to 80% may not sound like much, but it would imply a doubling in size of alternative sources of supply, giving China's customers far more room for manoeuvre.

Even so, this diversification could still take years. What

could Western governments do to speed it up? They have a responsibility, of course, to secure their military supply chains. They could also streamline the process of approving mining permits (which in America can take up to a decade), and could revisit environmental rules. Lowering trade barriers would also help the rest of the world mimic China's scale.

It would be a mistake, though, for governments to seek to protect the entire economy from the impact of shortages. That is because a far more powerful—and underappreciated—response to shortages is innovation. Just think of how America's chip controls have prompted Chinese firms such as Huawei and DeepSeek to develop new techniques, or how a cobalt crunch in 2022 quickly eased, partly as makers of electric vehicles found ways to do without the metal.

Similarly, startups across the West are now working on the recycling of rare earths, and on the development of alternative ways to make magnets and motors that do not rely on them. BMW and Renault, two European carmakers, already sell electric vehicles that do not use rare earths in their motors. Other companies could follow suit. China's restrictions will cause disruption as producers rejig their processes, but long-term alternatives do exist.

## From rare to overcooked

The more China uses its rare-earths weapon, therefore, the weaker it will become. Time and again, enterprise and ingenuity have prevailed over attempts to control the flow of goods. China itself learned that lesson as its technology firms responded to America's export controls on chips. It may have to learn it again. ■





## Defence in the Pacific Ramping up

America and its Asian allies need to spend more to deter China

UNLIKE IN EUROPE or the Middle East, there are no big interstate wars taking place in Asia right now. But the threat from China's military build-up is obvious. Across the Pacific, American airmen are busy restoring and upgrading second-world-war airbases so that they can be used by their forces today (see International section). This is part of a policy to deter China that began under President Joe Biden. Now President Donald Trump is demanding that America's Asian friends contribute far more to this task.

The administration wants them to spend more on defence and do more to deter an attack on Taiwan. Yet Mr Trump has sown doubts about America's commitment to its friends, most spectacularly with Ukraine and NATO, but also with India. What should America's Asian partners do?

Europe could plausibly defend itself without copious American help against Russia, but America's Asian friends would have little chance of deterring China if they were abandoned by Uncle Sam, unless they resorted to nuclear weapons. China's relative advantage is larger, the geography is daunting and there is no Asian alliance comparable to NATO. Yet fortunately the Trump administration's commitment to the Pacific is deeper than to Europe. Its Asian partners should build on that.

A lack of cash is a problem. Mr Trump's "Big Beautiful Bill", passed last month, will provide an injection of funds for America's armed forces. But his budget request for the next fiscal year is flat, implying a cut after inflation. Congress needs to spend more if the Pentagon is to keep up with technological change and have enough ships, airfields, troops and munitions

to counter China. Among America's five main security partners in the region—Australia, Japan, the Philippines, South Korea and Taiwan—average annual defence spending is a threadbare 1.8% of GDP (see Asia section).

Mr Trump is right to ask them to spend 3.5% on defence. Australia, South Korea and Taiwan have low public debt compared with other rich countries, and could afford to do more. Australia's Labor government, for example, has no excuse. Its own white papers warn of the seriousness of the threat from China, but its defence budget, at just under 2% of GDP, tells a different story. It should put off planned tax cuts and new social programmes or use debt financing to commit to meeting the new target.

In Japan, tough decisions loom. A minority Liberal Democratic Party government is under pressure to offer tax cuts, not a jump in defence spending. With high debt, borrowing to pay for defence is harder. Across the region the Pentagon should be careful about these conversations, however. Pushing too hard for unpopular policies could create a backlash among voters.

Even as they raise spending, America's Asian partners should do more together, not least by investing more in the region's defence-industrial base. This would helpfully place arms factories closer to where weapons might be needed. It would also create a modest hedge against American abandonment. Australia's recent announcement that it would buy frigates from Japan is a start. By lifting their own spending and beefing up their industrial bases, they can protect themselves, show America that they are not freeloading and build confidence that China can be deterred in the Pacific. ■



## Climate tipping-points

# The other General Winter

When climate change poses a strategic threat, it needs a strategic response

THOSE WHO think about national security love to bandy acronyms such as ATACMS (Army Tactical Missile System) and WOMBAT (Weapon of Magnesium, Battalion, Anti-Tank). They need to add AMOC to the list. The Atlantic Meridional Overturning Circulation is not a weapons system. But it could lay waste a continent—specifically, Europe—to an extent that only a nuclear war could outmatch.

AMOC is part of a system of currents which move heat around the oceans of the world. It delivers a stupendous flow of that heat—more than 1,000 terawatts—to the North Atlantic. That sounds like the sort of planetary juggernaut it would be incredibly hard for humans (whose global civilisation runs at a mere 20 terawatts) to do anything about. Alas, no. AMOC is a curiously delicate thing. Changes in sea-surface temperature and salinity caused by global warming could conceivably make

it stall; such abrupt shutdowns are clearly visible in the geological record. For Europe that could mean a sudden, severe cooling—even as the rest of the world keeps warming.

Europeans sweltering through yet another summer heat-wave might think such cooling would be just the ticket. Again, alas, no. A complete AMOC shutdown could see Brussels hitting -20°C (-4°F) in a bad winter. In Oslo the figure would be almost -50°C (-58°F); not quite Yakutsk, but not far off. February sea ice in the North Sea could come as far south as the Humber estuary and the Frisian Islands north of Holland. Average rainfall in parts of northern Europe would drop precipitously; according to one estimate as much as 80% of England's arable land would no longer be farmable without irrigation. Storms would get worse; so, in some models, might summer heatwaves. This would be the worst of all worlds. ►►



- And it's not just Europe. By cooling the northern hemisphere as a whole, an AMOC collapse would push the band of rain which girdles the tropics towards the south. That would be very bad for the African countries on the south edge of the Sahara; it could also be devastating to the Amazon.

### Cold, dry and sudden

These ghastly prospects are one of the reasons that AMOC takes a starring role in worries about climate “tipping points”—effects of warming that might be dramatic, damaging and irreversible (see Science section). Another reason is the strong suggestion, in both theory and models, that after a (currently unknown) temperature threshold is passed, the collapse could take just a few decades. A third is that AMOC, or at least parts of it, may already be in slow decline.

This is well known to people who think about climate

change—as is the level of uncertainty about how far away the threshold actually is and the spirited debate over how complete a collapse might ensue. But there is no evidence that such possibilities are feeding into government planning processes.

You might argue that they shouldn't: that the response to the risk should be to redouble all efforts which might keep the temperature low enough to avoid a tipping point. But preparedness makes sense. The Advanced Research and Invention Agency in Britain is funding prototype monitoring schemes that might make possible early warnings of accelerating collapse. If it could be made robust enough, such a system could make possible years of preparation.

If this were a military threat, such risk-reduction would be second nature, as would table-top analysis of vulnerabilities and contingency plans for softening impacts. Larger outlays are not, as yet, necessary. But larger imaginations are. ■

### Racial justice in South Africa

## Time to scrap BEE

The ruling party's flagship policy has failed to lift up most black South Africans

SOME MONTHS after Nelson Mandela was released from prison in February 1990, he told businesses that South Africa must “deracialise the exercise of economic power”. Such words unnerved the conglomerates that had prospered under apartheid. Mandela's African National Congress (ANC) then thought that nationalising industries was the best way to uplift black South Africans. To help convince the ANC of the merits of capitalism—before it won power in South Africa's first all-race election in 1994—the firms proposed “empowerment deals” instead. Discounted assets were sold to members of the new elite, including Cyril Ramaphosa, today one of South Africa's richest men—and its president.

What began as ad hoc inducements has become the most far-reaching state-sponsored attempt at racial redress in the world. Black Economic Empowerment (BEE) requires firms, in effect, to have a minimum share of black investors, to hire and train black staff and to buy from black-owned suppliers. Despite criticism of BEE from President Donald Trump, who cites it to justify 30% tariffs on South Africa, Mr Ramaphosa has called it “not just a policy choice but a constitutional imperative”. He says there is no trade-off between racial “transformation” and economic growth.

Mr Ramaphosa is wrong. A policy that made him rich is making his country poorer. It should be scrapped.

BEE is meant to reduce South Africa's stratospheric levels of inequality. But the main beneficiaries have been a tiny group of new Randlords (see Middle East & Africa section). By one conservative estimate around 1trn rand (more than \$50bn at today's exchange rates) has been transferred to fewer than 100 people, many of them returning again and again to strike BEE deals. This is oligopoly, not equality. Under the ANC, inequality between black South Africans has exploded. The top 10% of black earners have seen incomes more than triple. Those of the bottom 50% have fallen slightly. This is mostly because of high joblessness, which reflects persistently low growth.

One reason is BEE. Meeting ownership requirements and paying extortionate transaction costs is an inefficient use of capital. De facto quotas reduce productivity. Forcing firms to buy from black suppliers, even if they are more expensive, squeezes profits. A recent estimate puts the costs of complying with BEE at 145-290bn rand per year, or 2-4% of GDP. This helps explain why South Africa is last for “ease of doing business” on a list of 49 countries compiled by the World Bank.

Larger firms can more easily pay for consultants that advise on BEE, shielding them from competition. The policy repels foreign investment. It also discourages genuine black entrepreneurship. Why start a firm when you could get a piece of someone else's? All this helps explain why the rate at which firms enter and exit the market is a third of that of other middle-income states. Worse, BEE begets graft: when the state must procure based on race, not cost, it makes deals with cronies easier.

Supporters of BEE say that scrapping it is impractical. Even if that were true, the government could stop it from getting worse, for instance by ditching plans for a 100bn-rand state-run “transformation fund” paid for by a tax on firms.

They also argue that abolishing BEE would prevent dealing with the sins of the past. But to improve the lot of poor South Africans it would be better to focus specifically on poverty, not on race. Since the vast majority of the poor are black people, they would be the main beneficiaries of pro-poor policies.

There is an argument that the elite bargain of the 1990s helped keep the peace in a fractious country. But today it aggravates social tensions by fostering inequality and keeping the salience of race high. In a large poll this year pluralities of South Africans, including black South Africans, said that BEE reduces economic growth and is “outdated and divisive”.

Mr Ramaphosa should take these views seriously. It is becoming ever clearer that BEE is not the solution to South Africa's problems, but a cause of them. ■





## Letters *stablecoins and the GENIUS Act, the Onion, the spread of electricity, religion and video games, Superman*

### Regulate stablecoins

I support responsible innovation in finance, and quite agree that for stablecoins to succeed appropriate governance and regulation are needed to make them trustworthy (“GENIUS inspiration”, July 26th). But although the Guiding and Establishing National Innovation for US Stablecoins Act has features that merit consideration globally, such as requiring issuers to be registered and setting out clear rules on reserve requirements and disclosures, the legislation is deeply flawed and serves as a template to reward the issuers of stablecoins rather than the users.

As an innovation, stablecoins promise lower cost and speedy transactions. That promise may not always be kept, once one factors in fees and the vagaries of blockchain settlement. More important, they are exposed to scams, illicit activity, and operational and cyber-security risks, and although they are supposed to be backed by high-quality collateral that is not a guarantee of safety. Financial shocks have recently affected even the US Treasury market.

The GENIUS Act doesn’t address many of these vulnerabilities. Although Donald Trump believes that dollar stablecoins will create new demand for Treasury bills, they may simply reduce or eliminate demand for government-only money funds. As Simon Johnson and Brooksley Born remind us, we’ve seen this movie before in the Commodity Futures Modernisation Act, which weakened oversight and amplified vulnerabilities in derivatives.

Excessive regulation can hobble innovation in finance and deny the benefits of it to consumers and businesses. But in this case the rush to innovate may create a race to the bottom

if global regulators are to use the GENIUS Act as a template.

RICHARD BERNER

Co-director

Volatility and Risk Institute  
NYU Stern School of Business  
*New York*

Stablecoin issuance hinges on Treasury supply. If stablecoins take off, it hands control of the money supply to politicians. So much for monetary-policy independence. Similar to profligate monarchs, except this time the person at the helm isn’t even trying to sustain a dynasty.

AMY HUBER

Assistant professor of finance  
Wharton School  
University of Pennsylvania  
*Philadelphia*

### Our dumb decade

Regarding your piece on satire in the age of Donald Trump (“Sting like the *Bee*”, July 26th), I’ve been an avid reader of the *Onion* for decades. This includes through normal times (“It Only Tuesday”), dark times (“A Shattered Nation Longs to

Care about Stupid Bullshit Again”) and bizarre times (“Kitten Thinks of Nothing But Murder All Day”). I’ve recently wondered if my belief that it has got less funny is a function of my getting older and grumpier or something else, and your article made something click for me. It’s not that the *Babylon Bee*’s sense of humour is sharper or funnier, but rather that the *Onion* has become more like the *Bee*, whose writers seem to think that comedy consists of restating one’s beliefs in the format of a joke.

The *Onion*’s writers are, as you say, “outraged and exhausted by the administration”. And the internet has changed how humour is received (the understanding of irony is virtually non-existent). One senses that the loss of a certain satirical edge stems from both.

Unlike an earlier era not so long ago, it’s hard to imagine the *Onion* today, or indeed most writers working in the broadly left-leaning world of mainstream comedy, poking fun at socialism (“Marxists’ Apartment a Microcosm of Why Marxism Doesn’t Work”). Or feminism (“Women Now Empowered by Everything a Woman Does”). Or any other viewpoint with which the writers sympathise.

MICHAEL LUEGER

*Wakefield, Massachusetts*

### Waiting time for AI

It is true that the adoption of artificial intelligence is proceeding at a snail’s pace (Free exchange, July 19th). However, the history of the spread of other groundbreaking technologies is instructive. Electricity, for instance, became a commodity shortly after improvements in the light bulb in the 1870s and early 1880s. The world’s first power station was established by 1882. Yet it was only in the 1920s that electricity was fully integrated into manufacturing. This delay wasn’t simply due to friction between various interests or public-choice arguments. A deeper reason lay in business models that were ill-suited for electric

power. Factories designed around a central shaft for steam power required a substantial overhaul to adopt electricity. Similarly, the structural changes needed for AI’s full adoption require time for new business models to emerge.

ISAAC ALFON  
*London*



### The fire inside

Video games are another perhaps surprising media format where Generation Z is finding religious inspiration (Letters, July 5th). Sandy Petersen, a designer on the blockbuster “Doom” franchise, saw its shotguns and chainsaws as one form of worship, blasting demons back to Hell.

Joshua Graham, a character who was first introduced in “Fallout: New Vegas” in 2010, is a missionary bringing the Good News back to a world ravaged by nuclear war, and struggling to defend the community he has adopted from marauding bandit tribes.

Recordings of his actions and dialogue in “Fallout” are on YouTube, and it is instructive to read the viewers’ comments below them. You’ll invariably find hundreds of remarks from young men saying how Joshua Graham opened them up to appreciating a Christian perspective that their secular upbringings had ignored, and more from revived Christians who thought that they had lapsed from religion only to find Joshua Graham helping to inspire them.

It was perhaps unintentional on the developers’ part; Joshua Graham is only a small part of a much larger game-world after all. But “Fallout” has probably done more to prompt a Christian revival than 100,000 happy-clappy guitar jams.

ROBERT FRAZER

*Salford*

### Papers please, Mr Kent

I read your piece on what Superman can tell us about American foreign policy (“A man of steel for all seasons”, July 12th). One can only wonder how the superhero would be treated as an undocumented alien in America today.

JIM HARRISON

*Rensselaer, New York*

→ Letters should be addressed to the Editor at: The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N; Email: [letters@economist.com](mailto:letters@economist.com). More letters available at: [economist.com/letters](http://economist.com/letters)



## BY INVITATION

### John Bolton

*The far north has become NATO's soft underbelly*



**A**LTHOUGH LONG a factor in American strategic thinking, the Arctic now receives far more attention in Washington than in decades. Several forces are at play: increased use of Arctic maritime passages for military and commercial purposes; Russia's historical focus on its northern territories, now magnified by its aggression against Ukraine; and, most salient geopolitically, China's undisguised aim to be an Arctic power. America and its allies have yet to cope adequately with these challenges.

In the second world war, Greenland was critical to North Atlantic convoy routes. The Pentagon clearly understood the Arctic's cold-war role, building the "DEW [distant-early-warning] Line" across Alaska, Canada and Greenland to detect nuclear-equipped Soviet bombers or ballistic missiles heading to the United States. Responding to the *Sputnik* satellite, in 1958 Dwight Eisenhower sent the *USS Nautilus*, the world's first nuclear-powered submarine, under the Arctic ice cap from the Bering Strait to the Atlantic, in the first submerged transit of the North Pole.

Unfortunately, cold-war victory led to geostrategic complacency, not just in Washington, but across NATO and bilateral American alliances. This complacency is disappearing as the race for Arctic hegemony picks up, but the West has much to do, and quickly, to counter the rising threats from China and Russia.

The prize is potentially vast. Opportunities to exploit the fabled Northwest Passage across Canada, or its counterpart across Russia's northern coast, are enormous. Greater access to Far North natural-resource deposits, both at sea and ashore, are also generating a lot of attention.

Updating the jocular insight of General Hastings Ismay, NATO's first secretary-general, is a good starting-point for the West's Arctic grand strategy: "Keep the Chinese out, the Americans in, and the Russians down." The alliance's soft underbelly is now probably the Far North, not the Mediterranean.

President Donald Trump remains sceptical of NATO and, indeed, the very concept of collective-defence alliances. Nonetheless, America is a front-line Arctic power, as Alaska's congressional delegation relentlessly reminds Mr Trump, and the region's importance to his presidency's legacy should be obvious.

American military resources are, however, currently wholly inadequate to the task, with insufficient Navy and Coast Guard vessels worldwide, let alone those required for Arctic (and Antarctic) operations, such as specialised icebreakers. NATO's admission of Finland in 2023 and Sweden in 2024 helped plug some of the gaps in the alliance's Arctic naval capabilities.

William Seward, Abraham Lincoln's secretary of state, looks ever more prescient. Had he not led the United States to buy Alaska from Russia in 1867, Russia might have remained a North American power, and the cold war might never have ended. He also tried to buy Greenland from Denmark in 1868. Had he succeeded, today's circumstances might have been easier.

Mr Trump did not discover Greenland in 2019—when he first mooted buying it—but he has greatly complicated addressing how the huge island and its tiny population can once again be fully integrated into NATO defences. The 1951 US-Danish Defence of Greenland treaty is a workable basis for guarding against the Chinese and Russians, while allowing Greenland's political status to evolve. America had as many as 17 military facilities there during the cold war, and today's focus hopefully precludes China and Russia from acting covertly against NATO's security interests.

Norway's Svalbard islands graphically embody the alliance's dilemmas. John Longyear, an American businessman, initially exploited their coal deposits in the early 20th century (more evidence of how ahistorical today's American isolationists are). However, allowable under the 1925 treaty confirming Norwegian sovereignty, Svalbard also features Russian mining operations 30 miles from its major habitation, appropriately named Longyearbyen.

A European intelligence official said recently that "Svalbard has to be near the top of a list of where Russia might try something." This is not fantasy. China poses an analogous threat to Taiwanese islands like Kinmen and Matsu, just off the mainland, which it could readily seize without invading Taiwan outright. These are inviting targets, testing allied resolve in the Far East and the Far North. Can Svalbard's treaty-based demilitarisation be preserved? As I found during a visit there in April, the islands provide NATO's adversaries excellent locations for naval or air bases.

Among NATO's Arctic Ocean members, Canada is the hole in the doughnut. Persistent Canadian underspending on defence during Justin Trudeau's governments remains uncorrected. Helpfully, however, relations between America's and Canada's armed forces are otherwise quite good, including through long-term development of national missile defences for both countries. It is Canada's politicians who have failed.

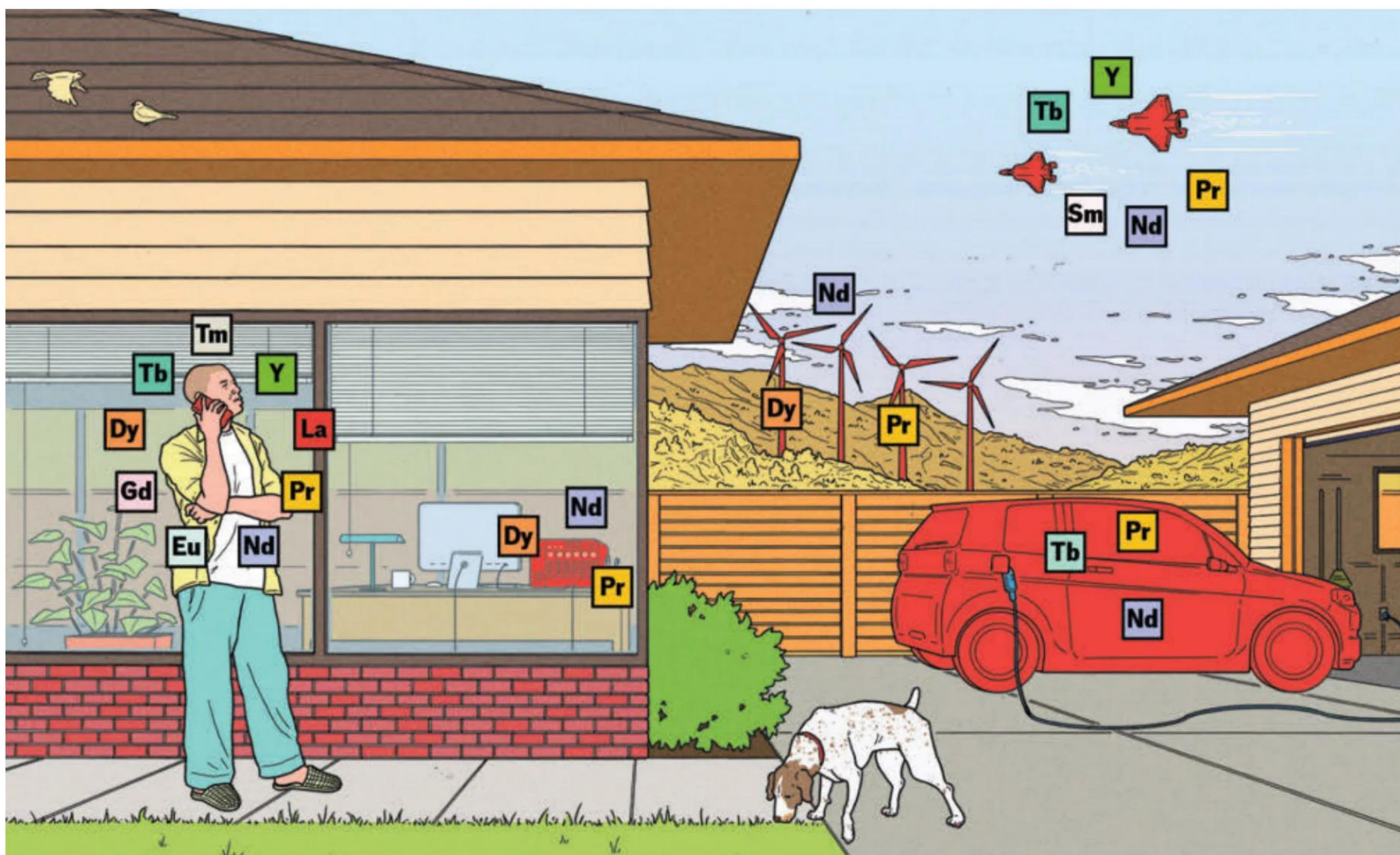
Moreover, spats between Canada and America over whether various aspects of the Northwest Passage are international waterways or Canadian territorial waters must also be resolved. One approach would be to agree that passage by NATO-member warships would be freely permitted in fulfilling their alliance obligations.

These are merely preliminary considerations. Formidable issues remain, including the need for a massive increase in NATO defence expenditures, not just for the Arctic but worldwide. Cold-war victory didn't "end history" in the Arctic any more than anywhere else. And, critically, isolationism can play no part in strategising about a region so close and vital to American national-security interests. Time to pick up the pace. ■

*John Bolton was America's ambassador to the UN from 2005 to 2006 and its national security adviser from 2018 to 2019.*



## Briefing Rare earths



## Roiling stones

FRANKFURT AND GANZHOU

**China is exploiting its near-monopoly in rare earths. How can the West resist?**

IT DOES NOT look like the epicentre of a geopolitical earthquake. JL MAG's leafy headquarters in Ganzhou, in south-eastern China, features a running track, a football pitch and factory blocks painted a jaunty blue and white. The campus usually supplies China's BYD and America's Tesla, the world's two biggest manufacturers of electric cars, with magnets made from rare earths—obscure minerals with a starring role in modern industry. Recently, however, China has restricted exports of JL MAG's wares and of rare earths more broadly, causing shortages that forced the idling of some factories and alarmed Western firms and governments.

Rare earths, a group of 17 elements with unique magnetic, luminescent and electrical properties, are vital to modern economies. Refined into powdered oxides and sintered into magnets, they can be found in consumer appliances such as mobile phones, vacuum cleaners and stereo speakers. Their use in data centres, in the gener-

ators of wind turbines and in the motors of electric cars—and in the robots that assemble such things—makes them essential to booming industries (see chart 1 on next page). They are important to the defence industry (for jet engines, guided missiles and night-vision goggles) and to health care (for lasers and scanners). As the world gets richer, greener and warier, demand for all these things is surging. Adamas Intelligence, a research firm, expects rare-earth consumption to more than double by 2035.

Rare earths are rare only in the sense that they tend to be found in very low concentrations and are chemically difficult to isolate. Their production, in contrast, is highly concentrated (see chart 2), with Chinese firms accounting for 69% of the ore dug up, over 90% of the refined minerals produced and nearly all of the manufacture of rare-earth magnets. In April, after America slapped China with 54% tariffs, China began to restrict exports of seven rare earths. Lately some shipments have re-

sumed, but the West remains anxious. Rare earths are a buzzword at intergovernmental summits. The Pentagon is investing in projects to mine them. Is the world hostage to China's near-monopoly and, if so, can it free itself?

### A rarefied industry

China began mining rare earths in the 1950s. At first it trailed behind America, which had discovered rare-earth deposits in the 1940s as it searched for uranium to make atomic bombs. But in the 1980s China granted licensing authority to local governments even as it began welcoming foreign investment and encouraging exports. Landlocked provinces saw a chance to industrialise. Hundreds of mining firms sprang up. By the 2000s there was a rare-earth glut. America's main mine, Mountain Pass, had shut. Chinese producers were the last men standing, but even they were suffering: the industry was fragmented, illegal mining was rife and profits were scarce. »



► To shore up the industry, China's government enlisted ministries, institutes and universities to foster research. Between 2000 and 2016 the Chinese Academy of Sciences produced 2,018 papers on rare earths. The authorities also encouraged consolidation in the industry, culminating last year in the formation of two state-owned giants. China Northern Rare Earth, in inner Mongolia, extracts "light" rare earths by digging. China Rare Earth (CRE), based in Ganzhou, cranks out the "heavy" kind through leaching. The pair account for nearly all of China's rare-earth mining.

The same firms also refine rare earths from the ores—an area in which China is even more dominant. As well as domestic feedstock, they have access to cheap ore from neighbouring Myanmar, where a bitter civil war has allowed a completely unregulated mining industry to flourish. Refining is a complicated business, requiring lots of electricity, solvents and reagents. Processing some ores involves more than 100 separate steps, the details of which are fiercely guarded secrets. These techniques are also tailored to the local geology, so are not easy to replicate.

Experience breeds efficiency, allowing yields to rise and costs to fall. A patent filed in July aims to push the concentrate grades at Bayan Obo, a northern rare-earth mine that is the world's largest, past 60%, says Cory Combs of Trivium, a consultancy (40-50% is typical). The presence of all elements of the supply chain within China, be it producers of such inputs as machinery and chemicals or consumers of rare earths, such as manufacturers of magnets, generates more savings.

All this makes China's domination of the industry hard to challenge. Although alternative suppliers are starting to master a few links in the chain, they "are always missing something", says Wang Yue of Wood Mackenzie, a consultancy. The Chinese authorities are determined to keep it that way. In 2023 they restricted the export of equipment used to process rare earths. Some people with special expertise in the field are barred from travelling abroad.

China's support for the rare-earths industry probably originally owed more to economic opportunism than to geopolitical calculations. "I don't buy the argument that Beijing spent 50 years developing rare earths as a tool for conflicts that hadn't happened yet," says Mr Combs. But, intentionally or not, rare earths have become a source of pride and clout. A staffer at JL MAG says Ganzhou's prowess "has surpassed expectations". A snack vendor agrees: "Now everyone in the world recognises that our country is strong." In another part of the city, the gates of Yueci Mag-Tech, which makes magnetic materials for aerospace and other industries, bear a bright-red sign: "We will not waver as we

forge ahead in the direction indicated by General Secretary Xi Jinping!"

At the moment, Mr Xi seems to be steering China towards using rare earths as a means of economic coercion. At first glance, they seem well suited to the task. Their production does not depend on imports of raw materials, unlike other vital commodities that China produces the bulk of, such as copper and lithium. And the costs of curbing exports are strikingly asymmetrical: for a few tens of millions of dollars in forgone sales, whole foreign industries can be crippled.

### Raring for a fight

The export controls China put in place on April 4th gave an indication of the pain it could inflict. The rare earths involved (and magnets using them) could no longer be exported without a special licence. The ostensible justification was to prevent military uses. In practice, all sorts of industrial supply chains snarled. Applications for export licences piled up and exports plunged. The scant stocks available outside China soared in price. Ford and Suzuki, among other carmakers, had to suspend production at some factories.

Western executives and officials rushed to negotiate. Some companies agreed to disclose commercially sensitive information about how they used rare earths, including technical drawings, to secure the necessary export licences. Approvals, especially for magnets, began to accelerate in June. But exports remain low

and inconsistent. German firms have received more magnet licences than American ones, for instance. Carmakers in India, which has strained relations with China, appear to be at the back of the queue.

Even if exports revert to their previous levels, it could take months to replenish stocks. Moreover, some of the licences that have been issued are valid for only six months, after which buyers must reapply. And the rules may always change again.

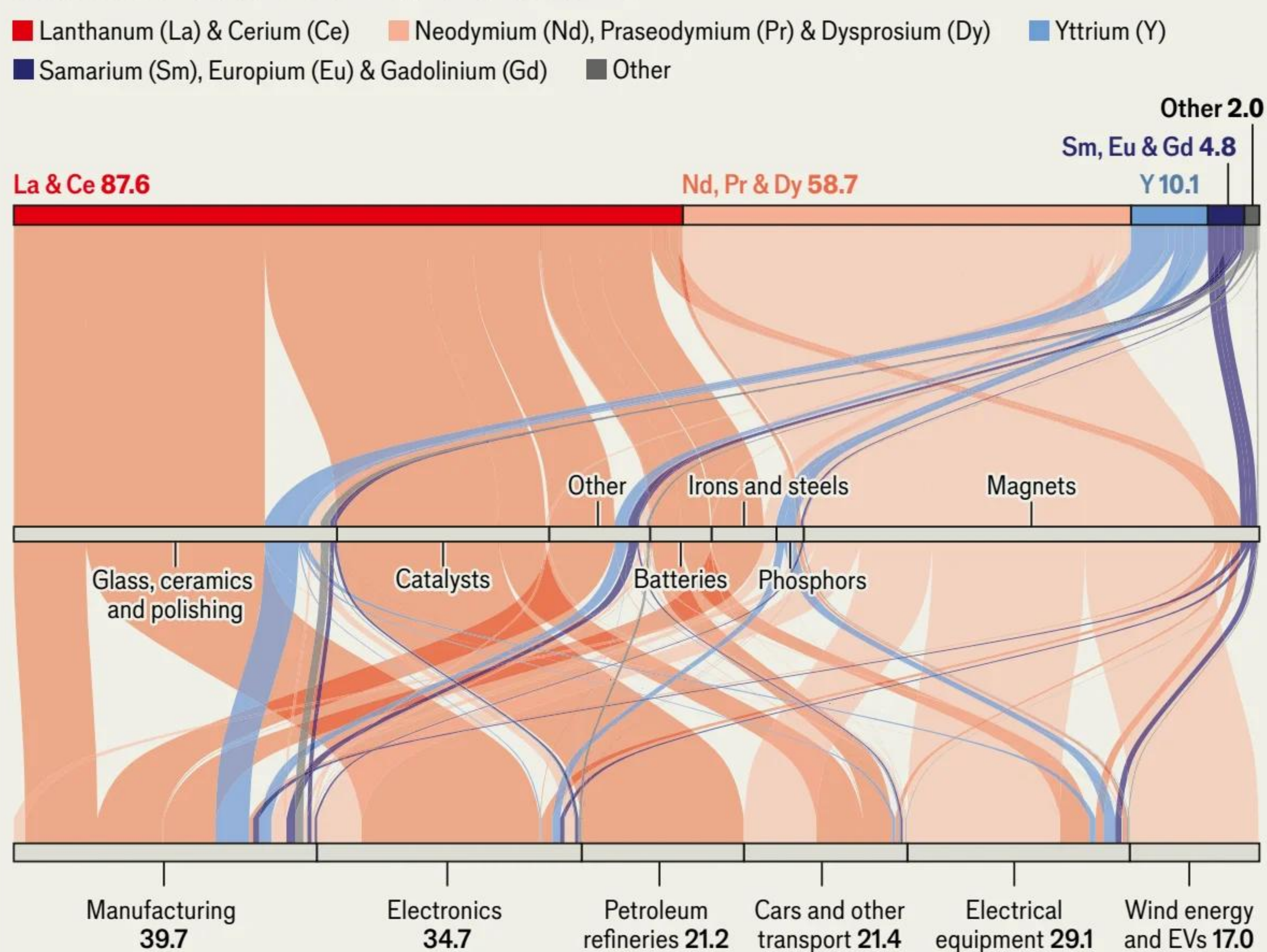
A refurbished bunker from the second world war at a confidential location in Frankfurt gives a sense of how precious rare earths have become—and how vulnerable the West remains to shortages. The bunker holds 300 tonnes of minerals amid brutalist-chic security. The walls are two metres thick; the door weighs 4.6 tonnes. For some rare-earth elements, the bunker holds 10% of the world's annual output. In one corner an Asian manufacturer maintains a stash worth nearly \$10m. Another firm, from Europe, stores enough here to cover two years' worth of use.

Yet most consumers have no buffers. The majority of the metal in the bunker is owned not by end-users but by Tradium, a metals merchant whose sister company, Metlock, runs the facility. Buyers who usually haggle over pennies per kilogram "want material at any price", says Matthias Rütth, Tradium's founder.

Western leaders consider the threat grave. Gracelin Baskaran of the Centre for Strategic and International Studies, a think-tank in Washington, DC, says "a ►►

### All over the place

#### Global uses of rare-earth elements, 2020, '000 tonnes



Source: "Rare-earth-element sources, end-use demand trends, and hydrometallurgical separations", by J. Vaughan, V.L. Gontijo, R. Valenta and E. Alonso, June 2023



► whole-of-government effort” is under way in America to reduce dependence on China. Mountain Pass, which resumed operations in 2018, produced 47,000 tonnes of light rare-earth oxides last year. It aims to reach 60,000 tonnes by 2030. America’s Department of Defence has agreed to guarantee a minimum price for its output well above the level that prevailed before China curbed exports. In May Lynas, an Australian firm backed by the American and Japanese governments, began producing heavy rare earths in Malaysia, making it the first commercial producer outside China. In June the European Union said it would back rare-earth projects in Malawi and South Africa. Hundreds more schemes are being mooted around the world.

The problem is that most of these are years away from starting up, if they ever do. Project Blue, a consultancy, lists just 22 projects that hope to be up and running by 2030. Delays are frequent in mining and rare earths present particular difficulties. Chinese producers are so efficient it is hard to compete with them and the current export restrictions are so mercurial it is hard to know how long they will last. Financing big upfront investments in mines under such circumstances is tricky.

But there are other options besides simply trying to replicate China’s supply chain in the West. One possibility is recycling, which is currently negligible. After all, says Frédéric Carencotte, the founder of Caremag, a rare-earth startup, recycled magnets “are the richest kind of ore we know”. The EU, which has no rare-earth mines of its own, is especially keen to foster a recycling industry. A law adopted last year aims to satisfy a quarter of the bloc’s demand for critical minerals, including rare earths, through recycling by 2030.

Next year Caremag, which has raised €216m (\$253m) from private investors and the French government, hopes to begin producing recycled rare earths at a plant in Lacq, in southern France. It plans to recycle around 2,000 tonnes of magnets a year. The feedstock will include everything from big electric motors in cars to the tiny ones in hard drives. A good deal of it, says Mr Carencotte, will come from the swarf left over from manufacturing virgin magnets in the first place. In 2024 the firm signed a ten-year supply contract with Stellantis, a carmaker that owns the Chrysler and Fiat brands, among others (and whose biggest shareholder owns a stake in *The Economist’s* parent company).

Cyclic Materials, a startup based in Canada which has raised \$84m from investors including Amazon, Hitachi and Microsoft, has similar ambitions. It is building two plants, one in America and another in Canada, which should between them produce 500 tonnes of recycled rare earths a year, including heavy ones. In May Cyclic

inked a deal with Lime, an American firm that makes rentable e-bikes, to recycle the vehicles at the end of their lives. Besides rare earths, says Ahmed Ghahreman, its founder, it will also recover aluminium, steel and copper. Mr Ghahreman hopes that will help the firm stay viable even if rare-earth prices tumble.

Some companies may be able to slash their consumption of rare earths. The car industry provides possible examples. Most electric cars built today rely on permanent-magnet motors (PMMs), in which powerful rare-earth magnets are mounted on the rotor (the bit of the motor that moves), while electromagnets are mounted on the stator (the bit that doesn’t). Electromagnets are coils of wire that generate a magnetic field when an electric current is passed through them. The interaction between the two magnetic fields makes the rotor spin and the wheels turn.

PMMs are powerful, efficient and compact. But they are not the only way to turn electricity into motion. Tesla’s early electric cars used induction motors. These eschew magnets on the rotor and rely instead on a phenomenon called electromagnetic induction to make it spin. Induction motors avoid rare earths, but are generally bigger. They can be more efficient in some circumstances, however. A few contemporary vehicles, such as Audi’s Q6 e-tron, use induction motors alongside PMMs.

Another option is to replace the permanent magnets on the rotor with a second set of electromagnets like the ones found on the stator. Such “externally excited” motors (EEMs) are more complicated than permanent-magnet machines. The engineering tricks necessary to transfer electricity from the battery to the spinning rotor means they tend to be bigger, too. But, like induction machines, they can be built without any rare earths.

Both BMW, a German carmaker, and Renault, a French one, sell cars powered by externally excited motors, and boast about their lack of reliance on rare earths in their ads. The technology is improving rapidly.

ZF Friedrichshafen, a big German supplier to the car industry, has developed an EEM that is no bigger than an equivalent PMM. With no rare earths, the motor is cheaper too, says Otmar Scharrer, who runs electric-powertrain research for ZF. And the ability to control the magnetic field in the rotor precisely means it can sometimes be more efficient, especially at high speeds. Dr Scharrer says several carmakers are interested in ZF’s new EEM. It hopes to start manufacturing at scale in 2028.

“Nearly all the big car companies at least have the option to build electric motors without using rare earths,” says James Edmondson of IdTechEx, a research firm. The question, he says, is whether they regard the current shortages as a short-term disruption that can be ridden out or a longer-term problem that will require changes to their business plans.

### Rareguard action

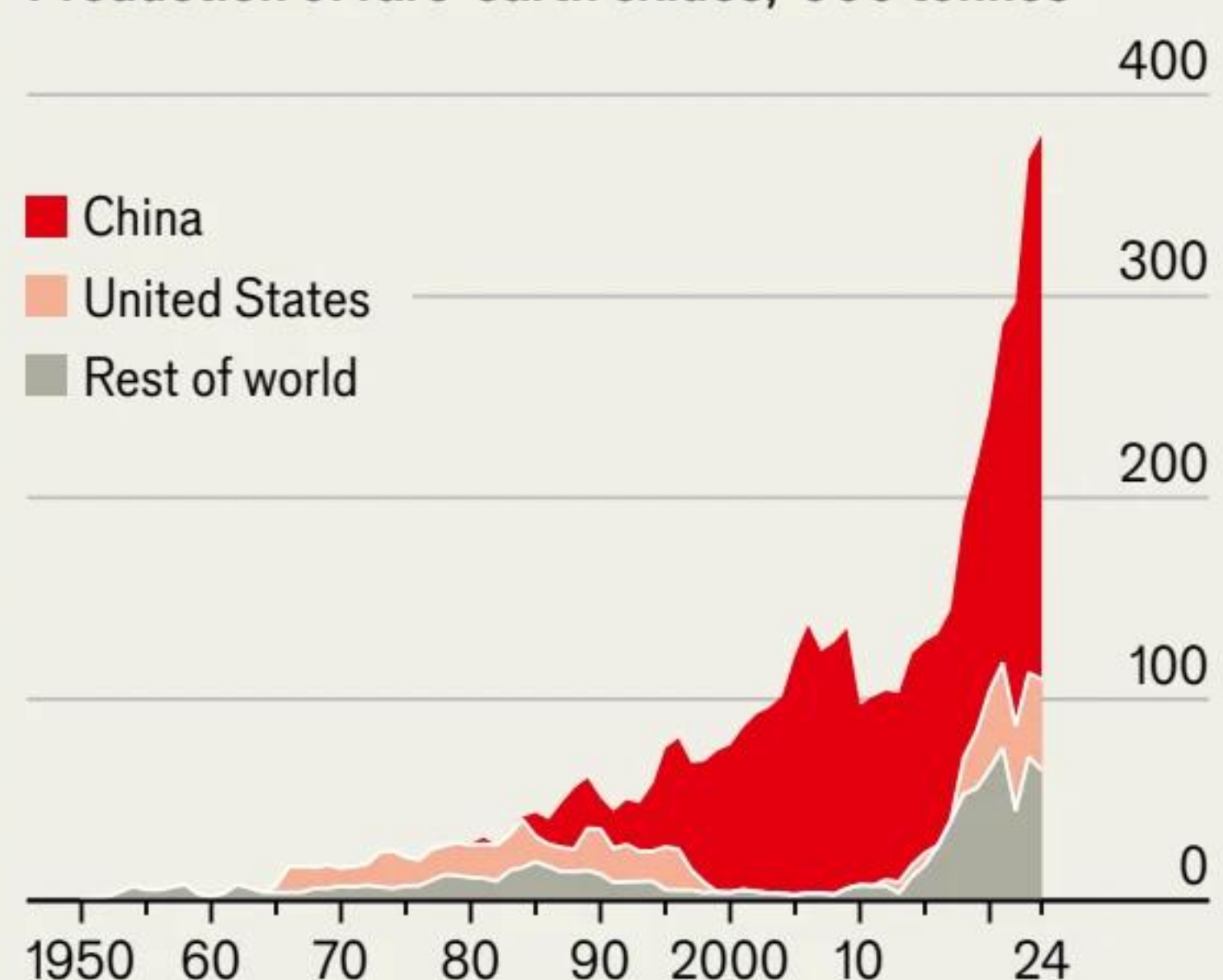
That question—of how long the disruption might last, and how willing China might be to use rare earths as a weapon in future—will determine how quickly and resolutely firms and governments seek to insulate themselves from Chinese pressure. One the one hand, the woolliness and inconsistency of the current Chinese restrictions may blunt the incentives to adapt. On the other hand, this is not the first time China has weaponised rare earths.

In 2010, amid a Sino-Japanese maritime dispute, China throttled exports of rare earths to Japan. Japanese manufacturers, with their lean, “just in time” supply chains, were caught off guard. The Japanese government was forced to release the captain of a Chinese vessel it had detained, after which China allowed exports to resume. But the supply scare encouraged Japan to use less rare earths, produce more of them itself and build stockpiles. Although some of this caution has since dissipated (witness Suzuki’s difficulties), Japan is still much less dependent on Chinese imports than it was 15 years ago.

Furthermore, the West does not need to develop a home-grown substitute for the entire Chinese rare-earth industry to reduce the threat China’s monopoly poses. That would be prohibitively expensive and would require open-ended subsidies. Instead, argues David Merriman of Project Blue, the West could “significantly derisk” by cutting its reliance on China to 60-70% of consumption. That would provide sufficient alternative supply for the most critical uses. Recycling, thrift and innovation could sort out the rest. And of course, the more aggressive China is about using its market power, the greater the incentive the rest of the world has to find ways round it. The only way China can preserve its monopoly in the long run is to keep rare earths both cheap and abundant. ■

### Cornering the market

Production of rare-earth oxides, '000 tonnes



Source: USGS



# Digital public infrastructure gains ground in the global south

**South Africa, Nigeria and Brazil are helping to shape how countries build digital public infrastructure and foster trust**

Across Africa and Latin America, governments are investing in digital public infrastructure (DPI) to transform how residents verify their identities, make payments and access services. Ultimately, though, the success of DPI will hinge on trust.

A handful of countries in the global south are setting the pace—building not only the systems themselves, but also the public confidence needed to sustain them. Brazil, Nigeria and South Africa have emerged as early leaders, shaping regional conversations and offering tangible models for others to follow.

“DPI is being driven by countries in the global south who understand first hand how interoperable and inclusive digital systems can unlock access to opportunity and growth,” says Sanjay Jain, DPI director for the Gates Foundation.

South Africa, as current G20 president, has made DPI a pillar of its agenda. It joined India and Brazil in last year’s Troika Declaration, a call to embed DPI in governance. At home, it is “walking the talk”, says Mr Jain, with a national roadmap built on digital IDs, a government services portal and a secure data exchange framework.

Nigeria has also emerged as a leader. More than 120m Nigerians—over half the population—now use a National Identity Number, with a goal of reaching 180m next year. A new digital authentication app promises to enhance secure access to services.

In Latin America, Brazil is setting the pace. Over 150m people—almost three-quarters of the population—use Pix, a free, instant payment system that proved invaluable during the pandemic, drawing millions into the formal economy. Brazil’s Open Finance system has boosted competition, while its Mercosur Digital Citizen Framework, built with Uruguay, enables cross-border digital identity recognition.

“Brazil’s model is one that other countries in the region are watching closely,” says Mr Jain.

Still, challenges remain. Concerns over surveillance, data misuse, foreign control and system complexity persist, especially in countries with limited Internet access.



**“Trust is everything. When users see that systems are designed to protect them, and when governments communicate openly and act accountably, trust follows, and adoption grows.”**

Sanjay Jain, DPI director for the Gates Foundation

But these risks only reinforce the need for DPI to reflect its core design principles: systems must be secure, inclusive and adapted to local contexts. Frameworks such as the UNDP’s DPI Safeguards Initiative help to ensure that these values are embedded from the outset.

Early movers are putting these principles into practice and setting standards for others to follow beyond their borders. Open-source platforms like Mojaloop (for payments) and MOSIP (for identity) are gaining ground. Through initiatives like the 50-in-5 campaign, countries are sharing experiences and bringing insights back home, reinforcing a cycle of collective learning that makes DPI more inclusive, secure and responsive to local needs. The result is not a one-size-fits-all model, but a dynamic, collaborative ecosystem.

Seeing DPI in action can shift public attitudes and build momentum.

“Trust is everything,” says Mr Jain. “When users see that systems are designed to protect them, and when governments communicate openly and act accountably, trust follows, and adoption grows.”



## Gates Foundation



# Britain



## Grassroots innovation

# Game changing

BRIGHTON

**Video games are one of Britain's most overlooked assets**

THE ARRIVAL of “Grand Theft Auto VI” in 2026 will be less a video-game release than a cultural moment. The game, which has players stealing cars, selling drugs and killing cops, will have cost upwards of \$2bn to build. Yet it will almost certainly turn a profit within its first week. With its glitzy cityscapes, radio soundtrack and trademark swagger, the series looks, sounds and feels like a warped parody of America. Yet this blockbuster began its life in the small Scottish city of Dundee and is still made by a team of tartan nerds in Edinburgh—a feat celebrated in the British government’s strategy for the creative industries, released in June.

Such recognition is overdue: gaming has long been a British superpower. The industry generates annual revenues of some \$200bn globally. Strip out the Cayman Islands (a British overseas territory) and Britain is the third-largest exporter of video games, behind only America and Ja-

pan. Understated and quirky, it often plays the role of incubator. “Tomb Raider”, a billion-dollar franchise with its own Netflix series, began as a sketch in Derby. Recent successes include “Fall Guys”, a battle-royale obstacle course, “LittleBigPlanet”, a pioneer in user-generated content, and “Total War: Warhammer”, based on the tabletop series. In Britain video games generate more revenue (£4.3bn, or \$5.8bn) than the film (excluding streaming) and music industries combined (£3.4bn).

### → ALSO IN THIS SECTION

18 Fantasy football

19 Asian tourists

20 HPV vaccination rates

21 London’s black cabs

22 Bagehot: Revolutionary retirees

Not everyone is convinced that Britain should be as supportive of its gaming industry as of, say, its life sciences. Outdated stereotypes that gaming turns youth into obese oddballs or school shooters still prevail in parts of Westminster. Others fret about the future: with investment slowing and artificial intelligence (AI) looming, the global gaming industry is in turmoil. Such pessimism is misguided. As in other creative industries—from film to fashion—British ingenuity makes it well-placed to thrive in an age of (sameish) AI.

To understand Britain’s unique role in the global gaming industry, go back to its origins. In the early 1980s cheap, programmable home computers gave rise to a generation of bedroom coders. This grassroots mix of creativity and code stood in contrast with America and Japan, where console-driven markets, not PC games, took off first. Britain’s offbeat scene spawned hits with cultish fan bases, such as “Broken Sword”, a mystery adventure starring an American puzzle-solver. This soon attracted the attention of industry giants. In 1997 Dundee’s Abertay University launched the world’s first computer-game degree.

Britain is also good at making mobile games, which are more accessible and cheaper to create than console blockbusters. Golf Clash, the top-grossing sports-mobile game in America in 2021, was made



▶ in less than a year by around 20 people in a leafy town in Cheshire. Tripledot Studios, popular for its Solitaire game, is based in London. In June it bought the mobile-games arm of AppLovin, a Nasdaq-listed American tech firm, for \$800m.

As the industry has grown, with exports increasing from \$3.4bn in 2016 to \$8.8bn in 2021, its benefits have become more evident. It employs 30,000 or so developers, artists and composers and is unusually productive. The gross value-added per video-games worker is almost double the British average, according to government data.

It is also a sector where Britain really is levelling up. Almost four-fifths of video-game developers work outside London (clusters tended to form around successful early studios and to reflect the sector's bedroom origins). Katie Goode, a burgundy-haired rocket scientist turned games designer, runs her virtual-reality (VR) studio from north Cornwall—one of the country's remotest corners. Hubs have emerged in places like Dundee, Leamington Spa, Slough and Teesside.

Britain has also begun to recognise gaming's wider benefits. In the right hands, gaming encourages learning, not laziness. Take Demis Hassabis, known for starting DeepMind, an AI company bought by Google for \$600m in 2014. He attributes much of his success to making a theme-park game as a teen in north London, and later founding a games studio. VR is changing how doctors rehearse surgery and how pilots train for take-off. The National Health Service now prescribes games to treat anxiety and depression.

Yet the belated recognition comes at a tough time. Some issues are specific to Britain. Gaming suffers from the same woes as British tech more broadly: mainly a shortage of venture-capital funding. Smaller studios that struggle to attract investment are unable to scale up. Instead they are often snapped up by foreign buyers, such as Tencent, a Chinese tech conglomerate, which bought Sumo Group, a developer based in Sheffield, in 2022. "We're incredibly good at creating games," says Sir Ian Livingstone, the first Briton knighted for services to the industry. "We're not so good at hanging onto them."

The second challenge is a global slowdown. The pandemic helped gaming boom. Investors piled in, hoping to profit from millions of housebound players. British exports grew by 259% between 2016 and 2021. But the surge led to overproduction. In July Microsoft, maker of the Xbox, announced mass lay-offs in its gaming division, leading to the cancellation of projects in Britain. Sony, a Japanese publisher, closed its London studio in 2024.

At the industry's biggest annual conference in Britain, held in July in Brighton, the mood is subdued. Jobseekers wander the

halls with lanyards reading "seeking new opportunities" or "looking for work".

Technological disruption adds to the unease. Gaming has long been at the bleeding edge of tech—Nvidia made its GPUs for gamers long before they were used on AI models. Alan Turing, a British computer pioneer, created the world's first algorithm capable of playing chess. But many developers are wary of being displaced by machines. "A lot of us feel like Luddites...we just want to start burning the textile mills," says one attendee in Brighton. One game on show lets players explore the abandoned server of a failed studio, its fictional founders' ideas drowned in a tide of generic content, or "AI slop".

### Creative destruction

Yet as artists and disrupters have shown through the ages, in turmoil lies opportunity. And Britain is uniquely well-placed to reap the benefits. Some of the laid-off are starting their own studios, such as Yasmina Fadel, who co-founded a games company after being made redundant last year.

There are also signs that Britain is beginning to better value its ideas. Licensing its distinctive IP to gaming developers helped turn Games Workshop, the creator of "Warhammer", into a FTSE 100 company in 2024 (it has focused on mid-size games). The government's new strategy includes a promise of funding through the British Business Bank to help plug the venture-capital gap, and a promise of a copyright scheme to protect firms' IP from AI.

AI may end up increasing the value of British developers rather than depleting it. It can boost productivity. At one studio in Brighton, a level that once took 90 days to build now takes just ten, notes Nick Poole of UK Interactive Entertainment, an industry body. "In a world of synthetic material and AI-generated content," the government's creative-industry strategy correctly identifies that "human endeavour and creativity will be more important than ever." The only way to mitigate the threat of AI is to "tell great stories that haven't been told before", notes Charles Cecil, the creator of "Broken Sword". What is exciting, he says, is that it is "playing to [British] strengths".

In Brighton that is clearly on display. One arcade-style game, made in Cornwall, stars a cat wielding a revolver and a samurai sword. In "Atomfall", players explore a post-apocalyptic Lake District, complete with distinctive red British telephone boxes. "Thank Goodness You're Here", a surreal indie hit, follows a travelling salesman through a Yorkshire village as he helps residents free themselves from drains, and bake oversize meat pies. "It captures a bit of the British soul," purred *Le Monde*. Only a human, arguably only a British human, could dream up ideas like this. Eccentricity may well be Britain's greatest asset. ■

### Football nerds

## In a league of their own

What the Fantasy Premier League reveals about Britain's favourite sport

LIVERPOOL AGAINST Bournemouth on August 15th is the first Premier League game since May 25th. Some dread the first whistle as the end of 12 weeks of premier-football-free peace. For others those three months have felt like a lifetime.

Among them are not just traditional fans but a new generation of nerds—data obsessives who pore over metrics like PPDA (pressures per defensive action), and compare players' statistical profiles. Outlets like the *Athletic* cater to them with reporting that highlights, say, players in the 98th percentile for dribbling success. Freelance analysts, or "tactics", make a career on social media using data to explain how players fit different tactical systems.

Nowhere is this hunger for data keener than among participants in the Fantasy Premier League (FPL). The game, with more than 11m players worldwide, is simple. Each week you pick a team of 11 players. If they do well in real life, you get points. Some rely on intuition for team selection. They are not the ones who win. The game is dominated by analytical types who obsess over the "expected goals" (xG) created, conceded, and converted.

xG is the poster boy of football's data obsession. It uses data on hundreds of thousands of shots to estimate a player's chance of scoring from various points on the pitch. Such metrics took off in the mid-2000s, propelled by numerate hobby- ▶▶

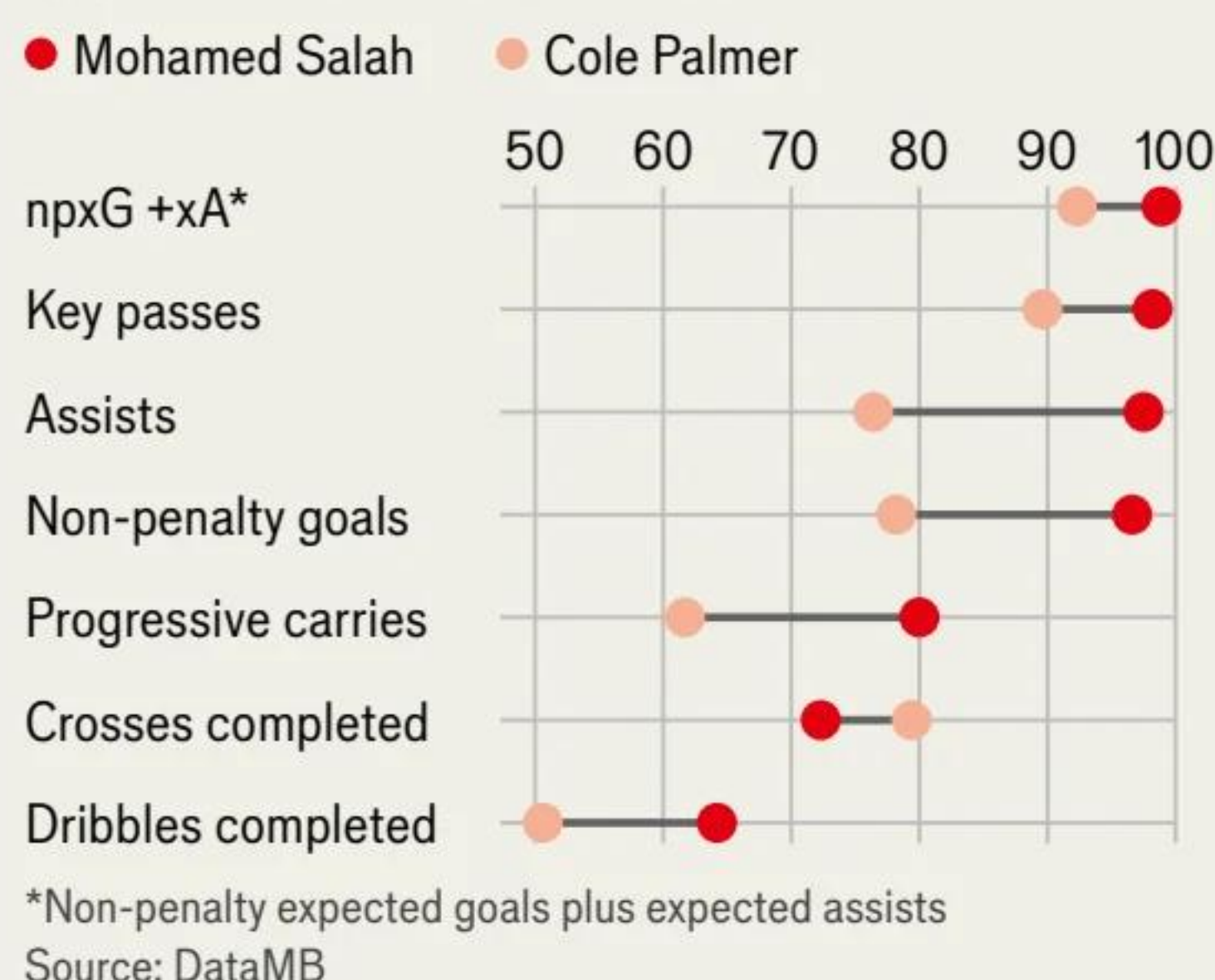


Data with destiny



## Head to head

Football players' performance compared, based on data from Europe's top seven leagues, by percentile, 2024-25 season



## Tourism

## No more coaches

YORK

## Asian tourists are becoming much more intrepid

**Y**ORK IS VERY famous. It's a must-go place!" insists Yuxia, a tourist from Beijing, who is growing frustrated with questions about why she chose to visit a small city in northern England. She learned about York by watching videos on TikTok, Xiaohongshu and other social media. With impressive vigour, she has popped over from Cumbria, some 120km away, for the day.

In 2019 fully 1.7m people visited Britain from China (excluding Hong Kong) and India, according to the Office for National Statistics. Although much less numerous than American or French visitors, the Chinese in particular were loved for their free-spending ways and because they visited from spring to autumn, not just in the summer. The tourism industry was bereft when covid-19 drove the number of Asian visitors almost to zero.

Now they are returning. Just over 1.1m visitors arrived from China and India last year; the Grand Hotel in York says that Asian customers are booking almost twice as many nights as they did in 2019. But the recovery in numbers is less striking than other changes. Today's Asian tourists seem to be younger than those who came before the pandemic, and they behave differently.

North Yorkshire lies between London and Edinburgh, two obvious destinations. Will Zhuang, who works with the York tourism agency, says Chinese visitors also find it more unfamiliar and exotic than London: "They come to Yorkshire and they say, 'This is England.'" That is important, because Chinese tourists now want to experience something of British life, he says. No longer do they stream out of a coach, take a few pictures and move on. These days they tend to visit in small groups, and linger.

The change is also evident at Castle Howard, near York. The 18th-century stately home has been famous in East Asia since Jay Chou, a Taiwanese singer, held his wedding reception there in 2015. Ammie Jones, head of sales at the house, says that Chinese visitors have taken to buying tickets individually, rather than in big groups as they did before the pandemic. They seem more patient and curious. Castle Howard offers audio guides in nine languages. Chinese is the third-most-popular, after English and German.

The most intrepid tourists from China, India and other Asian countries make it across the North York Moors to Whitby, a

seaside town. Some are drawn by Bram Stoker's novel "Dracula", which mentions the town and its ruined medieval abbey, says Michelle Brown of English Heritage, a charity. An added attraction in summer is the chance to observe British holidaymakers as they engage in traditional native customs such as fishing for barely edible crabs, swimming in the frigid North Sea and working on their sunburns.

Elsewhere, Asian tourists are drawn to film locations. Polling for VisitBritain, the national tourism promoter, found that 84% of tourists from China and 79% of those from India (but only 47% of those from France) visited somewhere they had seen in a film or TV series. The Scottish Highlands still benefit from appearing in the "Harry Potter" films of 2001 to 2011. A particularly popular spot, Glen Nevis, appears in those films and in a Bollywood production, "Bade Miyan Chote Miyan", where it doubles as a Himalayan valley.

One reason why Asian tourists have become more independent is that solo travellers and families can negotiate visa and other bureaucratic restrictions more easily than big groups. The Chinese government lifted many of its covid-era restrictions only in 2023. Organised coach tours of Britain often take more than a year to put together, so a recovery has been delayed. The whirlwind itineraries of the past might yet return.

But the number of independent visitors could keep growing, too. To judge by the accounts of Asian tourists in the Shambles, a picturesque street in York, the habit of researching destinations by watching videos on social media has become ingrained. The videos could make tourists feel comfortable tackling stranger places. Besides, some are visiting Britain for the second or third time. They have seen London. ■



Expanded horizons

ists. It took years for the football mainstream to recognise their value.

Football managers were insulted by the notion that speccy whizzkids might know the game better than them. European football experts resented the American investors, inspired by the stat-heavy strategies of the most successful baseball teams, pushing this data revolution. Some saw analytics as but another stage in the gentrification of the working man's game.

But football is about results. Liverpool's embrace of data in the 2010s is often credited for enabling them to compete with petrostate-owned Manchester City. "Yo-yo" clubs like Brighton and Brentford, owned by gambling experts who were among the first to enact a data-led strategy, have become established Premier League outfits.

Over the past decade scouting departments have been overhauled, and specialist coaches using analytics to perfect corner and throw-in routines brought in. And fans are warming to data. Nathan Clark, an analyst for the "Extra Inch", a Tottenham Hotspur podcast, explains: "Fans want to know why their club is losing games when they're losing them, and...why they're winning them when they're winning them."

Data are invaluable for an aspiring FPL player. By ascribing numerical values to specific footballing actions, FPL turns a subjective game into something more formulaic. Specialised FPL websites charge players to access data tables. Influencers add context. Last season, when asked if Nottingham Forest's Chris Wood might be a good choice for an upcoming week, one FPL expert replied: "Not when his wife is eight and a half months pregnant."

Some are still reluctant to accept data's growing role. On social media "proper football blokes" lament the "complete bollocks" of metrics like "expected assists" (which measures the xG value created by a pass). There will always be some holdouts, but the rise of data is inexorable. "We've won the culture war," proclaims Mr Clark, "for better or worse." ■



## HPV vaccination rates

## Falling off a cliff

## Blame declining confidence, a lack of convenience and rising complacency

HUMAN PAPILLOMAVIRUS (HPV) is an unwelcome consequence of a joyful pursuit. Skin-to-skin contact during sex allows the virus to spread, which can lead to genital warts and cancers of the reproductive system. In Britain HPV causes about 3,500 cases of cervical cancer each year and 900 deaths. A vaccination programme that inoculates against the virus—once a runaway success—is floundering.

The HPV vaccine is given to children aged between 12 and 15 before they are typically sexually active. Take-up in girls was around 90% in the years up to 2017. Today the rate for year-nine girls is 74%, on a par with Sierra Leone. In boys, who have been offered the jab for five years, it has fallen by nine percentage points to 69%. In some areas, such as Luton and Leicester, fewer than half of children are vaccinated.

Vaccination rates have fallen in all of Britain's child-immunisation programmes, but the drop is sharpest for HPV. The evidence of the vaccine's efficacy is unequivocal: a study from Scotland in 2024 found no cases of cancer-causing HPV virus among women who received it a decade earlier. The National Health Service (NHS) wants to eliminate cervical cancer by 2040, but says it needs to achieve a 90% vaccination rate by 2030. To do so means tackling the three Cs of vaccine hesitancy: confidence, convenience and complacency.

Confidence in vaccines was dented during the coronavirus pandemic. Surveys conducted by the Vaccine Confidence Project (VCP), a research group, find that the share of respondents who agreed that vaccines are "safe" and "important for children" declined sharply during the pandemic in many countries, but the drop was especially pronounced in Britain.

New survey data from the VCP on vaccine attitudes in Britain, shared exclusively with *The Economist*, show that confidence in vaccines in general has since improved. Among a representative sample of adults, 85% agree that "in general, vaccines are safe", 15 percentage points up on 2023. But when asked specifically about the safety of the HPV vaccine, that figure drops to 74%.

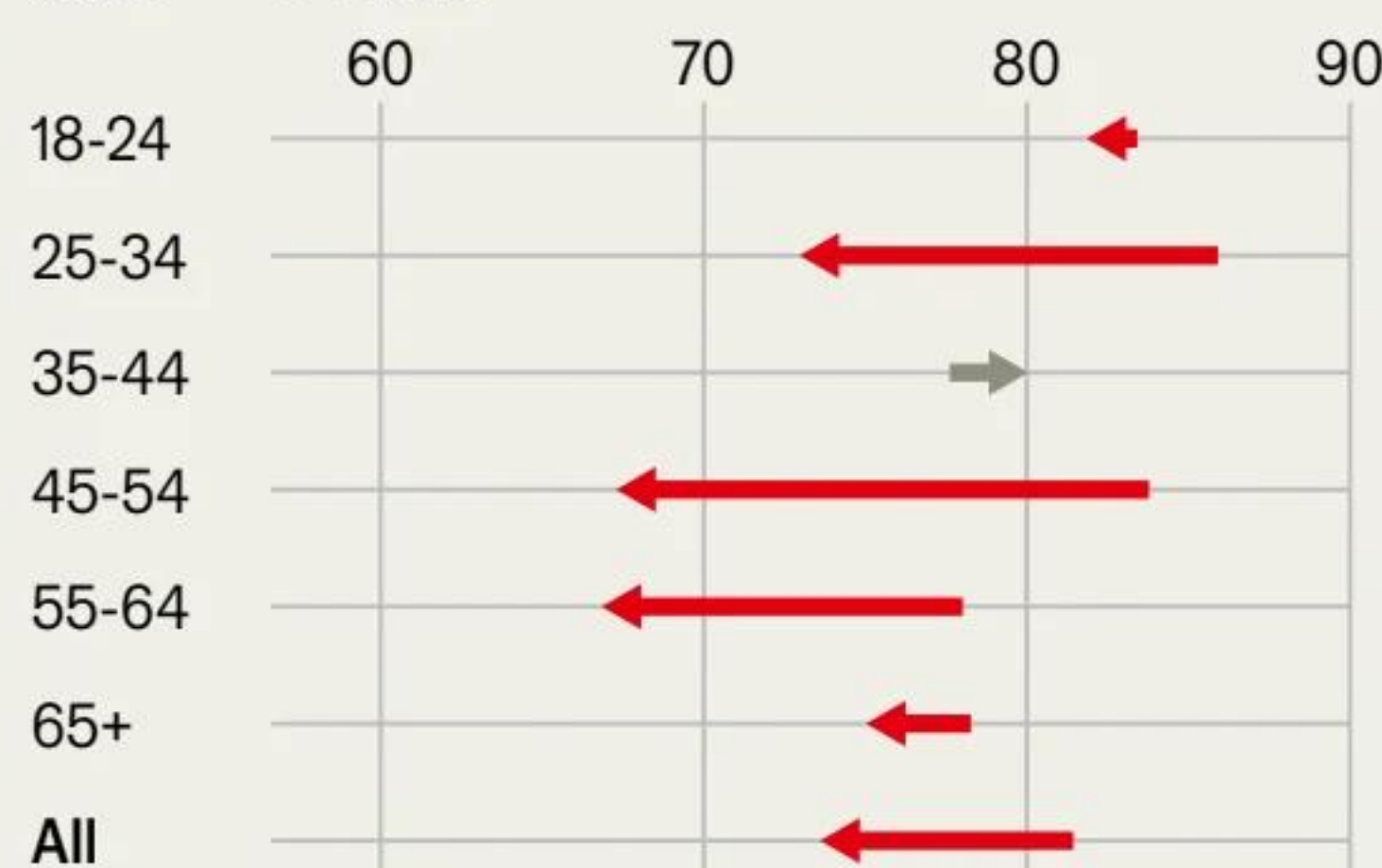
Blame misinformation. Anti-vax parents allege that it causes ovarian failure and other issues. In 2019 Robert F. Kennedy junior, now America's health secretary, called it "the most dangerous vaccine ever invented". Numerous studies have found that its adverse effects are similar to, and

## Warier times

"The HPV vaccine is safe"

Britain, % agreeing\* by age group

2020 → 2025



\*Based on a representative sample of adults, % responding "agree" or "tend to agree"  
Sources: Vaccine Confidence Project; ORB International

no more frequent than, other common vaccines. The UK Health Security Agency (UKHSA) says that the rates of ovarian failure and other illnesses are no greater than would occur naturally in adolescent girls.

Are today's children affected by anti-vax views? Surveys of teenagers show that they know where to seek information they trust about vaccines: from their parents. Worryingly, the latest VCP survey shows that middle-aged people (ie, the parents of teenagers) are among the least likely to say the HPV vaccine is safe (see chart).

The HPV vaccine is administered in schools, but parents must sign a form to

consent to their child being inoculated. The UKHSA says that many go unsigned, not because a parent actively objects but because of a lack of convenience. It wants to tackle this by allowing children to self-consent if the nurse giving the vaccine believes that they are mature enough—though only one in five teenagers say they alone should decide whether to get vaccinated, rising to one in three by age 16.

Some parents worry that vaccination might affect their child's behaviour. Dr Tehseen Khan, a GP in the London borough of Hackney, says Orthodox Jews he works with believe the vaccine is unnecessary because their children will have only one lifelong partner. Although there is no evidence that having the vaccine changes sexual behaviour, some parents fear that it promotes promiscuity. In Scotland, which (unlike England) publishes data by ethnicity, Pakistani and Polish children have the lowest HPV vaccination rates; white British and Chinese the highest.

Complacency may also lead children and parents to wonder why the vaccine is necessary. Helen Bedford of University College London says parents often ask: "Why do I need to get my child who is not yet sexually active vaccinated against something which may or may not happen to them in 20 or 30 years' time?" Vaccination programmes are often victims of their own success, making cervical cancer less common and parents less worried about it.

The NHS recently launched a catch-up campaign, targeting some 400,000 women aged under 25 who did not get inoculated in school. Whether they will get a jab may not be down to the facts. Margaret Stanley at the University of Cambridge, whose research helped develop the HPV vaccine, says at this stage you should "forget the science, it's all about the marketing." ■







## London's black cabs

# No short-cuts

CAMDEN

Despite Uber and satnav, wannabe cabbies still do the Knowledge

AS IF TUGS at his right cheek as he ponders how to navigate from Holloway Road Station to the Quality Chop House, two miles away on Farringdon Road. A dozen fellow students of the Knowledge of London, the gruelling qualification required to drive one of the capital's famous black taxis, watch him squirm under the instructor's classroom interrogation, with another dozen listening in via a video call. Eventually he concedes defeat and rejoins the onlooking semicircle.

London's cabbies have had a hard few years. Ride-hailing platforms such as Uber upended the market, with satnav-equipped drivers who no longer needed to memorise routes. Tighter environmental standards pushed up the cost of vehicles. Councils blocked favourite cut-throughs. Over half of London's roads now have 20mph (32kph) speed limits. Since 2017 the number of black-cab drivers has fallen from about 25,000 to barely 16,500, according to Transport for London (TfL).

Before picking up their first passengers, all black-cab drivers must pass the Knowledge, a 160-year-old test that involves memorising more than 6,000 streets and points of interest within a six-mile radius of Charing Cross. They also need to navigate between them by the most direct route, as mileage helps determine fares. Examiners can make things even harder by insisting on being set down on a specific side of the road or impersonating custom-

ers with heavy regional accents.

Surely satnav, augmented with live traffic insights, has made the Knowledge an anachronism? Up to a point. Expert navigation is only part of the purpose of the exam. It also serves to protect access to what is in effect a 371-year-old guild.

Students are discouraged from using satnav. "Google Maps is full of errors and often calculates routes which are the quickest," says Gert Kreto, an instructor at the Knowledge Point School. "We must learn the shortest route." He estimates that passing the Knowledge costs £10,000 (\$13,300) over two to three years, including classes and renting a scooter, the favoured means of sussing out routes.

Another threat to cabbies now looms in the rear-view mirror: taxis that don't require a driver at all. From next spring the government will allow pilot schemes for autonomous taxis to roam England's roads without human oversight. This brings the country into line with China and American states including California and Texas, where Tesla and Alphabet's Waymo division are operating robotaxis.

A fleet of 15 autonomous Ford Mustangs (overseen by safety drivers for now) is already venturing onto London's roads from the King's Cross headquarters of Wayve, a British tech company that last year raised over \$1bn from Japan's SoftBank and others. On a recent 15-minute demo ride, it drove with a mix of calm and au-

thority, like the best taxi drivers. Wearing a crown of seven cameras, the car was unfazed by pedestrians dawdling near zebra crossings, impatient cyclists jumping red lights or road works blocking its path.

For all these challenges, a new generation of drivers is in training: 1,166 are currently studying the Knowledge, an increase from the low of 759 students in 2022, according to TfL data. Unlike existing drivers, who tend to be white, this new cohort is more ethnically mixed. Many are Uber drivers seeking higher wages and freedom from the ride-hailing apps. Students complain that the apps can pay as little as £1 a mile; a typical black-cab fare might be five or six times that. "We're seeing more and more communities realising what the earning potential is," says Steve McNamara, general secretary of the Licensed Taxi Drivers' Association.

At the Knowledge Point School on a Tuesday evening in July, Robleh Salah takes a break from studying the large laminated maps that line the walls to explain that his main motivation is independence. A former mechanic, he has been studying the Knowledge for three years and is close to finally passing. His schedule is 11am to midnight at the school, four days a week. He drives an Uber on the other three days.

London's transport authorities seem unsure how to treat taxi drivers. The mayor has set a target that 80% of journeys should be made on foot, by bike or with public transport by 2041 (though that figure has never breached 64% since he announced the goal in 2018). Are taxis to be nurtured as essential public infrastructure or punished like private cars? "Anything on four wheels that isn't a bus falls into the 20%," says Elly Baker, chair of the London Assembly's transport committee. "Taxis, as shared transport (because I think that's how they should be categorised), I think they've got the crappy end of the stick."

## Where to, guv?

The future of London's cabbies isn't entirely black. In a recent simplification of the Knowledge, TfL limited the list of locations to be memorised. Ride-hailing apps have allowed their fares to rise—and they have also introduced new clients to the convenience of taxis. "There's a whole generation of people, young people, who have never got a bus," notes Mr McNamara. "Uber did us a favour." Nowadays passengers can even book a black-cab ride through Uber.

Drivers are also sceptical that robotaxis will ever be able to navigate central London's roads, or that passengers will want them. "It will take quite a while for your average Londoner to be comfortable with not having somebody actually there," reckons Ms Baker. For now, however, the number of licensed cabbies keeps ticking lower. ■



# BAGEHOT

## *Aux barricades, boomers!*

*The rise of the revolutionary retiree*



ONE BY ONE, the police plucked supporters of Palestine Action, a banned terrorist organisation, from the crowd outside the Houses of Parliament on August 9th. At 75 years old, Sir Jonathon Porritt, an environmentalist, was fairly typical. About one in five of those arrested was in their 70s. A frail 81-year-old was gingerly shepherded away by three policewomen (“She’s got a stick!” shouted one protester). She was not the only octogenarian. Fifteen 80-somethings were carted away by the Metropolitan Police, compared with only six teenagers. By day’s end 532 people had been arrested, half of whom were over 60 years old.

An army of pensioners had gathered to protest against a silly law. The government placed Palestine Action on a terror list in July after its members vandalised two aeroplanes on a British air base. Most were arrested for holding a placard reading “I oppose genocide” (which is legal to say) and “I support Palestine Action” (which contravenes section 13 of the Terrorism Act 2000). Yet it revealed an overlooked facet of British politics. At street protests, it is often the boomers who are on the barricades.

Britain is an outlier when it comes to the politics of its elderly. In other European countries, boomers are a bulwark against radicalism. In France, for instance, Marine Le Pen struggles among pensioners. In Britain, boomers are often ballast for radical parties or movements. It was older voters who dragged Britain out of the European Union. Pensioners provide the bedrock of Reform UK’s support. It is the same on the radical left, where octogenarians outnumber teens in standing up against Britain’s, at times, deranged anti-terror laws.

Politics is always more of an older person’s game than people think. When Jeremy Corbyn took over the Labour Party, the image was of young lefties flooding the party. In fact, the average age of new joiners was 51. For all that Reform likes to boast about its TikTok presence, it is the elderly who flock to its rallies when the Nigel Farage Show rolls into town. When liberal England rebelled against Britain’s departure from the EU, it was pensioners who led marches through Whitehall, wearing blue berets covered in yellow stars. Naturally, the designer of the “beUret” was an OAP.

Now the radical fringes of politics are dominated by aged ag-

itators. After all, the retired have the means to be there. Protest may be a right. Being able to turn up is still a privilege. Who has the time and money to travel to London, sit in the sun, be arrested, spend two hours in a police tent and then spend the next few months worrying whether the police will press charges?

And boomers are able to live with the consequences. For younger people, a terror charge, however overblown, is not something one wants on a CV. It is a heavy burden for someone in their 20s, but it is a smaller deal for someone in their 80s. Those who turned up at the weekend knew they would probably be arrested. Age, however, brings a certain invincibility. “I’m retired so I’m not scared,” one pensioner told a camera. “I won’t lose a job over it.”

If the young were radical in the 1960s, it was because they could afford to be. Jenny Diski, who wrote a memoir about her activism in the period, summed up the quid pro quo: “The underlying promise was that after we had dropped out, we would be able to drop back in.” Education, work and stability would follow. In more precarious eras, such gay abandon is impossible for many. Only the old can afford to rebel. The spirit of ’68 is held by those who are now 68.

Boomer impunity can result in more extreme actions. Older folk made up a surprisingly large share of last summer’s riots, when mobs gathered outside hotels full of asylum-seekers. Some of those charged were well past 50; others were pensioners. “Get off me, I’m fucking 70, you pricks,” shouted one rioter. The officer replied: “Then why are you here? Why are you at a fucking riot?”

Yet the radicalisation of the old attracts little notice compared with the panics about the young. “Adolescence”, a Netflix drama about a 13-year-old boy who stabs a girl to death after falling under the spell of “toxic masculinity”, triggered weeks of political discourse. Sir Keir Starmer, the prime minister, demanded it be shown in schools. Few panic about the potential for a similar dynamic among the elderly, even when memes rip through boomer WhatsApp chats, like smallpox through an Inca village. Grannies on Parliament Square have seen the same horrifying images from Gaza on social media as their grandchildren.

Elderly extremists can be just as deadly as the more sprightly. Actual terrorism is increasingly an older man’s game. Thomas Mair was 53 when he shot Jo Cox, a Labour MP, just before the Brexit referendum, after devouring racist memes online. In 2022 Andrew Leak firebombed a migrant centre in Dover after a similar spiral. At 66, he had just qualified for his state pension.

### Old, wild and free

The fiscal problems of an ageing population are well-covered; its strange political consequences less so. A group of voters are able to live an insulated, consequence-free existence, with the mortgage repaid, pension guaranteed and children off the books. Radicalisation can affect all voters, but Britain’s boomers have the time and the money to act on it.

Rebellion while young can be cut short. Prosaic life admin—bills, children, work—sometimes makes it impossible. But once such burdens have disappeared, it can flower again. There is no reason for it not to stay in bloom. The 60-, 70- and 80-year-olds on Parliament Square are too old to grow up. And why should they when righteous rebellion is such fun? Photographers caught the moment one of the eldest activists was arrested. An 89-year-old woman in a beige bucket hat was carried away by the police, surrounded by paparazzi. In at least one picture she was beaming. ■



Europe



Ukraine

Summit of uncertainty

KRAMATORSK AREA

Donald Trump may give Vladimir Putin what he could not win on the battlefield

THE TIMING could not have been worse. Days before a crucial summit in Alaska between Donald Trump and Vladimir Putin, scheduled for August 15th, Russian forces broke through Ukraine’s defensive line. Near the breakout area, north of the Ukrainian stronghold of Pokrovsk, soldiers report panic and confusion.

Shtyk, an officer in the 93rd brigade, says Ukraine is still working out where the enemy is. He estimates the main breakthrough penetrated over 10km, cutting a key supply road. “The wedge hasn’t expanded yet, but it’s a depressing situation,” Shtyk says. “There was a failure to build defences.” With crack units deployed to the scene, Ukraine will probably soon contain the advance.

But the surge has convinced soldiers that Russia intends to keep pursuing its war. They worry that the American president will draw the wrong lesson: that Ukraine is weak, rather than that Russia is

bloodthirsty. “Ukrainian soldiers will always be against a bad peace on the enemy’s terms,” says Deputy, a drone commander in the 30th brigade. If there is a ceasefire, he wants to “hang up my uniform and never put it on again. Not to have to head to draft offices again in five years.”

Three and a half years into the war, front-line soldiers are tired and criticism of the leadership is growing. But everyone agrees that the “land swaps” American leaders have been bandying about ahead

of the Alaska summit are unacceptable. Boar, the *nom de guerre* of a company commander in the 56th brigade, says a retreat would betray fallen comrades. He has just returned from three weeks in trenches near Chasiv Yar, where Ukraine has held a narrow strip in the face of years of Russian assaults. Russia continues to throw men at it, he says, losing perhaps ten soldiers for every Ukrainian. Vasyl, an infantryman, goes further. “If Trump were here, I’d tell him to go and do a Russian warship,” invoking the obscene reply Ukrainian border guards supposedly gave Russian naval officers in the war’s first days.

Uncertainty hangs over Mr Trump’s summit. There will be no seat at the table for Volodymyr Zelensky, nor for Ukraine’s European allies. Although a ceasefire is on the agenda, *The Economist* understands that the talks will venture further. One potential area is a deeper normalisation of diplomatic and business relations between America and Russia, including a lifting of sanctions. Mr Putin yearns for this kind of rehabilitation. Another is co-operation in the Arctic, for example over energy.

What offers Russia might make for peace are less obvious. In July secret talks between Ukrainian and Russian negotiators made notable progress, bringing the two sides closer than they had been for some time. Then Mr Trump lost patience

→ ALSO IN THIS SECTION
24 Peace in the Caucasus
25 Svalbard at 100
25 Turkish EVs
26 Civic groups in Germany
27 Charlemagne: Autonomy or August?





▶ with Mr Putin, threatening him with “crippling” sanctions if he did not stop the war. That seemed to reflect the influence of Keith Kellogg, a retired American general and presidential envoy.

But another faction in the White House has a competing vision. Steve Witkoff, a longtime real-estate associate whom Mr Trump appointed as another special envoy, made an unannounced visit to Moscow on August 6th. He appears to have made proposals much less acceptable to Ukraine.

Mr Witkoff favours a grand deal between America and Russia. His involvement in negotiations has usually been to Ukraine’s detriment. It has also been marked by incompetence. Reports suggest he did not understand Mr Putin’s offer to “swap” Ukrainian-controlled land in Donbas for a promise not to attack elsewhere—getting territory in exchange for words. Mr Putin has a habit of offering “concessions” designed to fragment Ukrainian unity.

Somehow, discussion of acknowledging Russian control of territory it occupies has shifted into talk of giving Russia more. The concept of swaps has been around since last year, when Ukrainian forces held positions inside Russia’s Kursk region. Ukraine has since lost almost all of Kursk, rendering that proposal moot. But the zombie notion of swaps remains alive in Washington. Sources say Ukraine’s latest proposals insist that a full ceasefire must come before talk of ceding territory. Anything else, one source warns, would open a “Pandora’s box”. Yet the Americans are urging Ukraine to make a counter-offer including some of its own land.

A remote summit on August 13th of European leaders with Mr Zelensky and Mr Trump, chaired by Friedrich Merz, Germany’s chancellor, tried to create a united front against such pressure. The Europeans agreed that a truce had to precede any negotiations, that Ukraine must have a place at the table and that it would receive

security guarantees in any deal. Mr Merz said Mr Trump “largely shares” the European and Ukrainian positions, leaving unclear which ones he did not endorse. Yet Ukraine’s allies still worry that America’s president will insist on land swaps that will be difficult for Mr Zelensky to deliver. In recent days Mr Trump has returned to his old habit of blaming Ukraine’s president for Russia’s invasion.

On the eastern front there is little time to read headlines. Life here brings a different set of concerns, soldiers say. Boar has spent the past three weeks trying to stay alive, sleeping with one eye open while watching for the next group of Russians crawling towards his position. Mr Trump’s wishes carry little authority, he says. “Authority means my brothers-in-arms. It means Sasha, who carried 300 people out of a trench under fire...It is the rows of crosses marking where our comrades fell. How can we simply give that away?” ■

## Armenia and Azerbaijan

# Laying down their drones

## Caucasian rivals move towards peace

ON AUGUST 8TH Donald Trump met Armenia’s prime minister, Nikol Pashinyan, and Azerbaijan’s president, Ilham Aliyev, to try to end the war between their countries. The trio signed a peace declaration and agreements on trade and security. Crucially, Armenia agreed to open an American-operated transport route across its territory, linking Azerbaijan to its exclave, Nakhchivan (see map). The corridor will be called the Trump Route for International Peace and Prosperity (TRIPP).

Mr Aliyev and Mr Pashinyan vowed to nominate Mr Trump for a Nobel peace prize. The deal will diminish Russia, which has long meddled in the conflict, as well as Iran. It is not a formal peace treaty. But it could pave the way to a regional detente, including the normalisation of Armenia’s relations with Turkey, Azerbaijan’s ally.

Armenia and Azerbaijan have been fighting since the late 1980s. As the Soviet Union disintegrated, Armenian-backed separatists seized Nagorno-Karabakh, a region within Azerbaijan, and later built a buffer zone. For years the conflict was frozen. Azerbaijan, whose oil-and-gas industry boomed, built a formidable army. In 2020 it recaptured the area around Nagorno-Karabakh. In 2023 it took back the territory itself; some 100,000 Armenians fled. Russia, which had supported Armenia during the 1990s, stood back, partly to punish

Mr Pashinyan, who had led a peaceful revolution in 2018 that overthrew Kremlin-backed rulers.

Since early 2024 the two sides have been inching towards a peace treaty. Two obstacles remained. The first was Azerbaijan’s insistence that Armenia remove references to Nagorno-Karabakh from its constitution, which will require a referendum. The second was Azerbaijan’s demand for a transport corridor to Nakhchivan. In 2020 the two agreed to open a route supervised by Russian officials, but later backed away.

Mr Trump provided a partial solution. Armenia will lease the land for 99 years to America, which will hire contractors to run the route. Iran is furious. Russia coolly stated the deal was “positive”.

America has offered Armenia and Azerbaijan sweeteners. The boss of SOCAR, Azerbaijan’s state energy firm, signed a deal with ExxonMobil, an American oil giant. Armenia will get help on artificial intelligence and semiconductors. Mr Trump waived sanctions, introduced in 1992, that barred military co-operation with Azerbaijan, heralding a “strategic partnership” with the country, an ally of Israel.

The peace deal could allow Turkey and Armenia to bury the hatchet. The standoff with Armenia has been “Turkey’s Achilles heel, in terms of its regional influence”, says Nigar Goksel of the International Crisis Group, a think-tank. Turkey had made normalisation with Armenia conditional on a peace deal. It may now decide to open their border, which it closed during the Nagorno-Karabakh conflict in 1993.

Mr Pashinyan is unpopular: just 13% of Armenians say they trust him. Holding the referendum that Azerbaijan demands will be divisive, and an election next year will give Russia a chance to interfere. Azerbaijan might spoil the peace process, too: Mr Aliyev, an autocrat, has indulged in irredentist fantasies such as calling Armenia “West Azerbaijan”. Another risk is that America loses interest. Mr Trump has positioned America as the latest peace broker in a tough neighbourhood. Whether it lasts will not be in his control. ■





## Svalbard

## Polar squatters

BARENTSBURG AND LONGYEARBYEN

## Could Russia exploit an Arctic island's odd legal status?

A BUST OF Lenin glowers over Barentsburg. Signs are in Cyrillic script. Russia's flag flaps from buildings beside ones for Arktikugol, a Russian mining company. Shops sell Russian tinned fish, and Russian scientific institutes dot the town. Outside one, two geologists explain they are visiting from St Petersburg.

Yet this is not Russia. Barentsburg is a geopolitical quirk: a Russian company town squatting on Svalbard, an Arctic archipelago that belongs to Norway. Thanks to a treaty, the NATO country has had control since August 14th 1925. As *The Economist* went to press, Jonas Store, Norway's prime minister, was set to preside over a 100th anniversary ceremony in Longyearbyen, the capital. But the treaty also grants foreigners rights to exploit resources. Russians have mined coal here since the 1930s.

Western intelligence officials fear the arrangement gives Russia an opening to cause trouble. Three years ago Russian trawlers sabotaged a communications cable. In March Russia accused Norway of breaching the treaty with military activity in Svalbard. Mr Putin has declared Norway an unfriendly country.

For Russians in Barentsburg, and those in even smaller Pyramiden nearby, that means growing isolation. One woman who says she arrived from Moscow a month ago to work with tourists confides that she is desperate to leave. The population has slumped from 2,000 last century to an estimated 340. The coal from its uneconomic mine is burnt locally: the power station's chimneys spew soot over nearby glaciers.

Liberal Russians have fled to prosperous Longyearbyen, 40km away. One Russian there says it grew "complicated" to stay after she spoke out against the Ukraine war. Russians who travelled from Longyearbyen to vote in last year's presidential election say they were searched.

Svalbard's Norwegian governor, Lars Faure, supervises the towns. He reports no tensions, but discourages non-Russians from visiting them. Some still do, to spot wildlife including polar bears and whales. A garish Soviet tower block from 1974 is promoted as "the world's northernmost skyscraper". It is four storeys tall.

Relations were better in the cold war. The mayor of Longyearbyen, Terje Aunevik, says residents have stopped exchanging visits on national days. The Russian parades are more militaristic now, he says.



Frozen in time

One of the geologists from St Petersburg says he worked in Svalbard for decades alongside German and Norwegian scientists. Today he works only with Russians.

Russia won't close its crumbling settlement. It still has propaganda and, perhaps, intelligence value. The coal may not be worth digging out, but it gives Russians an excuse to remain dug in. ■

## Turkey

## Slow to spark

MANISA

## China's planned Turkish EV factories have yet to power up

WHEN BYD, China's biggest electric carmaker, offered a \$1bn investment in the summer of 2024, Turkey rolled out the red carpet. Recep Tayyip Erdogan, the country's president, attended the signing ceremony. Officials in Manisa, where the company plans to open a new factory, mused about a future "Chinatown" to house BYD workers. Yet a year down the line, despite reports the company would accelerate work on the plant at the expense of one in Hungary, things have not progressed much. The factory is supposed to open next year, but there are no signs of construction save for a few containers and the occasional dump truck.

Turkey's location and relatively low labour costs make it a big draw for Chinese EV makers. So does its customs-union agreement with the European Union, which allows cars built in Turkey to be exported to the bloc tariff-free. Last year the EU slapped tariffs of up to 35%, on top of

an existing 10% duty, on Chinese EVs. Other Chinese auto makers looking to Turkey as a way to avoid the tariffs include Chery, said to be eyeing a \$1bn investment.

China is also keen to grab a slice of Turkey's booming domestic EV market. High fuel prices and an extortionate consumption tax of up to 220% for conventional vehicles have driven up demand for EVs. Over 100,000 fully electric cars were sold in Turkey in the seven months to July, an increase of 147% on the same period in 2024.

Desperate for foreign investment but hoping to stem the tide of cheap Chinese EVs—which threaten its own electric carmaker, TOGG—Turkey has sought to solve both problems in one go. Last year the country raised tariffs on Chinese cars to 50%. But it made BYD and other carmakers who pledge to invest in Turkey exempt. Sales of BYD cars have surged.

On paper TOGG, one of Mr Erdogan's flagship projects, has fared well. Since its launch in 2023, it has outsold every other EV brand at home, partly thanks to government support. But competition from foreign EVs and the prospect of 150,000 BYD cars per year from the plant in Manisa could spell trouble. "They may not survive in such a market," says Cagdas Ungor of Marmara University.

Chinese investments in Turkey amount to only some \$5bn, lower than in Saudi Arabia, Egypt or Iraq. Politics is no longer the main obstacle. Turkey has toned down its criticism of China's treatment of its Uyghurs, a Turkic ethnic group. The biggest brake is instead Turkey's rule-of-law record. Mr Erdogan and his inner circle enjoy nearly unchecked power. "Regulations and tariff decisions are made overnight without any consultations with the key actors," says Ceren Ergenc of the Centre for European Policy Studies, a Brussels think-tank. "China perceives that as a high risk."

China's EV operations in Turkey have not escaped scrutiny by EU bureaucrats. Earlier this year the European Commission warned that it would go after countries and companies that engage in tariff circumvention. EU anti-dumping rules mean that cars made in Turkey could face punitive tariffs if imported parts account for 60% or more of their value, unless assembly adds over 25% to manufacturing costs. To have unfettered access to the EU market, companies like BYD will need to source at least some parts from Turkey.

Fear of pushback from the EU may explain why work in Manisa has slowed. Firms like BYD are hedging their bets, says Ms Ergenc, and waiting for the EU and China to settle their EV tariff dispute. Local officials and other analysts say BYD will finish the factory, though perhaps not on time. Turkey may be a convenient backdoor to the EU, but the Chinese have not yet prised it open. ■



## German civil society

## Positive associations

ARNSBERG

Germany's *Vereine* are the glue that holds the country together

TUCKED AWAY in the car park of a drinks warehouse, hundreds of men in green jackets and feathered caps, plus a handful of women, are swapping gossip and glugging beer. Suddenly comes the call: “*Schützenbrüder antreten!*” (marksmen line up), and the men fall into columns as a brass band strikes up. They begin a good-natured, not especially disciplined parade up the streets of Arnsberg, a small town in Germany's Sauerland region, hollering “*Horrido!*”, an old hunting cry, to well-wishers. Soon they arrive at a large tent where, after a Catholic mass, the festivities begin: speeches, dancing and a lot of beer. Later that evening—having been forced to learn, somewhat against his will, a dance called the “discofox”—your correspondent takes his leave as a conga line begins.

This is the summer festival of Arnsberg's St Hubertus *Schützenverein*, or shooting club (nicknamed “Muffrika” after its neighbourhood). It is one of several in town. With their archaic traditions and military cosplay, *Schützenvereine*, rooted in medieval militias, look anachronistic. But in many German Catholic heartlands, they are thriving. In 2015 UNESCO added German shooting culture to its “intangible heritage” list. Some clubs have had awkward brushes with modernity: the feathers of older *Schützenbrüder* have been ruffled by such novelties as Muslims winning shooting contests. But they are soon smoothed.

No understanding of Germany is complete without an account of the *Vereine* (clubs or associations) latticed across the land. As an old joke has it, when three Germans meet, the first thing they do is form a *Verein*. The 19th century saw a Cambrian explosion of these clubs, catering to every interest, as cities grew and an industrial bourgeoisie emerged. By the 1920s *Vereine* were so established that Kurt Tucholsky, the great Weimar-era satirist, poked fun at them in his poem *Das Mitglied* (The Member): “I only really get excited in my club/I look down on those who aren't in it.”

The requirements for a *Verein* are simple: seven people, a board and statutes. The template has proved versatile and enduring: there are over 600,000 *Vereine* across Germany, spanning interests as mainstream as painting and football—some Bundesliga teams are organised as *Vereine*—and as niche as sugar-packet collecting. The number of clubs has grown faster than their membership has, suggest-

ing diversifying interests in a plural society. One recent trend: with municipal budgets squeezed, *Fördervereine*, or “support clubs”, have mushroomed to help fund cultural and educational institutions.

Their champions see *Vereine* as social glue: Edmund Burke's “little platoons” enshrined in Germany's civil code. In Arnsberg members say they provide a place for younger folk to party and older ones to socialise, and note that committed members chip in time or labour. Jonas, a younger member, celebrates the levelling that unites the carpenter and lawyer: “With these jackets on, we are all the same.” It is a romantic sentiment, befitting a society that still aspires to a certain egalitarianism.

And if there seems to be rather less shooting than drinking at the club—a breathalyser is available for tipsy motorists—that need not undermine its community purpose. *Schütze* means protecting those who need it rather than shooting as such, says Horst Thoren of the Association of Historical German Shooting Brotherhoods (BHDS). In the pandemic members mobilised to drive vulnerable locals to vaccination centres. During refugee waves *Vereine* have been called on to help newcomers integrate, albeit with mixed results.

Indeed, Germans freshly arrived in a new part of the country will often seek out a sympathetic *Verein*. Big claims are sometimes made for the *Verein*'s powers of inte-

gration: Friedrich Merz, Germany's chancellor and a proud Sauerlander, recently congratulated shooting clubs for doing a “great job” integrating people into village communities. The sentiment is welcomed in Arnsberg, Mr Merz's home town, even if outsiders are plainly not thick on the ground. “Of course these clubs don't drive social integration,” says Peter Schubert, a social scientist who has conducted surveys of Germany's *Vereine*.

The claim may ring truer in Germany's 86,000 sports clubs. “The *Verein* became my connection to German people,” says Asadullah Nemati, an Afghan who arrived in Stuttgart in 2016 knowing no one. A keen wrestler, he joined a club and met people who helped him find a flat and a job. He is now a star on his local team, nicknamed the “Swabian Afghan”. Dedicated *Migrantenvereine* often provide newcomers with a foothold in Germany.

The future of some *Vereine* is threatened by red tape, and especially the struggle to find youngsters to commit to roles beyond “episodic” volunteering. “I'd like to retire,” says Wolfgang Heitner, chair of the Muffrika club. “But I can't find anyone to take over.” Mr Schubert blames the huge demands *Vereine* place on volunteers for the slowing rate of their formation.

## Not very clubbable

Germany's resurgent far right presents a different challenge. In 2019 the Alternative for Germany (AfD) called for a “march through the organisations”, in a conscious echo of 1960s student protesters. Especially in rural regions, the AfD and other radical groups have tried to exploit *Verein* structures rather than create their own. In response the BHDS has banned AfD members from its clubs. *Sportvereine* have strategies to keep the far right at bay. “Politics is the last thing we talk about,” says Jürgen Hufnagel, a veteran Muffrikaner. Nevertheless, last year the Arnsberg shooting clubs created a one-off *Gegen Extremismus* (against extremism) campaign.

“I've always liked the idea of *Vereine* as schools of democracy,” says Daniel Watermann, a historian, “but I've always doubted that it's universally true.” Based in Halle in eastern Germany, fertile ground for the far right, he notes that the success of *Vereine* in organising and propagating ideas is precisely why they appeal to extremists. Researchers have found that Nazi ideology spread more quickly in parts of Weimar Germany with a high density of *Vereine*.

In Arnsberg, as the beer flows, the *Bratwürste* grill and the band plays on, such concerns seem far away. Muffrika was founded in the 1950s, and its grounding in tradition is why the members love it. Asked how he would spend his time if there were no shooting club, Mr Hufnagel does not miss a beat: “I'd start one.” ■



Leading by a whisker



# CHARLEMAGNE

## *Holiday from reality*

*Must Europe choose between “strategic autonomy” and August off?*



EUROPEANS AND Americans concur: there is something fishy about a two-week summer holiday. But the rationale for their concerns is markedly different. To Wall Street and Silicon Valley types, indulging in an uninterrupted fortnight of vacation—a whole fortnight!—means essentially throwing in the towel. Imagine what opportunities for promotion will be forsaken by bunking off for 14 straight days. To office toilers in Stockholm, Rome or Paris, two weeks of leave seems equally suspect. *Seulement* two weeks? That would be acceptable only as the opening act of a proper summer break. Ideally this should stretch to a whole month. How else to recover from the existential drudgery of work? American out-of-office emails beseech the sender to wait a few hours while the holidaying recipient snaps out of beach mode to respond to their message (sorry!). European out-of-office messages politely invite the sender to wait until September (not sorry).

Europe quietly revels in being a lifestyle superpower, with better food and longer life expectancy than America. But it is also an anxious place these days. The two months since June 21st—the traditional start of the Scandinavian holiday season—will go down as a summer of geopolitical subservience. At a NATO summit in June, a parade of European leaders toadied to Donald Trump; the alliance’s (Dutch) boss elicited cringes by praising him as the group’s “Daddy”. A summit marking the 50th anniversary of the European Union’s diplomatic ties to China in July was shifted to Beijing after President Xi Jinping made clear he had no intention of travelling to Brussels. The killing in Gaza goes on, even as European leaders protest. They have also had to swallow Trumpian edicts on trade, meekly agreeing not to reciprocate even while their exports to America get walloped with tariffs. On August 15th Mr Trump will host his Russian counterpart, Vladimir Putin, in Alaska to discuss Ukraine. For France, Germany and other Europeans, the war is the ultimate threat to their continent’s security, yet they will not get a seat at the table.

The Alaska confab is a sharp reminder to Europeans that they live in a world where others increasingly call the shots. The idea that the continent needs to recover some measure of “strategic autonomy” was once a French obsession. Now it is widely shared.

But shaping one’s own future—spending more on defence, producing more stuff instead of importing it, and so on—looks a lot like hard work. Shorter summer holidays by themselves will not rid Europe of its dependencies on China and America. But Europe’s geopolitical irrelevance is in no small part down its somnolent economy. There, working habits do matter. Whereas productivity gains in America and China have in recent decades translated into higher GDP, and in turn geopolitical heft, in Europe those advances have been used to toil less instead.

Though not exactly an indolent continent, Europe prides itself on indulging in *la dolce vita*. Not feeling tip-top as you head to the beach? Fret not: under EU law employees can suspend their holidays if they are unwell, ensuring that any sick days translate into more holidays later. Taken as a whole, Europeans work fewer hours in the week than most others globally, either because of legal restrictions or thanks to a penchant for part-time work (nearly a third of Europeans work fewer than 35 hours a week, a world record). They then work fewer weeks in the year, thanks not just to long holidays but to parental leave—as much as 480 days, for Swedish mums and dads. The average German now takes 15 days of sick leave every year, too. And to top it all off, Europeans work fewer years in their career, despite long life expectancies. The average Frenchman spends 23 years in retirement, over half a decade more than his Japanese or American counterparts.

*E allora?* some might say. By forsaking the office or factory floor Europeans are in effect purchasing leisure, rather than putting in extra hours to buy yet more stuff. Who is to say an inflated pay slip is worth more than time spent eating and playing? Yet increasingly, it feels like the extra cash would come in handy. Europe’s public finances are ever more stretched. Hefty defence commitments agreed in June are framed as a tussle of “warfare v welfare”, as if governments can only spend on defence by cutting pensions. But Europe might not need to choose between guns and butter: by working more it might be able to afford both. The focus in the continent’s economics ministries has been to improve productivity. Fostering innovation and cutting red tape are indeed needed to squeeze more output for every hour of labour. But while working *better* matters, what about working *more*?

### Working nine to three

Friedrich Merz, the German chancellor, has warned that “work-life balance” and four-day weeks stand in the way of national prosperity. He is right. Happily for holidaymakers in Berlin and beyond, little is likely to change soon. While “strategic autonomy” sounds nice to those voters who can make sense of it, more time at the beach sounds even better. Politicians who have goaded their compatriots to put in an extra shift—Nicolas Sarkozy, a former French president, suggested people “work more to earn more”—have been rewarded with early retirement. A plan to cut two national holidays in France to help public finances has been greeted with the kind of enthusiasm reserved for August storms.

There is nothing reprehensible about wanting to work to live rather than live to work. Alas, the laws of geopolitics, unlike most European labour codes, do not offer five weeks of holiday. Put simply: more working means more money, and more money means added clout in global affairs. Until the 1960s Europeans toiled longer hours than Americans, and mattered somewhat more in the world. That is no coincidence. If Europeans want a seat at the global geopolitical table, they will have to work for it. ■



# United States



## The presidency

# Capital offensive

WASHINGTON, DC

**Republicans have an odd way of showing they are tough on crime in DC**

AMERICA'S CAPITAL city was designed as a showcase for its democracy: sweeping boulevards, white-marble palaces of administration, monuments aplenty. Over the past few days, however, Washington, DC, has become a manifestation of something less inspiring: the grandstanding instincts of the current president.

This time, Donald Trump's preoccupation is violent crime. Mr Trump has been banging this drum for decades. "Roving bands of wild criminals roam our neighbourhoods dispensing their own brand of twisted hatred," warned Mr Trump nearly 40 years ago. The occasion then was the rape and assault of a white woman in New York's Central Park, for which five black and Hispanic men were later wrongfully convicted. On August 11th Mr Trump all but quoted himself: "Our capital city has been overtaken by violent gangs and bloodthirsty criminals, roving mobs of wild youth, drugged-out maniacs and

homeless people," he said from the White House briefing room. Then he deployed the National Guard to Washington; took control of its police force; and promised to "get rid of the slums" and clear out its homeless population.

This is not the president's first use of the armed forces for civilian law enforcement in a city that reviles him and that he reviles right back. Earlier this summer Mr Trump sent National Guard troops to protect federal property during protests over

immigration raids in Los Angeles. In 2020 he ordered them to disperse Black Lives Matter demonstrators in Washington. In neither instance did local Democratic leaders ask for his intervention. Now Mr Trump hints that the Washington deployment could be a blueprint for other troublesome (ie, Democratic) places. "Every other blue-city mayor" should take note, said Rick Scott, a Republican senator. Democrats agree, describing Washington as a "dress rehearsal".

That will be easier said than done. The capital has an unusual legal status as a territory of the federal government granted qualified "home rule". Elsewhere the president would face more legal impediments. The practical impact of his order may also be modest. He has authorised the DC Guard—which is tiny—to act as cops. About 200 troops will support law enforcement. Mr Trump's control of the city police can last for only 30 days. He says he will seek an extension from Congress, which is unlikely to oblige. This is a long way from a federal takeover of Washington.

It is still absurd. Seeking to justify his order, Mr Trump cited several awful attacks against government workers. In early August carjackers beat up and bloodied a former DOGE staffer. In June stray gunfire killed a congressional intern. Last year an official at the Commodity Futures Trading

## → ALSO IN THIS SECTION

**29 Vaccine courts**

**30 Hunting pythons**

**31 Texas Dems in exile**

**31 From Watergate to Greenlash**

**33 Lexington: The power couple**



► Commission was shot to death in a carjacking. In 2023 a Senate aide was stabbed and a congressman was robbed at gunpoint. "It's becoming a situation of complete and total lawlessness," said Mr Trump, likening the capital to Baghdad and Bogotá.

The president is right that violent crime in Washington surged in 2023 and that it numbers among the more dangerous cities in America. He neglected to say that crime there has since tumbled. This year's murder rate is falling towards the pre-pandemic trend. The number of carjackings, which doubled between 2022 and 2023, is declining, too, though they are still more frequent than they were before the pandemic. Overall the capital is much safer than it was in the 1990s, when it had the highest murder rate in the country, and it is a bit less dangerous than it was a decade ago, notes Jeff Asher, a crime analyst.

If Mr Trump and his fellow Republicans were really concerned about public safety in the city, they would not have put DC in an unnecessary fiscal straitjacket. Congress has sweeping powers over the city's finances, and earlier this year Republicans used them to force it to slash spending, even though its budget was already balanced (unlike the federal government's). That has made it impossible for the city to increase spending on the police—or anything else. It has money sitting in the bank that Congress will not allow it to spend. It is defund the police, Republican-style.

Mr Trump's has a fixation with Washington the city, and not just because he can see it from his bedroom window. The constitution gives the federal government authority to run the city directly. It has much less power over states and even other federal territories. The president commands the DC National Guard—in states, governors have that job—and he can take temporary control of the police department.

Washington's unique status means these same tactics cannot easily be replicated outside the capital. To "federalise" the National Guard for arrest purposes elsewhere—to empower troops to act as cops—Mr Trump would have to invoke the Insurrection Act. Only then can the armed forces legally be put to use to quell a domestic uprising. The act was last used in 1992. Invoking it again would be immensely controversial. Before Mr Trump, the last president to deploy the Guard over the objections of a governor was Lyndon B. Johnson, during civil-rights demonstrations in Selma, Alabama.

Army officials tend to dislike the idea of getting involved in law enforcement—with good reason. The training and rules of engagement are different. Battlefields require a mindset primed for combat.

As it is, Mr Trump's prior National Guard deployments have been legally

fraught. A federal district judge in California is currently weighing whether his use of the Guard there flouted the narrow scope allowed in that instance, where they were only meant to protect buildings. Mr Trump's decision to send other states' Guard units to Washington in 2020 was even more tenuous from a legal perspective, says Mark Nevitt, a law professor at Emory University.

Washington's 700,000-odd residents have little recourse to resist Mr Trump's ac-

tions. They do not get any votes in Congress. Although the federal government did grant them an elected mayor and city council in the 1970s, it could rescind "home rule" at any time. Mr Trump has threatened to do so several times. Local politicians, for the most part, are trying to ward off such a possibility by placating him. Mr Trump's approach in Washington, then, is clever when viewed through a politician's or a lawyer's lens. Which is not to say that his order is justified or good policy. ■

## Vaccine courts

# A sharp prick

WASHINGTON, DC

Why the Trump administration excites some personal-injury lawyers

ROBERT F. KENNEDY JUNIOR once worked as a personal-injury lawyer. That Donald Trump made him America's health secretary was odd considering the president despises such lawyers and derisively calls them the "lawyer lobby". More consequential for public health is the fact that Mr Kennedy now intends to make some of his old cohort very happy.

Mr Kennedy wants to make it easier for people who say they were hurt by vaccines to sue for damages. He would like to overhaul the Vaccine Injury Compensation Programme (VICP), a legal regime covering more than a dozen mostly childhood jabs. The scheme routes claimants to a special vaccine court, where they get faster and easier payouts than in regular civil court since they do not have to prove fault by

vaccine-makers, a higher legal bar. Damages for pain and suffering are capped at \$250,000, plus medical expenses and lost wages. Vaccine-makers fund the scheme through an excise tax of 75 cents per jab. In return they are largely shielded from liability in the normal tort system.

This arrangement underpins public health by ensuring that supply stays cheap. A separate liability protection covered the covid-19 shot. Preventive vaccines are low-margin; the risk of huge jury awards would drive firms from the market. That is precisely what happened to the vaccine for pertussis, or whooping cough, in the early 1980s and why Congress created the VICP.

Adverse effects from vaccines are statistically rare. Roughly 30,000 are reported to the government annually. About 15% of ►►



Ambulance chaser



► these are serious. Meanwhile tens of millions of jabs are given to children a year. The rate of injury—even assuming that each was caused by a vaccine—is a fraction of 1%. About half the cases in the VICP are dismissed. In 60% of the compensated claims, the government does not accept that the shot caused the injury but pays to resolve the case anyway.

Mr Kennedy says the VICP “routinely dismisses meritorious cases” and that it is a “morass of inefficiency, favouritism and outright corruption”. He dislikes that it takes between two and three years to adjudicate a claim on average, a consequence of the fact that just eight “special masters” (ie, judges) oversee more than 3,500 cases. Mr Kennedy is right that a programme designed for efficiency has gummed up. But the number of special masters is inscribed in law and only Congress can increase it.

What the health secretary can do is open the litigation floodgates, by making more claims eligible for damages. The VICP automatically compensates people for certain injuries if they appear within a set period from the time of the shot. People with other “off-table” injuries can prevail if they show that the vaccine caused theirs. Mr Kennedy has long pushed the debunked theory that vaccines cause autism. Everyone thought this battle was over at the VICP, which long ago dismissed autism cases. Through the rulemaking process, however, the health secretary can add autism to the table or loosen the definition of existing injuries.

Attacking that scheme is not the only way Mr Kennedy is upsetting the market. He has terminated funding worth \$500m for mRNA-related research—which yielded some of the covid jabs—while publicly questioning the safety of that platform.

The pandemic scrambled the politics around vaccine injury. Plaintiffs’ lawyers once aligned neatly with Democrats, who saw themselves as consumer advocates, while industry backed Republicans, who tried to limit lawsuits. When it comes to vaccines, however, MAGA types are now the biggest bashers of pharma. One Republican congressman has proposed a piece of legislation (which is unlikely to pass) to end the liability shield. Of course anyone who believes that vaccines cause injuries ought to be glad for the ease of the VICP, which is enabled by the shield, notes Michael Saks of Arizona State University.

Eliminating it would hobble vaccine infrastructure. It would also benefit Mr Kennedy. He held a financial stake in ongoing litigation against Merck over allegations that its HPV vaccine caused autoimmune disorders. He transferred this interest—a 10% cut of some plaintiff lawyers’ potential winnings—to one of his sons. But the presiding federal judge has gutted those lawsuits, citing the liability shield. ■



## Conservation

# Game hunting

THE EVERGLADES

How many pythons could you catch in ten days?

**B**URMESE PYTHONs were introduced to Florida as exotic pets. The snakes grew too big to be good housemates and were released (or escaped) into the Everglades, where they feasted on native wildlife and bred rapidly. Pythons are largely responsible for a 95% drop in the number of furry animals in the park. No local species is immune: the snakes, which can grow to nearly 20 feet long, are known to strangle alligators and swallow them whole. They have no natural predator to speak of, so Florida man (and woman) has stepped in.

For ten days in July the state hosts the Python Challenge™, an annual open competition to cull snakes. This year over 900 people descended on the swamps, battling to take home \$25,000 in prize money. Most were Floridians; many were military men. The pursuit takes place in the dead of night when the snakes leave their nests to forage. Hopeful hunters sit atop slow-moving pickup trucks and shine flashlights into the grasses to scan for movement. When they spot a snake they wrestle it with bare hands. At the end of the night the snakes are killed, their brains scrambled with a metal rod to ensure they don’t regain consciousness. “It’s like war: hours of sheer boredom punctuated by seconds of exhilaration,” says an ex-marine training to do it professionally.

Taylor Stanberry, a petite woman from Naples, clinched the grand prize this year with a bounty of 60 snakes. That amounts to a fifth of all the pythons caught in the challenge this year and triple the number that last year’s winner took home. The challenge does not represent a “bloodlust for pythons”, says Michael Kirkland, who works for the state. It is instead a publicity stunt for Florida’s conservation project. The python elimination programme, managed jointly by the Florida Fish and Wildlife Conservation Commission and the South Florida Water Management District, employs 100 year-round contractors. Since 2017 they have removed 16,000 snakes from the Everglades.

Contractors are paid \$50 for the first four feet of a snake and \$25 for every foot after that. Some choose to sell the snake carcasses to companies that make the skins into handbags and the vertebrae into jewellery. Dusty Crum, a self-described “python wild-man”, sells python-fat soap out of his pizza parlour on the edge of the park. For many of the hunters the job is about far more than money. Kristine Bartish, a biologist employed by the state who hunts pythons five nights a week, says the mission itself becomes addictive: going out to remove snakes for a good cause is “like an Easter egg hunt for adults”.



## Gerrymandering

## A room of their own

CHICAGO

Texas's renegade Democrats prepare for a glorious defeat amid deep-dish pizza

VIRGINIA WOOLF wrote in her essay “A Room of One’s Own” that women who want to write fiction need physical space to think. When Christian Manuel, a Democratic lawmaker, left Austin on August 3rd he carried her book with him. He and nearly 40 of his colleagues from the Texas statehouse would soon find themselves holed up in bare hotel rooms in a sleepy suburb of Illinois.

If they were novelists this retreat would surely be calm. Instead they are in the midst of a red-hot political rebellion: they have left the state to break the legislature’s quorum and prevent a new congressional map that would give Republicans an edge in future elections from getting a vote. Their absence has incensed—and inspired—the very people they hoped it would. Greg Abbott, Texas’s Republican governor, and Ken Paxton, the attorney general, are suing to remove some of them from office, and Donald Trump’s FBI is allegedly trying to hunt them down. Here in Illinois they walk around like royalty, getting standing ovations in churches on Sunday and being greeted by Chicago’s mayor as they scarf down hoagies on Tuesday.

Their battle has drawn national attention because they are spending hours a day giving Zoom interviews with television stations near and far. But also because they are Democrats who are walking rather

than talking. Ramon Romero Jr, a representative from Fort Worth, initially did not like the idea of leaving the state for political reasons—he’d done it before in 2021, when Democrats were trying to block or delay changes to voting laws, to no practical avail. What changed his mind was a call from Hakeem Jeffries, the house minority leader in Washington, who told him that Democrats are looking for their politicians to show grit. “You’re in a position to fight when a lot of us aren’t,” he recalls Jeffries saying in late July. For a party that feels bulldozed by an overreaching president unfettered by norms or courts, the fact that the Texans have stalled their opponents for nearly a fortnight is significant.

The third day that the Democrats spent away from their families was the 60th anniversary of the Voting Rights Act, a law that banned states from making it hard for black people to vote. The Texas Dems would like to see themselves as the latest link in a chain of citizens fighting for suffrage. They reckon the new map proposed by their legislature dilutes the power of minority voters. To Jolanda Jones, who says she spent her whole life working to make it out of a tough neighbourhood, going home would feel like “selling out democracy”. “The Montgomery bus boycotts took a year,” she says. James Talarico, an Austinite who packed just one suit jacket but two

pairs of cowboy boots, describes their walkout as “good trouble”.

The Democrats are under no illusion that their quorum break will stop Republicans from eventually doing as they see fit and passing changes that, all else being equal, would give Republicans five extra seats in Congress. This week Mr Abbott, the governor, said that he is prepared to do battle over the map for “years” by calling one special session after another. But the fugitive politicians are not fighting to change laws—they are very used to losing in Texas—but to grab attention.

They want more Americans to know what redistricting is and to understand why voters should choose their politicians, not the other way around. Mr Manuel reckons that the very fact that *The Economist’s* Texas correspondent is sitting beside him in a midwestern coffee shop talking about it is evidence that they’ve “already won”. ■

## Climate change

## Green new squeal

WASHINGTON, DC

Trump 2 is pushing environmentalists to rethink their approach

HALF A CENTURY ago Republicans were leading the charge to clean up the environment. Richard Nixon prioritised de-smogging America, protecting endangered species and establishing the Environmental Protection Agency (EPA), the country’s pollution regulator. But Tricky Dick’s environmentalism was complicated. The Watergate tapes capture a conversation from 1971 between the president (“You can talk to me in complete confidence, I can assure you”), Henry Ford II and Lee Iacocca. The two auto executives allowed that some rules made sense (“The citizens of the US must be protected from their own idiocy”) but complained about the costs of complying. Nixon stammered his sympathies. Pollution was real, he argued, but he was “extremely pro-business” and, in fact, some environmentalists were “enemies of the system”.

President Donald Trump is using a version of that argument to erase the regulatory framework that Nixon helped create. “Overregulation has really suppressed economic opportunity,” argues Mandy Guna-sekara, the author of the “Project 2025” chapter on the EPA, whose ideas for how to reform the agency are being put in place. The EPA has announced its intention to weaken emissions and pollutant standards for coal- and gas-fired power plants, renounce its ability to regulate greenhouse-gas emissions and stop updating research



Before the exile



- ▶ that helps firms calculate those emissions, among other things. The House appropriations committee wants to cut the EPA's budget by 23% next year.

Environmentalists are not surprised. The administration's tactics reflect the way climate policy has become entangled in the culture wars. On the day he unveiled the agency's deregulatory bonanza, Lee Zeldin, the EPA's administrator and a former congressman for New York, declared: "Today the green new scam ends."

Mr Zeldin's biggest swing is his announcement that the EPA will move to rescind the "endangerment finding", a scientific judgment from 2009 that underpins the agency's ability to regulate greenhouse-gas emissions—from cars, for example—as "pollutants" under the Clean Air Act. The Supreme Court has several times declined to review the finding, but the Trump administration will be hoping this time is different.

### All I need...

Mr Zeldin's strategy resembles "a cluster-bomb approach", says Michael Gerrard of the Sabin Centre for Climate Change Law at Columbia University. Several scientists—who Mr Gerrard says are "climate minimisers, not climate deniers"—hand-picked by Chris Wright, the energy secretary, wrote a report suggesting that the science on climate change is not settled. Defenders of the endangerment finding reckon that argument won't hold water in court: the effect of climate change on the environment and public health has only become clearer. But the administration also contends that regulating emissions is too important an issue for the agency to pursue without express direction from Congress. The process of rescinding the finding, and the inevitable lawsuits to come, could take years to shake out.

The episode has shed light on the flimsy structures for regulating emissions at the federal level. Even the EPA's staunchest defenders admit that the Clean Air Act, while remarkably successful at eliminating pollutants, is an awkward vehicle through which to tackle climate change. Its effectiveness has been limited by the courts and changes in administration. Additionally, most of the decline in America's greenhouse-gas emissions in recent years can be traced to the transition from coal to gas, not federal regulation. "It's not perfect," says Mary Nichols, who ran the agency's air and radiation programme in the 1990s and later built California's air-pollution regime. "It would be better if Congress had passed one of several different efforts that have been put forward...that focuses only on global warming, but obviously that hasn't happened."

The Trump administration's assault on the endangerment finding, and the EPA

more broadly, has pushed some climate hawks to question how they should proceed. After more than a decade of ping-ponging between Democratic administrations that try to regulate emissions and Republican presidents who roll back those rules, is the status quo worth preserving?

Noah Kaufman, a former adviser to Barack Obama and Joe Biden who is now at Columbia University, argues that climate policy in America has a "path dependency problem". Climate advocates may cling to a policy because it already exists—or because Mr Trump is attacking it—and not necessarily because it works well. It seemed plausible for the EPA to try to regulate emissions using the Clean Air Act in 2009, but 16 years, two Trump electoral victories and many conservative Supreme Court decisions later, perhaps a new strategy is needed. "The climate-policy advocacy community is freaking out justifiably because there is not science to back up what the administration is doing," says Mr Kaufman, but "let's try something else."

While Mr Trump is in office most of the action in climate policy will take place outside Washington, DC. "It's not the most optimal way to regulate against climate change," says Gina McCarthy, a former EPA administrator and adviser to Mr Biden, "but we'll have to go to the states." Plenty of states are already working towards net-zero emissions, have clean-energy targets and, on the West Coast at least, economy-wide carbon markets.

Further inland, Ohio just passed a law to incentivise and streamline new energy projects praised by groups as disparate as the Nature Conservancy (an environmentalist outfit) and Americans for Prosperity (a libertarian group founded by the Koch brothers). The law speeds permitting for

all kinds of energy projects, prioritises the redevelopment of former mines and brownfield sites, and ends subsidies for coal. It may prove to be a template for other states as they try to plan for more electricity generation to feed power-hungry data centres while keeping energy prices in check. California is implementing laws passed in 2023 that require big firms to disclose their carbon emissions. Other states may follow the Golden State.

A potential flurry of state legislation helps explain why even the fossil-fuel industry was not ecstatic about the Trump administration's potential repeal of the endangerment finding. Leaving climate policy to the states means firms will have to comply with a patchwork of divergent policies. "I'm not aware of any sort of industry trade association that was pushing for this," says Jeff Holmstead, who was an EPA official under George W. Bush and now represents energy firms.

### ...is the air that I breathe

Yet there is retrenchment at the state level, too. Even before Congress revoked California's waivers—which since the 1960s have allowed the state to set stricter vehicle-emissions rules—other states had begun to back away from their commitments to follow California's aggressive policies on zero-emissions trucks. California, too, may allow for new oil drilling to keep local refineries from shutting down. This is not a time for making big statements and setting ambitious goals, says Ms Nichols.

This new reluctance to talk about the pace of the energy transition recalls that conversation in Nixon's Oval Office all those decades ago. "I don't think we want to talk to you today about emissions," Ford told the president. "It's very political." ■



Where the action isn't



# LEXINGTON

## *Power couple*

*The real danger of collusion between Donald Trump and Vladimir Putin*



**T**O THWART DONALD TRUMP is to court punishment. A rival politician can expect an investigation, an aggravating network may face a lawsuit, a left-leaning university can bid farewell to its public grants, a scrupulous civil servant can count on a pink slip and an independent-minded foreign government, however determined an adversary or stalwart an ally, invites tariffs. Perceived antagonists should also brace for a hail of insults, a lesson in public humiliation to potential transgressors.

Vladimir Putin has been a mysterious exception. Mr Trump has blamed his travails over Russia's interference in the 2016 election on just about everyone but him. He has blamed the war in Ukraine on former President Joe Biden, for supposedly inviting it through weakness, and on the Ukrainian president, Volodymyr Zelensky, for somehow starting it. Back when Russia invaded in February 2022, Mr Trump praised Mr Putin's "savvy".

For months, as Mr Putin made a mockery of Mr Trump's promises to end the war in a day and of his calls for a ceasefire, the president who once threatened "fire and fury" against North Korea and tariffs as high as 245% against China indulged in no such bluster. He has sounded less formidable than plaintive. "Vladimir, STOP!" he wrote on social media in April. His use of the given name betrayed a touching faith that their shared intimacy would matter to his reptilian counterpart, too.

When Mr Putin kept killing Ukrainians, Mr Trump took a step that was even less characteristic: he admitted to the world that he had been played for a fool. "Maybe he doesn't want to stop the war, he's just tapping me along," he mused on April 26th. A month later, he ventured that his friend must have changed, gone "absolutely CRAZY!" Then on July 8th he acknowledged what should have been obvious from the start: "He is very nice all the time, but it turns out to be meaningless." Mr Trump threatened secondary sanctions on Russia but then leapt at Mr Putin's latest mixed messages about peace, rewarding him with a summit in America.

Why, with this man, has Mr Trump been so accommodating? Efforts by journalists, congressional investigators and prosecutors to pinpoint the reason have often proved exercises in self-defeat and sorrow. The pattern seemed sinister: Mr Trump praised Mr

Putin on television as far back as 2007; invited him to the Miss Universe Pageant in Moscow in 2013 and wondered on Twitter if he would be his "new best friend"; sought his help to build a tower in Moscow from 2013 to 2016; and tried unsuccessfully many times in 2015 to secure a meeting with him. Then came Russia's interference in the election in 2016, including its hack of Democrats' emails to undermine the Democratic candidate, Hillary Clinton. Some journalists fanned suspicions of a conspiracy—"collusion" became the watchword—by spreading claims Mr Putin was blackmailing Mr Trump with an obscene videotape. The source proved to be a rumour compiled in research to help Mrs Clinton.

Nine years later Mr Putin's low-budget meddling still rewards America's foes by poisoning its politics and distracting its leaders. Pam Bondi, the attorney-general, has started a grand-jury investigation into what Mr Trump called treason by Barack Obama and others in his administration. The basis is a misrepresentation of an intelligence finding in the waning days of Mr Obama's presidency. Tulsi Gabbard, the Director of National Intelligence, has said that because Mr Putin did not hack voting machines, the finding that he tried to help Mr Trump was a lie. The conclusion under Mr Obama was instead that Mr Putin tried to affect the election by influencing public opinion.

The exhaustive report released in 2019 by an independent counsel, Robert Mueller, affirmed on its first page that "the Russian government perceived it would benefit from a Trump presidency and worked to secure that outcome." Mr Mueller indicted numerous Russians, and he also secured guilty pleas from some Trump aides for violating various laws. But he did not conclude the campaign "conspired or co-ordinated" with the Russians.

To wade through the report's two volumes is to be reminded how malicious the Russians were and how shambolic Mr Trump's campaign was. It is also to lament the time and energy spent, given how little proof was found to support the superheated suspicions. And it is to regret how little Mr Trump was accorded a presumption of innocence. In the final words of the report, Mr Mueller noted that while it did not accuse Mr Trump of a crime, it also did "not exonerate him". One might understand his bitterness.

The puzzle of Mr Trump's admiration for Mr Putin may have been better addressed by psychologists. Certainly Mr Putin, the seasoned KGB operative, has known how to play to his vulnerabilities, including vanity. Mr Trump was said to be "clearly touched" by a kitschy portrait of himself Mr Putin gave him in March.

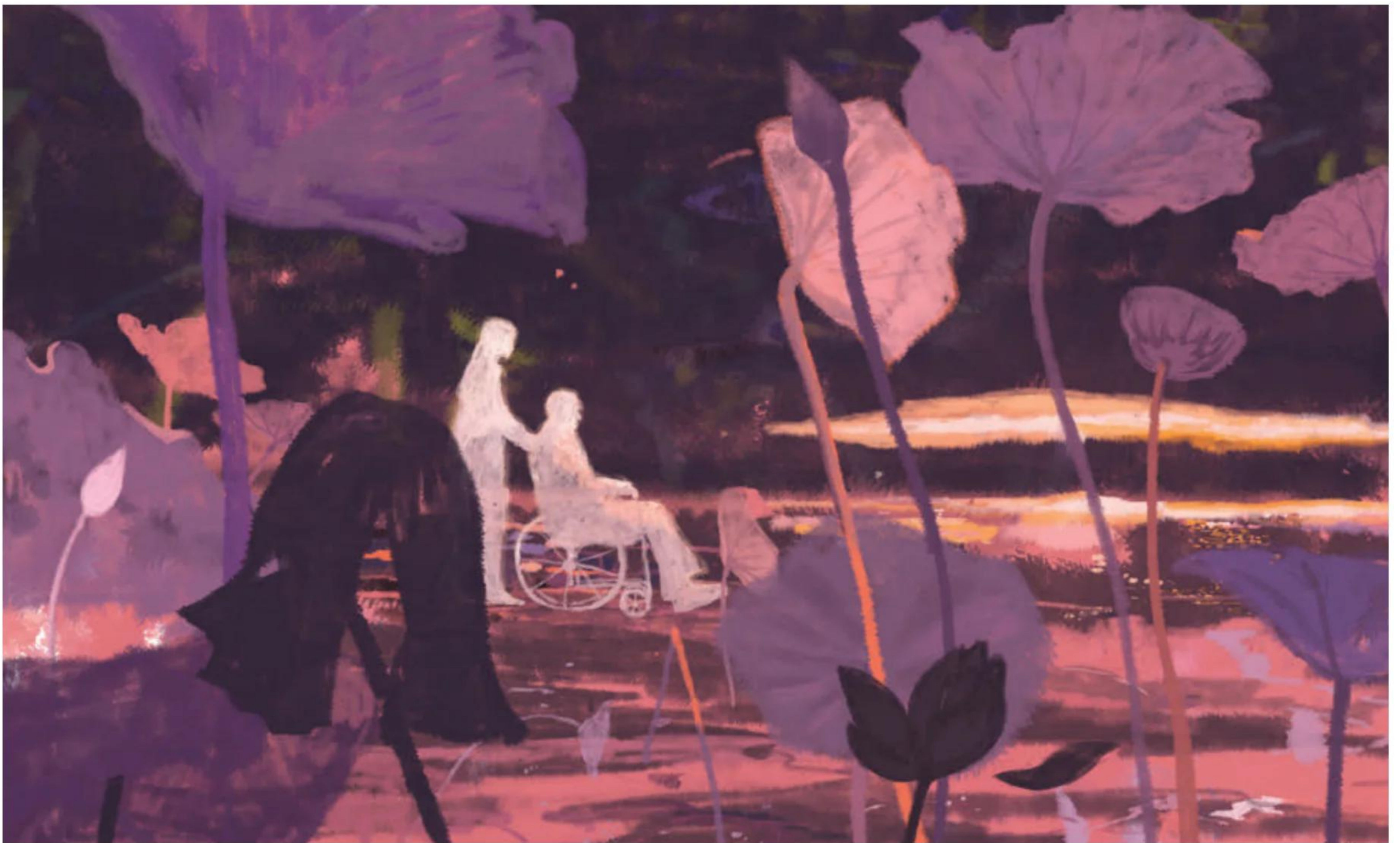
### Putin on the blitz

Yet that patronising speculation may be unfair to Mr Trump, too. It certainly understates the hazard. He has weighty reasons to identify with Mr Putin. Since the 1930s a cornerstone of American foreign policy has been that no country can gain territory by force, a principle also enshrined in the charter of the United Nations. Yet in his first term, in pursuit of his vision of Middle East peace, Mr Trump twice granted American recognition of conquered territory, for Israel's claim to the Golan Heights and Morocco's claim to Western Sahara. He appears to envisage an end to the war in Ukraine that would also award Russia new territory.

This is how "savvy" people like Mr Trump and Mr Putin believe the world actually works, or ought to: not according to rules concocted by stripy-pants diplomats to preserve an international order, but in deference to power exercised by great men. A world hostage to that theory may be the legacy of their true collusion. ■



# The Americas



## Uruguay

### Freedom to die

MONTEVIDEO

**Might Uruguay's liberal approach to assisted dying spread across Latin America?**

**P**ABLO CÁNEPA was a normal, healthy 35-year-old Uruguayan. Handsome and extroverted, he was a talented graphic designer who loved to host barbecues with his girlfriend and was fanatical about Nacional, a local football team. Taking a shower in March 2022, he suddenly felt dizzy. He thought little of it.

But within four months he was trapped in his own body; his brain had lost almost all control of his muscles. As a kid, he loved to draw. Now he cannot sit, feed himself or control his bladder and bowels, let alone hold a pencil. His 75-year-old mother must change his sodden nappies. His mind is lucid. He knows exactly what has happened—what he has lost—but even his eyes do not work; he sees double. Speaking is exhausting. For three years he has been lying staring at the ceiling, unable to move his limbs to relieve the stiffness and pain, his muscles withering. Trapped, he suffers panic attacks. He has been denied even a

clear diagnosis. All the doctors can tell him with certainty is that he has irreversible brain damage with no known cause. Pablo wants to die. He has said so repeatedly since early 2023. But under Uruguayan law no one can help him to do so.

That could soon change. On August 13th Uruguay's lower house passed a law with a thumping majority to legalise assisted dying. The Senate, where a similar bill got stuck in 2022, is widely expected this time to follow suit. Legal assisted dying would continue Uruguay's long liberal tradition and put it among a handful of countries in the world to have legal marijuana, gay marriage and assisted dying. For Pablo, the law cannot come soon enough.

#### → ALSO IN THIS SECTION

**35 Colombia's martyr on the right**

**36 Bolivia's worrying election**

In Colombia and Ecuador assisted dying was decriminalised after court battles. Cuba recently declared it legal, too. None of these countries has a comprehensive law to regulate it, so its application is often very limited. Colombia is the most advanced but even there it is bafflingly complicated. Uruguay would be the first country in Latin America to pass a comprehensive law legalising assisted dying that would make it widely available. Advocates in Chile, where an assisted-dying bill is stuck in the Senate, are watching closely.

The law that Uruguay's lower house passed is strikingly liberal, more so than a current effort in Britain, where assisted dying would be limited to those with a terminal illness who will anyway die within six months. Uruguay's bill imposes no such time limits. Moreover, it is open to people with an incurable illness that generates unbearable suffering, even if it is not terminal. That applies crucially to Pablo, whose disease is torture but not terminal.

Uruguay's bill still has constraints. Mental conditions such as depression are not explicitly ruled out but patients need at least two doctors to determine that they are psychologically fit to make the choice. Minors are excluded. So are directives whereby people who are in good health can leave instructions to be helped to die in the future, should they become so ill ►►



► that they are unable to communicate.

Opposition to the law comes chiefly from the religious. Daniel Sturla, the archbishop of Montevideo, the capital, worries that, together with legal abortion, assisted dying is creating a “culture of death”. He warns of “a mindset where life is disposable and where there are lives worth living and lives not worth living”. Some argue that palliative care renders assisted dying unnecessary by reducing patients’ suffering as they near the end. Others add that palliative sedation, which some doctors in Uruguay apply to relieve suffering and, in effect, to marginally hasten death at the very last moments, already does enough.

### We shouldn’t have to wait

The frustration of the Cánepa family with such objections is palpable. Pablo’s brother Eduardo lists a slew of Uruguayan organisations and politicians campaigning against the law. “They claim to be empathetic toward life...but it is only in the abstract,” he says, his voice cracking with emotion. “None of them has called us, none of them has sent us a message to see if we need something, to see if they can help—absolutely nothing.”

Palliative care is more widely available in Uruguay than in most of Latin America. But for Pablo in practice it means two visits of perhaps 30 minutes a week, even though he has both state help and private insurance. Palliative care is undoubtedly necessary, but is not a substitute for assisted dying, argues his brother Eduardo. Indeed in Canada, he notes, the vast majority of people who choose an assisted death also receive palliative care.

Florencia Salgueiro, a leading campaigner for assisted dying in Uruguay, has first-hand experience of the limits of palliative sedation. Her grandfather and uncle died of a neurodegenerative disease. Then it got her father, who died aged 57 in 2020 after a torturous last few months. Doctors obediently followed the law, apologetically rebuffing his requests to be helped to die sooner through palliative sedation.

Pollsters reckon some two-thirds of Uruguayans favour legalising assisted dying. Remarkably, a solid majority of Uruguay’s Catholics back it, too. “Uruguayan Catholics are different from Argentine Catholics or Brazilian Catholics,” says Archbishop Sturla. “Secularisation [in Uruguay] has reached the soul, the culture,” he laments. Indeed every country in Latin America except Uruguay has a majority who say they are Christian.

Uruguay’s support for assisted dying is built on a strikingly secular and liberal tradition that is unique in the region and was promoted by early political leaders. Back in 1877 they declared state schools to be free, obligatory and secular. That was five years before France, the exemplar of secu-

lar education. Uruguay’s constitution of 1918 explicitly separated church from state. Unlike in many countries, it is strictly followed. Easter is officially (and widely) called “Tourism Week”. Christmas is “Family Day”. The Argentine constitution, by contrast, still says the government must “support” Roman Catholicism.

Liberalism in Uruguay runs just as deep. In 1907 it was the first country in Latin America to fully legalise divorce, some 97 years before nearby Chile. More recently, in 2012, it was one of South America’s first countries to fully legalise abortion. In 2013 it was the second to legalise same-sex marriage. In the same year it was the first country in the world to legalise marijuana.

History and public opinion may favour the Cánepas but they remain cautious. “I want to see it approved before I believe,” says Eduardo. How will he feel if it is? “Relieved,” he replies. “I don’t want people to die. I want people to be able to choose.” ■

### Colombia

## Making a martyr?

BOGOTÁ

### The right will exploit Miguel Uribe’s murder

HISTORY CAN repeat itself in terrible ways. In January 1991 Diana Turbay, a Colombian journalist and daughter of a former president, was killed on the orders of Pablo Escobar, a drug lord. She had been reporting on the assassinations of presidential candidates at the height of Colombia’s violent struggles. Her son, four years old at the time, grew up without a mother.

Last October, Miguel Uribe stood where his mother had died and launched his presidential campaign in her name. “I suffered first-hand the same pain that millions of Colombians have experienced,” said the then 38-year-old senator of the Democratic Centre (CD), Colombia’s largest right-wing party. He vowed to end the violence that has robbed Colombians of “lives, hopes and dreams”.

But on August 11th Mr Uribe died in a clinic in Bogotá, Colombia’s capital, from bullets fired by a gunman on June 7th as he campaigned. It was Colombia’s worst act of political violence for 35 years. Mr Uribe’s four-year-old son was set to start school this week. Instead he will mourn a parent’s death, just as his father did.

The country is in shock. Flags are at half mast. Carlos Galán, Bogotá’s mayor, declared three days of mourning. (He was 12 when Escobar’s hitmen murdered his father, a presidential front-runner, in 1989.) Many Colombians fear that Mr Uribe’s as-

sassination may signal a return of the political violence they believed was over.

Marco Rubio, America’s secretary of state, demanded “justice for those responsible”. But it remains unclear who ordered the killing. The government of Gustavo Petro, Colombia’s first avowedly leftist president, is blaming the Segunda Marquetalia, a dissident group. Security experts are sceptical. The prosecutor’s office is unlikely to conclude its investigation before the presidential election next May. Conspiracy theories are proliferating in the gap.

Opponents of Mr Petro have seized on the tragedy to stoke fears of further violence. Vicky Dávila, a journalist who is another presidential hopeful, lambasted Mr Petro on X: “An opposition candidate was assassinated and your government did not protect him.”

Mr Petro’s “total peace” policy is failing. He has sought to negotiate simultaneously with all illegal groups and gangs. Instead, lawlessness has spread. Kidnappings have increased. The government has shifted towards a harder-line security policy, with military operations to kill prominent commanders. That is “good for politics and cameras”, says Kyle Johnson, an expert on the conflict, but does not solve the problem. Citizens cite security among their main concerns.

Mr Uribe’s murder is a “big blow to the peace agreement” of 2016, says Juan Manuel Santos, Colombia’s president from 2010 to 2018, the accord’s architect. Under its terms, the Marxist revolutionaries of the FARC disbanded. “The agreement was negotiated to avoid what happened to Miguel,” says Mr Santos. It stipulated security guarantees for the opposition. Had the deal been fully implemented, Mr Uribe would not have been killed, argues Mr Santos. Both Mr Petro’s government and the ►►



Gone but not forgotten



▶ previous one have been blamed for being slow to implement the peace accord.

Colombia's right now lacks a strong candidate. The deceased Harvard-educated senator was a rising star. In 2022 he won his seat backed by Álvaro Uribe (no relation), a former president who founded the CD. After he was shot in June, Miguel Uribe leapt to the top of voting-intention polls. The conservatives must find and rally behind another compelling candidate.

Disarray in their ranks worsened on August 1st when Álvaro Uribe was sentenced for bribery and perverting the course of justice to 12 years under house arrest. His supporters claim both Uribes are victims of political persecution. The living Mr Uribe would be wise to name a successor to stand for the CD.

The right can at least count on Mr Petro's divisive style of governing. "He could unite the right in a much better way" than it is doing itself, thinks Mr Santos. ■

## Bolivia's election

# A bad sport wants to ruin the day

CHAPARE

**An ex-president threatens to mess up the coming poll**

AFTER A FEW drinks, Feliciano Mamani hoicks up his trouser leg to show where the police shot him 30 years ago, when he was a young coca farmer resisting the government's eradication programme, leaving a purplish crater in his leg. Yet when he recounts the two times he came even closer to death, this wound barely makes the cut.

War stories abound in the Chapare, Bolivia's coca kingdom. It has been peaceful since Evo Morales emerged from its coca farmers' union to lead the Movement to Socialism (MAS) to power in 2006. But that may soon change. Torn into factions, the MAS looks set to lose the coming election. Mr Morales was forced out of the MAS and is now in the Chapare evading arrest for alleged statutory rape. He says the charge is politically motivated and wants supporters to spoil their ballots to protest his exclusion from the poll by a court ruling. His future hangs in the balance. So do the prospects for the Chapare—and for Bolivia.

The split in the MAS goes back to 2019, when Mr Morales resigned after a disputed election in which he sought an unconstitutional third consecutive term in office. He went into exile, only to return when Luis Arce, his former finance minister, retook the presidency in 2020. Mr Morales wanted another run at the top post. But it soon became clear Mr Arce wanted to keep it.

After years of infighting, neither man

has got onto the ballot this time. An economic crisis, with fuel shortages and inflation likely to hit 30% this year, ruined Mr Arce's electoral chances, so he withdrew. Mr Morales's candidacy was blocked by a court ruling on term limits. In the process the MAS's reputation was wrecked.

The election Bolivia faces on August 17th is its most unpredictable in 20 years. The front-runners are Samuel Doria Medina, a centrist tycoon, and Jorge Quiroga, a right-wing former president. Pollsters reckon neither will surpass 25% in a field of eight; a run-off in October is likely. The left's only real hope is Andrónico Rodríguez, 36, the Senate's president, who is running not for the MAS but for the People's Alliance. Though he is polling at under 10%, the rural vote has strongly favoured the MAS and is often undercounted in polls: it could yet back him.

But Mr Morales stands in the way. Mr Rodríguez is part of the same coca farmers' union and was considered his political heir. Now Mr Morales calls him a traitor and wants Bolivians to spoil their ballots. His plan is to delegitimise the poll, then lead a resistance from the Chapare again.

The road to the Chapare winds from arid highlands into tropical forest. About 260,000 people, many descended from internal migrants escaping drought and poverty, live there across five coca-growing municipalities. The newcomers turned to coca, which grows easily and can yield four harvests a year. There is a market for leaves that Andeans have chewed as a stimulant for millennia. But in the 1980s demand for coca to produce cocaine exploded.

Coca farmers say the union was forged in the repression that ensued. When forced eradication backed by the United States began, farmers fought back. Eventually they won the right for each union member to have a coca plot of 1,600 square metres. With Mr Morales as president, the unions took responsibility for stopping illegal production over the allotted limit.

Almost 50,000 coca farmers belong to an overarching body known as the Six Federations, still led by Mr Morales. They pay

dues, take part in meetings and, if called upon, take to the streets. Now they also take turns protecting Mr Morales in the village of Lauca Eñe, where hundreds of people with sharp staves have formed a ragtag garrison ever since police fired on his car last October. Mr Morales accuses the government of trying to kill him; officials say his vehicle rammed through a checkpoint.

The Six Federations unofficially reigns over the Chapare and the five coca municipalities. It runs the coca trade, controls prices and taxes the proceeds. It controls much else, from land tenure to low-level justice. Its own media pump out propaganda. Mr Mamani, who was a mayor in the Chapare for ten years, says the union wants to have an international TV channel.

Under Mr Morales's presidency the region flourished. Villa Tunari, the biggest municipality's hub, now has hotels, gyms and karaoke. Coca farmers plant tropical fruits and dig ponds to farm *tambaqui*, a tasty fish. The price of land has rocketed. A hectare by the main road that cost \$300 or so in the 1990s, says a coca farmer, now goes for \$10,000. Many farmers also own property in the city of Cochabamba, where their kids go to university.

Not all this prosperity is legal in origin. Mr Morales kicked the US Drug Enforcement Administration out in 2008. Much of the region's coca feeds the drug trade; many of its hotels and tourist ventures are said to be money-laudries.

But things have soured since Mr Morales left power. Public money no longer flows to the region. Drug labs have more often been busted. And the mood could worsen still after the election. Mr Morales's loyalists are sure most Bolivians will spoil their ballots, though polls suggest no more than 15% of Bolivians overall plan to. But even 20% would be startling.

## A shot in the foot

In any case, a big null vote makes the current opposition more likely to win. And Messrs Doria Medina and Quiroga have both said Mr Morales will go to prison if either of them is elected. "Evo would be a trophy," says Iván Canelas, ex-governor of Cochabamba and a friend of Mr Morales. "They could kill ten people and grab Evo and lots of people in the city will say it's what had to be done."

The Six Federations is preparing to resist. María Eugenia Ledezma, its top female leader until a few months ago, says they will use guerrilla tactics against soldiers who venture into the Chapare, depriving them of sleep, then attacking with sticks and stones. She says miners have been teaching people how to make booby-traps with dynamite; sympathisers in the army have been training the young. "Many of us, many leaders, will surely die or be imprisoned," she says, grim-faced. ■





## Middle East & Africa



### Racial justice in South Africa

## A black and white case

CAPE TOWN

### The staggering costs of Black Economic Empowerment policies

**A**FTER THE end of apartheid South Africa embarked on one of the world's most extensive attempts to redress racial inequality. At the centre of this effort is Black Economic Empowerment (BEE), a set of policies that, in effect, force firms to sell discounted assets to black investors, hire more black managers and buy more from black suppliers. Though strongly backed by the African National Congress (ANC), the party in charge since 1994, BEE is being questioned like never before.

The Trump administration cites BEE as a reason it is imposing 30% tariffs on the country. Inside South Africa there is growing concern that these policies, while perhaps necessary at first, are no longer useful. BEE has mostly benefited a tiny black elite while constraining economic growth, undermining the social stability it was meant to underpin.

BEE was conceived by South Africa's largest conglomerates, six of which in the

early 1990s accounted for 86% of the value of the Johannesburg Stock Exchange (JSE). To convince the ANC, hitherto committed to nationalising the economy, of the merits of capitalism, they needed black capitalists. So they sold discounted shares or units to ANC bigwigs such as Cyril Ramaphosa, now South Africa's president. The ANC's response to criticism of the policy as an elite stitch-up was the Broad Based Black Economic Empowerment Act of 2003. The law turned ad hoc corporate atonement into a vast regulatory system.

Today BEE is a form of gamified affir-

mative action. Firms are given points based on meeting criteria for the portion of the firm owned by black shareholders, the number of senior black staff, investment in black employees' skills, charity contributions and purchases from black-owned firms. Firms with a low score struggle to get state contracts and licences or attract commercial partners. "Your BEE rating will determine your success in business in 90% of cases," says Deirdre Mitchell of Honeycomb, a BEE ratings firm.

To supporters BEE is a source of harmony. "If we had kept the pre-democratic status quo, then South Africa would have imploded at some point," says Tshediso Matona, who heads the BEE regulator. He argues that the policy has also grown the black middle class.

Yet South Africa, with one of the highest murder rates in the world and periodic unrest, is hardly tranquil. Inequality is higher today than in 1994, partly because of rising inequality among black South Africans. One study suggests the gross real income of the top 10% of black earners tripled between 1993 and 2019, while that of the bottom 50% fell. This reflects high joblessness caused by slow economic growth. Less than 40% of black South Africans of working age are in formal employment.

"Very, very conservative" estimates by William Gumede, an academic who in the

#### → ALSO IN THIS SECTION

**38** Opposition protests in Ivory Coast

**39** Hamas's dilemma in Gaza

**40** Lebanon tackles Hizbullah

**40** The killing of journalists in Gaza



► 2000s worked on a review of BEE, are that more than 1trn rand (\$56bn) in assets may have been transferred to fewer than 100 people since BEE began. The main beneficiaries were a mostly politically connected elite and the (mostly white) facilitators who took large cuts. One banker says that a “paper transfer” of 25% of a firm’s equity typically ends up being worth 8%, after transaction costs and loans to buy the assets are paid off. Mr Gumede calls BEE “one of the most wasteful, costly and ineffective redistribution strategies devised in any post-colonial society”.

Has BEE fostered a black middle class? The number of black-owned firms doubled between 2002 and 2019, but that might have happened anyway. The growth of black employment in the public sector has been more important. Today 75% of senior managers in state employment are black (roughly in line with the 82% of the population that is black) versus 15% in the private sector (see chart). The latter could be evidence of enduring racism or the lingering effects of apartheid-era schooling on the skills of black South Africans.

In June the Free Market Foundation, a think-tank, estimated that the annual cost for firms to comply with BEE was 145bn-290bn rand, equivalent to 2% to 4% of GDP. Though there are reasons to quibble with the methodology, BEE certainly adds costs and creates perverse incentives.

Firms maximise points by buying from businesses owned by black South Africans, with extra points if they are owned by women. That often means “three people in the supply chain rather than two,” says Ms Mitchell. The state can spend 25% above cost if a good or service is from a black supplier, according to the Institute of Race Relations, another think-tank. These “BEE premiums” add to already soaring public debts. Procurement rules provide a pretext for giving contracts to cronies.

BEE is plagued by “inputitis”, where points are given for spending, not results. Firms can get points by paying for courses that are never completed. This has led to a mini-industry of people enrolling in but never completing multiple vocational schemes known as “learnerships”. Only firms with at least 50 employees have to adhere to racial quotas. So companies forgo growth or split into smaller units.

Some firms try to get around BEE by “fronting”. In its crudest form this is when a firm dupes a black South African—the company driver, say—to be their “BEE partner” on paper, while receiving little of the benefits. Mr Matona says his commission has received more than 1,300 complaints about fronting since 2017.

Foreign firms can win exemptions from the ownership rules of BEE through “equity equivalence” schemes. Microsoft, for example, funded local startups. Starlink,

Elon Musk’s satellite-internet firm, may be able to strike a similar deal. But these are still extra costs for firms that could invest elsewhere, adding to South Africa’s lack of dynamism. The rate at which firms enter and exit the economy is a third of that in other middle-income countries.

Moeletsi Mbeki, a commentator, says that BEE has created a “parasitic club” of black South Africans, who (with exceptions) are content to take their share of existing firms rather than build their own. Combined with high salaries in the public sector—the state wage bill accounts for 15% of GDP versus the OECD average of 10%—this leads to low levels of black entrepreneurship, he argues.

Tshepo Mahloele, one of South Africa’s richest men, supports transformation but worries about the way BEE can add an asterisk to black success. The 57-year-old, who has taken part in BEE deals but has also invested successfully outside South Africa, says that in some eyes “when I walk into a room...I’m not first a business person; I’m a black business person.”

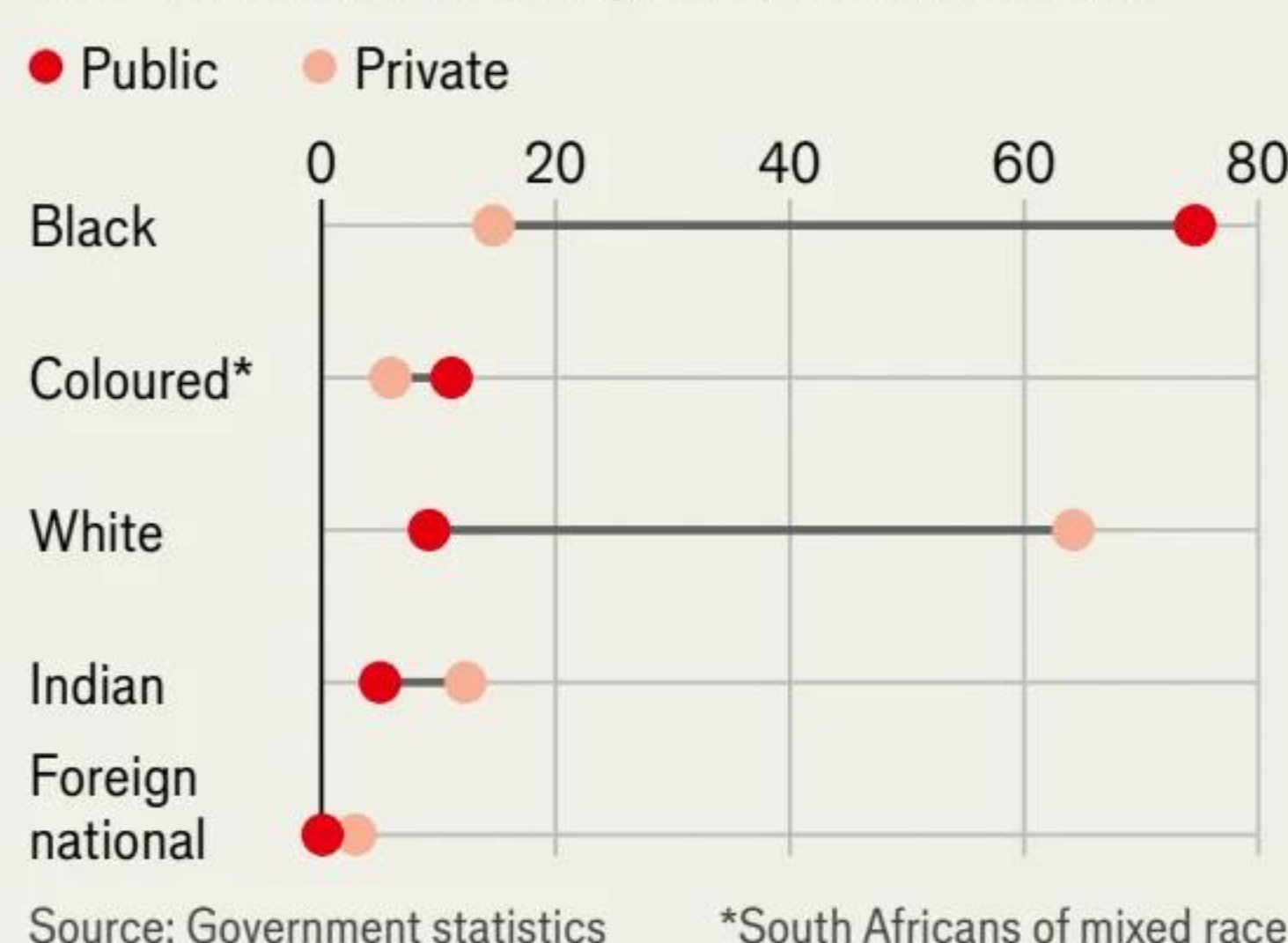
A recent poll by Ipsos found that 44% of South Africans want BEE to continue. Some 36% say it should end; 20% are unsure. Those who say it slows growth are twice as many as those who say it fosters it. A plurality agree it is “outdated and divisive”. Polling by the Social Research Foundation finds that about 80% believe governments should hire the best people and buy the cheapest goods, regardless of race.

The ANC remains wedded to BEE, despite pressure from the Trump administration and from its main coalition partner, the liberal Democratic Alliance. Indeed its solution to problems with the policy seems to be more state control. It wants to set up a state-led “transformation fund” paid for by firms. Tweaks passed this year have imposed more stringent quotas.

Mr Ramaphosa argues that BEE is “not just a policy choice but a constitutional imperative”. He says it is a “false notion that we must make a choice between growth and transformation”. The truth is that, more than 30 years on from apartheid, his country has too little of either. ■

### Still skewed

South Africa, top management level, 2024, %



## Ivory Coast

# Out with Ouattara

LAGOS

**The president’s refusal to step down raises the risk of electoral violence**

THERE HAD been hopes that Alassane Ouattara, Ivory Coast’s 83-year-old president, might make good on his promise to step down after three terms in office. (The constitutional limit is two, though he claims to have “reset” this through a constitutional review.)

At a time of democratic decline in the west African country’s neighbourhood, bowing out would have signalled a commitment to a peaceful transfer of power for the first time in 30 years. It would also have shown a desire to protect the relative economic success that he helped usher in after two devastating civil wars.

Alas, on July 29th Mr Ouattara announced that he would run for a fourth term at presidential elections in October. He claims that the country’s economic and security challenges require a leader who has “experience” in managing such things.

That argument has not gone down well. Tens of thousands of Ivory Coast’s 33m people have taken to the streets in recent days to demand free and fair elections and the reinstatement of banned opposition candidates. Observers reckon the protests are the largest since 2020. Thankfully, they have so far been largely peaceful. Yet unless Mr Ouattara de-escalates, worse may be to come.

The protests reflect the success of opposition parties in rallying support on the streets in the face of government repression. Several opposition candidates have been barred from running in the elections. The two who would have posed the most serious challenge to Mr Ouattara are Tidjane Thiam, a former boss of Credit Suisse, and Laurent Gbagbo, a former president who refused to concede to Mr Ouattara in the election in 2010, sparking a civil war.

Mr Thiam was excluded when a court ruled that he was not an Ivorian citizen when he registered his candidacy (he held French citizenship for nearly four decades before renouncing it in March). Mr Gbagbo was barred based on a criminal conviction for his conduct in the civil war in 2010-11. The two men’s parties have joined forces to push for the reinstatement of their candidates, an overhaul of the electoral commission and other reforms.

Yet with two months to go until the vote, the odds are against them. The government, not content with barring opposition candidates, keeps arresting their supporters. “It is really an autocratic state,”



► claims Noël Akossi Bendjo of Mr Thiam's party. Mr Thiam, whose citizenship status is still unclear, says he cannot safely return to Ivory Coast and is running his election campaign from Paris.

Having no legal avenue to reinstate the disqualified candidates, the opposition alliance has little in common apart from its dislike of Mr Ouattara. It has not managed to find a new s around standard-bearer around whom to rally. With nominations due by August 26th, it is unlikely to do so in time to mount a successful campaign.

Mr Ouattara, meanwhile, remains popular despite his refusal to vacate the top job. He is protected by his party's control over the country's institutions, says Beverly Ochieng of Control Risks, a consultancy. He has presided over a stellar economic recovery and largely kept at bay the jihadists who have been menacing neighbouring countries. Foreign investors see his government as a beacon of stability in a chaotic region. So do many Ivorian voters. He could probably win an election even without excluding opponents.

Yet Mr Ouattara's recalcitrance bodes ill for democracy in Ivory Coast and the region. His victory in the election in 2020 sparked violent protests after the opposition boycotted the vote and rejected the result. At least a dozen people were killed in the violence. His age is another worry: should he become too ill to govern while in office, it could spark a political crisis.

The coming election is Mr Ouattara's second opportunity to make Ivory Coast an example to its neighbours in politics as well as in economics. Short of stepping down, he might yet make good on it if he finds a way of entering into dialogue with the opposition and assuaging those Ivorians who are keen for a change. But instead he looks set to squander it. ■



Not another five years

## Hamas's strategy

# Fight or flight

CAIRO AND ISTANBUL

## Under renewed attack from Israel, Hamas is pondering its options

IT WAS BORN as the Islamic Resistance Movement. It is more usually known by its Arabic acronym, Hamas. But talks taking place in Cairo could determine whether the Palestinian militants drop the middle word, abandon their 22-month war in Gaza against Israel and reinvent themselves as a political party.

On August 12th Khalil al-Hayya, the head of Hamas's Gazan wing, arrived in Cairo for negotiations mediated by Egypt with Qatar and Turkey. On the table is a proposal to decommission its weapons, dissolve its armed brigades, free the remaining hostages and surrender power. In exchange, Israel would withdraw from Gaza, an interim Palestinian technocratic administration would be put in place supported by a UN-endorsed international force and the rebuilding of the devastated territory would begin.

The external pressure on Mr Hayya to accept such a deal is intense. Binyamin Netanyahu, the Israeli prime minister, is threatening to occupy the whole of Gaza. On August 12th Israeli forces began heavy strikes on Gaza City. Another offensive could destroy what remains of Hamas there and hasten the ethnic cleansing of the entire strip. The weakening of Iran has stripped the group's armed wing, the Ezzedin al-Qassam Brigades, of its main foreign backer. Hamas's last regional backers, Qatar and Turkey, have long favoured the group's political arm. But they seem to be losing patience. They are understood to have said that if Mr Hayya refuses a deal, they might refuse to allow him and Hamas's other leaders, who all left Doha a fortnight ago, to return.

Hamas faces even more pressure from those on whose behalf it claims to fight. The movement was born in Gaza. But the population that propelled it to victory in elections two decades ago has turned on the group. Few see value in a resistance that invites devastation upon them. While its fighters shelter in tunnels and its politicians negotiate over the width of a buffer zone, around a hundred Gazans were killed each day in July, nearly all by Israel. Threats of reprisals no longer mute criticism. "People in Gaza are furious with Hamas," says a journalist from Gaza now in exile in Qatar. "They just want the nightmare to end." A political activist in Gaza blames Hamas for the famine. "Hamas's insistence on keeping power gives Israel

the pretext to starve us," he says. "Hamas should dissolve and disappear." Dissent is even spilling through Hamas's ranks. On WhatsApp groups, some members are calling for a laying down of arms before Gaza suffers even more.

Others in Hamas envision the group becoming a political party, in the manner of Northern Ireland's Sinn Féin or Israel's own legal Islamist party, the United Arab List. Justice and Development, one suggests calling it. Reimagined, it could agree to the conditions set by the Palestinian president, Mahmoud Abbas, for participation in recently announced Palestinian elections. They include endorsing a two-state settlement, negotiations with Israel and Mr Abbas's demand for a monopoly on Palestinian weapons. Given the disenchantment with Fatah, his own lacklustre movement, and the admiration Hamas's grit still attracts outside Gaza, they might even win. "It's been months since I've been this optimistic," says an adviser to the movement exiled from Gaza.

And yet in Gaza City the Brigades fight on. Apart from cobbling shoes out of wood and rubber, it is one of the last job opportunities Gaza still offers. Israel's attacks may have decimated Hamas's ranks, but they still have weapons to harry their foe. Their presence spared Gaza even worse atrocities, they say, implausibly. "Without the Qassam Brigades we'd have had hundreds of Sabras and Shatilas," argues the exiled son of a slain military commander, referring to the slaughter of thousands of Palestinian refugees in Israeli-occupied Beirut in 1982. Many still think they could regain power in Gaza. Asked to describe the Qassam Brigades' mood, a Palestinian interlocutor with Hamas adopts an Irish lilt. "No surrender," he says.

Meanwhile in exile, Hamas's leaders reckon that Israel may be winning the battles but is losing the war. As in Algeria's war of independence, their reading is that the resistance has turned the enemy's weapons against itself, exhausting the Israelis and draining them of their international legitimacy and moral authority. Far from ending the conflict, they argue, a mass exodus of Palestinians from Gaza would intensify it. Algeria won independence only after a million Algerians had lost their lives. "Be patient, Gaza," says Ghazi Hamad, a senior member of Hamas.

How can Hamas be pushed to accept a deal? A commitment, if given, by a new Arab committee overseeing its implementation to integrate tens of thousands of Hamas's civil servants into a new Palestinian administration and perhaps some fighters into the security forces might help. Hamas's political leaders have expressed readiness to hand over their weapons to a new Palestinian administration in Gaza, once Israel fully withdraws. "The Brigades ►►



► will accept the movement's decision," says a strategist close to Hamas in Istanbul.

But many obstacles remain. America and Israel must also accept the terms, and neither has come to Cairo. Despite the rising costs for Israel, Mr Netanyahu still prefers military to diplomatic endgames. The details of Hamas's disarmament, any international force and an interim technocratic Palestinian government have yet to be determined, says an Egyptian observer. And Hamas's "pragmatism" has only ever gone so far. In 1991, after the end of the first Palestinian *intifada* (uprising), and the start of direct Israeli-Palestinian talks, one of Hamas's founders declared mission accomplished. He proposed disbanding Hamas's armed wing and joining the negotiations. How can we forgo our brand recognition, retorted his brothers? Too many within Hamas may still feel the same. ■

### Disarming Hizbullah

## The first big step

BEIRUT

**Lebanon's government has a great opportunity**

LAST WEEK Lebanese soldiers retrieved the bodies of six of their comrades from the smouldering ruins of an arms depot near the Israeli border. It was the army's deadliest day since the country was drawn into a regional war on October 8th 2023. But they were not killed by enemy fire. They died attempting to secure a cache of weapons believed to belong to Hizbullah, the Iranian-backed militia that has dominated Lebanon for years.

Accident or not, the blast underscored the precariousness of Lebanon's new government. Backed by America, it seems willing to take unprecedented steps to reduce Hizbullah's influence. But any moves against the militia risk causing further instability in a perennially unstable country.

Hizbullah's grip on the state has never looked weaker. Many of its leaders are dead. Its armoury is depleted. It has lost control of Beirut airport. Its land corridor to Iran via Syria and Iraq has been cut off. And its supporters are angry at its failure to rebuild what Israel destroyed last year.

America has put forward a four-phase plan to disarm Hizbullah. The group would hand over its weapons by the end of the year. Israel would withdraw from its five positions in southern Lebanon and the still-frequent Israeli air strikes would cease. And Lebanon and Israel would have to demarcate their border at last.

Ministers debated the proposal last week. Hizbullah's representatives and al-

### The media and war

## Snuffed out

**Almost 200 journalists have now been killed in Gaza**

"USQUT, ANAS (Shut up, Anas)," the Israeli agent would say in Arabic when he called the Palestinian journalist's mobile. He was not the only one. Other journalists in Gaza getting such calls had chosen silence or fled the strip. But Anas al-Sharif, a 28-year-old Pulitzer-prize winning correspondent in Gaza with a global following of hundreds of thousands on social media, was different. He spoke of the need to give Gaza a voice and ploughed on regardless.

On August 9th, the night before an Israeli airstrike killed him and five colleagues in their makeshift newsroom in a tent next to al-Shifa hospital, he called a childhood friend in Qatar and told him Israel was preparing to kill him. Together they recited the Islamic prayer to ward off fear. His last post on X was to report the resumption of Israel's heavy bombardment of Gaza.

Israel claims he was a Hamas asset; it has provided little evidence for the accusation. (Last year it banned his Qatari-financed outlet, Al Jazeera, from reporting in Israel on the grounds that it was a mouthpiece for Hamas.)

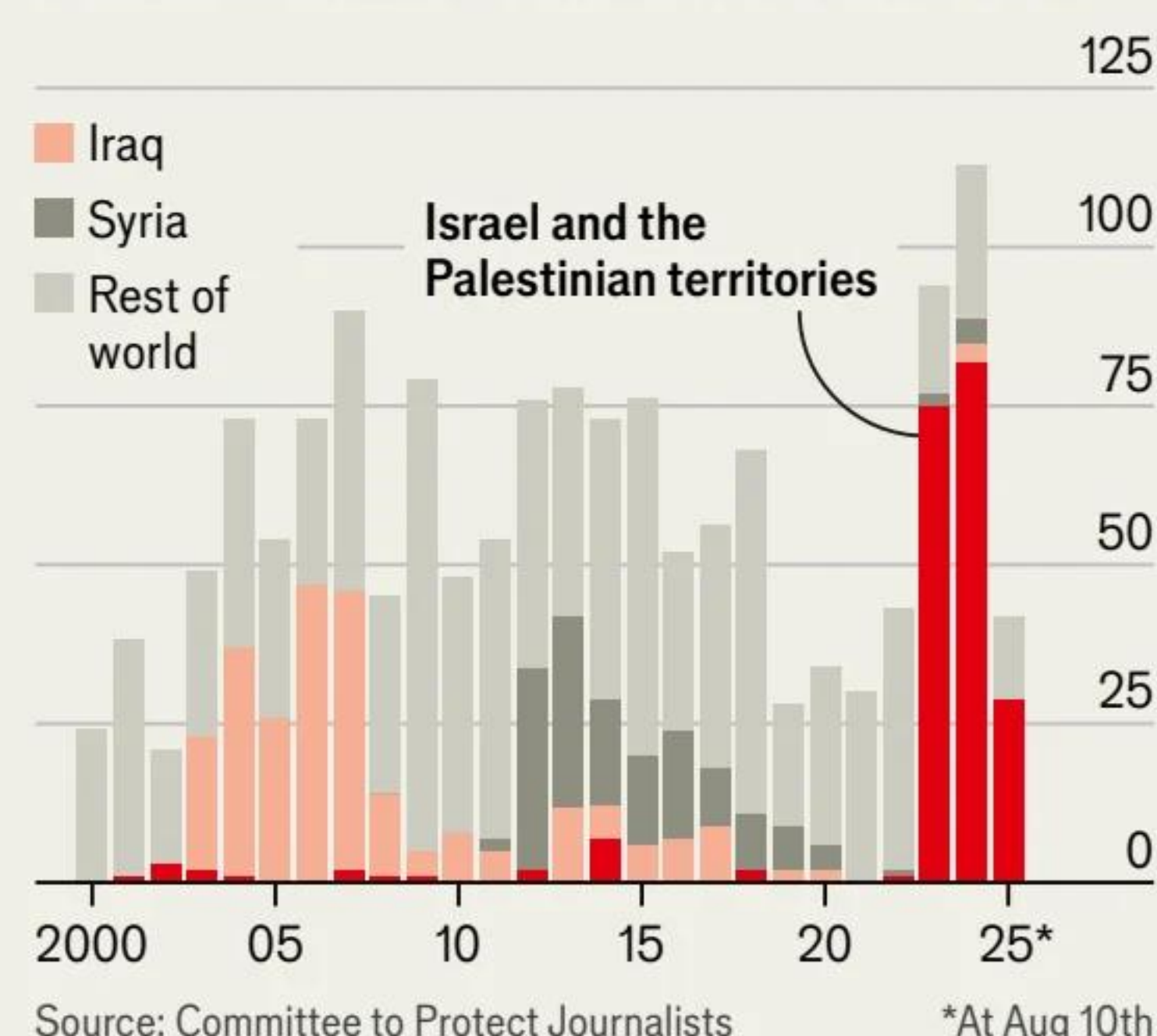
For 22 months Israel has banned all foreign journalists from independently entering Gaza. It has restricted access to brief trips with military escorts. Earlier this month it barred those accompanying air-drops of food into Gaza from filming the devastation below. It stopped

its own press corps or Palestinian journalists in the West Bank from entering Gaza decades ago.

To date, 186 journalists in Gaza have been killed since the war began, according to the Committee to Protect Journalists, a monitor in New York (see chart), a higher rate than in any conflict since its records began in 1992. Citizen journalists have increasingly taken on their work. But they say Israel targets them too. Anwar Nimr, an emaciated filmmaker, explains he wanted to record the Russian roulette of Palestinians trying to collect sacks of flour at aid hubs. But he then hid his phone, he says, afraid that Israeli troops would shoot him.

### Silencing the witnesses

**Journalists killed in connection with their work**



lies stormed out of the cabinet meeting; the government approved the plan's objectives regardless. Within days, Iran dispatched a senior envoy to Beirut.

It has good reason to. Many of the Shia parts of southern Lebanon and Beirut's southern suburbs still lie in rubble. But Gulf donors say money to rebuild is conditional on a credible disarmament plan.

Four decades of entrenched power cannot be dismantled overnight. "They have been gaining control of the constitution for 40 years; they have banks, financial institutions, everything," says Nadim Shehadi, a Lebanese analyst.

And some Shias fear that without Hizbullah's protection, they may face violence or be forced from their homes. The fall of Bashar al-Assad in Syria to Sunni rebels has unsettled them. They look at the massacres of Alawites in Syria and Israel's de-

struction of Gaza and tremble.

But so far Hizbullah has done little to defend its weapons. And it is under pressure from its Shia constituents. "The street is saying enough is enough," says Fouad Makhzoumi, a Sunni MP from Beirut and a vocal opponent of Hizbullah. If Hizbullah does not get reconstruction going by the next election, reckons Mr Makhzoumi, its support will collapse. And the group looks increasingly isolated. "They don't have allies," says Muhanad Hage Ali of the Carnegie Middle East Centre. "Going ballistic with internal opponents would backfire."

After the cabinet announced the American plan, Hizbullah members swarmed through Beirut, burning images of the prime minister and blocking roads. Disarming them will be not be easy for President Joseph Aoun. But he knows America and the Gulf states will not wait for ever. ■



# Asia



## America's allies

# The guns of Asia

SINGAPORE

**Donald Trump wants the region to increase its defence spending. It's a big ask**

**D**ESPITE WARS in Europe and the Middle East, the Pentagon's top strategists have recently been focused on Asia. Having got members of the North Atlantic Treaty Organisation (NATO) to promise to spend 3.5% of their GDP on defence and a further 1.5% of GDP on defence-related infrastructure, they have now turned their attention to the budgets of Asian allies. The European formula, they say, is the new "global standard". That would imply a massive increase in defence budgets from Sapporo to Sydney. To hit 3.5% would add over \$150bn per year in defence spending, the biggest rise among allies in the Pacific in 50 years. America's demand also prompts three questions: what is the right budget level, how should allies spend the money and will they comply?

Of America's five big security partners in the region (Australia, Japan, the Philip-

pines, South Korea and Taiwan) discussions with Australia and Japan appear to be the most advanced. They have been told that they should meet targets of 3.5% of GDP—and quickly. When asked about the talks, Australian and Japanese officials show flashes of quiet anger. America has overstepped the mark, they say, by dictating sovereign budgetary decisions.

And despite talk of a global standard, Donald Trump's administration has suggested other figures as well. The Philippines and South Korea have been told that

they should be prepared to match other allies, but appear to be under less pressure. South Korea already spends 2.6% of GDP on defence, the highest of the five, while the much poorer Philippines spends the least and would struggle to hit 3.5%. At the other end of the spectrum, Mr Trump has long said that Taiwan should spend 10% of GDP on defence. (Taiwan is not a formal treaty ally.)

Leading these conversations is the Pentagon's third-ranking official, Elbridge Colby. He is perhaps the most talked-about appointee to the role of undersecretary for policy in a generation. His backers include J.D. Vance, the vice-president, who introduced Mr Colby in glowing terms at his confirmation hearing in March—an extraordinary gesture of support. When speaking of America's demands, allied officials talk of "what Bridge wants" as often as "what the Trump administration wants".

Some defence wonks question Mr Colby's focus on top-line numbers. It often takes years for budget increases to translate into new weapons systems or combat formations. By the time they can make a difference, it might be too late to deter China. Better, instead, to have conversations about how to better integrate allies into existing war plans. But those have

### → ALSO IN THIS SECTION

**42 The US-India trade war**

**43 Sara Duterte is back**

**44 Banyan: Prabowo's daddy issues**





► been made more difficult by the way that demands to increase defence spending are souring relations between allies.

In June Japan reportedly cancelled an annual meeting of its foreign and defence ministers with their American counterparts in part because the Pentagon bid up its ask from 3% to 3.5%. One Pentagon official involved in the effort says that relations are fine, but admits: "Some of these conversations can be challenging because they did not take place during the Biden administration, and so our allies and partners are having these conversations for the first time."

An increase in defence spending is not the only request that America is making of these countries. Australia has been asked to commit to joining America in any defence that it might mount of Taiwan; Japan has been pressed for more clarity over how it would respond in such a situation. The Philippines has been asked to support the deployment of new weapons on its territory. South Korea and Japan have been asked to pay more for the privilege of hosting American forces. For its part, Taiwan is under pressure to spend less on fancy, high-tech weaponry like fighter jets and tanks and more on smaller, more mobile forces that would make it hard for China to occupy the island.

Allies fear that America might abandon them. They worry that Mr Trump may do a deal with President Xi Jinping that leaves them to face China alone. Australian officials are anxious that America could gut the AUKUS submarine-building pact.

### A bridge too far?

Even so, unlike in Europe, where America's allies have given serious thought to "de-risking" their defence-industrial base against the possibility of American abandonment, Asian allies have not hedged. Their reasons are pragmatic. Whereas strategic autonomy in Europe may be possible, if not cheap, for Asian allies it is out of reach. None is a nuclear power, so all depend on America's nuclear umbrella. Of the five, South Korea has the biggest defence industry, and Japan has made strides towards reviving its own. But the defence-industrial bases are small compared with Europe's. And the allies are looking at buying more American military gear, not less.

All five countries protest that they are already increasing defence spending, but can't hit the Trump administration's new targets because of fiscal constraints. Spending even more on defence, they argue, will require them either to put up taxes or to cut social outlays. But this is really only true of Japan and the Philippines, which have high levels of public debt relative to their resources, and would struggle to finance any big new expenditure.

By contrast, Australia, South Korea and

Taiwan have fiscal positions similar to or better than the median NATO member. Scars from the Asian financial crisis a quarter of a century ago have made them frugal. They worry about the liabilities of ageing populations, high levels of private debt and keeping their credit investment grade. But they could probably afford to debt-finance any increase to 3.5% into at least the late 2030s without raising taxes, cutting spending or going into debt distress.

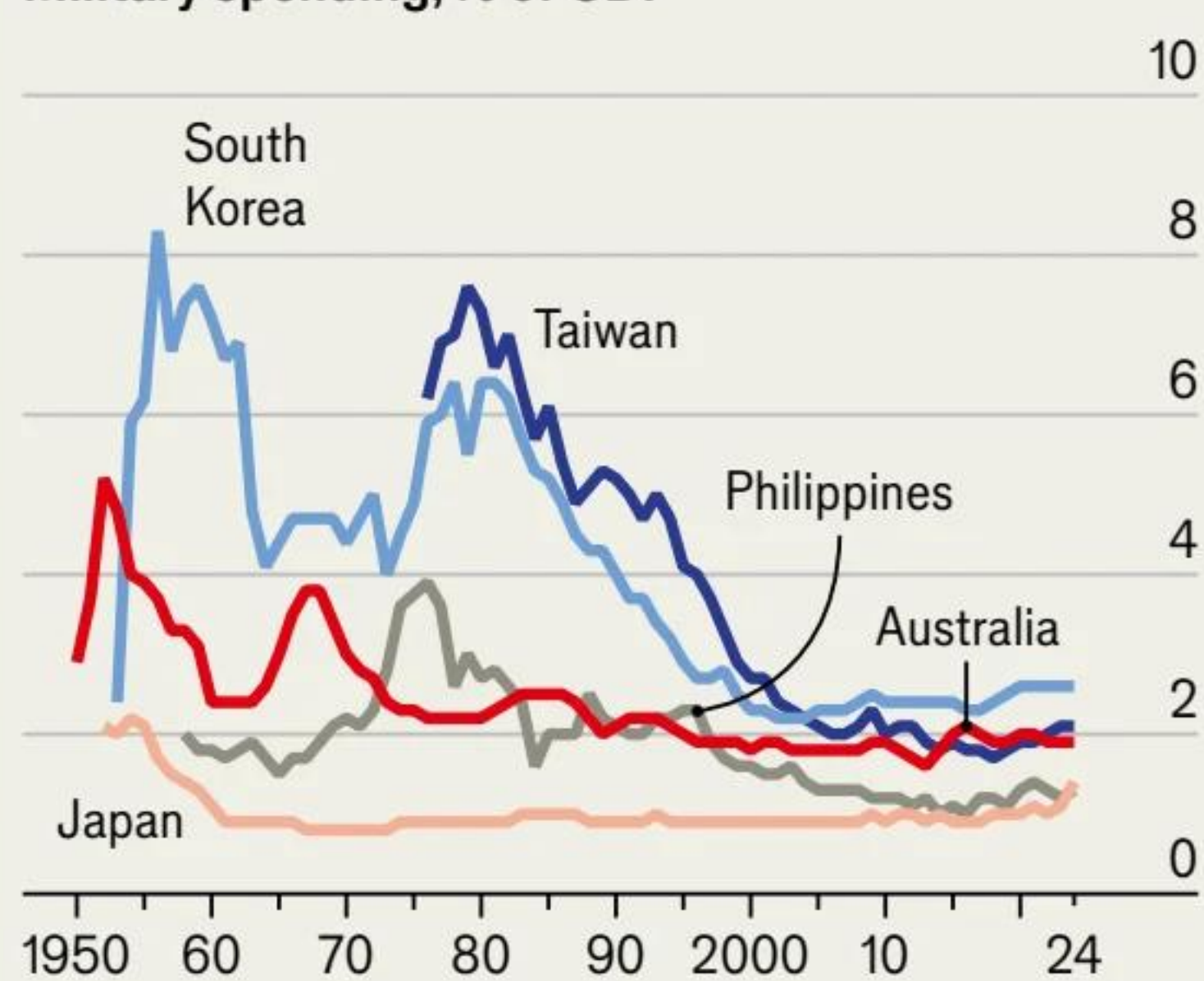
Taiwan's fiscal position is the best. Moreover, says Drew Thompson, who managed defence relations with Taiwan under Barack Obama and in Mr Trump's first term: "Butter has won out over guns." He points to the island's excellent education and health care. Yet Taiwan faces an existential threat from China. In these circumstances, it should be able to afford to spend another 2% of GDP on defence, on top of the 3% that President Lai Ching-te has requested for the next fiscal year.

Political constraints play a bigger role. In Taiwan the opposition controls the legislature and fears that higher defence spending will antagonise China. In Japan an unpopular minority government is facing down a resurgent opposition calling for tax cuts. And in Australia the Labor government wants to squeeze through some big new social programmes while keeping its reputation for fiscal prudence.

Experts and officials on both sides of the Pacific think that America is likely to get some but not all of what it asks for. A bigger risk is that America's tactics will backfire. Mr Trump polls poorly in Australia, and Anthony Albanese, its prime minister, seems tempted to profit politically by standing up to him. In the other four countries, Mr Trump is a bit more popular. But forcing governments to spend more on defence would not be. The Pentagon dismisses these concerns. Allies could "leave themselves vulnerable to Beijing, but that would evidently not be in their interest", says another Pentagon official. He may be right. But America's allies will still bristle at being bossed around. ■

### Donald has a point

Military spending, % of GDP



Source: SIPRI

### Indian agriculture

## The white stuff

DELHI

### Why India's dairy industry matters so much in its trade diplomacy

DONALD TRUMP has beef with India for buying oil from Russia. But the American president's tariffs totalling 50% on many Indian exports—set to come into force later this month—are not just about geopolitics. Agriculture and dairy have been the most contentious issues in India's talks with America, which broke down this month. And it is over farming that India's equally combative prime minister, Narendra Modi, has chosen to fight back. "India will never compromise on the well being of its farmers, dairy and fishermen," he thundered in Delhi on August 7th, a day after Mr Trump's announcement.

For Hindu-nationalist politicians like Mr Modi, the dairy industry has particular importance (the cow is sacred in Hinduism). But it is also a source of national pride, seen as a poverty-alleviating triumph of enlightened policymaking, technological advance and international co-operation. India is a milk superpower. For nearly three decades it has been the world's biggest producer and is now the source of about a quarter of the global total. Yet, from the point of view of India's trading partners, notably America, the industry seems to sum up all that is wrong with India. It is inefficient, subsidised, polluting (all that methane) and heavily protected by high tariff barriers and a perplexing lattice of arcane non-tariff ones.

Can these views be reconciled? The answer matters a lot to India's trade diplomacy. It is not just America that complains about access to the Indian market. It is a sticking-point in negotiations with the EU, too, and was one of the thorniest issues in the negotiations leading to a free-trade agreement with Britain signed last month. It may also have been the main reason why India pulled out of a big regional trade deal in 2019. (As *The Economist* noted at the time, Indians' nightmare was that New Zealand would provide her milk, while China ate her lunch.)

Indian dairy still basks in the glow of a "white revolution" launched in 1970. At the time Indians already had more cattle than any other country, but they consumed an average of about 100 millilitres of milk a day, far below recommended nutritional standards. Some of that had to be imported. By the turn of the century India had virtually doubled the availability of milk per person. Dairy practices were modernised and the cross-breeding of cattle had boost- ►►





How dairy you

► ed yields. A network of tens of thousands of co-operatives was established, improving distribution and logistics, financed by the sale of skimmed milk powder and butter donated by the European Economic Community, the EU's forebear.

Yields have continued to improve this century, but the structure of the industry remains unchanged. "White Revolution 2.0", launched by the government last year, aims not to reform but expand it, with co-operatives increasing milk procurement by 50% over five years. Production will still depend on tens of millions of smallholders—families with a cow that grazes on their plot, produces dung and urine to be used as fertiliser, and provides milk for the family, sometimes with a surplus to sell.

### Mooing and booing

Himanshu (who goes by one name), a professor of economics at Jawaharlal Nehru University in Delhi, points out that Mr Modi and Mr Trump are both very "pro-farmer". But their farmers, including dairy farmers, could hardly be more different. India has about 200m cattle, of which the United States Department of Agriculture estimates 62m are dairy cows. Yet the average "herd" consists of fewer than four, and the average landholding has just one hectare. A number widely used is that 80m families have one or more cows or buffaloes. America has just 24,000 dairy farms, with an average herd size of about 390.

Co-operatives guarantee Indian farmers a buyer for their milk, and pay them bonuses when prices rise. A handful have become big organisations—notably Amul, from Gujarat, home state of Mr Modi and his powerful cabinet minister, Amit Shah. So vaunted is the success of the agricultural co-operative system that in July Mr Shah unveiled plans to extend it to other busi-

nesses such as tourism and green energy.

Proud as Indians are of their cows and their dairy farmers, they have to admit that both are, by international standards, woefully unproductive. The average American cow produces about seven times as much milk as her Indian competitor. India protects its dairy farmers with import tariffs comparable to those Mr Trump is now imposing on Indian exporters: 40% on most butter and cheese and 60% on powdered milk. Without these protections, says Shashi Kumar, boss of Akshayakalpa, a privately owned organic-dairy business in southern India that works with 2,200 small farmers, "smallholder farms will collapse".

It is not just tariffs that Mr Trump's negotiators object to. India excludes imports of all genetically modified crops except cotton, and in dairy there is a ban on what has become known as "non-veg milk"—with a requirement that imported dairy products be certified to come from cows that have not been fed animal products such as bone meal. The ban is often decried as a non-tariff barrier dressed up in politically correct Hindu-nationalist clothes. Vijay Sardana, a lawyer and agri-economist, points out it was in fact introduced in 2003, when he drafted the law in response to the BSE (mad-cow disease) scare in Europe.

Still, the perception that the Indian government will use any available tactic to protect its farmers is probably justified. Harish Damodaran, the agriculture editor of the *Indian Express*, a newspaper, points out that twice in four years India's farmers have fended off attempts at reform. In 2021 their prolonged, angry protests in Delhi forced Mr Modi to repeal three laws introducing sensible deregulatory reforms. Mr Trump's effort to impose change through diplomacy may prove equally fruitless. ■

## The Philippines

# Nepo politics

MANILA

## Sara Duterte is back

A FEW MONTHS ago, things looked grim for Sara Duterte, the vice-president of the Philippines. The country's House of Representatives had impeached her, accusing Ms Duterte of misusing public money and threatening to assassinate the president, Ferdinand "BongBong" Marcos. She faced a ban from politics if convicted of the charges in a trial in the Senate. Then the International Criminal Court indicted her father, Rodrigo, for crimes against humanity committed in a brutal drug war during his presidency (he denies this). The Duterte dynasty looked like it was over.

Yet the family now seems on the up. The Supreme Court struck down the impeachment complaints against Ms Duterte in late July. A couple of weeks later the Senate voted not to proceed with a trial for now. These wins make Ms Duterte likely to be the front-runner to be the Philippines' next president, in 2028. It also means that over the next three years her nasty feud with Mr Marcos, also a scion of a political clan with a grubby history, will become even more disruptive for the country.

Ms Duterte typifies the Philippines' dynastic political system, where powerful families make up around 80% of Congress, one of the highest shares in the world. She first took office in 2007 as vice-mayor of Davao, a city where her father was elected mayor eight times. The family name helped her win the vice-presidency in the ►►



The comeback kid



- 2022 election, during which she formed an uneasy partnership with Mr Marcos.

She also thrives in a political culture dominated by big personalities. Celebrities are often elected in the Philippines, and politicians play up to the crowds on social media and in real life. At a recent election rally in Manila, the capital, the mood felt more like a rock concert, with her supporters wearing T-shirts emblazoned with the words “Bring Him [Rodrigo] Home” (from The Hague).

Her views appear to be similar to her father’s. She has criticised Mr Marcos for tilting towards America and said that the Philippines “shouldn’t lean toward any foreign power”. Still, it is not clear whether and how far she would, or could, reorient the country towards China, which her father cosied up to. Ties with America are stronger now than in 2016, when Mr Duterte took office. In late July Mr Marcos secured a trade deal with America. Philippine exports face a tariff of 19%. This is

only one percentage point lower than Donald Trump’s threat before the agreement, but Mr Marcos still billed it as a win.

Yet with the Dutertes resurgent—for now at least—the dynastic dispute could disrupt the second half of Mr Marcos’s presidency. Ms Duterte has a growing number of allies in Congress. They may try to obstruct Mr Marcos, who cannot run again because of term limits. As a result, he could become a lame duck if enough politicians rally behind her. ■

## BANYAN *Daddy issues*

*Indonesia’s new president wants to imitate his father. Good luck with that*

AFTER PRABOWO SUBIANTO was elected president of Indonesia last year, he told his younger brother that he would finally be able to “carry out programmes from papi” and fulfil their father’s “aspirations and dreams”. That father is Sumitro Djojohadikusumo, the architect of Indonesia’s post-independence development. He served as a minister under both Sukarno, Indonesia’s first president, and Suharto, the dictator who ruled for 32 years.

But the uncomfortable truth is that if Sumitro were alive today, he would be appalled by the economic populism masquerading as his legacy. The cosmopolitan economist, who founded the economics faculty at the University of Indonesia, would probably see Mr Prabowo’s signature policies—free school lunches, village co-operatives and a new sovereign-wealth fund—as precisely the kind of undisciplined state spending he spent his career warning against.

Sumitro’s economic philosophy wasn’t ideological. Rather, he was pragmatic, believing in rigorous training and evidence. Though he came of age as a socialist in Paris, his approach was grounded in a clear method. First, identify the right problem; second, establish the facts; and only then apply logic to find a solution. When Indonesia lacked trained economists, he persuaded the Ford Foundation to send students to the University of California. That produced the “Berkeley Mafia” of technocrats who would later drive Suharto’s economic success. He argued as early as 1952 that the government should avoid direct economic intervention if there was little capacity to execute it well.

Mr Prabowo’s pledge to spend \$28bn a year on free school meals is the kind of sweeping state intervention Sumitro

warned against. Indonesian children eat enough, but not well. But instead of nutritional quality, the programme increasingly prioritises raw numbers of meals served, says Arianto Patunru of Australian National University. The best way to reduce stunting is to help pregnant women and toddlers; the current policy misdirects resources to schoolchildren.

Or consider the example of co-operatives. Sumitro supported them as tools for genuine, decentralised development, not as instruments of political control. This perspective had deep roots. In 1942 he completed his PhD thesis on rural credit in Java while he was living in the Netherlands, which was occupied by Germany at the time. For the rest of his career this research fuelled his belief that small traders throughout Indonesia would remain trapped in poverty unless the government invested in education, training and co-operatives.

This spirit of grassroots empowerment could not be more different from Mr Prabowo’s latest initiative of “red-white co-operatives”. Unveiled in July, the pro-

gramme imposes a uniform model on 80,000 co-operatives nationwide, requiring each to run the same services regardless of local needs, says Kevin O’Rourke, a political analyst. This betrays the spirit of genuine co-operatives. The policy is designed to extend central control into rural areas, rewarding loyal village heads.

The most glaring case of historical revisionism is Danantara, Indonesia’s new \$900bn sovereign-wealth fund. Mr Prabowo’s brother, Hashim Djojohadikusumo, has said that it fulfils their father’s vision of consolidating state assets and directing strategic investment. But Sumitro might well have thought its structure was a mess. Danantara reports directly to the president, is chaired by Mr Prabowo’s former campaign manager and has little oversight. Sumitro would have recognised this as a textbook case of what he called Indonesia’s “institutional disease”: the corrosion of public policy by vested interests. He diagnosed this problem at the height of the Asian financial crisis in 1998, when Suharto was bending state power to serve his family’s businesses. This week the head of a state-owned farming firm quit six months into the job, blaming Danantara for needless red tape.

Sumitro understood that a developing economy faces a delicate balancing act. His policies aimed to attract foreign investment while steadily building Indonesia’s institutional capacity. His son, by contrast, has chosen to trade fiscal stability for flashy, vote-winning programmes that entrench his power and do little to drive long-term growth. His administration blends authoritarian control with populist spending. This is a travesty of Sumitro’s real legacy: of the disciplined fiscal policy and strong institutions Indonesia badly needs.





# China



## Supply-chained

# The sophisticated China squeeze

## Xi Jinping masters the dark arts of the trade war

“CHINA BEATS you with trade, Russia beats you with war,” mused President Donald Trump on August 11th. “China is not beating us on trade, not when I’m in charge,” he added. Many disagree. His reflection came mere hours before he extended a fragile trade truce with China for another 90 days. After months of tit-for-tat tariffs, the Sino-American trade war has settled into uneasy stasis. But China is using the time to hone a sophisticated arsenal of economic weapons. Even as the sides contemplate a broader deal to stabilise the planet’s most important trading relationship—worth \$659bn each year—China knows that its power is not in what it buys, but in what it sells.

That is a far cry from the last time President Xi Jinping and Mr Trump went head-to-head on trade, in 2019. Mr Xi agreed to

buy more American goods in a deal much criticised in China. It fitted a clumsy pattern. Back then China tended to punish transgressions by cutting access to its consumer market, such as for Australian wine or Lithuanian beef. No longer. Now Mr Xi prefers to squeeze supply chains and the foreign industries which depend on them.

Chinese victories have piled up in recent months. First came Mr Xi’s masterstroke in April: retaliating against American tariffs by choking off supplies of Chinese-refined rare-earth minerals and magnets critical to American firms (see

Briefing). American carmakers, among others, panicked and Mr Trump sought peace. In July the European Union squealed in the run-up to an EU-Chinese summit after flows of rare-earth minerals and battery technology to Europe slowed without explanation. Speeding them up then became a subject of negotiation.

It all appears in line with Mr Xi’s careful plan. In 2020 he called for China to create asymmetric dependencies, by ridding its own supply chains of foreign inputs, while also seeking to “tighten international production chains’ dependence on China”. At a meeting in April that year, Mr Xi explained to a Communist Party body that such dependencies are “a powerful countermeasure and deterrent capability against foreigners who would artificially cut off supply [to China]”. It wants other countries to depend on it without it depending on them.

China’s use of economic sanctions of all sorts has reached an all-time high in 2025, according to research by Viking Bohman of Tufts University and co-authors (see chart on the next page). Like the American export controls on which China’s new regime is modelled, Mr Xi’s weapons are difficult to resist using, even at the

### → ALSO IN THIS SECTION

46 Looking for “mum jobs”

47 Hong Kong’s superstitions





► risk of blowback. “Beijing was not surprised to find it has leverage, but it must be used discreetly,” reckons Xiang Lanxin of the National University of Singapore.

So how do China’s economic weapons work? In recent years Mr Xi’s officials have been drawing up a list of goods that China makes and the world needs. After Mr Trump’s re-election last year, China’s government steeled itself. It implemented a long-expected export-licensing scheme for more than 700 products, many of which are relied upon by Western armed forces, including advanced manufacturing machines, battery inputs, biotechnology, sensors and critical minerals. The listed items are not limited to inputs for military kit, however. Many are also critical to industries that officials view as strategic, such as electric vehicles and solar technology. For some of the items, such as minerals and chemical precursors for medicines, Chinese producers hold a near-monopoly over global supply. That is partly a result of market forces concentrating production in China, where it is cheap, scalable and often subsidised, and partly a deliberate strategy to control industrial inputs.

### Tell me what you need

Crucially, the rules formalise officials’ ability to switch off exports by revoking licences. Chinese producers applying for them must know who is the end user of their goods and report as much. This has allowed China to continue choking supplies of rare earths to specific Western defence firms, even as it has resumed the flow into America as part of the trade truce. A shortage of heat-resistant magnets, for example, is pushing up costs for such things as jet-fighter engines. The legislation also includes so-called long-arm jurisdiction. It gives officials the power to mandate that goods manufactured in third countries using Chinese-made inputs cannot be sold to specific end users.

When China’s policymakers consider which industries to target through such

rules, they do not appear to focus on what will cause the most pain, but rather on what will be good for their own firms. Export controls follow a pattern of keeping high-value-added supply chains inside China, says Rebecca Arcesati of MERICS, a Berlin-based think-tank.

If Chinese officials decided to ban exports of finished goods, such as batteries or drones, it could hurt domestic producers. But by restricting the flow of industrial inputs needed to make those goods, policymakers in fact lower prices on domestic markets, and give their exporters a cost advantage against foreign competition in important sectors.

This explains what China appears to be doing in India to stop it from helping others break free of China’s grip. Licences have stopped being approved for advanced manufacturing machines for India, where Apple is creating alternative supply chains. The restricted flow of machine tools and dysprosium, a rare-earth element, has apparently slowed production of iPhones and AirPods, respectively. And in June Apple’s in-country manufacturer, Foxconn, withdrew more than 300 Chinese engineers from India, suggesting that the recent moves were co-ordinated.

China’s use of its economic weapons this year has mainly been defensive—in response to American trade policies. But it all comes at a cost. Foreign officials and firms now fret about being suddenly cut off from Chinese suppliers, say, in a conflict over Taiwan. Chinese policymakers have done themselves “enormous reputational damage”, laments a foreign business leader in Beijing. Officials in Brussels, Tokyo and Washington are spooked and a flurry of deal-making is under way.

That means Mr Xi is likely to confront a drawback that America knows well: the more sanctions are used, the less effective they risk becoming. For a chokehold to be effective, a country must have a near-monopoly on supplying a particular good or service, points out Matteo Maggiori of Stanford University. “Sanctioning power is non-linear, which means that the difference between controlling 95% and 85% of a market is the difference between whether the targets of sanctions can find alternative suppliers, or not,” says Mr Maggiori. He notes that whereas tariffs cause firms to increase prices, export controls tend to spur them to invest in alternatives.

Some Chinese officials quietly understand. Certain senior ones have even indicated to European businesses that urgent cases of rare-earth shortages, such as those that would cause a plant to shutter, should be raised with the Ministry of Commerce to find informal work-arounds to keep supplies flowing. Such deft management of the controls by officials may help dull the desire of foreign firms focused on short-

term profits to invest in alternatives. Wu Xinbo of the Centre for American Studies at Fudan University in Shanghai told CNN in June that the flow of exports could be dynamically managed. From the government’s perspective, “If the bilateral relationship is good, then I’ll go a bit faster; if not, I’ll slow down.”

Ultimately, China finds itself in a delicate position. It is giving foreigners reason to think that its supply chains are unreliable while warning them off seeking alternatives. And its diplomats badger trade partners not to give in to American demands that would isolate China from global trade. “Attempting to decouple and disrupt supply chains”, Mr Xi told foreign bosses in March, “will only harm others and not benefit oneself.” That is wise advice indeed. ■

### Working mothers

## Hardly having it all

BEIJING

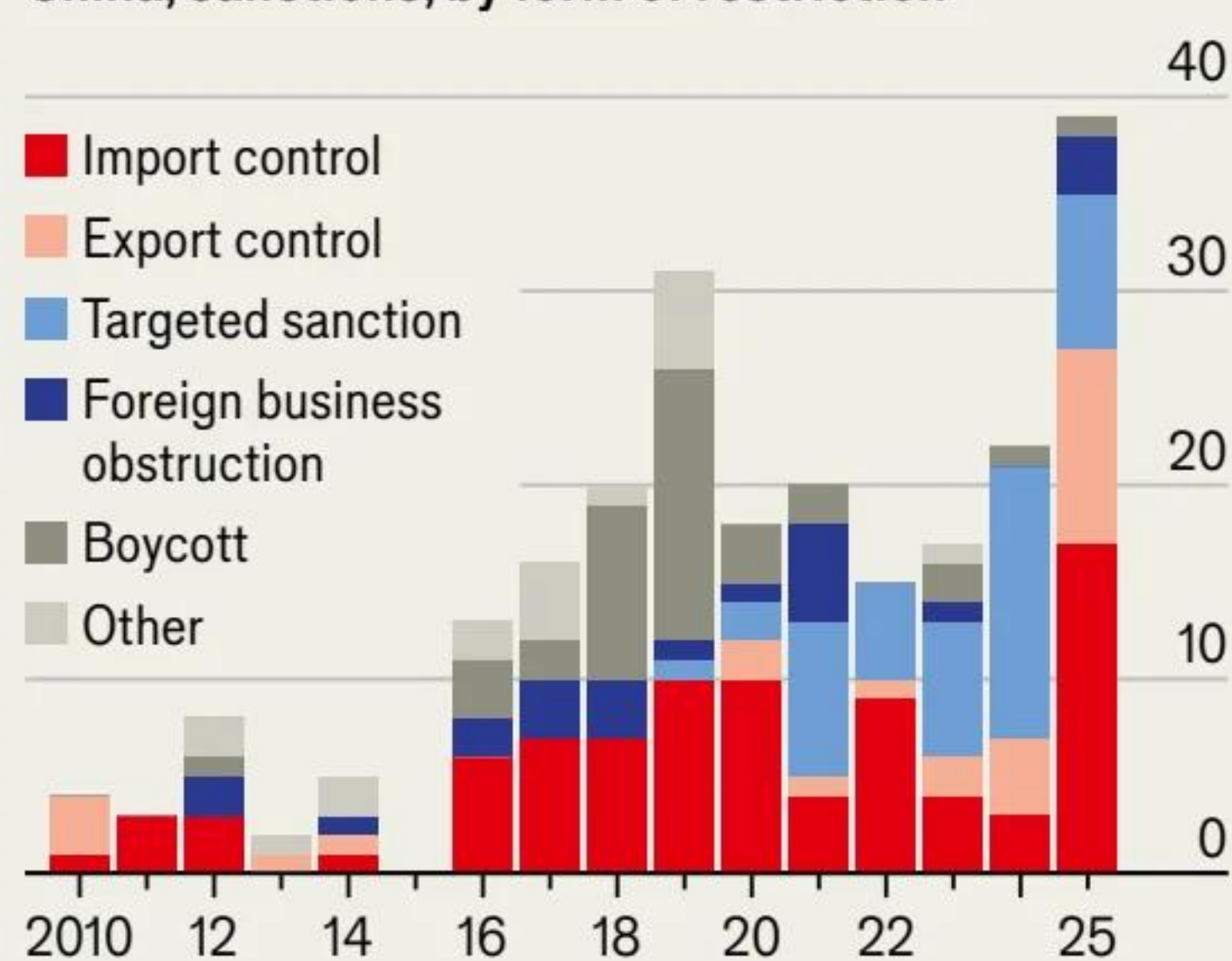
“Mum jobs” offer flexibility and rather a lot of frustration

WHEN MS WANG returned to work at a Chinese internet giant after having a baby, her boss pulled her aside. She told her she’d be less invested in her work because the country’s breastfeeding policy would allow her to leave one hour earlier. “I’ll be a normal colleague, not a breastfeeding mother,” she replied, staying past 10pm regularly like the rest. Based in Beijing, she was entitled legally to 158 days of maternity leave. But she received the worst performance rating in her team last year because others had to cover her work while ►►



### An impressive arsenal

China, sanctions, by form of restriction



Source: “China’s sanctions gambit: formal and informal economic coercion in the second trade war”, by V. Bohman et al., Swedish National China Centre, 2025



▶ she was away. She was fired in April.

Meanwhile, the government is trying desperately to boost China's birth rate. On July 28th it announced that it would give households 3,600 yuan (\$500) a year for each child under the age of three. Economists estimate the subsidy will cost the state about 100bn yuan a year, or about 0.07% of the country's GDP. And it promotes "mum jobs", which offer mothers with children under the age of 12 more flexible work schedules. In recent months Hubei province launched one of the first province-wide schemes to provide them.

Mum jobs were first introduced in 2022, when China's National Health Commission issued guidelines for supporting childbearing. Increasingly local governments encourage firms to create them as part of a national campaign for "a birth-friendly society". By the end of last year, Guangzhou had listed 12,760 mum jobs in e-commerce, housekeeping, manufacturing and other sectors. Chongqing has tallied more than 23,000.

But most of the time such jobs are menial, low-paid and hourly. Peng Yingbin, for example, offers flexible schedules for between 30 and 50 mothers who work at his clothing factory in the poor province of Guizhou. Paid per piece completed, his staff—most of whom moved to town with their children for better schooling—can leave earlier for school pickups.

As the number of mum jobs grows, so does the backlash against them. "In a gender-unequal society, this appears to offer mothers job opportunities, but it actually offers them low-paid gig work," wrote one online commenter. Hubei's new mum jobs scheme has raised a furore. "Why are there no dad jobs?" many asked. (Shanghai got around this objection by introducing "birth-friendly jobs" in 2024.)

On top of it all, the state also wants women to work as China's population ages. Liu Shenglong of Tsinghua University in Beijing, points out that nearly 60% of current undergraduates are women. "If we were to remove these people from the labour market, wouldn't that be a huge waste?" Most mothers also want employment. About four in five stay-at-home mums in China want to re-enter the workforce, and about two in five of them are interested in part-time or flexible roles, according to a survey conducted by the All-China Women's Federation in 2023.

While hunting for new positions, the mum jobs Ms Wang comes across are basic administrative roles that don't appeal to her. "They're taking women who are already marginalised in the workplace and pushing them even further into marginal positions," she says. Instead she hopes for changes to workplace culture and greater corporate accountability. Officials should note such pregnant ideas. ■

For good or ill

## Very superstitious indeed

HONG KONG

Why prophetic artists and feng-shui masters hold such sway in Hong Kong

TATSUKI RYO is the finest diviner since Nostradamus, in the view of many Hong Kongers. In 1999 the Japanese manga artist published a collection of supposedly prophetic dreams warning of a "great disaster, year 2011, month 3." In March 2011 Japan suffered from an earthquake, tsunami and the Fukushima nuclear meltdown; perhaps 18,000 people died. So when her manga predicted that a mega-tsunami would strike Japan on July 5th 2025, it caused alarm.

Luckily, like her 16th-century antecedent (who thought the world would end in 2012), Ms Tatsuki often gets things wrong. She thought Mount Fuji would erupt in August 2021. And July 5th came and went. But on July 30th there was a magnitude 8.8 earthquake off Russia's eastern coast, which prompted tsunami warnings around the Pacific. Fortunately no one died and the tallest tsunami waves to reach Japanese shores were only 1.3m high. (In 2011 they reached almost 40m.) Yet fans and anxious theorists saw the event on July 30th as another confirmation of her powers.

The prophecy sent tremors of fear across Asian social media in June. But Hong Kongers took it particularly seriously. Several prominent feng-shui masters, experts in ancient Chinese geomancy, warned locals to heed Ms Tatsuki's

advice not to visit Japan ahead of July 5th. The number of Hong Kongers who did so plunged by more than a third in June compared with a year earlier, while visitor numbers from almost all other places rose. Local carriers, such as Hong Kong Airlines, suspended flight routes to Japan because of the drop in demand.

Japan will sting from all this. Though only home to 7.5m people, Hong Kong was the fifth-largest source of international visitors to Japan last year and its holidaymakers spent HK\$33bn (\$4bn) there. Even hard-nosed types stayed away. One Hong Kong-based financial consultant reports that his boss has refused to take in-person meetings in Japan all summer; she made him attend them in her stead.

This is all a reminder of how pervasive superstition is in Hong Kong, even compared with the rest of Asia. Tower blocks frequently skip all floors with the number "four" because its Cantonese pronunciation is similar to the word for "death". Properties thought to be inhabited by ghosts lose a fifth of their value on average, according to a paper in 2020 by Utpal Bhattacharya of the Hong Kong University of Science and Technology. And feng shui guides the design of even the most sober organisations' offices. HSBC's headquarters has escalators reportedly angled to ward off evil spirits. *The Economist's* offices contain old coins for prosperity and a dragon image for good luck, left by a visiting feng-shui master in recent years.

There is little harm in any of this. But superstition shouldn't supersede science. The Hong Kong Observatory, a public body, was forced to release numerous statements in recent months reminding locals that it is impossible to predict an earthquake. Seismologists and disaster experts also weighed in. Even Ms Tatsuki cautioned her fans to heed scientific advice.

But their urgings did little to quell the disquiet. Something similar happened during the SARS outbreak in 2003: many Hong Kongers spurned official disease-prevention steps, instead turning to herbs to ward off the virus. You don't need to be a soothsayer to see that sometimes superstition can have rather frightening consequences.



A different kind of map



## International



America's Pacific war plan

# Readying for a rumble in the jungle

TINIAN AND GUAM

**Eight decades after VJ Day, America revives wartime airfields to face China**

IT COULD BE a giant archaeological dig. Bulldozers tear at the jungle to reclaim the history of the second world war and its dark finale: the atomic bombing of Hiroshima and Nagasaki 80 years ago this month. The work on Tinian, a speck in the Pacific Ocean, has exposed the four runways of North Field. Glass protects the cement pits where Little Boy and Fat Man, the first and only atom bombs used in war, were loaded onto American B-29s. For a time Tinian was the largest air base in the world, but it was soon mostly abandoned.

With China as its new rival, America is reviving old wartime facilities across the Pacific. Tinian once allowed its bombers to smash Japanese cities. These days China wields the long spear: it has built up a vast stockpile of missiles that can blast American bases in the region. Any war between the superpowers would be a cataclysm.

And both now have nuclear weapons.

As in the cold war, nuclear worries go hand in hand with preparations for conventional conflict. The air force is expanding Tinian's small commercial airport as a backup landing place. On the day your correspondent visited, two F-22 jets—America's most capable fighters—took off with a deafening roar. Crews huddled in tents as C-130 transporters brought gear.

The fighters had deployed from Alaska for the recently concluded REFORPAC exercise—part of the biggest air-force war game in the Pacific since the cold war—involving more than 400 aircraft and 50 locations thousands of miles apart. It demon-

strated America's ability to bring forces quickly from the American mainland. It was also a test of "Agile Combat Employment" (ACE), a doctrine of hide-and-seek whereby American aircraft disperse to small bases to survive attacks by China, rejoin in the air to punch back and then scatter again—like a murmuration of starlings.

Because of China's reach, the air force can no longer mass its planes in big bases close to the action, as it has done in recent decades. It must plan to survive and fight throughout China's deep "kill zone", learning from the island-hopping campaigns of the Pacific war and more recent conflicts. Ukraine has shown how, even under relentless attack, its planes can keep fighting by hiding and moving. America intends to do the same on a grand scale. "In a peer conflict our airmen will be under constant threat," explains General David Allvin, the chief of the air force. "We must be lethal and agile, aggregating for effect and disaggregating for survival."

Even so, it faces formidable difficulties, including the vastness of the Pacific; the density of China's firepower; the paucity of usable airfields; the shortage of bomb-proof hangars; the vulnerability of air-refuelling tankers; the complexity of logistics; and the disruption of data networks.

→ ALSO IN THIS SECTION

50 From the archive: 1945



China would be fighting mostly in its backyard, within the “first island chain” that runs from Japan to Malaysia—with Taiwan, about 100 miles away, at its heart (see map). Most American forces would be rushing in from the far side of the vast ocean, thousands of miles away. Many of China’s ballistic missiles have a greater range than the usual combat radius of America’s fighter jets (typically 500-600 nautical miles, or nm).

Calculations for *The Economist* by Timothy Walton of the Hudson Institute, an American think-tank, illustrate the challenge. His model suggests China could rain about 2,000 bombs or missiles a day on targets within 500nm, including hundreds on Kadena, a big American air-force base in Okinawa. It could simultaneously drop some 450 munitions a day over the second island chain, including Guam and its vital complex of bases, 1,600nm away; 60-odd over important rear bases in Alaska; and perhaps a score a day over faraway places such as Hawaii, the headquarters of America’s Indo-Pacific Command (INDOPACOM), 3,600nm back. Missiles can strike quickly and accurately, though most munitions would in fact be delivered by aircraft. (These theoretical figures assume that no planes or missiles are shot down, and Chinese facilities are not attacked.)

### Ride into the danger zone

There are relatively few good landing spots east of the first island chain before reaching the continental United States. Mr Walton counts just 21 in American and allied territories with the runways, aprons and fuel supplies to take tankers, bombers and larger aircraft. Smaller fighter jets could use up to 125 airfields, but most are farther from China than their usual range, even with air-to-air refuelling. All this assumes host countries would grant permission for “ABO”—access, basing and overflight—and risk China’s wrath.

Aircraft-carriers, which helped win the Pacific war and have symbolised American power ever since, are increasingly vulnerable to China’s long-range “carrier-killer” missiles, such as the DF-26B with a range of more than 2,000nm. Unlike carriers, which may sink when struck, airfields can be repaired, often within hours.

Thus the importance of Tinian. Its four new runways, once refurbished, will provide valuable alternatives to the two at Andersen air base on Guam, and two more that have been refurbished nearby. The air force, which says it just needs “places, not bases” to make ACE work, is concentrating on dispersal and improved air-defence systems for the likes of Guam. But the more it scatters, the more places it must defend.

American think-tanks say it is neglecting passive defences such as hardened aircraft shelters made of concrete. Portable

pop-up shelters that can stop shrapnel would be useful, too, since China would have to fire more missiles to hit all of them, including empty ones, in a high-stakes shell game. Generals talk of dispersing planes within airfields and “flushing the force” by getting planes in the air before a missile can strike.

And yet, even during the ACE exercise, about two dozen fighter jets were parked close together in the open in Guam—convenient for pilots and ground crews, but an easy target for missiles. Similar concerns apply to fuel dumps and, indeed, ground crews. It is also unclear how far the air force is responding to newer threats, exemplified by Ukraine’s use of lorry-launched drones to destroy Russian bombers thousands of miles from the front.

In a war, America would fire at Chinese ships crossing the Taiwan Strait and other targets with long-range bombers, submarines and ground units lurking on islands. It would require vast amounts of air-to-air refuelling. Yet tankers and bombers are precious assets and, apart from the B-2, easy to see on radar. Moreover, America’s tanker fleet is more than 50 years old, on average. Mr Walton says China is optimising missile warheads to seek big planes such as tankers and airborne radars. Most may have to be held far back. But the farther planes must commute to war, the less effective they are.

Hiding and moving complicates China’s targeting, but also America’s logistical task. Fuel, crews and spare parts must be brought to the right place at the right time. Supply convoys would be juicy targets. Logisticians are thinking about how to move them through safer routes, via Australia. 3D-printing of spares in theatre will help, as will artificial intelligence. The lesson of the second world war, notes General Kevin

Schneider, the head of Pacific Air Forces, is that “logistics and sustainment are absolutely key to generating air power.”

Co-ordinating an ever-shifting military kaleidoscope requires robust command-and-control systems. Combatants will seek to wreck each other’s data systems, not least by attacking satellites. Even so, top brass argue, data flows may be degraded but not permanently severed. Units will have “windows” of connectivity. Above all, they will rely on “mission command”, the ability to act without explicit orders in line with the commander’s intent. That initiative, say generals, gives America an advantage over rigidly controlled Chinese forces.

Is that enough to win? China may not need to defeat America, only hold it at bay for long enough to take Taiwan. War games suggest that, as China runs out of long-range munitions, American forces could move closer and defeat a landing, albeit at great cost. But America is short, too, and China’s greater industrial capacity may give it the means to outlast America.

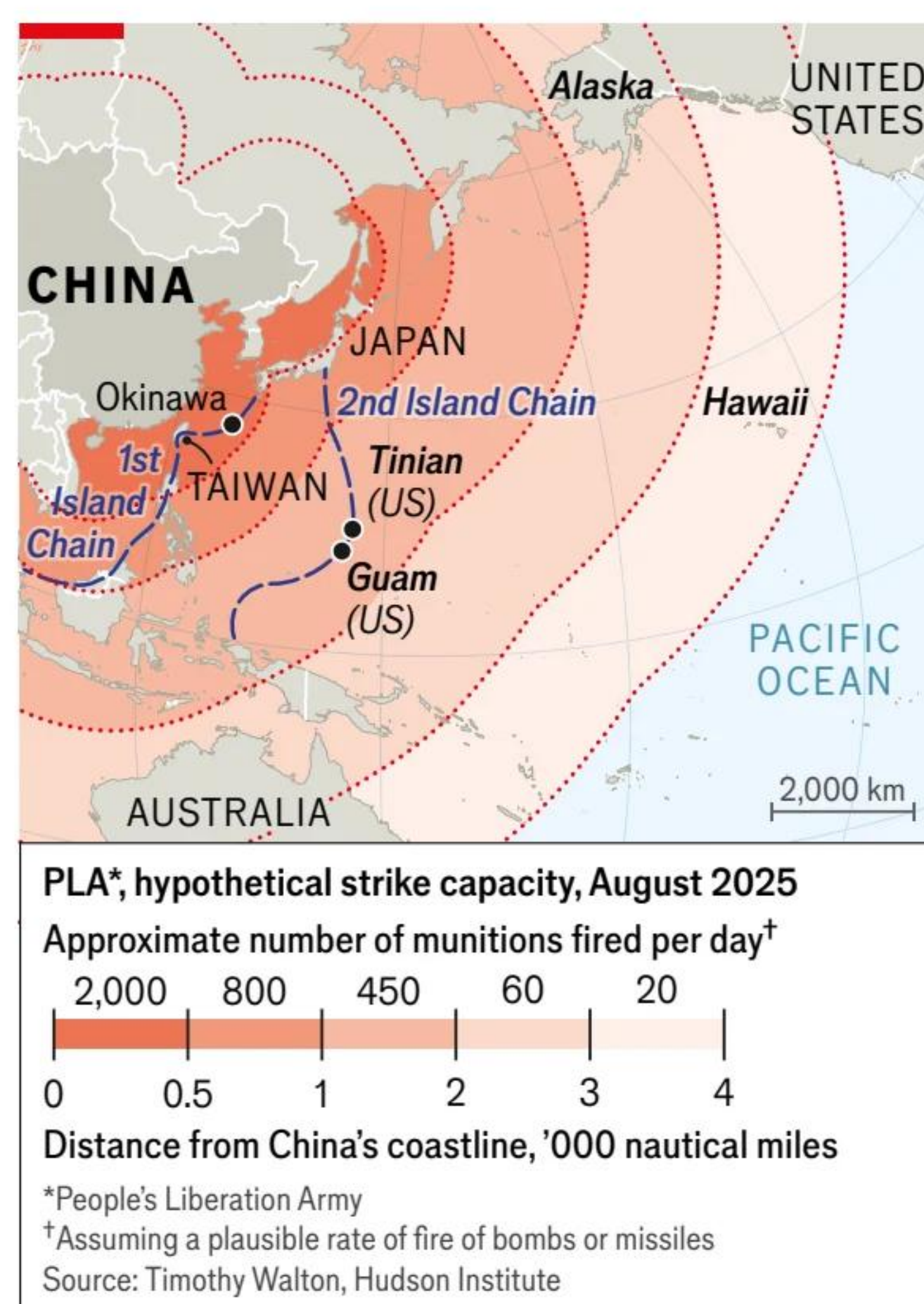
### Out along the edges

David Ochmanek of the RAND Corporation, another think-tank, reckons China has enough firepower to overwhelm airfields in the first island chain for as long as needed, and may soon be able to do so in the second chain. He argues that, close in, the air force must shift to drones that do not need runways. These would be bigger than the hand-held quadcopters ubiquitous in Ukraine, or even the loitering munitions that INDOPACOM is thinking of to create a “hellscape” for China near Taiwan. Air-combat drones with greater range, sensors and even weapons could be fired from rails, lorries or rockets, he argues.

The air force is far from giving up on pilots, though this year it will start testing prototypes of the Collaborative Combat Aircraft (CCA), a drone that for now will use runways and be controlled by crewed aircraft to augment their firepower. Yet even if drones can be made “runway independent”, they will still need ground crews, fuel and munitions.

For all the Trump administration’s boasts of a trillion-dollar defence budget, it has provided only a sugar rush in its “Big Beautiful Bill”. Its core defence-budget request is flat, ie, a cut after inflation.

After Tinian’s capture in 1944, construction teams started building North Field. B-29s were using it within six months. The modern restoration is slower. Eighteen months after starting work, engineers are still clearing vegetation. When might the first F-22 be able to use it? Enveloped in smoke and rain, the officer in charge shrugs. China’s leader, Xi Jinping, wants his armed forces ready to invade Taiwan by 2027. America, though, is still preparing for war with a peacetime mindset. ■





## Archive 1945

## The end of the second world war

How *The Economist* reported on the final year of the war, which ended 80 years ago

THE POST-1945 order is crumbling. Donald Trump, who holds a warped, America-First view of history, trashes the transatlantic alliance formed to keep peace after the second world war. In June he belittled the role of America's allies in defeating Nazi Germany. Vladimir Putin, Russia's president, exploits the Soviet Union's wartime past to fuel nationalist support for his invasion of Ukraine. On September 3rd he will join Xi Jinping in Beijing for China's Victory Day parade. Don't expect a sombre commemoration. China's leader wants a sabre-rattling pageant of military might.

Every week since January, *The Economist* has republished excerpts from its archive—a time capsule of how we reported on the final year of a war that transformed the world order.



JANUARY 1945

## Deadlock in Europe

"The year 1945 is opening gloomily for the Allies." Locked in the Battle of the Bulge with Germany, hopes of a quick end to the war were lost.

JANUARY 1945

## Germany's war machine

The Nazis used eastern Europe as a factory hub. As the Red Army advanced it would land "a very severe blow to Germany's war industry".



FEBRUARY 1945

## Conference in the Crimea

"The world's triumvirate" of America, Britain and the Soviet Union met in Yalta to weigh the "last stages of the war and the first steps of the peace".



APRIL 1945

## Gangster's end

"Mussolini is dead. So, according to general belief, is Hitler, though the world has not yet been given the spectacle of his corpse...kicked around the streets as proof of death."



JUNE 1945

## Bavarian roads

Meetings between German soldiers and survivors of Nazi camps were "a cross-section of the great problems of Germany and Europe".

AUGUST 1945

## Victory in the east

"The bombs which wiped out Hiroshima and Nagasaki stopped the war", but started "a new age in human history". Japan was defeated.



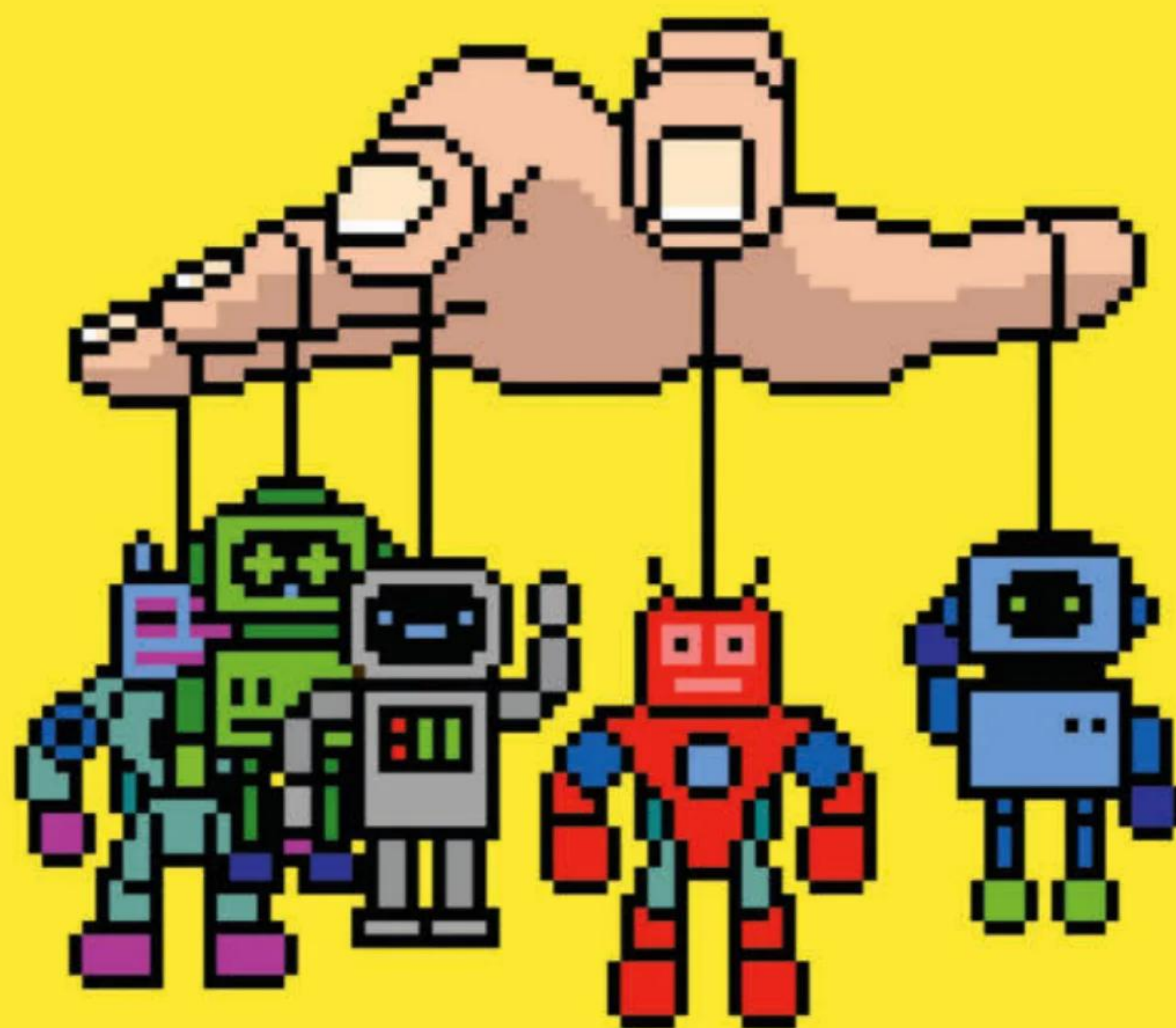
On August 15th, as *The Economist* went to press, North and South Korea marked the anniversary of the peninsula's liberation from Japan, now a staunch American ally. Earlier this month Japan commemorated America's nuclear attacks. The Philippines will mark its liberation on September 3rd.

The geopolitics of modern Asia was forged in 1945. The atomic bomb, now wielded by both China and North Korea, casts an especially long shadow. Taiwan, occupied by Japan during the war, is today the world's most worrying flashpoint. At the most dangerous time since 1945, it pays to look back.

Archive 1945 combines extracts from our reporting with guest essays, maps, charts, video and more. To explore the full project, visit: [www.economist.com/archive1945](http://www.economist.com/archive1945)



# Business



## Artificial intelligence

# The rise of the “solopreneur”

LOS ANGELES

## How AI could create the first one-person unicorn

SARAH Gwilliam is neither a software engineer nor—by her own admission—someone who “speaks AI”. But after her father died recently she got the spark of an idea for creating a generative artificial-intelligence startup that would help others like her handle their grief and sort out their late loved ones’ affairs. Call it wedding planning for funerals.

Her firm, Solace, is still more of an early-stage startup than an established business. But apart from herself, almost no human being is helping her build it. She has joined an AI-powered incubator, called Audos, which decided that her idea was promising. Its bots helped to set her up online and on Instagram. If her idea works out, the incubator will not only provide capital; its AI agents will support Ms Gwilliam with product development, sales, marketing and back-office work, all in exchange for a royalty. She does not need staff. In effect, AI helped her co-found the

company. “I can’t tell you how empowering it was,” she says.

As is its custom, Silicon Valley has already coined a neologism that describes single founders like Ms Gwilliam: they are “solopreneurs”. In tech circles, there are bets on which of them is likely to create the first single-person unicorn—an unlisted firm worth more than \$1bn. Some hope that generative AI will make starting a business so cheap and hassle-free that

anyone will be able to become an entrepreneur much as anyone can become a YouTuber—a breath of fresh air in America’s concentrated business landscape. Whether people like Ms Gwilliam will be able to escape the suffocating grip of the tech giants, however, is another matter.

Technological revolutions have a habit of shaking up the way firms do business. The increased importance of machinery combined with the expansion of transport networks in the late 19th century led to the rise of giant corporations. Ronald Coase, a British economist, argued in his 1937 paper “The Nature of the Firm” that their existence was a testament to the efficiency of consolidating and managing work within the confines of a business, rather than outsourcing activities to the market. That, however, began to change thanks to digital communication. Not only could companies more easily outsource manufacturing and back-office jobs to low-cost countries. They could also rely on internet platforms like Google for marketing and Amazon Web Services for computing.

The rise of AI could well accelerate the trend, as semi-autonomous agents provided by Silicon Valley enable firms to perform the same amount of work with fewer employees. Henrik Werdelin, who co-founded Audos, says that the rise of cloud computing helped him start several new ►►

### → ALSO IN THIS SECTION

52 Toyota’s tariff tinkering

53 Chinese cough syrup goes viral

53 Italian bosses get impatient

54 Climate tech’s next wave

55 Bartleby: Customer reviews

56 Schumpeter: Trump’s role model



► businesses over the past 20 years or so with little more than the swipe of a credit card to get going. He describes AI as the next wave in that “democratisation”. “You don’t need to code, you don’t need to be able to use Photoshop, because you can get AI to help with that.” This, he hopes, will give rise to a flood of startups built by people like Ms Gwilliam with no background in technology but who have identified real problems to solve.

Another evangelist is Karim Lakhani of Harvard Business School. It now offers a leadership course for executives in which they use generative AI to build a snack-food company in 90 minutes, using the technology to perform customer research, generate recipes, find suppliers and design packaging. In a recent paper, Mr Lakhani and his co-authors presented a field trial in which 776 professionals at Procter & Gamble, a consumer-goods company, were asked to address a real business need either individually or in two-person teams, with and without using generative-AI tools. It found that AI significantly boosted performance, helping individuals with AI match the performance of teams without it. AI proved to be more of a “teammate” than a tool.

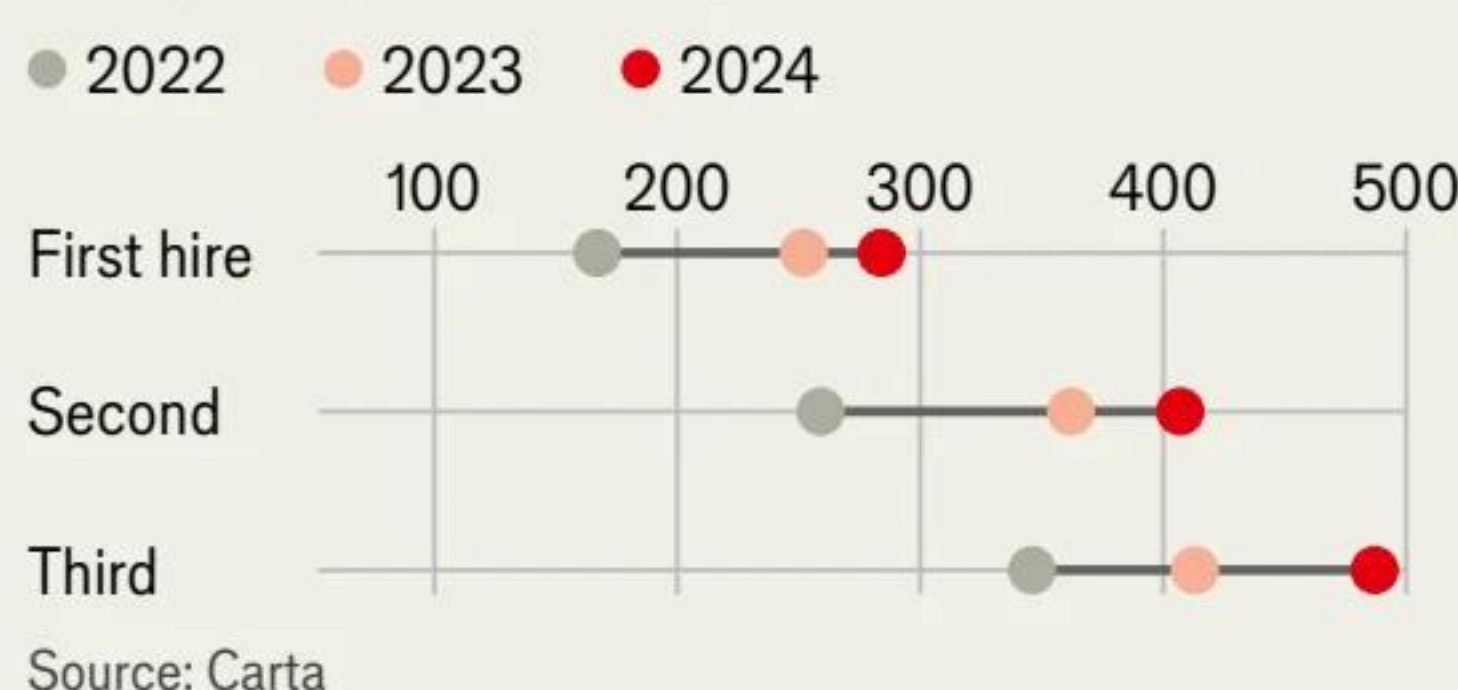
With the era of free money over, entrepreneurs are eager to find ways to keep costs down. Peter Walker of Carta, which helps startups manage equity ownership, says that founders used to boast about how many employees they had. “Now it’s a badge of honour to say, ‘look how few people work for me’.” According to Carta’s data, the typical period it takes founders to hire their first employee after their startup incorporates has risen from less than six months in 2022 to more than nine months in 2024 (see chart). Base44, an AI coding startup, was recently sold to Wix, a web-development platform, for \$80m. It had just eight employees.

It is early days, of course. For one thing, AI agents are far from foolproof. In June Anthropic, an AI lab, revealed the results of an experiment in which its Claude Sonnet model operated a vending machine at the firm’s headquarters. The bot’s goal was to avoid bankruptcy. It was good at identifying suppliers and adapting to user requests (including hunting for a tungsten cube mischievously requested by one employee). But it ignored lucrative opportunities, hallucinated, offered too many discounts and ultimately failed to make money.

Other forces may also get in the way of an AI-infused surge in entrepreneurship. Despite the growth of the internet, social media, software-as-a-service and cloud computing over recent decades, business formation in America was anaemic until the pandemic—the result in part of an ageing population. That demographic pressure will only intensify.

### All by myself

US startups, median days from incorporation until hiring



For all the promise of generative AI, it poses problems for entrepreneurs, too. Annabelle Gawer of the University of Surrey notes that although the technology lowers barriers to entry for new businesses, it also makes it easier to quickly copy ideas. Unless a founder has unique expertise in their domain, that may make it harder to sustain a competitive advantage.

Moreover, the provision of AI tools is

dominated by tech giants and the labs they invest in, such as OpenAI, backed by Microsoft, and Anthropic, backed by Amazon and Google. Ms Gawer draws an analogy with the rise of cloud computing in the 2010s, which those three tech giants dominate. Although that infrastructure has made life easier for startups, it has also left them dependent on the cloud triumvirate, which has been able to capture a good share of the value these firms have generated. Last year the trio’s net profits were equivalent to 7% of America’s total, up from 2% a decade before.

Another possibility is that the tech giants could pinch smaller companies’ best ideas. For now, Ms Gwilliam of Solace is sanguine. What she calls “first-mover disadvantage” could be “a bummer”, but it could also validate her idea. “Maybe they’ll come to me and say, ‘We want Solace.’ And then I’ll be, like, ‘Great, sold!’” Just like a typical entrepreneur, then. ■

### Tariffs

## The Toyota Way

### Japan’s carmakers are trying to tinker their way out of tariff pain

EVER SINCE Toyota entered America in the 1950s, the country has been a vital market for it. The carmaker, which sells more vehicles worldwide than any other, hawks around a quarter of its cars there. That makes President Donald Trump’s 15% tariff on Japanese vehicles a big problem, considering that only around half of the cars Toyota sells in America are made in the country (see chart). In an earnings call on August 7th, Japan’s most valuable company said that American duties cost it

¥450bn (\$3bn) in the three months to June. For its full fiscal year it expects the impact to be close to \$10bn, the biggest hit reported so far by any carmaker.

Toyota could, of course, pass tariffs on to consumers through higher prices. But this brings with it the risk of losing market share to competitors that choose not to do so. Instead, the company is relying on one of Japan Inc’s great strengths: obsessive tinkering. In the second quarter it revealed a ¥305bn boost to operating profit from various efforts to optimise its business, offsetting around two-thirds of the tariff hit. That included a mix of cost-cutting, marketing to boost sales, particularly of more profitable vehicles, and measures to earn more from add-on services, such as car parts and vehicle financing.

Toyota is not the only Japanese carmaker pursuing such efforts. Mazda, which also generates a sizeable share of its sales from America, is pruning costs and shifting what cars it sells where to lift profits. It ►►

### Buckle up

United States, car sales by country of production, 2024, %



\*Estimated using wholesales

†Estimated using sales of Volkswagen, Audi and Porsche  
Sources: Bank of America; company reports

**Correction:** Last week, in “Miles-high club”, we wrongly said that a proposed amendment to the GENIUS Act would have capped interchange fees; it would have lowered them by aiding competition. We also included a chart that did not state its methodology clearly. A new chart, with an improved methodology based on subtracting loyalty-related revenue from operating profits, has been published online.



► reckons it can offset nearly three-quarters of the tariff hit. Subaru, which sells more than 70% of its cars in America, is also busily pursuing measures to mitigate the duties. Nissan, whose troubles predate Mr Trump's tariffs, is in the middle of a sweeping overhaul of its business.

Eventually, however, Japan's carmakers may run out of ideas to boost profits. Cox Automotive, a consultancy, reckons carmakers both foreign and domestic have already incurred more than \$25bn in tariff obligations on vehicles imported into America so far this year, equivalent to a little over \$5,000 per vehicle. Even for cars made in the country, duties on imported parts and materials such as steel are adding to costs. In time the fear of losing market share will run up against the need to make selling cars in the world's second-largest market profitable.

Shifting more manufacturing to America, as Mr Trump desires, would be another

solution. For those carmakers with limited production in America, assembling more vehicles there may make sense. Subaru suggested earlier this year that it might expand production at its factory in Indiana. Japanese carmakers have long tended to suffer from a home-production bias. Toyota, for example, sold around a seventh of its cars in Japan last year, but made around a third of them there, which is hardly a cheap place to manufacture. American tariffs may encourage a rethink.

Yet that would require much more clarity on future tariffs than has so far been given. Building factories can take years. Once completed, they should last for decades. Mr Trump's duties, by contrast, seem to change every few weeks. That makes it difficult for Japan's carmakers to commit to any lasting changes to their production footprint. The upshot is likely to be ever more tinkering—and, in time, pricier cars for Americans. ■

## Italian business

# Step on the gas

MILAN

Italy SpA wants Giorgia Meloni to hurry up with reform

THE FOREST of cranes along the skyline of Milan attests to the construction boom that is under way in the financial capital of Italy. Rich foreigners have lately been flocking to the city, drawn not only by the promise of *la dolce vita*, but by the country's annual flat tax of €200,000 (\$230,000) on worldwide income. Yet Italy as a whole continues to stagnate. The economy has barely grown over the past decade. In June the national statistics bureau downgraded its forecast for growth this year from a measly 0.8% to an even more paltry 0.6%.

Italian business leaders want Giorgia Meloni, the prime minister, to pick up the pace of reform. She has now been in power for almost three years, a rare feat in a country with such unstable politics. She has succeeded in keeping her three-party coalition government together while deftly handling Italy's foreign relations. "Now she has a once-in-a-lifetime chance to implement internal reforms," says Andrea Bonomi, chairman of Investindustrial, a private-equity firm.

Ms Meloni's record in the eyes of Italy SpA has so far been mixed. She was roundly criticised for scuppering a proposed merger between UniCredit and Banco BPM, two banks, which fell apart last month as a result of opposition from the government. But she has been making an effort to cut the red tape that is strangling Italian companies, including by shortening



No time to waste

## Chinese medicine

# Herbal essences

HONG KONG

A 400-year-old Chinese cough syrup is winning over Westerners

THE RECIPE for Nin Jiom Pei Pa Koa has not changed since it was first concocted in the 1600s. Yet the sweet Chinese cough syrup, which has the colour and consistency of mud, is enjoying a renewed surge in popularity. Sales rose by almost a third between 2019 and 2024, reaching 635m yuan (\$88m) last year. Those coughing up for the syrup are not just in China, but increasingly in the West, too.

Pei Pa Koa, as it is known, can now be found in more than 20 countries. Bottles of the medicine, which includes ingredients such as loquat leaf and pomelo peel, go for around \$5 in pharmacies in Hong Kong, where it is mostly manufactured. But they fetch around three times that price when sold through third parties on Amazon, an e-emporium, in America.

The enthusiasm has been particularly infectious among young people. Worldwide Google searches for Pei Pa Koa rose by a quarter last year; tutorials on how to administer it have racked up millions of views on TikTok, a short-video app. Western celebrities have espoused Pei Pa Koa's benefits: Zayn Malik, a singer for One Direction, a now-disbanded pop group, has praised the cough syrup's ability to soothe scratchy vocal cords, as have Cynthia Erivo and Jonathan Bailey, two actors in last year's film adaptation

of the musical "Wicked".

Traditional Chinese medicines have been steadily gaining interest in the West, spurred on in part by the social-media craze for "biohacking", which focuses on improving health through experimental—and often spurious—fads. Chugging herbal cough syrups is but one example (Pei Pa Koa is unlikely to receive the blessing of America's Food and Drug Administration any time soon). Ancient Chinese healing techniques such as *gua sha* (rubbing coloured rocks on your face) are also all the rage among young Westerners, with social-media tutorials likewise accruing vast numbers of views.

As for Pei Pa Koa, stubborn coughs are not its only enemy. In 2020 America revoked Hong Kong's special customs status, meaning products imported from the territory are now subject to the same duties as those from the mainland. Donald Trump's tariffs on Chinese goods—including a 30% levy that was extended for another 90 days on August 12th—will translate into higher shelf prices for American fans of Pei Pa Koa. Herbal remedies are particularly vulnerable to tariffs: many of the syrup's ingredients come from China and cannot be sourced elsewhere. There will be little relief for as long as the trade war lasts.



► the delay they encounter when resolving disputes and recovering debts. Ms Meloni has also launched a commission to come up with reforms to the tax code, and another to look into changes to the financial rulebook known as the *Testo Unico della Finanza* (TUF).

Rather than a simple reduction in the headline corporate-tax rate, some bosses have been arguing for incentives to spur growth. Ms Meloni's government has cut the tax credits for innovation, from 10% to 5%, and intangible investment, from 15% to nothing. "The government made a grave error," says Corrado Passera, a former economy minister who runs Illimity, a bank specialised in lending to smaller Italian firms. Others want changes to payroll taxes. Angelica Donati, boss of Donati Immobiliare, a construction business, says that employers' social-security contributions are a big problem for her industry. These amount to around 40% of the employee's gross salary, compared with only around 30% in Spain, for instance.

Reforming the TUF, including simplifying public listings, could also give a much needed boost to Italy's capital markets. Most local companies rely on banks for finance, rather than the stockmarket. The total market value of investible Italian shares is around €660bn, roughly a fifth as much as in Britain. A dearth of opportunities, in turn, leads investors to look elsewhere. Shallow capital markets is one of the reasons why Italy has fewer big businesses than other large European countries. Only five of the world's 500 biggest companies by revenue hail from the country, according to *Fortune*, a magazine, compared with nine from Spain, a smaller economy, and 30 from Germany. Among Europe's 20 most valuable companies, none is listed in Italy.

The country also still lags behind when it comes to the use of private credit, which offers more flexible terms than conventional bank lending. Only around a quarter of debt transactions in Italy are financed this way, compared with an average of 60% across the European Union and as much as 90% in the Netherlands. There are, however, signs this is changing. This year, for example, Carlyle, an American private-equity firm, and Arcmont, an asset manager based in London, lent €470m to Bianalisi, a medical-diagnostics business.

### Giorgia on their mind

Plenty of bosses praise Ms Meloni. "She is a pragmatic leader who understands the needs of business, in particular small business," says Ms Donati. But others still worry that she will be swayed by Fratelli d'Italia, her party, which is sceptical of free markets. The prime minister has between now and the next election in 2027 to prove her doubters wrong. ■



### Climate tech

## Different shades of green

TORRANCE AND SAN JOSE

### Despite Donald Trump's attacks on wind and solar, energy innovation is booming

MAKE YOUR way around the busy warehouses of Torrance, near the twin ports of Los Angeles and Long Beach, and you will find an unexpected sight. Dozens of electrified 18-wheelers belonging to Maersk, a Danish logistics firm, are hooked up to fast chargers. The lorries are tapping into electricity from linear generators, which are more efficient, and thus greener, than traditional rotating ones. These generators are the product of Main-spring, a Californian startup that has raised over \$250m this year.

Its success may be surprising amid what seem like dark times for climate tech. Donald Trump's One Big Beautiful Bill (OBBB) act, signed last month, stripped away subsidies for solar and wind power in America. Next week the Treasury Department is due to unveil tax guidance that will clarify just how damaging the law will be for these industries. Orsted, a Danish offshore-wind developer, saw its shares plunge on August 11th when it said that it would raise \$9bn of equity to shore up its finances as Mr Trump's aversion to the technology weighs on project valuations.

Look past wind and solar, however, and the picture is brightening for other forms of green-energy innovation. Global equity funding for climate-tech firms plunged in 2023 amid rising interest rates. But investment has recently been climbing back up, rising by nearly 60%, year on year, in the first half of 2025, according to BloombergNEF, a data provider (see chart). There are

good reasons to believe that the next few years will see the emergence of a new wave of innovative clean technologies.

The first cause for optimism is, strangely enough, the OBBS itself, which solidifies American support for certain novel energy technologies preferred by Republicans, even as it withdraws it for solar and wind. The law extends tax credits for, among other things, linear generators, geothermal energy, fuel cells, which can produce electricity using various possible fuels, and new types of nuclear power. Tim Latimer, the boss of Fervo, a startup based in Texas which uses fracking techniques to harness geothermal energy, notes that the law provides the long-term, bipartisan certainty his firm needs. ►►

### Heating back up

World, climate-tech companies, equity funding



Source: BloombergNEF



► At a time when politicians have become increasingly concerned about energy security, such technologies have the added benefit of reducing dependence on imports, whether of oil, minerals or solar panels. That impulse is also strong in Europe, which wants to shed its reliance on Russian gas while continuing to decarbonise.

A final force behind the new wave of green-energy innovation is America's tech giants, which are struggling to find sufficient power for their data centres. Rich

Powell, head of the Clean Energy Buyers Association, which represents large power users with a green mindset, says that its members are "now investing in the next wave of climate tech", having played a pivotal role in scaling solar and wind over the past decade. New forms of nuclear power are particularly popular among the tech firms; Amazon and Google have both signed deals with startups developing small-modular reactors.

Stationary fuel cells like those made by

Bloom Energy, a Californian company that has seen its share price rise by over 80% this year, are another option. Last month it announced a deal to supply its technology to Oracle, a software company that is investing heavily in building cloud infrastructure. At a vast data centre in San Jose, banks of the fuel cells silently provide power that is not just cleaner but also more flexible and reliable than that of traditional generators. Before long such sights may well be commonplace. ■

## BARTLEBY

### *The game of online reviews*

*Should you trust that five-star rating on Airbnb?*

IT'S SUMMER in the northern hemisphere. And as holidaymakers travel to unfamiliar places, that means demand for online customer reviews. Want to find a restaurant that won't give everyone food poisoning, or the perfect accommodation for a city break, or a mosquito repellent that actually works? Whether you are looking on Tripadvisor, Airbnb or Amazon, you will almost certainly be guided by reviews from other people. Should you be?

The short answer is yes: better to have some information than none. But the flaws of online reviews are evident. For products with some objective measures of quality, there is a big gap between the views of punters and experts. A study in 2016 by Bart de Langhe of Vlerick Business School, in Belgium, and his co-authors found that user ratings for 1,272 items listed on Amazon.com bore little relation to either the verdict of Consumer Reports, an American product-testing organisation, or to their resale value.

That might be because consumers place greater value on more subjective things like a product's brand. But if ratings are based on subjective criteria, then another problem arises: what if your tastes differ from other people's? The best book ever, according to members of GoodReads, an online community of bibliophiles, is "The Hunger Games" by Suzanne Collins. You may agree, but plenty of people do not.

Another problem is that the people who bother to leave reviews and ratings may not be representative of consumers as a whole. In a study published in 2020, Verena Schoenmueller of Esade, a business school in Spain, and her co-authors examined the distribution of ratings left in around 280m reviews of more than 2m

products and services on 25 different platforms. They broadly confirm a familiar pattern: a polar distribution of ratings, with more of them at the extremes of the scale than in the middle, and a skew towards more positive ratings.

There are lots of theories as to why online reviews follow this pattern. People who have chosen to buy something are already more likely to be satisfied with it. Extreme experiences, good and bad, are more likely to prompt reviews. Some write-ups are not real: estimates of the prevalence of fake reviews vary but they are certainly a problem, and one which generative AI may make worse.

The type of platform matters, too. Sharing-economy markets have a different feel. You could leave a four-star review for

your Airbnb stay, but now that you have established a relationship with the hosts, and since they are also rating you, it's much easier to just award five. A paper by Georgios Zervas of Boston University and his co-authors, last updated in 2020, found that average ratings for Airbnb properties are consistently higher than those for hotels on Tripadvisor.

In theory, businesses have an interest in soliciting as representative a sample of reviews as possible. Honest customer feedback is the best way to spot and fix problems, after all. In practice, the importance of good ratings, particularly for firms that are struggling for visibility, is an incentive for jiggery-pokery. A study from 2013 by Dina Mayzlin of the University of Southern California and her co-authors suggested, for example, that small, independently owned hotels generated more positive fake reviews on Tripadvisor than branded hotel chains.

If the incentives of businesses and consumers do not always align, then platforms have an interest in ensuring that reviews are as informative as possible. Weighting scores by the number of reviews that a customer writes could help mitigate the problem of polarity; Ms Schoenmueller's research suggests that the more reviews a person writes, the less extreme their ratings.

But consumers can also help themselves. Mr de Langhe's research suggests that people put too much weight on the overall average rating. The absolute number of reviews is a better indicator of actual popularity. And it is the detail in a review that tells you whether the person writing it prefers dystopian young-adult fiction to other genres, or whether a diner values buzz or the ability to hear themselves think. Reviews, then, are even more useful if you read them.



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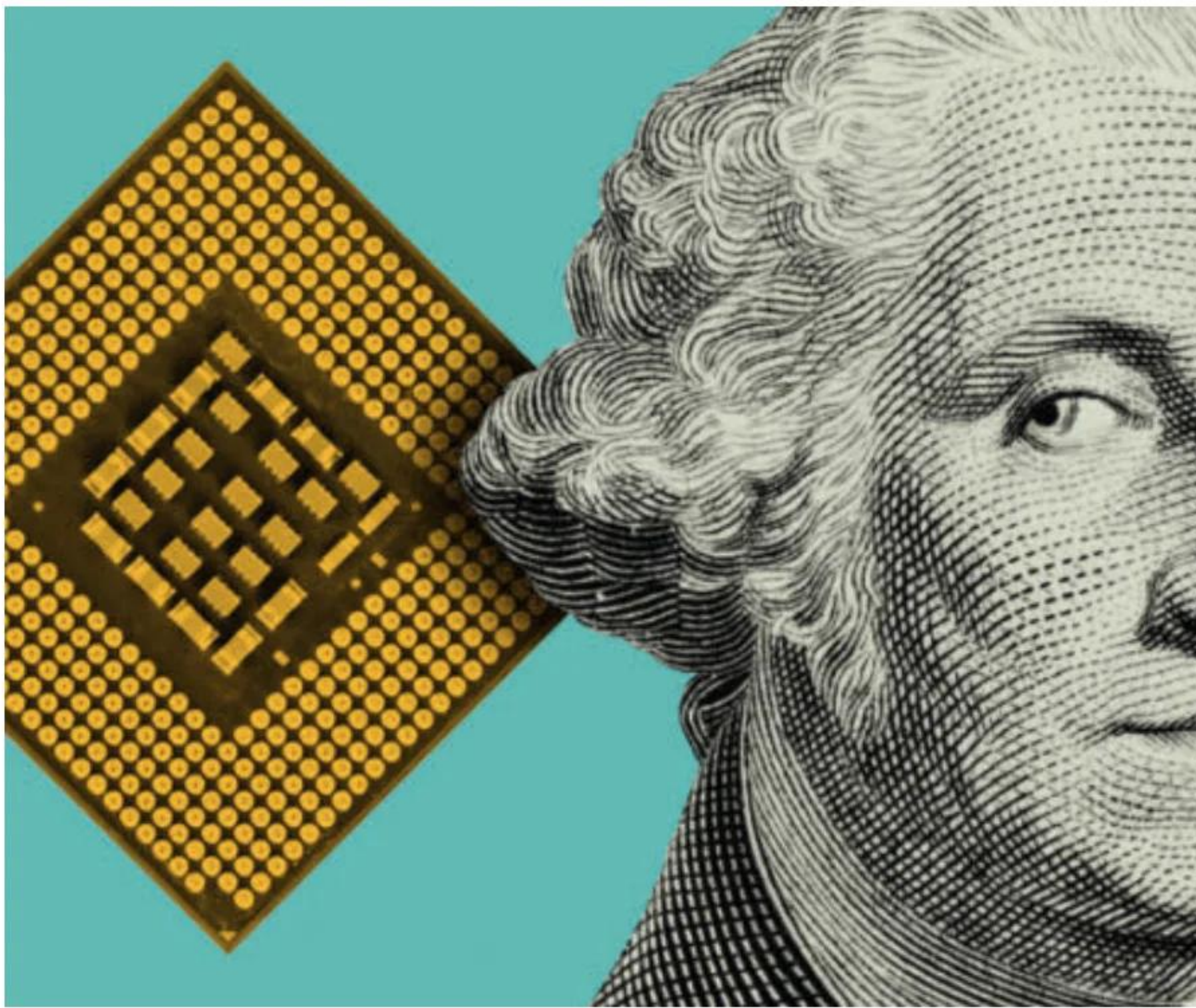
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## SCHUMPETER

### *Bargaining chips*

*Donald Trump wants to command bosses like Xi Jinping does. He is failing*



**I**GNORE FOR a moment Donald Trump's shakedown of Nvidia, in which he has allowed the world's most valuable firm to resume limited exports of its artificial-intelligence (AI) chips to China in return for giving a 15% cut of the proceeds to Uncle Sam. Think instead of the argument about whether it is wise to let China have access to one of America's most coveted technologies.

One side of the debate wants to flood China's market. By permitting Nvidia to resume exports of its dumbed-down H20s, the argument is that it will reduce the incentive for China's own chipmakers, such as Huawei, to develop substitutes. That will keep Chinese developers of generative AI hooked on American hardware, and make China less likely to invade Taiwan, where the bulk of the world's cutting-edge chips are made. The other side takes a tougher approach. Its advocates, including this newspaper, contend that choking off access to the H20s, which are hot stuff in China even if sub-par by American standards, would slow the development of Chinese technology just enough for the US to secure an insurmountable lead in the AI race.

Mr Trump alluded to neither of these arguments when he confirmed on August 11th that Nvidia would resume selling H20s to China (AMD, a rival, will be able to sell some of its AI chips there, too). Instead he boasted of the haggling that took place between himself and Jensen Huang, Nvidia's boss, to determine how big a cut America should get in return for the favour (and floated a similar approach for Nvidia's "super-duper-advanced" Blackwell chips). Contrast that with the shrewder way China has used one of its most sought-after resources—rare earths—as a bargaining chip. When it comes to meddling with markets, America's nickel-and-dimer-in-chief has much to learn from Xi Jinping.

A lot about the way Mr Trump has handled chip exports to China pales in comparison with how America's rival has used rare earths for leverage. The American president's strategy is capricious and confusing. In the space of three months, H20 sales have been banned and unbanned. His export levy probably violates Article 1 of the constitution, so it may face a legal challenge. By contrast, China's approach is becoming more sophisticated. In recent months it has established a system of export controls that

tries to track the end customer of commodities and spans hundreds of products, from sensors to manufacturing equipment.

So far Mr Trump's approach appears neither to help America nor to hurt China. He has surrendered an important part of America's national-security strategy for a pittance. Assuming H20 sales generate \$20bn of revenues for Nvidia, the 15% surcharge would net \$3bn—less than the cost of a new nuclear-powered submarine. Mr Trump has also given away one of America's biggest sources of leverage before a proper deal is reached with China. Meanwhile, Mr Xi still has the rare-earths cudgel in hand, even if in the long run its use would spur efforts around the world to reduce dependence on Chinese supplies.

Mr Trump's H20 gambit is muddle-headed. If his intent is to undercut Huawei and make China dependent on American chips, it would make more sense to dump cheap Nvidia products rather than raising their price through an export tax. That is the approach China has taken with great effect in its exports of solar panels, electric vehicles and drones (as well as, on occasion, rare earths). It knows the implications. Perhaps that is why it is pressing Chinese firms to shun the H20s.

Mr Trump's ham-fisted approach to chips is not the only way in which he is proving to be a poor student of Mr Xi. Consider the pair's efforts to assert themselves over their countries' chief executives. When Jack Ma, co-founder of Alibaba, a Chinese e-commerce giant, became too big for his boots in 2020, Mr Xi's government did not just reprimand him. He was purged from public life for five years. Such was Mr Xi's paranoia about the balance of power shifting from China's Communist Party to its internet billionaires. Mr Trump is similarly determined to keep America's bosses under his thumb. In the past week he has called directly or indirectly for the resignations of Lip-Bu Tan, the new boss of Intel, a chipmaker, and David Solomon, chief executive of Goldman Sachs, an investment bank. But he is more easily won over than Mr Xi. After Intel's boss visited the White House on August 11th, Mr Trump hailed his career as an "amazing story".

Mr Xi has likewise been more effective at whipping up patriotic fervour among companies in order to get them to do his bidding. China installs party cells to ensure they adhere to the government's objectives. Mr Trump has used the threat of tariffs to encourage companies like Apple to reshore manufacturing to America. Yet America's president receives mostly lip service. When Apple's boss, Tim Cook, unveiled a \$600bn, four-year investment pledge into America this month, it was more of an update than a change of plan. Not for nothing did he embellish it with a 24-carat gold gift to Mr Trump.

#### No big dealmaker

It is perhaps unsurprising that Mr Trump, who lacks Mr Xi's authoritarian power, has been less effective at making his country's businesses subservient to his political goals. It is also a relief. China's approach of state capitalism may seem attractive to politicians in countries held back by democratic processes that make it difficult to effect change. But the model has its flaws. Growth in China has slowed and venture-backed entrepreneurial activity has waned in recent years. Businesses are mired in a brutal price war.

Thankfully, Mr Trump only dabbles in state capitalism. Even so, his approach is damaging. These days businesses in China can at least rely on a degree of coherence and consistency in policy-making. America Inc will not thrive amid chaos. ■



## Finance & economics



### Economic development

## Putting the boot in

### Growth-loving authoritarians are failing on their own terms

**M**UHAMMAD BIN SALMAN is one of the world's most secure autocrats. He has no need to pay off rivals or buy elections. Yet by 2030 his government will have spent almost \$3trn on Vision 2030, a plan to transform Saudi Arabia's economy. Officials are backing man-made islands, luxury hotels and electric-vehicle factories. "They will take anything that has the smallest chance of creating economic growth, even if it is in decades," says a megaproject executive, "even fantasies and failures."

MBS is one of several autocrats fixated on economic growth. Gulf monarchs, East African leaders, strongmen in (just about) democratic countries—all are inspired by China and Singapore, which managed to combine authoritarian rule with economic success. Many are willing to adopt orthodox policy. They see growth as a source of legitimacy, seeking to enrich their populations, rather than just elites. As such, they employ skilled technocrats to set policy, try to lure investors with promises of sta-

bility and engage in lavish industrial policy. And yet, despite all this, they are increasingly struggling to deliver growth.

China and Singapore are an inspiration for a reason—they stand out. Autocrats have tended to pursue growth haphazardly at best. Kevin Grier of Texas Tech University and Michael Munger of Duke University have found that, from 1950 to 2006, those who managed a decade or more in

power produced growth of 1% a year, a measly amount. The worst treated policy as a means of personal enrichment. More often the likes of Suharto in Indonesia and Myanmar's junta ran the economy in such a manner as to placate elites, apportioning profits to allies while repressing citizens.

The new breed of rulers was first identified in 2015 by Hilary Matfess of the Council on Foreign Relations, a think-tank. She termed them "developmental authoritarians". Paul Kagame has courted investors by opening Rwanda's capital account, promising subsidies and sending roadshows across the world. In Ethiopia Abiy Ahmed, who came to power after Ms Matfess's paper, has scrapped capital controls and floated the birr. In the Gulf ruling families are trying to reduce their dependence on oil. Vietnam may already be South-East Asia's fastest-growing economy, but To Lam, its new ruler, wants to up the pace.

After all, under Park Chung-hee's authoritarian rule, which ran from 1963 to 1979, the average South Korean's income went from that of a sub-Saharan African to that of an eastern European. And whereas South Korea became a democracy, Deng Xiaoping in China showed that there was nothing inevitable about such a transition. Instead, he oversaw strong economic growth and cemented his party's rule while doing so. Today everyone from Mr Kagame to Indermit Gill, the World Bank's chief

#### → ALSO IN THIS SECTION

**58 Where will win from Trump's tariffs?**

**59 The Ivy League debt binge**

**60 Privatising Fannie and Freddie**

**61 America's housing market slows**

**62 Palantir's monster valuation**

**63 Free exchange: Art and the economy**

— **Buttonwood is away**



► economist, professes admiration for China's and Singapore's achievements.

The change of approach reflected demographic trends. In the 2000s economists talked of "authoritarian bargains", in which despots compensated for the general unpleasantness of life without political rights with handouts. Today populations are too large and too young for such deals. The Gulf is racing against the depletion of oil funds; Ethiopia's population is forecast to grow by 90m from 2020 to 2050.

### From the Kennedy School to Kuwait

Melding pro-growth policy to an authoritarian political economy means ceding control. The Rwandan government has provided venture capital for everything from milk production to peat mining. It then sells stakes in successful ventures to private investors (part of a telecommunications firm recently went to T-Mobile, an American giant, for instance). One of Mr Lam's first policies in Vietnam was to exempt small businesses from corporate tax. Two years ago, for those putting more than \$50m into the country, Bahrain got rid of almost all the paperwork foreign investors usually require. MBS's latest reforms, introduced in February, seek to bring employment practices into line with America.

Well-run, relatively efficient state-owned conglomerates also attract foreign investors. They crave stability and a young, popular autocrat is less likely to rip up commitments than a cast of leaders in a democracy. Why, ask state-sponsored salespeople who tour investment conferences, take the risk? Abiy is 48 and MBS is 39; they make plans in decades. Alongside Saudi Arabia's Vision 2030 (published in 2016), there is Bahrain's Vision 2030 (published in 2008) and Ethiopia's Growth and Transformation Plan (lasting until 2030).

Despite the alluring pitch, in recent years flaws have emerged. Foreign businesspeople complain of micromanagement. State-owned firms crowd out private

ventures: so ambitious are the government's plans, Saudi Arabia suffers from a shortage of construction materials; the IMF has warned Ethiopia its banks are too busy lending to the state to support local businesses. In some places, when goals are not met, officials may fiddle the figures to avoid reprisals. Indeed, an IMF official suggests that the true Rwandan GDP growth rate is a couple of percentage points below the official one. Ethiopia appears to be overstating its wheat production.

Although many of the plans are long-term, they have been in place for long enough to start to make judgments. We have picked four measures: foreign investment and economic growth reflect core ambitions; GDP per person and health spending, the extent to which benefits are trickling down. Most regimes are failing to meet their own lofty goals. In 2000 Mr Kagame said he wanted Rwanda to be a middle-income country by 2020—a target he is still to meet. Non-oil portions of Gulf economies are growing more slowly than the upper-middle-income average. Since 2015 the average income of someone under a growth-fixated autocrat has risen by 14%, against 23% in comparable countries.

This is not to say that growth is meagre everywhere. Ethiopia's economy grew by over 7% last year, four percentage points above the African average. Rwanda managed a similar pace, according to official figures. Saudi Arabia was thought to be among the most sluggish. But on August 4th the IMF revised its calculations, looking at more industries. Its non-oil growth estimate for 2023 rose from 3.8% to 5.8%.

In many cases, though, growth relies on state spending. The Public Investment Fund, Saudi Arabia's wealth fund, is responsible for a tenth of non-oil GDP. Last year over half Rwanda's investment came from state-owned firms. Foreign private-sector cash would indicate a true capitalist boom. Last year Saudi Arabia received less than the average country in the region as a

share of GDP; Bahrain, less than Nicaragua. Trade balances have hardly improved. Saudi Arabia imports three times more non-oil goods and services than it exports.

All told, growth has not been sufficient to satisfy ballooning populations, nor to boost tax revenues. In 2023 Saudi Arabia collected less tax, as a share of GDP, than an average low-income country. Fiscal pressure is building and IMF economists reckon the country's non-oil growth will stay below 3.5% for the next two years. Rwanda's debts will force Mr Kagame to cut back. Although technocratic policy has delivered better outcomes, and some measure of popularity, leaders may soon face a choice: properly liberalise, turn to even nastier methods of securing acquiescence or try to buy popularity with handouts in tighter times. How deep does their commitment to economic change run? ■

### Asian trade

## China plus one is dead. Long live...

SINGAPORE

### Where will win from America's tariffs?

ONE QUESTION looms for a manufacturer working out where to build a factory: how big is a potential location's tariff gap with China? President Donald Trump's latest levies, which took effect on August 7th, have shaken things up. Despite his fighting words, China appears to have a better deal than before, at least compared with other countries: the gap between tariffs applied to it and the rest of the world has shrunk. Mr Trump also promises a clampdown on "transshipment", which would curb firms' ability to tariff-hop.

As a consequence, some now suggest that he has delivered a mighty blow to "China plus one"—a strategy which led firms to build production hubs outside China, particularly in India and South-East Asia. By creating economically meaningful tariff differentials between China and its neighbours, Mr Trump's first trade war in 2018 supercharged the trend. From shoe-making in Vietnam to car assembly in Thailand, foreign investment poured into alternatives to China. Now with the gap between China and the rest of the world shrinking, will the trend go into reverse?

Perhaps not. For the China-plus-one strategy is not just a way to dodge tariffs. It is also a way to avoid rising Chinese labour costs, political crackdowns and American export controls. On top of this, headline tariff rates are misleading. The fentanyl-related tariffs America imposes on China cover many more products than the "recip- ►►

### All those roadshows

Foreign direct investment, net inflows, % of GDP

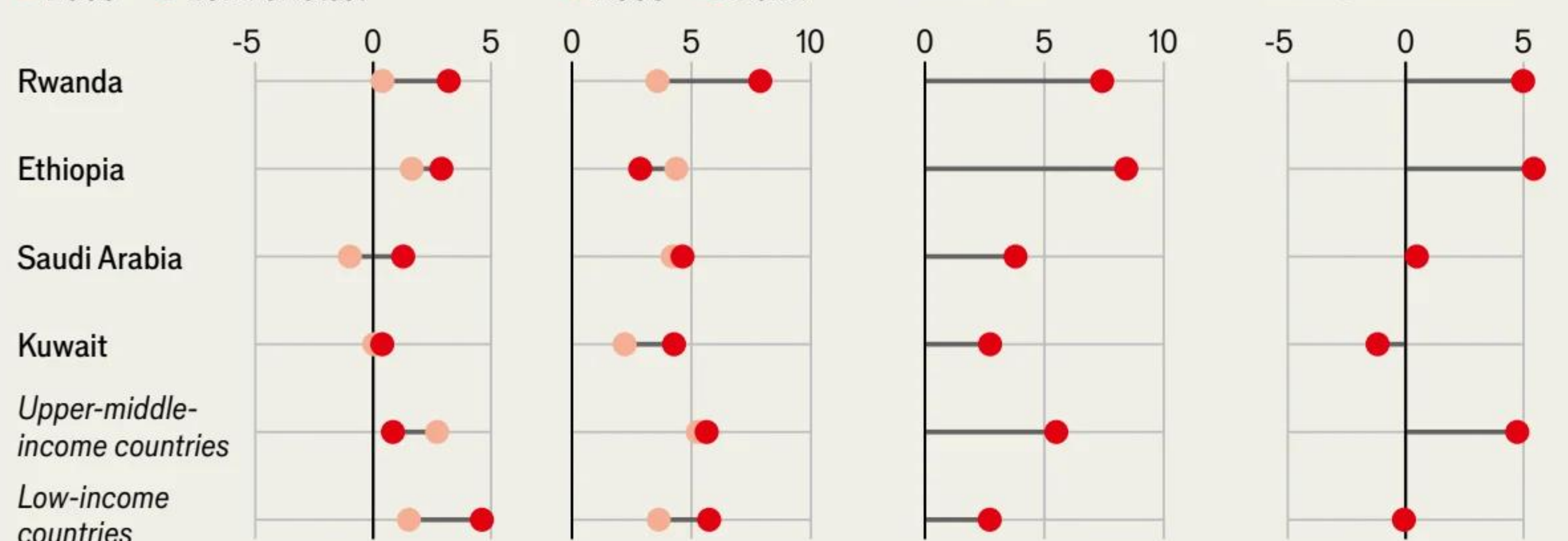
● 2000 ● 2024 or latest

Health spending, % of GDP

● 2000 ● 2022

GDP, annual average % increase, 2000-24

GDP per person, annual average % change, 2000-24



Source: World Bank



► rocal” duties it imposes on most countries. According to data from Fitch, a rating agency, when these are taken into account, the gap between China’s tariff rate and the rest of Asia’s has in fact swollen.

Thus “China plus one” will live on, but in a new form. Previous winners have seen big rises in their effective tariff rates, too, even if not by nearly as much as the region’s superpower. One new winner is Malaysia; the effective rate applied to it has risen from under 1% last year to a (comparatively) modest 12% today. As a result, the China-Malaysia effective-tariff differential has shot up, from ten to 30 percentage points. Meanwhile, the likes of Cambodia and Indonesia have made up less ground.

Which country is most exposed to a transshipment crackdown? America has yet to specify what this will mean in practice, but Chinese-made goods sent via third countries to its shores appear to be in Mr Trump’s sights. We have previously identified such locations, ranking them by the extent of suspected transshipment, using American and Chinese customs data to examine products where there have been simultaneous increases in imports from China and exports to America. By this measure, we found that most re-routing happened in India, Thailand and Vietnam. For the time being, Cambodia, Indonesia and (once again) Malaysia seem most likely to avoid American retribution.

In the event of a crackdown, countries will seek to sell to big markets other than America. Cambodia and Vietnam, which each send a third of exports to America, may struggle. India, Indonesia and Malaysia rely less on Uncle Sam, who attracts less than a fifth of their exports. Some 40% of Indonesia’s sales already go to Australia, China, Europe and Japan; just 10% head for America. In preparation for what may be to come, Indonesia’s prawn farmers, whose main market is America, have recently stepped up marketing efforts in China.

Across the three measures, Malaysia is best positioned if levies stay put. It has favourable tariff differentials, limited trans-

shipment and less reliance on American demand. Firms have noticed: “It puts Malaysia in a good light for investments,” cheered Datuk Seri Wong Siew Hai of the country’s semiconductors association. Some countries outside Asia also look well-placed. Hungary, which has so far acted as China’s gateway to Europe, faces effective American tariffs 30 percentage points lower than China does.

There is a tension, though. If Malaysia’s tariff gap with China and lower risk of a

transshipment crackdown leads more firms to set up shop there to sell to America, its dependence on American demand will rise, making it more vulnerable. Something similar happened last time round. In 2024 Malaysia sent 13% of its exports to America, up from 9% before Mr Trump’s first trade war. And President Joe Biden targeted the country’s solar-panel industry for facilitating Chinese tariff-dodging. In the new China-plus-one regime, it will be hard for even winners to feel secure. ■

## College borrowing

# The prestige premium

Ivy League universities are on a debt binge. At least they benefit from low rates

FOR STEWARDS of university endowments, the past year has been difficult. All eight Ivy League colleges lagged behind the S&P 500 index by at least ten percentage points in their most recently reported fiscal year. Those ensnared in President Donald Trump’s culture wars, including Columbia and Harvard, are writing cheques for hundreds of millions of dollars to settle disputes and regain public funding. And the endowment model itself is under strain. Devotion to alternative assets is being questioned amid high fees, revised valuations and low liquidity. Some colleges, including Yale, have sought to offload private-equity stakes in order to raise cash.

Treasurers can take comfort from the size of their funds—Harvard’s comes to \$53bn, for instance—and the fact that, over the long run, their endowments have outpaced smaller peers’. They can also console themselves with one other perk: privileged access to debt markets.

Since January, Ivy League universities have together issued more than \$1.7bn in debt, the most in any year since 2020. In doing so, they have borrowed at rates many firms, governments and less illustrious rivals must envy. Even the priciest recent bond issuance by Harvard, Princeton and Yale trades at 0.34 percentage points above the Treasury curve—about the same as debt issued by Johnson & Johnson, one of only two American companies with a triple A credit rating. Lenders are less forgiving to universities further down the league table. Many of Pepperdine’s bonds trade at more than two percentage points above corresponding Treasuries.

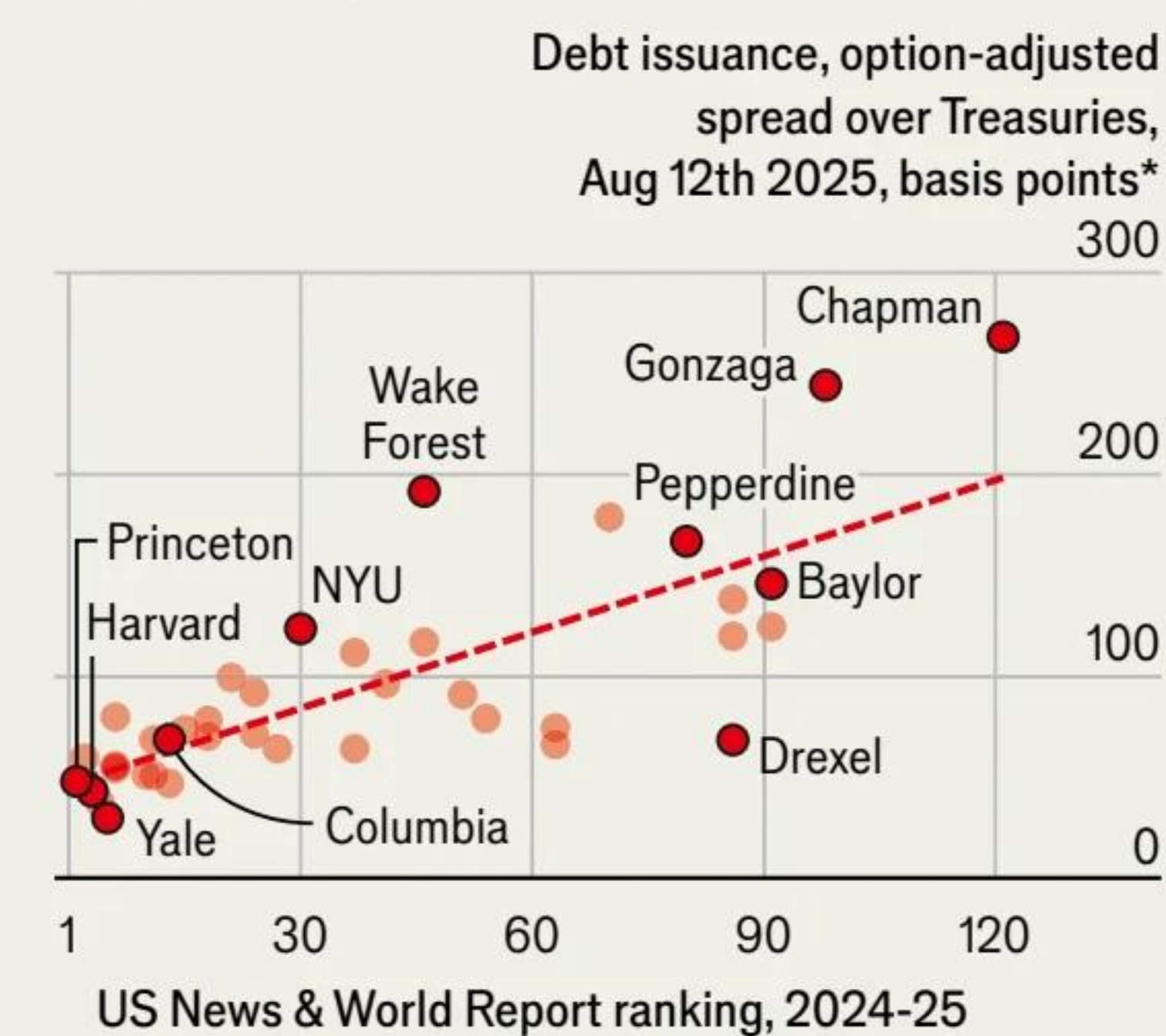
The pattern holds across the pecking order. Using US News & World Report’s rankings of colleges, and comparing

them with value-weighted spreads on their debt, a clear pattern emerges: the better a private university, the lower its borrowing cost. This reflects the size of their endowments, a comfort to creditors. As in the corporate world, where larger firms are more likely to borrow on the bond market and benefit from cheaper rates, a similar pattern appears in academia. All the top 15 private colleges have tapped bond markets; by contrast, only 26 of the next 45 have any outstanding bond debt.

Although elite universities would prefer not to borrow, ready access to debt markets allows them to commit more capital to illiquid assets and reduces the need to sell during downturns. This, in turn, lets them capture the extra returns such alternative investments can offer. As such, low borrowing costs boost their performance. Cheap leverage is not what made elite universities elite, but it certainly helps them keep their lead.

## A matter of degree

Selected US private universities



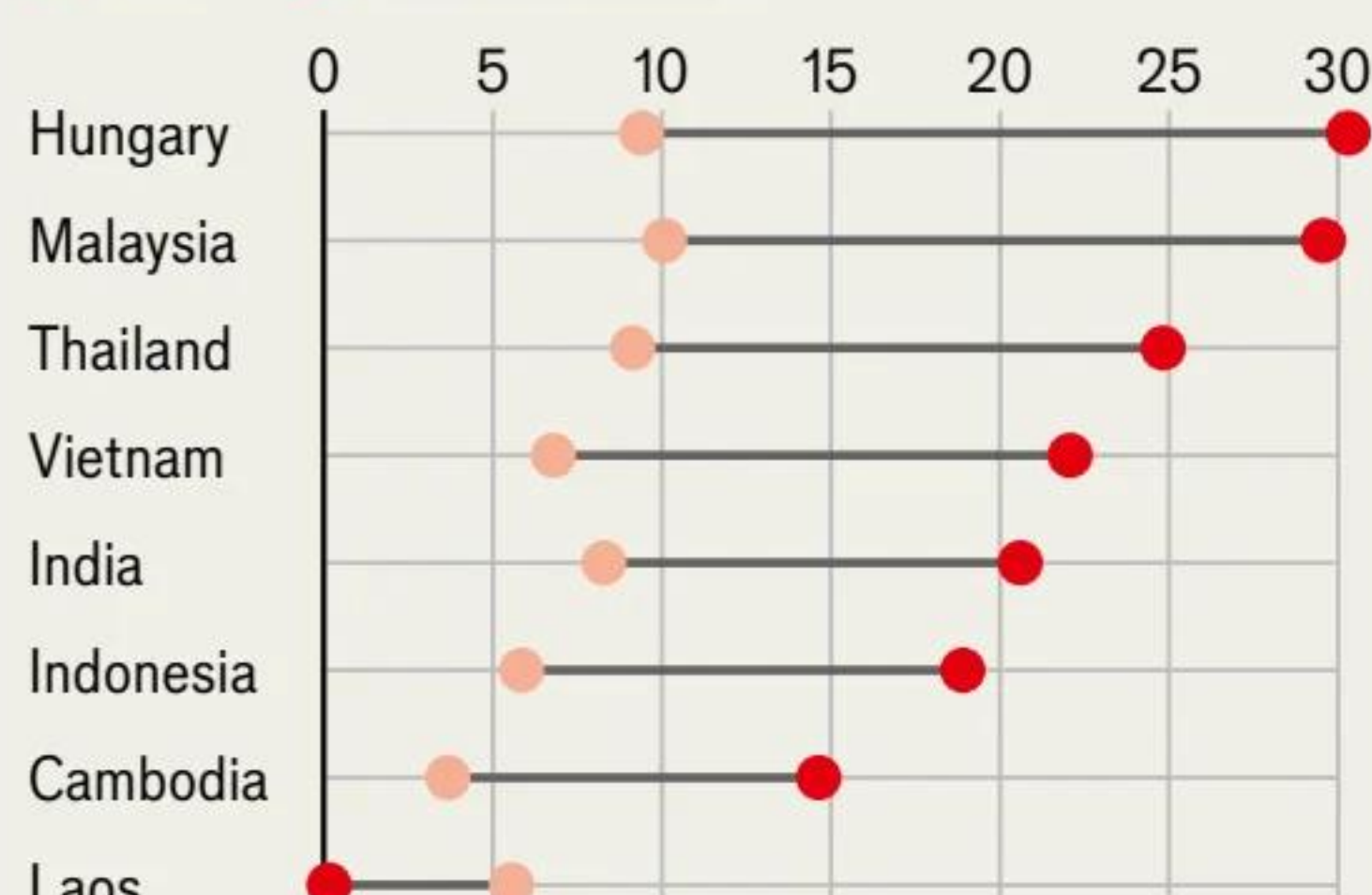
\*Market-value weighted

Sources: Bloomberg; US News & World Report; The Economist

## Different differentials

US effective tariff rate, %-point difference between China and selected countries

● 2024 ● August 7th 2025



Source: Fitch



## American mortgages

## Liquid courage

NEW YORK

To sell Fannie Mae and Freddie Mac, Trump must answer a \$7trn question

“NOTHING IS SO permanent”, noted Milton Friedman, “as a temporary government programme”. Friedman died in 2006, a couple of years before Fannie Mae and Freddie Mac, two enormous government-sponsored enterprises (GSEs) that provide liquidity to the American mortgage market, were bailed out during the global financial crisis. The firms were taken into “conservatorship”, a form of temporary government control. It has now been in place for almost 17 years.

The temporary measure may at last be coming to an end, however. President Donald Trump’s team is looking into plans to return the government’s stake in the GSEs to the private sector via an initial public offering. Investors in the duo’s battered stocks have already made enormous returns in anticipation of such a sale, enjoying gains of over 2,000%. Even buyers of Nvidia may look on with envy.

In reality, any privatisation will be extravagantly difficult. Returning the GSEs to private hands will mean unpicking knotty inconsistencies in the bail-outs that followed the financial crisis, which other administrations have avoided touching. It may also mean resolving questions about American housing policy that date back to the 1930s. And it will mean clarifying exactly what the Trump administration hopes to achieve with the process.

The first challenge is the companies’ insufficient capital. Fannie and Freddie have vast balance-sheets, holding more than \$7trn in mortgage debt. As private institutions, they would face shortfalls of “Tier 1” capital, as required by regulators, of \$188bn and \$139bn, respectively. Issuing



Maybe it will, maybe it won't

such a large amount of equity in one go would be a ludicrous undertaking. To put it in context, the IPO of Saudi Aramco in 2019, the biggest ever in nominal terms, raised \$26bn. The amount could be negotiated down during the privatisation. But even raising smaller sums in chunks over a period of years would prove tough. Although lowering capital requirements might speed things up, it would raise the risk of another blow-up.

### Capital punishment

The second, related question is what role the government will play in the firms’ future. So far, the administration’s approach has been confusing. Bill Pulte of the Federal Housing Finance Agency, which oversees Fannie and Freddie, has suggested they might remain in conservatorship even after an IPO begins. Yet conservatorship means purchasers of any stock would lack the ordinary rights of shareholders. Good luck finding buyers for billions of dollars in newly issued equity who are willing to accept continued government control.

How will the Treasury deal with its own financial interest? It has invested \$193bn in the companies, in the form of senior preferred shares which used to pay a dividend of 10%. A tweak to the rules in Mr Trump’s first term allowed the firms to skip the dividends and retain earnings, building up their capital. In exchange, the government gained a “liquidation preference” (money owed if the GSEs are ever sold). This had risen to \$355bn by the end of June.

Owners of the private stakes, who include Bill Ackman, a competitive tennis player and sometime investor, think that the government has made quite enough money from the firms already. He notes the Treasury was paid more than \$300bn in dividends before the end of 2019. In his

proposal for privatisation, the government would combine Fannie and Freddie as a single entity, and would in effect write down its own holdings. That would be great news for owners such as Mr Ackman, whose firm does not disclose the size of its stake in the GSEs. But American taxpayers may disagree that leaving hundreds of billions of dollars on the table makes sense.

The last, and perhaps largest, challenge is what to do about the government’s implicit guarantee of the GSEs. The idea that the state will come to their aid in a crisis, which proved to be true in 2008, has underpinned their cheap funding and high credit rating. Without it, the duo might be downgraded by credit-rating firms. Ultimately, the lack of a government-backed player could raise mortgage rates across the country, as holders of mortgage-backed securities demand higher returns to compensate for the additional risk.

Mr Trump, no fan of subtext, pledged to keep the arrangement in a social-media

### Jensen who?

Share prices, January 3rd 2023=100  
Log scale



Source: LSEG Workspace

### Do not try this at home

World, capital shortfall v biggest IPO values, \$bn  
2025 prices



\*Tier-1 capital requirement

Sources: Renaissance Capital; The Economist



post in May: “I want to be clear, the US Government will keep its implicit GUARANTEES.” Small-government types have long wanted Fannie and Freddie returned to private hands, hoping to spark more competition in mortgage finance. John Cochrane of the Hoover Institution, a think-tank, has noted that GSE rules on asset purchases in effect prevent new types of home lending from emerging. But Fannie and Freddie would have to lose their guarantees, in effect a subsidy, to encourage such innovation. With Mr Trump’s promise of state support, it is not entirely clear what problem privatisation is intended to solve. Taxpayers would yet again be left on the hook in the case of any future blow-up. Government intervention in the mortgage market would continue, just in a new form. Public risk would enable private gain.

There is a reason why no administration since the bail-out of Fannie and Freddie has found the time, or made the effort, to end the temporary fudge which governs the pair. The benefits of returning the GSEs to private hands are far from certain, and doing so will create a group of losers. Despite investors’ excitement, it is far from clear the Trump administration has an appetite for the immensely difficult task. ■

## Property prices

# Stone cold Austin

## America’s housing market is shuddering

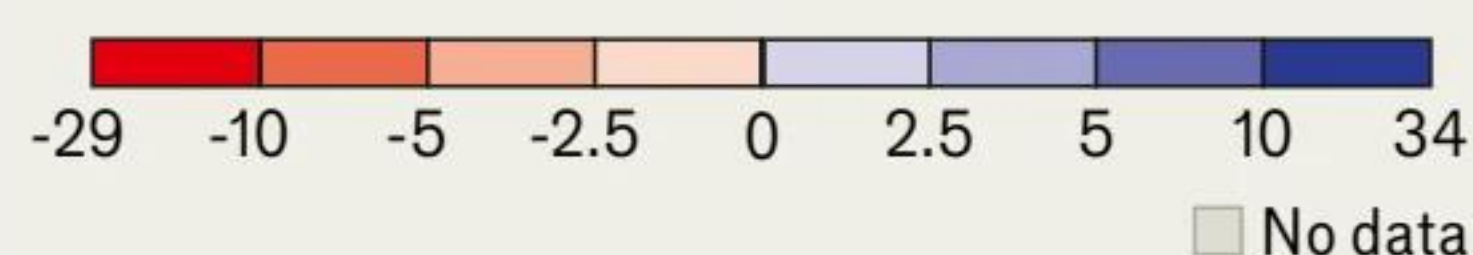
FEW PANDEMIC-ERA bets will have paid off quite as nicely as nabbing a house in a boomtown such as Atlanta, Austin or Miami with a two-point-something-per-cent mortgage rate—and holding on as its value soared in the subsequent years. People wanted sun, space and an escape from covid killjoys. These cities offered it.

Now, though, the good times are coming to an end. America’s housing market is flagging. Across the country, prices have drifted down in the first half of the year, with most cities seeing falls in the past three months (see chart 1). Tight monetary policy has kept interest rates high. And this is feeding through to the property market, just as President Donald Trump’s tariffs are chipping away at the economic growth that had been keeping sales strong.

Prices are still creeping up in the north-east and the mid-west, but the west and, in particular, the south are hurting (see map). Pity the homeowner in Dallas or Phoenix who bought last year. They are carrying a beefy mortgage rate of 7% or so and the value of their house is already down a few

## Going south

United States, house prices, % change, June 30th 2024–June 30th 2025



Source: Home Economics Research & Consulting

percentage points in nominal terms, or more after accounting for inflation.

Such cities face a number of difficulties. Fewer Americans are moving to the sunbelt than during the pandemic, when internal migration jumped (see chart 2). Mr Trump’s border crackdown may be making a difference, too, by reducing international arrivals. Housebuilding boomed in these cities when demand was high and rates were low. Although it has slowed, many covid-era constructions are only just hitting the market. Worse, public perception of the cities has changed. Austin and Miami failed to attract enough superstar firms when they were in favour; few tech bros today tout them as the new Silicon Valley.

For similar reasons, some of the worst-performing markets in the north-east are holiday towns. Prices are falling in Nantucket and Martha’s Vineyard and on the coast of Maine. Big-city suburbs, another pandemic winner, do seem to be faring better—whereas dialling into Zoom from the beach house doesn’t quite work, hybrid work schedules perhaps make adding 15 or 30 minutes to the commute viable.

The state that fares worst of all combines these trends and adds a few peculiar-

ities of its own. It is Florida, where prices have fallen by 4% in the past year. Aziz Sunderji, an independent analyst, points to high and rising home-insurance premiums owing to climate change (\$11,000 or so a year in Florida, versus \$2,400 nationwide). Other reasons are a sharp drop-off in demand from rich Canadians (a surprising number of whom flee cold winters to Florida) and expensive new safety rules that came in after a condominium in Surfside, a Miami suburb, collapsed in 2021.

What does the market say about America’s economy? Historically, housing has been one of the most interest-rate-sensitive sectors; buyers lever up to make purchases, and are less likely to do so when borrowing is expensive, dampening sales and construction. The industry both helps drive economic growth—housing employs lots of people and homes are a slug of families’ wealth—and is worth watching to see where the economy is heading.

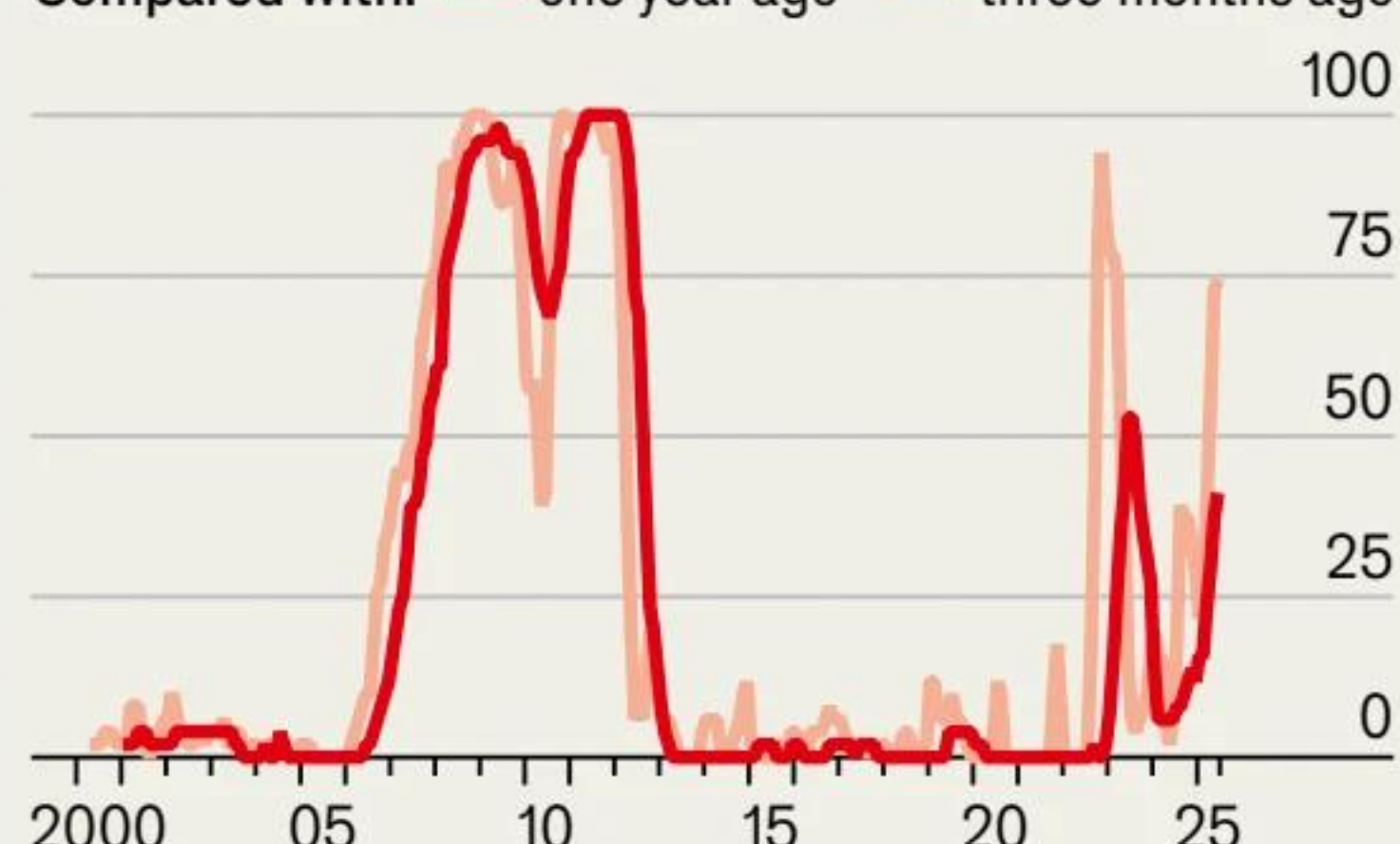
The current slowdown is partly deliberate: the Fed is keeping policy tight to squeeze out the last of America’s above-target inflation. Other parts of the economy are cooling, too: real private consumption and investment rose at an annualised rate of just 1.2% in the second quarter of 2025, having run at or above 2% for most of the past few years.

Yet relief for the housing market, in the form of much looser monetary policy, may not be on the horizon (even if the Fed does look likely to lower rates a bit in the months ahead). Tariffs have complicated the job for policymakers, as they may cause inflation to spike. At the same time, a colossal build-out of artificial-intelligence infrastructure, data centres and the like is helping buoy growth. Capital spending by the “magnificent seven” big technology companies now accounts for over 1% of GDP, and has near doubled in just a few years, according to Renaissance Macro Research, reducing the need to stimulate the economy. The past decade has been very kind to America’s homeowners. Perhaps aspiring buyers are due a break. ■

## Fall together

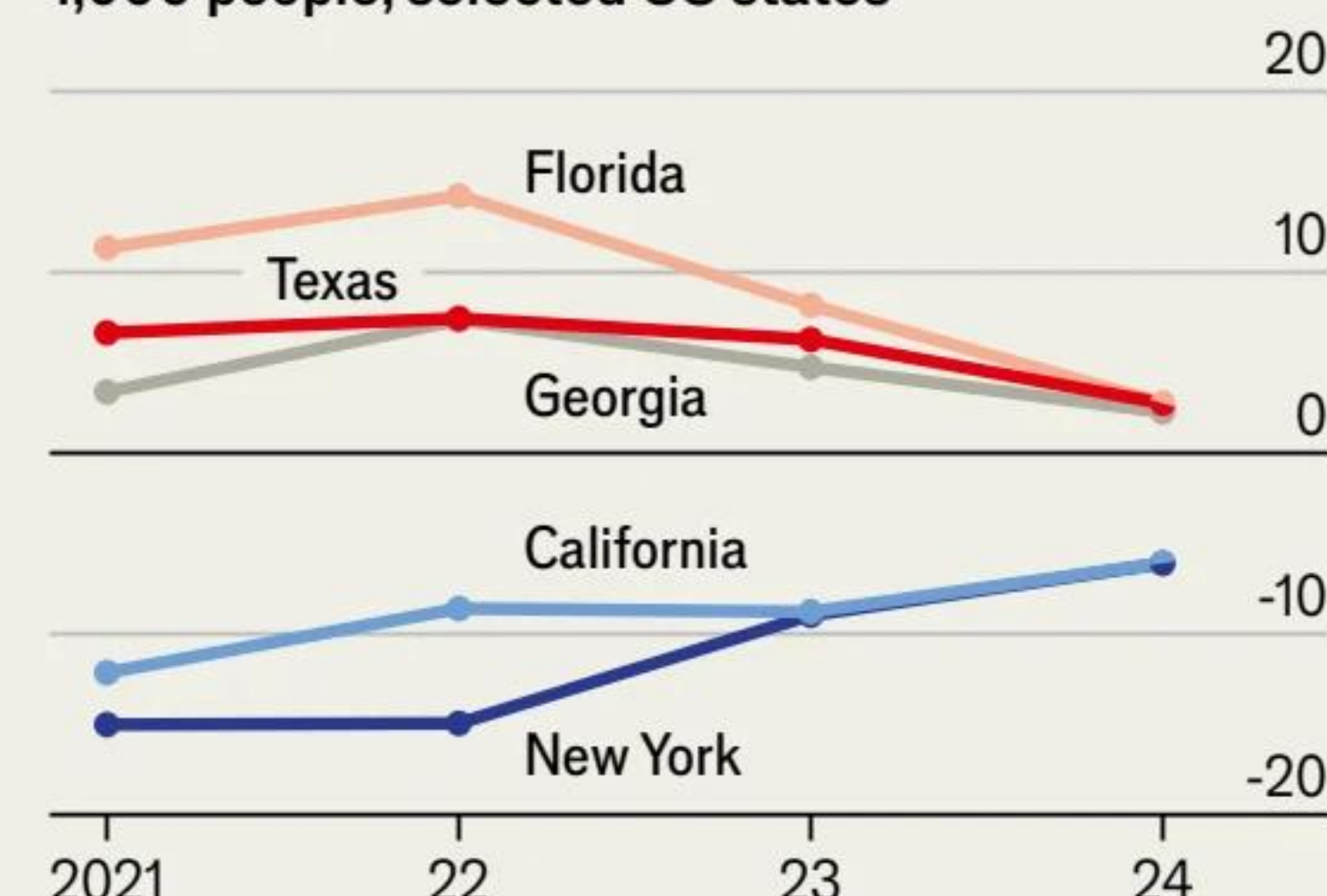
US, metro areas with falling average house prices\*, % of total

Compared with: — one year ago — three months ago



Sources: Census Bureau; Zillow; The Economist

Net domestic migration rate per 1,000 people, selected US states



\*Based on the 50 most populated areas



## Frothy markets

## At Orthanc's peak



## Palantir might be the most overvalued firm of all time

FOR A FEW days in March 2000, as the dotcom bubble neared bursting point, Cisco was the world's most valuable company. Now the seller of networking gear is a cautionary tale, even if it is also an enduring success, with real earnings per share of four and a half times what they were back then. Investors became so exuberant about the firm's prospects 25 years ago that they valued it at more than 200 times its annual profit, around \$1trn in today's money. Starting from a valuation that stratospheric, Cisco's solid-but-unspectacular growth was a bitter disappointment. Its market value is now \$280bn.

No one can accuse Palantir, a data-analysis outfit and the most searingly hot stock of 2025, of unspectacular growth. It reported revenue of \$1bn for the second quarter of this year, 48% higher than for the second quarter of 2024 and quadruple the figure for the same period in 2020. Silicon Valley types seek out companies satisfying the "rule of 40", meaning that the sum of their operating margin and year-on-year sales growth, both expressed in percentage points, is higher than 40. Palantir's score on that measure is 94: higher than any other enterprise-software firm with equivalent or greater sales. Among the world's 25 biggest companies by market value—of which Palantir is one—only Nvidia, with its near-monopoly on artificial-intelligence chips, scores higher.

Any investor would want a piece of that. The trouble is that Palantir's market value has already soared to \$430bn (see chart 1), more than 600 times its past year's earnings and nearly triple the equivalent multiple for Cisco (or, indeed, Nvidia) at its



Karping on

peak. Software firms often prefer to express their valuation in terms of underlying sales, which puts Palantir's multiple at around 120. For comparison, in 2005, the year before the Oxford English Dictionary added the verb "Google", Google's price-to-sales ratio peaked at 22.

You need not look far to explain why Adam Parker of Trivariate Research, an investment firm, has published a note entitled "Could Palantir be the best short idea?" Writing in late May, he examined the ratio of enterprise value (which adjusts market value to account for debt and cash on the balance-sheet) to forecast sales for the coming year. On this measure Palantir then scored 73 and now scores 104. Mr Parker looked for other listed companies that had hit a multiple of 70 since 2000. Excluding financial firms and those with annual revenue of less than \$50m, he found 14, the largest of which has a market value around a quarter of Palantir's. That was Strategy (formerly MicroStrategy), a firm that sells some software but pitches itself to investors as a "bitcoin treasury company", with a value derived from its cryptocurrency holdings rather than its sales.

Mr Parker also looked at the shareholder returns such companies have generated. He first lowered the bar to an enterprise-value-to-sales ratio of 30, since so few firms have ever hit Palantir's heights. He then measured their subsequent re-

turns after first hitting this level, relative to the S&P 500 index (see chart 2). A year after its multiple first hit 30, the median firm had underperformed the index by 22% and seen its multiple contract to 18.

What, then, would it take to make Palantir's shares worth buying? The firm helps everyone from spooks to fast-food chains analyse their data better and thereby improve their operations. Its blistering recent growth comes, in large part, from enthusiasm over adopting AI for such purposes. Palantir's competitive advantage derives not just from its software and clever engineers, but from a high-level security clearance allowing it to process classified information from America's defence and intelligence agencies. This gives it a "moat" with which to fend off competitors.

It will certainly need one. To reduce its price-to-sales valuation to "only" Google's at its peak in 2005, while maintaining its current share price, Palantir needs to multiply its revenue by 5.6—substantially more than the barnstorming progress it has made over the past five years. Doing this over the next five would require an annual growth rate above 40%.

Sustained revenue growth of that magnitude or more is possible, even at Palantir's scale: Google (now called Alphabet), Meta and Nvidia have all managed it. Yet none was priced to do so in advance—and they are, after all, among the most successful firms in history. On a call with analysts and investors after announcing Palantir's most recent results, Alex Karp, the chief executive (pictured), admitted that "this is a once in a generation, truly anomalous quarter." The remarkable thing is that shareholders need the company's revenue to continue to grow at a similar rate just to have a good chance of breaking even. There is no allowance for an upstart competitor, a scandal that makes clients wary or even a mere slowdown. If any of those strike, Cisco will need to make way for a new cautionary tale. ■

## Full of peril

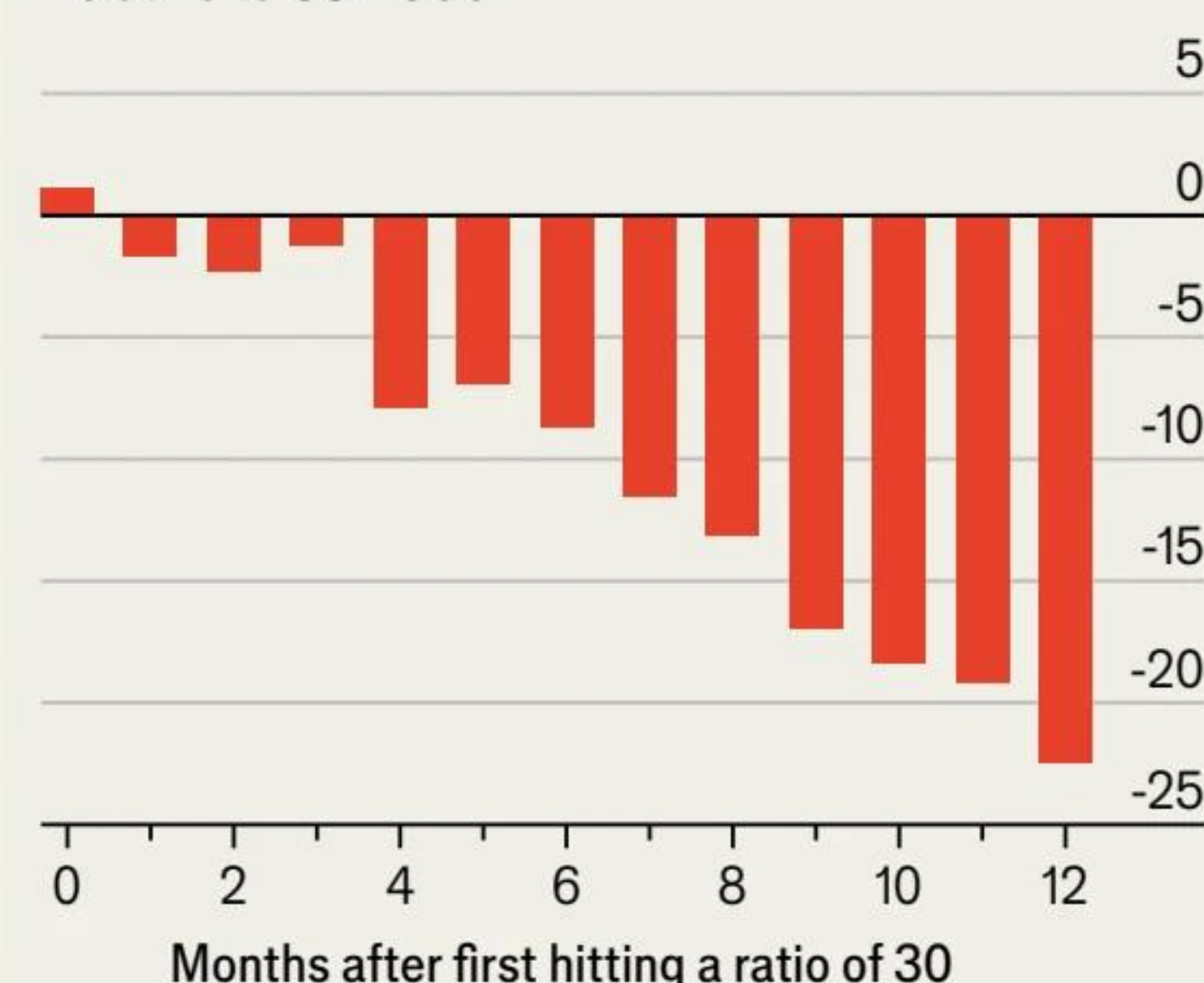
Palantir Technologies, market capitalisation, \$bn



Source: Bloomberg

## Adventures have an end

Mean subsequent return of stocks that hit an enterprise-value-to-sales ratio of 30, % Relative to S&P 500



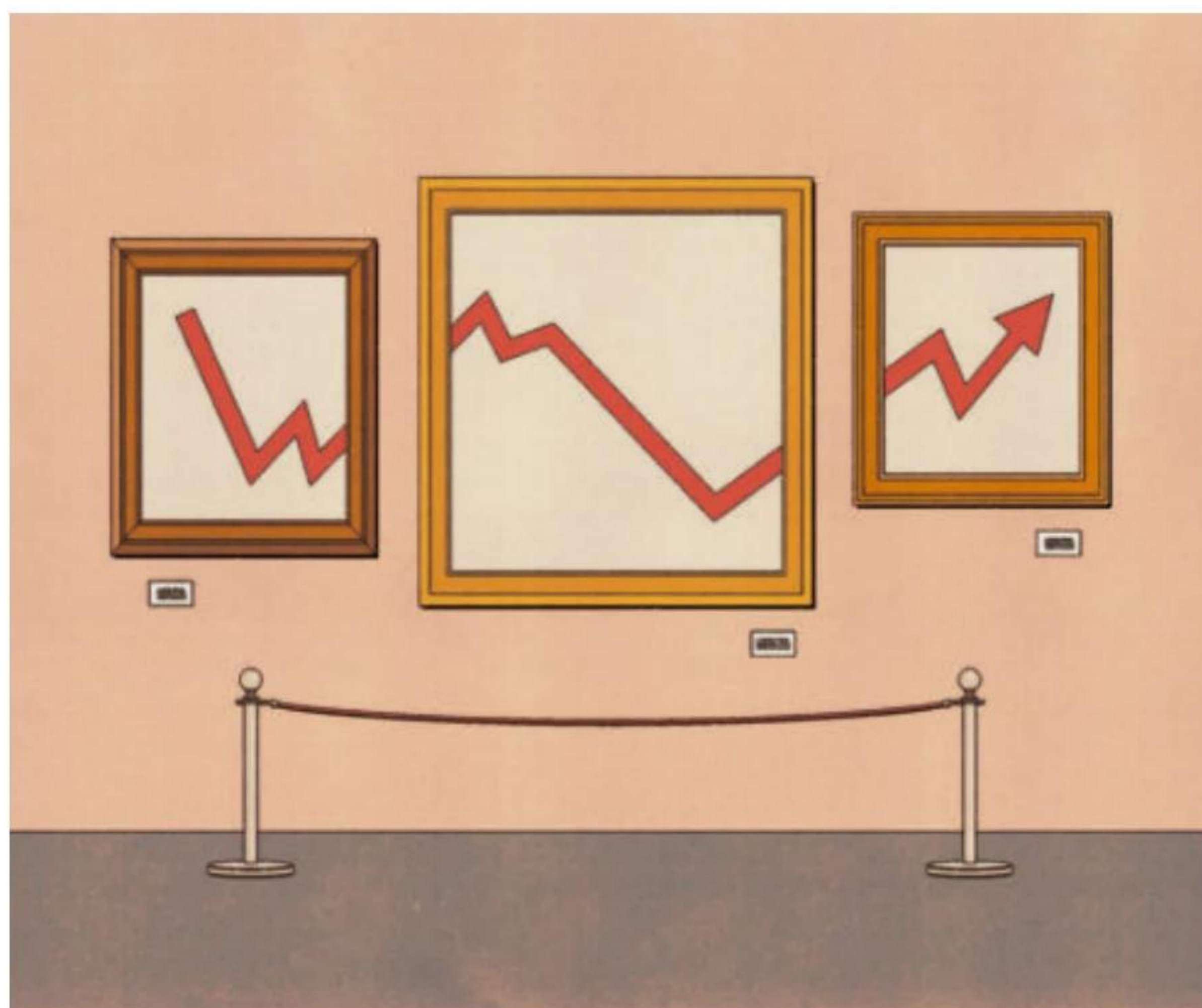
Source: Trivariate Research



# FREE EXCHANGE

## *State of the art*

*What 630,000 paintings say about the evolution of the world economy*



TWO FIGURES share a table, but not much companionship, in a Parisian café. The man looks distracted, a pipe gripped in his mouth. The woman, eyes down, shoulders slumped, nurses a glass of moss-green absinthe. The painting, unveiled by Edgar Degas in 1876, boasts several titles (“L’Absinthe”, “In a Café” and others). It also divides opinion. One viewer, appalled by the woman’s loose morning shoes and the thought of her soiled petticoats, saw the painting as a cautionary tale against idleness and “low vice”. He then changed his mind. “The picture is merely a work of art”, he later said, “and has nothing to do with drink or sociology.”

Great paintings can inspire entire volumes of interpretation. The ArtEmis project, which concluded in 2021, took a more concise approach. It recruited people to log their emotional responses to thousands of paintings in a digital archive. These “annotators” could choose one of eight feelings, each illustrated by an emoji. Based on this exercise and a later, bigger project called ArtELingo, complex works of art like Degas’s 1876 masterpiece can be succinctly summarised in a handful of numbers. When asked how L’Absinthe makes them feel, over three-fifths of people choose “sadness”. Almost a fifth choose amusement. About a tenth pick contentment (perhaps they appreciate roomy footwear). None chooses the other listed emotions: anger, awe, disgust, excitement or fear. A few pick a ninth, residual option: “something else”.

ArtEmis carried out polls for 80,000 or so paintings. The project also tried, with mixed success, to emulate human responses with artificial intelligence, training a model to predict how people might feel. A new paper, entitled “State of the Art”, by Clément Gorin of the Sorbonne School of Economics, Stephan Heblich of the University of Toronto and Yanos Zylberberg of the University of Bristol, tries to do the same. The authors trained a model on 70% of the paintings, and tested if it could predict poll results for other works. Once satisfied, they unleashed this automated aesthete on over 630,000 paintings from the 15th century onwards.

The trio describe the data as a “historical time series of emotions”, subscribing to a theory of art laid out by Tolstoy in 1898. He believed that artists could transmit feelings to an audience through their work, as if by contagion. “The stronger the infection,

the better is the art as art.” If paintings do communicate in this way, then, in principle, the steps of transmission can be retraced in the reverse direction, from audience back to origin. The emotional response of people today to an artwork of yesteryear tells you something about its creator and the world that shaped them.

Messrs Gorin, Heblich and Zylberberg show that painters have their own emotional signatures. Kandinsky tends to excite or amuse, Monet evokes contentment, Rembrandt sadness. If you simply know the artist, you can explain 40-50% of the variation in art’s emotional valence, the authors calculate. But that leaves a lot to be explained by other factors. There are, for example, small but systematic differences between countries in the impact of their art. Pick a random year and painting, and the chances that it will evoke contentment are 31-32% if it was produced in Denmark or Britain but only 26% if in Italy or Spain. These probabilities also respond to historical upheavals, such as the Spanish civil war.

Individual painters change over the course of their career. Evocations of fear increased in the later work of El Greco, a Greek painter who moved to Spain, perhaps because of the Counter-Reformation. Degas himself had ups as well as downs. About a quarter century after “L’Absinthe”, he produced another famous painting, “Blue Dancers”, depicting four ballerinas, yet to take the stage, their gleaming limbs and (unslumped) shoulders arrayed in striking diagonals across the canvas. When asked how this work made them feel, only one out of 20 people chose sadness.

Messrs Gorin, Heblich and Zylberberg wonder if shifts in an artist’s emotional repertoire can be linked to changes in their country’s economic circumstances. This is not straightforward. Look at a chart of GDP per person in almost any country over recent centuries and it tends to look like a “hockey stick that is more or less delayed”, Mr Zylberberg points out, whereas the output of a country’s artists is always far more crooked. The trio nonetheless find that economic growth was associated with changes in artists’ emotional mix. If GDP per person were to rise by 4% a year over 25 years, the chance that a given artist’s painting would convey sadness falls by 2.2 percentage points from 11% to 8.8%. The chance it would evoke contentment rises from 31.4% to 33%.

### Globalisation and its contents

The three authors also find suggestive correlations between artistic mood and economic openness. In the last three decades of the 19th century, for example, Britain’s trade with the rest of the world expanded briskly: imports grew from 28% of GDP to 48%. This kind of globalisation is associated with happier artwork, according to their calculations: a decline of 1.4 percentage points in the chances that a given artist’s work will evoke sadness, and a rise in the probability that it will convey contentment or even awe. This newspaper was established in the 19th century in the belief that free trade is good. It turns out it can also be awesome.

Art critics may object to the reduction of great paintings to emotional percentages, especially as most of the numbers are generated by a machine. None of the three economists claims any qualification in art history. But as it happens, Mr Zylberberg’s father was a professional painter. Deeply marked by the Holocaust, his early work evoked “fear and anger”, says his son. Towards the end of his career, his art “became more positive”. This data does not appear in the paper. It is nonetheless a poignant illustration of the thesis that art reflects society—and that shifts of feeling in an artist’s oeuvre can serve as an emotional index of the times. ■



## Science & technology



### Climate change (1)

## Points of no return

**Earth's climate is approaching irreversible tipping points. Working out how close they are is a challenging task**

**T**HE AMAZON rainforest is so big that it makes its own climate. As they photosynthesise and transpire, its billions of trees collectively produce enough moisture to form clouds. These, by some estimates, are responsible for at least a third of the rainforest's life-sustaining rainfall. But climate change is disrupting this circular process. The build-up of greenhouse gases in the atmosphere has raised regional temperatures, worsened droughts and increased the risk of fires. All kill trees.

Fewer trees means less rainfall, higher temperatures and yet more fires. Climate-change-induced deforestation therefore risks becoming self-perpetuating. And the more humans with chainsaws do to help things along, the sooner the dire day will come when the forest has shrunk so far

that nothing can be done to restore it. Much of the basin will turn into a dry savannah, and the tens of billions of tonnes of carbon dioxide stored there will be released into the atmosphere, further heating the planet.

"Amazon dieback", as this grim scenario is known, is just one example of what climate scientists refer to as a tipping point: a threshold beyond which self-sustaining processes irreversibly push a part of

Earth's climate system from one state into another. Those who study them think there are many other examples (see chart on next page). These include the breakdown of the vast Greenland ice sheet, which would raise global sea levels by more than seven metres, and the collapse of the Atlantic Meridional Overturning Circulation (AMOC), the powerful system of heat-distributing ocean currents that keeps northern Europe reasonably temperate. Should AMOC collapse, temperatures and rainfall levels could fall dramatically across Europe, greatly damaging the continent's ability to grow crops (see leader).

In the 20-odd years since this way of thinking about the climate became formalised, the scientists involved reckon they have arrived at a decent—though not perfect—understanding of which parts of the climate system are most vulnerable to tipping, and why. Now they, along with politicians and business leaders, are trying to answer other, increasingly pressing questions: how to tell if a tipping point is actually being crossed, for one, and how to prepare for the consequences if it is.

The exact level of warming required to trigger any specific tipping point is not ►►

#### → ALSO IN THIS SECTION

**66 How wildfires might cool the Arctic**

**66 Drones for whole-body recognition**

**67 Well informed: The risks of nightmares**



► clear. Earth's climate is governed by myriad interconnected processes, many of which—like the dynamics governing ice-sheet disintegration, or the potentially cooling effects of wildfires (see next story)—are only poorly understood. Others, such as the formation of light-reflecting clouds, occur at scales too small to be properly incorporated into planetary models. To further complicate things, one tipping point can trigger another, domino-style. The fresh water released into the oceans from a collapsing Greenland ice sheet, for example, would weaken AMOC, further reducing rainfall over the Amazon.

### Model muddle

Different models, therefore, rely on different approximations and make different projections of when tipping points will occur. Some models suggest, for instance, that the Greenland ice sheet could start to enter an irreversible decline once global temperatures are 0.8°C above pre-industrial levels—something that happened around the turn of the millennium. Others put the threshold at closer to 3°C—which might never be reached. Similarly, the Amazon's decline is projected to become unstoppable somewhere between 2°C and 6°C of warming, though it could be greatly hastened if humans keep cutting down or burning trees at current rates.

It may thus be possible to defer the Amazon's tipping point simply by reducing deforestation as much as possible. Averting others, though, depends on the bigger and more difficult task of limiting how much global temperatures rise. And, with the global average now 1.2°C above pre-industrial levels, and projected to breach 2°C by the end of the century, it is unclear how much time is left in which to do so. That makes it ever more important to get a

sense of whether any of these tipping points are already being crossed.

In order to help answer that question, Britain's Advanced Research and Invention Agency (ARIA) announced in February that it was going to fund systems that could produce and process the data needed for an "early warning system for tipping points". ARIA's initial five-year, £81m (\$109m) programme involves 26 teams focusing on two tipping points in particular: the breakdown of the Greenland ice sheet and the collapse of the subpolar gyre, a circulating current in the north Atlantic which helps power AMOC. If too much fresh water from melting ice flows into the gyre, it could be disrupted, increasing the odds of an AMOC collapse.

Kelly Hogan, a marine geophysicist at the British Antarctic Survey (which, despite its name, is functionally bipolar), is co-leading one of the teams focused on the Greenland ice sheet. They plan to use a fleet of small underwater drones to both map the shape of the ice face and measure properties such as salinity, temperature and the force of currents. These data will shed light on the way temperature and salinity change at the interface between ice and water—things scientists expect to influence melting. They will also deploy robots that can roam the surface of the ice taking measurements and drilled-in sensors for longer-term monitoring.

Other teams are following a similar logic. Oshen, a British startup, intends to deploy small, self-sailing robots with solar-powered sensors in the subpolar gyre, where they will measure such things as sea and air temperature and wind speed. Marble, another British company, is developing drones that can monitor the position and size of icebergs, the location of the glacier front and the height of the Green-

land ice sheet, three variables that are essential to accurately forecast melting.

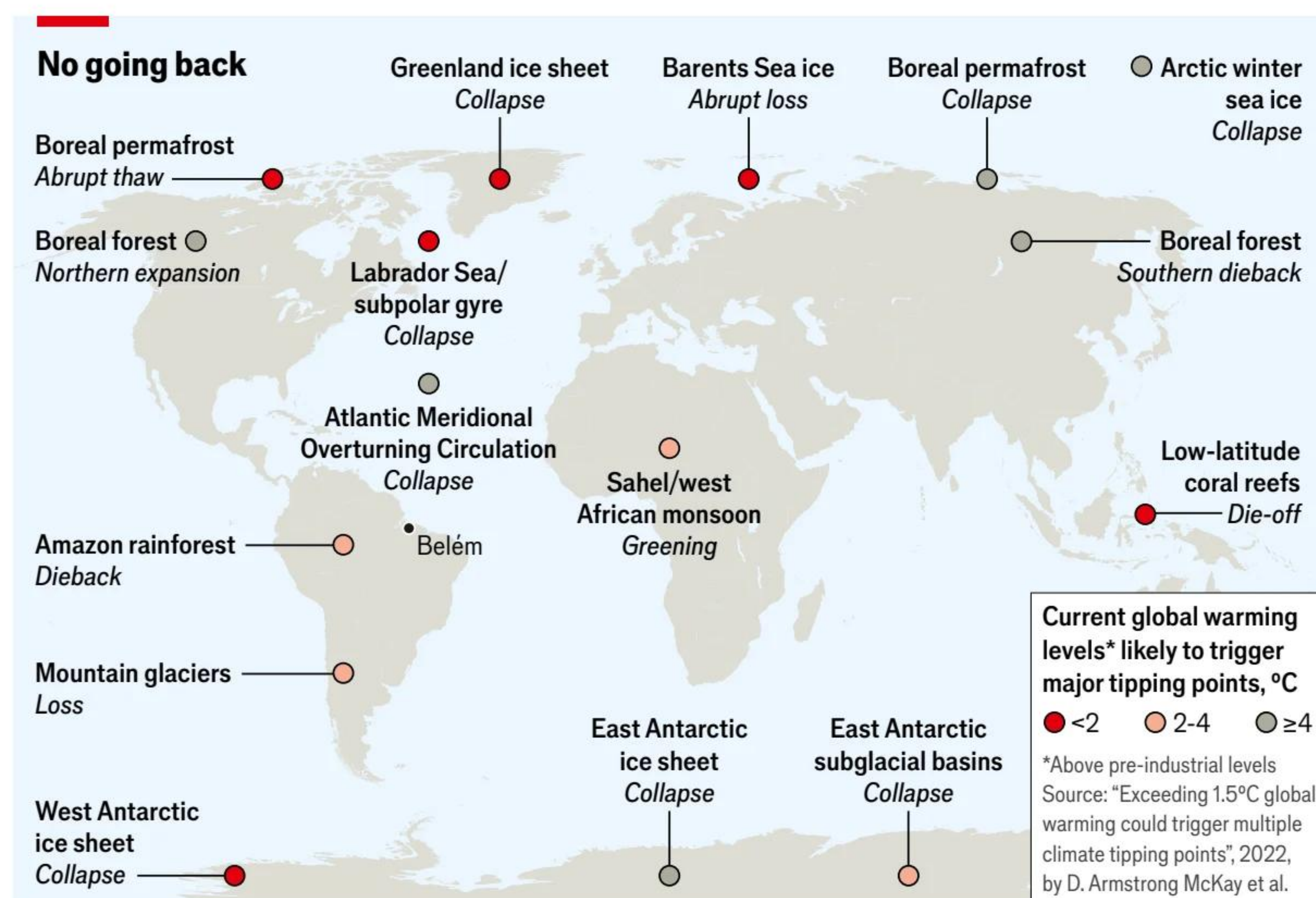
Both Oshen and Marble say their work is only possible because smartphone technology has made sensors and processing power cheap. Control systems that once required proprietary software can now be run using free, open-source code. And widespread 4G coverage means that data can be transferred quickly. "We're not inventing some new breakthrough laws in physics," says Mathieu Johnsson, Marble's CEO. "We're exploiting a lot of technologies that have been there for a little while...it's just that they haven't been put together in the right way." Meanwhile, several other ARIA-funded teams—including one led by Tim Lenton, a climate scientist at the University of Exeter and a pioneer of tipping-point research—are working out how these data might inform an early-warning system.

### What's next?

For all this to be useful, says Dr Lenton, policymakers need to think more about the consequences of tipping points being crossed, and how societies must prepare for them. Laurie Laybourn, who leads the Strategic Climate Risks Initiative, a British think-tank, agrees. "The mental model of the climate threat among key people—particularly in senior parts of government—has yet to catch up with the fact that the nature of the climate threat includes things like tipping points," he says. In his view, no government is considering scenarios like ice-sheet collapse with the seriousness afforded to other high-impact risks, such as pandemics. In fact, Mr Laybourn reckons, with the possible exception of the Nordic countries, most governments have not really been thinking about them at all.

For some, talk of tipping points is a harmful distraction. In 2024 an international group of well-known scientists published an article in *Nature Climate Change* arguing that a focus on tipping points diverted attention from the more general need for climate mitigation and adaptation, around which the science is much more certain. Others worry about fostering a sense of fatalism, by framing some catastrophic changes as unavoidable.

Regardless, the concept is slowly but steadily gaining ground. In July a big conference on tipping points in Exeter attracted actuaries, insurers and pension funds as well as scientists and activists. Emergency services and humanitarian organisations are showing increasing interest, too. And so are the Brazilian organisers of COP30, this year's United Nations climate summit, who are expected to place particular emphasis on the subject. The conference is being held in November in Belém, a city dubbed "the gateway to the Amazon". The setting could scarcely be more apt. ■





## Climate change (2)

## Fires that freeze

## Warming can sometimes cool things down

THERE ARE two things which climate scientists hate about “positive feedbacks”. One is that they are bad news. A positive feedback, in the science of complex systems, is an amplification; in climate change, this comes about when a consequence of rising temperatures drives a further rise in temperature. Such feedbacks are the sorts of things that drive tipping points (see previous article).

The other problem is that they sound like good news. Negative feedbacks face the opposite problem. In a negative feedback, which need not be harmful, a change in the system produces a response that pushes the system back towards where it was. Think of an air conditioner’s temperature setting or a radiator’s thermostat.

A recent analysis by Edward Blanchard-Wrigglesworth of the University of Washington and colleagues suggests that a much more important negative feedback may now be operating in the Arctic, one which could curb the region’s rapid temperature increase and markedly slow the decline in its sea ice. Indeed, it looks strong enough to have an effect on overall global average temperature.

This particular negative feedback is driven by the increasing frequency, size and intensity of wildfires in boreal forests. The climate models that scientists use to simulate warming over the coming century run on scenarios that assume these fires will

continue more or less as they did in the 2000s and early 2010s. Since then, though, they have become considerably larger.

Where there is fire, there is smoke. Some is sooty and dark; some is lighter. Dr Blanchard-Wrigglesworth and his colleagues think that the brighter, more reflective smoke wins out, cooling the ground below. Taking the fire-trend into account, they reckon that, in the 2030s, the extent of sea-ice cover in the Arctic ocean will be at least 3m square kilometres more than it would be in a fire-trend-free model. Without the fire trend, an ice-free Arctic September would be expected in 2050. Fires delay its onset by over a decade.

None of this says that the fires are a good thing, or that they will avert catastrophes elsewhere. Fires are a massive shock to ecosystems, and smoke which reflects sunlight also harms humans and other animals. Moreover, the carbon that fires release will warm the entire planet for some time to come. That is clearly bad news. ■

## Drones

## Eyes in the sky

## Aerial surveillance could become more intrusive than ever

FOR ALL the impressive tasks that drones can do, there is one that remains beyond their power: facial recognition. Drones are generally much farther from their subjects than the kind of cameras, such as CCTVs, that are ordinarily used for biometrics. At these distances a face may consist of only a few dozen pixels. Atmospheric turbulence caused, for example, by rising hot air, can distort features like the distance between one’s eyes. And because they record from the sky, drones’ on-board cameras may capture only a partial view of a face (or, if someone is wearing a wide-brimmed hat, none at all).

But new technology from a team at Michigan State University (MSU) seeks to change all that and extend the spying powers of artificial intelligence (AI) into the skies. The system, known as FarSight, suggests that long-range aerial surveillance could soon become far more accurate—and intrusive—than ever before.

The project is funded by the Intelligence Advanced Research Projects Activity (IARPA), part of the American government responsible for marshalling fanciful spy-gadget ideas into real-world use. Other current IARPA projects include an effort to build a device that can modulate a voice in real-time in order to avoid detection by speech-recognition tools, as well as

an initiative to make snooping devices small and pliable enough to be woven directly into clothing.

FarSight works with a similarly crafty technique known as “whole-body biometric recognition”. Rather than trying to recognise a subject from their face alone, the system uses a combination of biometric-recognition algorithms that run in parallel.

One set of algorithms discerns a person’s gait. Another generates a 3D reconstruction of their body. Xiaoming Liu, a professor of computer science and engineering at MSU who leads the project, likens it to essentially undressing subjects in order to generate an accurate model of their anatomy, regardless of what they happen to be wearing.

A third set of algorithms runs the subject’s face through a turbulence model that seeks to undo the refractive effects of the choppy air on the light that comes into the camera. This returns the image gathered by the drone to a simulated undistorted state, from which a detailed mapping of the subject’s features is then extracted.

Once captured, the three biometric markers—gait, body shape and face—are fused into a combined profile. This profile can be matched to those of known individuals or, if the target is new, saved for future matching. The entire operation happens in about a third of a second, says Dr Liu. His team is working to scale down the system so that it could fit on a quadcopter.

Though it is still an experimental system, FarSight’s early results are impressive. The National Institute of Standards and Technology (NIST), America’s standards body, which has been rating facial-recognition systems for more than a decade, tested FarSight on a set of tricky low-resolution images and videos collected at hundreds of metres, in many cases from a high angle. FarSight outperformed all other systems tested on the same set.

The project also illustrates how large vision models (LVMs), a variant of large language models, could be useful for surveillance. The MSU team used CLIP, a model made by OpenAI, to annotate images of thousands of subjects with textual descriptions—“Muscular-slender, long torso”, “Short torso”, “High-waisted”, “Low-waisted”—which it then used to train the body-shape reconstruction system. The gait-recognition feature is based on a different large vision model, called DINOv2, which was released last year by Meta.

Dr Liu says that LVMS could have even broader applications in the years ahead. This is because LVMS achieve high-performance recognition without requiring big training-data sets, which are difficult and expensive to produce. FarSight’s training and testing data, much of which were collected by Oak Ridge National Laboratory, a scientific-research facility, consists of



Much to reflect on



► 876,000 videos and photos of about 3,000 subjects. An LVM, by comparison, is already pre-trained on billions of images and videos, and may require only minimal fine-tuning before it can be used for surveillance-video analytics.

FarSight is not yet ready for the field. Although it outperforms other systems on long-range recognition, its accuracy, as well as its false-positive and false-negative rates, remain “far behind the performance that would be required to make the system deployable”, says Josef Kittler, a professor working on biometrics and computer vision at the University of Surrey, who was not involved in the research.

The system has other limitations, too. A person’s gait, for instance, can change drastically if they carry a heavy load or have suffered an injury, says Dr Kittler. In a second NIST test on a wider data set, FarSight was not the best performer. Dr Liu says that FarSight’s performance also drops considerably if the camera’s angle is very high, if the weather is warm (which causes fiercer turbulence) or if the distance to the target exceeds a kilometre.

Should these shortcomings be resolved, though, it is not hard to imagine how such a system might end up overhead. According to contracting documents, IARPA is looking to create a technology not only for drones but any high or distant camera, such as those mounted on tall buildings or border-surveillance towers. The agency has noted that the outcomes of the programme—which is known as BRIAR and has at least one other active research team, led by an American company called Science and Technology Research—are also intended for “protection of critical infrastructure and transportation facilities”.

“That implies its routine use on civilian populations,” says Jay Stanley at the American Civil Liberties Union, and “creates serious risks of abuse and chilling effects on people’s sense of freedom”. In cities like London or New York, where CCTV cameras are ubiquitous but not contiguous, whole-body recognition could help track individuals across long distances. Veritone, an American company, already markets a system that can match individuals according to such attributes as body shape and hairstyle. In May the company’s boss, Ryan Steelberg, told *MIT Technology Review*, a magazine, that the tool could be useful in cities where facial recognition is banned.

Those who take matters of privacy into their own hands might also find their personal powers of evasion diminished in the face of whole-body biometrics. Someone wishing to evade a tool like FarSight could no longer just rely on an outfit change or a big hat. They would also need to adjust their gait and, somehow, present a different body shape to cameras. In other words, Dr Liu says, “the whole enchilada”. ■

## Well informed

# Are nightmares bad for your health?

If you have them often, the answer seems to be yes

NIGHT HAGS and night mares. Succubi and incubi. Sleep has long been a demon-haunted world. In olden days such visitations were thought to drain the dreamer of life-energy and, though modern science has no truck with actual demons, the fear that bad dreams somehow sap a dreamer’s health has not vanished. Instead, it has been confirmed.

Almost everyone has nightmares. But it is among those who have them weekly—somewhere between 2% and 6% of the population—that connections with ill-health seem to arise.

Some links are to be expected. Depression, anxiety, schizophrenia and post-traumatic stress disorder, for example, all have nightmares as a common symptom. The same goes for chronic pain. But other connections are more mysterious. Research by Abidemi Otaiku, now at Imperial College London, suggests that nightmares may warn of neurological illnesses, such as Parkinson’s disease and dementia. And other groups have shown that other conditions including cardiovascular problems and autoimmune diseases like lupus, seem linked to nightmares, too.

Worst of all, nightmares may kill. Dr Otaiku’s most recent work, presented in June at a conference in Helsinki, shows that frequent nightmares are stronger predictors of early death than smoking,

obesity, poor diet or sloth.

Dr Otaiku reached this conclusion by analysing six long-term studies from America and Britain, involving more than 180,000 adults and almost 2,500 children. Those with frequent (at least weekly) nightmares were three times more likely to die before the age of 70 than those who had them less than once a month. Out of 174 people who died prematurely, 31 had frequent nightmares.

Part of the explanation is his finding that the chromosomes of the nightmare-prone show signs of accelerated ageing, perhaps brought about by the stress hormones nightmares are known to promote. These chromosomal effects, he reckons, are responsible for about 40% of the increased risk of premature death in those prone to nightmares. Where the other 60% comes from is unknown.

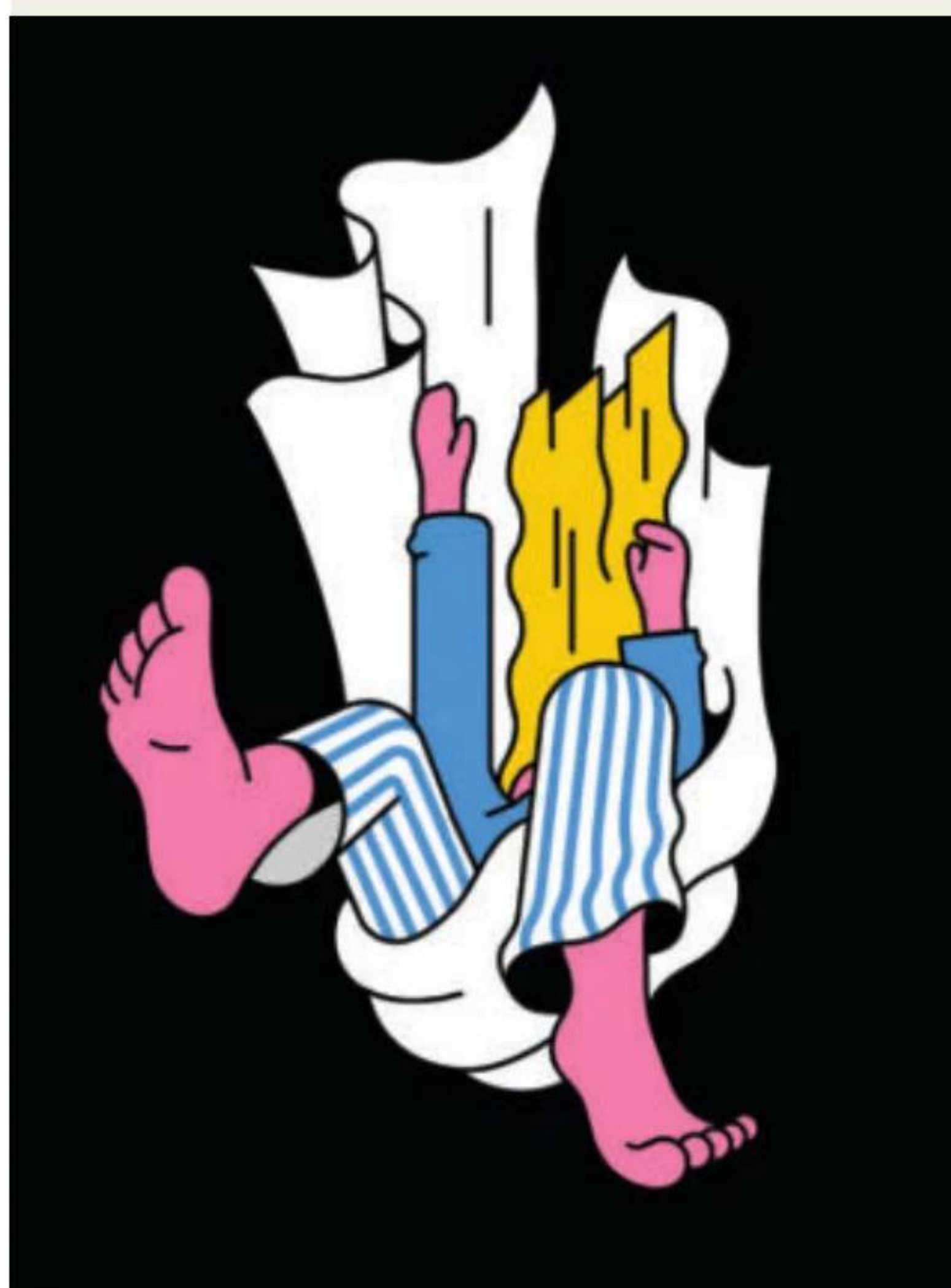
All of which suggests paying attention to nightmares is a good idea. Where they are a symptom, they can warn of trouble ahead. And where they are a cause, treatments to reduce nightmares can be undertaken as a priority.

That is not to say the two are always easy to distinguish. In the cases of depression, anxiety and so on, nightmares are both symptom and cause. Bad dreams triggered by psychiatric disturbance induce stress that reinforces the underlying problem.

Something similar is probably also true of lupus, in which the immune system attacks healthy organs, including the brain, promoting inflammation. That may well trigger nightmares, with any stress hormones released as a consequence then likely to make things worse.

In conditions such as Parkinson’s and dementia, though, which are the results of specific types of neurological damage, nightmares are unlikely to be anything other than symptomatic. By contrast, for cardiovascular problems they are probably causes, not consequences. The stress they create will encourage blood-vessel-damaging inflammation.

Treating nightmares is harder than spotting them. Psychotherapy may help some. And certain drugs, such as prazosin (ordinarily used to treat high blood pressure), may assist. But the study of nightmares remains an underexplored field of medicine. That needs to change.





## Culture



### Ancient cities

## What lies beneath

POMPEII

The largest excavation in a lifetime is under way in Pompeii

**W**AS HE HER lover? The two skeletons, male and female, were clearly physically close when they died: she on a bed, he on the floor. Archaeology offers other hints. She seems to have been richer (or at least was carrying gold); they spent their last hours together (debris trapped them in the room); those hours were terrible (he, his injuries show, died first). Archaeology offers one final clue: their ages. She was in her 30s or 40s; he in his teens or early 20s. Perhaps they were lovers, or mother and child, or total strangers. Even at the distance of 2,000 years you find yourself hoping she did not watch her own son die.

Welcome to Pompeii. This is the ancient city both as you have seen it before—graffiti, frescoes, tiles, toilets and some highly enviable terrazzo—and as you have never seen it before. The largest dig in 70 years is under way: 3,200 square metres have been uncovered and innumerable tonnes of soil, rubble and pumice have

been moved. In them are, so far, three houses, a bathhouse, a fresco that looks so like a pizza that archaeologists call it the “not-pizza” fresco, five human skeletons and, this being Pompeii, lots of phalluses.

The dig feels faintly surprising, less for what is being found (little has been able to surprise archaeologists since Pompeii’s infamous god-having-sex-with-a-goat statue was unearthed in 1752) than that there is anything left to be found at all. Pompeii feels so familiar: it has appeared in films

(“POMPEII” in 2014) and fiction (Robert Harris’s “POMPEII”) and non-fiction (Mary Beard’s—guess what—“POMPEII”).

In the three-odd centuries since excavations began, it has been used—and, critics say, abused—by almost every generation. It has been used as a stone quarry (nice stones) and a classical one (nice statues). It has been held up as a parable of sexual liberty (its frescoes); sexual immorality (that goat) and debauchery (ditto). It has been seen as a paradigm of civilisation (its plumbing) and barbarism (its slavery).

Every generation has offered a reaction: Christians tutted at it; Mussolini had dinner in it; Professor Beard metaphorically winked at it. It is often called a “lost city” but few cities have had such exposure per square metre. Its art is found on fridge magnets and its mosaics made into doormats. The city has been recast as a souvenir. So much of Pompeii is known that it is easy to forget how much is not known: one-third of Pompeii is still unexcavated.

That is obvious once you look closely. Walk through the popular bits of Pompeii—past the theatre, amphitheatre and brothel—and keep going and you will find yourself in quieter streets with fewer people and more pigeons. There are shopfronts here too, but their windows open onto a wall of earth: nothing seems to be behind them. These are the undug streets. ►►

#### → ALSO IN THIS SECTION

69 Luis Walter Alvarez

70 Not-so private chefs

71 New York in the 1980s

71 The need for 2x speed

72 Reinterpreting “The Crucible”



But, after an injection of EU cash, archaeologists started digging in 2023. The dig is “complicated”, says Gabriel Zuchtriegel, the director of the site and author of *The Buried City*, a recent book. If you were to add an archaeologist to your novel, you would add Dr Zuchtriegel: German, handsome, he is fluent in three languages and mildly forbidding in all of them. (To cheer himself up, he reads the New Testament in ancient Greek.) Ask him his feelings on uncovering this stuff and he says “nothing”: you are just “so concentrated”. The epigraph of his book comes from Herman Melville’s diary: “Pompeii like any other town. Same old humanity. All the same whether one be dead or alive.”

To call this a “dig” is to underplay the speed of it. Pompeii offers some of the finest archaeology in the world; it also offers some of the fastest. When Vesuvius erupted in 79AD, sending a cloud of ash 32km into the sky and surprising the locals—who not only did not know that Vesuvius was a volcano, but had no word for “volcano”—what fell on Pompeii was not lava but pumice stones, so light that locals, as Pliny the Younger, a Roman writer watching from a nearby villa noted, “tied pillows over their heads...for protection”.

The stones kept falling at a rate of 15cm an hour. In three hours, they reached people’s knees; in six, the height of a toddler. Most people fled—perhaps 90% escaped. Those who sheltered and stayed became, like the skeletons in the house, trapped. Their room, says Sophie Hay, an archaeologist, “became their tomb”. Walls started to collapse under the weight (one killed the young man). Then the volcanic cloud collapsed and a wave of superheated pumice, gas and ash raced, at speeds of 100kph and temperatures of over 200°C, down the slope. In Pompeii, people suffocated. In Herculaneum, people’s brains boiled.

It is hard to imagine a more appalling end—or, for archaeologists, a better one. The grains of pumice beneath were so light and dry that they protected all they fell on; so easy to remove that archaeologists, says Dr Hay, call it “Amazon packaging material”. You less excavate Pompeii than unbox it, brushing grey, frozen-foam crumbs of pumice from a fresco here and shovelling it out of a swimming pool there. In days columns start to emerge, inverse Excaliburs, from a slowly sinking lake of grey.

The problem with Pompeii is not getting stuff out: it is keeping it upright once you have. The same pumice-pyroclastic one-two that caught bodies as if in freeze-

frame—this one clawing at a throat, or that little boy writhing—caught buildings in the same way. A shattered column or wall mid-fall can be wholly held up by pumice. Take it away and, like a game of giant Jenga, the whole thing might fall. A cat’s cradle of scaffolding winds its way around the walls (see picture on previous page). Dr Zuchtriegel likens digging to performing “a complicated operation”.

It has been worth it, as what has been found is breathtaking. That is partly because, like so much else in Pompeii, it is untouched by time and partly because, like very little else in Pompeii, it is untouched by archaeologists. Pompeii’s relics have suffered as much from enthusiasts as eruptions. The Bourbons plundered Pompeii (you can still see the holes, cut as if by giant mice, in the walls). Napoleon’s sister, Caroline, planned, with Napoleonic efficiency, to uncover it all in three years. Everyone has stolen from it.

### Buried treasure

The new excavations, by contrast, are pristine. A bathhouse has such perfect curved steps on its plunge pool you could imagine slipping into it today. A nearby wall is painted with such rich pigment you might find it on a Farrow & Ball colour chart (“Cataclysmic Ochre”). Many of the houses are mid-refurbishment. In one, roof tiles sit stacked, ready, on the floor; a builder’s plaster-splashed bucket waits by a wall. Archaeologists play a game—a Roman Rightmove—of which house is nicest: the not-pizza-fresco one? The baths one?

It is a bit of fun. But there is a ghoulish guiltiness to ogling Pompeii. Posterity accuses the Bourbons of “collector syndrome”—the urge to acquire antiquity. But, Dr Zuchtriegel suggests, tourists are guilty of it too, acquiring experiences as greedily as Bourbons snatched artefacts. Millions visit each year, sweating across its forum, smirking in the brothel where the audio guide tells you about “la vie sexuelle de Pompéi” in nine languages. Dr Zuchtriegel has limited the daily number of visits to 20,000, down from 36,000.

He would prefer people not to tick off lists but to look at one thing, carefully. Which thing? He shows a favourite: in a small house there are little charcoal drawings of some gladiators. When they first uncovered this last year, they thought it might have been a stylised adult’s drawing. Then they dug further and found that the artist had, in their way, autographed it, drawing round their own hand in charcoal. To judge from the size of the hand, the artist must have been six or seven. When they see it, everyone does the same thing, Dr Zuchtriegel says: they stretch out their own hand to hold it over where the Pompeian child put theirs. Same old humanity, whether one be dead or alive. ■

Luis Walter Alvarez

## On the case

**Collisions.** By Alec Nevala-Lee. W.W. Norton; 352 pages; \$31.99 and £23.99

LUIS WALTER ALVAREZ’S career was marked by two explosions. The first was one the physicist enabled: a plutonium bomb, whose design he oversaw, destroyed the Japanese city of Nagasaki in August 1945. The second was one he theorised: the terrestrial impact 65m years ago of an asteroid sufficiently powerful to drive the dinosaurs to extinction. It may be for the asteroid theory—developed alongside his son and widely accepted after his death—that Alvarez is best remembered, rather than his groundbreaking contributions to the Manhattan Project.

Yet, as a new biography by Alec Nevala-Lee shows, Alvarez’s scientific contributions extended far beyond even those two projects. He developed airborne radars that are sometimes credited with winning the second world war, as well as enabling the Berlin airlift. His work on particle physics won him the Nobel prize in 1968.

Mr Nevala-Lee calls Alvarez “the world’s foremost scientific detective”. (The author’s previous book was about Buckminster Fuller, another polymath.) The list of mysteries on which Alvarez consulted would have raised even Sherlock Holmes’s eyebrows. Alvarez investigated the assassination of John F. Kennedy, looked into unidentified flying objects and searched the pyramids of Giza for hidden chambers. ►►



Could turn a hand to anything

### ➔ More online

To see more photographs of the latest excavations in Pompeii, go to [economist.com/pompeii-dig](https://www.economist.com/pompeii-dig)



► His interest in science developed early, in part because both his father and paternal grandfather, an immigrant from Spain, were doctors. A bright student—so unlikely to make mistakes that he completed his maths exams in pen, not pencil—he graduated from high school at 17 and enrolled at the University of Chicago in 1928. Alvarez's arrival could not have been better timed. Nuclear physicists in those decades were the first to set foot on a new scientific continent: any experiment might yield a Nobel-prizewinning discovery. Moving fast and fearlessly was the only way to build a reputation, even if it meant exposure to dangerously high doses of radiation. Alvarez never stopped getting his hands dirty.

His combination of ambition, intellect and self-belief meant he was not always easy to get along with. One early collaborator described him as a “little fascist”; another deplored his manner of treating colleagues as servants. Frustrated by his frosty reception among palaeontologists, he dismissed them as stamp-collectors rather than real scientists. Alvarez's dedication to his work also strained his relationship with his first wife, Geraldine, a brilliant mind herself.

Most notably, he clashed with J. Robert Oppenheimer, the scientific director of the Manhattan Project, whose alleged communist sympathies led to a hearing and the revocation of his national-security clearance in 1954. Alvarez was one of Oppenheimer's most persistent critics, which Mr Nevala-Lee attributes to Oppenheimer's post-war change of heart with regards to the use of atomic energy for war. (Alvarez considered the development of a thermonuclear bomb to be a national priority.) Whatever his motivations, there is little doubt that Alvarez's testimony helped him make friendships with powerful figures in Washington that would subsequently benefit his career.

Unsurprisingly, Alvarez was particularly proud of his Nobel prize, awarded for his work designing a new generation of bubble chambers: giant vats of liquid hydrogen in which the paths of individual particles could be observed and photographed. No less noteworthy to Alvarez was the fact that his award citation was the longest ever for a Nobel prize in physics. (The record would not be broken until 2013.)

In a fast-moving career spent pushing the boundaries of what was known and what was possible, it is remarkable how rigorously Alvarez vetted his own reasoning. That tendency to look for trouble, inculcated by a university instructor who encouraged students to secretly interfere with each other's experimental set-ups, saved him from embarrassment on multiple occasions. In an age where people are all too prone to believing what they wish to be true, rather than challenging their own assumptions, it may also be the most important lesson his example can offer. ■



World in a dish

## How the 0.1% eat

Private chefs on TikTok are spilling the culinary secrets of the super-rich

“MY CELEBRITY CLIENT wants a \$2,000 pizza,” Brooke Baevsky (pictured), a private chef, tells the camera. How do you prepare such a pie? Add lashings of caviar, organic figs and manuka honey, then dust everything with 24-carat gold flakes, which are tasteless in both senses of the word.

The pizza was the appetiser for a posh dinner party in Los Angeles. Ms Baevsky—who says she cooks for royalty, sports stars and actors—made sure to record herself serving the pizza, lest anyone think it was satire. Known online as Chef Bae, she is part of a batch of private chefs offering their followers a chance to ogle opulence.

Private chefs serve up their recipes with a side of celebrity intrigue. They give fans tours of gargantuan fridges and record trips to fancy food shops such as Erewhon and Citarella. Ms Baevsky says a client spent \$20,000 to send her across the world to fetch some favourite chocolate and nuts. Emily Ruybal serves four-course menus on yachts in the Bahamas. All this draws in viewers: the hashtag #privatechef has been viewed some 5bn times on TikTok.

In the summer many private chefs head to the Hamptons, an upscale coastal resort near New York. Private chefs such as Meredith Hayden, whose username is @wishbonekitchen, have gone viral for video diaries of 17-hour catering shifts. According to TikTok the “Hamptons aesthetic”, a style of decor inspired by the luxurious beach

houses, is one of the trends of the moment.

Menus in the Hamptons typically involve salad leaves rather than gold ones, harvested by hand from immaculate vegetable gardens. As Jill Donenfeld, co-founder of The Culinistas, an American private-chef agency, puts it, clients not only seek “caviar and lobster” but also simple “farm-fresh ingredients”. The firm's most popular dish is its “burrata bar”, in which the creamy cheese is heaped with toppings such as prosciutto, peaches and pistachios. Some clients ask chefs to make the dishes served at their favourite restaurants.

The industry has benefited from its viral moment. The Culinistas says business in the Hamptons this summer is up by 40% from the year before. (It costs around \$50,000 to hire one of its chefs for the season.) The rich and famous are seeking out chefs they see on their Instagram feeds. In turn, private cheffing—a career long seen as inferior to *chefs de cuisine*—is being taken more seriously by culinarians.

Yet not much is private about TikTok's private chefs. In a business that often demands discretion, Ms Baevsky notes how “fun” it is to make videos with Hollywood clients such as Emma Roberts and Sarah Michelle Gellar. Some chefs are now celebrities themselves. Ms Hayden's “The Wishbone Kitchen Cookbook” is a bestseller. She has quit the long shifts and bought her own house in the Hamptons. Perhaps, in time, she will hire a private chef. ■



## American cities

## Donnie, Rudy, Al and the gang

**The Gods of New York.** By Jonathan Mahler.  
Random House; 464 pages; \$32. Hutchinson  
Heinemann; £25

MIKE BLOOMBERG once mused that New York was “a luxury product”. The former mayor meant that businesses—and, by extension, their staff—should be willing to tolerate higher costs in exchange for the advantages of living in a megacity. But many voters crave Manhattan buzz at Midwestern prices. This is one reason why New York’s Democrats recently backed a young, charismatic, far-left mayoral candidate, Zohran Mamdani, whose plans to ease the cost of living (such as a rent freeze) would surely make things worse (by discouraging new construction).

Because New York has been tolerably well run since the 1990s, some New Yorkers have forgotten how much damage a dysfunctional city government can do. New York nearly went bankrupt in 1975, after decades of financial mismanagement. By the early 1980s crime and homelessness were visibly out of control. “Squeegee men” menaced motorists while purporting to clean their windscreens. Vandals and graffiti artists despoiled public spaces unchecked. The police were inept and sometimes corrupt. Between 1986 and 1989 an average of 1,760 people were murdered each year: nearly five times as many as were killed in 2024. AIDS, crack, racial tension, welfare fraud and cronyism added to the sense of chaos. Yet in “The Gods of New York”, Jonathan Mahler—a writer for *New York Times Magazine* and author of “Ladies and Gentlemen, the Bronx Is Burning”—argues that “luxury” New York was born in those four turbulent years.

Part of the pleasure of this book, especially for readers too young to remember the late 1980s, is that it chronicles a time when several important American political figures first strode onto the public stage. Here is Donald Trump, suing everyone, puffing out clouds of bluster and braggadocio, wildly overspending on his Atlantic City casinos and taking up with Marla Maples while still married to Ivana.

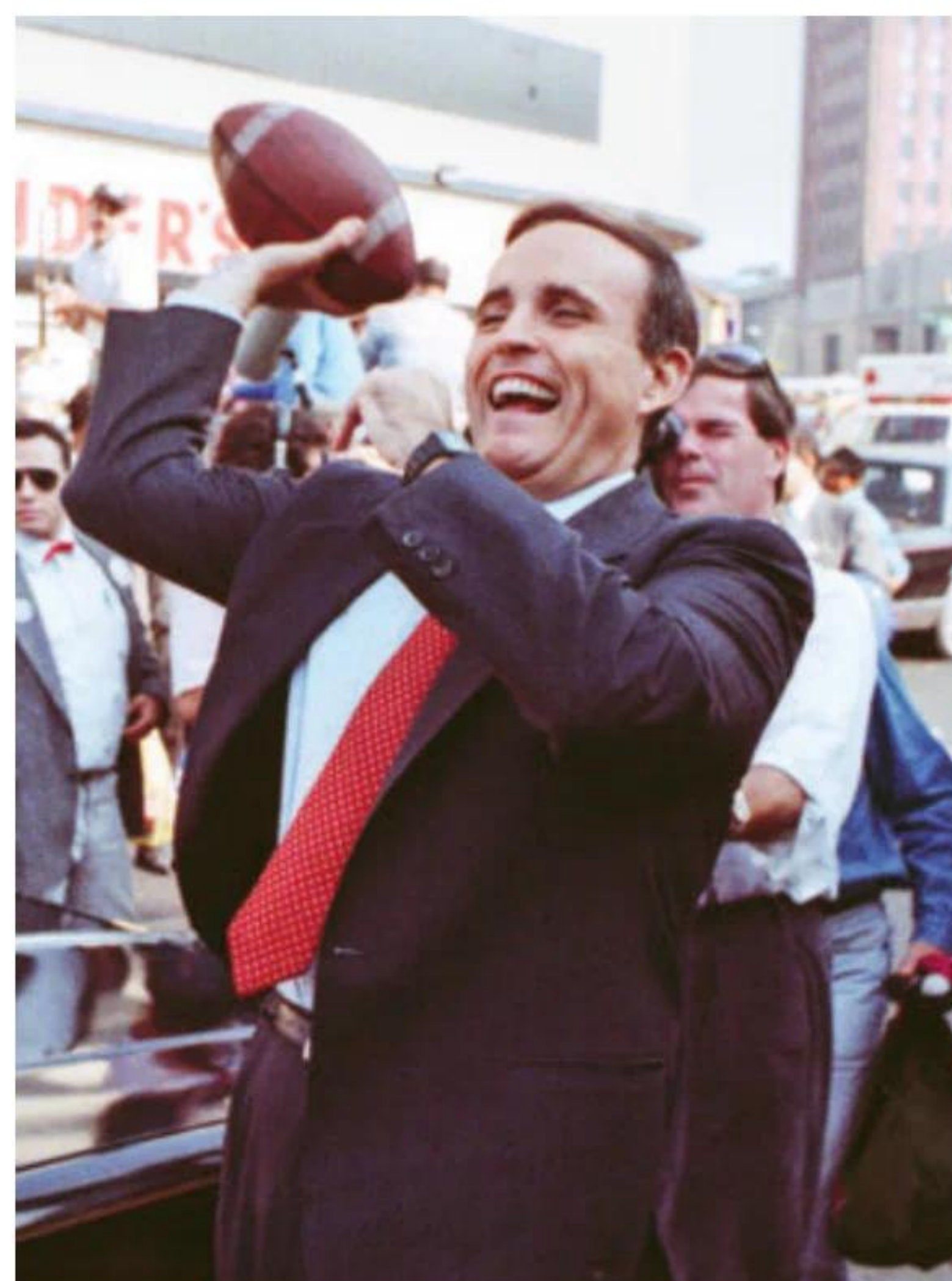
There is Al Sharpton, a rabble-rouser leading street protests—a rather different figure from the slender, sober-suited version who appears on network TV today. Here is Rudy Giuliani (pictured), with “the demeanour of an undertaker and the verbosity of a lawyer”, as one columnist wrote, making his first failed run for mayor. And

an ambitious young medical bureaucrat named Anthony Fauci faces withering criticism from gay activists for what they see as his too-cautious response to the spread of AIDS. (Readers may wonder whether the long lockdowns he recommended during covid-19 were an overcorrection.)

Mr Mahler paints a portrait of a city facing multiple crises. AIDS was at first not just a death sentence but also a terrifying mystery, as healthy young men swiftly sickened and died. New York accounted for one-third of America’s recorded AIDS deaths by March 1987, and the city’s response was woefully inadequate, with too few beds and tests, and public nursing homes that would turn infected patients away, for fear of contamination. New York’s efforts to deal with homelessness were similarly flat-footed.

Race relations were dire. Black men were murdered for setting foot in white enclaves of Brooklyn and Queens. Five black and Latino teenage boys were falsely convicted of beating and raping a jogger in Central Park; Mr Trump took out newspaper adverts urging New York to bring back capital punishment. In 1984 a vigilante was acquitted of attempted murder after shooting four black teenagers who he thought were about to mug him—and became a folk hero to many white New Yorkers.

Presiding over the chaos was Ed Koch, first elected mayor of New York in 1977. Querulous, combative and tireless, he said he wanted to be “mayor for life”. Mr Mahler recounts his political demise. He was an avatar of an older New York—more working-class, with political control wielded by “white ethnics” (largely Italian, Irish and Jewish Americans)—and he failed to understand or respond to a changing city. Elected for a third term in 1985, he would lose the Democratic primary in 1989 to Da-



Making his play for office

vid Dinkins, the staid and courtly Manhattan borough president who would go on to become New York’s first black mayor.

The city’s economic engine also changed in this period; the industrial base was gone, and Wall Street’s boom in the 1980s presaged the rise of FIRE—finance, insurance and real estate—that would drive the city’s remarkable growth through the 1990s and beyond. As the crack epidemic ebbed, and as policing improved when Mr Giuliani was mayor (1994–2001), New York grew safer and more desirable. Rents soared as people flocked in.

Mr Mahler’s book is skilfully constructed and vividly written. The author avoids the longtime New Yorker’s trap of nostalgia. As with all great cities, things are always dying and being reborn: anyone who wants placidity is free to catch a flight to Bruges or Santorini. ■

## Digital media

## The need for 2x speed

Young people want audiobooks, podcasts and videos to go faster

GLEN POWELL, a Hollywood heart-throb, likes 1x listening speed: “I want to hear people talk at a normal human rate.” Bowen Yang, an American comedian, prefers his narration fast and loose—“You can round up to 2x”—though he reckons 1.8x is the perfect “Goldilocks” pace.

Both men appeared in an advert by Audible, an audiobook platform, earlier this year, which featured various celebrities talking about the speed at which they listen to their chosen titles. It provoked fierce debate online for implying that those who make haste are weird, even psychopathic. “I listened [to] your judgmental ad on 2x speed,” one TikTok user said. Some claimed to feel “shamed” by the advert and threatened to cancel their subscriptions.

The online brouhaha points to the changing way in which audiences, particularly young ones, engage with digital media. Polling by *The Economist* and YouGov found that 31% of Americans between the ages of 18 and 29 listen to audio at playback speeds faster than 1x, compared with 8% of people aged 45 and over.

Both Apple and Spotify offer users the option to dash through podcasts. Many newspapers—including this one—offer audio versions of their articles at a variety of tempos. Netflix has a button to switch up videos’ speed in its web pages and apps. YouTube has a similar feature and recently rolled out a 4x option for its premium subscribers, apparently by popular demand. ►►



► The time-saving benefits can be enormous: YouTube claims that its viewers collectively save more than 900 years per day thanks to its fast-playback feature. If you had a ten-hour journey, you could listen to “Persuasion” in eight hours and 13 minutes at 1x speed. But, if you clicked 1.5x, you’d hear all about Anne Elliot’s exploits in five and a half hours, leaving space for “Animal Farm” and “The Little Prince”, with time to spare (they would take 120 and 80 minutes at 1.5x, respectively).

A more garrulous pace does not seem to affect listeners’ ability to concentrate. The average person speaks at a rate of about 150 words per minute, but most brains are capable of processing information faster than that, says Marcus Pearce, a cognitive scientist at Queen Mary University of London. A recent meta-analysis led by academics at the University of Waterloo in Canada looked at the test scores of students who had watched lectures back at varying speeds. They found that up to 1.5x there was not much of a difference in performance, although scores started to decrease noticeably as playback speeds approached or exceeded 2x.

For audio and video platforms, there is no downside to offering different playback options: the more books or episodes a subscriber gets through, the better the advertising and sales revenues. But for listeners, the experience differs greatly between 1x and 2x. “There’s an art of pacing, tone and suspension” to reading aloud, says Kimberly Wetherell, an audiobook narrator. “If you speed that up too much, you’re losing that part of the performance.”

Rhetoric often relies on rhythm and pauses for emphasis and meaning: few actors race through the soliloquies in “Hamlet”, for instance. Yet for many, to speed or not to speed is no longer a question. ■



## Reinterpreting “The Crucible”

# From hero to zero

NEW YORK

**A hit Broadway show brings Arthur Miller’s play into the era of #MeToo**

ON BROADWAY, AMONG the jukebox musicals turning out the old hits, the stage adaptations of blockbuster films and the star-studded revivals with eye-wateringly expensive tickets, a new play with a single set and a mostly teenage cast has been quietly packing the house night after night. Audiences have been leaving the Booth Theatre stirred and tearful.

“John Proctor is the Villain” is about a classroom of clever high-schoolers who grapple with “The Crucible” in the wake of #MeToo. It opened to acclaim in April and was meant to close in early July, but popular demand kept extending its run. It will vacate the stage in September only because the theatre has another play on deck, but Universal has recently picked up the film rights and tapped the talented young playwright, Kimberly Belflower, to adapt her sharp script for the screen. Schools and universities across America are licensing the play for their own productions.

Ms Belflower wrote and set the play in 2018. In October 2017 Harvey Weinstein, a Hollywood producer, was accused of sexual abuse by multiple women, setting off a tidal wave of allegations against powerful men. Women across the world shared their experiences of harassment and violence; voices long silenced were suddenly heard and even believed. It was a thrilling moment and an alarming one, in which long-standing rules about sex and power were being rewritten in real time.

This is the charged atmosphere in which the teenage girls in a one-stoplight town in Georgia grapple with Arthur Miller’s take on the Salem witch trials of 1692-93. It is a classic play their energetic and beloved teacher, Mr Smith (Gabriel Ebert), says features “one of the great heroes of the American theatre” in John Proctor, a married farmer who is doomed to hang for refusing to falsely confess to witchcraft. Proctor’s resolution and refusal to provide untrue testimony was seen as especially admirable when “The Crucible” was first staged in 1953. It was the height of McCarthyism—a time when many were baselessly accusing their fellow Americans of communist ties or sympathies.

The consensus view that Proctor is a hero conveniently overlooks the fact that the play’s drama stems from an affair Proctor had with a 17-year-old orphan girl named Abigail, who worked for him as a servant before she was fired over their ro-

mance. In the cold light of 2018, this aspect of Proctor’s behaviour seems dishonourable at best. “I think he sucks,” says Shelby, one precocious student (played originally by Sadie Sink, of “Stranger Things” fame, and now by Chiara Aurelia).

This ensemble play is rich with vivid, well-developed characters, but in many ways it is Shelby’s story—though it takes around 30 minutes for her to make her entrance. Much of the play involves learning just why Shelby has good reason to identify with Abigail, whom Proctor dismisses as a vengeful “whore”. In the same classroom where Mr Smith teaches both English and sex education, the other girls meet after school at their new “feminism club” to talk about Taylor Swift, sex, the hotness of their teacher (“Have you seen how big his feet are?”) and Shelby.

In hushed tones they make it clear that Shelby betrayed her best friend by sleeping with her boyfriend. She has been mysteriously absent for months; her return triggers a cascade of uncomfortable revelations, which bring the thorniness of #MeToo into the classroom.

Ms Belflower, like many Americans, read “The Crucible” in high school, but she saw something different in the play when she returned to it in 2018. Her decision to revisit it was prompted, in part, by Woody Allen’s dismissal of #MeToo as a “witch-hunt”. (The film-maker has been accused of sexual assault by his daughter. He has denied the charges and said he is “perfectly innocent”.) “I said to my dad: ‘It’s so weird because it seems like John Proctor is the villain,’” Ms Belflower says. “I knew the title of this play before I wrote it.”

The playwright was 30 and just out of graduate school when she started writing the play, her Broadway debut. The dialogue of her ensemble of awkward, thoughtful teens rings true, in all its searching and stuttering. The show is artfully directed by Danya Taymor, who won a Tony award for “The Outsiders” last year.

Today it is fashionable to dismiss #MeToo as an overcorrection, maybe even a witch-hunt. But what makes “John Proctor is the Villain” such an intelligent, invigorating drama is that it captures the excitement many people felt at the time of suddenly having a language to describe sexual transgressions—and of being in a society receptive to hearing it. Many of the teens in high school at the time are now entering the workforce with a few more terms and tools at their disposal.

The play lands differently now from the way it would have even a few years ago. The fairness the girls hoped for has not transpired. Few abusers other than Mr Weinstein have been brought to justice. Some disgraced men have been able to resurrect their careers with ease, even at the level of America’s highest office. ■



Economic & financial indicators

	Gross domestic product				Consumer prices			Unemployment rate		Current-account balance	Budget balance	Interest rates		Currency units	
	% change on year ago				% change on year ago					% of GDP, 2025 <sup>†</sup>	% of GDP, 2025 <sup>†</sup>	10-yr gov't bonds	change on	per \$	% change
	latest	quarter*	2025 <sup>†</sup>		latest	2025 <sup>†</sup>		%				latest, %	year ago, bp	Aug 13th	on year ago
United States	2.0	Q2	3.0	1.3	2.7	Jul	2.8	4.2	Jul	-3.9	-5.9	4.2	39.0	-	
China	5.2	Q2	4.5	4.7	nil	Jul	-0.3	5.0	Jun <sup>§</sup>	1.7	-5.9	1.6	<sup>\$\$</sup> -35.0	7.18	-0.1
Japan	1.7	Q1	-0.2	0.6	3.2	Jun	3.1	2.5	Jun	4.5	-3.4	1.5	66.0	147	-0.1
Britain	1.3	Q1	3.0	1.0	3.6	Jun	3.7	4.7	May <sup>††</sup>	-3.0	-4.9	4.6	60.0	0.74	5.4
Canada	2.3	Q1	2.2	1.0	1.9	Jun	2.1	6.9	Jul	-0.5	-1.9	3.4	38.0	1.38	nil
Euro area	1.4	Q2	0.4	1.2	2.0	Jul	2.0	6.2	Jun	3.0	-3.3	2.7	50.0	0.85	7.0
Austria	-0.5	Q1	0.6 <sup>‡</sup>	0.1	3.6	Jul	2.9	5.8	Jun	2.2	-4.5	3.0	27.0	0.85	7.0
Belgium	1.1	Q2	1.0	1.0	2.6	Jul	3.0	6.5	Jun	-0.1	-4.7	3.2	43.0	0.85	7.0
France	0.7	Q2	1.2	0.6	0.9	Jul	0.9	7.0	Jun	-0.3	-5.7	3.3	41.0	0.85	7.0
Germany	0.4	Q2	-0.4	0.3	1.8	Jul	2.1	3.7	Jun	5.3	-2.7	2.7	50.0	0.85	7.0
Greece	1.8	Q1	0.2	2.2	3.7	Jul	2.7	7.9	May	-5.9	-0.2	3.4	9.0	0.85	7.0
Italy	0.4	Q2	-0.3	0.5	1.7	Jul	1.7	6.3	Jun	0.9	-3.6	3.5	-9.0	0.85	7.0
Netherlands	1.5	Q2	0.4	1.3	2.5	Jul	3.4	3.8	Jun	7.9	-2.4	2.9	36.0	0.85	7.0
Spain	2.8	Q2	3.0	2.6	2.7	Jul	2.3	10.4	Jun	2.4	-3.2	3.3	15.0	0.85	7.0
Czech Republic	2.4	Q1	2.8	2.1	2.7	Jul	2.4	2.5	Q1 <sup>‡</sup>	0.3	-2.4	4.3	58.0	20.9	10.3
Denmark	2.6	Q1	-5.0	2.6	2.3	Jul	1.8	2.9	Jun	12.9	1.6	2.5	33.0	6.37	6.9
Norway	-0.4	Q1	-0.3	1.3	3.3	Jul	2.3	4.9	May <sup>††</sup>	14.1	9.4	3.9	54.0	10.2	5.7
Poland	3.4	Q2	3.2	3.0	3.1	Jul	3.9	5.4	Jul <sup>§</sup>	0.2	-6.1	5.4	30.0	3.63	8.0
Russia	1.1	Q2	na	0.9	8.8	Jul	8.7	2.2	Jun <sup>§</sup>	2.0	-2.7	13.8	-109	79.5	14.5
Sweden	1.0	Q2	0.4	1.8	0.7	Jun	2.3	9.4	Jun <sup>§</sup>	5.8	-1.4	2.4	53.0	9.53	10.2
Switzerland	2.0	Q1	2.1	1.3	0.2	Jul	0.1	2.9	Jul	6.7	0.7	0.3	-14.0	0.80	7.5
Turkey	2.0	Q1	4.0	2.8	33.5	Jul	33.8	8.5	Jun <sup>§</sup>	-1.7	-3.7	29.3	249	40.8	-17.7
Australia	1.3	Q1	0.8	1.7	2.1	Q2	2.1	4.2	Jul	-1.2	-1.8	4.3	23.0	1.53	-0.7
Hong Kong	3.1	Q2	1.6	2.4	1.5	Jun	1.5	3.5	Jun <sup>††</sup>	10.7	-5.3	3.0	5.0	7.85	-0.8
India	7.4	Q1	9.8	6.2	1.6	Jul	3.9	6.8	Jul	-0.5	-4.4	6.5	-40.0	87.5	-4.0
Indonesia	5.1	Q2	5.9	4.7	2.4	Jul	1.6	4.8	Feb <sup>§</sup>	-0.8	-3.3	6.4	-36.0	16,194	-2.2
Malaysia	4.5	Q2	6.2	4.0	1.1	Jun	1.8	3.0	Jun <sup>§</sup>	1.8	-3.9	3.4	-40.0	4.21	5.7
Pakistan	4.8	2025 <sup>**</sup>	na	3.0	4.1	Jul	4.8	6.3	2021	-1.4	-5.2	12.0	<sup>†††</sup> -203	283	-1.4
Philippines	5.5	Q2	6.1	6.4	0.9	Jul	1.5	4.1	Q2 <sup>§</sup>	-3.3	-5.4	6.1	-9.0	56.7	0.4
Singapore	4.4	Q2	5.8	2.8	0.8	Jun	0.9	2.1	Q2	14.4	0.2	1.9	-89.0	1.28	3.1
South Korea	0.6	Q2	2.4	0.6	2.1	Jul	2.0	2.4	Jul <sup>§</sup>	3.5	-2.4	2.8	-17.0	1,382	-0.8
Taiwan	8.0	Q2	12.9	4.5	1.5	Jul	1.8	3.3	Jun	15.5	0.6	1.4	-16.0	30.0	8.4
Thailand	3.1	Q1	2.8	1.8	-0.7	Jul	0.2	0.8	Jun <sup>§</sup>	1.8	-5.8	2.1	-48.0	32.3	9.0
Argentina	5.8	Q1	3.4	5.6	36.6	Jul	39.7	7.9	Q1 <sup>§</sup>	-2.3	0.4	na	na	1,323	-29.0
Brazil	2.9	Q1	5.7	2.2	5.2	Jul	5.1	5.8	Jun <sup>§††</sup>	-2.4	-8.1	13.8	240	5.39	1.7
Chile	2.3	Q1	2.8	2.3	4.3	Jul	4.1	8.9	Jun <sup>§††</sup>	-1.5	-2.2	5.6	-28.0	953	-2.0
Colombia	2.7	Q1	3.2	2.3	4.9	Jul	4.9	8.6	Jun <sup>§</sup>	-2.6	-7.3	11.8	191	4,022	0.5
Mexico	0.1	Q2	2.8	0.1	3.5	Jul	3.9	2.6	Jun	-0.1	-3.5	9.1	-29.0	18.6	2.3
Peru	3.9	Q1	5.1	2.8	1.7	Jul	1.8	7.6	Jun <sup>§</sup>	2.1	-2.8	5.9	-61.0	3.53	6.2
Egypt	4.8	Q1	-23.0	4.1	13.9	Jul	15.9	6.3	Q1 <sup>§</sup>	-4.6	-7.5	na	na	48.3	2.2
Israel	1.4	Q1	3.5	3.0	3.3	Jun	3.0	2.7	Jun	3.1	-5.3	4.2	-51.0	3.38	10.1
Saudi Arabia	2.0	2024	na	4.4	2.3	Jun	2.6	2.8	Q1	-1.8	-2.9	na	na	3.75	nil
South Africa	0.8	Q1	0.4	1.0	3.0	Jun	3.1	33.2	Q2 <sup>§</sup>	-1.6	-4.9	9.6	34.0	17.5	3.7

Source: Haver Analytics \*\*change on previous quarter, annual rate <sup>†</sup>The Economist Intelligence Unit estimate/forecast <sup>§</sup>Not seasonally adjusted <sup>‡</sup>New series <sup>\*\*</sup>Year ending June <sup>††</sup>Latest 3 months <sup>†††</sup>3-month moving average <sup>\$\$\$</sup>5-year yield <sup>††††</sup>Dollar-denominated bonds Note: Euro-area consumer prices are harmonised

Markets

In local currency	Index	% change on:	
		Aug 13th	Dec 31st 2024
United States S&P 500	6,466.6	1.9	9.9
United States NAS Comp	21,713.1	2.6	12.4
China Shanghai Comp	3,683.5	1.4	9.9
China Shenzhen Comp	2,289.1	2.8	16.9
Japan Nikkei 225	43,274.7	6.1	8.5
Japan Topix	3,091.9	4.2	11.0
Britain FTSE 100	9,165.2	nil	12.1
Canada S&P TSX	27,993.4	0.3	13.2
Euro area EURO STOXX 50	5,388.2	2.4	10.1
France CAC 40	7,805.0	2.2	5.7
Germany DAX*	24,185.6	1.1	21.5
Italy FTSE/MIB	42,186.4	2.9	23.4
Netherlands AEX	900.1	1.8	2.4
Spain IBEX 35	15,019.9	3.3	29.5
Poland WIG	110,781.9	2.3	39.2
Russia RTS, \$ terms	1,176.5	8.3	31.7
Switzerland SMI	11,978.9	1.9	3.3
Turkey BIST	10,950.0	0.4	11.4
Australia All Ord.	9,103.1	-0.1	8.1
Hong Kong Hang Seng	25,613.7	2.8	27.7
India BSE	80,539.9	nil	3.1
Indonesia IDX	7,892.9	5.2	11.5
Malaysia KLSE	1,586.6	2.9	-3.4

Mobilism.Org	Index	% change on:	
		Aug 13th	Dec 31st 2024
Pakistan KSE	146,529.3	1.0	27.3
Singapore STI	4,272.8	1.1	12.8
South Korea KOSPI	3,224.4	0.8	34.4
Taiwan TWI	24,370.0	3.9	5.8
Thailand SET	1,277.4	1.0	-8.8
Argentina MERV	2,287,631.0	-5.3	-9.7
Brazil BVSP*	136,687.3	1.6	13.6
Mexico IPC	58,477.6	2.3	18.1
Egypt EGX 30	35,855.3	1.1	20.6
Israel TA-125	3,006.5	1.0	23.9
Saudi Arabia Tadawul	10,763.5	-1.7	-10.6
South Africa JSE AS	102,278.4	2.1	21.6
World, dev'd MSCI	4,178.0	2.1	12.7
Emerging markets MSCI	1,277.0	2.6	18.7

US corporate bonds, spread over Treasuries			
		Dec 31st	
Basis points	latest	2024	
Investment grade	94	95	
High-yield	356	324	

Sources: LSEG Workspace; Moscow Exchange; Standard & Poor's Global Fixed Income Research \*Total return index

Commodities

The Economist commodity-price index				% change on	
2020=100	Aug 5th	Aug 12th*	month	year	
Dollar Index					
All items	131.2	133.5	1.9	7.6	
Food	141.8	145.3	1.7	8.7	
Industrials					
All	122.4	123.8	2.1	6.5	
Non-food agriculturals	124.8	124.6	2.4	-3.2	
Metals	121.8	123.6	2.0	9.3	
Sterling Index					
All items	126.9	127.2	1.2	2.3	
Euro Index					
All items	129.6	130.9	1.6	1.1	
Gold					
\$ per oz	3,385.7	3,343.9	-0.1	35.3	
Brent					
\$ per barrel	67.7	66.2	-3.8	-18.2	

Sources: Bloomberg; CME Group; FT; LSEG Workspace; NZ Wool Services; S&P Global Commodity Insights; Thompson Lloyd & Ewart; USDA; WSJ \*Provisional

For historical indicators data, visit [economist.com/economic-and-financial-indicators](https://www.economist.com/economic-and-financial-indicators)



## OBITUARY

### Razia Jan

*The fearless teacher of Afghanistan's girls died on July 20th, aged 81*



EVERY DAY she was at her school, Razia Jan held a kindergarten inspection. Passing along the desks of excited, fidgety little girls, most of them proudly in their uniform of green scarves and grey salwar kameez, she commanded each small mouth to open. “Did you brush your teeth this morning?” “Yes,” each one answered, often unconvincingly, for these were country children from dusty village compounds. “Are you fibbing? I’ve told you before, if you don’t have toothpaste, use salt.” Nothing escaped Auntie Razia’s eagle eye. “What’s that stain on your scarf? Didn’t I tell you to get your mother to wash it? You must always come here clean and neat.” Her stern commands were still met with joyful smiles, for she was their teacher.

This was not, however, her first inspection of that day. The first was to visit the hose in the playground from which they replenished the water coolers. She filled her jolly spotted mug to the brim and drank it steadily down. Then she wandered round for a while, just to see if the water would sicken her. If she was absent, staff did this for her; not a day could be missed. In girls’ schools elsewhere in Afghanistan the wells had been poisoned. Other schools had been set on fire or attacked with guns and grenades, mostly by Islamist Taliban terrorists. The rule for girls walking to school, since almost all of them walked, was to go in pairs or a group, keep their heads down, and go fast. Even so some were pelted with stones, or had acid thrown in their faces, by men who thought that girls should not go to school at all.

Razia Jan never ceased to be outraged by this. She grew up in the 1940s and 1950s in a beautiful country and in a well-off, liberal family. As a matter of course she went freely anywhere, never covered her head and even rode a bike. Naturally she went to school and after that to college, studying early education and ending up in Cambridge, Massachusetts. In America, where she stayed because the Soviet Union had invaded Afghanistan, she had full charge of her own life. She brought up her son Lars alone, started a tailoring business on Boston’s South Shore and rose to be president of the local Rotary chapter, a force to be reckoned with.

After the terrorist attacks of September 11th 2001 her attention turned back to Afghanistan. Her country, though now free of Sovi-

et invaders and a five-year Taliban government, needed everything: not only physical rebuilding but food, clothing, medicines and fuel. She helped send over 30,000 pairs of children’s shoes, but random donations like that barely scratched the surface. Only a much slower, deeper project would assure a brighter future for her country: defying the blind bigotry of most Afghan men, she had to champion the education of girls.

Her school, the Zabuli Education Centre, opened in 2008 in a cluster of seven poor villages called Deh’Subz, 30 miles north of Kabul. With typical persistence, she had persuaded the Ministry of Education to donate a plot to her. There, in the teeth of intense local suspicion, she saw her school emerge: two storeys, 14 smallish rooms, with funding largely from American Rotary friends.

Girls soon flooded in. More than 100 enrolled in the first year; in 2020, 800 were there. In 2016 Zabuli celebrated its first graduates from 12th grade. She had an institute ready for them, where they could train as midwives or teachers to educate more girls. But then, in 2021, the Taliban returned to power and all that stopped. No institute, and no classes beyond sixth grade when the pupils, at 11 or 12, were beginning to revel in learning English, Persian and Pashto, harder maths and science. Auntie Razia had even added a tech lab with a computer and internet in it. There the older pupils could watch videos, all crowding wide-eyed round her.

That loss of half her students made her sadder than she could say. But she was still there, having got further than almost anyone else. Her secret was her fearless handling of men. She liked to think they were a bit afraid of her, because she was so forthright and also because she was old. Mind you, she had not made life easy for herself by building a school in the countryside. There the crazy views of women persisted, whether or not the Taliban were in power. In early meetings with the village elders, 35 of them, none would look at her. She was talking! And she wasn’t covered! But her own head was high; she knew how to soften them up. A man, addressed as “honorable Headmaster”, was the last word on discipline. She appealed to the elders to protect the school, employing some of them to guard the gate. Very early on all pupils were taught to write their fathers’ names, as many of their fathers could not do. This caused joy and astonishment. The school fed and clothed the girls, and sometimes their families, free of charge.

Hostility surfaced again, though, when little girls became teenagers. Older pupils would be stopped in the street and admonished to wear the burqa. They became engaged, even married, and usually to men they had not chosen. An acclaimed film of the school, “What Tomorrow Brings”, made in 2016, showed how girls might stop attending then, spending hours, like their mothers, crouching in murky kitchens to chop coriander, or cleaning the house. Razia and the other teachers struggled to rescue them, confronting the fathers if necessary and, if they failed, at least continuing to send books. The school had a mobile library that still functions for housebound, frustrated young women.

Amid her own frustrations, Auntie Razia stayed positive. When the older girls left, she took in many more younger ones. To plant even a little education in a girl’s mind was to sow a seed that would flower. As she was building her school, some elders had asked her to make it for boys, since these were the backbone of the community. Ah, she said, but women were the country’s eyes. Though silent, they did not miss much. They observed the little things, as she did: the stain on a scarf; the bruise from a beating; the pride at reading a sentence, colouring a small girl’s face. ■



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## TENDERS

EXCERPT OF THE CALL FOR EXPRESSION OF INTEREST FOR THE PURCHASE OF THE BUSINESS OWNED BY

## **ILVA GROUP in Extraordinary Administration and ACCIAIERIE D'ITALIA GROUP in Extraordinary Administration**

The undersigned Alessandro Danovi, Daniela Savi and Francesco Di Ciommo, in their capacity as Extraordinary Commissioners of Ilva S.p.A. in Extraordinary Administration, with registered office in Milan, via Fabio Filzi no. 8, Tax Code 11435690158, and the companies belonging to the same group ("**Ilva Group in Extraordinary Administration**"), and Giancarlo Quaranta, Giovanni Fiori and Davide Tabarelli, in their capacity as Extraordinary Commissioners of Acciaierie d'Italia S.p.A. in Extraordinary Administration, with registered office in Milan, viale Certosa no. 239, Tax Code 10354890963, and the companies belonging to the same group ("**Acciaierie d'Italia Group in Extraordinary Administration**"),

### I N V I T E

all interested parties to submit expressions of interest for the purchase of the Business owned by Ilva Group in Extraordinary Administration and Acciaierie d'Italia Group in Extraordinary Administration by 11:59 p.m. (Italian time, CET) of 20 September 2024, with the modalities and according to the terms indicated in the call for expression of interest published in full on the websites: <https://www.gruppoacciaierieditaliainas.it> and <https://www.gruppoilvainas.it> (the "Call").

**The Extraordinary Commissioners  
of the Ilva Group in Extraordinary Administration**

- Alessandro Danovi
- Daniela Savi
- Francesco Di Ciommo

**The Extraordinary Commissioners  
of the Acciaierie d'Italia Group in Extraordinary Administration**

- Giancarlo Quaranta
- Giovanni Fiori
- Davide Tabarelli

 **Acciaierie  
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