The Economist

Our presidential election-forecast model

Macron's gamble

The war for AI talent

Is the New York Times bestseller list biased?

JUNE 15TH–21ST 2024

The rise of Chinese science

Welcome or worrying?





DISCOVER MORE.



IWC PORTUGIESER.
A TRIBUTE TO ETERNITY.



Portugieser Eternal Calendar, Ref. IW505701

When our watchmakers and engineers turn their attention to eternity, they often develop watches that literally stand the test of time. The Portugieser Eternal Calendar comes with our first "secular" perpetual calendar. As you would expect, the mechanism recognizes the varying lengths of the months and adds a leap day at the end of February every four years. But, more impressively, it also masters the complexities of the Gregorian calendar. In other words, within a time span of 400 years, it will omit three leap years that would normally occur at the end of a century.

Moon phase accuracy of 45 million years

As engineers, we can't resist pushing the boundaries of what is possible and, in the process, sometimes overshoot the mark. In this case, we created a moon phase display so precise that it would, theoretically, be only one day out after 45 million years. On that particular issue, however, you'll just have to take our word for it.

IWC. ENGINEERING BEYOND TIME.

IWC

SCHAFFHAUSEN

HIS BIGGEST CHALLENGE?
UNCERTAINTY.

OUR BIGGEST SOLUTION?
CLEAR, UPFRONT PRICING.

Turn shipping to your advantage.

Simplify how you ship with the surprise-free, transparent pricing of USPS Ground Advantage® service. Learn more at **usps.com/simple**.

Simple. Affordable. Reliable.

USPS Ground Advantage®

©2024 United States Postal Service®.
All rights reserved.
The Eagle Logo is among the many trademarks of the U.S. Postal Service®.

For mailable items up to 70 lbs. Expected delivery in 2–5 business days. Packages going to certain places (including Alaska, Hawaii, and offshore destinations), or containing hazardous materials or live animals may receive slower service.

Contents



On the cover
Chinese science is becoming world-class. Is that worrying or welcome? Leader, *page 9*. From plant biology to superconductor physics, China has emerged as a major scientific force. On some measures it has even eclipsed America, *page 67*. America's attempt to destroy Huawei has been a counterproductive failure: briefing, *page 14*

Our presidential election-forecast model America's presidential race is not a coin flip, according to our forecasting model. Five months before the election, Donald Trump has a clear lead: leader, *page 10*, and analysis, *page 17*. But in debating Donald Trump, Joe Biden faces graver public doubts and a greater challenge than he did in 2020: Lexington, *page 24*

Macron's gamble The French president believes that a snap election can help solve his many problems. Is he right? Leader, *page 11*. His defiant attempt to weaken the hard right could backfire, *page 42*

The war for AI talent It is heating up, *page 53*

Is the *New York Times* bestseller list biased? Our analysis suggests that it is: leader *page 12*, and report, *page 71*

→ The digital element of your subscription means that you can search our archive, read all of our daily journalism and listen to audio versions of our stories. Visit **economist.com**

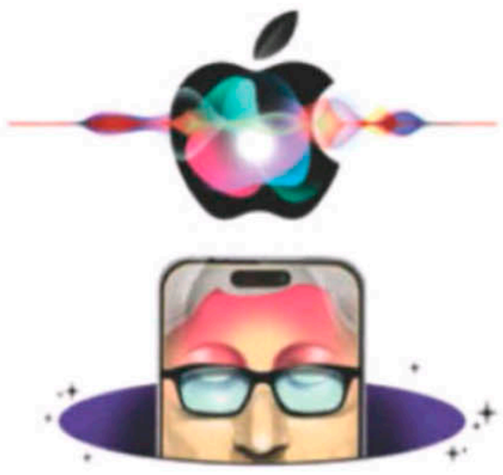
The world this week
7 A summary of political and business news

Leaders
9 **Chinese science** Stronger than ever
10 **Interest rates** American exceptionalism
10 **Our US election model** A clear favourite
11 **France** Double or quits
12 **Bestsellers** The good and the popular

Letters
13 Low birth rates, OpenAI, cricket in America, American students, Danish food, the British election

Briefing
14 **Huawei** A botched hit

Schumpeter Hey Siri! Help me get Apple out of an AI-shaped hole, *page 58*



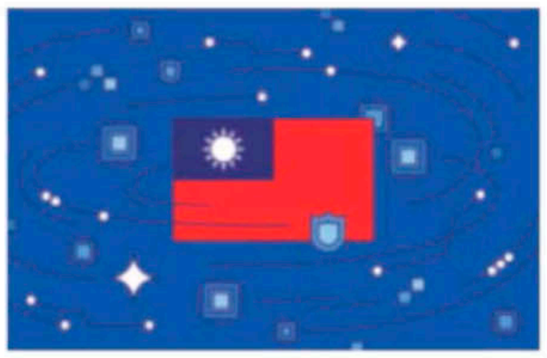
United States
17 Our election model
18 Turnout in Wisconsin
20 Hunter Biden's verdict
20 Castration in Louisiana
22 Oldies on campus
23 Chicago's mayor
24 **Lexington** The debate



The Americas
25 A trade pipsqueak
27 Reform in Colombia



Asia
29 Taiwan's silicon shield
30 Russian exiles
31 India's new government
32 **Banyan** Caste politics



China
33 Re-engaging Australia
34 Judges leave Hong Kong
35 Durian diplomacy
36 **Chaguan** How to smother a culture



Middle East & Africa
37 Gaza's ceasefire deal
38 Iran's next president
39 Somaliland's quest
40 Migration from the Horn
41 Kung fu in Africa



Contents continues overleaf

Contents

Europe



42 Macron's mega-gamble
43 Elections in Europe
44 Ukraine's peace summit
45 Trouble in Transnistria
46 **Charlemagne** Casino Europa

Britain



47 A Tory rout?
48 The voters in Hartlepool
49 On Canvey Island
50 **Bagehot** Globalisation

International



51 The world of cyber-sabotage

Business



53 The AI talent war
54 The LLM summer sale
55 Chinese EVs in the EU
56 German bosses v AfD
56 India Inc and Modi 3.0
57 **Bartleby** Asia's grumpy workers
58 **Schumpeter** Apple's AI prayer

Finance & economics



59 Peter Navarro speaks from his prison cell
60 Trade deals
62 Chinese stocks
63 America's labour market
63 The yuan's global role
64 **Buttonwood** Private credit
66 **Free exchange** The motherhood penalty

Science & technology



67 Science in China

Culture



71 NYT bestseller bias
73 Famous Birthdays
73 A controversial novelist
74 The Chinese keyboard
75 Left-wing free trade

Economic & financial indicators

77 Statistics on 42 economies

Obituary

78 William Anders, the astronaut who caught Earthrise

Volume 451 Number 9401
Published since September 1843
to take part in *"a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."*

Editorial offices in London and also:
Amsterdam, Beijing, Berlin, Brussels, Chicago, Dakar, Dallas, Dubai, Johannesburg, Madrid, Mexico City, Moscow, Mumbai, New Delhi, New York, Paris, San Francisco, São Paulo, Seoul, Shanghai, Singapore, Tokyo, Washington DC

Subscription service
For our full range of subscription offers, including digital only or print and digital bundled, visit:
Economist.com/offers

If you are experiencing problems when trying to subscribe, please visit our Help pages at:
www.economist.com/help
for troubleshooting advice.

To manage your account online, please visit my.economist.com where you can also access our live chat service which is available 24/7. To call us, contact our dedicated service centre on:

North America: +1 888 815 0215
Latin America & Mexico: +1 646 248 5983

Please recycle

PEFC
PEFC/29-31-296

PEFC certified
This copy of *The Economist* is printed on paper sourced from sustainably managed forests certified by PEFC
www.pefc.org

© 2024 The Economist Newspaper Limited. All rights reserved. Neither this publication nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of The Economist Newspaper Limited. *The Economist* (ISSN 0013-0613) is published weekly except combined issues in July and December, by The Economist Newspaper Limited, 900 3rd Avenue, 16th Floor, New York, NY 10022-5088. *The Economist* is a registered trademark of The Economist Newspaper Limited. Periodicals postage paid at New York, NY and additional mailing offices. POSTMASTER: Send changes to *The Economist* - Customer Service, 900 Third Avenue 16th Floor New York, NY 10022, USA. Canada Post publications mail (Canadian distribution) sales agreement no. 40012331. Printed by Fry Communications, Inc. 800 West Church Road, Mechanicsburg, PA 17055

The world this week Politics



Elections to the **European Parliament** saw the hard right making the most gains overall, though the European People's Party, representing the centre-right, and the Socialists and Democrats, on the centre-left, remain the biggest voting blocs. Green parties lost a quarter of their seats. In **France** Marine Le Pen's right-wing National Rally took a third of the vote, more than double that of Emmanuel Macron's party, Renaissance. In a surprise announcement, the French president dissolved the National Assembly and called a snap election. Mr Macron lost his parliamentary majority in 2022, and says the country now "needs a clear majority in serenity and harmony".

Germany's governing coalition also got a shellacking at the election. The opposition Christian Democrats came first and the nationalist Alternative for Germany (AfD) second, beating all three parties in the government. The Social Democrats, the party of Chancellor Olaf Scholz, took just 14%, its worst showing ever in a national poll. The AfD's biggest increase in support was among people aged 16-24, in an election where 16-year-olds were able to vote for the first time.

There's a new kid in town

By contrast **Hungary's** populist-right Fidesz did worse than expected. A new party, Tisza, led by Peter Magyar, a former Fidesz official, took 30% of the vote. Before the election Mr Magyar held a rally in Budapest with tens of thousands of supporters, where he fulminated against government corruption and illiberalism.

Belgium held a general election also. Alexander De Croo resigned as prime minister after his Open VLD, a liberal Flemish party, lost half its seats in the lower house of the federal parliament. Bart De Wever, the leader of the New Flemish Alliance, a national-conservative party that wants to shift more power to Belgium's regions, has emerged as the most likely prime minister.

A flurry of meetings discussed the future of **Ukraine**. A donors' conference in Berlin pledged to help rebuild the country after the war with Russia. The World Bank thinks it will need $500bn over a decade. A summit of NATO countries in central and eastern Europe promised to take a co-ordinated approach to supporting Ukraine, though the heads of state of Hungary and Slovakia stayed away. And 90 countries prepared to gather in Switzerland to discuss a peace proposal. The G7 also met near Bari, in Italy, where Ukraine dominated the talks.

Britain's National Health Service put out an urgent appeal for O-type blood donations (O-negative can be used for anybody) following a recent ransomware attack by Russian hackers on a provider of blood-laboratory services. The attack forced some hospitals in London to revert to paper records and documentation. Three donations a minute are usually needed to meet Britain's demand for blood.

Israeli commandos rescued four people being held hostage by Hamas in **Gaza**. One Israeli counter-terrorism officer was killed in the raid, as were large numbers of Palestinians (the Hamas-run authorities put the number at 274, but Israel disputes that). A day later Benny Gantz and Gadi Eisenkot, two centrist former generals, resigned from Israel's war cabinet accusing the prime minister, Binyamin Netanyahu, of failing to come up with a strategy for ending the war.

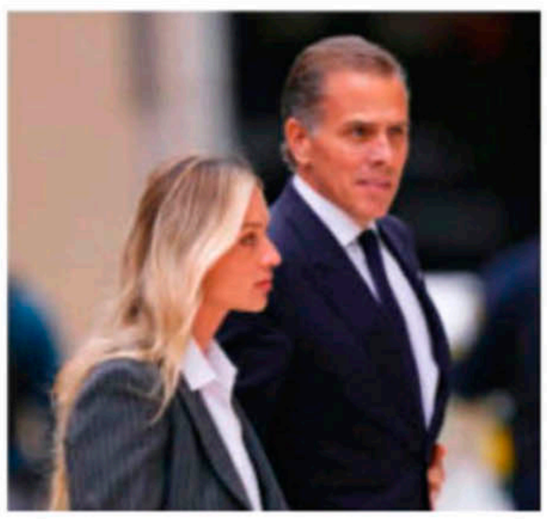
At least 49 people died in a fire that engulfed a residential building in **Kuwait**. Many of those killed were foreign workers. Reports said the building had been overcrowded.

A boat carrying around 260 **migrants** from Somalia to Yemen capsized, drowning at least 49 people and leaving a further 140 missing. Two similar accidents in April led to at least 62 deaths. The UN says that tens of thousands of people, mainly from Ethiopia, attempt the dangerous crossing from the Horn of Africa to Yemen and then onward to the Gulf states each year.

The African National Congress, which has governed **South Africa** for 30 years, invited other parties to help form a government of national unity after it lost its parliamentary majority in the elections on May 29th.

The chief prosecutor of the International Criminal Court in The Hague appealed for evidence of atrocities in **Sudan** following an attack that closed the last functioning civilian hospital in the besieged town of el-Fasher.

Saulos Chilima, **Malawi's** vice-president, was killed along with several other people when the defence-force plane he was travelling in crashed.



Hunter Biden was found guilty of lying about his drug use when he completed a background check to buy a gun in 2018. Joe Biden's son says he has not used drugs since 2019. He will be sentenced at a later date. He is due to stand trial in September for allegedly failing to pay tax from 2016 to 2019.

Judicial review

Three of the foreign judges who sit on the Court of Final Appeal in **Hong Kong** resigned. Two cited the deteriorating political situation in the city. One, Jonathan Sumption, wrote that the judiciary was operating in an "impossible political environment created by China". That drew a furious denial from the government.

The leader of **South Korea's** opposition Democratic Party, Lee Jae-myung, faced new charges, this time in relation to a scheme promoting a business project with North Korea. Mr Lee, the runner-up in the presidential election of 2022, has also been indicted over a property-development scheme. He denies all charges against him.

Human-rights groups condemned the **Indonesian** courts for sentencing a comedian to seven months in prison for making a joke about the name Muhammad.

President Javier Milei's government in **Argentina** cleared a hurdle in the Senate to passing a sweeping set of economic reforms. The bill will cheer markets, though plenty of macroeconomic headaches remain. The reforms are opposed by unions and various leftists. Police fired water cannon to disperse violent protests that took place outside Congress.

A jury in Florida found Chiquita, one of the world's biggest producers of bananas, liable for eight deaths caused by a right-wing paramilitary group in **Colombia's** civil war. Chiquita pleaded guilty in 2007, under a deal with America's Justice Department, to making security payments to the United Self-Defence Forces of Colombia. It has faced hundreds of other civil trials, but this is the first time it has been held liable. The company is to appeal against the decision.

The world this week Business

The **Federal Reserve** left its benchmark interest rate on hold at a range of between 5.25% and 5.5%. Markets were more interested in the latest moves along its path for rate reductions. The Fed now thinks it will cut just once this year, possibly as late as December, a big change from March, when it predicted three cuts. On June 6th the **European Central Bank** cut interest rates for the first time in five years, shaving a quarter of a percentage point off the deposit facility, to 3.75%.

America's labour market confounded expectations again, adding 272,000 **jobs** in May, far above analysts' forecasts and the second-biggest monthly addition of employees to the payrolls this year. The annual **inflation** rate fell to 3.3%.

Road blocks

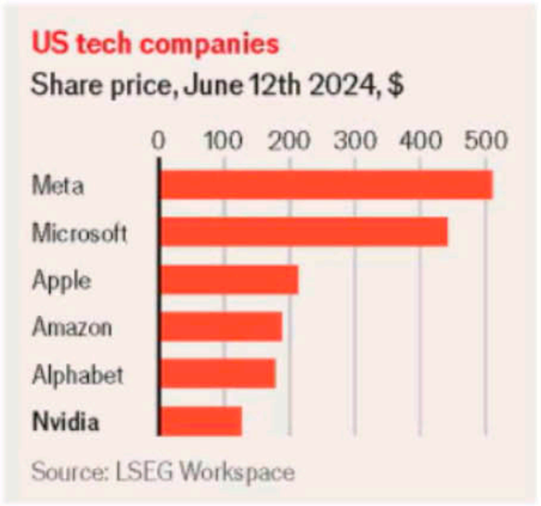
The European Commission said it would impose additional tariffs on imports of **Chinese electric vehicles**, finding that they benefit from unfair state subsidies. It proposed extra duties of 17% on imports from BYD, 20% on Geely's and 38% on SAIC's, on top of the 10% tariff they are already subject to. The rates vary for other carmakers. Western firms that produce in China and export to the EU will also be taxed. America is imposing tariffs of 100%, but imports few Chinese EVs. The Chinese government reacted furiously to the EU's decision, calling it "ill-informed and lawless".

A long-awaited secondary sale of shares by **Saudi Aramco** was completed. Saudi Arabia's state oil company sold about $11bn-worth of shares, equivalent to a 0.64% stake, mostly to international investors.

The International Energy Agency said that despite an expected slowdown in the growth of demand for **oil** over the coming years, global production was set to ramp up, leading to a "staggering" oversupply of 8m barrels a day by 2030. Most of the extra output will come from America, but countries such as Brazil and Guyana are also expanding production. The huge surplus of oil will cause prices to plunge, the agency said, further undermining OPEC's ability to control the market.

Elliott Management, an activist hedge fund, said it wanted a change of leadership at **Southwest Airlines**, signalling a period of turbulence at the carrier. Elliott holds an 11% stake in Southwest, which has yet to see its reputation recover from an IT fiasco in late 2022 that caused it to cancel thousands of flights.

Apple launched its much-anticipated new artificial-intelligence system. **Apple Intelligence** integrates the technology into its next operating system, iOS 18, allowing users to generate images and customise emojis. Apple emphasised the privacy aspects of its system, though concerns were raised about an arrangement that allows Apple's services to tap into ChatGPT, OpenAI's chatbot. The company's share price reached a new high, which in turn helped the S&P 500 and NASDAQ stock indices hit new records.



Nvidia's stock split came into effect, which also boosted markets. The AI-chipmaker gave its shareholders ten shares for each one they held, a price dilution that makes them more attractive to small investors. Alphabet, Amazon and Apple have also split their stock in recent years, but Microsoft hasn't since 2003 and Meta never has.

Elon Musk dropped his lawsuit against OpenAI, which alleged that its partnership with Microsoft broke a deal to make its AI free to the public. Mr Musk has had a stormy relationship with OpenAI since leaving its board in 2018 in a dispute.

Underlining the mania for all things AI, **Mistral**, a French startup that is backed by Microsoft and Nvidia, was reportedly valued at €5.8bn ($6.4bn) after its latest round of fundraising, triple the amount it was valued at in December. Mistral was founded just a year ago, and has ambitions to challenge AI products provided by the likes of Google, Meta and OpenAI.

An appetite for Pi

The share price of **Raspberry Pi**, a British maker of cheap single-board computers that grew out of a charitable foundation to promote the study of computing, rose by 38% on its first day of trading on the London Stock Exchange.

Mike Lynch, the former chief executive of Autonomy, a British software firm, was found not guilty by a jury in San Francisco of criminal fraud in relation to Hewlett-Packard's takeover of the company in 2011. American prosecutors had alleged that Mr Lynch inflated Autonomy's revenues to seal the deal; Autonomy's former chief financial officer had been found guilty on similar charges. Mr Lynch's legal saga has not yet concluded. A British judge is still to decide what damages he must pay in a civil trial that found he was liable for fraud, a ruling that he may appeal against.



The rise of Chinese science

Is it worrying or welcome?

IF THERE IS one thing the Chinese Communist Party and America's security hawks agree on, it is that innovation is the secret to geopolitical, economic and military superiority. President Xi Jinping hopes that science and technology will help his country overtake America. Using a mix of export controls and sanctions, politicians in Washington are trying to prevent China from gaining a technological advantage.

America's strategy is unlikely to work. As we report this week, Chinese science and innovation are making rapid progress. It is also misguided. If America wants to maintain its lead—and to get the most benefit from the research of China's talented scientists—it would do better to focus less on keeping Chinese science down and more on pushing itself ahead.

For centuries the West sniffed at Chinese technology. Self-regarding Europeans struggled to accept that such a far-flung place could possibly have invented the compass, the crossbow and the blast furnace. In recent decades, as China joined the world economy, its rapid catch-up and abuse of Western intellectual property meant that it was more often an imitator and a thief than an innovator. Meanwhile, its science was disparaged, partly because it encouraged researchers to churn out high volumes of poor-quality scientific papers.

It is time to lay these old ideas to rest. China is now a leading scientific power (see Science & technology section). Its scientists produce some of the world's best research, particularly in chemistry, physics and materials science. They contribute to more papers in prestigious journals than their colleagues from America and the European Union and they produce more work that is highly cited. Tsinghua and Zhejiang universities each carry out as much cutting-edge research as the Massachusetts Institute of Technology.



Chinese laboratories contain some of the most advanced kit, from supercomputers and ultra-high-energy detectors to cryogenic electron microscopes. These do not yet match the crown jewels of Europe and America, but they are impressive. And China hosts a wealth of talent. Many researchers who studied or worked in the West have returned home. China is training scientists, too: more than twice as many of the world's top AI researchers got their first degree in China as in America.

In commercial innovation China is also overturning old assumptions. The batteries and electric vehicles it exports are not just cheap, but state-of-the-art (see Business section). Huawei, a Chinese telecoms firm brought low after most American firms were barred from dealing with it by 2020, is resurgent today and has weaned itself off many foreign suppliers (see Briefing). Although it earns a third of the revenue of Apple or Microsoft, it spends nearly as much as they do on R&D.

China is not yet the world's dominant technological power. Huawei still has limited access to advanced chips; self-sufficiency is costly. The country's many state-owned firms are sclerotic. Much of the spending on research is guided by the state's heavy hand. And some mediocre universities still produce mediocre research. China's innovation, in other words, is inefficient. Yet it is an inefficiency that Mr Xi is willing to tolerate in order to produce a sheaf of world-class results.

All this poses a dilemma for America. With more good science comes new knowledge that benefits all humanity, by solving the world's problems and improving lives, as well as deepening understanding. Thanks to China's agronomists, farmers everywhere could reap more bountiful harvests. Its perovskite-based solar panels will work just as well in Gabon as in the Gobi desert. But a more innovative China may also thrive in fields with military uses, such as quantum computing or hypersonic weapons. It will also aim to convert its technological prowess into economic and diplomatic influence.

So far America has focused on the threats, by trying to stymie China using sanctions and by limiting the flow of data, talent and ideas. After all, hawks say, China is itself notoriously secretive. It failed to share its early work on the virus that causes covid-19, a shocking breach of its responsibilities that could have cost lives—possibly millions of them. If Chinese science is thriving thanks to these tactics, then perhaps America should simply be even harder line and more restrictive.

That overestimates America's ability to constrain the whole of Chinese science. Even Huawei has prospered despite foreign sanctions. And it underestimates the cost to America's own science—including the technology that underpins its security. Rather than copy China's tactics, America should sharpen its own innovative edge, by enhancing the traits that made it successful.

One of its strengths is openness. America has long been a magnet for the world's brightest minds, and it should continue to attract them—even from China. Some work needs to be secret, obviously, but a presumption against hiring Chinese researchers would deprive America of precious talent. America must also be open to ideas. Citations have increased, but too few Western scientists take note of Chinese papers. A deal in the 1970s by Deng Xiaoping and Jimmy Carter to enhance academic collaboration was grudgingly extended in March for only six months, because of Republicans' fears about national security. It should be renewed for longer. American and Soviet scientists worked together even in the depths of the cold war.

Another strength is America's dynamic economy, in which the best universities, government agencies and companies innovate. But too much of a scientist's time is spent on bureaucracy. Finding faster ways to allocate grants, say by lottery, could help. Last, America should not blunt its market mechanism. In China most research money comes from the state; in America the private sector is a bigger spender. It is not White House edicts that find and develop the best ideas, but markets powered by competition.

The fact that an authoritarian regime is nearing the technological frontier is alarming. Yet America should not strive to become more like China, but to draw on its own distinctive strengths. The result will be more scientific discovery and technical ingenuity—and ultimately more security. ■

Interest rates

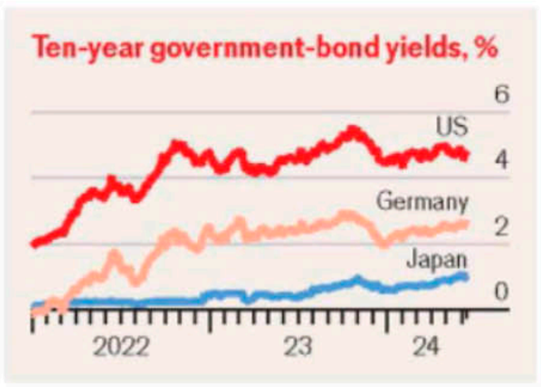
American exceptionalism

The world's political dysfunction is increasingly evident in markets—except in America

ADD MONETARY policy to the list of ways in which America's economy stands out. Central banks in Canada, Sweden and the euro zone all recently began cutting interest rates. Yet the Federal Reserve on June 12th again postponed its plans for monetary loosening. Even though rates in America have risen higher than in other big rich countries and inflation is falling, the median Fed rate-setter expects a cut of just one quarter of a percentage point this year.

Some monetary divergence is the natural consequence of America's stronger growth. But what is striking about America is how immune its markets appear to be to the threat of political dysfunction and fiscal frailty. By contrast, in the rest of the world those factors are weighing increasingly heavily.

According to the European Central Bank's latest projections, the euro zone's economy will grow by 0.9% in 2024. A real-time estimate by the Federal Reserve Bank of Atlanta suggests that America's is currently growing at more than three times that pace. China is struggling with a property crisis and the threat of deflation; Japan has been defending its weak currency and Britain has become synonymous with dreadful productivity. As others catch up to the world's biggest economy, America's share of global GDP at market exchange rates should be falling. A mix of strong growth and a strong dollar means that it is growing instead.



Elsewhere, investors are taking fright at election results, especially where governments are fiscally frail. After President Emmanuel Macron announced surprise parliamentary elections on June 9th, French bonds sold off, widening the spread between their yields and those of safe German bunds. The IMF reckons France needs fiscal tightening of about 3% of GDP to stabilise its debt by 2029. Yet the ascendant National Rally fought the last parliamentary election on new tax and spending worth perhaps €100bn ($108bn, or 3.6% of GDP) a year.

In Mexico the peso has fallen by about 10% against the dollar since the crushing victory of Claudia Sheinbaum, the left-wing presidential candidate, in its elections. India's markets tumbled after it seemed that Narendra Modi's ability to enact reforms had weakened, though they have largely recovered since. Britain's election is not moving investors much, but only because the result is all but known and its politicians have been cowed by the bond-market crisis that struck in 2022.

Only America looks able to shrug off political uncertainty and fiscal frailty. Its underlying deficit of 7.4% of GDP means that the fiscal tightening needed to stabilise its debts is bigger than France's, even after accounting for faster growth. The likely return of Donald Trump to the White House creates a risk of wider deficits, institutional decay and perhaps even the politicisation of monetary policy. Yet America's government debt has no risk premium, as if inflation were permanently defeated and Fed policy will turn out exactly as forecast (despite the fact that in the recent past it has not). In most countries big deficits are a threat. In America they are taken simply to support growth and interest rates, leading the dollar to strengthen. The stockmarket is booming again, fuelled by optimism about artificial intelligence.

Betting against America can seem a sure-fire way to lose money. Yet Uncle Sam's unique status is double-edged. The more the world depends on American dynamism and faith in the dollar, the greater the damage political dysfunction and reckless fiscal policy in Washington could eventually inflict. If America succumbed to populism, a budget crisis and inflation, the world would find that no other economy was capable of providing safe assets backed by a vast economy, deep capital markets, an open capital account and the rule of law. America is the world economy's only bulwark. Strangely, that makes it a particular vulnerability. ■

The Economist's US election model

From unthinkable to probable

Our 2024 election-forecast model finds a second Trump presidency more likely than not

WHEN DONALD TRUMP left office in January 2021 his political career seemed over. It was not just Democrats who thought so. "We are very, very close to being able to ignore Trump most nights," wrote Tucker Carlson privately when he was still the host of Fox News's most popular evening show. "I truly can't wait." Mr Carlson did not get his wish. Our statistical forecast, which we launch this week, gives Mr Trump a two-in-three chance of winning in November. This is the same model, plus some refinements, that made Joe Biden a strong favourite to become president in 2020. Tested on election data from previous elections (with no knowledge of the outcome), the model gave Barack Obama about the same chance of winning in 2012 at this point in the race as it gives Mr Trump now. Like most pundits, it thought Hillary Clinton likelier to win in 2016—a reminder that models, though they offer a rigorous way to think about the world, are not crystal balls.

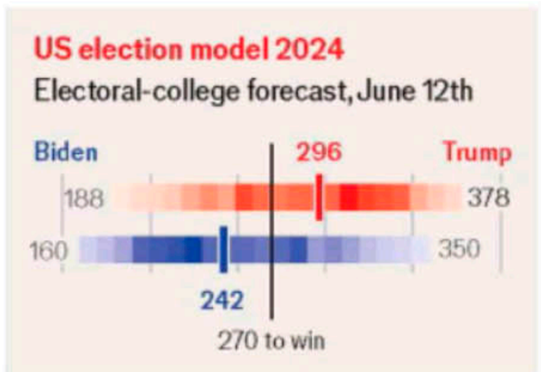
How has Mr Trump gone from being cast out by his party to being likelier than not to win another term? Incumbent presidents and prime ministers are doing badly everywhere. The wave that soaked India's Narendra Modi and will surely wash away Rishi Sunak in Britain can be spotted off the Atlantic, Pacific and Gulf coasts. Mr Biden's approval ratings are among ▸▸

the worst for an American president at the end of his first term. The only thing that makes them respectable is comparing him with Mr Sunak, Justin Trudeau or Emmanuel Macron, whose numbers are even worse. Inflation may be the culprit. Mr Biden would like the election to be about preserving democracy. Swing voters seem to care more about the price of eggs.

Mr Trump may have 34 felony convictions, but Republican leaders are backing him anyway, and so giving rank-and-file Republicans permission to vote for him again. In February 2021 Mitch McConnell, the Republican Senate minority leader, described Mr Trump as "morally responsible" for the violent invasion of the Capitol by a Trump-supporting mob a month earlier. Yet in March this year he endorsed Mr Trump. And rewriting history is not confined to Republican bigwigs. Ordinary voters are at it, too. When Mr Trump left office 41% of Americans rated his presidency a success. Now 55% do.

The war in Gaza, which splits Democrats and unites Republicans, has not helped Mr Biden. Layered on top of all this has been some political ineptitude from his campaign. Where his team has tried to bribe voters, for example by forgiving student loans, it has paid off the wrong ones. College-educated Democrats are the party's most loyal constituency. Such bungs are more effective when offered to swing voters, a point Mr Trump understands better (witness his musings about making tips tax-free in Nevada). When Mr Biden has triangulated, for example on the border (where the administration's policy is now notably tough), he has trod so quietly that voters have barely noticed.

A lot can change between now and November. The first debate, due to take place on June 27th, will be unusually important (see Lexington). But what is most striking about the polls this year is how little they have moved. Mr Trump is the first former president, and first front-line candidate, to have been convicted in a court. Yet rather than change their minds about him, Republican voters have changed their minds about the courts. The share who told YouGov, a pollster, that a convicted felon should be allowed to be president rose from 17% in April to 58% in June. Meanwhile, 46% of all registered voters seem sure that Mr Biden has done something illegal relating to his son Hunter (which he has not). The younger Mr Biden's conviction on gun charges will probably reinforce the false impression of equivalence between the two candidates.



Most Americans have already decided who will get their vote. Given that Mr Biden has been behind in national polls all year, even if only by a bit, that is deeply worrying. The electoral college still favours Republicans, so the current president needs to be ahead to have an even chance of winning. His path to victory is scarily narrow. He must win Wisconsin, Michigan and Pennsylvania (plus Omaha's single electoral-college vote) to get to 270. If he loses any of those, he will have to win one of Arizona, Georgia, Nevada or North Carolina—where he is currently several points down in the polls. In other words, there is no clear plan B.

Mr Biden's political team knows this but is presenting a calm face to the outside world, hoping that, as the election draws closer, voters will remember why even Mr Carlson was sick of Mr Trump by the end. Mr Biden is running as if he were ahead in this race. He is not. ■

France

Double or quits

Emmanuel Macron hopes a snap election can get him out of a deep hole. Will it ?

SOMETIMES YOU have no choice but to roll the dice. That is where France's president, Emmanuel Macron, found himself on the night of June 9th. He had just received a thumping in elections to the European Parliament, in which the National Rally (RN), led by Marine Le Pen, won twice as many votes as his own party, Renaissance. Already, in his own national parliament, he has to govern with a minority, cobbling together support as best he can to get his government's domestic legislation through. The boost to Ms Le Pen's standing from her big Euro-win risked making him a lamer duck than ever, with the very real prospect that the opposition would anyway force an election later in the year by voting down his budget.

It was an untenable position. As in the United States, French presidents cannot pass much of their domestic agenda without a majority in the legislature. At the moment, Mr Macron's party has no majority, but neither can anyone else form a majority government. And so he seized the initiative by calling a snap election at the end of this month, a full three years early.

Will this bold move make Mr Macron's situation better or worse? The vote could work to his advantage. He hopes to force the French to confront the choice between centrism and the extremes. In a two-round system, centrist voters will have a chance to cast their ballots tactically in the second stage in order to keep the RN at bay. Even if his side does not get any closer to a majority, he may be able to persuade the moderate parties to work together to keep the RN from forming its own government. Inconveniently, Eric Ciotti, the leader of the centre-right Republicans, said that he wanted to join forces with the RN. That caused uproar, leading to a vote in the party to oust him. Post-election haggling will be intense.

However, France also faces a more alarming possibility: the election could be won by the RN. That does not mean Ms Le Pen would become prime minister; she says she would instead put forward her young protégé, Jordan Bardella, which would keep her powder dry for the presidential race in 2027.

How bad might an RN government be for France? Not catastrophic, perhaps. It would run most domestic policy and draw up the budget. So there would be lots of areas in which it could drag France further from the centre towards its hard-right positions. Yet the French constitution reserves huge powers for the president, particularly over foreign and defence policy; and he has a veto. France's relations with the European Union and its support for Ukraine might not change all that much.

The real question is how having an RN prime minister ▸▸

might affect the election that really matters: the presidential vote in 2027, in which Mr Macron cannot be a candidate. This would critically depend on how well the RN was seen to have performed in office. On the one hand, French prime ministers tend to get the blame for everything that goes wrong, while presidents can float above the fray. That is what happened to Elisabeth Borne, who served under Mr Macron and was replaced in January. It is especially true in a period of *cohabitation*, as in the 1990s when Presidents François Mitterrand and Jacques Chirac had prime ministers from different parties.

On the other hand, French voters have in the past always adhered to a taboo over the hard right holding national office. Ms Le Pen has already done a lot to make her party more professional. If an RN prime minister surprised France on the upside, it could both make Ms Le Pen seem a more normal candidate and enhance her popularity—rather as has happened to Italy's right-wing prime minister, Giorgia Meloni.

Ms Le Pen has not yet shown she aims to follow Ms Meloni's path towards the centre. If she were to win the presidency in 2027 with her current policies, it really would be alarming: she is pro-Russia, against heavily arming Ukraine and sceptical of the EU, even if she no longer says she wants France to leave it. A Le Pen presidency would be bad news for anyone who thinks that deeper integration is part of the solution to many of the problems Europe faces, from its deficit in technology to its energy transition. Racial and religious relations in France would worsen; disruptive xenophobes like Hungary's Viktor Orban would gain a powerful ally.

The right stuff

The irony is that events in France have distracted attention from an election that was not as dire as centrists had feared. Europe saw no right-wing surge. The parties of the hard right collectively picked up only three or four percentage points of support; they did well in Germany and in Austria, as they did in France, but elsewhere had a disappointing night. That slight loss of ground for the centre will make governing in Brussels a little trickier, but not much. Yet owing to Mr Macron's surprise, the surge in France and a smaller one in Germany are hogging the headlines. We hope it was worth it. ■

Bestsellers

Sorting the good from the popular

Our analysis suggests that the *New York Times* bestseller list has a political bias. It should end it or disclose it

PEOPLE LOVE lists. The 1,000 richest people, the 100 places to see before you die, the ten most-wanted fugitives; lists promise to make the chaos of life more manageable. Benjamin Franklin was a superfan, using lists to explain everything from the 13 virtues necessary to be successful to eight reasons to choose an older woman as a lover.

Since the first list of bestselling books was published in America in 1895, critiques have piled up like the stacks beside a bibliophile's bed. In 1932 M. Lincoln Schuster, a co-founder of Simon & Schuster, a publisher, warned that: "The current procedure for compiling...the so-called 'bestseller' lists has led to many abuses." He argued that cumulative sales should count. Currently, only "fastsellers" qualify, leaving the most popular book of all time, the Bible, out of the rankings.

More recently, people have been complaining of political bias. Critics, including Elon Musk, accuse the *New York Times* list, America's most influential, of discriminating against conservative authors. *The Economist* has examined 12 years' worth of data to see whether this is true. Our analysis suggests that it is (see Culture section).



We found that hardcover non-fiction books from conservative publishers are seven percentage points less likely to make it onto the *New York Times* bestseller list than you would expect from their sales as reported in *Publishers Weekly*, which uses a simple measure of purchases. Blockbusters by well-known conservatives, such as Bill O'Reilly, still manage to climb to the top of the *Times*'s rankings. But the bias against second-tier right-wing books is substantial. Titles from conservative publishers that rank in the bottom ten of *Publishers Weekly*'s top 25 hardcover list in a given week are 22 percentage points less likely to make it onto the *Times*'s.

The *New York Times* says that politics does not play any part in its rankings. It compiles them from thousands of "selling locations" and tries to screen out "bulk purchases", which can be a sign of politicians or rich people buying lots of their own books in order to claim "bestseller" status. But the *Times* collects the data and adjusts it behind a veil of secrecy. Reading the newspaper's 550-word explanation of its methodology is like trying to interpret the symbols in "The Da Vinci Code".

The *New York Times* should strike a better balance between integrity and transparency. It is right to try to stop anyone gaming the system by, say, buying the appearance of popularity. But as faith in media objectivity wanes, transparency is the best way to ensure people's trust. If the *Times* is shunning authors because it does not like them, it should say so. When Alex Jones, a conspiracy theorist, wrote a book in 2022, *Publishers Weekly* ranked it as the number-two bestseller in its first week. The *Times* list omitted it entirely. If that was because the newspaper does not wish to lend publicity to a lying hate-monger, fair enough—but if so, it should make clear that its list is based on its values.

Another option would be to use a third party that tracks book sales, as do many newspapers, including the *Washington Post*. This gives readers a clearer picture of the data's source and impartiality; data providers with no newsroom may suffer less from editorial bias.

Bestseller lists can be valuable. Knowing what other people are reading helps you understand what they are thinking, whether you agree with them or not. Subjective recommendations of good books are valuable, too. But it is important to know which is which. The *New York Times* should ask itself some hard questions—and start a to-do list. ■

Letters

LETTERS ARE WELCOME AND SHOULD BE ADDRESSED TO THE EDITOR AT:
THE ECONOMIST, THE ADELPHI BUILDING, 1-11 JOHN ADAM STREET, LONDON WC2N 6HT
EMAIL: LETTERS@ECONOMIST.COM. MORE LETTERS AVAILABLE AT: ECONOMIST.COM/LETTERS

The benefits of fewer people

"Cash for kids" (May 25th) anxiously surveyed possible remedies for declining birth rates, yet never quite explained why this should be a cause for anxiety and not celebration. The use of terms like "crisis" and "catastrophe" belies the fact that people are choosing to have smaller families and that teenage pregnancy is at an all-time low because women have more reproductive choice. There was no mention of the positive implications for our planet's ecosystem of lower birth rates in rich countries, which are responsible for the lion's share of carbon emissions, resource consumption and waste production.

As you acknowledged, most strategies fail for boosting birth rates. This is because many women are having fewer children, not because they can't afford them or don't have time for them, but because they simply don't want them. All those funds wasted on baby bonuses would be better spent on strengthening support systems for the elderly. The best way to prepare for the economic and ecological challenges ahead is to adapt to declining birth rates by creating a strong safety-net for all.

KIRSTEN STADE
Communications manager
Population Balance
Silver Spring, Maryland

After Quebec introduced subsidised day care and maternity-leave payments increased substantially, the birth rate and female labour-force participation rate rose above those of Ontario, our neighbouring province. But as a working mother, I am confronted daily with the challenges of coping with smaller and smaller support networks to help manage my two children. In many countries, maternity leave and child care are either unavailable or incredibly costly. I have yet to see a study which credibly looks at the cost and benefit of social policies to retain women in the labour force and help them have their desired number of children. There is a benefit to society from designing these policies generously. And hard-working modern women deserve them.

JAMIE RONSON
Montreal

The sacking of Sam Altman

In a By Invitation essay (May 30th), two directors on the new board at OpenAI, Bret Taylor and Larry Summers, pondered whether the firing of Sam Altman last November arose from an internal clash over safety in artificial intelligence. That is a red herring. The previous board gave Mr Altman's apparent lack of candour as the cause of his departure. In the words of the internal investigation "There was a breakdown in trust." This was not acknowledged by Messrs Taylor and Summers. That is disconcerting, coming from the board of a non-profit firm that has pledged "to build...AI that safely benefits humanity, unconstrained by the need to generate financial return".

GARY MARCUS
Professor emeritus
New York University

A good innings

I was delighted to read your article about the resurgence of cricket in the United States, even though it did not recognise Philadelphia's role in the history of the sport in America ("Howzat meets fuhgeddaboudit", June 1st). The Philadelphia (1854), Germantown (1854), and Merion (1865) Cricket Clubs, together with the now defunct Belmont Cricket Club (1874), regularly fielded the famous Gentlemen of Philadelphia team, which toured England on several occasions and defeated first-class opponents, such as Derbyshire, Gloucestershire, Hampshire, Kent, Lancashire, Marylebone Cricket Club, Nottinghamshire, Surrey, Warwickshire and Worcestershire. Philadelphia also played and defeated Australia, Ireland, Jamaica and the United States.

Suspended during the first world war, Philadelphia lost its international stature, but continues nonetheless in the cricket clubs and hearts, memories and pitches of the city.

MORTIMER SELLERS
Radnor, Pennsylvania

Degrees of rage

I read your article on the rising number of American students in China ("Study buddies", May 25th). Surely America's keffiyeh-clad co-eds, who have been furiously insisting that their universities divest from Israel, will now also be camping out and chanting demands that their colleges close all new campuses in Beijing and Shanghai. Such self-proclaimed champions of humanity must also feel compelled to protest against China's imperialistic hold over Tibet and repression of the Uyghurs.

And we can also be sure that Ireland, Norway and Spain will naturally equate the influx of Han Chinese into China's hinterland ethnic regions with Jewish settlements in the West Bank and unilaterally recognise the independent republics of Tibet and Xinjiang in moral solidarity.

If not, one would be forgiven for wondering what variable angers these folks so much about one type of "perpetrator" while being unmoved by the other.

T.J. STONE
Taipei, Taiwan

Danish delights

Charlemagne (May 25th) contrasted the food culture of southern Europeans, who see cooking "as essential to nourish the soul as well as the body", with that of northern Europeans in Denmark or the Netherlands, "who seem to consume food mainly as sustenance".

As a Scandinavian I take some offence that Charlemagne has tarred the cuisine of our Danish cousins with the same brush as that of the Dutch. The Danish kitchen is abundant with peerless pastries, dazzling roasts of goose and duck and oysters from the Limfjorden region. Not to mention the selection of sandwiches; rye with succulent roast beef, fried plaice with caviar and meltingly tender pork roast with red cabbage and homemade pickles, alongside a glass of house aquavit, and all for a few Danish krone.

That is much more flavoursome than the Dutch taste for chips drizzled with curiously sweet mayonnaise and outsized Yorkshire puddings.

PEDER NYEGGEN
Oslo

Shining a spotlight

It is true that Sir Keir Starmer, the leader of Britain's opposition Labour Party, is not being challenged much in the forthcoming election because of the Conservatives' ineptitude and general weariness ("Incompetence or opacity?", June 1st). That mirrors the position in 2019. In that election it was Boris Johnson, the Tory prime minister at the time, who went mostly unchallenged because the focus was on Jeremy Corbyn, Labour's unelectable left-wing leader.

There was no real scrutiny of Mr Johnson, and the British people have certainly paid for that.

LUKE NOONAN
Chorleywood, Hertfordshire

Bagehot was astute in pointing out that the British electorate's need to punish the Conservatives in the election is a way of seeking redemption as much as revenge, because the electorate now abhors everything it asked for (June 1st). Thus we have the latest proof of H.L. Mencken's observation that "Democracy is the theory that the common people know what they want and deserve to get it good and hard."

ATILLA ILKSON
Saugerties, New York

Your prediction model puts the Conservative Party's chances of an election majority at 1%, but I'm sure the Tories won't give up. After all, working hard for the 1% is what they do.

SIMON RAKE
Totnes, Devon



Failed eradication

SHENZHEN

America's attempt to wipe out China's telecoms giant is a counterproductive flop

REN ZHENGFEI, the founder of Huawei, often talks of his firm's clashes with America in military parlance. "It's time to pick up the guns, mount the horses and go into battle," he said in an internal meeting in 2018. In a memo the following year he encouraged staff to tie ropes to Huawei's figurative tanks and help drag them onto the battlefield.

The martial talk is understandable: Huawei has been under attack from America for over a decade. In 2012 the American authorities began claiming that China might use the firm for espionage. Another broadside was the indictment of the firm's CFO (and Mr Ren's daughter) in 2018 for violating sanctions on Iran. By 2020 America's harrying had descended into all-out war, with most American firms barred from doing business with Huawei and foreign firms barred from selling it chips or other gear that use American technology. America also sought to dissuade other countries from using Huawei's equipment in their mobile-phone networks.

This onslaught battered Huawei. It was forced to sell its main smartphone brand for lack of chips. More than a dozen rich countries excluded it from 5G contracts. Revenues tumbled 30% in 2021; net profits collapsed by 70% in 2022. In a memo that year Mr Ren was clear that Huawei was fighting for its life: "The first thing is to survive. We have a future if we survive."

America's assault continues. In May, for instance, regulators revoked a special permit allowing Intel and Qualcomm, two American tech groups, to sell Huawei chips for laptops. Yet Huawei has not just survived; it is thriving once again. In the first quarter of this year net profits surged by 564% year on year to 19.7bn yuan ($2.7bn). It has re-entered the handset business. Its telecoms-equipment sales are rising again. And it has achieved this in large part by replacing foreign technology in its wares with home-grown parts and programmes, making it much less vulnerable to American hostility in future. Having failed to kill Huawei, Uncle Sam's attacks have only made it stronger.

Mr Ren, a former soldier, started Huawei in 1987 in his flat in Shenzhen, importing foreign telecoms gear to sell to Chinese customers. An engineer by training, he quickly started making his own equipment. As China's telecoms market grew, so did Huawei. By 2020 it had become not only the world's biggest smartphone maker, but also the leading provider of mobile-network gear, with a market share of 30%.

Mr Ren has never been short of ambition for Huawei. Its name is a contraction of the phrase "China has promise". Its headquarters in Shenzhen are impossibly grand and imposing. A palatial meeting hall features ornamentation worthy of Versailles: marble columns, inlaid floors and oil paintings of bucolic scenes across the ceiling. In a nearby manufacturing city the company has built a European-style town around a lake, complete with life-size replicas of castles that serve as meeting rooms and libraries.

Mend of an empire

In retrospect, America's blitz only briefly shook this empire. Huawei's sales last year, of about $100bn, are twice those of Oracle, an American tech firm. It is half the size of Samsung, a South Korean phonemaker, but ▸▸

outspends it on research and development. In fact its R&D budget of $23bn in 2023 was exceeded only by America's biggest tech firms: Alphabet (the parent of Google), Amazon, Apple and Microsoft (see chart 1 on next page). Last year's profits, of about $12.3bn, put it on a par with Cisco Systems, an American communications group, and vastly exceed those of Ericsson and Nokia, its main rivals in the mobile-networks business. And whereas Ericsson and Nokia are laying off staff, Huawei's headcount is growing. It now has 12,000 more workers than it did in 2021.

Huawei's core business remains telecoms-network equipment, which brought in about half of its revenues last year. In recent years this division has also formed teams of engineers to take on consulting projects, helping to re-wire and so streamline all sorts of businesses, from ports to coal mines. These new initiatives have pitted it against Western rivals such as Cisco Systems, Siemens and Honeywell.

Bric-a-brac from the dead

The consumer division, which generates a third of sales, makes all manner of devices that can connect with 5G. It has begun releasing fancy smartphones again, but also makes watches, televisions and the systems that control many Chinese electric vehicles (EVs). Revenue from consumer devices grew by about 17% in 2023, thanks mainly to the new smartphones.

A cloud-computing unit accounts for almost a tenth of revenues. Its sales grew by 22% last year. As Microsoft shrinks its operations in China, owing to American tech sanctions, Huawei is said to be scooping up its engineers. Another fast-growing unit focuses on energy, including EV charging networks and photovoltaic inverters, which turn the direct current produced by solar panels into the alternating sort that flows through the grid.

It is not that American sanctions have had no impact at all on Huawei—far from it. Its business has become more concentrated in China, for one thing, with foreign sales now only a third of the total, down from half in 2017. It has also been forced to focus more on innovation, to find technological fixes for its political problems. Some 114,000 employees, more than half the total, work in R&D. Most striking of all, it has become more vertically integrated, as it seeks to develop replacements in-house for components or software snatched away by Uncle Sam.

To survive existing and potential future American sanctions, Huawei has been systematically seeking substitutes for American intellectual property (IP) in its products and internal systems. Mr Ren claims the firm has replaced 13,000 foreign-made parts with Chinese ones. This has been extremely costly. By forcing Huawei to focus on this task, American sanctions have undoubtedly prevented it from investing in other areas. But the sanctions have also spurred the rapid development of Huawei's own IP and pushed it to diversify into new lines of business. It has been able to revive sales of smartphones, for instance, by collaborating with a Chinese supplier to develop suitable chips, most of which it used to buy from foreign firms.

China's semiconductor industry still lacks many of the components and tools needed for a complete break with the West. Some of the home-grown chips that Huawei is using are thought to cost several times more than their foreign equivalents and remain in short supply. But the fact that Huawei has been able to get round the sanctions at all in such a short time is a surprise. As a private firm whose goals dovetail neatly with those of the Chinese government, it is becoming a model for how China thinks about innovation.

About 70% of the components (by value) of the Mate60 Pro+, a smartphone Huawei released in September, are made in China, according to an estimate from Jefferies, an investment bank. It helped give Huawei a 15.5% share of smartphone sales in China in the first three months of 2024, up from about 9% during the same period in 2023 and on a par with Apple (see chart 2 on next page). This success has been a big factor in Huawei's recovery.

The phone uses a chip made by SMIC, a state-owned foundry and one of a web of firms in the semiconductor industry with which Huawei has been collaborating. Around the same time as America issued its first export restrictions, Huawei created an investment unit called Hubble. Since then it has made at least 107 investments.

Hubble's strategy has been to take small equity stakes in dozens of suppliers that are working on technologies that might help ease Huawei's dependence on foreign suppliers. Take lithography machines, which carve the tiniest of circuits into wafers and pose by far China's biggest challenge for self-reliance in chipmaking. Hubble has made several investments in lithographic lasers. Focuslight Technologies, for example, is a supplier of laser components to ASML, the world leader in lithography, and TSMC, the world's most advanced chip foundry. Hubble invested in it in 2020. A system it created for removing imperfections from the materials on which circuits are printed has helped end a foreign monopoly on this specific function within the laser supply chain. Another recipient of Hubble's cash, Suzhou Everbright Photonics, is building China's largest production lines for gallium-nitride chips, which are a novel type of high-performance semiconductors used in everything from 5G gear to power grids. The market for photoresists, which are used to form a pattern on the surface of chips in the lithography process, is dominated by Japanese firms, but one of Hubble's portfolio companies, called Xuzhou B&C Chemical, is breaking into this niche.

These investments are not creating the world's most advanced lithography equipment. Few expect Huawei to make strides in deep ultraviolet lithography machines, the bleeding edge of the industry produced only by ASML. But Hubble's activities are eating away at pockets of reliance on foreign tech. Part of that reliance is simply servicing foreign-made machines. Since the start of the year American commerce officials have been telling allies to stop providing help to keep advanced lithography machines running. Some of Hubble's investments, analysts believe, are meant to build up Huawei's ability to service and adjust components so that they work with locally made systems.

Hubble's investment strategy is already having an impact on global markets. Take silicon carbide (SiC) chips. These semiconductors are used mainly in EVs and



green-energy systems owing to their ability to operate at high temperatures. The market for them has long been dominated by Infineon, a German company. As Huawei has moved rapidly into providing technology for EVs and energy management, Hubble has invested in at least four Chinese companies that produce the materials for SiC chips, which constitutes the biggest cost in producing them. They have quickly grabbed a 32% share of the market for SiC wafers, up from almost nothing a few years ago. Huawei's involvement in the market has been one factor contributing to the fall in global prices of this type of hardware, says Poshun Chiu of Yole Group, a chip-intelligence firm.

There are no American sanctions on SiC chips; Huawei is simply being proactive, given the risk that sanctions may be applied in future. This approach prevails throughout the company. Executives must contemplate restrictions on most components. The rescinding in May of Intel's and Qualcomm's licences to sell it basic computer chips has validated this thinking.

A virtual Lazarus

Hardware is only half the battle for Huawei: since 2019 American firms have also been prohibited from selling it software, forcing the company to develop substitutes for those purchases as well. Oracle, for example, had provided Huawei with a programme to manage its internal systems (enterprise resource planning or ERP, in the jargon). The restrictions forced Huawei to build an entirely new system of its own, called MetaERP. At its launch last year an executive exulted, "We have broken through the blockade. We have survived." Some speculate that Huawei may eventually attempt to sell the system in competition with the likes of Oracle and SAP, a German company.

An even bigger hurdle has been the operating system (OS) for its consumer electronics. Huawei built its smartphone business on Google's Android. Losing access to Android, and the vast ecosystem of applications that run on it, was one of the reasons it had to jettison most of its smartphone business.

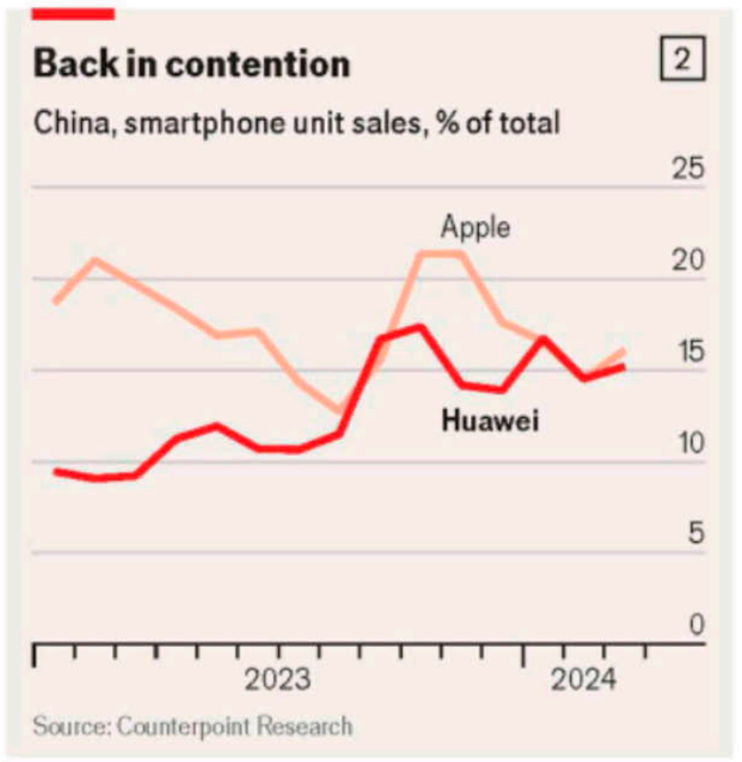
Since 2012 Huawei had been developing an OS, called Harmony, for its watches and other gadgets. America's sanctions on software forced it to incorporate Harmony into its phones as well. The popularity of its new models, in turn, has induced developers to make more apps that run on Harmony. The current version of the OS has been built with open-source Android code to make Android apps compatible for the time being. It is designed to be used in all Huawei's consumer products, including watches, televisions and vehicle systems, which makes it possible to integrate functions across devices. It is said to have 700m users and 2.2m developers.

The next version of Harmony is expected to drop all Android-linked code. When this happens, Android apps will no longer work on Huawei phones. That could be harmful to business, given that there are still very few "native" apps for the OS. But the shift would also signal the OS's total independence from the West. Harmony would, in effect, become a competitor to Android and Apple's iOS—a far more ambitious outcome than Huawei originally planned for the software.

American sanctions have also prompted Huawei to diversify, to compensate for lost revenue. Whereas its international focus used to be network equipment, it is now expanding sales of software to firms in Africa, Asia and Latin America running databases in the cloud. An executive from Clarin, an Argentine media group, told a Huawei event in May that his firm was replacing expensive Oracle database software with Gauss, Huawei's offering. Even two years ago, such switches often created compatibility problems with other Western software, but a recent overhaul appears to have ironed out most such glitches.

American policymakers had believed that Huawei would struggle to produce enough AI chips to sustain its own operations. In fact, it appears to have chips to spare. A Chinese voice-recognition company called iFlyTech recently revealed that its models and technology run entirely on Huawei's AI chips. This represents the first indigenous AI system in China that has "supply-chain independence" from the West. It is also the first AI ecosystem fully built by Huawei for another company.

All this suits the Chinese Communist Party well. Xi Jinping, China's leader, has expressed the same ambition as the company, to overcome American sanctions with locally developed technology. The state, already Huawei's biggest customer, also supports it in other ways. To spur the development of the semiconductor industry, it provides subsidies and invests alongside Huawei. The company and the government both own stakes in Focuslight, Everbright Photonics and Xuzhou B&C Chemical, for instance.

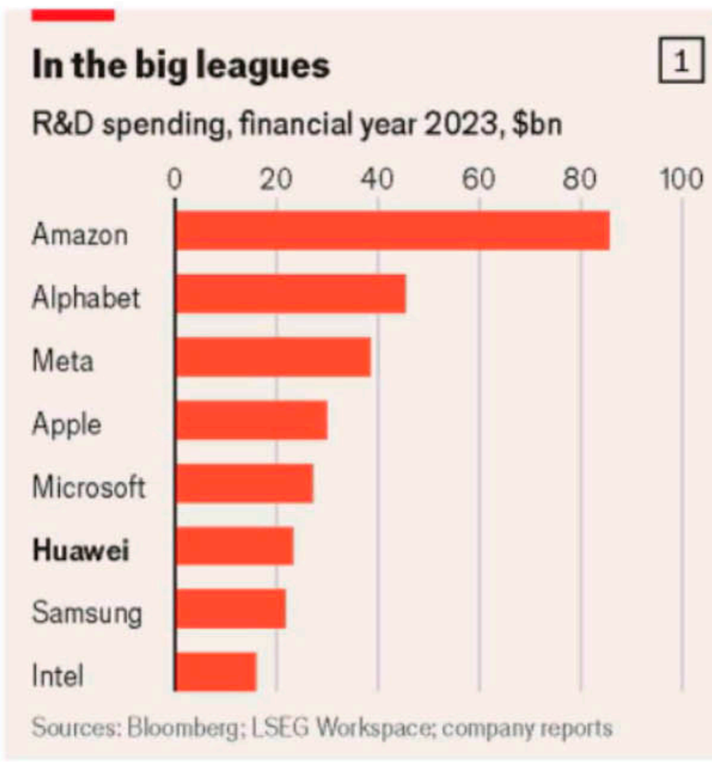


But Huawei's relationship with the state is often misunderstood. The firm is not trying to indigenise its supply chain to comply with government directives. Rather, for Huawei and many other Chinese companies, self-sufficiency has become a commercial imperative because it is their only means of survival. Its investment decisions are market driven. This separates it from sluggish state-owned enterprises, which formulate their business plans based solely on state policy.

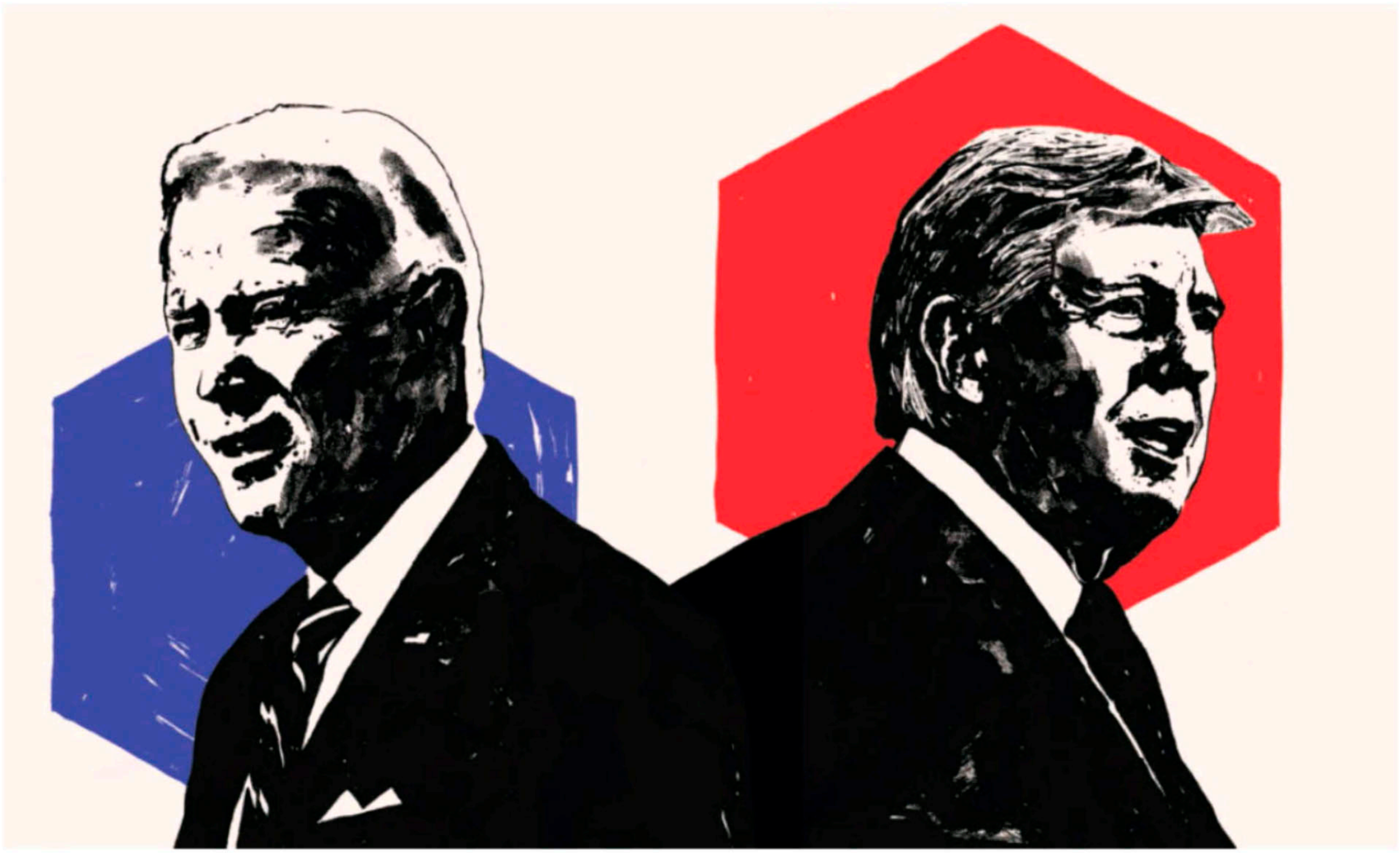
No state firm has come close to the level of success experienced by Huawei over the past decade. SMEE, the state-owned lithography group, is years behind schedule in releasing advanced products. Even as state subsidies for semiconductors have increased (last month the state launched a $47.5bn fund for the industry), notes Lin Qingyuan of Bernstein, a broker, government interference is declining. The authorities, Ms Lin says, want market forces to shape investments. Huawei thus represents the Chinese government's latest thinking on industrial policy.

America's policymakers are also learning from their mistakes. The gradual ratcheting-up of sanctions on Huawei, and especially the 28-month gap between the announcement of the most severe measures in 2018 and their implementation in 2020, gave the firm lots of time to prepare, China hawks lament. But the bigger lesson from Huawei's torment has not yet sunk in: that cutting the firm off from Western technology did not stifle it, but instead increased its incentives to innovate.

China is still years behind the West in chipmaking. Sanctions on high-powered semiconductors have raised costs and slowed the uptake of AI for thousands of firms, as intended. Hubble's investments are still far from replacing Western lithography machines and other components. But if Huawei was a worry when America first declared war, it is a bigger one now. ■



United States



Our election forecast

Cold, hard numbers for November

America's presidential race is not a coin flip, according to our forecasting model. Five months before the election, Donald Trump has a clear lead

JOE BIDEN'S job-approval rating stands at 39%, putting him roughly in a tie for lowest of any president at this point in his term in the history of American polling. In all six states that could prove decisive in November he trails by between one and six percentage points. In the two where he is closest, Wisconsin and Michigan, Democratic candidates' margins have underperformed the final polls by an average of six points in the past two elections. Even if he wins both, Mr Biden would still need one more swing state to secure the 270 electoral votes necessary for re-election.

These numbers suggest that the race is hardly a "toss-up". True, the five months before the vote give Mr Biden time to make up ground, and the polls may underestimate his true support. But it is also possible that the candidate to benefit from any polling error could be Donald Trump.

In 2016 most pundits found it unfathomable that a manifestly unqualified candidate like Mr Trump could win the presidency. This bias was reinforced by polls that consistently put Hillary Clinton in the lead. Now, after a presidency that yielded two impeachments and a riot at the Capitol, the prospect that voters might willingly return to office a man recently convicted of 34 felonies seems nearly as outlandish.

Yet surveys suggest it is more likely than not. *The Economist*'s statistical model of the election—which relies solely on polls, past results and economic data, and knows nothing of Mr Trump's record in office or in the courts—gives Mr Biden a one-in-three chance of re-election. That means a victory for Mr Biden would count as only a mild surprise, somewhat more likely than the 30% share of days on which it rains in London. Four years ago this week this model gave Mr Biden an 83% chance.

Our model combines two types of data: horse-race polls and "fundamentals", or expectations based on historical precedents. Its starting-point, drawing on work by Alan Abramowitz of Emory University, is a national "fundamentals forecast" that seeks to predict the incumbent party's share of the vote (excluding third-party candidates) based on three factors: the president's approval rating, incumbency and the economy. We have reinterpreted Mr Abramowitz's incumbency advantage as the absence of a "term penalty" suffered by parties seeking to hold the White House for more than eight years, a feat accomplished only once since 1950. We also account for the weakening of the link between economic performance and the vote shares of incumbents seeking re-election, due to growing polarisation of the electorate into camps of committed partisans.

As anyone who followed American politics in 2000 or 2016 knows, winning the popular vote is no guarantee of prevailing

→ ALSO IN THIS SECTION

18 A Biden boost in Wisconsin?
20 Hunter Biden's verdict
20 Castration in Louisiana
22 Oldies on campus
23 Chicago's unpopular mayor
24 Lexington: The debate stakes

in the state-by-state electoral college. Our model also includes a fundamentals forecast for each state, based largely on how much more Democratic or Republican its past results have been than America as a whole. For example, in 2020 Mr Trump won Florida by 3.3 percentage points while losing nationwide by 4.5, putting Florida 7.8 points to the right of the country.

Our model then hunts for the true voting intentions in each state, on each day, taking into account opinion polls published so far. It adjusts for the impact on survey results of methods, sample sizes, pollster biases and the use of likely-voter screens. Every day, the model generates 10,001 different possible scenarios for the election. The most common ones land close to poll results and its fundamentals forecasts. But it also includes a healthy number of big surprises, to allow for the risk of significant polling errors.

In 2012 the overall picture painted by state-level surveys turned out to be more accurate than nationwide polls; four years later, the reverse was true. To avoid overweighting either type of survey, the model treats the election as a giant jigsaw puzzle, in which vote shares in each state have to add up to the national total. An unusually strong national poll for a candidate will yield higher expected vote shares in every state. Conversely, a surprisingly poor state-level poll for a candidate will lower the model's expectations not just in that state but nationwide, especially in places that are nearby and demographically similar.

Why it's looking bad for Biden

Starting with the national fundamentals, our model's expectation for Mr Biden (before seeing a single horse-race poll) is that he should win 50.5% of the two-party vote—a bit above his current 49.4% share in national polls, though below the 52.3% he won in 2020. The model thinks he is slightly more likely to gain ground on Mr Trump during the next five months than to lose it: on average, it expects Mr Biden to pick up half a percentage point, yielding a tie in the national popular vote.

Unfortunately for the president, state-level polls do not suggest that the electoral-college advantage Mr Trump enjoyed in 2016 and 2020 has eroded materially. Mr Biden trails by around five points in the Sun Belt battlegrounds of Arizona, Georgia and Nevada, all of which voted for him four years ago. Our model gives him just a 24% chance of holding on to Georgia, where his lost popularity with black voters is most damaging, and 31% and 36% shots in Arizona and Nevada, where his losses among Latinos hurt him.

Mr Biden's polling has held up better in the relatively white Rust Belt swing states of Michigan, Pennsylvania and Wisconsin. Mr Trump leads narrowly in all three states. Our model considers all three close to coin flips (see chart). State-level vote shares in the Great Lakes region have tended to fluctuate in tandem from one election to another. It would take only a tiny improvement in Mr Biden's numbers or polling error in his favour to hand him the trio, and a second term.

However, there are two reasons why Mr Biden's true chance of winning the electoral college is lower than the average chance of victory that the model gives him in these three states. First, his slide in other regions makes it less likely that he can make up for a loss in the Midwest with wins in the South or West. If he loses Arizona, Georgia and Nevada, he then needs all three Rust Belt battlegrounds (plus one electoral-college vote from Omaha, Nebraska) to muster exactly the magic 270. Our model gives Mr Trump a 43% chance of winning them all and Mr Biden 31%, leaving 27% for a split decision that would probably also return Mr Trump to the White House.

Second, in both 2016 and 2020 Mr Trump did far better in the Midwest than surveys implied. Our model assumes that both candidates are equally likely to benefit from polling errors. But if you compare current surveys with state-level polling averages from late 2020, rather than with the actual election results, the Rust Belt no longer looks like a Biden-friendly outlier. Instead, it is consistent with a national trend, in which Mr Trump appears to have gained three to five points of vote share. If that were the case, the former president could be on track for a decisive victory, flipping light-blue states like Maine, Minnesota, New Hampshire or Virginia. Recent polls showing a tied vote in Virginia, or Mr Biden's lead in the Democratic bastion of New York dwindling to a modest nine-to-ten points, bolster that possibility.

Mr Biden's situation is far from desperate. Good news for him or bad news for Mr Trump—such as the former president's recent conviction in New York, which has been reflected in only a handful of state-level surveys so far—could shift their chances. So could the presidential debates (see Lexington). Moreover, the Democratic Party's new base of white voters with college degrees is far more likely to turn out than Mr Trump's less-educated coalition is, a disparity that pollsters' likely-voter screens may not fully reflect.

Our model gives Mr Trump better chances of victory than do other public quantitative forecasts. A model by Decision Desk HQ and *The Hill* puts him on 56%. The forecast released on June 11th by ABC News's FiveThirtyEight expects Mr Biden's position in swing states to improve enough by November to give him an edge, with a 53% win probability. All three forecasts agree that the contest is close, and that a victory for either major candidate is easily plausible. But by our reckoning, Mr Trump is the favourite. ■

The six that will swing it

US presidential election 2024, projected vote margin, percentage points



Source: *The Economist*'s presidential-election model

Wisconsin's redistricting

Battleground boost

MILWAUKEE

Might new legislative-district maps make all the difference in a swing state?

TONY EVERS, the Democratic governor of Wisconsin, is known in his state for his Midwestern grandfatherly air. On June 8th, speaking in a casino in Milwaukee at the state Democratic convention, he leant into that. First, he argued that Democrats "are getting shit done and delivering for Wisconsin", before apologising for swearing. Then he talked about one of his proudest achievements. In February Mr Evers signed into law new state legislative-district maps that undo one of the country's worst gerrymanders. This, the governor said, with a wink, was a "BFD—and that means a big fine deal."

Thanks to the new maps, for the first time in decades Democrats have a narrow shot of regaining the Wisconsin state house. But they are dreaming bigger. They are hoping enthusiasm in newly competitive districts will boost turnout among Democrat-leaning voters, and help Joe Biden retain the presidency.

Between 2012 and 2020 Republicans never won more than 53% of the vote-share across congressional districts, yet they controlled at least 60% of Assembly seats. The advantage they won when they rode the Tea Party wave in 2010 helped ensure the gerrymander that took place the following year would live on through the next redistricting cycle in 2021. Despite Mr Evers's objections, the state's conservative-



The moment your ideas have been waiting for

Welcome to Now

Ideas that used to be impossible now have everything they need to come to life. Using the power of Dell AI with Intel, you can make all kinds of things happen — whether you're running a global business or a corner store. So don't wait another second. See what our technology can help you do right now.

Find out more at **Dell.com**

DELL Technologies

intel.

Accelerate AI with Intel®

majority Supreme Court sided with the Republican-controlled legislature and affirmed even more blatantly partisan maps. According to analysis by the Princeton Gerrymandering Project, in an election using those maps Republicans could win 70% of Senate seats and 64% of Assembly seats with only half of the popular vote.

Democrats' fortunes finally turned when a conservative justice retired in 2023. In the most expensive judicial race in American history, a liberal judge won by a decisive 11 points. The new liberal-majority court overturned the Republican-drawn maps. To avoid protracted legal battles Mr Evers aligned with Republicans to draw districts that still favoured them, though to a lesser extent (see map for an example).

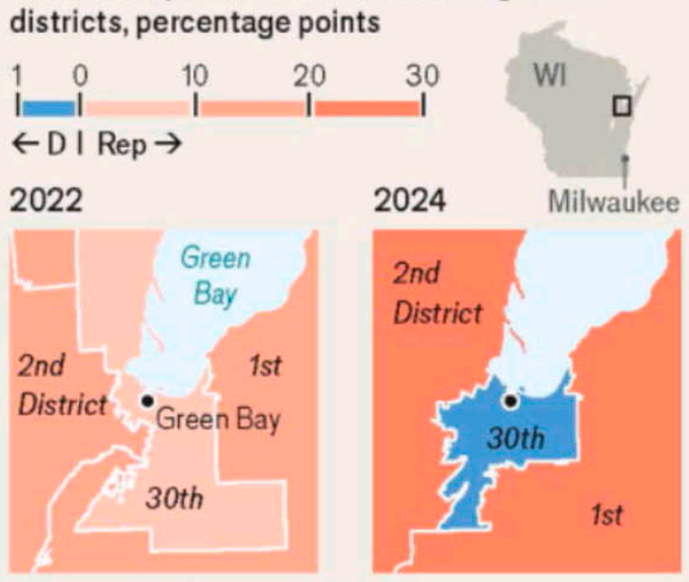
For Democrats the effect this could have is tantalising. "For years you couldn't get a Democrat with a pulse to run in many local elections," laments Joe Zepecki, a Democratic strategist. In 2022 the party did not run a candidate in almost a fifth of state legislative races. This year Democrats are expected to run in each open Senate race and in nearly all Assembly races.

But can enthusiasm trickle up? There is scant evidence either way. According to analysis from Run for Something, a progressive non-profit organisation, across eight states Mr Biden performed better in 2020 in conservative legislative districts where Democrats contested the race, even if they lost, than in such districts where the Republican ran unopposed. Still, this correlation could merely suggest that some savvy Democrats sensed a changing mood, which prompted them to stand for office.

And Wisconsin may be a victim of its own success. In both 2016 and 2020 the state already had the fourth-highest turnout rate in the country. More competitive local elections might offer only a marginal boost. But in a state like Wisconsin, where the past two presidential elections were won by fewer than 25,000 votes, marginal shifts are all it takes. ■

Local colour

Wisconsin, partisan lean* of state-legislative districts, percentage points



*Past governor, Senate and presidential election results aggregated to district boundaries

Sources: Ryan Weichelt; Princeton Gerrymandering Project

Hunter Biden

Guilty as charged

CHICAGO

Nobody is satisfied, politically, with the conviction of the president's son

LAST YEAR almost 16m guns were sold in the United States. According to a government survey, 16% of adults have used marijuana in the past month. People buying a gun must fill in a seven-page federal form. Question 21f asks: "Are you an unlawful user of, or addicted to, marijuana" (or any other illegal drug)? Almost certainly hundreds of thousands of people lie on the form, which is a felony. In a typical year, fewer than 300 are prosecuted.

This year Hunter Biden became one of them. On June 11th the president's wayward son was convicted on all three charges against him, after a six-day trial. In October 2018 he bought a Colt revolver at a gun shop in Wilmington, Delaware. At the time he was, a jury decided, addicted to crack cocaine. In theory he could now be sentenced to as long as 25 years in prison.

Mr Biden's lawyers argued that at the time he purchased the gun he was in fact clean of crack, having spent August in rehab. To knock that argument down prosecutors called on witnesses including Kathleen Buhle, his ex-wife; Hallie Biden, the widow of his dead brother Beau, with whom Hunter had a relationship after his brother died; and Zoe Kestan, an ex-girlfriend who at the time she met the president's son was 24 years old and working as a stripper. Their testimony, together with reams of evidence in the form of text messages, photos, videos and Mr Biden's own memoir, convinced the jury that around the time Mr Biden bought the gun, he had also been trying to buy crack.

The trial was revealing—but not politically. Instead it showed the horror show that Mr Biden's life became. A few details were darkly amusing. When he met Ms Kestan in a club in New York the president's son apparently played a song by Fleet Foxes, an indie band from Seattle, an unusual choice for a lap dance. Most were simply dark. Ms Buhle testified that she developed a habit of cleaning out her husband's car so that their daughters would not find drugs in it. Ms Biden told the court how she too used crack cocaine in the wake of Beau's death from brain cancer.

Nobody is pleased with the result. For Joe Biden it is a crushing personal blow. During the trial he told ABC News that he would not pardon his son. After the conviction he said he may be the president, "but I am also a Dad". He praised Hunter for finally getting clean, and the two were photographed hugging at a Delaware airfield.

Republicans were remarkably quiet. Matt Gaetz, a brash Floridian congressman, called the conviction "kinda dumb". Donald Trump's campaign called it a "distraction from the real crimes of the Biden Crime Family". That is, the unfounded idea that the president was wrapped up with his son's business affairs. The campaign had apparently been hoping for an acquittal, so as to strengthen the idea that the justice system which convicted their candidate of 34 felonies last month is corrupt.

The conviction is not the end of Hunter's criminal saga. In September he will go on trial in California on charges of tax evasion. That is more fertile terrain for Republicans, since the alleged unpaid taxes were on income that Hunter appears to have made trading on his father's name (though nothing seems to implicate the president). For now, however, there is only one positive. The law has been upheld. ■

Crime and extreme punishment

Surgical solution

WASHINGTON, DC

Louisiana could soon start castrating child-rapists

DELISHA BOYD is the product of a rape. She reckons her mother was violated repeatedly from the age of 13, two years before she gave birth. Ms Boyd, a black Democratic state representative from New Orleans, told her story publicly for the first time when she introduced a bill to carve out rape and incest exceptions from Louisiana's abortion ban in May of last year. "I can tell you today, in my mid-50s, that my mother never recovered from it. She was dead by the time she was 28 years old," she said. The bill was voted down.

This spring she told her story again at the state's capitol in Baton Rouge, to buttress a starkly different proposal. Her new bill, co-authored with another Democrat, authorises judges to sentence child-rapists to surgical castration upon release from prison. Tough-on-crime Republicans lined up to support the bill, the first of its kind in America, while the legislature's black caucus and most Democrats opposed it. It passed resoundingly and on June 4th was sent to the governor for sign-off.

Ms Boyd says she has become fed up with watching her Republican colleagues torpedo efforts to protect children. Having failed on the defensive, she decided to go on the offensive, by punishing perpetrators. In doing so she has aligned herself with Republican lawmakers who ushered in a slew of other hardline policies that ▸▸

Special limited podcast series

The MODI RAJ



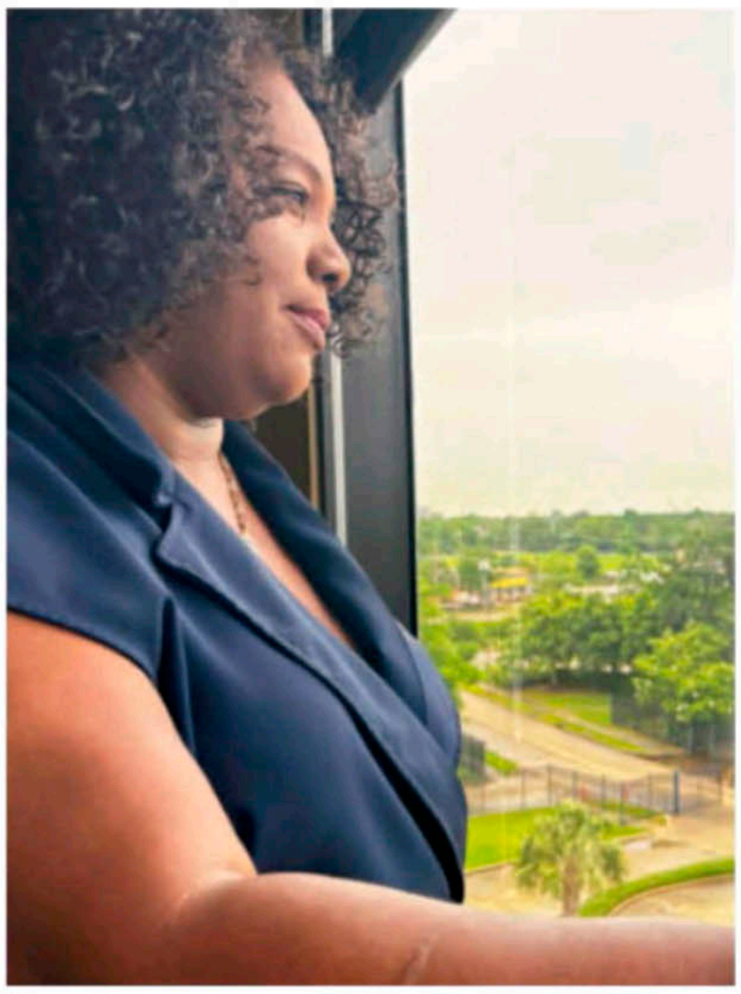
The inside story of a political outsider

Exclusively for subscribers to *The Economist*

As Narendra Modi begins his third term as India's prime minister, discover the true story behind India's divisive leader—from his rise to power to his reimagining of the nation.

Start listening on:

Economist Podcasts+



Creating a conversation

made this session the "worst" she has seen. The provisions include trying 17-year-olds as adults and expanding the use of nitrogen gas for executing convicts, a method that caused an inmate to writhe in pain when it was tested for the first time in Alabama in January. (Ms Boyd opposed both.)

Black Democratic colleagues told Ms Boyd her bill reminds them of how Southerners forcibly castrated slaves accused of rape. Fred Berlin, a psychiatrist at Johns Hopkins School of Medicine who issues court-ordered chemical castrations for paedophiles—a punishment legally enforceable, but rarely used, in 11 states—says the bill amounts to "legislators practising medicine without a licence", something Republicans have been accused of when restricting abortion. Evidence on whether castration reduces recidivism is hazy.

If it is signed by the governor, the law will surely be taken to court. Litigators will argue that castration is "cruel and unusual punishment", which is outlawed by the Eighth Amendment. But progressive lawyers in Louisiana reckon that it may well be upheld by the Fifth Circuit, America's most conservative appeals court.

Ms Boyd is unfazed by the uproar her bill has caused—in fact, she revels in it. "The bill, for me, is doing exactly what I wanted the bill to do: it is creating the conversation." She is adamant, however, that it is not about grandstanding. "If you force yourself on a five-year-old kid, you need to be dealt with and I don't mean just prison time. I wish we could sentence them to death," she says in tears. Ms Boyd is baffled by her opponents' eagerness to fight for the rights of people who commit such vile acts. To those who say her bill is too harsh she fires back with a question that reliably makes them squirm: "Are you considering child rape yourself?" ■

Senior living

Back to school

PHOENIX

A growing number of pensioners are retiring on college campuses

"ARE WE ALONE in the universe? That's the core question we're trying to answer here," Meenakshi Wadhwa, a planetary scientist with ties to NASA, tells her spellbound class. As she explains that to answer this "we need to go back to Mars to collect rocks", one student scribbles notes while another holds up an iPhone to take a snap of the slides. In many ways this lecture hall at Arizona State University (ASU) is like any other. A group of keen women sit attentively in the front row; the men are spread out in the back. But the hearing aids hint at how unusual this class is.

Mirabella, a 20-storey "university retirement community" on ASU's campus, is home to over 300 pensioners. When it opened its doors in 2020, the senior-living facility was nearly fully subscribed, despite the pandemic. Most residents are having a ball. They get a university pass, which allows them to attend the same classes and cultural events as students, but with the distinct benefit of not having to take exams. Golf buggies can drive them around the sprawling campus, though many are still fit enough to mountain bike.

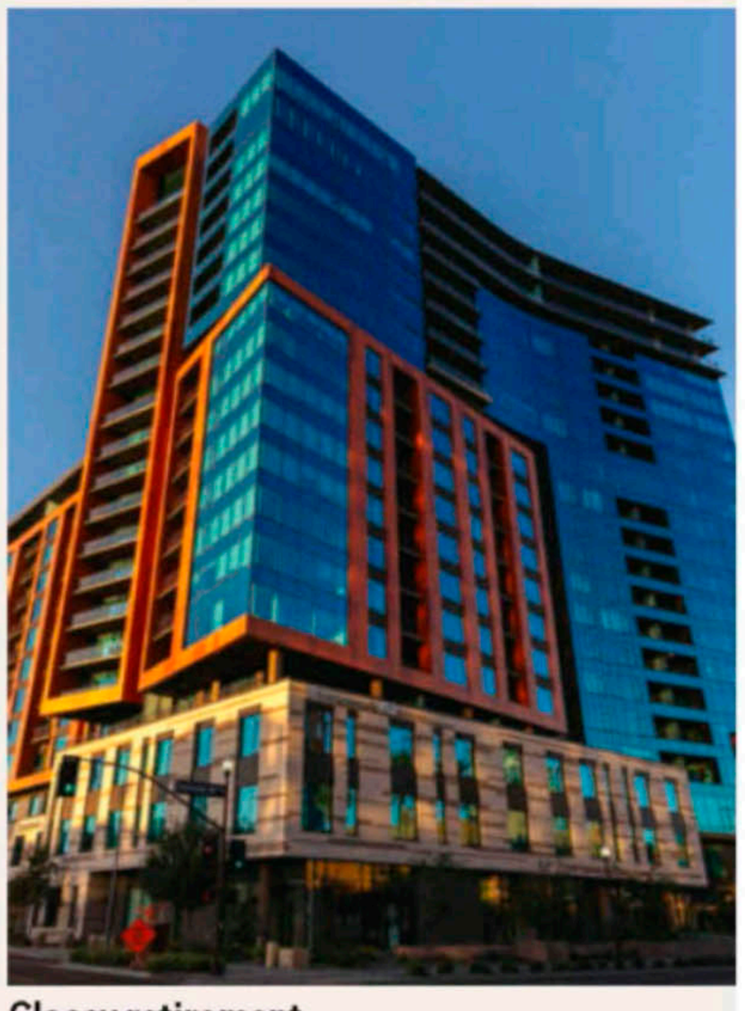
In their dorms, four restaurants serve better food than college grub and amenities include an art studio, a pool and gym, and a games room. Only the second floor feels institutional, with a memory-care centre and rooms for residents who need round-the-clock attention. Sometimes one half of a couple moves to this floor, says Lindsey Beagley, head of lifelong university engagement.

This is part of a wider trend. An estimated 85 colleges in America are affiliated with some form of senior living. The idea sprang from two college presidents who wanted to retire on campus in the 1980s. Today, universities from Central Florida to Iowa State to Stanford offer senior-living arrangements. Andrew Carle, at Georgetown University, estimates that as many as 20,000 older Americans live like this.

With more than 10,000 baby-boomers in America turning 65 every day, and more set to hit that milestone this year than ever before, the opportunity for alternative forms of retirement is large. Compared with previous generations, boomers are wealthy, educated and picky. They want to remain active, stimulated and not locked away. These wishes can all be met on a university campus.

For universities, welcoming pensioners can make sense too. Many face an "enrolment cliff", caused partly by demographic shifts. Nationally, undergraduate enrolment dropped from over 18m in 2010 to below 16m in 2022. Mr Carle regularly consults with universities who wonder what to do with the extra space. The smartest ones, he says, provide a continuum of care—including for the very last stage of life. "The philanthropy is the icing on the cake," he says of the potential that residents will include universities in their wills.

Bill Gates—not that one, but an 80-year-old former newspaper editor—moved to Mirabella with his wife, who has a PhD in chemistry, two years ago. They have made friends with residents but also, to their surprise, with younger students. "Being among young people is really invigorating," says Mr Gates. At "pizza and a slice of future", a discussion group about AI with pizza served halfway through, one of the topics was whether a lifespan of 200 or 250 years would be desirable. "The 20-year-olds were enthusiastic," he reflects, but those in their 70s and 80s "had some reservations", he chuckles.



Classy retirement



Brandon Johnson

No promised land

CHICAGO

Chicago's leftist mayor struggles to make his mark

THERE ARE not many cities in the world where the local government puts on a house-music festival—and even fewer where it would be as delightful as the one held in Chicago over the first weekend of June. On a sunny Sunday people of all races and ages filed into Millennium Park downtown, many clutching blankets, coolers and camp chairs. One attendee, however, was clearly not welcome. At sunset the headliner, Farley "Jackmaster" Funk, a storied Chicago DJ, invited on a special guest. As Brandon Johnson, the mayor, jogged onto the stage, a chorus of boos rang out. Within 45 seconds he had left, his seemingly truncated message that Chicago is "the greatest frickin' city in the world" not enough to silence the din of dissent.

Booing politicians is a tradition in the Windy City (savvier ones know the best time to appear is early, before the crowd starts drinking). Yet Mr Johnson, who won a surprising election victory last year, is already unusually unpopular. According to a poll conducted in late April, a year after his election, just 9% of Chicago residents consider him to be doing an "above average" job; a majority say his work is below average. Even among non-white voters—his base—below-average ratings outnumber above-average ones by four to one.

The mayor's unpopularity is a lesson to insurgent politicians everywhere. You may think that, as with house music, you can't go wrong. But if you claim to be leading people to the promised land, reality will eventually percolate in. At the next election, don't be surprised if the voters tell you to move your body out of office.

Mr Johnson's election was a shock. A black former schoolteacher, his only previous elected job was as a county commissioner. With the help of the teachers' union, in the first round he managed to push the incumbent mayor, Lori Lightfoot, into third place. In the run-off he consolidated the black vote while winning enough white liberals to defeat Paul Vallas, a well-funded conservative Democrat whose support came from business and the police union. In so doing, he became one of the most prominent elected politicians in America from the far left of the Democratic Party.

No way back?

Mr Johnson has defied the worst fears his opponents stoked. "We're going to see an exodus like we've never seen before," imagined John Catanzara, the boss of the police union, last year. There would, he predicted, be "blood in the streets". In fact, the mayor appointed an old-school cop as his police superintendent, and the murder rate so far this year is down by 15% on the same period in 2023. It is a similar story with the economy. "They're continuing very quietly policies that previous administrations put in place," says one of Ms Lightfoot's former officials. Property developers are among those offering cautious praise.

The trouble is, the mayor promised more than continuity. And his more radical ideas are failing. A referendum to increase the tax on property purchases to pay for homelessness support was defeated in March. Another idea, to introduce a financial-transactions tax in the city, was slapped down by J.B. Pritzker, Illinois's Democratic governor, who said he would veto any such tax. On May 29th state lawmakers finalised the annual state budget. It did not include any of the $1.1bn in extra education spending for Chicago that the mayor claims the city is "owed". There was some money to help cover the costs of housing asylum-seekers—but not as much as the city will have to spend.

And big problems are looming. This month the Chicago teachers' contract expires. Mr Johnson will have to negotiate a new one with his former employer without any cash. The teachers want raises of 9% a year, and a big expansion in hiring. But with federal covid-relief money running out, the system is already projecting a $391m deficit for the school year starting in September. Instead of tackling that, Mr Johnson has got into fights over how to allocate existing resources. Last month he had to promise state legislators that he would not close Chicago's selective schools, which are popular with wealthier white parents, so as to stop them passing a law that would ban him from doing so. Parents worry he is already diverting teachers from the most popular schools to ones that have been losing pupils for decades.

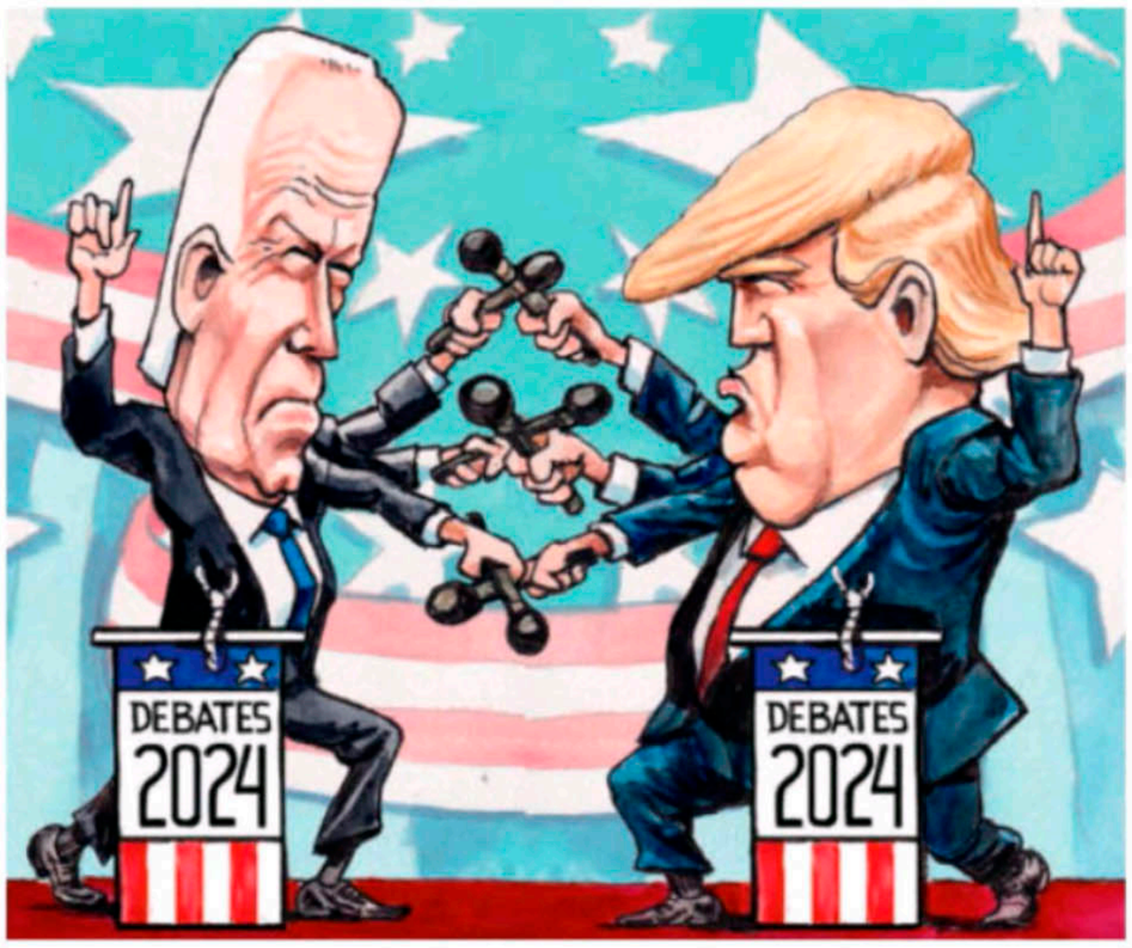
A similar challenge is the dysfunctional Chicago Transit Authority (CTA). In part thanks to a tricky union contract, it has failed to hire enough bus or train drivers to replace ones who retired or took other jobs during the pandemic. Service has been cut, and a state bail-out will be necessary to prevent collapse. Yet Mr Johnson has alienated those who will have to provide it. He has resisted calls to sack Dorval Carter, the CTA's head. (Mr Carter says he is being criticised only because of his race, though many of his critics are also black.) The mayor tried to appoint two allies, both pastors from his neighbourhood, to transit-authority boards, despite their manifest lack of interest in trains or buses. One proved so clueless about transit in his grilling by the city council that he withdrew his candidacy. Mr Johnson's spokesman says: "Experience comes in different forms."

The mayor himself projects a serene sort of confidence. He repeatedly argues that he is in fact fulfilling all of his promises. At an event to announce that he is reopening city mental-health clinics—a campaign promise he has indeed made good on—he asked reporters: "Aren't you glad that we don't have a raggedy administration?" The next few years will show if he is right. Don't bet the house. ■

LEXINGTON

Joe Biden's best chance to shake up the race

But in debating Donald Trump, he faces graver public doubts and a greater challenge than he did in 2020



TO REWATCH the two debates of the presidential campaign in 2020—an undertaking no kind person would recommend—is to encounter, amid the insults, two rather poignant moments. In each debate Donald Trump, then president, predicted that vaccines against covid-19 would be available by the end of 2020. Each time, moderators confronted him with his own advisers' doubts, while his rival, Joe Biden, called him a fantasist if not a liar. "There's no prospect that there's going to be a vaccine available for the majority of the American people before the middle of next year," Mr Biden scoffed in the second debate, on October 22nd.

In fact, in what in an alternative political universe might shine as a model of public service by successive administrations, Mr Trump's Operation Warp Speed supplied vaccines in December, and President Joe Biden's programme to distribute them delivered 200m vaccinations before May 2021. How different might American attitudes be about their politics and government if each president was able to applaud the work of the other?

But, of course, polarising politics militate against such affirming acts, and when it comes to vaccines these days Mr Trump cannot even applaud himself, usually his favourite form of exercise. Back then, not only was he pro-vaccine, he could also still refer to Anthony Fauci, then the head of the National Institute of Allergy and Infectious Diseases and now a bogeyman of the right, as a "good person", as he put it in the second debate. He also took credit for subsidies being provided to buy electric cars.

Times and politics change. Every American presidential debate, viewed again years later, reveals itself as a time capsule packed with relics of the given moment's controversies, rhetorical fashions and political positions, each of which, to viewers conscious of how history subsequently unspooled, might seem prophetic or wrongheaded. Even the debates of just four years ago are revelatory of a different America, simultaneously locked down by the pandemic and convulsed by protests over racial injustice. Those subjects dominated the questioning. Although crises abroad would turn out to buffet the next administration, the candidates were barely asked about foreign policy. With the exception of an exchange over whether Iran, like Russia, might be interfering in the election, the Middle East did not come up.

When Mr Biden and Mr Trump square off for the first time this election season, on June 27th, the tableau will be drearily familiar. Mr Trump will accompany himself on his invisible accordion, pushing his palms toward each other and then pulling them apart to emphasise his points. Mr Biden will look into the camera and occasionally point at the viewer in the hope of connecting directly. Yet the dynamic will be very different. Mr Biden sought this debate, one of the earliest to be held in the modern era. That is a sign he is trying to shake up a race that has been stuck in the polls for months, with Mr Trump holding a small lead. (Indeed, Mr Trump may yet conclude that Mr Biden has more to gain than he does from debating, and find a reason to back out.) In 2020 Mr Biden consistently led by wide margins, including in swing states, though polls understated Mr Trump's eventual, actual support.

This time, Mr Biden also bears the burden of incumbency. Four years ago Mr Trump, glowering and frustrated, was on defence over not just his management of the pandemic and race relations (he insisted he had done more for black Americans than anyone with the "possible exception" of Abraham Lincoln) but even over his signature issue, controlling immigration. Mr Trump was pressed by a moderator, and prosecuted by Mr Biden, for having separated children from their parents at the border. Mr Trump reacted partly by trying to turn Mr Biden into the incumbent, accusing him of being ineffective and cruel as Barack Obama's vice-president. When questioned on immigration, for example, he accused Mr Biden of confining children first. "He did nothing except build cages to keep children in," Mr Trump said. Mr Trump's other frequent deflection-and-attack was that Mr Biden was corrupt.

It is an axiom of politics—and another hurdle for Mr Biden—that incumbents do poorly in their first debate because they have grown unaccustomed to challenge. This seemed particularly true of Mr Trump: in the first debate he interrupted so often that the moderator, Chris Wallace, then of Fox News, accused him of violating his own campaign's debate commitments. "He never keeps his word," Mr Biden interjected deftly. Often incoherent in his answers, Mr Trump was carried along by his forcefulness. But polls suggested most viewers thought he lost both debates.

MAGAmouth

This time, despite or maybe partly because of his felony convictions, Mr Trump will be in his comfortable posture of insurgent and pitchman, attacking Mr Biden's job performance and spinning visions of the ecstasies America would enjoy under his own leadership. Polls show voters already remember Mr Trump's presidency more fondly than they felt about it at the time. Mr Biden's challenge will be to remind them why they voted Mr Trump out.

And all viewers will be asking: is Mr Biden still up to it? They will find out, live. Watching those 2020 debates means reckoning with the reality that Mr Biden is not the relatively agile speaker he was in 2020, much less the happy warrior of the vice-presidential debate in 2012, whose grinning, slashing attacks made the youthful Republican candidate, Paul Ryan, look callow. Mr Biden speaks more softly and moves more stiffly now. He smiles less readily. A habit he developed to cope with his stutter—squeezing his eyes shut, apparently to marshal not his thoughts but his elocution—has become more pronounced. None of that necessarily means he is not up to the job. And yet never in the history of American politics have one man's debate skills mattered more. ■

The Americas



Trade in Latin America

The trouble with mountains

PASO INTERNACIONAL LOS LIBERTADORES

Latin America is a commerce laggard. It should trade more with itself

FOLLOW A LORRY laden with Brazilian-made cars as it inches down the hairpin bends of the Paso Internacional Los Libertadores (pictured) into Chile and the challenges of trade within Latin America become clear. Four times the lorry grinds to a halt as workers repair the road ahead; snow, ice and avalanches will soon smash it up again. The delays are so long that drivers hop out to smoke, staring up at the surrounding peaks. There is at least one crash a week, reckons a border official. This is the busiest trade crossing between Argentina and Chile, but treacherous ice means in winter it operates for just 12 hours a day. For about 40 days of the year, smothered in snow, it shuts altogether.

Latin America's international trade, measured as exports plus imports as a share of GDP, has crept up over the past two decades, but it still trails most emerging markets. Strip out Mexico's superstrength in manufacturing for export to the United States and the picture is even worse. In South America trade in goods is worth less than 30% of GDP. In other emerging markets it is worth around 50%.

Latin American countries are even worse at trading with each other. The region is far richer than sub-Saharan Africa, but intraregional trade accounts for a mere 7% of GDP in both places. Measured differently, only 14% of Latin America's total goods trade occurs within the region, the lowest figure anywhere in the world (see chart 1 on next page).

Low trade in general is a problem. Richer places tend to trade more and international trade has been a powerful engine of development everywhere from Europe to Asia. Whether low regional trade is a worry, however, is disputed. Beyond Mexico, Latin America's trade growth in recent years has been based on surging Chinese demand for commodities like copper, soyabeans and lithium. Plenty of governments are still eager to focus on that opportunity, rather than on boosting trade with neighbours. But the strained relationship between the United States and China poses a risk. If tensions over Taiwan boil over, for instance, Latin America might struggle to maintain trade relationships with its two most important partners.

Some Latin Americans see an opportunity for nearshoring, the idea that multinational firms can expand production in the region so as to avoid exposure to China. Janet Yellen, the US treasury secretary, talks of "tremendous potential benefits". That is optimistic. There is little sign so far of a wave of foreign investment. Mexico aside, exports to the United States were flat last year. If nearshoring is under way, but not yet showing up in export statistics, you would expect to see increased foreign direct investment (FDI). That is not happening either. As a share of GDP, inward FDI is not perceptibly higher than the long-run average in most parts of Latin America. Compare that with South-East Asia, also seeking to benefit from firms fleeing China, where inward FDI is surging.

Boosting intraregional trade could cushion Latin American economies from slowing Chinese demand as well as superpower tensions. It could also help make Latin America more competitive globally. If parts and products could be made in the bits of the region where it is cheapest to do

→ ALSO IN THIS SECTION

27 Reform in Colombia

so, then traded, combined and sold, they would form so-called regional value chains, and boost exports. Why, then, are Latin American countries so bad at trading with each other?

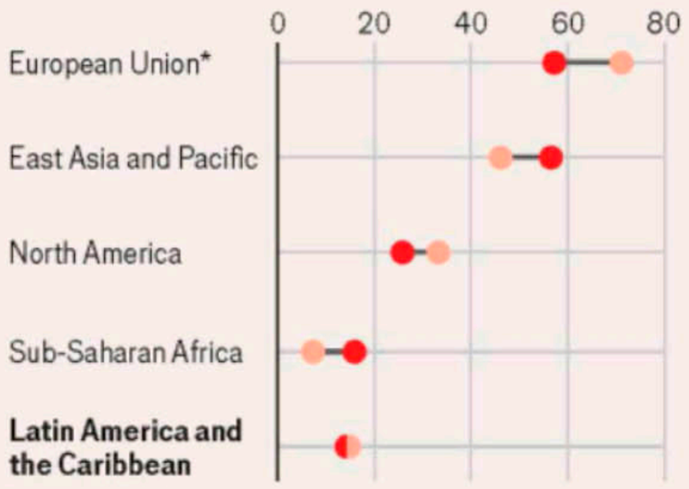
Some reasons are structural. "We don't trade with each other because we want to consume things that we do not produce," says Ricardo Hausmann of Harvard University. Low intraregional trade is, in part, due to a failure to make sophisticated products. Worse, Latin American countries often produce the same things: commodities (see chart 2). Chile's biggest export is copper. So is Peru's. Neither is ever going to sell much of it to the other. Geography matters too. South America covers almost 18m square kilometres, four times the size of the European Union. The world's longest mountain range and its largest tropical forest make much of the continent impassable for all but condors and jaguars.

These factors constrain the potential for intraregional trade, but only partially account for its paucity. The IMF reckons that Latin American goods trade is 40% lower than would be expected when comparing it with other parts of the world with similar economic and geographic challenges. The similarity of countries' export baskets explains more of the difference, but exports can and do change over time.

Intraregional trade could improve if governments addressed the basics. Building better infrastructure would ease the headaches of geography. Argentina, for example, ranks 73rd on the World Bank's logistics performance index, a measure of physical infrastructure quality and customs efficiency. The IMF estimates that reducing the gap between Latin American and rich-country infrastructure by half could lift exports by 30%.

Worst of the worst 1

Intraregional trade, % of total goods trade



Source: IMF *EU-15

Aconcagua Base

Every few years the notion of digging a vast, long tunnel through the Andes re-emerges. But that remains a pipe dream. Meanwhile truckers such as Ricardo Emmanuel, a 38-year-old from Mendoza in Argentina, continue hauling goods up and down dangerous, slow routes. "On that side it never gets repaired," he complains, gesturing down the road towards Argentina from atop the Paso Internacional Los Libertadores. He praises Chile's sleek customs complex perched high in the Andes, but says the Argentines sometimes open just one of their many checkpoints, backing up lorries. Why? "They don't want to work!" he shouts in frustration.

Better trade policy would also help. At first glance it looks good; nearly 90% of intraregional trade is already tariff-free. But those numbers flatter to deceive. There are two big problems. First, there is no proper preferential-trade agreement between Mexico, the region's second-largest economy, and Brazil and Argentina, the largest and third-largest. Second, much of the free trade is based on a spaghetti bowl of bilateral agreements. That matters because most of those agreements push producers to use inputs almost exclusively from their home country, rather than from potentially cheaper third countries in the region. "This is a huge impediment to the creation of regional value chains," says Antoni Estevadeordal of Georgetown University. He reckons the rules are equivalent to an extra tariff of about 15%.

Some Latin American leaders simply do not want freer trade. Brazil and Argentina are the two most protectionist emerging markets in the world, says Marcel Vaillant of the University of the Republic in Uruguay. With a population of over 200m, Brazil is the continent's largest market but protectionism means that for many firms in Latin America sales into the country are limited. Argentina currently levies a tax of 17.5% on purchases of foreign currency for most imports. And it directly taxes vast swathes of its exports. (Export taxes are also popular in Kazakhstan, but are seen as madness in rich countries.) Non-tariff barriers are rife across the region. Chilean producers of everything from avocados to salmon have to do separate food-safety processes for every market they export to. "That's time and money," points out Ignacio Fernández Ruiz, the head of ProChile, the country's export-promotion agency.

This protectionism has also scuppered high hopes for Mercosur, the customs union between Argentina, Brazil, Paraguay and Uruguay. Instead it both has high tariff walls to the world and is riddled with internal barriers. Mercosur briefly boosted trade between its members, but trade within the group is now no better than among other countries in the region. Trade between Mercosur and the rest of Latin America is miserably low.

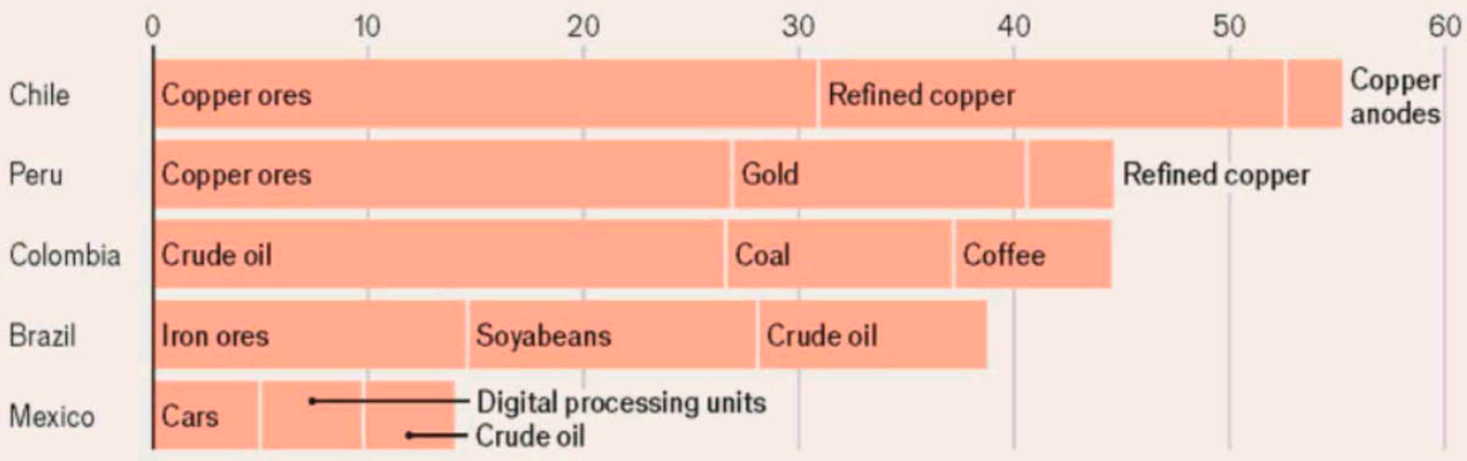
Political volatility is another headache. The Pacific Alliance, a free-trade deal between Chile, Colombia, Mexico and Peru, was launched by four centre-right leaders in 2011. They hoped it would be a model for how regional integration could also boost global trade. But the election of leftist leaders in Colombia, Chile and Mexico sapped the organisation's momentum. Mexico refused to pass the rotating leadership of the Alliance to President Dina Boluarte of Peru, claiming her appointment was illegitimate after she took over from her impeached predecessor. The Pacific Alliance is at its lowest point since it was founded, says Felipe Lopeandía, formerly Chile's chief trade negotiator, now at Deloitte, a consulting firm.

Still, it is easier to fix these problems than to move the Andes. And even the two structural impediments to trade within Latin America—geography and the fact its countries produce similar goods—look different from the perspective of the part of global trade that is expanding fastest: services. The Amazon does not block Ecuadorian consulting firms from selling advice in Brazil. For Chilean mining-engineering firms, the fact that Peru also produces copper is a tremendous opportunity. Latin America's intraregional services trade is still low, but the potential is obvious.

Chile's service exports are also small, but last year they grew by 51%, mostly within Latin America. The potential for more excites Mr Fernández Ruiz, who has brought dozens of large firms from across Latin America to meet Chilean service providers. Not for the first time, the region might learn from pro-trade Chile. ■

Commodity continent 2

Top three export products, % of total goods exports, 2021



Source: IMF

Reform in Colombia

Halting problem

BOGOTÁ

Gustavo Petro promised to change Colombia for the better. Halfway through his term, he is flailing

COLOMBIA'S FIRST avowedly left-wing president came to power in August 2022 promising to reduce inequality in one of the world's most unequal countries. Since taking office Gustavo Petro has been pushing through a series of reforms in pursuit of this goal. In particular, Mr Petro wants changes to health care, labour and the pension system.

But almost two years into his term, the bills underpinning his signature reforms have stalled. There is opposition in Congress and on the streets. Mr Petro is losing patience. He is pressing Congress to pass the laws before the end of the legislative session on June 20th. His moderate allies are attempting to rein him in, lest his intransigence push his approval below the 34% it has been stuck at for months.

Mr Petro's reforms are not created equal. Start with the pension system. Most politicians agree that it needs to be overhauled. Just a quarter of elderly Colombians get a pension. The targeting of spending is bizarre. Almost three-quarters of it goes to rich households, whose members tend to opt for a publicly funded defined-benefit system which provides annual payments of up to 80% of their end-of-career average salary. The OECD notes that Colombia is the only country in Latin America with a pension system that increases inequality.

The reform aims to expand coverage to almost the entire retirement-age population, according to an IMF analysis published in March. To help pay for this some 80% of all future pension contributions would be directed towards public rather than private schemes, and more people would make obligatory contributions. Nonetheless many fear the new model will become unaffordable. It could also deplete the size and health of private pension schemes which are the country's main savings vehicles and play a big role in its financial system.

From pragmatist to populist

Gloria Inés Ramírez, Colombia's labour minister, says the pension reform is likely to pass because the government has "prioritised dialogue and listening". The upper house approved a modified version of the bill in April, and the lower house began debating it for the last time on June 11th.

Such compromise has been lacking in health care. Colombians are fond of their country's mixed public-private system. In 1993, when it was established, only a quarter of them had access to health care. Today 95% do. The portion of the cost of care that is paid for by individuals is among the lowest in the world. Yet in April 2023 Mr Petro presented a proposal to transform the role of private insurers in the health-care system, handing control of the public funds which they currently administer to the state. He duly sacked moderates in his cabinet who opposed the plan.

Many Colombians are outraged. Hundreds of thousands of them took to the streets in April to protest against the reform. Congress blocked the bill. Since then, the country's biggest insurers have accused the government of refusing to increase the contribution it makes in line with rising health-care costs. This is running them out of business. The same week that Congress blocked the reform, Supersalud, the body which regulates private insurers, took control of the two largest firms, EPS Sanitas and Nueva EPS. Luis Carlos Leal, the head of Supersalud, breezily calls the timing "a coincidence of life".

The labour reform is being pushed through simultaneously. The proposal provides boons for salaried workers, such as increased overtime pay and longer contracts, while casual workers would be guaranteed social security. The lower house began debating the bill on June 11th. As *The Economist* went to press, legislators had approved just under half of the bill's articles, but it is unlikely to become law while they are still working on pensions.

Mr Petro is trying harder to rally his base. In March he called for a constituent assembly to rewrite the country's charter, but he has since backtracked. After the April protests he accused the opposition of plotting a "soft coup" and called for a massive counter-march.

The polarisation is spooking investors. According to Fedesarrollo, a think-tank in Bogotá, Colombia's capital, the purchase of physical assets has plunged to its lowest level as a proportion of GDP since 2005. Growth has also been sluggish. Tax collection fell by 10% in the first four months of 2024 compared with the same period the previous year. On June 6th the finance minister temporarily blocked new spending for public projects.

Running out of road

Violence and corruption scandals are eroding what political capital the government has left. Shoot-outs and kidnappings are increasing in the country's south, undermining Mr Petro's campaign promise to bring "total peace". The former head of the disaster-risk-management agency and other officials are being investigated for allegedly handing out bribes via inflated public-works contracts in La Guajira, a destitute region Mr Petro pledged to help.

Almost halfway into his term Mr Petro is trying to deliver his agenda by becoming more combative. But he needs to negotiate with Congress and placate protesters in order to successfully reform Colombia's welfare system. That requires less populism and more pragmatism. ■



Don't tread on my health care

ECONOMIST IMPACT

33rd annual

EuroFinance International Treasury Management

October 2nd-4th 2024 | Copenhagen

Building intelligent treasury together

Join more than 2,000 senior-level treasury professionals to exchange experiences, learn best practices and meet top financial and technology partners. Learn how to build smart systems and visionary teams to optimise cash management, unlock liquidity and control risk in uncertain markets.

Speakers include:



Kirsty Craig
EMEA regional treasurer
General Mills



Winny Li
Group treasurer
PPD



Mikko Hepokari
Group treasurer
Finnair



Ferdinand Jahnel
Vice-president and treasurer
Marsh & McLennan Companies



Dimitrios Siokis
Group treasurer
Coca-Cola Hellenic Bottling Company



Doug Tropp
Senior vice-president and treasurer
Booking Holdings

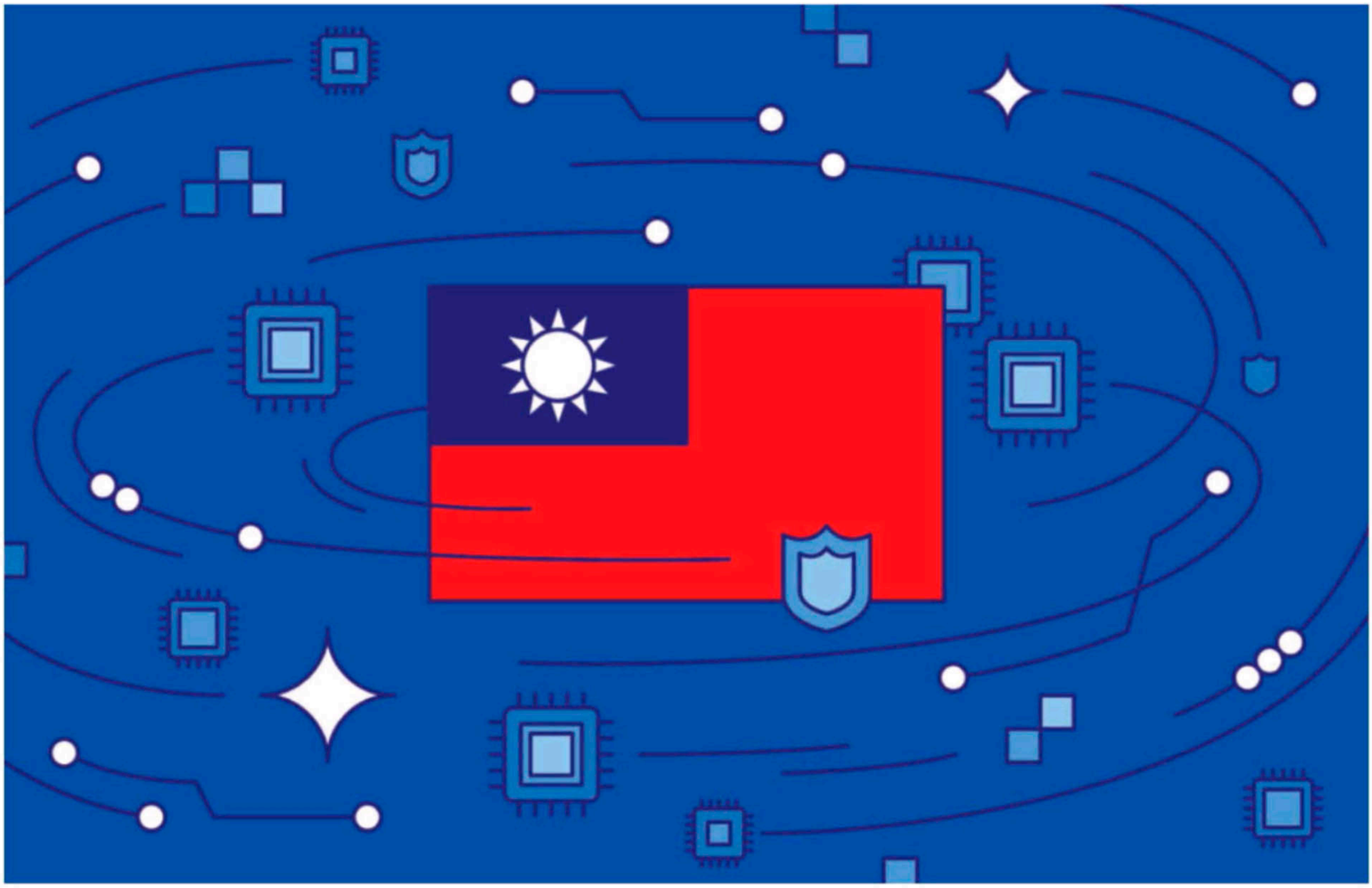
Register by July 26th to enjoy the early-bird offer:

www.eurofinance.com/international

Official lead sponsors

BNP PARIBAS · BANK OF AMERICA · J.P.Morgan · standard chartered · citi · NORTHERN TRUST ASSET MANAGEMENT · HSBC · Deutsche Bank

Asia



Taiwan, war and technology

Inside the silicon shield

The world wants to rely less on Taiwanese chips. Taiwan has other plans

HSINCHU AND TAIPEI

TAIWAN and its semiconductor industry are one of the biggest choke-points in the world economy. Everything from phones to artificial intelligence (AI) models relies on the chips that Taiwan excels at making. Yet the island, which is self-governing but claimed by China, would be at the heart of any Sino-American war. Its chip fabrication plants (fabs) could be destroyed or their output embargoed, with huge knock-on effects across the planet. This danger explains why America, China, Japan and others have been subsidising the production of chips elsewhere.

Diversification makes sense for everyone—except Taiwan. For the island it is an economic threat and a security one. A smaller industry would make Taiwan poorer and strategically less important, which might make the West care less if China invaded it, and make it easier for China to do so without risking its chip supply. As a result, even as Western politicians and bosses boast of making chips at home, Taiwan is now working furiously to remain indispensable. "The first priority is Taiwan, the second priority is Taiwan, and the third priority is Taiwan," C.C. Wei, the boss of TSMC, the leading firm, told investors on June 4th. In his inauguration speech on May 20th, Lai Ching-te, Taiwan's new president, called it a "Silicon Island" and vowed it would work to secure a lead in AI.

The Taiwanese sometimes call their industry the "sacred mountain that protects the nation". The island makes more than 90% of the most advanced semiconductors, which use the so-called three-nanometre process. All of those are made by TSMC, by far Taiwan's most important firm. Dominance of the global market for chips means the industry is hugely important to Taiwan's economy, accounting for 13% of its GDP (TSMC alone makes up 8%) and 40% of exports last year.

The worldwide push to end dependence on Taiwan began several years ago and is now in full swing. Under the 2022 CHIPS Act, President Joe Biden's government has subsidised chip firms including Intel and Samsung to the tune of $22bn to start making advanced semiconductors in America. Germany, India, Japan and others have large subsidy schemes, too: Rapidus, a Japanese government-backed firm, claims it will produce two-nanometre chips by 2027. TSMC is itself building new fabs in America and Japan; and two compatriot firms, UMC and PSMC, are constructing fabs in Singapore and India.

At first glance this means Taiwan's centrality to the industry will decline. Its share of chip wafers smaller than 10 nanometres fell from over 90% in 2019 to 70% in 2022, and is expected to drop to 47% by 2032.

→ ALSO IN THIS SECTION

30 Russian exiles in Central Asia

31 India's new coalition government

32 Banyan: The importance of caste

America's share is forecast to jump from zero to nearly 30%, according to a recent analysis by the Semiconductor Industry Association and BCG, a consultancy firm. The share of TSMC's long-term assets located in Taiwan fell from 98% in 2016 to 81% in 2023, as it set up plants abroad.

Yet look closer and the picture is different. Mr Wei of TSMC has reassured investors that 80-90% of the firm's capacity remains in Taiwan. Because the technological frontier is moving, foreign fabs may quickly fall behind. The first fabs that are completed in Arizona will make older nodes of four or five nanometres. Taiwanese fabs are expected to make two-nanometre chips by 2025, and 1.4-nanometre chips by 2028. "When TSMC promises advanced manufacturing technology overseas, it is still building that first in Taiwan," Wu Cheng-wen, Taiwan's new science and technology minister, insisted on May 22nd.

American talk of bringing chipmaking back is a "political show", says Lin Hong-wen, a journalist in Taiwan. Despite the global subsidy boom, Taiwan's relative cost advantage is intact: Wendell Huang, TSMC's finance chief, has said American fabs cost four to five times more to build than those on the island.

Across the strait

The government and firms are now pushing to widen the gap with the rest of the world even further. One priority is AI, which Taiwanese officials now refer to as a "second sacred mountain". Nvidia, an American semiconductor firm which has an 88% market share for GPUs, the chips that power AI, relies on TSMC to make and package most of those chips in a complex process that involves stacking multiple chips on top of a wafer. Taiwan also assembles 90% of the servers that those chips go into. In June Jensen Huang, the boss of Nvidia, called Taiwan the "bedrock for the AI industrial revolution". Jeff Lin, vice-president of the Industrial Technology Research Institute, a tech incubator in Hsinchu, the home of TSMC, says that "Taiwan wants to help international companies become the next Nvidia."

Last year Taiwan's government passed laws that offer chip companies 25% tax deductions for research and development of cutting-edge chips and 5% deductions for purchases of equipment for advanced manufacturing. Another priority for the government is expanding beyond hardware into chip design, where it wants the island's market share to rise from 20% today to 40% by 2033. At all times the goal is to draw intellectual property to Taiwan.

If the existing subsidy boom won't dislodge Taiwan from the apex of the chip industry, what might? Jiann-Chyuan Wang of the Chung-Hua Institution for Economic Research, a think-tank, notes that America's government could demand that a share of advanced chips must be procured domestically for security reasons.

Taiwan faces other constraints. TSMC consumed 8% of the island's electricity in 2023. Fossil fuels still produce around 80% of Taiwan's electricity. Slow decarbonisation means Taiwanese firms may have to compete for a limited amount of renewable energy, or have to pay carbon tariffs in the EU when its new tax regime is implemented in 2026. Taiwan also has an ageing population and a shortage of workers. It launched a "gold card" visa system in 2018 in order to attract foreign talent, but few of those who moved there were willing to work for local firms, because of low pay.

Another threat involves Western and Taiwanese decoupling from China. Chris Miller, the author of "Chip War", a best-selling book about the industry, notes that the People's Republic has partially separated from Taiwan in the face of an array of tech sanctions and export controls imposed by the West (sometimes enforced through Taiwanese firms, including TSMC).

As a result Taiwanese chip exports to China fell by 18% in 2023, from $58bn to $47bn. Chinese firms do not yet pose a technological threat to TSMC, but they do pose a financial one: other Taiwanese firms in less advanced areas may be undercut. China's share of global capacity for making logic chips at 10-22 nanometres is expected to jump from 6% to 19% by 2032.

This output will compete with TSMC's older facilities, which are still profitable for the firm, and those of other Taiwanese chipmakers. If China decouples further, the silicon shield could become less effective at deterring a Chinese invasion of the island, because China would be disrupting infrastructure that it no longer relies on.

Despite the wave of semiconductor subsidies and talk of diversification, Taiwan appears set to remain central to the frontier of the Western tech industry. If the risk that creates cannot be eliminated it can be mitigated, to a degree. Urged on by rich-world governments, some consumer firms might accept using less advanced chips in some products, in order to bypass Taiwan. TSMC could try to insulate itself against Chinese "grey-zone warfare" tactics, such as an embargo, by stockpiling: in 2023 it carried 87 days' worth of inventory, compared with 46 days in 2017.

Contingencies can be made: TSMC's chipmaking machines, many of them supplied by ASML, a Dutch firm, can be remotely disabled in the event of an invasion by China. Yet the threat of war still hangs over Taiwan's chip empire. In Hsinchu, one semiconductor executive shakes his head when asked about the worst case. "In this situation, chips are not the priority. We don't want people to say, 'Save the chips but not the people.'" ■

The Russian diaspora

Go south

ALMATY

Exiles are making their mark in the Caucasus and Central Asia

WHEN RUSSIA invaded Ukraine in 2022, some speculated that the countries of the Caucasus and Central Asia (CCA) would turn away from their old imperial overlord. After all, Vladimir Putin's revanchist obsessions could turn south. China, already an important economic partner of Central Asia, could push for stronger ties. Or the West could try again to lure it into its sphere of influence.

Nearly two and a half years on, the picture is more mixed. All three countries in the Caucasus (Armenia, Azerbaijan and Georgia) and the five in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) have refused to endorse Russia's war in Ukraine. Last year China replaced Russia as Central Asia's biggest trading partner. Feeling betrayed by Russia, Armenia is re-aligning more firmly with the West.

However, many of these countries are having it both ways. All five Central Asian leaders attended Russia's victory-day parade in Moscow last month. Georgia's rulers are tightening their links to Russia. Energy ties between Central Asia and Russia are expanding. When Mr Putin visited Tashkent, Uzbekistan's capital, in May, it was announced that Russia would build Central Asia's first nuclear power plant.

Russia's presence in the CCA has grown in other ways too. Since 2022, Russian people, firms, cash and goods have poured in. Easy immigration laws and political neutrality have attracted Russians evading sanctions, dodging conscription and seeking international finance. The benefits are mutual. Russia's war has helped several CCA countries grow faster and gain geo- ▸▸

Widening its remit

Russia, net outward money transfers, $bn



Source: European Bank for Reconstruction and Development



Better than the frontline

political heft. Last year their economies grew by 4.9%, surpassing pre-war forecasts.

The CCA has become a hub for Russian trade, providing a lifeline for Russia as it faces 20,000 economic sanctions. Almost every country in the CCA has boosted imports from Europe, China, the UAE and Turkey, while expanding exports to Russia. The CCA's share in non-hydrocarbon exports in 2022 to the EU, Russia and America rose by 25, 22 and 53 percentage points, respectively, according to the IMF. German exports of cars and spare parts to Kyrgyzstan, a backwater in global terms, soared 50-fold between 2021 and 2023.

Serving as a trade conduit to Russia does not fully explain the CCA's trade boom, though. Both regions have emerged as crucial transport alternatives. Traffic along Russia's northern corridor, the main route connecting China to Europe by land, has plummeted since 2022, while trade along the middle corridor across the Caucasus and Central Asia has more than quadrupled in volume, says the IMF. In February the EU announced plans to invest another €10bn ($11bn) in it.

The Caucasus and Central Asia have also benefited from the hundreds of thousands of Russian emigrants, or *relokanty*, who have fled from their homeland. They are mostly young, educated and wealthy. As they transfer money out of Russia, the CCA has received an unprecedented surge of remittances (see chart on previous page). A wave of Russian tourists has brought cash, too. Russians have opened at least three times more businesses in Georgia since 2022 than in the previous 27 years combined. In Kazakhstan Russia now accounts for 41% of foreign-owned firms, up from 32% in 2021.

All the same, the war has dented Russia's standing across the CCA. The share of Kazakhs who view Russia "very favourably" fell from 50% in 2017 to 17% in 2023, according to surveys by Central Asia Barometer, an independent research outfit. In Kyrgyzstan, which depends more on Russia, the drop was from 65% to 45%. The influx of *relokanty* has pushed up inflation and house prices, raising tension in big cities. "Because of them, prices have gone up everywhere," moans a lawyer in Almaty, Kazakhstan. Last year 79% of Georgians had a "strictly negative" view of *relokanty*.

Still, Russia's influence in the CCA remains strong. Last month Georgia's ruling party pushed through a controversial "foreign agents" law, which would require NGOs with a fifth of their funding from abroad to register as "bearing the interests of a foreign power": it has sparked protests and many Georgians call it the "Russia law". Kyrgyzstan and Tajikistan still depend heavily on remittances from emigrants in Russia. Gazprom, Russia's state-owned energy company, owns all of Armenia's gas networks.

And Russia is making life harder for its exiles. Two new laws let it confiscate the property of Russians who "discredit the army" and the passports of those who disobey the military call-up. Some are returning home as a result. Russia's government is also getting stroppier in public. Western efforts to persuade Central Asia to curb rerouted trade have irked it. "My colleagues told me that they are outraged by such flagrant impudence and insolence," said Sergei Lavrov, Russia's foreign minister, at a regional meeting last month in Astana, Kazakhstan's capital. Central Asia's leaders sounded eloquently non-committal. ■

Indian politics

Modi's new normal

DELHI

How will India's new coalition government work?

OBSERVING THE string of familiar faces taking the ministerial oath at the president's residence in Delhi on June 9th, it was easy to forget that Narendra Modi's Bharatiya Janata Party (BJP) had just suffered the loss of its majority in a general election. For all the talk of compromise needed to run a coalition government, Mr Modi appeared keen to demonstrate that there would be no change in who called the shots. Yet the picture obscures several new challenges for India's prime minister. His immediate task is to satisfy a set of demanding coalition partners in the National Democratic Alliance (NDA). He will also have to grapple with a revived opposition and a disappointed base.

The new Modi government looks a lot like the old one. The key postings are unchanged. Amit Shah, Mr Modi's feared right-hand man, continues as home minister. Subrahmanyam Jaishankar keeps the Ministry of External Affairs, Rajnath Singh stays on as defence minister and Nirmala Sitharaman returns as finance minister.

The first decision taken by the new cabinet on June 10th was to extend one of Mr Modi's flagship projects, a housebuilding programme for poor Indians, signalling a continued commitment to the welfarist portion of his political agenda. The newly appointed ministers were quick to emphasise policy continuity in other areas, too.

Yet Mr Modi will soon face more serious tests. Most parties in the NDA want an immediate review of the Agnipath scheme. This programme was introduced in 2022, in an attempt to cut costs in the armed forces by recruiting most new members for a fixed four-year term rather than granting them lifetime appointments. It is seen as emblematic of the previous Modi government's disregard for voters' economic anxiety over a lack of jobs, particularly for young people. Demands from the BJP's most important allies, the Janata Dal (United) from the eastern state of Bihar and the Telugu Desam Party from Andhra Pradesh in the south, for more money for their states may further curtail Mr Modi's fiscal ▸▸

room for manoeuvre.

Another challenge is the revived importance of parliament, which convenes for the first time on June 24th. It will be harder for the government to sideline the opposition, which has been buoyed by its gains in the election. The Congress party, the biggest opposition group, has already demanded an investigation into alleged stockmarket manipulation in the run-up to the release of election results after exit polls predicted a landslide win for the NDA. Meanwhile the BJP's allies have reportedly expressed an interest in the position of parliamentary speaker. The speaker, who is technically non-partisan but has been drawn from the BJP for the past decade, has the sole authority to disqualify legislators who defect from their parties.

The final risk is disunity in Mr Modi's own political camp. Functionaries in the BJP's heartland in the northern state of Uttar Pradesh, where the party suffered the biggest losses, have publicly accused each other of sabotaging the election campaign for personal gain.

Even more striking, on June 11th Mohan Bhagwat, the head of the Rashtriya Swayamsevak Sangh (RSS), a paramilitary volunteer organisation on which the BJP has long relied to do grassroots work, openly criticised Mr Modi's conduct of the election campaign. The RSS may demand a bigger future role in policy formulation, potentially causing conflict with NDA types. Mr Modi has his work cut out. ■

BANYAN
Caste matters

India's prime minister must rethink his approach to Hinduism's social hierarchy

NARENDRA MODI, India's prime minister, made several costly miscalculations in this year's general election. He overestimated his own popularity. He underestimated the extent of economic angst, especially about underemployment and inflation. And he relied excessively on Hindu nationalism to mobilise voters from the nation's religious majority. But perhaps his most telling error was to mishandle what is still the most important fault line in Indian society: caste.

Mr Modi's Bharatiya Janata Party (BJP) ran a campaign that sought to unite every tier of Hinduism's centuries-old caste system, under which adherents are ranked by birth in a strict hierarchy, with Brahmins (the priestly caste) at the top and Dalits (formerly known as untouchables) at the bottom. Although a system of quotas has for decades given lower castes preferential access to education, government jobs and some parliamentary seats, discrimination against them is endemic and often violent.

The BJP's strategy was to emulate its earlier success in mobilising the large Hindu majority with a promise of strongman leadership, economic development and religious chauvinism. Doubling down on the party's contention that caste discrimination is a legacy of Muslim and British colonial rule—and best tackled through economic growth—Mr Modi pledged "development for all". He even went as far as to say that he believed in only four castes: farmers, women, the poor and the young. As for his opponents, he accused them of dividing India on caste lines in the past and "committing the same sin today".

Yet Mr Modi was ultimately wrongfooted by an opposition that put caste at the centre of its campaign. The Indian National Developmental Inclusive Alliance promised a national census for all castes and an expansion of quotas. Rahul Gandhi, the de facto leader of the Congress party (the BJP's main national rival), focused relentlessly on the issue on the campaign trail, railing at upper-caste dominance of the elites.

Most damaging, opposition leaders argued that if Mr Modi's alliance reached his goal of winning 400 seats (out of 543) in the lower house, it would change the constitution to scrap quotas. Mr Modi denied that and countered by claiming that under the opposition, job reservation would benefit only India's Muslims. But the opposition's warnings seems to have unnerved many lower-caste voters, perhaps because BJP and other Hindu-nationalist leaders have in the past suggested reviewing caste-based quotas.

The consequences were striking in Uttar Pradesh, or UP, which as India's most populous state has 80 seats in parliament's lower house, more than any other. The BJP won 62 of the state's seats in 2019 but only 33 this time. Fully 37 went to the Samajwadi Party, a left-wing member of the opposition alliance. It previously represented mainly Muslims and Yadavs (a mid-tier caste long at odds with Dalits). This year it lured many votes from Dalits and other lower castes, too. The results in UP, where the BJP controls the government, bode poorly for its prospects in the state election in 2027.

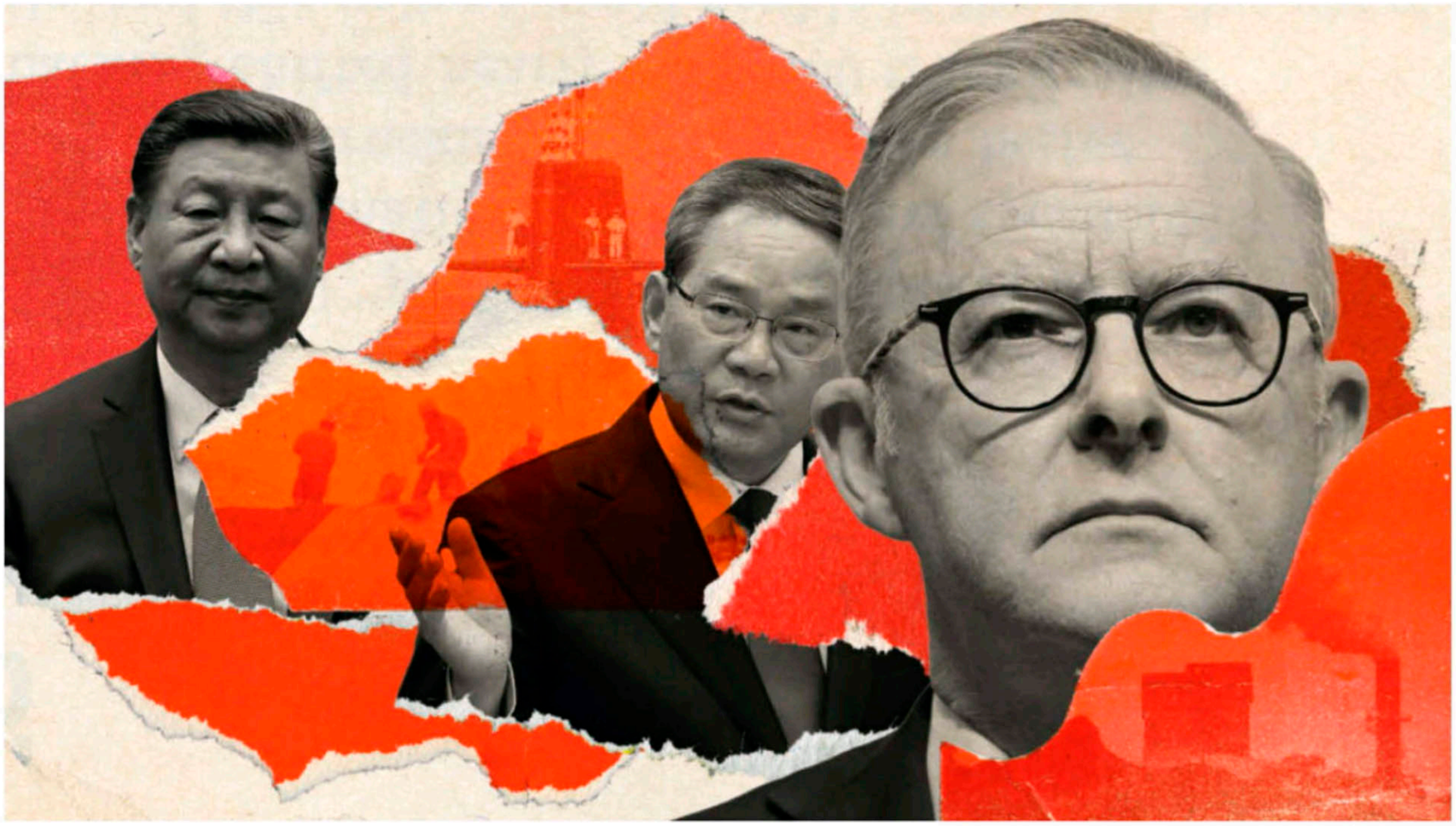


The national picture is less bleak for the BJP, according to a post-election survey by Lokniti-CSDS, a pollster. The party won 53% of upper-caste votes, the same as in 2019. Among middle-to-lower castes (known as "Other Backward Classes", or OBC, in the positive-discrimination scheme) losses in some areas were offset by gains in others. And the party's vote share among Dalits fell by three percentage points to 31%.

Still, the party paid dearly for the shifts in voting patterns among lower castes, because they occurred in some of the most politically important states. The result also reinforced an opposition narrative that the BJP has always been dominated by higher castes. It will doubtless fuel calls for a caste census. It could complicate the BJP's succession plans too: Mr Modi played on his OBC status to win lower-caste votes but the three frontrunners to succeed him are all upper caste.

Mr Modi has already sought to repair the damage by appointing several Dalits and OBCs to his cabinet, although the four key ministers (foreign, home, defence and finance) are all higher caste. The BJP may also choose a lower-caste figure as its new party president (the incumbent is Brahmin). But the BJP will need to do much more in the years ahead. Because even if Mr Modi believes that traditional caste barriers are irrelevant, India's voters clearly do not.

China



Regional diplomacy

From wolf warrior to panda-pusher

SYDNEY

China wants to ease tensions with at least some of America's allies. Making up with Australia is one of its priorities

"MY GOVERNMENT IS pro-panda," said Australia's prime minister, Anthony Albanese, as he prepared to host the highest-ranking Chinese visitor to his country in seven years. Mr Albanese was simply referring to the bears that China has lent to Australia's Adelaide Zoo. Still, such sound-bites had long been rare before he was elected in 2022. Relations between China and Australia had suffered years of acrimony. The mood is now much changed. During his four-day trip to Australia, beginning on June 15th, China's prime minister, Li Qiang, will be keen to show that even with one of America's closest allies, cordial ties are possible.

In China's political hierarchy, Mr Li is a distant number two to the president, Xi Jinping, who last visited Australia a decade ago. But his trip has much symbolic importance. Under Australia's previous governments, China hawks held sway. Relations turned particularly sour in 2017 when the prime minister at the time, Malcolm Turnbull, tried to clamp down on Chinese attempts to exert covert influence in Australia. He introduced laws aimed at curbing this. In 2018 he also took the lead among Western powers by banning Chinese involvement in the building of advanced 5G communications networks. His successor, Scott Morrison, infuriated China by calling for an international investigation into the origins of covid-19. China responded with sweeping restrictions on Australian exports to China. Mr Li's visit is a clear sign that both countries want to move on.

The mood-change was already clear when Australia's leader met Mr Xi in Beijing in November. "The China-Australia relationship has embarked on the right path," Mr Xi told Mr Albanese. In the preceding months China had eased its sanctions on Australian barley, coal, cotton, copper and timber. Mr Albanese's milder tone may have helped. But Australian officials believe China may have sensed that its sanctions were failing. Australia had suffered little pain and had drawn even closer to America. Mr Albanese's election gave Mr Xi an excuse to change course.

In China's view, pandas are a perfect way to say you want to be pals. Mr Li will begin his trip with a visit to the Adelaide Zoo. Its two pandas have spent 15 years in Australia and are due to be sent back to China at the end of the year. Mr Li is likely to announce that they will either stay or be replaced. That would please Mr Albanese.

But Australia's leader is no panda-hugger in the sense of wanting warm and fuzzy ties with China regardless of how it behaves. He has shown no sign of retreat from Australia's commitment to AUKUS, a defence pact reached between Australia, America and Britain in 2021, when Mr Morrison was prime minister. Nor has he wavered in support for the Quad, an informal security-related group made up of Australia, America, India and Japan that drew closer in the years leading up to Mr Albanese becoming prime minister. (China—with good reason—sees both of these networks as efforts to toughen resistance to its power.) Shortly before visiting Beijing, Mr Albanese went to America, where he called Australia's relationship with that

→ ALSO IN THIS SECTION

34 Foreign judges leave Hong Kong

35 Durian diplomacy

36 Chaguan: Smothering a culture

country "second to none" and "a relationship of trust". He was evasive when asked in Beijing whether he trusted Mr Xi.

Australian officials see China's change of heart as part of a broader shift. This has involved the tempering of its aggressive "wolf-warrior" diplomacy and re-engagement with America and its allies. After meeting Mr Albanese, Mr Xi went to San Francisco, where he met President Joe Biden for the first time in a year. In May Mr Li held trilateral talks with the leaders of Japan and South Korea for the first time since 2019. "It was pointless to keep flogging Australia," says Richard McGregor of the Lowy Institute, a think-tank in Sydney. "All they got out of it was AUKUS and a strengthened Quad. And that is not the winning hand that China had hoped for."

Shortly before his visit to China last year, Mr Albanese said he would not end a controversial 99-year lease of the strategic port of Darwin by a private Chinese company, Landbridge. But Mr Albanese is trying to reduce China-related risks to Australia's economy. China is the country's biggest trading partner (and the biggest buyer of its iron ore—which, being badly needed in China, remained sanction-free). His government plans to spend billions of dollars on subsidies for Australian firms to help them challenge China's dominance of minerals and technologies needed by Australia's green industries. It is boosting scrutiny of foreign investments, too. On June 2nd Australia ordered Chinese-linked funds to divest their holdings in Northern Minerals, a rare-earths miner.

Hey there, partner?

Mr Li may try to nudge Mr Albanese to back China's bid to join the Comprehensive and Progressive Trans-Pacific Partnership, a trade pact. An inducement, he may be hoping, will be China's lifting of its last remaining restrictions on Australian imports: wine started flowing freely in March, beef curbs were further eased in May and lobsters may soon crawl behind. But Mr Li is unlikely to make much headway. Australia strongly opposes China's accession.

Like his predecessors, Mr Albanese worries about China's aggressive behaviour in the region. Last month Australia accused a Chinese air-force jet of dropping flares near an Australian military helicopter in the Yellow Sea. Mr Albanese called this "unacceptable" and said he would raise the matter with Mr Li.

China's prime minister may hope that even if he cannot prise Australia away from America, he can at least try to win over some Australians whose views matter. He is expected to meet members of the country's 1.4m-strong ethnic-Chinese community, which makes up about 5.5% of the population. Opposition within this group to Mr Morrison's strident views on China contributed to his defeat by Mr Albanese.

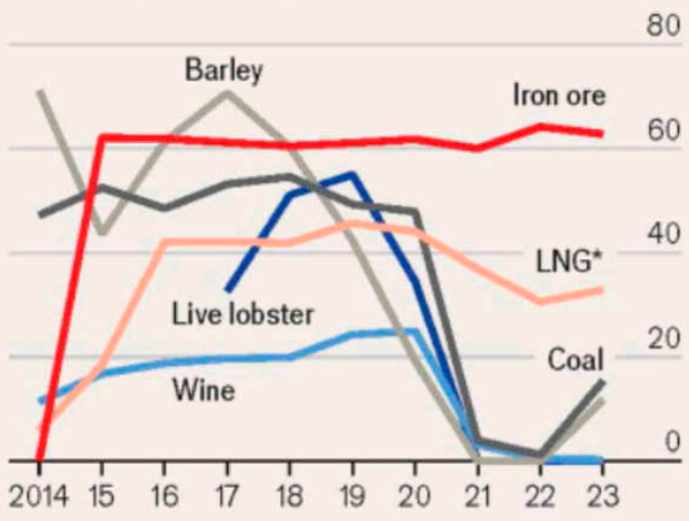
But even with the help of pandas, Mr Li will have a hard job finding admirers. Recent polling by the Lowy Institute suggests the public is nervous of China. In 2020 55% of Australians saw China primarily as an economic partner rather than as a security threat. The worriers have since become a majority: 53% now view China mainly as a threat (though that is down from 63% in 2021 and 2022). In the 2010s between 39% and 48% of respondents to the institute's annual polls said they thought China would threaten Australia militarily in the coming 20 years. Now more than 70% do.

Mr Li will find a similar hardening of views in New Zealand, where he was starting his trip as *The Economist* went to press (after Australia he will visit Malaysia). Though a friend of America, New Zealand has long pursued close ties with China, its largest overseas buyer of the dairy and other farm products that are the staple of its exports. New Zealand is now eyeing the possibility of joining AUKUS collaboration on technologies such as artificial intelligence, quantum computing and hypersonic missiles. Last month its foreign minister, Winston Peters, said the country was "seriously concerned" about China's security-related activity in the Pacific.

At best, perhaps, Mr Li can expect that America's friends will keep their criticism of China's human-rights record muted. Mr Albanese's mantra is "co-operate where we can, disagree where we must", which means rarely criticising China publicly, and raising concerns behind closed doors. He has not joined America and the European Union in imposing sanctions on Chinese officials for human-rights abuses. But Mr Albanese has said he will raise the case of Yang Hengjun, a China-born Australian who was given a suspended death sentence in February by a Chinese court for espionage. No matter what tone of voice Mr Albanese uses, China is unlikely to pay attention. Its efforts to charm are increasingly impeded by its fixation on perceived threats at home. ■

Coming back from down under

China, imports from Australia, % share by commodity



Sources: Wind; China Customs

*Liquefied natural gas

Hong Kong

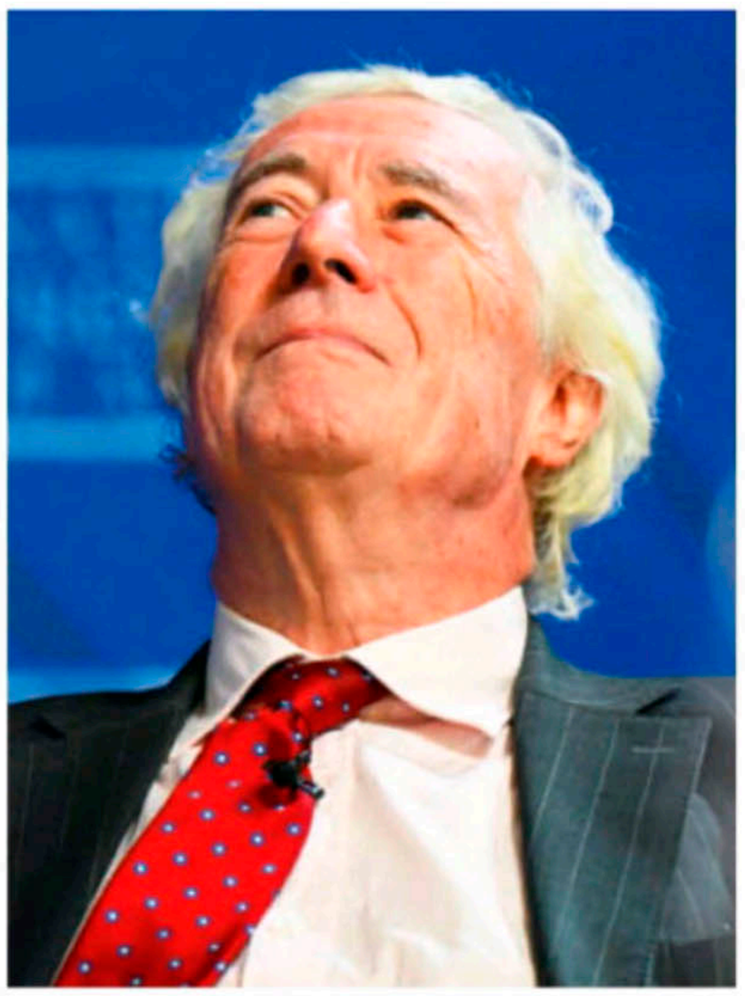
Passing judgment

HONG KONG

Why foreign judges are leaving Hong Kong's highest court

IT IS AN unusual arrangement, to be sure. Since its establishment in 1997, the Court of Final Appeal in Hong Kong has had both local and foreign judges on its bench. The set-up was part of the deal that handed the territory from Britain to China that year. The foreigners, who hold non-permanent seats, tend to have impressive legal backgrounds and come from other common-law jurisdictions, such as Britain, Australia and Canada. So they are accustomed to exercising judicial power "independently and free from any interference", as laid out in the territory's mini-constitution, called the Basic Law.

The court still operates largely as envisioned. But Hong Kong's leaders are growing more oppressive, forcing the foreign judges to make a tough choice. Since June 7th three out of ten on the Court of Final Appeal have resigned. Two British judges, Jonathan Sumption (pictured) and Lawrence Collins, jumped first, noting the deteriorating political situation. Days later a Canadian judge, Beverley McLachlin, said she would also depart, citing personal reasons. Lord Sumption, hitherto a defender of the role of foreign judges on the court, explained his thinking in the *Financial Times*. Most of Hong Kong's judges are "honourable people with all the liberal instincts of the common law", he wrote. "But they have to operate in an impossible political environment created by China." ▸▸



He's seen enough

The situation in Hong Kong has come under increasing scrutiny of late. Last month 14 pro-democracy figures were convicted of conspiracy to commit subversion (two were acquitted and 31 had already pleaded guilty). Their crime was to have held a primary election in 2020 to improve their chances of winning control of the local legislature. Lord Sumption described the judgment as "legally indefensible". He added, "The rule of law is profoundly compromised in any area about which the government feels strongly." That provoked a response from Hong Kong's chief executive, John Lee, who said, "The rule of law in Hong Kong is strong and will not change."

The legal system still functions well in most cases. The World Justice Project, a Washington-based charity, produces an annual Rule of Law Index. Last year Hong Kong ranked 23rd, three spots above America. But Lord Sumption believes that China's imposition of a national-security law on the territory in 2020, and the revival of a colonial-era sedition law, severely limits judges' freedom of action.

Define "independent"

The security law allows courts to dispense with trial by jury and instead use a panel of national-security judges, who are picked by Mr Lee, to reach verdicts. In theory the judges are independent, but they are reviewed annually—and the government often makes its desired outcome of a case clear. Up until last month it had a 100% conviction rate in national-security trials. Even when the government loses in court, it has other options, such as applying for an "interpretation" from the standing committee of the National People's Congress, the mainland's rubber-stamp parliament.

In the face of all this, foreign judges have faced pressure, sometimes from their own governments, to resign from the Court of Final Appeal. Some of the judges argue that it is easier to defend judicial independence from inside the system. David Neuberger, one of three remaining British judges on the top court, has vowed to stay to "support the rule of law as long as I can". But he and his peers are in a tricky position. "In one sense you're independent," says a barrister in Hong Kong. But if the government "passes totalitarian laws, you will be applying totalitarian laws".

Though Hong Kong's role as a global commercial and financial centre depends on the rule of law, businesspeople have reacted to the judicial situation with relative calm. In the past many of them argued that the debate over national-security matters was separate and that the rest of the legal system remained independent and effective. But as foreign judges leave, citing an untenable environment, it is becoming increasingly difficult to separate one judicial concern from another. ■

Durians

A whiff of diplomacy

KUALA LUMPUR

China is going crazy for durians. The government sees an opportunity

ERIC CHAN has long sold durians, a pungent fruit, to South-East Asians. Now he is eyeing a bigger prize. The Musang King variety that he cultivates in Malaysia is beloved by Chinese consumers. But at the moment his country only has permission to export frozen durians to China, where many want them fresh. In total, Chinese foodies gobbled up $6.7bn-worth of imported fresh durians last year, up from $4bn in 2022 and $1.6bn in 2019, the year durians overtook cherries as China's largest fresh-fruit import by value.

Apart from a love of the fruit, two shifts help to explain China's increasing appetite for durians. The first is the growth of the country's middle class. More and more Chinese are able to afford durians, which are not cheap. An average one from Thailand, the supplier of much of China's stock, can sell for around 150 yuan ($20). The Musang King variety can fetch up to 500 yuan each. (A durian is often big enough to be shared by two people.)

The high price puts some buyers off. For others, though, it adds to the appeal. Durians have become a status symbol, like a "fine wine", says Mr Chan. Fans of the Musang King variety call it the "Hermès of durians". The fruit is sometimes given as a gift at birthdays or weddings.

The second change is that in recent years China has opened up its market. Until 2022 it only let in fresh durians from Thailand (though it bought frozen ones from other countries). Since then fresh-durian sellers from Vietnam and the Philippines have gained access, having agreed to China's phytosanitary requirements (which prevent the spread of pests and diseases). Malaysia is hoping to be next.

China's moves are in part a response to the increasing demand of its citizens. But some observers also see them as strategic. "Durian diplomacy" is one of several ways China tries to foster goodwill in South-East Asia. It has funded big infrastructure projects in the region under its Belt and Road Initiative, including some that bring durians to its doorstep. And it is a signatory, along with most South-East Asian countries, to the Regional Comprehensive Economic Partnership, a free-trade deal that came into force in 2022.

These thicker economic ties also provide China with a source of leverage if its neighbours upset it. Like the durian, Chinese officials can be prickly. In the past they have restricted banana imports from the Philippines, blaming issues with pests. But this coincided with disputes over territory in the South China Sea. Some Vietnamese durian sellers fear similar treatment. "They know China can also use trade as a penalty," says Nguyen Thanh Trung of Fulbright University Vietnam.

Meanwhile, Chinese farmers are looking to cash in on the action. The first durian trees in China were planted in 1958, say state media. They produced little fruit. Farmers in Hainan have been giving it another try. The island province is one of the few places in China with the right climate for durian cultivation. The farmers' output is increasing, to perhaps 200 tonnes this year, according to reports. But self-reliance is a long way off. China imported 1.4m tonnes of durians last year. ■



We'll take them all

CHAGUAN

How to smother an ancient culture

Visiting a Tibetan region where children must attend Chinese-language boarding schools



AN AIR OF quiet piety hangs over Rongwo Monastery in the western province of Qinghai. The streets near this ancient complex draw pilgrims and Tibetan Buddhist monks in dark red robes. Local believers make circuits around the monastery's yellow walls, turning a line of wooden prayer-wheels as they walk.

On a recent Monday afternoon, though, chattering schoolchildren thronged this sacred neighbourhood in the heart of Tongren, a small mountain city known to Tibetans as Rebkong. Youngsters in red scarves and uniform tracksuits bought fruit and snacks from market stalls, most without a parent in sight. Teenage high-schoolers and pupils half their age hauled small suitcases or sat in weary groups beside piles of schoolbags, bringing the bustle of a railway station to streets around the monastery.

Government policy explains the hundreds of unaccompanied minors filling Tongren's historic centre. This particular Monday was a public holiday for pupils across China, as the country marked the Dragon Boat Festival with a long weekend. But these youngsters were overwhelmingly ethnic Tibetans. As a result, on an overcast holiday afternoon they had already bid their families goodbye and were now heading back to one of Tongren's dozen or so boarding schools, in time for classes the next morning.

An ever-larger majority of Tibetan youths attend state-run boarding schools at the primary and secondary level, and in extreme cases pre-schools. That is true whether they live in the harshly policed Tibet Autonomous Region, or in the parts of historical Tibet that the Communist Party carved off and handed to the neighbouring provinces of Gansu, Qinghai, Sichuan and Yunnan (these are run as "Tibetan autonomous prefectures"). At least 78% of Tibetan pupils board, according to official data collected by the Tibet Action Institute, an overseas campaign group.

Lessons in these schools marginalise Tibetan culture. Over the past few years Mandarin Chinese has replaced Tibetan as the medium of instruction, with Tibetan taught only as a language, alongside English. All pre-schools, including in ethnic areas, have used Mandarin since 2021, to "seize the key period of language learning in early childhood", as the education ministry puts it.

Authorities call boarding schools "very convenient" for Tibetan farmers' and herders' children who would otherwise face "long and arduous journeys to school". Officials insist that parents freely choose whether children board. In Qinghai, a rugged place with Han Chinese, Tibetan, Hui Muslim and Mongolian populations, the provincial government declared in 2018 that "in principle" children should board only when necessary, that they should not board until the fourth grade (ie, age 11), and that in remote pastoral areas school policies should follow "the wishes of the masses".

Tibetan exiles and activists challenge this narrative. They cite state-media reports boasting of motherly care given to four- and five-year-olds in Tibetan boarding schools. They describe parents being threatened with fines or with a denial of schooling later on if they do not send children to board. Many Tibetan families see Mandarin as a path to employment. But as recently as the early 2000s Qinghai officials pursued that goal in more humane ways. To reduce drop-out rates and raise exam scores they expanded bilingual education, hired Tibetan teachers and accredited schools run by monks. Not now. Private Tibetan schools have been closed and teachers sacked for teaching Tibetan beyond the curriculum. This has sparked parent protests, including near Tongren in 2020.

Chaguan travelled to Tongren to weigh claims that coercive assimilation is now the norm. While in Qinghai he was followed by up to five unmarked cars. Tibetan-speaking officers (one of whom flashed a police badge) filmed and eavesdropped on conversations. In Huangnaihai, a hilltop village near Tongren, an officer's curt intervention silenced a school headmaster who had been asked how Tibetan parents view Chinese-language schooling.

Despite the officers' efforts, holes appeared in the official narrative. Start with those pupils in Tongren. Though some stepped off long-distance buses, others turned out to be locals, undermining claims that Tibetan boarding-school construction is solely explained by the need to spare herders' children from long journeys. Then consider two boarding schools in a river valley below Rongwo Monastery that serve Hui Muslim and Tibetan pupils, respectively. Hui pupils who live in Tongren do not have to board, but rules are different for Tibetan pupils, your columnist was told.

Building schools to forge souls

In a Tongren suburb stands the Nianduhu Township Boarding Primary School. Its gates are flanked by murals showing pupils saluting the national flag, the Great Wall of China and the slogans: "I will become a great Chinese person" and "The motherland in my heart". The Tibetan-majority school is building dormitories. From the autumn 400 students will live in them, a local education official said. Asked about first- and second-graders, aged eight and nine, he replied that county authorities still need to decide whether those youngest pupils will board, but "the other students will all be boarding." That includes children with families nearby.

Such policies reflect an assimilationist logic. In 2015 the State Council (China's cabinet) called for faster boarding-school construction to fulfil "the goal that students of all ethnic minorities will study in a school, live in a school and grow up in a school". That serves a larger ambition: to "forge a strong sense of the community of the Chinese nation". That is party-speak for promoting a single national identity to defend social stability and national security. Though clunky, the phrase is enshrined in the party constitution as a guide to ethnic work in the Xi Jinping era. If Tongren residents forget the slogan they need only look up. It is spelled out in big red characters on the hill opposite Rongwo Monastery. ■

Middle East & Africa



Hamas and Israel

A bridge too far

JERUSALEM

Hamas and Israel are still a long way apart over a ceasefire agreement

THE EUPHORIA in Israel at the rescue on June 8th of four hostages who had been captive in Gaza for eight months was short-lived. Senior Israeli officers rushed to extol the commandos who carried out the mission, one of whom was killed, and the accurate intelligence that located the two apartments in the crowded Nuseirat refugee camp where they were incarcerated. But officials were just as quick to dampen expectations that the remaining 120 Israeli hostages held by Hamas could be rescued in a similar fashion.

It was a "unique combination of intelligence and operational circumstances", explained one general. But Israeli security officials still reckon that a deal will have to be struck with their enemies if most of the remaining hostages kidnapped by Hamas on October 7th are to be freed.

For the people of Gaza the Israeli operation emphasised just how bleak their situation remains. According to the Hamas-run health authorities, at least 274 people were killed in the operation, as Israeli forces rained down covering fire to protect the escape route used by the hostages and commandos. Israel disputes these figures and claims that many of those killed were fighters. Whatever the exact number, a ceasefire cannot come too soon for the civilians caught in the crossfire.

Antony Blinken, the American secretary of state, arrived in the region on June 10th to promote the ceasefire agreement presented by President Joe Biden ten days earlier. The deal, based on an Israeli proposal, has a three-stage framework. The first phase is a six-week truce, during which Israel would withdraw from the urban areas in Gaza and Hamas would release some of the hostages in exchange for Palestinian prisoners held by Israel.

Simultaneously, a second stage would begin with negotiations through intermediaries towards a longer-lasting ceasefire and the release of male Israeli soldiers held by Hamas and of more Palestinian prisoners. A third phase would see the return of the bodies of dead hostages and the start of a programme to rebuild the devastated Gaza Strip.

The bridge player's card

Shortly after Mr Blinken's arrival in Qatar's capital, Doha, Hamas made its formal response through Qatari brokers. A source in the office of Binyamin Netanyahu, Israel's prime minister, was quick to pronounce that Hamas had rejected the deal. Mr Blinken was more sanguine. Hamas, he said, had proposed "numerous" changes, but some of them were "workable". He believed "those gaps are bridgeable".

Unlike the Israelis, the Americans remain, at least outwardly, upbeat when it comes to the prospects for a deal. On June 10th America sponsored a resolution in the UN Security Council favouring the accord. It passed with only Russia abstaining.

→ ALSO IN THIS SECTION

38 Iran's presidential candidates
39 Somaliland's quest for statehood
40 Migration from the Horn
41 Kung fu in Africa

Neither Israel nor Hamas is particularly inclined to accept something with the UN's imprimatur. The vote in the Security Council seems to be an attempt by the Americans to show that the proposal is still up and running, even if at present it is only running on the spot.

The fundamental difference between the two sides is that Israel wants to see more of its 120 hostages (at least 43 of whom are already presumed dead) returned before it makes any long-term promises. Hamas, meanwhile, is demanding that Israel commits to withdrawing from all of Gaza and accepts a long-term ceasefire before any hostages are freed.

Still, the true positions of the two sides are hard to assess. Hamas took more than two weeks to respond. Its leadership is thought to be split. The "outside" politburo, based mainly in Doha, is susceptible to international pressure, making it more open to a deal. Hamas's Qatari hosts have threatened its leaders with banishment from their opulent lodgings if they reject the deal. However, the final word will be had by Yahya Sinwar, Hamas's chief in Gaza and the mastermind of the massacre on October 7th.

Mr Sinwar seems unmoved by the possibility of upheaval in his colleagues' living conditions. But he is under growing pressure to accept a deal. His decision to attack Israel has brought terrible destruction upon Gaza and led to the deaths of tens of thousands of Palestinians. He can only justify this to Palestinians if he manages to secure the release of a large number of Palestinian prisoners in return for the hostages. This latest Israeli operation highlighted that he may be running out of bargaining chips. Hamas has also been criticised in Gaza for holding the hostages in densely populated areas, which has resulted in high numbers of casualties during both this and previous rescue missions.

To make matters even murkier, Hamas's responses take some time to come through because Mr Sinwar must be consulted at every stage. He is believed to be hiding somewhere in the tunnel network beneath Gaza. He communicates only through runners carrying written notes, to avoid giving his location away to the Israelis. As a result, any changes in Hamas's position will take days to relay.

The Israeli position is not much clearer. The proposal being discussed ostensibly came from the Israeli government and Mr Netanyahu has admitted that he stands behind it. But it was formulated by the war cabinet, a small forum where Mr Netanyahu's far-right coalition partners are not represented—and they have threatened to resign from his governing coalition if it becomes policy. What is more, the war cabinet that issued the proposal weeks ago has now changed. It no longer includes the centrist ministers Benny Gantz and Gadi Eisenkot. They resigned from the government on June 9th, along with the other members of their National Unity party.

Mr Gantz explained in a press conference that "crucial strategic decisions are being blocked by hesitation and political considerations". He had given the prime minister a three-week deadline to come up with a comprehensive strategy for ending the war in Gaza. Mr Netanyahu failed to meet it, he said. Earlier in the day at a cabinet meeting the prime minister accused Mr Gantz of engaging in "small-time politics" and of bolting from the government "at the height of war". That is rich coming from a leader who has spent the past eight months doing all he can to save his political career.

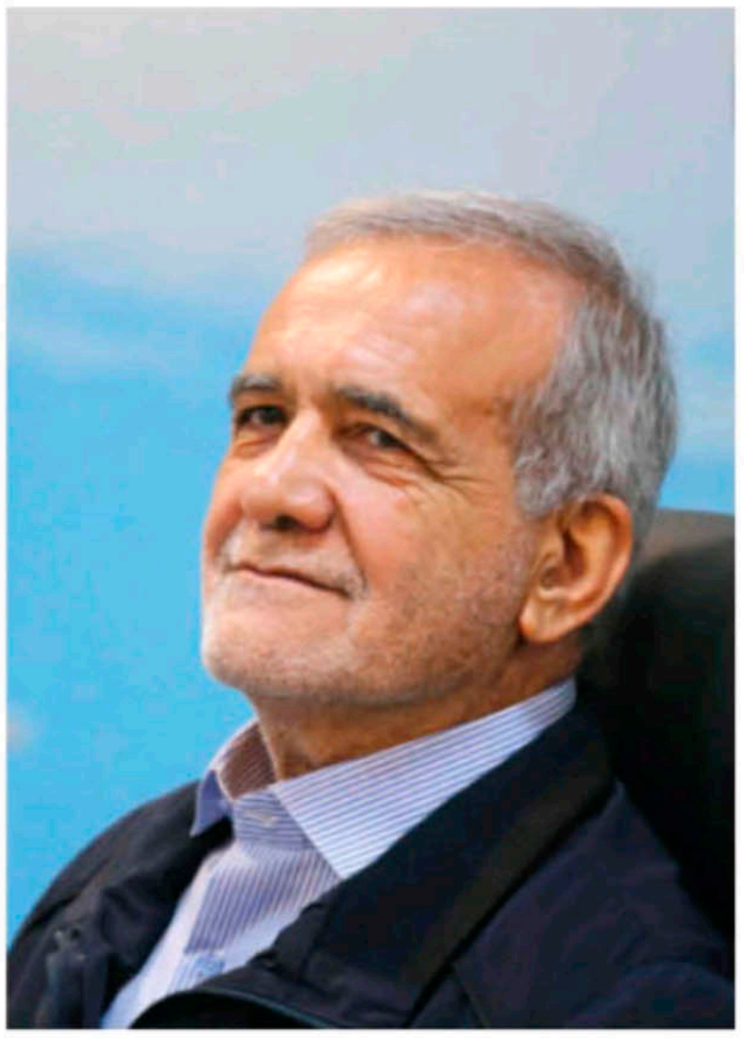
Mr Gantz had been under intense pressure for months from the opposition to leave Mr Netanyahu's government and join those calling for his resignation. Mr Gantz stayed in the war cabinet in the hope of clinching the ceasefire agreement. His decision to leave was explained more bluntly by Mr Eisenkot, who said the government "had completely failed" in all its objectives.

Their departure is another sign of the bleak prospects for an agreement. Mr Gantz and Mr Eisenkot do not think Israel's war with Hamas in Gaza is over. But they both believe it can—and should—be paused, at least for some months, to allow for the release of the surviving hostages and to start building an alternative authority to run Gaza instead of Hamas. Their joint decision to resign is a result of their frustration at Mr Netanyahu's refusal to accept their plan.

He just won't go

National Unity's departure will not bring down the government or force elections; Mr Netanyahu still clings on with a small majority. But it leaves him depending entirely on the far right. Mr Gantz joined the government eight months ago on condition that the extremists in the government be excluded from the war cabinet. Now the prime minister will have to contend with them on his own. The leader of the Jewish Power party, Itamar Ben-Gvir, has already demanded membership of "the most relevant and intimate forums", namely the war cabinet, in the remaining coalition. Mr Ben-Gvir and the leader of Religious Zionism, Bezalel Smotrich, want Israel to beef up its operations both in Gaza and against Hizbullah, the Shia militia that has been launching missiles into northern Israel from Lebanon. Both party leaders have promised to leave the government if a ceasefire deal with Hamas is reached.

Even if Mr Blinken is right and the gap between Israel and Hamas is "bridgeable", the internal differences on either side mean his mission has but a slim chance. ■



Power in Iran

A slender hope of change

Could Iran elect a reformist president after the death of Raisi?

AFTER THREE years of ruthless hardline government under Ebrahim Raisi, Iran's 61m voters once again have a choice for president. Ahead of Iran's snap presidential election, scheduled for June 28th, the Islamic Republic's electoral-vetting body approved six candidates: three hardliners, two pragmatic conservatives and a reformer. Given that the first five are likely to split the traditionalist vote, a good turnout might even propel a reformist back into the presidency. The helicopter crash that killed Raisi on May 19th "could reenergise Iranian politics", says a political observer in the capital, Tehran.

The front-runner is a pragmatic conservative, Mohammad Baqer Qalibaf. As a former military commander and police chief, speaker of parliament and an ally of the supreme leader, Ayatollah Ali Khamenei, he has the credentials of a regime stalwart. If the other four conservatives drop out of the race and lend him their backing (as often happens in Iranian elections), he should be a shoo-in. That said, as a previous three-time presidential contender, he also has a record as a loser. Critics berate him over corruption allegations—which he denies—and hypocrisy (though Mr Qalibaf condemns the West, his son applied for Canadian citizenship).

The hardliners are, however, a fractious and tempestuous bunch and are unlikely to step aside for Mr Qalibaf. Saeed Jalili, ▸▸

Iran's former chief nuclear negotiator, is an old rival. He is backed by the Paydari Front, a movement of zealots and puritans, and follows in Raisi's footsteps. So, too, do Alireza Zakani, the mayor of Tehran, and Amir Hossein Ghazizadeh Hashemi, a former Paydari spokesman who heads a government charity for "martyrs".

By contrast, Mostafa Pourmohammadi, the other pragmatic conservative, has shown a bit more flexibility. A cleric who rose through the ranks of the intelligence ministry (helping to sentence thousands of regime opponents to death on the way), he has held ministerial posts in conservative and reformist governments alike.

The outlier is Masoud Pezeshkian. In contrast with Raisi's religious pomp and pomposity, he dresses casually and speaks like a normal Iranian. He is a heart surgeon whose beliefs hark back to the leftist ideals of the revolution in 1979. As an MP he criticised the security forces for suppressing the protests against the disputed election results in 2009 and the morality police for crushing the women-led protests against their mandatory veil in 2022. Like some 25% of Iranians, he comes from the Turkish-speaking north-west and champions the rights of the country's many ethnic minorities. In a rare show of affection, perhaps intended to appeal to women, he held his daughter's hand when he submitted his candidacy. The bloc of reformist politicians has already endorsed him, hoping he might pull Iran back towards a more favourable relationship with the West.

Still, it will be hard to woo voters to the ballot box. Iranians are exhausted by a political system that has failed to adjust to the times. The turnout in the presidential election in 2021 was the lowest on record. Mr Pezeshkian is not widely known. His highest previous office was as health minister two decades ago. And even with the help of five televised election debates, he has only two weeks of campaigning to get his message across. Moreover, voters are loth to repeat their experiences of 2009 and 2013, when reformist candidates tempted back voters, only for their hopes of an end to Iran's isolation to be dashed.

The election remains tightly stage-managed. The Guardian Council, whose members are appointed by Mr Khamenei and his judiciary chief, disqualified more than 90% of the candidates, including all but one heavyweight, Mr Qalibaf. As is their wont, they barred all women, Arabs and secularists. Sunnis in the Shia theocracy did not even bother to apply. Whatever their hue, all the candidates pledged allegiance to Mr Khamenei, leading protesters to wish a plague on all their houses. "Reformists and principlists [meaning hardliners], the game is over," they chant.

The election could, though, help Mr Khamenei get over the Raisi era. As president, Raisi and his followers increasingly unnerved Mr Khamenei. Their morality drives destabilised the regime's relations with the people. Their economic mismanagement drove the sanctions-bedraggled economy into the ground. Their purges smacked of a power-grab.

And Raisi, ostensibly the consummate yes-man, seemed to harbour leadership ambitions. He had experience of running two branches of government—the judiciary and the presidency. And he had the black turban of a cleric that reminded his followers of his descent from the Prophet Muhammad. Had it not been for his helicopter crash two days earlier, a gathering of the Assembly of Experts, the body that appoints the supreme leader's successor, was primed to confirm him as its head.

So Mr Khamenei, a paranoid leader who brooks no rivals, appears to have seized the moment to reassert his supremacy. Five of the six candidates are constitutionally barred from becoming supreme leader because they are not clerics. The sole one on the list, Mr Pourmohammadi, wears a white turban, indicating a lesser status because he lacks prophetic lineage. The Guardian Council has also disqualified any presidential candidates with bigger ambitions. These include Ali Larijani, a former speaker of parliament from the clerical centre of Qom, who might have tipped his brother, Sadegh, for the post of supreme leader, and Mahmoud Ahmadinejad, a former president who quarrelled publicly with Mr Khamenei. Even if it does not do much to change Iran's decision-making, the presidential election will give Mr Khamenei and his son, Mojtaba, who runs his father's powerful office, a freer hand to determine the power struggle that really matters—the battle to succeed the supreme leader. ■

The Horn of Africa

Deal or no deal

HARGEISA

The president of Somaliland is bargaining for recognition

THE TEXT is secret and the deal might yet fall through. But the memorandum of understanding signed by Ethiopia and Somaliland on January 1st has sent shock waves through the Horn of Africa. Somaliland, which declared its independence from Somalia in 1991, says that Ethiopia will become the first country to grant it recognition. In return, it will give its landlocked neighbour access to the sea.

The deal has outraged Somalia, which describes it as an act of "aggression". In April it expelled the Ethiopian ambassador. Now it is threatening to do the same to more than 8,000 Ethiopian soldiers who are stationed on its soil to fight al-Shabab, a jihadist group linked to al-Qaeda. But in Somaliland, a de facto state with its own government, flag, army, currency and courts, the mood is very different. "We are struggling for our independence, as every other country in the continent...has done," says Muse Bihi Abdi, the president of Somaliland, speaking to *The Economist* in Hargeisa, the capital.



Sitting stiff-backed in his presidential palace, Mr Bihi rehearses the arguments for Somaliland's statehood. The territory it claims was once ruled by the British; the southern part of Somalia, with its capital at Mogadishu, was under Italian control. The two former colonies united in 1960, but the marriage was an unhappy one. Rebels from Somaliland rose up against a dictatorship, which killed tens of thousands of civilians and bombed Hargeisa into oblivion—a trauma that explains support for separate statehood today. When Somalilanders unilaterally declared independence in 1991, they said they were dissolving a union between states, not starting a breakaway country from scratch. "We are not secessionist," says Mr Bihi, a former soldier who has held office since 2017.

Even so, the idea of breaking up a state unnerves other African governments, many of which face separatist movements of their own. None has recognised Somaliland, a land of 6m people, which has now ruled itself for longer than it was ever gov-

erned from Mogadishu. Hence Mr Bihi's bargain with Ethiopia, which lost its own coastline in 1993 with the secession of Eritrea. "They need the sea as we need recognition," he explains. "We are ready."

Mr Bihi says that Ethiopia will lease a strip of coastline between Lughaya and Bulhar, some 20km by 20km, on which to build a naval base (see map on previous page). Ethiopia has said that it will consider its position on Somaliland, but has not given a public guarantee of recognition. A full agreement is still being hashed out.

Even if Ethiopia recognises Somaliland, others may be reluctant to follow. Foreign governments have weighed in to support the sovereignty of Somalia, which was voted in as a non-permanent member of the UN Security Council on June 6th. Egypt, which is already irked by an Ethiopian dam on the Nile, has pledged to defend Somalia. White House officials are concerned that the fallout could disrupt the fight against al-Shabab. "Why are the Americans against this?" asks Mr Bihi in exasperation. "They never explained to me."

Mr Bihi also has critics at home. His defence minister resigned after the deal was announced, saying that Ethiopia is an enemy. Plain-clothes security officers in Hargeisa raided a TV station and detained journalists who were hosting a live debate about it; a pop star was arrested after questioning the agreement in song. (The government says neither arrest was related to the deal.) Moustafa Ahmad, a researcher in Hargeisa, says that popular feeling is "very mixed", combining excitement about recognition, concern about transparency and scepticism about whether Ethiopia will honour its side of the bargain.

Meanwhile, in the eastern town of Las Anod, the push for statehood faces its biggest challenge since the formative years of the 1990s. People there have long felt ambivalent about independence, which they say has disproportionately benefited the majority Isaaq clan. Last year leaders in Las Anod declared they wanted to be part of Somalia instead. Mr Bihi tried to shell the city into submission, as more than 100,000 people fled from their homes, only for his army to have been forced to retreat last August. That was "a humiliation", says Mahmoud Adam Jama (known as Galaal) of the opposition Waddani party. "[Somaliland's] argument was that we control the territory," he sighs. "Now we don't."

Mr Bihi swats away suggestions that he has been too heavy-handed, saying that internal strife is "a stage that all countries go through". His argument is unlikely to win over critics ahead of the elections in November. In its short history, Somaliland has done better than many nations at forging a degree of consensus and stability. But as it chases recognition abroad, there is still hard work to be done at home. ■

Migration

Out of Africa

ADDIS ABABA, DIRE DAWA AND OBOCK

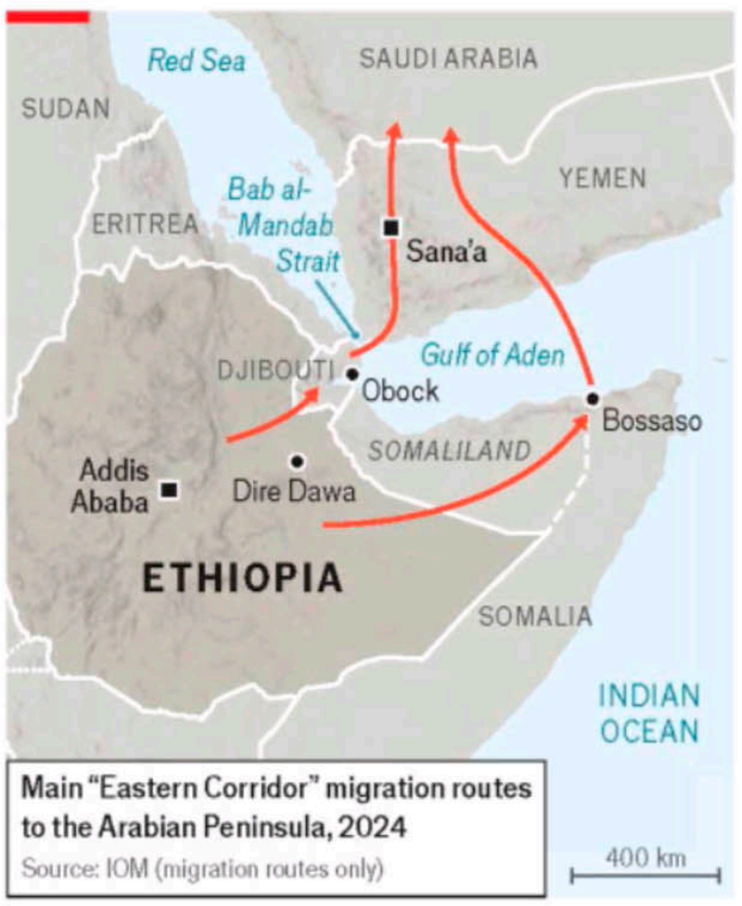
The dangerous journey from Ethiopia

IN THE BEGINNING, before the desert and the sea, before the beatings and the body, all he had was a phone number. Abdro was working on a building site in Ethiopia when another labourer told him how to contact a *dalala*, a broker, who could get him to Saudi Arabia. He was 19 years old, with an ailing father, seven siblings and no prospects, so he made plans to leave.

Abdro (we are using just one name for his protection) followed the well-trodden trail from the Horn of Africa to the Arabian peninsula, dreaming of a better life. Last year the UN's International Organisation for Migration (IOM) counted migrants crossing borders, generally irregularly, 380,000 times along this Eastern Corridor, including more than 96,000 arrivals on the Yemeni coast. (About 230,000 crossed the Mediterranean.) Migrants often encounter extraordinary levels of exploitation and violence, their quiet courage unnoticed.

The shortest crossing is through Djibouti and across the Bab al-Mandab. Lately the boats have been driven eastward by a Yemeni crackdown on smuggling and, perhaps, by the fear of Houthi missiles and American warships in the same narrow strait. Another branch runs from the Somali port of Bossaso across the Gulf of Aden, which means a longer and more perilous sea journey (see map). Either way, migrants must then travel 500km across Yemen just to reach the Saudi border.

Almost everyone taking the Eastern Corridor is Ethiopian, mostly young men, although around a fifth are women and a tenth are children. Many are fleeing from regions of Ethiopia where the army is fighting rebels. But most say they are going for economic reasons: the hope of earning enough money to build a house or start a business back home.



Main "Eastern Corridor" migration routes to the Arabian Peninsula, 2024

Source: IOM (migration routes only)

Abdro walked for a week through scrubland and desert to the border with Djibouti. There the *dalala* bound his hands with rope until he paid. In the summer, temperatures top 40°C and food and water are scarce; the bodies of those who do not make it are buried in the sand. Despite the dangers, last year 123,000 migrants crossed from Ethiopia to Djibouti, a statelet of just over a million people.

The boats cross under cover of darkness, departing from beaches marked with makeshift graves. There are stories of smugglers ordering their passengers, who come from a land without sea, to jump overboard and swim. On June 10th at least 49 people drowned and 140 were missing after their boat from Bossaso capsized. The IOM has counted about 2,000 deaths from drowning on the crossing over the past decade, but many more go unrecorded, the currents washing bodies north.

Once migrants reach Yemen, they are even more vulnerable to abuse. Traffickers round up new arrivals from the landing sites and hold them for ransom in compounds called "*hosh*", or sometimes just "*hawala* houses", after a traditional money-transfer system. Abdro says that five men beat him up. They phoned his father in Ethiopia to demand 150,000 birr ($2,600), letting his cries of pain filter down the line. His father sold land to set him free.

The onward journey through Yemen is a story of false starts and dead ends, as migrants cross a patchwork of rival fiefs. Women are forced to "marry" traffickers or are hired out to local men for sex. Others work for a pittance in menial jobs. All of Yemen's factions commit abuses. In 2021 Houthi guards fired tear-gas at migrants in a detention centre in Sana'a, the capital, starting a fire that killed 45 detainees.

If, by some miracle, they reach the Saudi border, migrants are met with mortars and rockets. Human Rights Watch, an international monitor, said last August that Saudi border guards had killed hundreds, maybe thousands, of migrants in a little over a year. Sometimes the guards fire rifles at close range, first asking migrants which limb they prefer to lose. When Abdro got to the border, the guards captured him and gave him an ultimatum: go into detention, or help to carry the corpse of another man back into Yemen, so that it could be buried. He chose to move the body.

Abdro did not try to cross the border again. Those who do get into Saudi Arabia might find poorly paid work as shepherds or labourers, if they are men, or domestic workers, if they are women. But they live in ▸▸



Risking all for a castle in the air

fear of being forcibly returned to Ethiopia, as have been more than half a million migrants in the past seven years. Haftom, another migrant, says he was held for ten months in a Saudi detention centre and given electric shocks by his captors.

Why would anyone embark on such a journey? Some are certainly misinformed. In one study, half of returnees said they did not know the dangers before setting out. In another, half of first-time migrants did not know they would have to cross the sea, and less than a third had heard of Yemen's civil war. Smugglers spin webs of lies.

But many migrants know the risks, and go anyway. "Since there is no hope at home, we will search for a better land," says Shamshadin Ame Ibro, a leader in a village near Dire Dawa, in eastern Ethiopia. Residents there describe the struggle to eke out a living. Young people want to eat spaghetti, not maize, sighs one father who has just fetched his 17-year-old daughter from Somaliland after she ran out of money en route. The village chairman estimates that 200 residents left for Saudi Arabia last year, out of a population of 10,000.

On the African leg, where borders are porous, the smugglers tend to be "networked opportunists" rather than heavily-armed criminal enterprises, says Abebaw Minaye of Addis Ababa University. Gangs make $108m-156m a year from extortion along the entire route, estimates Ravenstone Consult, a British consultancy.

Compared with routes heading to Europe, the money spent by states to stop migrants moving is modest. But so is humanitarian help. The IOM's response centres are full to bursting and its voluntary repatriation flights are too few to meet demand. In the Djiboutian fishing town of Obock, the last stop before the sea crossing, Ethiopians outnumber locals. "Everyone knows about Lampedusa, but nobody talks about here," says Moussa Aden Migane, the prefect in charge of the area, comparing it to the Italian island which is an entry point to Europe.

The welfare of migrants is also subordinate to geopolitics. Saudi Arabia, which enjoys friendly relations with the West, has been given "carte blanche" to continue the abuses, says Nadia Hardman of Human Rights Watch. News of killings on its border drew little more than statements of concern from most foreign governments.

Djibouti, meanwhile, hosts America's largest army base in Africa. Last year the American government downgraded Djibouti to the lowest tier in its ranking of countries' efforts to combat human-trafficking, a move that would normally be followed by restrictions on American assistance. But President Joe Biden ruled that funding could continue. A State Department official says the waiver reflects the scale of the challenge that Djibouti faces in managing migration, not the presence of the base.

In 2021 Ethiopia counted at least 7,000 migrants who had gone missing while heading to Saudi Arabia. Those who do return often show signs of depression or anxiety; women who have survived sexual violence are burdened by shame. The Ethiopian government gives them little support. It is urging migrants to travel through licensed recruitment agencies, rather than on irregular routes.

After his experience at the Saudi border Abdro turned round. He worked for a few months as a porter in southern Yemen, then found a seat on a flight to Ethiopia organised by the IOM. More than a year after leaving, he returned home poorer than when he left. "Thanks to God," he says, "I came back safe." ■

Kung Fu in Africa

The fun fight club

A soft-power export from China is spreading across the continent

MASTER MFAUME, who heads the biggest kung fu temple in Tanzania, has become a social-media pin-up, with short films of himself and his students showing off their lightning moves. TikTok videos that display them whizzing along walls or fighting bullies in the suburbs of Dar es Salaam, the country's biggest city, have won 184,000 likes. Master Mfaume says more and more Tanzanians want to study the sport. "People are starting to learn kung fu eagerly—and the number of students is going up a lot."

Kung fu was brought to Africa in the 1970s by a shadowy Taiwanese figure known as Mr Ming. He popularised Bruce Lee's martial arts, screening films in shabby township cinemas in South Africa, where audiences loved his message of opposition to white supremacy, cheering as he smashed a sign by a park in Shanghai that read "No Dogs and Chinese Allowed".

Audiences and film-makers across the continent have since been turning kung fu into an African film genre. Nollywood has churned out many a low-budget kung fu title. Mayor Uguseba, also known as Mr Fantastic, a Nigerian who produced, directed and acted in "A Very Kung Fu Nollywood Movie: The Revenge of Sobei", said he made the entire film for less than 50,000 naira ($34).

In a survey published in 2017 of Cameroonian cinephiles, 79% said they were interested in kung fu and 85% said films had drawn them to the sport. Kung fu clubs are opening across the continent, from Cape Town's Shaolin Kung Fu Institute of South Africa to the Ten Tigers of Nile Chinese Wushu Kung-fu Training Club in Ethiopia's capital, Addis Ababa. Zambia recently hosted the first African Shaolin Kung Fu Games, with more than 150 fighters from 23 countries. And last November 107 fighters from Africa signed up for the World Wushu Championship in Texas, but few were granted visas.

Whereas South Korea has exported its pop culture to Africa, China has struggled to turn hard power into soft. But kung fu's rise in Africa marks a rare victory for China on the sporting-cum-cultural front.

Europe



France's snap election

Macron's mega-gamble

PARIS

The French president's defiant attempt to weaken the hard right could backfire

EMMANUEL MACRON is nothing if not a risk-taker. At the age of 38, an electoral debutant, he launched a new centrist party and went on to win the French presidency in 2017, barely a year later. Now Mr Macron has taken a fresh political gamble that puts his credibility and authority on the line for the three years that remain of his second term in office. His unexpected decision, announced on June 9th, to dissolve the National Assembly and hold snap elections in a two-round poll on June 30th and July 7th, has stunned even his own deputies, and left all parties scrambling to book venues, pick candidates and plan their campaigns.

Mr Macron's decision was a response to crushing results for his party, Renaissance, at elections to the European Parliament on June 9th (see next article). The party took just half the vote secured by Marine Le Pen's hard-right party, National Rally (RN). Her triumphant 28-year-old candidate, Jordan Bardella, scored over 31%, a party record at European elections. That evening, in a televised address, Mr Macron called his decision "grave, heavy", but argued that he could not "carry on as if nothing had happened". The fresh vote, the president declared, was consistent with the democratic principle that "the word should be given to the sovereign people".

The president's calculation seems to be that, at some point, he was likely to face an irresistible political demand for fresh parliamentary elections anyway. He presides over a minority government, which has struggled at times to pass legislation and regularly has to resort to the use of a constitutional provision that allows bills to go through without a direct vote. Each time this exposes the government to a possible no-confidence motion. Since Mr Macron was re-elected in 2022, his governments have survived 28 such votes. Another was likely—although not constitutionally inevitable—to greet the next budget, which had been due to go to parliament in September. By dissolving parliament now, Mr Macron has at least made the choice his, and has controlled the timing.

More than this, the French president is hoping for what an adviser calls a "moment of clarification". Either the popular support for the RN is real, goes this argument, and in that case his party hopes to put its populist policies—on tax, immigration, energy—under proper scrutiny and to expose their contradictions. Or the vote represents what the French call a mid-term *ras-le-bol*, or fed-upness, which would not survive at its current level when the stakes are about the daily government of France.

To this end, Renaissance is seeking to force other moderate parties to support a "republican front" against the RN. Stéphane Séjourné, the foreign minister and head of Renaissance, says that the party will not put up candidates against rival contenders it judges "republican": that is, who do not belong to the political extremes. In a two-round election, this would reduce the chances of a split anti-RN vote in the second-round run-off. Parties have

→ ALSO IN THIS SECTION

43 Europe votes
44 Ukraine's peace summit
45 Trouble in Transnistria
46 Charlemagne: Casino Europa

until June 16th to register candidates, and there has already been much fractious manoeuvring ahead of that deadline. The point, ultimately, for Mr Macron is to try to broaden parliamentary representation among those parties that might be willing to contemplate German-style coalition talks with Renaissance. For the president, if the political left is split up along the way, so much the better.

Yet it is far from clear that coalition talks, which have gone nowhere in the past, would be any more successful this time. And the real risk for Mr Macron is that such discussions may not turn his party's fortunes around. If anything, Renaissance and its friends are set to lose seats, possibly in spectacular fashion. An early poll suggested that the vote would produce a hung parliament, and that the RN could even triple the 88 seats (out of 577) that it now holds. If so, Mr Macron would be obliged to invite Ms Le Pen's party to form a government. She says she would put Mr Bardella forward as prime minister.

Such a prospect, which once belonged to the realm of fantasy and dread, is now being taken seriously. In a two-round election, it will be harder for Ms Le Pen's party to win seats than in the single-round European vote, based on proportional representation. Yet her party came top in the Europoll in a staggering 93% of French towns and villages. Moreover, on the nationalist right, party allegiances are in flux. In a dramatic moment on June 11th, and to the consternation of most of his colleagues, Eric Ciotti, head of the centre-right Republicans, announced that his party would team up with the RN. The party's bureau then met, and expelled him. But the *cordon sanitaire* that has for decades warded off such pacts is clearly fraying.

On the left, another unholy alliance has re-emerged. It brings together the four parties that once made up NUPES, a grouping forged by Jean-Luc Mélenchon, a hard-left firebrand. The constituent parties—Unsubmissive France, the Communists, Greens and Socialists—disagree about nuclear power, NATO, the European Union and much else. They are united by a visceral dislike of Mr Macron. His best hope is that those on the moderate left will not be able to stomach voting for candidates now tied to such an alliance.

All of which has spooked the markets. By midday on June 10th the Paris CAC 40 had lost 2% of its value, and the share prices of France's largest banks dropped by up to 9%. Even within Mr Macron's party, officials sound a sombre note. One deputy says he has not been sleeping well. A minister confides that he is "very worried".

Back in 1997, Jacques Chirac, then the president, dissolved parliament in the hope of shoring up his majority, which had been weakened by widespread strikes and protests two years earlier. Instead, the opposition Socialists swept into power, and Mr Chirac was forced into an uncomfortable "cohabitation" for five years. This may be why even Gabriel Attal, Mr Macron's 35-year-old prime minister, tried to talk him out of calling the election. Another party figure calls the decision "crazy".

Mr Macron certainly knows his history. But he is also often convinced that he can defy precedent, and pull off things that others cannot. "I'm an incurable optimist," he declared three days after dissolving parliament, urging the French not to cede to "the spirit of defeat". The French president may even be gambling that the demands of government might expose to voters the incompetence of the RN, and undermine its appeal ahead of the next presidential election, in 2027. That may be wishful thinking. Either way, Mr Macron's legacy, as well as his credibility, is now on the line. ■

Europe votes

No EU-turn

BRUSSELS

Apart from upending French politics, EU elections deliver more of the same

ELECTIONS ACROSS Europe in recent years have often been a case of gauging the dwindling ability of centrist political forces to contain the rise of parties on the hard right. The continent-wide European Parliament elections held between June 6th and 9th marked another twist: a strong rise of nationalist support in France and Germany, even as their allies in the rest of the bloc made few inroads. The political centre has been dented, but it still holds.

As the results trickled out on June 9th, the focus was on France, thanks to Emmanuel Macron's decision to call national parliamentary elections after the National Rally (RN) of his arch-rival Marine Le Pen routed Mr Macron's liberals. The RN had already topped the EU vote in 2014 and 2019; its margin this time was so wide that its 30 MEPs will be the biggest delegation to the 720-seat parliament in Brussels.

But the result in Germany was also remarkable. The nationalist Alternative for Germany (AfD), a party which unlike the RN has done little to moderate its xenophobic views to appeal to mainstream voters, took 16%, beating all three parties in the ruling coalition. The Social Democrats of Olaf Scholz, the chancellor, fell to their worst score in a national election in over a century of existence. The centre-right Christian Democrats had a good night, relatively speaking, topping the poll easily with 30%—making them favourites ahead of federal elections next year.

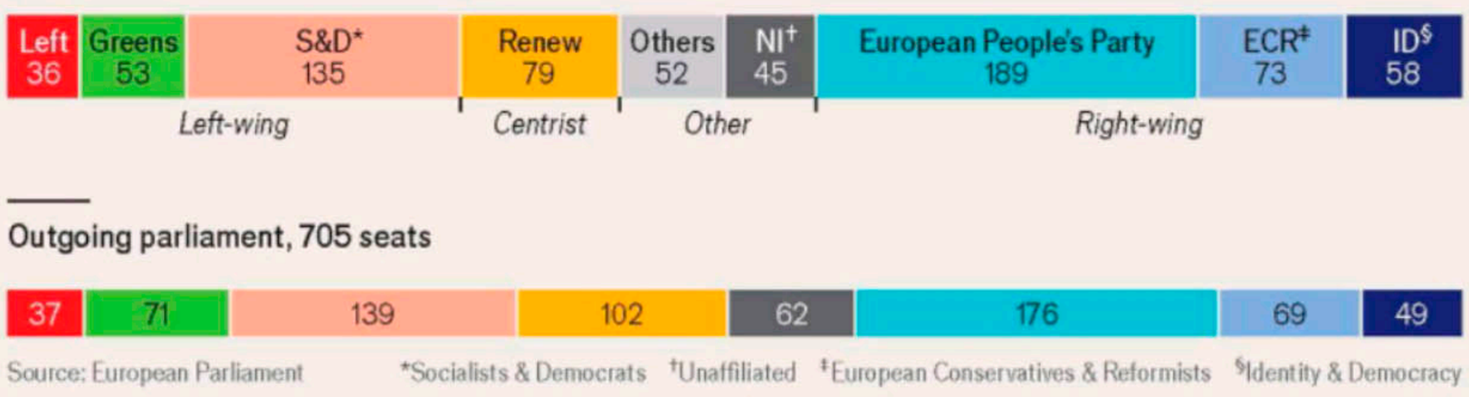
There were other pockets of hard-right support beyond France and Germany. In Austria the Freedom Party, which belongs to the same hard-right Identity and Democracy parliamentary group as the RN and (until it was kicked out recently) the AfD, also came top. In Belgium the more notable result was in national elections also on June 9th, won by a Flemish nationalist party, the New Flemish Alliance—a far more moderate force than the nationalist Vlaams Belang that had been favoured in the opinion polls. The leader of the Alliance, Bart De Wever, is the most likely future prime minister. That would mean another EU national leader drawn from a party in the European Conservatives and Reformists (ECR) bloc, which takes in Eurosceptic and hard-right parties in the Brussels parliament.

But just as notable were places where nationalist stalwarts failed to make gains. Geert Wilders, the firebrand who won the most votes in Dutch elections in November, lost to centre-left adversaries this time. The Sweden Democrats, a post-fascist party that sits in the ECR, had a rare bad night, falling from second to fourth position. In Spain and Portugal, the hard right also fared less well than in recent national contests. In Poland, the centrist prime minister, Donald Tusk, edged out the Eurosceptic Law and Justice party.

Incumbents on the hard right had mixed results. The ECR-affiliated party of

Inching right

European elections, provisional results, June 12th 2024



Giorgia Meloni came top in Italy—but with the centre-left close behind. Slovakia's pro-Russia prime minister, Robert Fico, who recently survived an assassination bid, saw his party fall behind progressive adversaries. And a new opposition force has emerged in Hungary. The Fidesz party of prime minister Viktor Orban came first, but an ally-turned-rival, Peter Magyar, won nearly 30% of the vote.

Despite the big impact the European elections will have on member states' domestic politics, the actual point of the five-yearly EU elections is to help set the political direction of the bloc's institutions in Brussels. Though European parliamentarians have few powers compared with national counterparts, their support is essential to enacting key EU-level policies such as cutting carbon emissions to net zero by 2050, or continued assistance to Ukraine.

Early political haggling suggests those policies will remain broadly in place. That is because the election's biggest winner was the centre-right European People's Party, scoring 26% of the vote under the aegis of Ursula von der Leyen, the incumbent president of the European Commission.

EU leaders meeting on June 17th and 27th are widely expected to nominate her for a second five-year term to run the bloc's powerful executive arm. But to secure ratification by the European Parliament, Mrs von der Leyen needs a majority of the incoming MEPs. The coalition she used to secure her first mandate, consisting of Socialists, Liberals and her own EPP, will have just over 400 seats, well above the 361 needed. But because the ballot is secret and parliamentary groups are fractious, some politicking will be required to assemble a viable alliance backing her.

Originally, Mrs von der Leyen was expected to broaden her coalition to get the requisite vote. A thorny question was whether she might need to entice Ms Meloni's party to join the centrist coalition. That may not be necessary. Ironically the easiest votes for Mrs von der Leyen to scoop up may be from the Greens, who emerged as the night's big losers. Any guarantee, even partial, that the commission will keep pushing for net zero by 2050 might be enough to win their votes.

Beyond Mrs von der Leyen, it appears a full slate of other top EU jobs could be agreed quickly. António Costa, a former socialist prime minister of Portugal, seems favourite to become president of the European Council, who chairs meetings of EU leaders. Kaja Kallas, the hawkish Estonian prime minister, is in pole position to become the bloc's top diplomat as "high representative" for foreign affairs. If that all pans out, it would prove a case of remarkable political continuity, given fears not long ago that the Eurosceptic hard right would be in a position to wreak havoc. ■



Peace talks over Ukraine

So far it's all gossip

KYIV

Serious negotiations are unlikely to begin before the year's end at the earliest

IT WAS MEANT to be a big show, a historic conference on the 500th day of the war, and one that just might end it. But from the very start Volodymyr Zelensky's Global Peace Summit has run into problems. Delayed five times, it was finally scheduled for June 15th and 16th, respectively days 843 and 844 of the conflict. Now, with flags ready to be hoisted in the Swiss resort of Bürgenstock, the worry is that the guest-list is not long or high-level enough. Russia was never meant to be there. But snubs from the Chinese and from President Joe Biden have been obvious blows, and have prompted public rebukes from Mr Zelensky. Vladimir Putin would be applauding Mr Biden's absence, he snapped.

Mr Zelensky's temper grated on some of his own officials, who privately criticise the president's "diplomatic naivety". A former member of his government suggests the outburst showed he was "too nervous" and looking for scapegoats to cover up mistakes. "Diplomacy isn't meant to be fun," he complains. "It's meant to be serious." A more charitable serving official says the summit's teething problems stem from Mr Zelensky's "maximalism". The president's ambitious ideas, he observes, don't always fly. "But if he sets the goals lower, nothing comes of them at all."

One of Mr Zelensky's MPs says that Ukraine's presidential office is working round the clock to make the summit count. "We're throwing everything at it. Careers are on the line." There is some good news. At least 90 of the 160 invited delegations will come, including India's, defying Russian pressure not to attend. Some countries will send their leaders, though most will not. European heavyweights Olaf Scholz of Germany and Emmanuel Macron of France will be there, as will the British prime minister, Rishi Sunak, apparently keen not to repeat the faux pas he made in departing early from the D-Day commemorations in Normandy last week. America has said its vice-president, Kamala Harris, will attend in place of Mr Biden.

The initial idea of the summit was to forge a unified proposal based on Mr Zelensky's ten-point "peace formula", dating back to 2022; and then to present it to Russia. The formula was developed at a time of relative Ukrainian strength. Conditions are no longer as rosy, with Russia pressing all along the frontline. The sheer number of participants, moreover, necessitates compromise. The expected communiqué will cover only three of the most uncontroversial points of the formula: food security; nuclear security; and the return of prisoners and children. There will be no formal resolutions on thornier issues like reparations, war tribunals or the withdrawal of Russian troops from Ukraine.

The apparent dilution of Mr Zelensky's ▸▸

peace formula has some supporters anxious. But the senior official maintains the summit will help reaffirm Ukrainian terms for ending the war. It is an opportunity to demonstrate a commitment to a just peace and "anti-imperialist struggle", he argues, which will help Ukraine reach out to sceptical countries in the global south. "We are going to be heard, at last, and it will give us momentum. The Russians would not be as concerned as they are if it weren't so."

But eyes are already starting to turn towards alternative negotiation platforms, possibly beginning as soon as in the late autumn. The Saudis, the Turks and the Vatican are mentioned as potential mediators. Intriguingly, all have been invited to the G7 summit in southern Italy, which will take place on the eve of Ukraine's Swiss one. A western European diplomat in Kyiv confesses he is still grappling with understanding China's real position. Russia's foreign minister, Sergei Lavrov, has already nodded approvingly at the idea of a Chinese-led conference.

Mr Putin, too, has been sending out signals of his own. At the end of May, Reuters reported Kremlin sources as having claimed the Russian autocrat was ready to call a ceasefire based on current lines. That offer is rejected by Ukraine as disingenuous; for Ukraine, it amounts to capitulation. "It's a non-starter," says Anders Fogh-Rasmussen, a former secretary-general of NATO who is now advising Ukraine. "Russian troops need to leave Ukraine before negotiations can begin."

Officially, America says it is up to Ukraine to determine what it wants. In reality, patience is waning, and a conversation is already happening about what America believes might be an acceptable end to the war. That does not mean negotiations are under way. For now at least, Russia does not appear to be talking to any major Western country. Relations between America and Russia have been largely reduced to technical contacts. Links between America and China are more intensive, with the Biden administration working hard to limit China's support for Russia. Both Britain and Ukraine believe this support now includes lethal aid.

One Western diplomat says that several factors are at play that would determine the timing and conditions of any ceasefire. It would for a start depend on the battlefield: if Ukraine is able to hold its lines past Russia's current summer offensive, it will find itself in a stronger negotiating position. It depends on Mr Putin's health. And it also depends on the American elections in November. The end of this year is thus the earliest foreseeable date for talks to begin, and possibly much later. "The Russians are betting everything on Trump," agrees the senior Ukrainian source. "Until then, it's all gossip." ■

Transnistria

Too thin to survive?

TIRASPOL

So far neither Russia nor Ukraine has been able to gobble up the strip

"EVERYONE IS WELCOME, except journalists," announces the guide as her group have their passports checked on entering Transnistria, a diminutive pro-Russian breakaway enclave that belongs in international law to Moldova. Russian soldiers stand on one side of the road, Moldovans on the other. It is peaceful enough. But ever since Russia's full-scale invasion of Ukraine began, Transnistrians' fears that their statelet might become a new front in that war have been very real.

In the centre of Tiraspol, the region's capital, the flags of two breakaway chunks of Georgia, the only statelets to recognise Transnistria's independence, fly alongside its own one. Russia, whose flag flutters widely elsewhere, helped prise Transnistria from Moldova in the early 1990s. Everyone assumes that its fate depends on whether Ukraine stands or falls.

In 2022, as Russian troops raced westward across southern Ukraine towards nearby Odessa, Ukrainians feared that the Russians based in Transnistria would attack from that side too. The Transnistrians, for their part, fear that Ukraine might attack to capture their Soviet-era arms dump. Meanwhile, Moldovans think that if the Russians ever succeeded in taking Odessa, it would be only hours before their tanks rolled into Chisinau, Moldova's capital, to install a puppet government.

Most of Transnistria was not part of historic Bessarabia, which makes up the bulk of modern Moldova, so most Moldovans have little emotional attachment to the strip. Surveys also suggest it would be hard to persuade them to pay for Transnistria's reintegration, though that is Moldova's official aim.



The war next door has kick-started the process. Transnistria has survived as a statelet thanks to smuggling and cheap Russian gas. In 2022 Ukraine sealed its border with Transnistria, ending its access to Odessa's ports. This has forced Transnistrian companies to trade through Moldova.

The enclave's economy is dominated by Sheriff, a home-grown conglomerate that also owns a successful football team. "Mafia!" spits a doctor, when asked about it. Most Transnistrians hold Moldovan passports and many have Russian and Ukrainian ones, too. Their leaders are divided into at least two clans. One is in with Sheriff while the other is linked to Russia's security services. Some also have good Ukrainian links. They are all lying low, waiting for the outcome of the war. Requests for interviews for this article went unanswered.

The authorities have said nothing to support Vladimir Putin and unless he defeats Ukraine he can do little to help them. Russia has some 1,800 troops in Transnistria, almost all of them local recruits. In contrast with its links by air and sea to Kaliningrad, its exclave on the Baltic, Russia has no means of reaching its troops in Transnistria. But that is no reason for complacency, says a Moldovan security official.

Moldova and Transnistria exist in a surreal symbiosis. Moldova's gas company is jointly owned by Russia's Gazprom, the Moldovan government and Transnistria's authorities. Gazprom pipes its gas across Ukraine, which takes a transit fee. It flows into Moldova proper, then goes to Transnistria, where it is converted into electricity and sold on home soil or fed back cheaply to Moldova. A new deal is in the offing to pipe gas to Transnistria via Turkey. Meanwhile, Moldova is building new gas and electricity links to Romania.

In the next few years Moldova's government could cut off the cheap gas to Transnistria, thereby forcing it into submission. But that is the last thing Moldovan officials want to do. Every evening the cars of some 15,000 Transnistrians commuting to Chisinau queue to return home. If Transnistria lost its cheap gas and electricity, many of its 300,000-odd people would flee to Moldova proper, which would be saddled with huge bills. If Moldova had to buy energy at market prices, one of Europe's poorest economies might be crippled and its pro-Russian politicians boosted.

Reintegrating Transnistria into Moldova would mean importing a largely pro-Russian voting bloc into the politics of a country that has annoyed Mr Putin by being a candidate to join the EU. "Above all we need to maintain stability," says a Moldovan security man. Hardly soothing. ■

CHARLEMAGNE

Heads I win, tails KABOOM!

No wonder Emmanuel Macron is gambling: Europe is the home of the political high-roller



FANCY A FLUTTER? Placing €10 on Germany to win the European football championships it is hosting from June 14th could net you a handsome €60 profit. Those looking for a bigger payout can punt on long-shots like Georgia or Albania at 1000 to 1. Feeling luckier than that? For the thrill-chaser in search of that certain *je ne sais quoi*, there is an altogether more daring bet on offer, at least to presidents of France: wagering the political future of your country and that of Europe, and throwing your own legacy into the mix as well. Gulp. Emmanuel Macron's surprise announcement on June 9th that he was calling a snap parliamentary vote—just hours after his party got trounced in the European elections—has all the hallmarks of a compulsive gambler thinking a bad run can be fixed with just one last roll of the dice. The decision looks rash. It is also archetypally European. This is a continent where muddled politics means you must bet big to win big.

Politicians defiantly demanding voters either back 'em or sack 'em is one of those gory European specialities, like bullfighting or Balkan politics. Whereas in America elections are held at fixed intervals, in many European countries leaders can call votes to suit their purposes or flatter their egos. A stretch in the White House is enough to enter the history books. In Europe the incessant coming and going of leaders means staying around for a decent stint, and preferably getting something done, is necessary to be remembered. (Clever wags poked fun at Liz Truss for having the shelf-life of a lettuce; Gabriel Attal, the French prime minister since January, may turn out to have lasted barely longer than the open packet of crisps at the back of Charlemagne's pantry.) Thus the incentive is to be rash, especially if things are not going well. Double down! Call an election! Change the constitution! Occasionally this works. All too often the gambit fails and its instigator is quietly forgotten, banished to seldom-visited bits of Wikipedia.

As soon as Mr Macron called the election, parallels were made with recent European history's most ill-advised bet: David Cameron calling a referendum on Britain leaving the European Union in June 2016. This highlights the asymmetry between the payout from winning such a wager compared with the downside of losing. Lord (then plain Mr) Cameron personally stood to gain by shutting up the Eurosceptic wing of his party. Yet the brunt of defeat was borne more widely. Yes, Lord Cameron self-defenestrated and ended up for a time as a glorified lobbyist, before returning as foreign secretary last year. But Britain as a whole got a one-way ticket out of a club whose membership was vital to its interests. Heads I win, tails we all lose, and you lot pay the price.

The early-election gambit is called upon because it does sometimes work. Pedro Sánchez, the prime minister of Spain, was floundering after getting clobbered in regional elections in 2023, only to win a fresh lease of power after calling a national vote. (The results of an odder gamble by Mr Sánchez, announcing a five-day sabbatical in April as he considered whether to remain in politics, are not yet clear.) Recep Tayyip Erdogan lost his majority in the Turkish general election of 2015—only to order a re-run in November, which his party won easily. But often the tactic falls short. Gerhard Schröder called an early election in 2005, which ended up installing his rival Angela Merkel in power for 16 years and himself onto the board of dodgy Russian energy companies.

Other bets are available to those who think there is little point being in politics if they cannot have things their way. In 2016 Matteo Renzi wagered his future as prime minister on amending the Italian constitution; he lost the ensuing referendum and was sent into retirement from front-line politics at the age of 41. The previous year Alexis Tsipras, then Greek prime minister, took a gamble by calling a referendum on whether Greece should defy its creditors. He predictably won the vote, told the creditors (ie, Germany) to go stuff themselves, and then even more predictably found himself forced into a humiliating retreat. If you are going to play Russian roulette, it helps to check beforehand whether at least one of the gun's chambers does not contain a bullet.

Mr Macron's gamble is not quite so rash. For one, he is entitled to stay in office until 2027 whatever happens, though perhaps without the authority to keep micromanaging domestic politics. The justification that France needs a "moment of clarification", in his words, grated in European circles. With the dramatic election announcement, Mr Macron delivered a public-relations triumph for the nationalists, even though across the EU they had failed to make the large gains once expected.

Know when to fold

The main concern in Brussels is that Europe will suffer the collateral damage from this gambit of Mr Macron's. Turning your own country's politics into a flaming mess is seen as the prerogative of national leaders. Exporting that mess to the European level is considered bad form. Germany, the only EU country bigger than France, is already mired in coalition politics. Tedious as Mr Macron's endless speeches on Europe can be, he has served as a useful figurehead for the union. Will that continue, if he loses? Foreign policy, and thus France's stance in Brussels, is the president's remit. But should he end up chastened in Paris, Mr Macron would effectively place limits on the ambitions of Europe as a whole.

That is hardly ideal at a time when the EU is still dealing with the megalomaniacal gamble just beyond its borders: the invasion of Ukraine by Russia's president, Vladimir Putin. After temporising at the war's outset, Mr Macron has made a calculated bet that demanding Europe throw its lot behind Ukraine—sending weapons, money, inviting it to join the EU one day—will pay off. It might have been good to see how that wager played out before embarking on another. ■

Britain



The Conservatives

All out?

HITCHIN

The Tories may be heading for a historic rout. They are unlikely to react sensibly

THE VOTES had not all been counted by the time Sir John Major resigned as prime minister and retreated to the Oval to watch Surrey play cricket. Already, on that bright morning of May 2nd 1997, it was obvious that the Tories had been skittled. Nearly a third of the cabinet had been swept away overnight. It would turn out to be their worst performance in the modern democratic era; the party's total of 165 seats was the lowest since it had split over free trade in 1906.

The Conservatives may get an even bigger battering on July 4th. *The Economist*'s prediction model currently has them holding onto 187 seats—half the number they won in 2019. As predictions go, that is among the more generous. The party is set to be abandoned by somewhere between 7m and 9m of the 14m voters who backed it last time. Other pollsters say that could mean as few as 66 seats, in which case the Liberal Democrats could be nipping at Tory heels for second place. Apocalyptically minded Tories fret about a "Canada-style" wipeout, a reference to the election in 1993 in which their sister party won two seats.

A rout is not far-fetched. Rishi Sunak, the prime minister, was already in a hole when he called the election. He has kept digging, running a dire campaign whose standout moments include a grovelling apology to D-Day veterans. *The Economist*'s first constituency poll of the campaign shows the Tories picking up just 10% of the vote in Hartlepool, a seat it won at a by-election in 2021. Tory MPs—panicked by the return of Nigel Farage as leader of Reform UK—could turn mutinous. And Britain's winner-takes-all electoral system offers little in the way of a "floor" when a major party suffers an ignominious collapse. Pollsters say there is a tipping-point, at around 25% of the vote, below which scores of usually safe seats are at risk.

To see what a rout would look like, head to Hitchin, a wealthy market town in Hertfordshire, just north of London. The seat ought to be solidly Tory (high-street tenants include such upmarket names as The White Company and JoJo Maman Bébé). But for all the affluence, people are not happy. Outside Marks & Spencer, Debbie, a retiree, says it's "about time" for an election to "kick out the Tories". Another voter rails against the Conservatives for soiling "our precious chalk-stream rivers".

As things stand the election is a coin-toss between two bright sitting MPs: Bim Afolami, the Eton-educated Tory incumbent, and Labour's Alistair Strathern, who won a by-election in neighbouring Mid Bedfordshire in October (part of his seat was incorporated into Hitchin following boundary changes). If Mr Afolami loses, our model suggests the Tory defeat would be worse than that suffered by Sir John.

That would jeopardise the Tories' proud claims to being the "national party" and the "natural party of government". After defeat in the election of 1945, one historian predicted the party's future would be "the rule of the home counties". Following the thumping in 1997, another wrote that the party had been reduced to a "narrow band of English south-easterners". A

→ ALSO IN THIS SECTION

48 Our first constituency poll

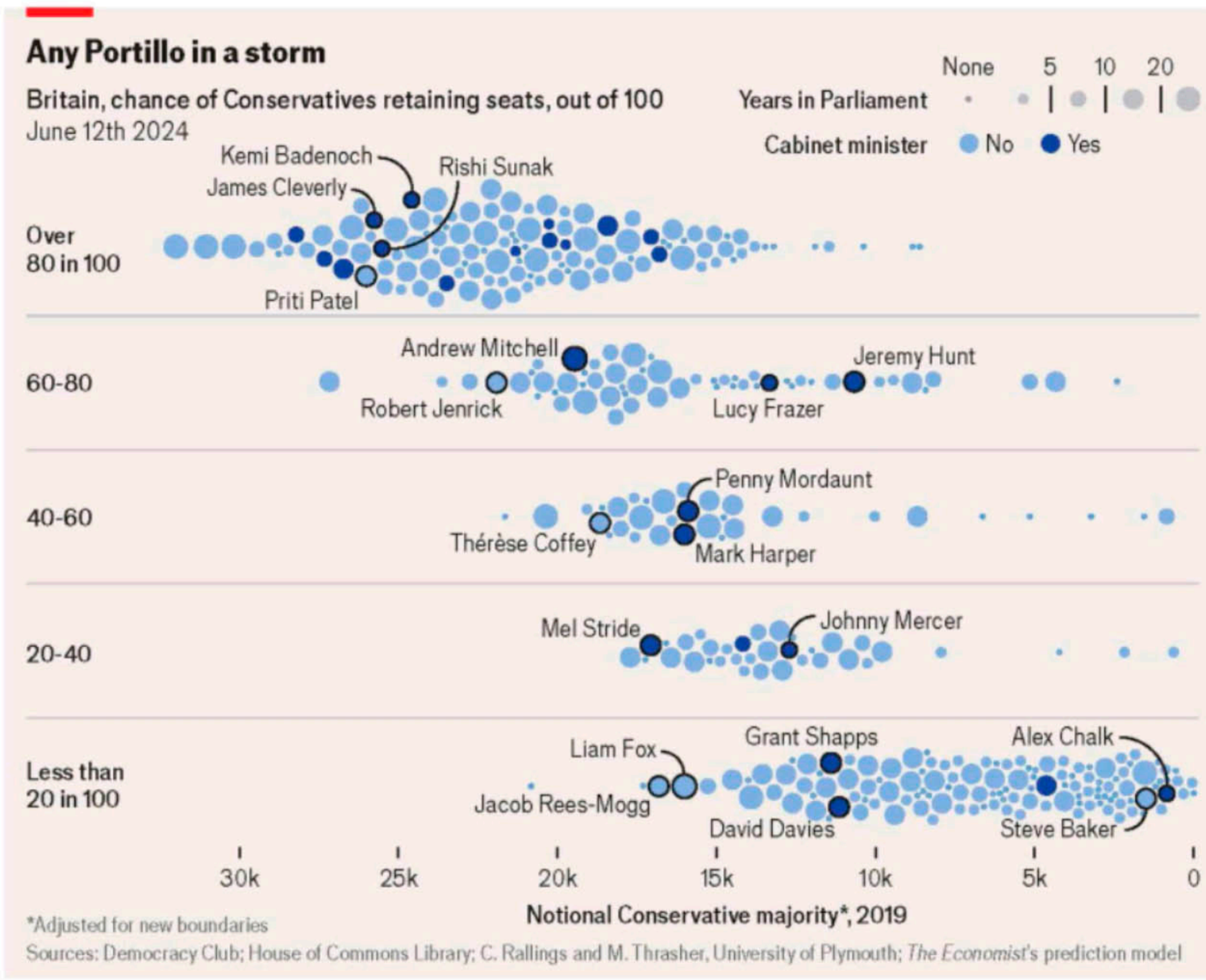
49 The most Tory place in Britain

50 Bagehot: From Blair to Starmer

→ Read more at: Economist.com/Britain

— A cyber-attack on the NHS

— Cruise ships: buoyant again



similar shrinkage is looming. Swathes of the north of England and the Midlands, as well as Wales and Scotland, look set to turn away from the party.

The precise scale of any defeat would shape the party that emerges. Most obviously there is the question of which MPs would survive: almost a third of the cabinet are under threat, according to our model (see chart). Kemi Badenoch, the business secretary, who often polls best among Tory party members, looks pretty safe. But several would-be leadership contenders, including Penny Mordaunt on the left and Robert Jenrick on the right, are at risk.

A humbling result could force the party to move to the centre ground. It probably won't. Stage one for a spurned party is usually denial. Especially in defeat, they are better understood less as rational organisations than as inchoate groups of people—politicians, activists, members, donors—with unusually strong beliefs. It is easier to blame the messenger or to think the message simply lacked purity. As David Frum, an American pollster, put it, when voters say "no" to ham and eggs a party's first instinct is often to ask: "How about double ham and double eggs?"

After 1997 the Tories "headed for the ideological hills", says Tim Bale of Queen Mary, University of London. Successive leaders were too weak to change the party or too myopic to try. They banged on about Europe, immigration and crime, pleasing their members while alienating most voters. It took eight years and two more defeats to change the message.

If the Tories are given a hiding on July 4th there will, once again, be a fight over who writes the post-mortem. Mr Afolami, a moderate, wants the party to rebuild its reputation with business and appeal to the young who cannot afford housing. Others on the right of the party lay blame on "the wets" for failing to control immigration and surrendering to "woke stormtroopers".

Lord Cooper, a former pollster, points out that the party has much more data than it did in 1997. In theory that should make it easier to grasp why voters deserted them in the event of a big defeat. Yet several factors will impede change. According to our analysis of data provided by David Jeffrey of the University of Liverpool, if the Tories suffer a landslide defeat the remaining rump of MPs in Parliament will be more Oxbridge-educated and more NIMBY but no less Brexit-y. By pushing the party back to its heartlands, a battering would move it away from the median voter. Any would-be successor to Mr Sunak would have to win over party members, who are old and right-wing. Just as Sir Keir Starmer had to promise a wave of nationalisations to win the Labour leadership in 2020, Tory hopefuls may have to pledge to leave the European Convention on Human Rights.

And then there is Mr Farage. Suella Braverman, a former home secretary who espouses national conservatism, wants to "unite the right" by allowing him to join the party. Fully 27% of Tory members say they would like him to be their next leader—an outcome moderates would bitterly oppose. Whatever happens, the right is likely to remain divided and fractious. And if Mr Sunak, another cricket enthusiast, wants to get away from it all? Surrey are playing Middlesex on July 5th. ■

The campaign in the red wall

Blue rinse

HARTLEPOOL

Our first constituency poll predicts a Conservative wipeout in Hartlepool

FOR A PLACE that is often described as left behind, Teesside receives a lot of attention from politicians. The *Evening Gazette*, a local paper, tallied over ten visits by Boris Johnson between 2019 and 2022, when he was prime minister. His successor-but-one, Rishi Sunak, has pointed at potholes in nearby Darlington and opened a branch of the Treasury there. On June 1st Mr Sunak launched the Tories' "battle bus" in Redcar, east of the river Tees.

One reason a region containing just 1% of Britain's people gets so much notice is what happened in Hartlepool, a former shipbuilding town fallen on hard times, in May 2021. After the Labour MP suddenly resigned, the Conservative Party managed to snatch the seat—a rare case of a governing party doing better in a by-election than it had in the previous general election. Sir Keir Starmer, Labour's leader, considered resigning. That turned out to be the high-water mark for Tory fortunes.

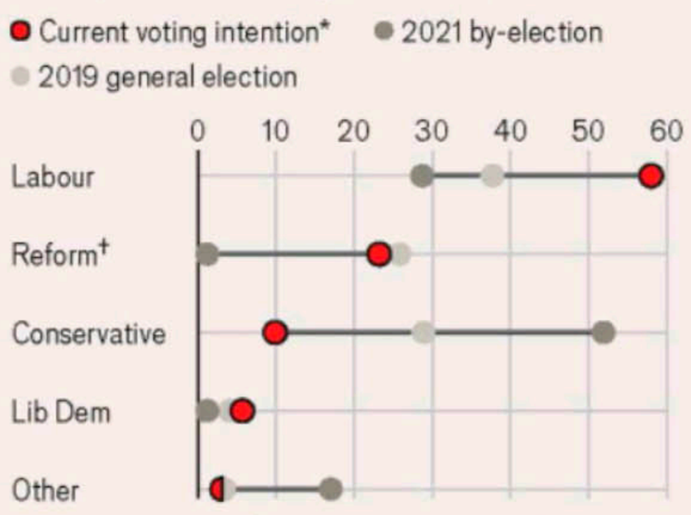
A survey of voting intentions in Hartlepool for *The Economist* by WeThink, a pollster, suggests how far the party has slumped. Our poll of 448 voters puts Labour on 58%, Reform UK on 23% and the Tories on a mere 10% (see chart on next page). Labour seems to have taken voters both from the Brexit Party, Reform UK's forerunner, and from the Conservatives. If such an extreme Tory collapse seems unlikely, consider that in local elections in May the party won a seat in only one of the 12 wards it contested in the town.

Hartlepool returned a Labour MP in every election between the creation of the constituency in 1974 and the by-election of 2021. But the party's support started to slip ▸▸



Reversal of fortunes

Hartlepool constituency, vote share, %



*448 respondents to a face-to-face constituency poll conducted May 30th-June 9th 2024. Weighted by likelihood to vote. People responding "don't know" (17% of sample) removed
†Brexit Party in 2019
Sources: House of Commons Library; WeThink; *The Economist*

Election 2024

The most Tory place in Britain

CANVEY ISLAND

It isn't that posh but its population is old

PICTURE THE most Tory place in Britain. Very probably you are thinking of a squires-and-shires sort of place—where lawns sweep and wisteria creeps; where old stone has been buffed up by new money; and where the people have Hunter wellies and hunting sympathies. The sort of place, in short, where someone might be murdered picturesquely in a Sunday evening mini-series.

You would be wrong. To find the most Conservative spot in the country, don't look west to the shires. Instead, step on a train from London's Fenchurch Street station, a place of inexplicable importance to the Monopoly board and rather less importance to the metropolis. From there, travel east past places which lack wellies and pretensions—past Pitsea and Fobbing and Mucking—and just before the train line runs out, and a little before England does, you are there. This is Canvey Island.

The Conservative Party has never been overburdened by ideology: it has been said that its sole purpose is "to acquire and exercise power". By that measure, Canvey Island (or more accurately the Castle Point constituency of which it is part) amply deserves the accolade for "Toryness". At the last election in 2019 the Conservatives won 76.7% of the vote here (by comparison, Vladimir Putin, in Russia's presidential election in 2012, won a mere 64%). In the ballot on July 4th, in which Labour appears to be heading for a comfortable victory nationally, the Tories are still predicted to win 50% of the vote in the seat, according to our election model.

Step off the train and it is clear that Canvey is not just Conservative with a capital "c" but with a small one, too. Almost nothing here is old—the island itself is built on a piece of land reclaimed from the Thames—but almost everything tries to look it. This is a kingdom of mock Tudor bars and concrete "stone" lions; there are lawns but they are plastic. This is ersatz England, in aspic. Which, somewhat to the distress of modern-minded metropolitans, is precisely why the locals like it.

There is a cheerful, expats-abroad atmosphere to the place. Locals talk about it as if it were somewhere in the mid-Atlantic rather than separated from England by a drainage ditch. In a large car park, an elderly man emptying the bins praises its "holiday feeling". But even if Canvey Island feels content, it also doesn't feel enthusiastically Tory. Speak to the locals and you will hear some pro-Conservative sentiment and a little support for Reform UK, an upstart party on its right. Generally, however, there is apathy. Even in the local Conservative Club (wood panelling, Union Jack bunting), Colin, aged 90, and his retired friend demur from full-throated Conservativism. They come for the atmosphere and the meat pies ("nice pie-crust").

Whether or not their views are typical, their age is. A quarter of the population is over 65. Canvey, like so many seaside towns, is a place of mobility scooters and defibrillators. Because it is not quite true that nothing on Canvey is old: the people are. And in this election that is the most Tory thing of all.

in the early 2000s as the Conservatives began to do better. Sacha Bedding, who runs the Wharton Trust, a local charity, says there were several "staging posts" that helped people along the path from red to blue. In 2002 they elected as mayor Stuart Drummond, an independent candidate best known for wearing a monkey suit as the mascot of Hartlepool United Football Club. In 2015 the anti-immigration UK Independence Party came second in the seat; a year later 70% voted to leave the EU.

Tory politicians understood that the people of Hartlepool and similar places in the northern "red wall" of former Labour seats felt little loyalty to their party. To keep their votes, the Tories would have to show that they could improve their towns. The way to do this quickly was to scatter money on public-works projects under the banner of "levelling up". Hartlepool has been given cash from the Levelling Up Fund, the Future Towns Fund and a Town Deal. Jill Mortimer, the Conservative MP who won the by-election in 2021, boasts about them often.

But progress has been slow. Behind a hoarding that reads "Funded by UK Government", a Wesleyan chapel that is to become a hotel is still covered in plastic wrapping. Work was set back after arsonists attacked the building, not for the first time. A 1960s shopping centre is to be revamped but not soon; a film-production "village" is yet to appear. Projects all over the country are delayed. In March Parliament's Public Accounts Committee estimated that more than four-fifths of the schemes that won levelling-up funds in the first round would miss their deadlines.

Labour's candidate, Jonathan Brash, is so confident in the political failure of the government's signature domestic policy that he is running against it. "The thesis of levelling up is wrong," he says. While the government spends money on making buildings "look nicer than they once did", public services quietly deteriorate. Hartlepool's hospital lost its accident-and-emergency department in 2011; the magistrates' court shut in 2017. The town's police custody suite (a polite term for cells) is open only occasionally. Mr Brash reckons that local people notice such changes more.

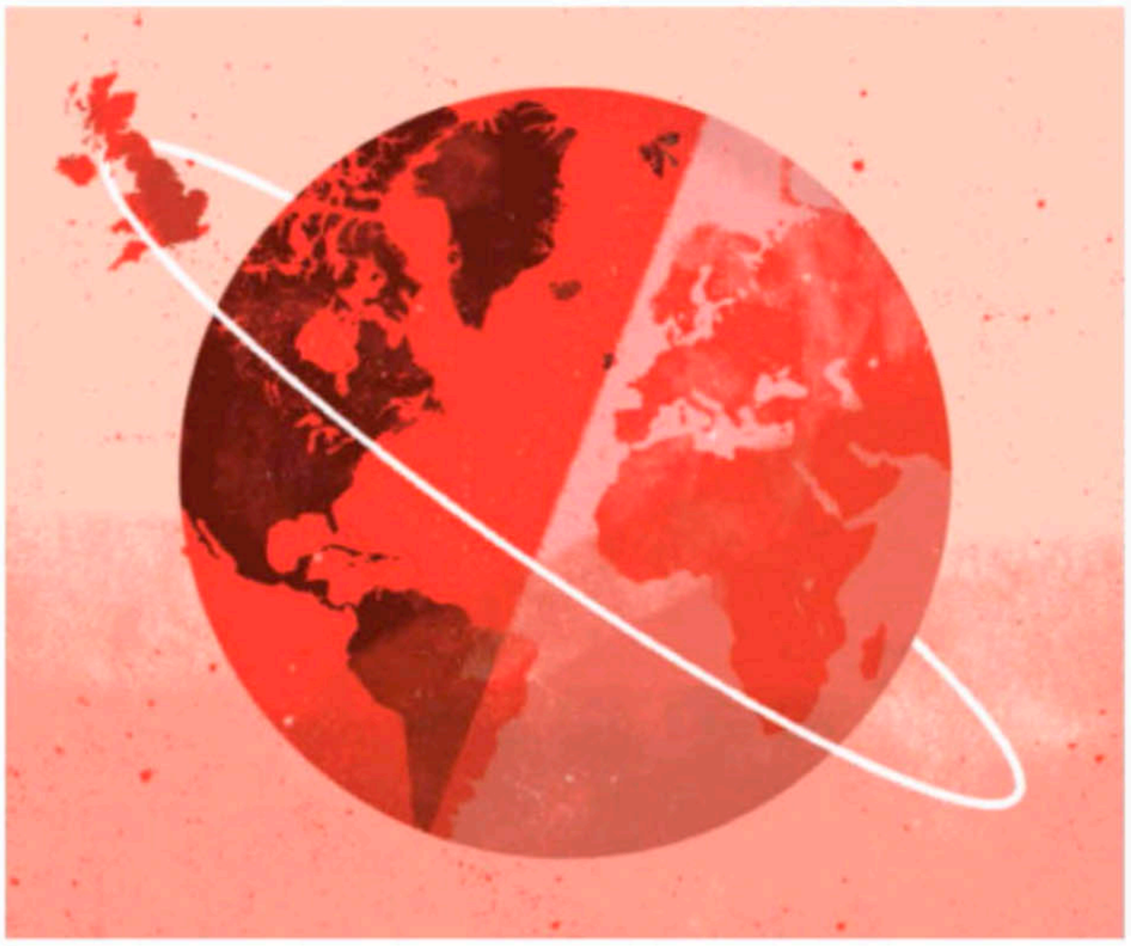
He was selected two years ago, giving him many months to knock on doors. And he has name recognition, as the son of a local doctor. Ms Mortimer, by contrast, has been a spectral presence. When not boasting about levelling-up projects, she touts her opposition to immigration. That may be popular. Like other parts of Teesside, Hartlepool has a lot of asylum-seekers: it ranks 19th out of 361 local authorities for the share of refugees as a proportion of its population. But people who loathe immigration are likely to vote for Reform UK.

Even if Hartlepool swings back to Labour on July 4th, it will probably not return to being the sort of town where votes for the party can be counted upon. Its residents seem discontented and cynical, eager to vote against whoever is in power. "Every vote in Hartlepool is a protest vote," says Sam Lee, an independent candidate who took 10% of the vote in the by-election in 2021 and is running again. At the moment, the Conservative Party is the target. Next time the voters will probably have Labour in their sights. ■

BAGEHOT

The great divide

Globalisation separates Tony Blair's Labour from the party today



IT IS HARD to imagine today's shadow cabinet making a visit like that paid to Japan by Sir Tony Blair, then leader of the opposition, in 1996. The delegation giggled as a businessman declared, in imperfect English, that he was looking forward to their big election, recalled Alastair Campbell, an aide. The future prime minister was later seen in his bedroom wearing only a pair of underpants and an earthquake helmet, pretending to speak Japanese. Like a university rugby club, New Labour was brainy but boorish.

The party today would also not offer up a speech like that which Sir Tony gave in Japan to the Keidanren, a business group. It contained the most important and consistent idea of New Labour: that the task of government was to equip Britons to compete in an age of globalisation. Protectionism was futile, Sir Tony said; the "creative age" would belong to the open, flexible and smart. That meant embracing foreign investment and the internet. Trade unions could forget about junking Margaret Thatcher's labour laws. Schools and universities were the highest priority. A decade later he scoffed at those who wanted to press pause. "You might as well debate whether autumn should follow summer."

It is in their assessment of globalisation that the greatest difference lies between the Labour leadership today and Blairism. The most consistent thread in the writings and speeches of Rachel Reeves, Labour's shadow chancellor, is scepticism about the fruits of globalisation and concern about its costs. She is a proponent of what this newspaper has called "homeland economics"—a belief in vogue across the rich world that it is necessary and possible to mesh economic policy with notions of national security and greater self-sufficiency. Protectionism polls well and economic liberals are in retreat across the political spectrum. But the obituaries for Sir Tony's agenda are nonetheless premature.

Ms Reeves argues that although New Labour oversaw rapid growth, it made serious errors. Sir Tony's government regulated banking too loosely (Ms Reeves was working in the retail-mortgage department of HBOS, a doomed lender, when the financial crisis struck). It became reliant on despots for energy and critical goods. Globalisation spread insecure work and deepened regional inequality. "We cannot, as we have done too readily in the past, prize flexibility to the detriment of security, nor fetishise openness at the cost of resilience," she wrote recently.

What changed? In part, the world. In 1997, as David Lammy, the shadow foreign secretary, often says, Britain's economy was larger than China's and India's combined. The intellectual climate changed, too. New Labour drew inspiration from Bill Clinton's Democrats; the party today looks to Joe Biden's industrial strategy. And electoral politics is also at work: whereas Sir Tony pursued the aspirational middle class to win, today the party promises a revival of blue-collar jobs because it sees regaining voters in old industrial seats as an existential quest.

The Labour Party under Sir Keir Starmer is cautious and institutionalist. The party promises not to tear up trade deals or to pursue a policy of "Fortress Britain". And some greater caution is overdue. The moniker "Londongrad" gained currency under New Labour as the government enabled an influx of wealthy Russians into the capital; today Mr Lammy and others promise to make Britain a hostile environment for kleptocrats by targeting the British lawyers and accountants who help them.

But there is also a real risk of overcorrection. The party has promised to overhaul the public-interest tests on takeovers to "support sovereign capabilities". It wants to tinker with procurement rules to nudge more government contracts to British firms. It will look more sceptically at Chinese-made electric vehicles, now subject to American and EU tariffs: Ms Reeves observed recently that they enjoy an "extraordinary degree of subsidy" and that reliance on them would leave Britain exposed. Labour plans a state-owned energy firm to pursue self-sufficiency not just in terms of where electricity is generated but also which firms are involved and where kit is made. (Sir Tony's think-tank, by contrast, advocates putting public money into climate R&D.)

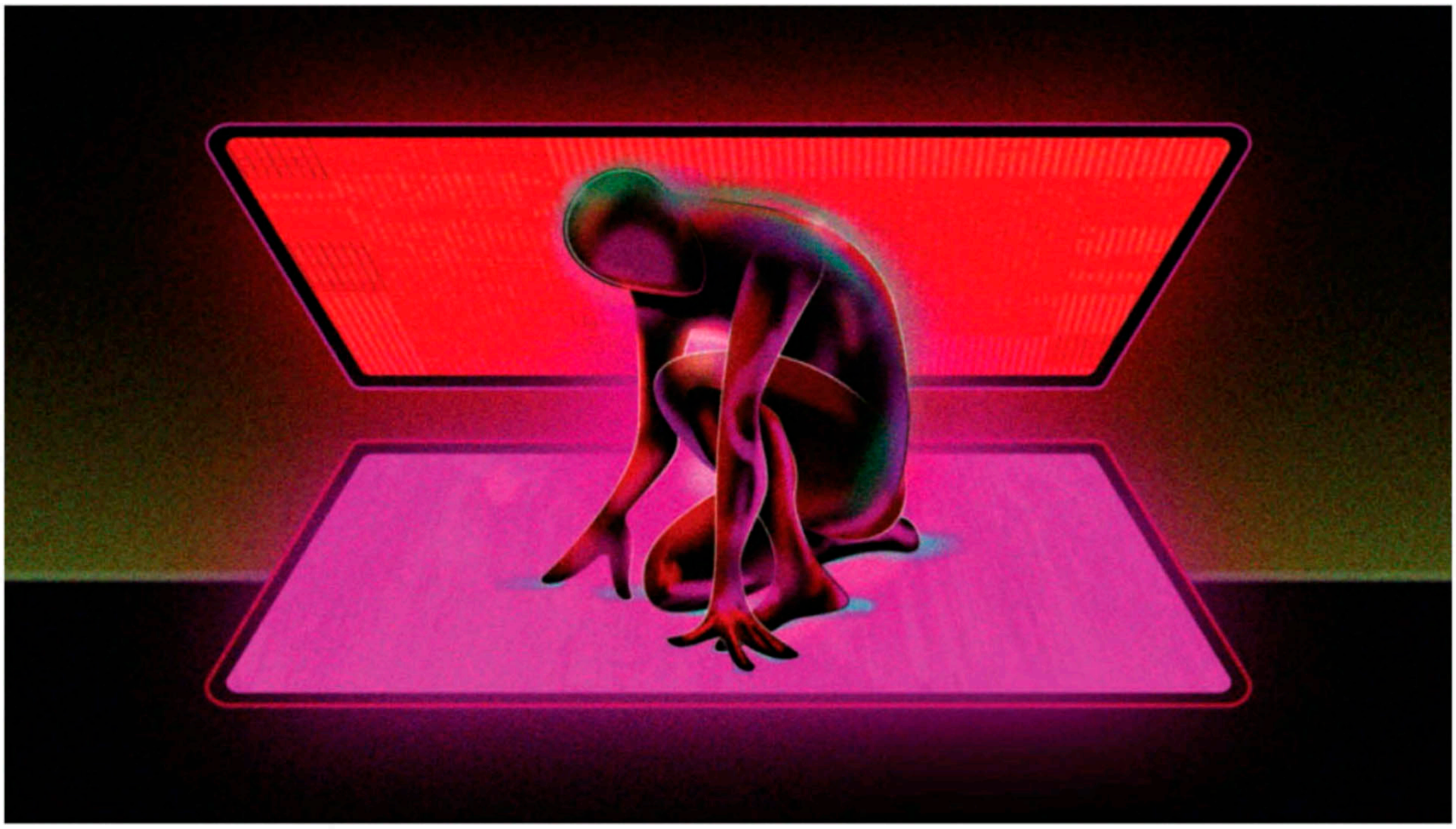
Fuel Britannia

These represent real and substantial differences from the Blairite view of the world. But what has not changed is that Britain is highly exposed to trade, which is why a strategy based on services exports worked well and why deglobalisation will be particularly painful. Turning today's rhetoric into policy will be hard because it presents acute trade-offs: green schemes that prioritise British manufacturers over cheap foreign rivals are liable to raise costs for taxpayers and consumers. "It is naive to think that what is the cheapest is always the best," says Ms Reeves. But such considerations will weigh heavily on a Treasury that is short of money.

Labour's account is also a strikingly pessimistic view of globalisation. Markets responded far more dynamically than Britain's hapless politicians to the covid-19 pandemic and to the energy shock caused by the war in Ukraine. The notion that the cruel winds of globalisation are the cause of Britain's current economic malaise is muddled. Britons are moving between jobs, industries and regions less than they used to. Stagnation is a much bigger problem than disruption.

Ironically, a party which is turning the page on Sir Tony's ideas relies on an electorate that increasingly reflects the world he foresaw in 1996. Services account for an even bigger share of the British economy than in 1997. Around two-fifths of Labour's prospective voters went to university. They are more diverse, and have a much keener sense of Britain's place in the world. The high jinks in Tokyo have aged poorly. The recipe for how a smallish island contends with a more competitive world remains sound. ■

International



Hacking into critical infrastructure

Ghosts in the machines

China, Russia and other big powers are preparing for wartime sabotage

THE ISLAND of Guam, a tiny American territory that lies more than 6,000km west of Hawaii, has long known that it would take a battering in any Sino-American war. The island's expanding airfields and ports serve as springboards for American ships, subs and bombers. In the opening hours of a conflict, these would be subject to wave after wave of Chinese missiles. But an advance party of attackers seems to have lurked quietly within Guam's infrastructure for years. In mid-2021 a Chinese hacking group—later dubbed Volt Typhoon—burrowed deep inside the island's communication systems. The intrusions had no obvious utility for espionage. They were intended, as America's government would later conclude, for "disruptive or destructive cyber-attacks against...critical infrastructure in the event of a major crisis or conflict". Sabotage, in short.

For many years, Sino-American skirmishing in the cyber domain was largely about stealing secrets. In 2013 Edward Snowden, a contractor, revealed that the National Security Agency (NSA), America's signals-intelligence agency, had targeted Chinese mobile-phone firms, universities and undersea cables. China, in turn, has spent decades stealing vast quantities of intellectual property from American firms, a process that Keith Alexander, then head of the NSA, once called the "greatest transfer of wealth in history". In recent years this dynamic has changed. Chinese cyber-espionage has continued, but its operations have also grown more ambitious and aggressive. Russia, too, has intensified its cyber-activities in Ukraine, with Russia-linked groups also targeting water facilities in Europe. These campaigns hint at a new era of wartime cyber-sabotage.

The Volt Typhoon intrusions that came to light last year, initially thanks to reporting by Microsoft, a tech giant, were not confined to Guam. Around three years ago, says an American official, "we just started finding odd things across critical infrastructure in the United States". It turned out, as America's Cybersecurity and Infrastructure Security Agency (CISA) would announce in February, that the Chinese attackers had compromised critical national assets across the "continental and non-continental United States". That included communications and energy installations, as well as transport and water facilities. Notably, the targets were not the largest and most prominent pieces of infrastructure, but a "broad swathe" of small and medium-sized companies whose disruption would have outsized effects.

Some targets, like airports, had potential value for spying—it can be useful to track people in transit—but others did not. "We couldn't see any espionage value in a water system or pipeline," says the official. The point, CISA concluded, was rather to move within those networks to find "operational technology", the interface between a computer network and a physical system—think of the software which controls a water pump or an electrical substation—and then to disrupt it.

Blazing keyboards

China would have a "pretty high bar" for taking down such things, noted Rob Joyce, then a senior NSA official, when reflecting on the intrusions in March. Crippling American power, water and transport in peacetime would be an obvious act of war. But imagine that a war had already started, or was about to do so. "It is Chinese military doctrine to attempt to induce societal ▸▸

panic in their adversary," argued Jen Easterly, CISA's director, in January. She pointed to unrest in May 2021 after Russian criminal hackers attacked an American pipeline operator, disrupting gas flows to the east coast for several days.

"Now imagine that on a massive scale," warned Ms Easterly. "Imagine not one pipeline, but many pipelines disrupted. Telecommunications going down so people can't use their cell phone. People start getting sick from polluted water, trains get derailed, air-traffic control [and] port control systems are malfunctioning." China, she added, believed that such attacks would "crush American will" to defend Taiwan. Other American officials say that the aim is also to disrupt the movement of American troops and supplies to Asia.

The idea of penetrating critical infrastructure by cyber-means with a view to sabotaging it in wartime is not new. The American-Israeli "Stuxnet" attack which disrupted an Iranian nuclear facility in the late 2000s showed what was possible, as did Russian sabotage of Ukraine's power grid in 2015 and 2016. China poked around American oil and gas companies as early as 2011. In 2012 researchers warned that Russian hackers had targeted over 1,000 organisations in more than 84 countries, including the industrial control systems of wind turbines and gas plants.

Stormy weather

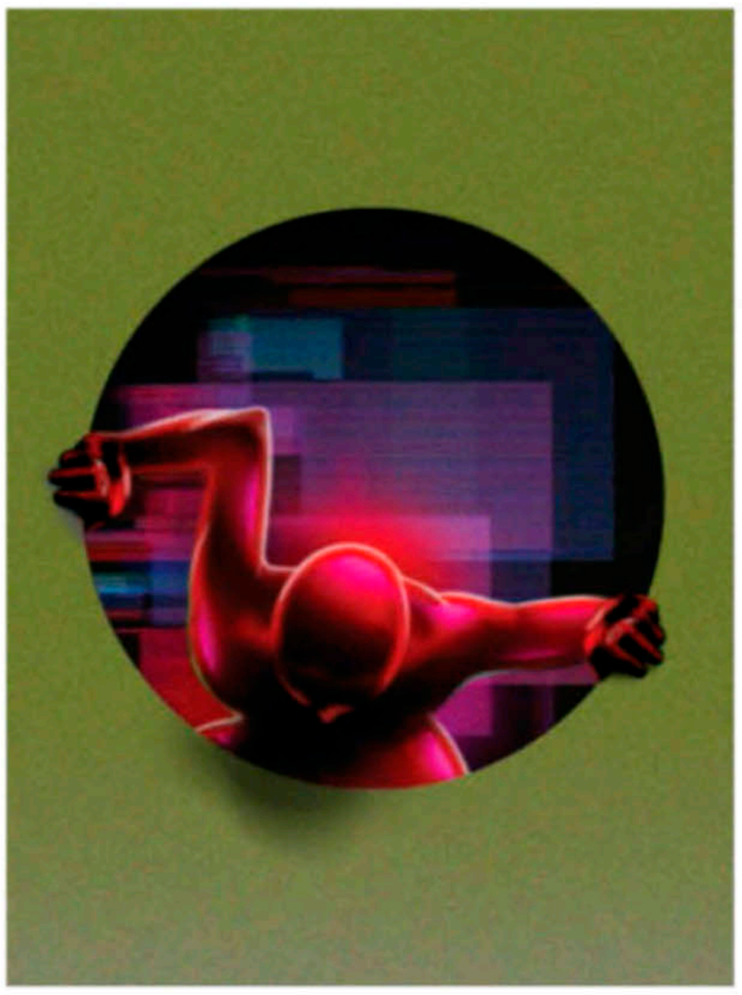
Volt Typhoon appears to be different. For one thing it is broader in scope. "[It] appears to be the first systematic preparatory campaign that would lay the foundations for widespread disruption," says Ciaran Martin, who once ran Britain's cyber-security agency. But it has also unfolded at a moment when war between America and China feels closer, and war in Europe is palpable. The GRU, Russia's military intelligence agency, has conducted relentless cyber-attacks on Ukraine's infrastructure. Only a huge defensive effort, enabled by Western companies and allies, has protected Ukraine from the worst of that.

The Chinese and Russian campaigns also break with the past in another way. Traditional cyber-attacks would be associated with a distinctive signature, such as a particular sort of malware or a suspect server. These could be spotted by a diligent defender. Both Volt Typhoon and the GRU have used stealthier methods. By directing attacks through ordinary routers, firewalls and other equipment used in homes and offices, they have made the connection look legitimate. One Chinese network alone used 60,000 compromised routers, says a person familiar with the episode. It was one of dozens of such networks. Both groups have also used "living-off-the-land" techniques in which attackers repurpose the standard features of software, making them harder to spot. In some cases, the GRU has maintained access to Ukrainian networks for years, waiting patiently for the right moment to strike.

All of this has made Volt Typhoon "incredibly challenging" to hunt down, says John Hultquist of Mandiant, a cyber-security company that is part of Google. In response, America has gone after the hackers' tools and infrastructure. In December the FBI disrupted hundreds of ageing routers built by Cisco and Netgear, a pair of American firms, which were being used by Volt Typhoon to stage attacks. The following month it did the same to hundreds of routers that were being used by the GRU.

America and its allies also want better defences in critical sectors. That would be important enough without Chinese skulduggery. In recent years, Russia-based cyber-criminals have wrought havoc with ransomware attacks against vital sectors in Western countries. An attack on hospitals in London this month has left Britain's National Health Service reeling. Meanwhile, America has now imposed cyber-security standards on pipelines, aviation and railways. But similar measures for the water sector were rescinded in October after Republican states sued the government. Three months were also lost squabbling over whether railway signalling should count as critical infrastructure. The result is chronic cyber-insecurity.

The larger question is whether hostile cyber-operations can be deterred—and, if so, which ones. In recent years the term "cyber-attack" has come to encompass virtually all manner of hostile activity inside computer networks. The problem is that this conflates routine intelligence-gathering, industrial espionage, information operations and disinformation campaigns, pre-war manoeuvring inside critical infrastructure (like Volt Typhoon) and peacetime destruction such as Stuxnet.



Western governments have long sought to create international norms of behaviour that would put some of these activities off limits. But that effort has been unsuccessful and mired in confusion. American officials, for instance, tend to distinguish political espionage from the commercial sort. Stealing secrets to aid policy is fine; doing so to boost profits of local companies is not. In practice, not even America's own allies all agree on this; French spies have been notorious for commercial espionage.

In 2019 Paul Nakasone, then head of the NSA, offered another red line: "Nations should not seek to exploit the personally identifiable information of other nations." This referred to China's theft of large datasets with information on government employees and ordinary citizens. But this, too, is a grey area. When Chinese hackers stole a huge trove of American security-clearance records, Michael Hayden, a former NSA and CIA chief, was phlegmatic. "To grab the equivalent in the Chinese system, I would not have thought twice," he declared. It was "honourable espionage work," he added. "All countries do it, including our own."

A taboo against sabotage would appear to be more straightforward. It is not. "Pre-positioning is not counter to norms," acknowledges the American official, "until you do something." Even then, many types of sabotage are permissible under the laws that govern armed conflict. America bombed Iraq's power grid in 1991 and 2003 and Serbia's in 1999; delivering the same effects via code is neither inherently better nor worse. Unsurprisingly, there are indications that America has poked around its enemies' infrastructure. Under the Obama administration the NSA prepared to disable Iran's communication and electrical systems in the event of a clash. And in 2019 the *New York Times* reported that America had been placing "implants" in Russia's power grid since 2012.

Cyber norms remain blurry. The laws of war forbid attacks—physical or digital—intended solely to cause panic. But there can be legitimate military reasons, once a conflict begins, to disrupt civilian phone networks and ports that serve American troops. The Pentagon's hackers would retort that their own forays into Russian and Chinese infrastructure are more judicious than the sprawling intrusions by Volt Typhoon and more responsible than the GRU's reckless attacks on water plants. Much depends on how a country chooses to use its access to a network. The point is that both good and bad sabotage may require peacetime intrusions. "The reality is that we have to fight the next cyber war now," says Mr Hultquist. "When the actual war comes along, it's too late to do that. This is the initial skirmish." ■

Business



Artificial intelligence (1)

Retention is all you need

SAN FRANCISCO

The war for AI talent is heating up

PITY OPENAI'S HR department. Since the start of the year the maker of ChatGPT, the hit artificial-intelligence (AI) chatbot, has lost about a dozen top researchers. The biggest name was Ilya Sutskever, a co-founder responsible for many of the startup's big breakthroughs, who announced his resignation on May 14th. He did not give a reason, though many suspect that it is linked to his attempt to oust Sam Altman, the firm's boss, last December. Whatever the motivation, the exodus is not unusual at OpenAI. According to one estimate, of the 100-odd AI experts the firm has hired since 2016, about half have left.

That reflects not Mr Altman's leadership but a broader trend in the technology industry, one that OpenAI itself precipitated. Since the launch of ChatGPT in November 2022, the market for AI labour has been transformed. Zeki Research, a market-intelligence firm, reckons that around 20,000 companies in the West are hiring AI experts. Rapid advances in machine learning and the potential for a "platform shift"—tech-speak for the creation of an all-new layer of technology—has changed the types of skills employers are demanding and the places where those who possess them are going. The result is a market where AI talent, previously hoarded at tech giants, is becoming more distributed.

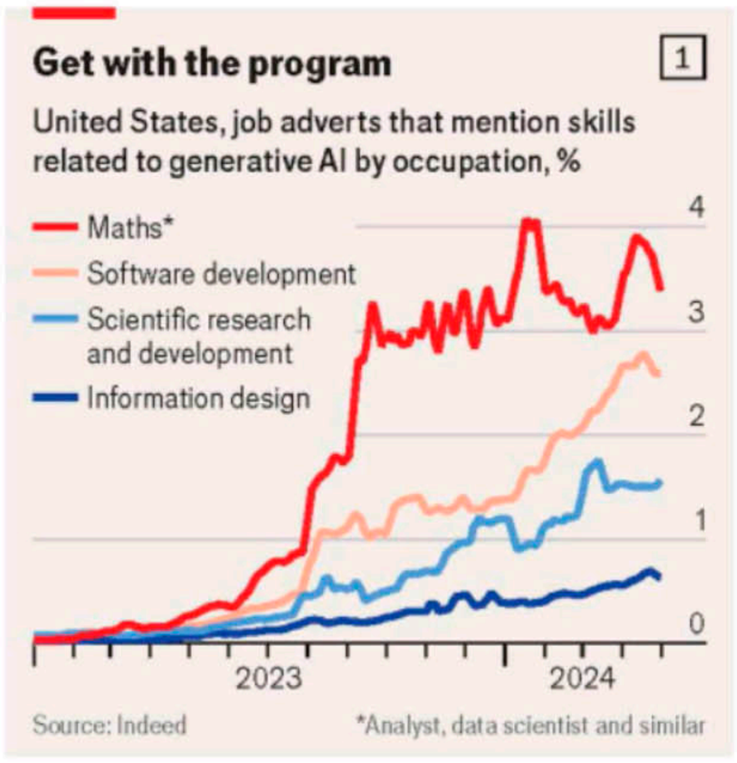
→ ALSO IN THIS SECTION

54 The LLM summer sale
55 The EU takes on Chinese EVs
56 German bosses v AfD
56 India Inc meets Modi 3.0
57 Bartleby: Asia's grumpy workers
58 Schumpeter: Apple's AI prayer

Start with the skills. Goliaths such as Microsoft and Google may be laying off non-engineers but they are seeking out star researchers who can understand, and build, cutting-edge models. This group consists of perhaps several hundred people such as Mr Sutskever or Jeff Dean, who runs Google's AI efforts. Companies covet such superstars because they can produce breakthroughs that, say, dramatically increase the efficiency of an AI system or make it less prone to make things up. That makes them incredibly valuable; many command seven-figure pay packages.

Some are hired without interviews—or as entire teams. In March Microsoft recruited most of the staff of Inflection AI, a startup building cutting-edge models, including its co-founder, Mustafa Suleyman—a move that has reportedly attracted the attention of trustbusters at the Federal Trade Commission. (Mr Suleyman sits on the board of *The Economist*'s parent company.) Mark Zuckerberg, the boss of Meta (Facebook's parent company), personally emailed some researchers at DeepMind, Google's AI lab, in an effort to enlist them.

More intriguing is how generative AI has changed the talent market further down the ladder. According to data from Indeed, a job-listing website, one in 40 vacancies for software developers in America ▸▸



mentions skills related to "generative" AI, the sort that makes ChatGPT so human-like. That is a more than 100-fold increase since the start of 2023 (see chart 1). Amit Bhatia, co-founder of Datapeople.io, a research firm, says that before ChatGPT a medium-sized tech firm might employ a handful of AI engineers who built small models to do things such as analyse the sentiments of customers' emails. Today generative models can do a much better job than small, in-house efforts.

The result is that some AI engineers are now being asked to work out which AI system to use and how to connect it to a company's data. Mr Bhatia says that the share of software-engineering job listings citing such "MLops" (short for machine-learning operations) has doubled since early 2022.

Different types of skills are also in demand. Kelsey Szot, a co-founder of Adept, another AI startup, points to individuals who quickly learn how to use AI tools and can stitch them together to build something new and impressive. Unlike the stuffy PhDs, they come up with ideas that are often not academically elegant. But, says Ms Szot, they will solve a problem on a tight deadline. In the ultra-competitive world of AI startups, that is invaluable.

As a result of all this demand, talent flows are shifting. For years engineers flocked to the big-tech quintet: Alphabet (Google's corporate parent), Amazon, Apple, Meta and Microsoft. Live Data Technologies, a research firm, tracks job moves between companies. Of the AI workers in its database, the big five's cumulative net additions (hires minus departures) averaged 168 a month between January 2019 and November 2022, when ChatGPT was released. Many of those who left one of the big five simply joined another.

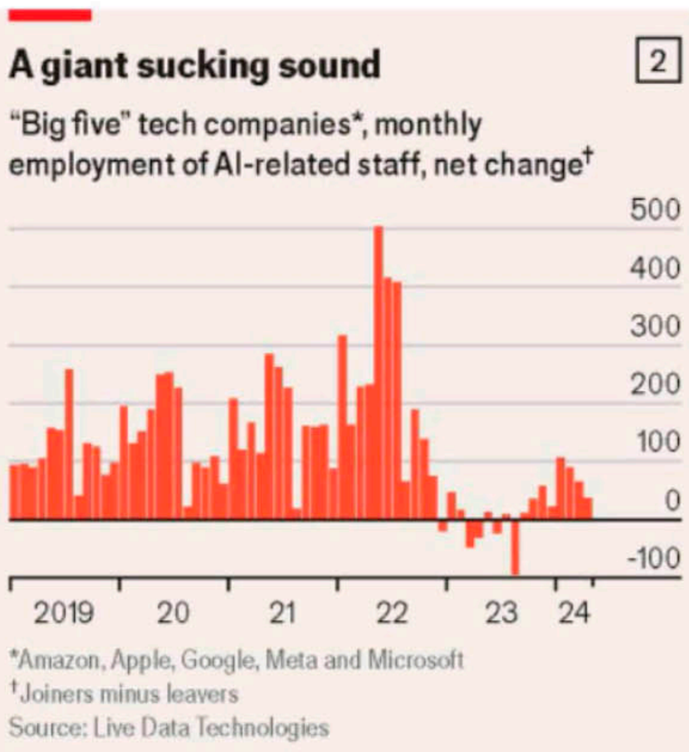
Over the next nine months, though, the net flow of AI workers to the giants reversed to an average monthly outflow. They are now once again adding to their AI payrolls, by poaching boffins from less-big tech companies with less impressive AI pedigrees, such as IBM and Oracle. But the net inflows have still not returned to their long-run average (see chart 2).

Where is the AI talent going instead? One popular destination is Nvidia, a chipmaker whose "graphics-processing units" are powering the AI boom and whose ambitions extend beyond hardware to software and applications. This month its market value surpassed $3trn, within striking distance of Microsoft, the world's most valuable company. Others joined more mature startups, such as Databricks, a database and AI firm, and OpenAI.

But one in seven of the big-tech leavers went to startups in "stealth" mode, which have not unveiled products or announced plans. All eight authors of "Attention is all you need", a paper published in 2017 that provided the algorithmic underpinnings of generative AI, have left Google, where they worked at the time. Seven have founded their own firms (the other joined OpenAI).

One motivation for going to a smaller startup may be financial. For an AI wizard the potential rewards from owning a stake in a successful firm could easily outweigh the salary and stock options offered by a tech juggernaut. Researchers also increasingly want to work on meaningful problems. Since 2015 the number of them joining the health-care sector each year has increased 20-fold, according to Zeki (which may explain why Google is working on Med-PaLM 2, an AI doctor). Another motive is autonomy. "There is just too much brand risk in big companies to ever launch anything fun," Noam Shazeer, one of the authors of the attention paper, told a venture-capital conference last September. He went on to co-found Character.ai, which allows users to create chatbots with different personalities.

The good news for big tech and small startups alike is that the supply of AI labour is growing. One source is academia. According to a report from Stanford University, in 2011 about 41% of AI PhDs took jobs in industry, roughly the same share as those taking jobs in academia. By 2022 that figure stood at 71% for industry, compared with 20% for academia. Universities are teaching more AI, too. The number of English-language, AI-related degree programmes has tripled since 2017. "All computer-science departments are becoming machine-learning departments," says Naveen Rao of Databricks.



For American companies, which dominate the global AI industry, hiring from other countries is another way to alleviate the talent shortage. In October President Joe Biden signed an executive order to try to loosen immigration rules to let more AI experts study and work in America. Google and Microsoft have written to the Department of Labour to show their support for the plan. Other governments want the same thing. The EU is planning training schemes and subsidies. The Chinese government plans to attract talent to its shores by, among other things, establishing AI academies in Beijing and Shanghai. On every level, competition for AI workers is heating up. ■

Artificial intelligence (2)

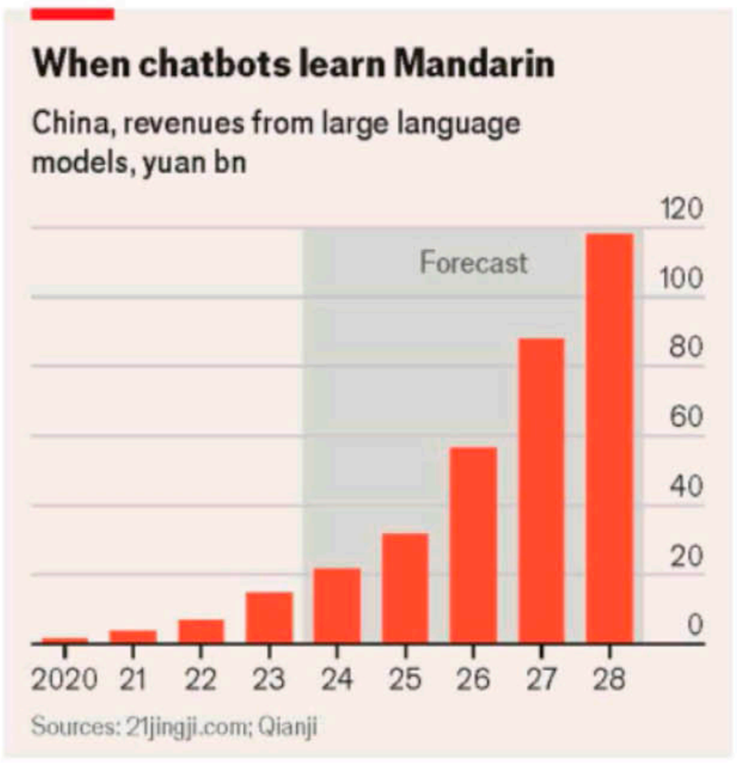
The LLM summer sale

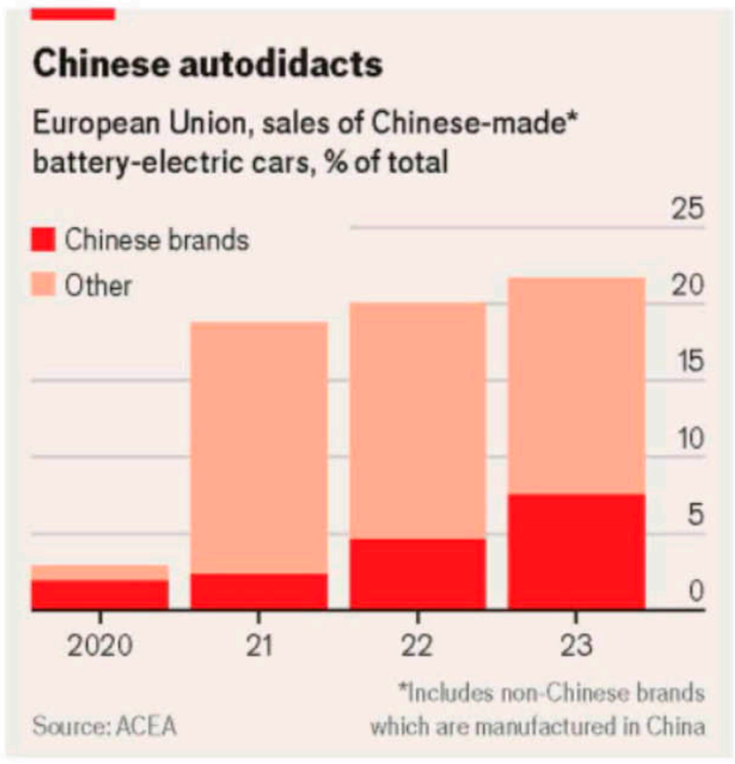
A price war breaks out among China's AI-model builders

PRICE WARS are ten a penny in China. The emergence of hundreds of look-alike companies seemingly overnight is pushing down retail prices of everything from electric vehicles to bike-sharing and bubble tea. The latest products to enter the ruinous fray are artificial-intelligence (AI) chatbots. This may seem surprising. Until recently China's problem was not a surfeit of large language models (LLMs), the sort that makes ChatGPT a humanlike content-creator, but their dearth. At the start of 2023 experts reckoned that the Chinese LLMs that did exist were a decade behind the American cutting edge.

Now the same experts reckon that the transpacific model gap has shrunk to a year or less. LMSYS Chatbot Arena, which ranks LLMs' performance, puts five Chinese ones in the world's top 20. On some measures, a model called SenseNova 5.0, created by SenseTime, a Shanghainese AI firm, outperforms the LLM which until an upgrade in May powered ChatGPT in logical reasoning and creative writing. In February AskCI, a market-research firm, forecast that Chinese LLMs will generate 22bn yuan ($3bn) in revenue this year, up from 15bn yuan in 2023. By 2028 they could be generating five times as much (see chart).

All these eye-catching technological strides and the promise of riches have mo-





tivated plenty of AI hopefuls to pile in. Last year Robin Li, chief executive of Baidu, a Chinese search giant with AI ambitions of its own, observed that China was producing one LLM a day. He may have been exaggerating for effect but was not wide of the mark. According to government estimates, the country now boasts more than 100 models with more than a billion parameters, which is to say at least roughly as complex as some versions of the popular Llama models made by Meta, Facebook's parent company.

Chinese AI developers are now turning these models into products left and right. But in contrast to America, where OpenAI commands a clear technological lead, in China users lack such an industry benchmark to help them differentiate between the sundry products on offer, says Jeffrey Ding, a scholar of Chinese AI at George Washington University. Unable to compete on technology, they are therefore competing on price.

On May 6th High-Flyer, a quant hedge fund that built its own model, slashed prices for the latest version to one-hundredth of one yuan cent per 1,000 tokens (the preferred unit of LLM pricing). That is approximately 1% of what OpenAI charges for its snazziest model, GPT-4 Turbo. On May 15th ByteDance, which owns TikTok and its Chinese sister video-app, Douyin, began offering its newest model at a similar discount. A week later Alibaba, an e-commerce conglomerate, cut prices for its flagship LLM by 97%. Hours later Baidu announced that its Ernie chatbots will be free of charge for all business users. Tencent, China's biggest internet firm, is also giving away one of its LLMs for nothing.

One Tencent executive now talks of "the war of a hundred models". Lee Kai-fu, a Taiwanese tech investor and author of "AI Superpowers", a bestselling book from 2018, has warned that this conflict is a "lose-lose" one. Attracting more customers—and therefore hoarding more data on which to train ever cleverer algorithms—counts for little if the resulting lower revenues mean much less money to spend on the pricey computing resources necessary to do the training. This problem afflicts model-makers everywhere but it is especially acute for Chinese ones. That is because they are barred by American sanctions from gaining access to American-made AI chips, which are the most powerful and efficient in the world.

In the longer run, the likeliest consequence of the price war is consolidation of the Chinese AI industry in the hands of a few deep-pocketed digital giants such as Alibaba, Baidu, ByteDance and Tencent. Promising smaller model-makers, such as Baichuan, Moonshot and Zhipu AI, could be squeezed out of the domestic market—never mind that, as OpenAI and fellow upstarts such as Anthropic and Mistral have shown in the West, newcomers have a record of outinnovating incumbents in machine learning.

Some of the Chinese challengers may try their luck in international markets instead. 01AI, Mr Lee's latest venture, has signalled that if the price war gets out of control it is prepared to look abroad for growth. But many domestic rivals would struggle to navigate foreign technology markets and so are stuck in their hypercompetitive home market. A hundred LLMs may be blooming in China. Many of them may wither much sooner than their creators expected. ■

Carmaking

The call of duties

Higher tariffs in the EU will hold back a tide of Chinese EVs only temporarily

ONE SATISFACTION of buying a new car is the distinctive aroma within. The smell that emanates from the Chinese electric vehicles (EVs) that are increasingly common on Europe's roads is, for the European Commission, that of a rat. On June 12th, after an eight-month probe, the EU's executive arm accused China of unfairly subsidising its industry with tax breaks, cheap loans and the like. It fears that cut-price imports pose a "clearly foreseeable and imminent injury" to European carmakers. Provisional tariffs of between 26% and 48%, compared with 10% for other imported cars, will be imposed from July on Chinese EVs. The precise duty will depend on each firm's willingness to assist the investigation.

In the short term, it is hard to sniff out a winner. Car buyers hoping to inhale the intoxicating new-car odour will certainly suffer if the prices of imported cars rise and competitive pressures on European firms ease. But Europe's carmakers are not taking a victory lap, either. They did not ask for the probe, which was launched under pressure from France's government. German companies such as Volkswagen and BMW, which make lots of cars in China and export plenty there, have been particularly vocal opponents. Now they fear retaliation from Beijing, which looks inevitable.

China has hinted at raising its tariffs on large-engine (in other words, German) vehicles from 15% to 25%. It could also make life harder for foreign carmakers in China with more onerous regulations and spread the net of tariffs wider to agricultural goods or aviation. In January it fired a warning shot at France by initiating an anti-dumping investigation of cognac and other European brandies.

Europe's tariffs will hit not only Chinese firms. Foreign companies that make cars in China for export back to Europe will be subject to duties of 31% on average. Tesla, the American EV pioneer, is by far the most exposed. But Europe's mass-market carmakers, which face the greatest threat from cheap Chinese electric runarounds, are also in the firing line.

Carlos Tavares, chief executive of Stellantis, which counts Citroën and Peugeot among its many brands (and whose largest shareholder part-owns *The Economist*'s parent company), once seemed to favour tariffs. He has become less keen since a deal last October with Leapmotor, a Chinese startup, to make cheap EVs in China for the European market. Renault has not explicitly called for tariffs but rather a "level playing-field", and a more supportive European industrial policy. It also sends EVs to Europe from China under its Dacia brand.

As for Chinese carmakers, higher duties may temporarily slow their progress and give the Europeans the opportunity to catch up by launching a new generation of more competitive vehicles. But the tariff barrier is unlikely to stop all the Chinese in their tracks. Having set prices in Europe a little lower than for competing European

models, they have scope to cut. BYD, which will now be subject to an extra 17% tariff, sells its Seal EV for around $24,000 in China and double that in Europe, suggesting that it could absorb the new duties and still make a profit. Rhodium, a research firm, reckons that tariffs of 40-50% would apply the brakes more fully. SAIC, which will be hit with a 48% tariff on its popular MG marque, may have more problems, unless its starts to help with the investigation.

Indeed, in the long run the tariffs could even hasten China's conquest of the European car market. To become significant forces on the continent, the Chinese companies were always going to have to produce their EVs locally. BYD, which aims to become the region's top EV-maker by 2030, will build a factory in Hungary and is soon expected to announce another in Spain. Chery signed a deal in April also to make cars in Spain. Others are reportedly knocking on the door of big European contract manufacturers, according to Matthias Schmidt, a consultant.

Chinese carmakers, in other words, aren't going anywhere. In a sign of the times, BYD has taken over from Volkswagen as the main sponsor of the European football championship, which kicks off on June 14th in Germany. Even if EU member states vote later in the year to make the tariffs permanent, it will do little to put Chinese noses out of joint. ■

Business and elections (1)

Wrongs of the right

BERLIN

The rise of the AfD rattles German business leaders

WHEN THE Alternative for Germany (AfD, from its German initials) was launched in 2013, it was a pro-business, classically liberal party created by German intellectuals opposed to the single European currency. Hans-Olaf Henkel, a free-market enthusiast and former boss of the BDI, the main German industry association, was a founding member.

Then, in the space of a few years, the AfD turned into an anti-immigrant, populist party toying with Dexit—Germany's exit from the EU. Mr Henkel quit in 2015. German bosses turned their backs. Despite being generally reluctant to voice political opinions, many came out strongly against the AfD ahead of the election to the European Parliament on June 9th.

In March Reinhold Würth, the 89-year-old founder of Würth, a hardware firm, wrote to his 25,000 employees in Germany, advising them not to vote for the AfD. The BDI's current head, Siegfried Russwurm, kept reminding audiences that, as a big exporter, Germany benefits from openness, international trade and European unity. The rise of a party that questions these precepts is extremely dangerous for the German economy, he warned.

Two days before the poll around 30 mainly German firms—including Siemens, a engineering giant, BASF, a chemicals one, carmakers such as BMW and Mercedes, and Deutsche Bank—released a video titled "We Stand for Values". In it they praised diversity and openness, warned that intolerance damages the economy, highlighted the importance of European integration to prosperity and encouraged their 1.7m employees in Germany to vote. The AfD was not mentioned by name. But the anti-extremist message was clear.

It fell on deaf ears. The AfD won 16% of the nationwide vote, ahead of the Social Democratic Party of Chancellor Olaf Scholz. Only the opposition Christian Democratic Union did better. The AfD is likely to take first place in Saxony, as well as two other eastern states that hold elections in September.

This spooks corporate Germany. A survey of 900 business leaders last month by IW, a think-tank, found that almost 70% saw the AfD's rise as a risk to *Standort Deutschland*, shorthand for Germany as a place for business and investment. They fret in particular about what it means for the survival of the EU and the euro. According to a recent IW study, Dexit would reduce Germany's GDP by 5.6% within five years (as much as both the covid-19 pandemic and the energy crisis caused by Russia's invasion of Ukraine combined) and result in around 2.5m job losses.

In its relations with its country's corporate elites the AfD may be where France's National Rally (RN), another insurgent right-wing outfit, was a few years ago, says a French diplomat in Berlin. Back then meetings with Marine Le Pen, the RN's leader, were taboo for CEOs of French blue-chip firms. That *cordon sanitaire* has become porous as the RN has gained electoral strength. Jordan Bardella, its telegenic president, and Ms Le Pen spent months in the run-up to the EU election courting business leaders. In November Ms Le Pen had a much-noted lunch at a chic Parisian brasserie with Henri Proglio, the former boss of EDF, an energy giant. She has also met members of the Dassault clan, a family of aeronautics billionaires.

The RN's showing in the EU poll, where it came first with 31% of the vote, and the snap French parliamentary election called for June 30th, make the party impossible for French bosses to ignore.. Their German counterparts still hope not to have to bend the knee to the AfD. But they are bracing themselves nonetheless. ■

Business and elections (2)

Mumbai mood swings

MUMBAI

What Indian business makes of Modi 3.0

HOW MUCH is one-party rule worth to India Inc? Judging by the market reaction to the results of the general election, the figure is around $400bn. That is the total market value lost by Mumbai-listed stocks on June 4th, when it turned out that rather than securing a big majority, as exit polls had predicted, the ruling Bharatiya Janata Party (BJP) of Narendra Modi would need coalition partners to govern.

Investors' panic proved short-lived. By June 10th the Mumbai bourse had clawed back all its losses, after Mr Modi quickly assembled a coalition perceived to be sympathetic to his pro-business economic agenda. The previous day a "Who's Who" of corporate India applauded in the presidential palace as Mr Modi was sworn in as prime minister for a third time. Modi 3.0, as Indians refer to the new government, is looking much like the earlier versions.

The BJP's two main coalition partners are seen as amenable to Mr Modi's vision for the economy. The Telugu Desam Party is led by the chief minister of Andhra Pradesh, N. Chandrababu Naidu, who played a key role in the development of Hyderabad, the former state capital, and is considered a strong supporter of foreign investment. The Janata Dal (United) party, from the state of Bihar, is also unlikely to make trouble. The cabinet emphasises continuity. The ministers of finance, commerce and foreign affairs remain in their roles. So do some colleagues with smaller portfolios ▸▸



Big business applauds the big man

that are nonetheless critical to business, notably Ashwini Vaishnaw, who oversees the much-ballyhooed subsidies for electronics manufacturing.

The dexterity with which Mr Modi handled his apparent electoral setback may have bolstered his reputation for getting things done. Many executives take it as a sign that he can still push through reforms. Better yet, the coalition may keep him from overreaching, for example by making life difficult for companies that do not embrace the BJP wholeheartedly enough—a fear that many denizens of corporate India share but, given Mr Modi's intolerance of open criticism, dare not utter in public.

The risk is that the constraints of coalition will do more than just curb BJP excesses. A series of 100-day plans promised during the campaign have yet to be released. Other half-finished projects, such as new rules for foreign investment that were meant to be finalised at the start of the new term, are in limbo. Much-needed agricultural, land and labour reforms, which Mr Modi has struggled to push through even with a BJP majority, will be no easier to enact.

Indian bosses confess that their main pre-election mistake was exaggerated expectations. Third terms rarely come with big majorities anywhere in the world, says an investor. Change in India takes time, he observes, and direction matters more than distance travelled. In the eyes of Indian business, the direction remains correct. ■

BARTLEBY

Striking, slouching and setting sail

Gen Zs rebel against Asia's rigid corporate culture

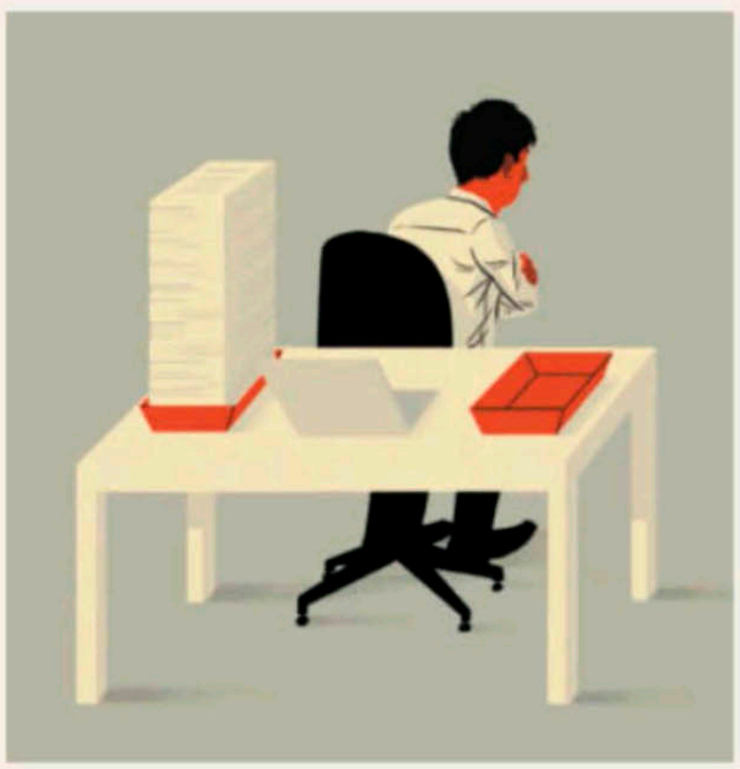
WHEN A GAGGLE of Generation-Z employees from Seoul, Shanghai, Singapore and Tokyo gets together in one place, the ensuing conversation will usually be conducted in decent English. The participants are all equally fluent in another common language—that of corporate despair.

The inflexible hierarchies, long hours and culture of presenteeism that pervade Asia Inc have left many young workers deeply dissatisfied with their lot in life. In an annual global survey of employee wellbeing by Gallup, an American pollster, just 18% of under-35s in East Asia say they are engaged at work, below the already tepid 23% global average. Japan and Hong Kong skirt the bottom of the global rankings for engagement across all age groups.

Some have had enough. Thousands of young South Korean doctors downed stethoscopes in February in protest against the government's plan to increase the number of medical students. On June 7th workers at Samsung Electronics, the country's biggest listed company, went on strike for the first time. Union officials suggested that younger workers led the charge. Research by Shin Min-ju of Pukyong National University and Jung Heung-jun of Seoul National University of Science and Technology suggests that "Generation MZ"—which mixes Millennials (born between the early 1980s and late 1990s) and Gen Z in a country that does not have enough of either—are keener to join a trade union than their elders and more optimistic about how labour activism can improve working conditions.

Japanese workers are more placid and Chinese ones risk prison for striking. So instead some of them are fleeing from their countries altogether. Emigration is now a topic of discreet conversation among young workers in China, whose economy is faltering. *Run*, a Chinese word meaning profitable, has risen to prominence owing to its homophonic similarity to the English verb meaning something rather different. A record number of young Japanese workers are taking up working-holiday visas in Australia. Picking cucumbers while dodging venomous Aussie wildlife is seen as preferable to joining the rat race in Tokyo. Some youngsters marvel at California's $20 hourly minimum pay for fast-food workers, three times what a Japanese burger-flipper earns.

Yet the most common response to the perceived misery of East Asian corporate life remains industrial inaction. In Japan and South Korea, young workers have engaged in a low-stakes, low-impact form of rebellion for more than a decade. Millennials are often referred to as the *satori* ("enlightened") generation in Japan. In South Korea, they are the *sampo* generation, which means "giving up three"—dating, marriage and children—in order to serve the economy. Both convey a dejected attitude to work and life opportunities.



They were subsequently joined by their Chinese peers, who started talking about "lying flat", or opting out of the pressures of modern life, whether in business or their personal lives, in 2021, a year before their Western peers discovered "quiet quitting". The Chinese are also taking it further. In recent months the country's social media have been replete with displays of "disgusting work outfits", in which young workers show off their lowest-effort office garb, arriving at their desks in slippers and pyjamas. The only way to win the game, many appear to be concluding, is to refuse to play.

Asia's corporate and political leaders are at last taking note. Last month the head of public relations at Baidu, a Chinese tech giant, had to apologise for ordering her employees to be contactable 24 hours a day and telling them, "I'm not your mother." South Korea's president, Yoon Suk-yeol, was forced to abandon a plan to raise the maximum work week from 52 hours to 69. The prime ministers of Japan and Singapore, Kishida Fumio and Lawrence Wong, have both promised their grumpy young citizens cuddlier forms of capitalism.

There are signs of relaxation. On a recent trip to Tokyo this guest Bartleby saw far fewer suits in several corporate headquarters than a business traveller might once have expected. There was scarcely a tie in sight. But for every two baby steps forward there is a senior step back. One American investor says he recently arrived in a short-sleeved shirt to speak to a panel of Japanese executives, only to find himself awkwardly facing the traditional wall of dark suits. Attitudes take a while to change—especially among the not-so-young.

SCHUMPETER

Tim Cook's prayer to the almighty

Hey Siri! Help me get Apple out of an AI-shaped hole





TIM COOK has an air of bashful reverence. In his 13 years at the helm of Apple he has created more value than just about any CEO in history, as the tech behemoth's market capitalisation has climbed from less than $400bn to around $3trn. But he still acts as if he were there thanks to the grace of Steve Jobs, or the skill of his colleagues, or divine providence. It was in character, then, that when he took to the stage at the iPhone-maker's annual developers' gathering on June 10th, he first greeted the cheering throng by clasping his hands together, as if in prayer. He probably would not admit this, but there was plenty to pray for.

Apple was suffering one of its periodic bouts of investor angst. Call it the curse of the missing mojo. In the previous 18 months Wall Street convinced itself—as it had a few times since Jobs died in 2011—that the creative spark bequeathed by Apple's Prometheus co-founder had finally sputtered out. Behind that is a real problem: sales of the iPhone, which account for half of Apple's revenues, are slowing. But there is a perception problem, too. Apple's aloof response to the euphoria over generative artificial intelligence (AI) cost it its crown as the world's most valuable company, which it lost to its one-time nemesis, Microsoft. To make matters worse, the market value of Nvidia, maker of chips that power generative-AI tools, this month briefly overtook that of Apple. Its boss, Jensen Huang, is treated like the second coming of Jobs.

Two questions thus hung over Apple in the run-up to the developers' conference. Would it come up with a generative-AI strategy convincing enough to win over the sceptics? And could this be sufficiently compelling to reboot iPhone sales? It is just a hunch, but on both counts Mr Cook earns the benefit of the doubt. Apple's market value is up by 10% since his communion moment and, at $3.3trn, within a whisker of Microsoft's. For the time being, the iPhone looks likely to survive and thrive in the generative-AI era.

The smartphone is an intimate thing. It goes wherever you go, contains your most precious memories, chronicles your love life, keeps your health and financial records, follows you around the web and, via its camera and microphone, can see and hear whatever you do. Part of Apple's bargain with users is that they pay a lot of money to keep that information private and secure. Since the arrival of OpenAI's ChatGPT in late 2022, Mr Cook and Apple have faced the conundrum of how to maintain that privacy while training generative-AI models to behave like a personalised concierge.

The response is "Apple Intelligence", an attempt to make generative AI consumer-friendly in a way uniquely suited to users of the iPhone and other Apple devices. Siri, Apple's perennially clunky voice-assistant, gets a makeover; if all goes well (there were no live demos), it will now act like a cross between your PA, who can handle a series of tasks on your behalf, and your ten-year-old kid, who can tell you how to make use of the iPhone's latest features. To enable that, its operating systems will allow Siri to range across your apps (where it is enabled), your photos, your calendar and other contextual parts of your digital life to find information uniquely useful to you. Crucially, that information will remain, Apple promises, mostly in its own domain.

Instead of spending a fortune reproducing the all-knowing large language models (LLMs) and vast AI infrastructure of its peers, Apple is taking a more tailored approach. Its models will run on its own devices or, if more computing muscle is needed, its own data centres. They will use Apple-designed semiconductors. That gives the firm control not just of safety but of quality; the larger the model, the greater the danger of embarrassing mistakes.

For users who want more souped-up capabilities, such as advice on how to plant a garden, or a personalised bedtime story, it has struck a deal with OpenAI to provide free access to the latest version of ChatGPT. It did not disclose the financial arrangements. It will not be an exclusive relationship; Apple may in future use other LLMs, such as Alphabet's Gemini. In a nod to privacy, users will have to consent to each query—a process that could become mind-numbingly boring (think ChatGDPR). Apple's hope is that for their everyday needs, its customers will mostly get by with its own AI. The fact that so much of what is really useful to them resides on its devices could be its killer app.

For now, users are probably less hyped up about generative AI than investors are. It was telling at the developers' conference (where mathematicians are overrepresented) that the loudest cheers came when Apple announced that it was at last adding a calculator to the iPad. That had nothing to do with Apple Intelligence. The loudest groans came when it unveiled a generative-AI feature allowing users to create superhero emojis of their mums.

But as the saying goes, in the early days people wanted faster horses, not cars. The better generative-AI services become, the more users might be drawn to them. Samsung, Apple's biggest smartphone rival, has marketed the Galaxy S24 Ultra, its latest model, as a gateway to "mobile AI". Microsoft and others are promoting "AI PCs". Apple's AI features, when eventually rolled out, will be able to run on the most-recent iPhone 15 Pro, and Macs with the latest M-series of Apple chips, but earlier models will not be powerful enough. That could provide impetus for owners of old devices to upgrade, reinvigorating sales growth.

Are you Siri-ous?

Perhaps when the supercharged Siri is unleashed on the world, it will be a laughing stock. ChatGPT, Gemini and other general-purpose LLMs may become so much better that Apple will rue not building one of its own. But for now Mr Cook appears to have repeated an Apple speciality: not by being the first to embrace a technology, but by being the first to try to use it to fire up the consumer's imagination. He must pray the gods of AI are listening. ■

Finance & economics



American trade policy

The caged bird sings

WASHINGTON, DC

From behind bars, Peter Navarro plans a hardline protectionism if Donald Trump wins a second term

AHEAD OF AMERICA'S election in November, company bosses, financiers and diplomats are busy calling on Donald Trump's allies, trying to divine the economic policies the former president will pursue if he is re-elected. But there is one man in Mr Trump's orbit who holds more sway than most and who, for now, is virtually inaccessible. That is because he is inmate number 04370-510 in the Federal Correctional Institution of Miami.

Peter Navarro, a leading economic adviser in Mr Trump's first administration, is more than halfway through a four-month sentence for contempt of Congress. He bristles with indignation at the justice system, disdains Joe Biden's record and longs to steer America towards hardline protectionism. In written correspondence with *The Economist*, Mr Navarro has laid out how he thinks Mr Trump should approach trade—from turning up the heat on China to slapping tariffs on just about everyone else. It is a dark, angry vision for the global economy. As polls stand, it is one Mr Navarro may shortly be able to promote from inside the White House.

Amid the chaos of the previous Trump administration, Mr Navarro stood out as especially disruptive, acerbic and vengeful. At various points the former economics professor was sidelined from trade negotiations, investigated for abusing colleagues and publicly castigated. But throughout it all Mr Navarro managed to remain in Mr Trump's favour. His position was only bolstered after he demonstrated complete loyalty by refusing to comply with a subpoena from the House of Representatives committee investigating the Capitol riot of January 6th 2021. It was that refusal that landed the wiry 74-year-old in prison in March.

To gauge the influence of Mr Navarro's ideas, consider how Mr Trump has praised his latest book. "The New MAGA Deal" is due out on July 16th, coinciding almost perfectly with its author's release from prison. "What he says should be highly respected," reads a dustjacket quote from Mr Trump. "Peter Navarro is a Patriot who has been treated very badly, but he continues forward. In the end, there will be Victory!"

Back in 2016 Mr Navarro's appeals for protectionism made him an outlier, even among Republicans. Now he is much closer to the mainstream, as shown by Mr Biden's recent decision to slap hefty tariffs on Chinese electric vehicles (EVs), solar panels and more. It is the triumph of "the Trumpian principle that economic security is national security", says Mr Navarro. "The debate is over."

Not that he has anything nice to say about Bidenomics. In Mr Navarro's view, Mr Biden messed up by making industrial policy heavy on subsidies for EVs. Not only did that "spike the federal deficit" in America, it also, perversely, encouraged China to produce more EV batteries. "If Trump had been president, this never would have happened," he says. As with many of Mr Navarro's claims, this is highly debatable: Mr Biden's subsidies require battery com- ▸▸

→ ALSO IN THIS SECTION

60 How to strike a trade deal
62 China's distorted stockmarket
63 A jobs riddle for the Fed
63 The faltering yuan
64 Buttonwood: Private credit's iron age
66 Free exchange: Motherhood and pay

ponents to be made in America or by free-trade partners, and Mr Trump's tax cuts add even more to the deficit. But it is true that Chinese producers dominate the global EV market, and that they are investing abroad in a bid to dodge American tariffs.

Mr Navarro's prescription is to prevent third countries from being used as conduits for Chinese goods. "Vietnam is a major shadow export platform for 'Made in China' and invites a crackdown," he says. He also warns that Mexico may imperil the free-trade agreement between it, America and Canada if it accepts too much Chinese investment. "Mr Trump simply won't tolerate a Communist Chinese beachhead on America's southern flank," he says.

One way Mr Biden has distinguished his trade strategy from Mr Trump's is by trying to mend ties with allies, to form a united front against China. Some diplomats still complain that Mr Biden's policies boil down to the same favouritism for America, albeit via subsidies rather than tariffs and couched in politer language. But Mr Navarro's harsh analysis is a bracing reminder that the differences are substantial. "Too many European nations are compromised by Communist Chinese influence to ever project a united front," he says. Britain? Addicted to Chinese capital. Greece and Italy? Their ports are mortgaged to China. Germany? Too dependent on China for its exports. In Mr Navarro's Manichaean universe, Trumpian America stands alone in its righteousness.

Even leaving China aside, Mr Navarro considers America a victim. "When it comes to steel and aluminium, the US has no allies, only competitors that cheat and dump," he says. (The suggestion is that, as president, Mr Trump might consider reinstating his controversial steel and aluminium tariffs, rolled back by Mr Biden.) Mr Navarro also hopes to see passage of the Reciprocal Trade Act, which would allow the president to mirror the tariffs and non-tariff barriers of any country that refuses to lower its own to the level of America's. He calls it common sense and a priority for Mr Trump. As for the World Trade Organisation (WTO), rendered increasingly irrelevant by America's crippling of its appellate body, Mr Navarro's solution is simple: boot out China, for breaking the WTO "with its ruthless economic aggression".

In practice many of these proposals would be hard to implement and could harm America. Steel tariffs are costly for the many industries that use the metal, and so end up hurting, not helping, domestic manufacturers. Screening Chinese investments abroad would be both arduous and awkward, requiring explicit meddling in other countries' politics. Reciprocal tariffs may sound sensible but would leave American policy looking bizarre, since each country has a blend of high and low tariffs for different sectors (which in fact allows for the compromises that make most trade deals possible). America, for instance, has hefty levies on imports of pickup trucks and lumber. Expelling China from the WTO would be nearly impossible.

But focusing on such details may miss the point. When Mr Trump was in the White House, Robert Lighthizer, a lawyer who served as United States Trade Representative, helped design America's new tariffs and spearheaded the investigations that formed their legal basis. "Lighthizer was more the brains of the operation, whereas Navarro was the heart and the gusto, the front-line warrior willing to get sullied and dirtied," says Dan Ikenson, a trade-policy scholar. Mr Navarro's main official role was to lead the Office of Trade and Manufacturing Policy in the White House, a body created by Mr Trump with few actual staffers.

Some speculate that Mr Lighthizer may be treasury secretary if Mr Trump is re-elected, a perch from which he could remake American economic policy beyond just trade. Mr Navarro, by contrast, is not much of a manager. But his pugnaciousness appeals to Mr Trump. Last month Mr Trump told the *Wall Street Journal* that he would "absolutely have Peter back" in a new administration. Another sign of Mr Navarro's good standing: Donald Trump junior, the former president's son, recently visited him in prison.

Located at the southern tip of Miami, his low-security jail sits next to the municipal zoo and not far from a safari park. That may sound pleasant as far as detentions go, but it is still prison, with a strict curfew, restrictions on movement and little privacy in a dorm-style room. In late May there was a bloody brawl between Puerto Rican and Mexican gangs in the prison directly next to Mr Navarro's. "It is no country for old men," he observes.

The only thing that seems to exercise Mr Navarro more than China's mercantilism is his belief that the Democratic Party is using the legal system to persecute Mr Trump, conspiring to prevent him from regaining power. He describes the hush-money trial that ended last month with Mr Trump's conviction as a ploy to exhaust his funds and keep him tied up in court instead of on the campaign trail.

"Under Joe Biden's lawfare tyranny, America is nothing more than a banana republic and the world, particularly Communist China, is laughing at us," he says. That makes for quite the contrast with Republicans' more usual depiction of Mr Biden as a doddering fool. Like many of Mr Navarro's extreme views, this one has scant basis in reality. But one thing is all too clear: no one should be laughing at him, or the prospect of his ideas once more holding sway in the White House. ■

Global trade

The art of the deal

DELHI

America aside, plenty of countries are forging trade links

IN SOME PARTS of the world, not least America's capital, "trade" is a dirty word. Both Donald Trump and Joe Biden now champion protectionism (see previous article), and neither president signed a single new trade deal. The World Trade Organisation (WTO) is a shell of its former self. So you might think that trade deals are history—but in fact, from South Asia to Latin America, dealmaking continues apace.

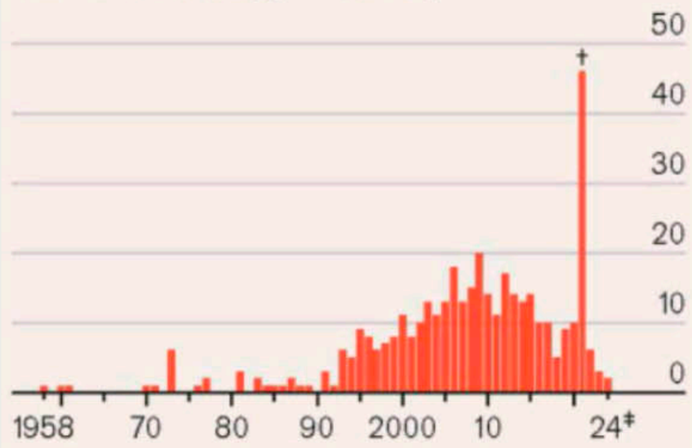
To understand the new landscape, start with the birth of the modern trade deal. The first half of the 20th century saw escalating tariffs and two world wars. Then, in 1948, the General Agreement on Tariffs and Trade (GATT) was signed in an effort to temper zero-sum competition. The construction of the World Trade Organisation (WTO), which formalised continuous negotiations, followed in 1995. One of its core principles is the "most-favoured nation" clause: if you change tariffs on one country, you must do so for all the others, too.

The one exception is the free-trade agreement (FTA), through which countries can gain access to each others' markets by cutting tariffs and aligning standards. Such deals proliferated after the fall of the Soviet Union, with an average of 13 a year struck in the 2000s (see chart 1). That was until China's rise led many to rethink the system. The WTO was accused of ignoring China's distortive trade practices, and Mr Trump blocked new appointments to the WTO's dispute-settlement committee, in effect defanging the organisation (a practice that Mr Biden has continued). All the while new FTAs have become rarer, with just three signed in 2023.

Yet despite the headline numbers, inter- ▸▸

Deal drought 1

Regional trade agreements currently in force worldwide by year of entry*



*Includes accessions of new countries to existing agreements †Includes deals struck by Britain after Brexit ‡To June
Source: WTO

est in strengthening trade links is not dead. Dmitry Grozoubinski, the author of "Why Politicians Lie about Trade" and a former trade negotiator, observes that dealmaking is slowing in part because countries have signed so many already. With 370 deals currently in force, there are few new potential partners left to court.

Meanwhile, some countries are actively pursuing negotiations. Data from the WTO show that eight major economies—Australia, China, the EU, India, Indonesia, Israel, South Korea and Turkey—have each put at least three new trade deals into force in the past five years (see chart 2). Different governments are pursuing different strategies. The EU has been striking "everything deals", with chapters covering both trade and topics ranging from climate to gender.

India is pursuing more targeted and streamlined deals. It took less than a year to complete one with the United Arab Emirates, signed in 2022. A deal with Australia, also signed in 2022, avoided many of the extra provisions the EU is keen on. A third, with a bloc comprising Iceland, Liechtenstein, Norway and Switzerland, created targets for these countries to invest $100bn in India and create 1m jobs. If these are not met, India can renege on some of its tariff cuts. India's approach, says one of its government's former trade economists, has been to sign deals that open up complementary sectors in each country, to avoid hurting existing exporters.

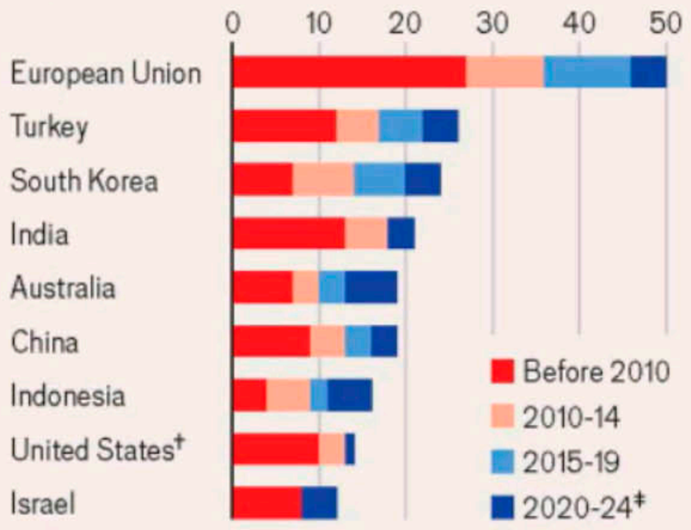
Many emerging economies' interest in new deals stems from a desire to attract businesses that want to be less exposed to China. "The less people trust your system, the more signing trade deals can lock in elements of your business climate and provide investors [with] certainty," observes Mr Grozoubinski. He points to the Gulf states as especially active in this regard. The Gulf Cooperation Council (GCC) has recently signed deals with South Korea and Pakistan, and is negotiating with Britain and China. "The Emirates, Saudi, the GCC...they're in negotiations with...nearly everybody," Mr Grozoubinski says.

Alongside such traditional deals, trade policies that skirt the typical FTA framework are becoming more important. For many countries, "there's a sense that the WTO is not doing it for them, that FTAs can be too much work and attract too much attention", says Kathleen Claussen of Georgetown University. Average WTO tariff levels are already less than 10% globally, so "there's not much juice left to squeeze," she adds.

Even Uncle Sam has been quietly forging new trade links. Under-the-radar "mini-deals" focus on non-tariff barriers and do not go to Congress for approval (though many such deals are not legally enforceable). A common approach is the mutual recognition agreement, under which countries promise to rubber-stamp products certified by each other's regulators. In a paper published in 2022, Ms Claussen counted some 1,200 mini-deals on America's books. The same year Mr Biden unveiled the Indo-Pacific Economic Framework—not a trade deal, but what American officials call an "arrangement".

Rainmakers 2

Regional trade agreements currently in force by year of entry*, selected countries/regions



*Includes accessions of new countries to existing agreements †2019-24 includes the USMCA, which replaced NAFTA ‡To June
Source: WTO

Mini-deals can plug gaps in domestic policy. America's Inflation Reduction Act included exceptions to its "Made in America" requirement for subsidies, for countries with which it has an FTA, but neglected to include important allies such as Japan and the EU. So America later signed a "critical minerals agreement" with Japan and classified it as an FTA, despite the deal hardly resembling one. "Mini-deals are sort of becoming a form of insurance against protection," says Mr Grozoubinski. Negotiations for a similar deal are under way with the EU.

Other countries are using mini-deals, too. Japan has an expedited process for passing trade policy that does not alter domestic law, as does the EU. A paper by Lucian Cernat of the European Commission, published in 2023, counts some 2,000 mini-deals struck by the EU since 1962, dwarfing the 40-odd FTAs it has in force.

Such deals can have a significant macroeconomic impact. Another paper by Mr Cernat observes that mutual recognition agreements have historically boosted exports of affected products by between 15% and 40%, more than many FTAs. America and the EU are negotiating an agreement that would cut certification costs by more than the cost of many tariffs, and would affect some $200bn in annual trade flows, far more than the total affected by FTAs between the EU and many smaller countries.

In much of the world, non-traditional deals are likely only to grow in importance owing to the rise of the digital economy, says Devon Whittle, a former trade negotiator for Australia. A health-care firm operating across borders, for instance, may face many different data-privacy rules that are hard even to catalogue. Removing such barriers is a huge part of modern trade negotiations, and does not require an FTA. In recent years, countries including America, Japan and Singapore have pursued standalone deals for digital services.

Some would like to formalise the new system of targeted deals that often skirt the WTO. A recent essay by Peter Harrell, a former official in Mr Biden's administration, argues for sectoral agreements in which like-minded economies strengthen supply-chain links to reduce their dependence on adversaries. This would supercharge what is already happening through some mini-deals in fashion today. It might also violate WTO rules. But as Mr Whittle says, "some governments may be willing to push at the boundaries". After all, if Mr Trump returns to the White House, plenty more rules will be broken anyway. ■



Chinese equities

In the stocks

China is distorting its capital markets by trying to prop up share prices

INVESTORS IN CHINA'S stockmarket have been doing handsomely this year. The Shanghai composite index has risen by 12% from a multi-year low in February, notwithstanding a recent drop. Equity analysts and state media alike are cheering. For Xi Jinping, China's leader, the rally was a relief, since retail investors own at least 80% of the market. A previous rout hurt them badly, adding to anxieties about the country's future. To many, the recovery reflected good governance and fortune.

Part of the rally came from the purchase of tens of billions of dollars' worth of shares by the "national team", a group of state-owned institutions that ride to the rescue when China's markets wobble. For Mr Xi, the bill may appear worth it. But the state has also tinkered with the market in other, more destructive ways. In an effort to boost share prices, it has put an end to a bonanza in initial public offerings (IPOs). With fewer exit opportunities for private investors, state capital has become more dominant. The danger is that these distortions will crimp the growth of China's most innovative firms.

Over the past decade Mr Xi has ensured that financial markets are guided as much by government policy as by price signals and animal spirits. He has redirected capital from once-frothy sectors such as consumer-internet services and fintech, and into favoured industries such as chipmaking, AI and high-end manufacturing. Thousands of state funds have invested in these areas, becoming a major force in Chinese venture capital (VC) and private equity.

For a time, public markets thrived under Mr Xi. In 2019 he established a specific market for tech shares, called Star. Two years later he launched a new stock exchange in Beijing for small firms. To keep the capital flowing, regulators made it easier for companies to list. By 2022 China was host to the world's hottest IPO market, with companies raising 587bn yuan ($81bn) over the course of the year.

But all this has now come to a halt. China's stockmarkets began falling in the second half of 2023, then plunged in early 2024 (see chart). That led regulators to start stressing the importance of an "investor-friendly" market. In practice this has meant allowing far fewer IPOs, in the hope that liquidity supports the prices of existing shares, rather than those of new ones. Just five Chinese companies listed on domestic bourses in April, down from 35 in April 2023. The IPO market raised 80% less capital in the first four months of 2024 than in the same period the previous year.

Wrong kind of red

Shanghai composite index, Dec 1990=100



Source: LSEG Workspace

Those firms that do list face fierce scrutiny. On top of on-site inspections, regulators now review companies' past business deals and trawl through executives' bank accounts, according to Reuters, a news agency. Faced with this, at least 80 companies withdrew their IPO applications in the first quarter of 2024.

The knock-on effects move down the entire chain of capital allocation. Now that IPOs are harder, investors in unlisted firms have fewer exit options. Accordingly, the value of sales by Chinese private-equity investors plunged from $89bn in 2022 to just $46bn in 2023. The resulting fall in valuations has made fundraising harder and investors warier of deploying their capital.

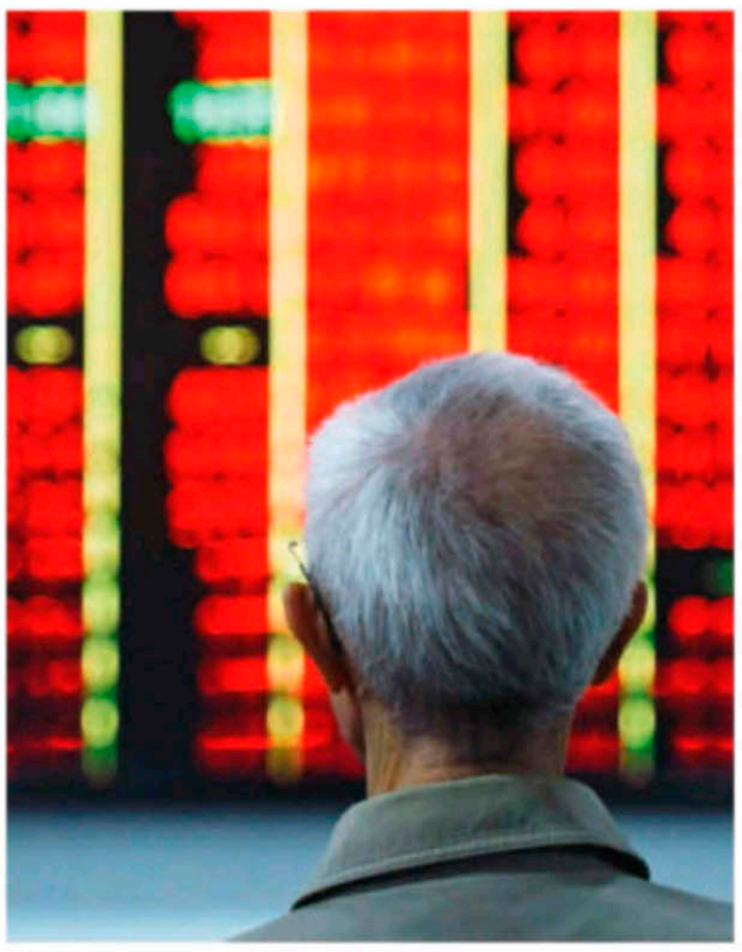
Meanwhile, state-backed funds, once intended to bring together the invisible hand and government policy, now dominate markets. One state investment manager says private capital has retreated as exit options have vanished, while state capital continues to flow. Such investors are still sensitive to losses but, without private backers demanding quick returns, can wait longer to get their money back.

"If venture-capital funds want to survive, they have to find a way to get money from local governments," concluded Robert Wu, a Chinese investor, in a recent blog post. But the objectives of private and state capital are not aligned. Officials may be seeking not just returns, but employment or tax revenues for their region. Moreover, state funds have onerous requirements and endless paperwork for any recipients of their cash. Mr Wu writes that VC funds ought to treat startups as clients, since they are their source of growth. Once state money is involved, though, the startups must serve their investors. "The industry's logic has been completely subverted."

Another problem—though Mr Xi may call it a success—is an increased focus on state-picked industries. Restrictions on IPOs have led many to believe that only firms advancing government policy will be allowed to list. And so investors are homing in on favoured areas such as flying taxis, near-space industries and machine-brain interfaces, dubbed "new productive forces" by Mr Xi, who hopes these industries will drive economic growth.

The effect on China's innovation hotspots has been profound. A recent ranking by PitchBook, a financial database, found that Hefei, a city in China's dusty hinterland, has hosted the fastest-growing start-up ecosystem in the world for the past six years. Industries ranging from biotech to semiconductors and artificial intelligence have sprung up in this unlikely place, hundreds of kilometres from established hubs such as Shanghai and Hangzhou. But on one front Hefei scores dead last: the number of times investors have successfully sold their stakes. VC firms made 735 investments in companies there between 2017 and 2023, but just 23 exits.

It is not just Hefei. Of the ten cities at the bottom of PitchBook's exit ranking, eight were Chinese. As China's economic growth decelerates and IPOs become ever harder, the valuations of companies in these places look particularly vulnerable—as do their funding prospects. Mr Xi is trying to inspire the world's most innovative companies, while also keeping private investors and average punters happy. But in the end someone must lose. ■



Have I gone colour-blind?

Jobs data

The missing million

WASHINGTON, DC

Could America's ultra-strong labour market be cracking?

IT IS THE million-person mystery, and its solution will help determine just how strong American growth truly is. According to an official survey of employers, America's economy has added 1.2m jobs in net terms since the start of the year. But a separate survey of households paints a completely different picture: that the country has in fact shed about 100,000 jobs over the same time period.

Slight discrepancies between the two closely watched surveys are normal, but rarely has the gap been so wide. One suggests a robust economy that is coping just fine with high interest rates; the other, that growth is rapidly decelerating.

On June 12th the Federal Reserve leaned towards the more optimistic result, known as the payroll survey. "Overall, we are looking at what is still a very strong labour market," said Jerome Powell, the Fed's chairman, explaining why officials have so far demurred from cutting rates. Their assumption is that this employment strength will persist, allowing time to wait for inflation to slow more noticeably. Lower-than-expected consumer-price inflation for May, published hours before the Fed's rate decision, pointed in the right direction, but it followed a few months of inconveniently high inflation readings. As a result the median forecast of the Fed's rate-setting committee is for just one rate cut this year, down from three a few months ago.

But what if the household survey's much weaker numbers are correct? Then the Fed would risk making a hawkish mistake, and investors, still mostly bullish on America, would be in for a rude surprise.

That makes finding the source of the discrepancy an urgent task. The payroll survey samples more than 600,000 worksites; the household survey, some 60,000 households. Both rely on models to reach their conclusions, creating scope for errors. The payroll survey must try to account for the creation and failure of businesses. The household survey must rely on estimates of the overall population. Over the past few years uncertainty has risen for both. The topsy-turvy post-covid economy has skewed estimates of business numbers, while surging immigration has done the same for population figures.

So which survey is likely to be more accurate? The payroll survey is rebased annually to line up with unemployment-insurance records. The next such exercise is likely to lop around 60,000 jobs per month from the count. At the same time, however, the census may have undercounted the migrants entering America from the south, pushing down the household employment tally. "The answer might come down to something that fortuitously is just the average of the two surveys," says Michael Feroli of JPMorgan Chase. That would mean the job market is softening, but only gradually. Mr Powell, for his part, has indicated that the Fed would respond to "unexpected weakness" in the labour market.

There may be one relatively simple solution to the data debate. The unemployment rate—calculated in the household survey—mostly avoids the problem of estimating the population, says Guy Berger of Burning Glass Institute, a research organisation. Upward revisions would, for example, add to both the employed and the jobless totals, keeping the ratio between them basically unchanged. And here the trend is clear: the unemployment rate has climbed from 3.5% in mid-2023 to 4% in May, low by historical standards but unquestionably weaker. "It's not as good a job market as it was a year ago," says Mr Berger.

Consider America's restaurants. Over the past few years, they were among the businesses that were hit hardest by staffing shortages, forcing even fast-food joints to offer much higher salaries. But Hudson Riehle of the National Restaurant Association says that his group's latest monthly poll found that, unusually, restaurateurs are now more worried about sales than staffing. As the Fed digests all these various surveys, it may soon be time to put rate cuts back on the menu. ■

Foreign exchange

Dropping anchor

HONG KONG

China's currency is not as influential as once imagined

CHINESE OFFICIALS seem pleased with the yuan's recent progress as a global currency. The international monetary system is diversifying at an accelerating pace, said Pan Gongsheng, the governor of China's central bank, in March. The yuan has become the fourth-most active currency in global payments, he noted. In trade finance, it now ranks third. And according to the central bank's data, about half of China's transactions with the rest of the world (for financial assets, as well as goods) are now settled in yuan.

Despite these gains, the yuan's global position still looks modest compared with past expectations. In the wake of the financial crisis of 2007-09 it was easy to imagine a bigger role. In 2008 Fred Hu, then of Goldman Sachs, predicted the yuan would account for 15-20% of foreign-exchange reserves by 2020. More memorably, "Super Sad True Love Story", a novel written by Gary Shteyngart and published in 2010, imagined a dystopian future in which a tottering America had pegged the crumpled dollar to the mighty yuan.

Statistical studies from that era also documented the Chinese currency's growing significance. In 2012 several researchers at the Peterson Institute for International Economics, a think-tank in Washington, identified an emerging "yuan bloc" in East Asia. Thanks to tight trade links within the region, many of East Asia's other currencies had begun to shadow the yuan more closely than they did the dollar. Whether by accident or design, they behaved as if they were pegged to an implicit currency basket in which the weight of the yuan averaged about 50%.

There were some subsequent twists in the story, however. China's currency peaked against the dollar in 2014. It has since weakened by more than 16%. A mismanaged devaluation of the currency in 2015 prompted massive capital outflows. The upheaval made the yuan a less reliable anchor. It also meant that capital controls were not removed, as Goldman Sachs's Mr Hu had assumed, but tightened.

Despite this turmoil, the yuan was included in the IMF's basket of usable reserve currencies in 2016. But its share of global foreign-currency reserves remains far short ▸▸

The B Team

Global foreign-currency reserves, % of total
Selected currencies, Q4 2023



Source: IMF

of expectations. Indeed, it "shows signs of stalling out", according to a recent update by Serkan Arslanalp and Chima Simpson-Bell of the IMF, together with Barry Eichengreen of the University of California, Berkeley. The yuan's share was just 2.3% at the end of last year, according to the latest IMF data, down from a peak of 2.8% in the first quarter of 2022. Thanks to that decline, the yuan has dropped back behind the Canadian dollar in the pecking order, and now ranks sixth (see chart).

The "yuan bloc" also remains hollow. The Peterson Institute studies were agnostic about whether East Asian currencies moved in sympathy with the yuan because they were deliberately tracking it or because China and its neighbours were all responding to the same shocks. More recent research suggests the shocks mattered more. For example, a new paper by Kari Heimonen of the University of Jyvaskyla and Risto Ronkko of Tampere University, both in Finland, finds "no evidence" that the yuan is an anchor for other currencies. The two authors recalculate its influence after adjusting for global financial jitters and movements in commodity prices. With these controls in place, they find that the yuan's weight in the determination of East Asian currencies' exchange rates averaged just 9% between 2010 and 2018.

The yuan may one day live up to the global role once envisaged for it. It may one day even rival the American dollar. But first it must eclipse the Canadian one. ■

BUTTONWOOD
The iron price

Has private credit's golden age already ended?

THE HISTORY of leveraged finance—the business of lending to risky, indebted companies—is best told in three acts. High-yield (or "junk") bonds were the subject of the first. That ended in 1990 when Michael Milken, the godfather of this sort of debt, was sent to prison for fraud. In the second act, the extraordinary growth of private equity was financed by both junk bonds and leveraged loans, which require companies to pay a floating rate of interest rather than the fixed coupons on most bonds. Private-credit investors are now supplying the third wave of money. Since 2020 such firms, which often also run private-equity funds, have raised more than $1trn. When interest rates rose in 2022 and banks stopped underwriting new risky loans, private credit became the only game in town. Wall Street chattered that its "golden age" had begun.

America's $4trn leveraged-finance market now comprises junk bonds, leveraged loans and assets managed by private-credit firms, in roughly equal proportions. Yet owing to fierce competition to refinance debt and fund scarce new deals, private credit's prospects may no longer dazzle. The industry's fondness for ancient Greece (two big lenders are called Apollo and Ares) seems not to extend to the work of Hesiod. If it did, fund managers would know that what follows a golden age is not a platinum one, as with American Express cards, but the descent into a grim iron age.

Private-credit funds tout certainty and flexibility as reasons to borrow from them. Facing fewer lenders than in the "broadly syndicated" leveraged-loan market often means speedier dealmaking and more pliant terms. As high interest rates put balance-sheets under pressure, for example, borrowers of private loans are increasingly negotiating to defer their interest payments. But healthier firms can afford to shop around. Some are tapping hot public leveraged-loan markets to refinance pricier private debt. Analysts at JPMorgan Chase count more than $13bn of such refinancing deals this year, with borrowers securing coupons that are 1.6 percentage points lower on average. Private lenders have had to slash the cost of their loans to compete.

A barrage of fresh buy-out activity, which might have juiced returns, looks unlikely. Private equity remains locked in a painful stalemate. Funds are hesitant to sell stakes they bought when interest rates were low, lest they turn out to be worth less than previously imagined. Their investors, meanwhile, are becoming angstier about the slow pace at which paper returns become cold, hard cash. In a recent poll by Bain, a consultancy, 38% of investors did not expect dealmaking activity to bounce back before next year.

When it does, dealmakers are divided over the role private credit will play. One idea is that its funds will thrive only in periods where banks and capricious public markets become less keen to lend. Another is that borrowers may well take advantage of private credit at first, only to try to refinance their debts in the public market at an opportune moment. In truth, the most likely outcome is that the line separating public and private loans will become increasingly blurred. That would mean a busy future for private credit—but one that is more commoditised and less profitable.



Such a fate would be familiar. As the market for leveraged loans matured after the global financial crisis of 2007-09, many shed their covenants, which protect creditors. In other words, the loans became more like junk bonds. According to Moody's, something similar is already happening in private credit, which historically boasted stronger protections for creditors. The rating agency says that "maintenance" covenants, which require borrowers to maintain a minimum ratio of profits to debts, are very rare in the larger deals that private-credit funds must now chase.

No wonder the smart money in private credit now wants to do more than simply grease the wheels of buy-out funds. Many see the biggest opportunity in more specialised pools of debt—everything from credit-card loans to supply-chain finance—which can be bundled together into private "structured" credit. Such debt is a critical component of private-markets firms' aggressive expansion into the life-insurance business, and some banks are even partnering with asset managers to shed loan portfolios. The more assets these firms whittle from the banking system, though, the more likely regulators are to treat them like banks. Now that would be a real iron age.

Exclusive election coverage

Whitehall via the "Red Wall"

How will Britain's election affect the country—and the world?

Rishi Sunak, Britain's prime minister, has his work cut out to remain in power. Will Sir Keir Starmer oust him? Stay informed with our prediction model, "Blighty" newsletter and award-winning journalism.



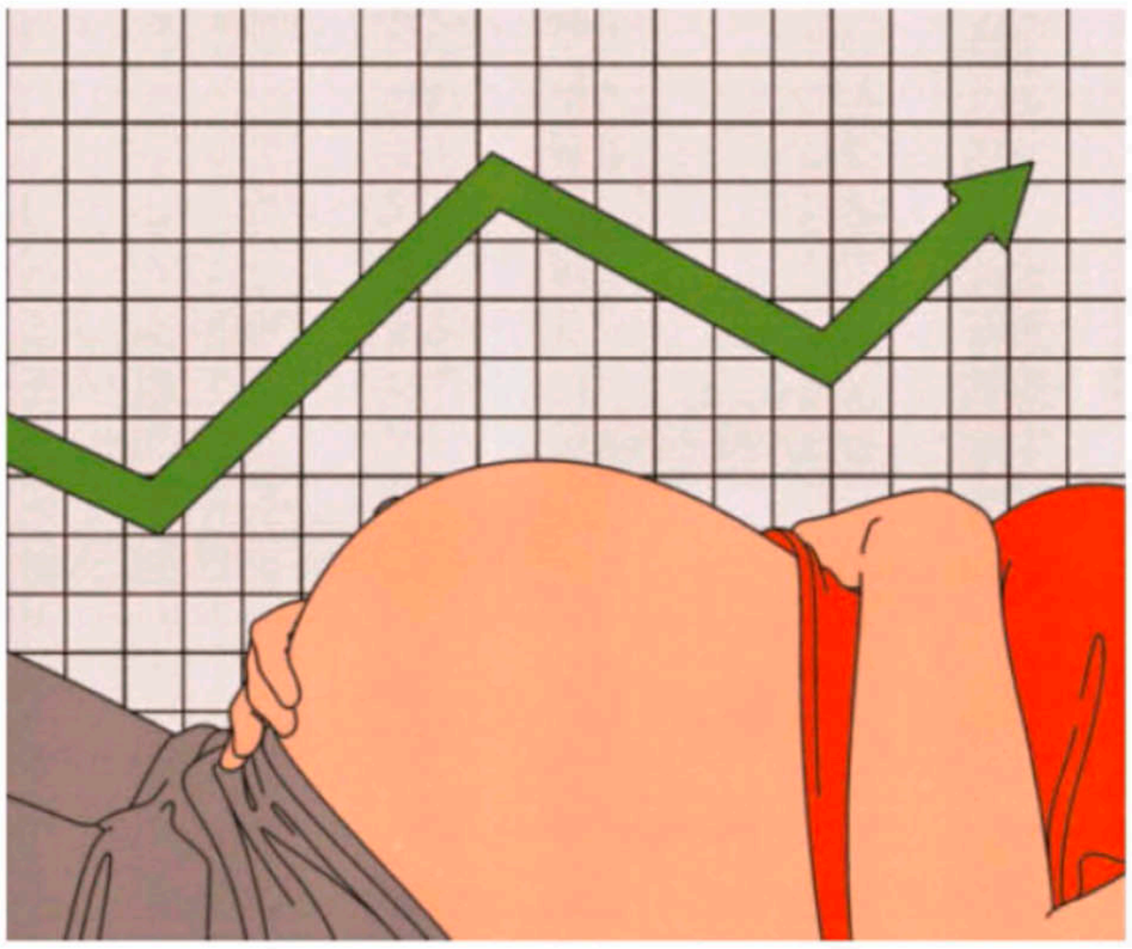
Explore our latest coverage here:
economist.com/uk-general-election

The Economist

FREE EXCHANGE

The fading motherhood penalty

A new paper suggests that having children might help women's pay, not hurt it



RETURNING FROM his paternity leave last week, your columnist was keen to get writing. After all, numerous studies say parents' careers can suffer after they have children. Best to immediately dispel any notion that his might do so. But then he remembered that he is a man, and went to get a coffee. For the child penalty, as the career hit is known by economists, is commonly believed to affect mothers alone.

In fact, it might be that women returning to work after childbirth can afford to relax, too. It is true that their immediate earnings are likely to fall, and perhaps infuriating that those of new fathers are not. Yet two new studies suggest that, in the long run, compared with women who do not have children, the motherhood penalty may vanish—or even turn into a premium.

The disparity between men and women who have children is well known. In a widely cited paper from 2019, Henrik Kleven of Princeton University, with co-authors, charted the careers of Danish parents after their first child was born. Mothers' pay and working hours plunged, by a third and a fifth, respectively, in the first year after childbirth. Fathers' careers continued roughly as before.

The same study found that mothers' careers do not recover. After ten years, the hit to Danish mothers' incomes was still 20 percentage points bigger than that to fathers', with larger gaps between those with more children. This was down to women with children either leaving the labour market, working fewer hours or earning a lower hourly wage. The paper's authors have repeated the exercise for 134 countries, with strikingly similar results.

But the difficulty in divining the effect of children is that the stork does not drop babies randomly. To get round this, the Danish paper was based on an "event study". This supposes mothers' incomes develop along a smooth trend until they give birth, which causes the trend to break. After the break, each mother's pay is compared with the trend (continued by other women in the sample who give birth later), and the drop is assumed to be the effect of the child. The same calculation is then carried out for fathers.

Such techniques are useful for pinpointing short-term effects, but work less well when trying to gauge what happens over the long run. Many things change over time for women with children and without, meaning that comparing mothers' pay to a trend formed by women who have not yet given birth may distort the picture. Take a recent study by Simon Bensnes of Norway's statistical agency, and co-authors, which shows that women tend to wait to have children until their earnings have started to flatten. In other words, part of the pay gap that opens up in event studies may simply be *mama economica* in action.

And so other researchers—including Mr Bensnes and colleagues—approximate randomisation differently, by looking at women undergoing in-vitro fertilisation (IVF). This has the advantage that all potential parents in the sample clearly wish to have a child, but those who succeed are decided by nature and chance. Several such studies have now considered parents from Nordic countries, where researchers can access sensitive data on IVF treatments and match them to administrative records.

The Norwegian study followed women undergoing IVF treatment for roughly a decade, finding that the annual incomes of those who gave birth fell by an average of 22% in the short term, compared with those who remained childless. In the long run, however, this penalty narrowed to just 3%. Fathers' incomes did not drop; instead, they rose by around 10% over the long run.

A new Danish study considers a longer timeframe. Petter Lundborg of Lund University, along with co-authors, looked at up to 25 years' worth of data from the point of each woman's first IVF treatment. They found a similar pattern: a sharp short-term drop in mothers' earnings, but no long-run earnings penalty compared with women who did not have children. In fact, their data reveal a small "motherhood premium" after about 15 years, which over a lifetime more than compensates for the initial drop.

Should such studies be trusted? The researchers are careful to point to the downsides of their own methodologies. As much as the success of IVF treatment sounds random, it may not be. In the Norwegian study, for example, the authors show that education levels are slightly higher for successfully treated mothers.

Meanwhile, unsuccessful IVF treatment is not harmless. Four researchers from Stanford University recently published a working paper that uses Swedish data. They, too, found no long-term motherhood penalty for women whose treatment succeeded. For those whose treatment did not, the results were disquieting: the women were almost 50% more likely to later take medicine for their mental health, and the couples had a higher chance of divorcing. Both motherhood and fatherhood premiums may thus be related to the suffering of those who remain childless.

Parents from outside Scandinavia may reasonably wonder whether all these results extend to them. Danish and Norwegian mothers' incomes may recover particularly well because they have significantly better access to child care than those in many other countries. Nordic norms around gender equality could encourage fathers to play a bigger role in raising children, giving women more room to restart their careers.

As your columnist pondered such questions, he turned to Claudia Goldin, who won the Nobel prize for economics in 2023, for wisdom. She argues that the "parenthood gap" has three parts: the motherhood penalty, the fatherhood premium and the cost of being female. The new studies suggest that the motherhood penalty narrows over the course of a career; the fatherhood premium is something of a mystery. But the cost of being female exists regardless of motherhood, and varies from place to place. Researchers have plenty of work ahead to quantify and explain these. ■

Science & technology



Science in China

Soaring dragons

LONDON AND BEIJING

From plant biology to superconductor physics, China has emerged as a major scientific force. On some measures it has even eclipsed America

IN THE ATRIUM of a research building at the Chinese Academy of Sciences (CAS) in Beijing is a wall of patents. Around five metres wide and two storeys high, the wall displays 192 certificates, positioned in neat rows and tastefully lit from behind. At ground level, behind a velvet rope, an array of glass jars contain the innovations that the patents protect: seeds.

CAS—the world's largest research organisation—and institutions around China produce a huge amount of research into the biology of food crops. In the past few years Chinese scientists have discovered a gene that, when removed, boosts the length and weight of wheat grains, another that improves the ability of crops like sorghum and millet to grow in salty soils and one that can increase the yield of maize by around 10%. In autumn last year, farmers in Guizhou completed the second harvest of genetically modified giant rice that was developed by scientists at CAS.

The Chinese Communist Party (CCP) has made agricultural research—which it sees as key to ensuring the country's food security—a priority for scientists. Over the past decade the quality and the quantity of crop research that China produces has grown immensely, and now the country is widely regarded as a leader in the field. According to an editor of a prestigious European plant-sciences journal, there are some months when half of the submissions can come from China.

A journey of a thousand miles

The rise of plant-science research is not unique in China. In 2019 *The Economist* surveyed the research landscape in the country and asked whether China could one day become a scientific superpower. Today, that question has been unequivocally answered: "yes". Chinese scientists recently gained the edge in two closely watched measures of high-quality science, and the country's growth in top-notch research shows no sign of slowing. The old science world order, dominated by America, Europe and Japan, is coming to an end.

One way to measure the quality of a country's scientific research is to tally the number of high-impact papers produced each year—that is, publications that are cited most often by other scientists in their own, later work. In 2003 America produced 20 times more of these high-impact papers than China, according to data from Clarivate, a science analytics company (see chart 1 on next page). By 2013 America produced about four times the number of top papers and, in the most recent release of data, which examines papers from 2022, China had surpassed both America and the entire European Union (EU).

Metrics based on citations can be gamed, of course. Scientists can, and do, find ways to boost the number of times their paper is mentioned in other studies, and a recent working paper, by Qui Shumin, Claudia Steinwender and Pierre Azoulay, three economists, argues that Chinese researchers cite their compatriots far more than Western researchers do theirs. But China now leads the world on other benchmarks that are less prone to being gamed. It tops the *Nature* Index, created by the publisher of the same name, which counts the contributions to articles

that appear in a set of prestigious journals. To be selected for publication, papers must be approved by a panel of peer reviewers who assess the study's quality, novelty and potential for impact. When the index was first launched, in 2014, China came second, but its contribution to eligible papers was less than a third of America's. By 2023 China had reached the top spot.

According to the Leiden Ranking of the volume of scientific research output, there are now six Chinese universities or institutions in the world top ten, and seven according to the *Nature* Index. They may not be household names in the West yet, but get used to hearing about Shanghai Jiao Tong, Zhejiang and Peking (Beida) Universities in the same breath as Cambridge, Harvard and ETH Zurich. "Tsinghua is now the number one science and technology university in the world," says Simon Marginson, a professor of higher education at Oxford University. "That's amazing. They've done that in a generation."

Today China leads the world in the physical sciences, chemistry and Earth and environmental sciences, according to both the *Nature* Index and citation measures (see chart 2, on next page). But America and Europe still have substantial leads in both general biology and medical sciences. "Engineering is the ultimate Chinese discipline in the modern period," says Professor Marginson, "I think that's partly about military technology and partly because that's what you need to develop a nation."

Applied research is a Chinese strength. The country dominates publications on perovskite solar panels, for example, which offer the possibility of being far more efficient than conventional silicon cells at converting sunlight into electricity. Chinese chemists have developed a new way to extract hydrogen from seawater using a specialised membrane to separate out pure water, which can then be split by electrolysis. In May 2023 it was announced that the scientists, in collaboration with a state-owned Chinese energy company, had developed a pilot floating hydrogen farm off the country's south-eastern coast.

China also now produces more patents than any other country, although many are for incremental tweaks to designs, as opposed to truly original inventions. New developments tend to spread and be adopted more slowly in China than in the West. But its strong industrial base, combined with cheap energy, means that it can quickly spin up large-scale production of physical innovations like materials. "That's where China really has an advantage on Western countries," says Jonathan Bean, CEO of Materials Nexus, a British firm that uses AI to discover new materials.

The country is also signalling its scientific prowess in more conspicuous ways. Earlier this month, China's *Chang'e-6* robotic spacecraft touched down in a gigantic crater on the dark side of the Moon, scooped up some samples of rock, planted a Chinese flag and set off back towards Earth. If it successfully returns to Earth at the end of the month, it will be the first mission to bring back samples from this hard-to-reach side of the Moon.

First, sharpen your tools

The reshaping of Chinese science has been achieved by focusing on three areas: money, equipment and people. In real terms, China's spending on research and development (R&D) has grown 16-fold since 2000. According to the most recent data from the OECD, from 2021, China still lagged behind America on overall R&D spending, dishing out $668bn, compared with $806bn for America at purchasing-power parity. But in terms of spending by universities and government institutions only, China has nudged ahead. In these places America still spends around 50% more on basic research, accounting for costs, but China is splashing the cash on applied research and experimental development (see chart 3, on last page).

Money is meticulously directed into strategic areas. In 2006 the CCP published its vision for how science should develop over the next 15 years. Blueprints for science have since been included in the CCP's five-year development plans. The current plan, published in 2021, aims to boost research in quantum technologies, AI, semiconductors, neuroscience, genetics and biotechnology, regenerative medicine, and exploration of "frontier areas" like deep space, deep oceans and Earth's poles.

Creating world-class universities and government institutions has also been a part of China's scientific development plan. Initiatives like "Project 211", the "985 programme" and the "China Nine League" gave money to selected labs to develop their research capabilities. Universities paid staff bonuses—estimated at an average of $44,000 each, and up to a whopping $165,000—if they published in high-impact international journals.

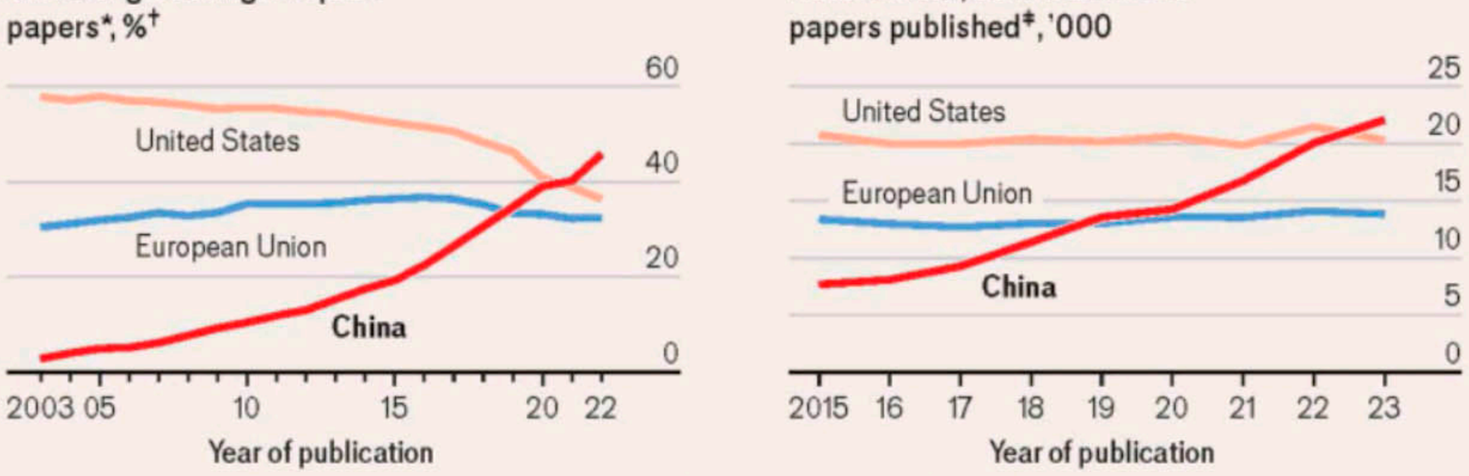
Building the workforce has been a priority. Between 2000 and 2019, more than 6m Chinese students left the country to study abroad, according to China's education ministry. In recent years they have flooded back, bringing their newly acquired skills and knowledge with them. Data from the OECD suggest that, since the late 2000s, more scientists have been returning to the country than leaving. China now employs more researchers than both America and the entire EU.

Many of China's returning scientists, often referred to as "sea turtles" (a play on the Chinese homonym *haigui*, meaning "to return from abroad") have been drawn home by incentives. One such programme launched in 2010, the "Youth Thousand Talents", offered researchers under 40 one-off bonuses of up to 500,000 yuan (equivalent to roughly $150,000 at purchasing-power parity) and grants of up to 3m yuan to get labs up and running back home. And it worked. A study published in *Science* last year found that the scheme brought back high-calibre young researchers—they were, on average, in the most productive 15% of their peers (although the real superstar class tended to turn down offers). Within a few years, thanks to access to more resources and academic manpower, these returnees were lead scientists on 2.5 times more papers than equivalent researchers who had remained in America.

As well as pull, there has been a degree of push. Chinese scientists working abroad have been subject to increased suspicion in recent years. In 2018 America launched the China Initiative, a largely unsuccessful attempt to root out Chinese spies from industry and academia. There have also been reports of students being deported because of their association with China's "military-civilian fusion strategy". A recent survey of current and former Chinese students studying in America found that the share who had experienced racial

Red moon rising 1

High-quality science papers, by author location, selected countries/regions



*Top 1% by number of citations, Web of Science platform †Percentages can add up to more than 100 due to co-authorships ‡In prestigious journals

Sources: *Nature*; Clarivate, Web of Science; *The Economist*

abuse or discrimination was rising.

The availability of scientists in China means that, for example in quantum computing, some of the country's academic labs are more like commercial labs in the West, in terms of scale. "They have research teams of 20, 30, even 40 people working on the same experiments, and they make really good progress," says Christian Andersen, a quantum researcher at Delft University. In 2023 researchers working in China broke the record for the number of quantum bits, or qubits, entangled inside a quantum computer.

China has also splurged on scientific kit. In 2019, when *The Economist* last surveyed the state of the country's scientific research, it already had an enviable inventory of flashy hardware including supercomputers, the world's largest filled-aperture radio telescope and an underground dark-matter detector. The list has only grown since then. The country is now home to the world's most sensitive ultra-high-energy cosmic-ray detector (which has recently been used to test aspects of Albert Einstein's special theory of relativity), the world's strongest steady-state magnetic field (which can probe the properties of materials) and soon will have one of the world's most sensitive neutrino detectors (which will be used to work out which type of these fundamental subatomic particles has the highest mass). Europe and America have plenty of cool kit of their own, but China is rapidly adding hardware.

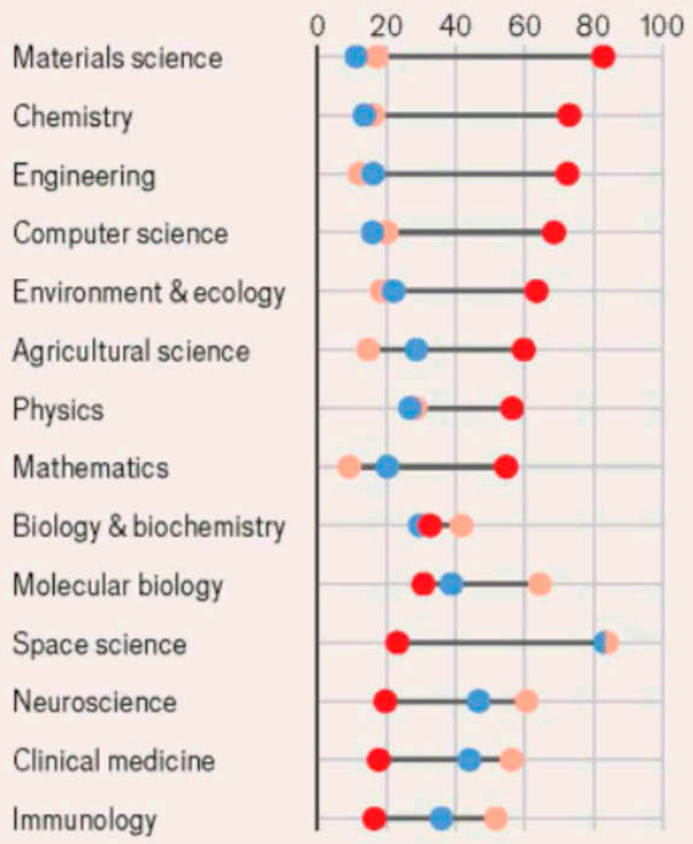
Individual labs in China's top institutions are also well equipped. Niko McCarty, a journalist and former researcher at the Massachusetts Institute of Technology who was recently given a tour of synthetic biology labs in China, was struck by how, in academic institutions, "the machines are just more impressive and more expansive" than in America. At the Advanced Biofoundry at the Shenzhen Institute of Advanced Technology, which the country hopes will be the centre of China's answer to Silicon Valley, Mr McCarty described an "amazing building with four floors of robots". As Chinese universities fill with state-of-the-art equipment and elite researchers, and salaries become increasingly competitive, Western institutions look less appealing to young and ambitious Chinese scientists. "Students in China don't think about America as some "scientific Mecca" in the same way their advisers might have done," said Mr McCarty.

Take AI, for example. In 2019 just 34% of Chinese students working in the field stayed in the country for graduate school or work. By 2022 that number was 58%, according to data from the AI talent tracker by MacroPolo, an American think-tank (in America the figure for 2022 was around 98%). China now contributes to around 40% of the world's research papers on AI, compared with around 10% for America and 15% for the EU and Britain combined. One of the most highly cited research papers of all time, demonstrating how deep neural networks could be trained on image recognition, was written by AI researchers working in China, albeit for Microsoft, an American company. "China's AI research is world-class," said Zachary Arnold, an AI analyst at the Georgetown Centre for Emerging Security and Technology. "In areas like computer vision and robotics, they have a significant lead."

Growth in the quality and quantity of Chinese science looks unlikely to stop anytime soon. Spending on science and technology research is still increasing—the government has announced a 10% increase in funding in 2024. And the country is training an enormous number of young scientists. In 2020 Chinese universities awarded 1.4m engineering degrees, seven times more than America did. China has now educated, at undergraduate level, 2.5 times more of the top-tier AI researchers than America has. And by 2025, Chinese universities are expected to produce nearly twice as many PhD graduates in science and technology as America.

Scientific discipline 2

Share of global high-impact papers* by author location, selected countries/regions, 2022, %†



*Top 1% by number of citations, Web of Science platform
†Percentages can add up to more than 100 due to co-authorships
Sources: Clarivate, Web of Science; *The Economist*

To see further, ascend another floor

Although China is producing more top-tier work, it still produces a vast amount of lower-quality science too. On average, papers from China tend to have lower impact, as measured by citations, than those from America, Britain or the EU. And while the chosen few universities have advanced, mid-level universities have been left behind. China's second-tier institutions still produce work that is of relatively poor quality compared with their equivalents in Europe or America. "While China has fantastic quality at the top level, it's on a weak base," explains Caroline Wagner, professor of science policy at Ohio State University.

When it comes to basic, curiosity-driven research (rather than applied) China is still playing catch-up—the country publishes far fewer papers than America in the two most prestigious science journals, *Nature* and *Science*. This may partly explain why China seems to punch below its weight in the discovery of completely new technologies. Basic research is particularly scant within Chinese companies, creating a gap between the scientists making discoveries and the industries that could end up using them. "For more original innovation, that might be a minus," says Xu Xi-



All the flowers of all the tomorrows

xiang, chief scientist at LONGi Green Energy Technology, a Chinese solar company.

Incentives to publish papers have created a market for fake scientific publications. A study published earlier this year in the journal *Research Ethics*, featured anonymous interviews from Chinese academics, one of whom said he had "no choice but to commit [research] misconduct", to keep up with pressures to publish and retain his job. "Citation cartels" have emerged, where groups of researchers band together to write low-quality papers that cite each other's work in an effort to drive up their metrics. In 2020 China's science agencies announced that such cash-for-publication schemes should end and, in 2021, the country announced a nationwide review of research misconduct. That has led to improvements—the rate at which Chinese researchers cite themselves, for example, is falling, according to research published in 2023. And China's middle-ranking universities are slowly catching up with their Western equivalents, too.

The areas where America and Europe still hold the lead are, therefore, unlikely to be safe for long. Biological and health sciences rely more heavily on deep subject-specific knowledge and have historically been harder for China to "bring back and accelerate", says Tim Dafforn, a professor of biotechnology at University of Birmingham and former adviser to Britain's department for business. But China's profile is growing in these fields. Although America currently produces roughly four times more highly influential papers in clinical medicine, in many areas China is producing the most papers that cite this core research, a sign of developing interest that presages future expansion. "On the biology side, China is growing remarkably quickly," says Jonathan Adams, chief scientist at the Institute for Scientific Information at Clarivate. "Its ability to switch focus into a new area is quite remarkable."

The rise of Chinese science is a double-edged sword for Western governments. China's science system is inextricably linked with its state and armed forces—many Chinese universities have labs explicitly working on defence and several have been accused of engaging in espionage or cyber-attacks. China has also been accused of intellectual-property theft and increasingly stringent regulations have made it more difficult for international collaborators to take data out of the country; notoriously, in 2019, the country cut off access to American-funded work on coronaviruses at the Wuhan Institute of Virology. There are also cases of Chinese researchers failing to adhere to the ethical standards expected by Western scientists.

Despite the concerns, Chinese collaborations are common for Western researchers. Roughly a third of papers on telecommunications by American authors involve Chinese collaborators. In imaging science, remote sensing, applied chemistry and geological engineering, the figures are between 25% and 30%. In Europe the numbers are lower, around 10%, but still significant. These partnerships are beneficial for both countries. China tends to collaborate more in areas where it is already strong like materials and physics. A preprint study, released last year, found that for AI research, having a co-author from America or China was equally beneficial to authors from the other country, conferring on average 75% more citations.

Several notable successes have come from working together, too. During the covid-19 pandemic a joint venture between Oxford University's Engineering Department and the Oxford Suzhou Centre for Advanced Research developed a rapid covid test that was used across British airports. In 2015 researchers at University of Cardiff and South China Agricultural University identified a gene that made bacteria resistant to the antibiotic colistin. Following this, China, the biggest consumer of the drug, banned its use in animal feed, and levels of colistin resistance in both animals and humans declined.

In America and Europe, political pressure is limiting collaborations with China. In March, America's Science and Technology Agreement with China, which states that scientists from both countries can collaborate on topics of mutual benefit, was quietly renewed for a further six months. Although Beijing appears keen to renew the 45-year-old agreement, many Republicans fear that collaboration with China is helping the country achieve its national-security goals. In Europe, with the exception of environmental and climate projects, Chinese universities have been effectively barred from accessing funding through the Horizon programme, a huge European research initiative.

There are also concerns among scientists that China is turning inwards. The country has explicit aims to become self-reliant in many areas of science and technology and also shift away from international publications as a way of measuring research output. Many researchers cannot talk to the press—finding sources in China for this story was challenging. One Chinese plant scientist, who asked to remain anonymous, said that she had to seek permission a year in advance to attend overseas conferences. "It's contradictory—on the one hand, they set restrictions so that scientists don't have freedoms like being able to go abroad to communicate with their colleagues. But on the other hand, they don't want China to fall behind."



Live until old, learn until old

The overwhelming opinion of scientists in China and the West is that collaboration must continue or, better, increase. And there is room to do more. Though China's science output has grown dramatically, the share that is conducted with international collaborators has remained stable at around 20%—Western scientists tend to have far more international collaborations. Western researchers could pay more attention to the newest science from China, too. Data from a study published last year in *Nature Human Behaviour* showed that, for work of equivalent quality, Chinese scientists cite Western papers far more than vice versa. Western scientists rarely visit, work or study in China, depriving them of opportunities to learn from Chinese colleagues in the way Chinese scientists have done so well in the West.

Closing the door to Chinese students and researchers wishing to come to Western labs would also be disastrous for Western science. Chinese researchers form the backbone of many departments in top American and European universities. In 2022 more of the top-tier AI researchers working in America hailed from China than from America. The West's model of science currently depends on a huge number of students, often from overseas, to carry out most day-to-day research.

There is little to suggest that the Chinese scientific behemoth will not continue growing stronger. China's ailing economy may eventually force the CCP to slow spending on research, and if the country were to become completely cut off from the Western science community its research would suffer. But neither of these looks imminent. In 2019 we also asked if research could flourish in an authoritarian system. Perhaps over time its limits will become clear. But for now, and at least for the hard sciences, the answer is that it can thrive. "I think it'd be very unwise to call limits on the Chinese miracle," says Prof Marginson. "Because it has had no limits up until now." ■

Culture



Tipping the sales

Is the New York Times bestseller list politically biased?

Our investigation suggests it is

"THE *NEW YORK TIMES* is pure propaganda," tweeted Elon Musk, a tech mogul, in March. Mr Musk was responding not to the newspaper's coverage of his companies or of Donald Trump, but rather to the newspaper's latest bestseller list. "Troubled", a book by Rob Henderson, a social critic, about the hypocrisy of America's elite, had been excluded from the hardcover non-fiction list despite selling 3,765 copies in its first week. According to data from Circana Bookscan, a firm that claims to track 85% of print book sales in America, "Troubled" outperformed the books that ranked in the fourth and fifth slots that week. Many saw the omission as a sign of political bias.

Such criticism is not wholly new. The *New York Times,* which has kept a tally of bestsellers since 1931, came under fire in 1983, when William Peter Blatty, author of "The Exorcist", sued the paper for omitting his book "Legion" from the fiction bestseller list. (His case was eventually dismissed.) And last year James Patterson, who has had nearly 290 *New York Times* bestsellers, complained that the paper was "cooking the books" when a non-fiction title of his did not make the cut. Like Coca-Cola, the *New York Times* guards its proprietary formula; exactly which retailers report sales, how they are weighted and which sales are screened out is shrouded in mystery.

Whenever the *New York Times* snubs a prominent conservative book it rekindles a debate about whether the newspaper discriminates against right-wing authors. Alleged victims include Ted Cruz, a Republican senator, who wrote "A Time for Truth" in 2015 and Clay Travis, a radio host, who published "American Playbook" in 2023. "It's bang-your-head-against-the-wall frustrating," says Ari Fleischer, White House press secretary under George W. Bush. Mr Fleischer's book, "Suppression, Deception, Snobbery and Bias", did not make the list in 2022 despite healthy sales.

Some may be tempted to cast aside such complaints as sour grapes, a popular delicacy in both publishing and politics. But a study by *The Economist* suggests that accusations of bias against conservative books may have merit.

To determine whether such claims are fact or fiction, *The Economist* compiled 12 years' worth of Bookscan data from *Publishers Weekly* and identified books by 12 publishers that describe themselves as politically to the right of centre. These include Broadside Books, an imprint of HarperCollins that specialises in "conservative non-fiction", and Regnery Publishing, which bills itself as America's "leading publisher of conservative books".

Our search of books released between June 2012 and June 2024 yielded 250 titles, out of a total of 4,169 that made the *Publishers Weekly* top 25 hardcover non-fiction list in at least one week. We then built a statistical model to predict whether books would appear in the *New York Times* weekly "hardcover non-fiction" and "advice, how-to and miscellaneous" rankings in order to determine whether books by conservative publishers were included on

→ ALSO IN THIS SECTION

73 Online fame and fortune, Gen-Z style

73 Is it the right time to translate Céline?

74 The Chinese keyboard

75 Left-wingers and trade

these lists more or less often than their sales data would suggest.

We estimate that, on average, books by conservative publishers are seven percentage points less likely to make it onto *New York Times* weekly bestseller lists than books by other publishers with similar sales figures. This disparity does not tend to affect the leading conservative bestsellers. For example, in the past 12 years, Bill O'Reilly, a former Fox News host, has made the non-fiction list as author or co-author with 17 titles, more than anyone else of any political persuasion; in second place is Mr O'Reilly's sometimes co-author, Martin Dugard, and in third is Glenn Beck, a conservative radio host.

Instead, the bias is concentrated in the lower rungs of the list. Among titles that sell fewer than 5,000 copies per week, books from conservative imprints have a much worse chance of making the list than those from other publishers that sold similar amounts. Those that rank in the bottom ten of 25 slots on the *Publishers Weekly* bestselling non-fiction books list in a given week are 22 percentage points less likely to make it onto the *New York Times* list (see chart 1).

Conservative books that do become *New York Times* bestsellers rank 2.3 notches lower on the non-fiction list, on average, than those published by other presses with similar sales, though the effect varies by publisher (see chart 2). Again, books that are not top bestsellers fare even worse: those at the bottom of the *Publishers Weekly* ranking place five spots lower.

Not the right stuff

Sceptics might point out that books by conservative publishers primarily focus on politics, and it is possible that the bias experienced by conservative authors is, in fact, a bias against all political books, regardless of their ideological orientation.

To test for this possibility, we matched our data set with data from ISBNdb.com, a book database. This archive contains a "subject" field for around 40% of the books, enabling us to categorise them as political if their subjects included words like "politics" or "president". To classify whether the remaining books are political, we trained a machine-learning algorithm based on their titles, authors, publishers and, when available, the *New York Times*'s descriptive blurbs. We then repeated our tests for bias on this smaller set of political books and found the estimated effect to be even greater than in the full sample.

The *New York Times* did not dispute or confirm our analysis on the record but says: "The political views of authors or their publishers have absolutely no bearing on our rankings and are not a factor in how books are ranked on the lists." They add that "There are a number of organisations with bestseller lists, each with different methodologies, so it is normal to see different rankings on each."

What explains conservative books' potential disadvantage? Politics is the most common refrain. "The *New York Times* has a view of an acceptable kind of conservative," says Michael Knowles, a right-wing commentator. His book "Speechless" (2021) sold 17,587 copies in its first week, ranking at the top of the *Publishers Weekly* list, and sold strongly for several more weeks. But it never appeared on the *New York Times* list. Mr Knowles, whose book argues that conservatives should actively suppress the speech of their opponents, believes this is because his views are unacceptable to the Grey Lady's staff.

But there are also differences in the way conservative publishers sell their books. Many of the conservative books that do make the *New York Times* list may rank much lower than their sales would suggest because of supposed "bulk buying", purchases that the paper determines are made by institutions or groups, rather than by individual readers. Titles thought to include bulk buys are marked with a "dagger" symbol and can have their rank adjusted. According to the newspaper, "Institutional, special interest, group or bulk purchases, if and when they are included, are at the discretion of the *New York Times* bestseller list desk editors based on standards...that encompass proprietary vetting and audit protocols, corroborative reporting and other statistical determinations."

Treating bulk buys differently is meant to make the list harder to game by billionaires, bosses and politicians who want their tomes to top the list and can afford to buy up copies. Though there have been reports in the past of conservative groups attempting to manipulate the list through bulk purchases, our data suggest that use of the dagger is remarkably lopsided: 53% of books from conservative publishers are marked with a dagger, versus just 10% of other books.

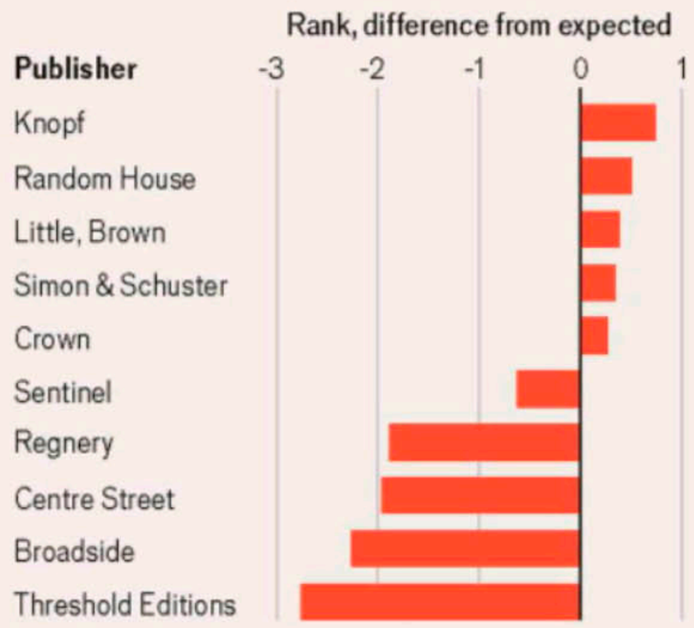
Indeed, bulk sales do not appear to explain the bias that we observe in our data. We separated political *New York Times* bestsellers into one group flagged with a dagger and another without it and found that, in both groups, books from conservative imprints were ranked lower on average than those from other publishers with similar sales.

A final plausible explanation for the bias faced by conservative authors is the way the *New York Times* bestseller list is compiled. Rather than weighting all sales equally, some publishing veterans believe that the paper may place greater weight on sales at independent bricks-and-mortar bookstores than online retailers. Independent bookstores, which select titles to order and display, may not stock or give prominence to books by conservatives; online everything is available, and right-wing books fly off virtual shelves.

The *New York Times* list has emerged as a battle in a broader culture war over American publishing. After January 6th 2021

Write-wing 2

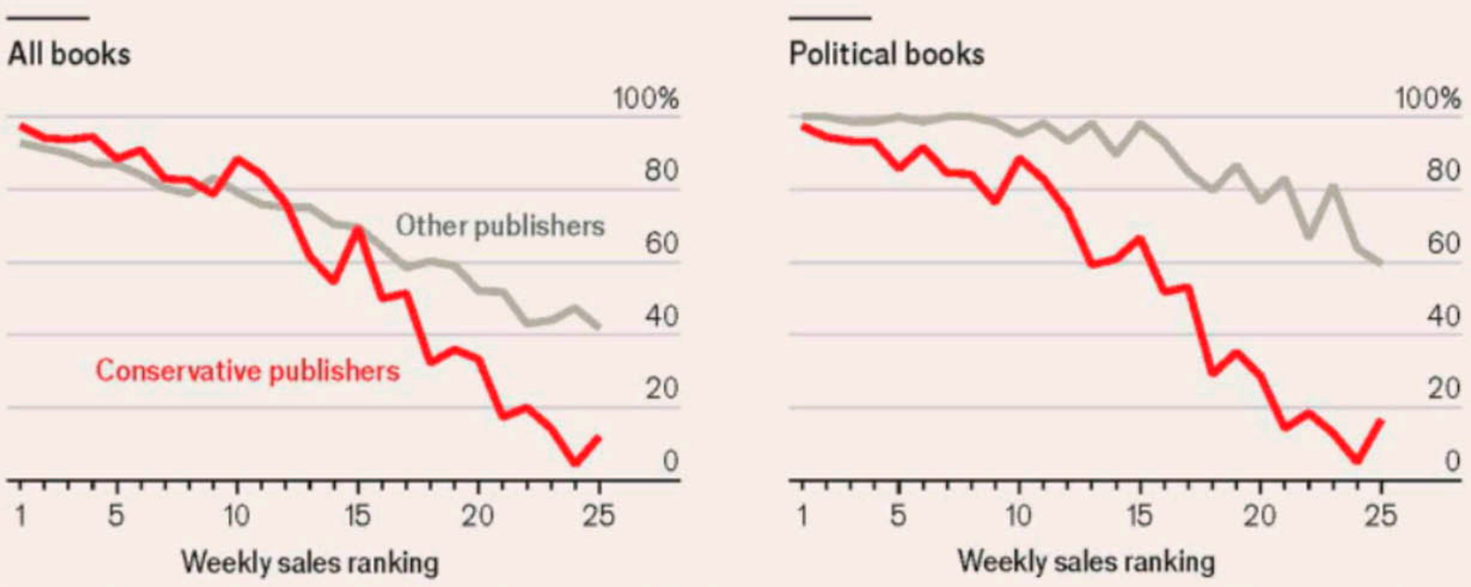
Estimated bias on the *New York Times* bestseller list*, June 2012-June 2024



Sources: Circana Bookscan; *New York Times; Publishers Weekly; The Economist* *Hardcover non-fiction

Reading between the lines 1

Share of books* on the *New York Times* bestseller list, by publisher type, %
United States, June 2012-June 2024



Sources: Circana Bookscan; *New York Times; Publishers Weekly; The Economist* *Hardcover non-fiction

Simon & Schuster cancelled the publication of a book by Josh Hawley, a Republican senator who offered a fist pump of apparent support for the protesters before they ransacked the Capitol. Publishers also got flak for signing former members of the Trump administration. There is a "baked-in, systemic bias" in corporate publishing houses against conservatives, says an executive who works at one of the major ones.

The fairness of the *New York Times* list is not merely a question of politics. Bestseller status helps an author sell more books, generate speaking fees and negotiate better contracts for future book deals. As other newspapers have done away with their lists and bookstores have closed in recent decades, the *New York Times* list is even more important. It is supposed to function as a reflection of what the public is reading—and influences what consumers may want to.

A more transparent list would also be more useful. If Alex Jones, a controversial far-right conspiracy theorist, was indeed the second-place bestselling author in America—as Bookscan says he was in August 2022, with a title that was omitted from the *New York Times* list—people should probably know that. His enduring popularity says a lot about the country and its readers, who are not willing to close the book on him. ■

Internet culture

Gen Z's Wikipedia

From mega to micro stars, this is a validation that cannot be paid for

IT WAS ENVISAGED as "Wikipedia for mobile". In 2012, five years after the launch of the iPhone, Evan Britton surmised that most idle browsing would soon be done on small screens. The American entrepreneur also reckoned there was a gap in the market for a simple website that could supply salient facts about celebrities. Mr Britton began writing biographies for megastars such as Tom Hanks under the domain FamousBirthdays.com.

Users, however, were also searching for unfamiliar names: people not on IMDb, a movie database, or Wikipedia. Instead, they had large followings on Instagram, Twitter (now X) or Vine (a defunct short-form video platform). Mr Britton started adding these internet figures to the site, as well as other "missed searches". As a result, the website's role shifted. Famous Birthdays became an evolving, reactive map of the people who matter to Gen Z.

The website is an observatory for rising stars. The first interview Charli D'Amelio, a TikTok personality (pictured), gave was at the Famous Birthdays office in Santa Monica, California, in 2019. Now she has 154m followers on that platform and promotes brands including Dunkin' Donuts. Being featured on Famous Birthdays is a kind of validation—the sort which, unlike a blue tick on X, cannot be paid for. A few hopefuls try to lobby administrators for a page, but many are turned down.



The smile of success

Famous Birthdays demonstrates the splintered nature of fame in the digital era. Gamers and models you may never have heard of can top the "trending" league table. In a capricious age, it is fascinating to watch a star's stock rise and fall. Yet the site takes an egalitarian approach, as all entries are roughly the same length. (Inevitably some biographies are more interesting than others.) Brad Pitt is treated with no more reverence than Salish Matter, a 14-year-old YouTuber.

For businesses seeking to conquer the teen market, the site is a handy cheat sheet. Ben Relles, who spent six years commissioning videos for YouTube Originals, used Famous Birthdays as a "go-to source" when scouting for content creators. Famous Birthdays has monetised its service with Famous Birthdays Pro, which offers real-time reports on which social-media stars are generating buzz and allows talent agencies to contact them.

Mr Britton says he is not interested in making money beyond what is needed to keep the company's lights on. Yet his ambitions are grand: he hopes Famous Birthdays will join Wikipedia as a "pillar of the internet". That is some way off: Wikipedia receives about 4.3bn unique visitors a month, compared with Famous Birthdays' 20m. This guide to the internet's budding stars is still an up-and-comer itself. ■

Literary rediscoveries

Monster, Inc?

A newly translated novel by one of France's most controversial writers

FERDINAND WAKES up on a battlefield, his ear glued to the ground with blood. The mud around him is littered with shells. He is unable to move his arm, and there is a terrible ringing in his ears "like a train". The noise will never leave him, for it is Belgium in 1915, and Ferdinand has "caught the war in my head". Nearby a man has exploded "like a grenade"; two rats live in what is left of his abdomen.

This is the opening passage of "Guerre" ("War"), a long-lost novel by Louis-Ferdinand Céline. It has been translated into English for the first time, with two new translations released in June. The tale is largely autobiographical. Born in 1894, Céline was wounded in Flanders at the start of the first world war. He recounted the horrors of conflict in his fiction, writing in a colloquial style characterised by its slang, gutter jokes and bleak view of humanity.

Céline is considered one of the greatest French novelists of the 20th century, famed for works including "Journey to the End of the Night" (1932) and "Death on the Installment Plan" (1936). His novels are read in French schools as modernist works that capture the way people actually spoke. His admirers included the American writers Philip Roth and Kurt Vonnegut. "I feel called by his voice," Roth said. "In France, my Proust is Céline."

But as well as being acclaimed, Céline is abhorred. He wrote a series of pamphlets praising Adolf Hitler, recommending a military alliance with Nazi Germany and depicting Jews as villainous rapists sodomising Frenchmen. So vicious was his antisemitism that some wondered whether he was writing ironically. He was not. The publication of "Guerre" has once again raised the question of how to think about great art produced by artists with contemptible views or behaviour.

After Allied forces landed in Normandy in June 1944, Céline fled Paris for Germany, then Denmark, leaving behind more than 5,000 pages of manuscripts. In 1951 a French court convicted him of collaboration with the Nazis, but a military tribunal granted him amnesty because he was a disabled war veteran.

When he returned to France, he discovered that his manuscripts had disappeared. Céline accused Oscar Rosembly, a member of the resistance, of stealing them. (Rosembly had been imprisoned for looting other collaborators' apartments near-

by.) Céline died in 1961, his papers considered lost. However, in 2020 Jean-Pierre Thibaudat, a journalist, brought the papers to the police, explaining that he had been given the manuscripts in the early 2000s by an undisclosed benefactor, who wanted them kept secret until the death of Céline's widow, Lucette Destouches. She had died in 2019, at the age of 107. (The mysterious benefactor reportedly wanted to prevent Destouches from profiting from the literary treasure trove, possibly worth millions.) *Le Monde*, a French newspaper, hailed the discovery as "a miracle".

The executors of Céline's estate filed a lawsuit against Mr Thibaudat, demanding the manuscripts—and prevailed. Gallimard, a big French publisher, released "Guerre" after the suit was settled. A publisher's note observes that the book is unfinished; that may be, but it offers a raw account of war. Translating it was "a harrowing experience", says Charlotte Mandell, responsible for one of the new English versions. "I don't know of any other book that describes what it's like to be in the midst of war so vividly, or so realistically."

After waking in the mud, Ferdinand wanders, half-hallucinating, through the countryside to a military hospital in the fictional town of Peurdu-sur-la-Lys. The name mixes fear (*peur*) and a sense of being lost (*perdu*). Surrounded by other wounded and dying soldiers, he is tortured by the noise in his head and sexually exploited by a nurse. He is disgusted by the bourgeois pretensions of his parents, who fawn over his military medal. In the streets, soldiers, resembling "rows of sausages", march to the grinder. At the novel's end, Ferdinand leaves for London.

A sequel to "Guerre", called "Londres", was also found among the papers and published in France in 2022; it has not yet been translated into English. For scholars, the rediscovered manuscripts are part of literary history. "Guerre" tells the truth about war, stripping away heroic narratives to expose its brute terror.

On the 50th anniversary of Céline's death in 2011, he appeared on an official list of figures to be celebrated for their contributions to French culture. But after protests, his name was removed. Some have tried to defend his work by separating the art from the artist, or by claiming that hatred of Jews was common in the period. But many have struggled to reconcile Céline's literary talent with his antisemitism. In 2017 Gallimard announced its plan to publish a new edition of Céline's pamphlets with a critical foreword. A wave of protests put paid to the idea.

However, France will have to reckon with the author's hateful views, as Céline's work enters the public domain in 2032. Antisemitism is lodged not only in his novels but also in French history. ■



Language and technology

Typing rebellion

The Chinese Computer. By Thomas Mullaney. *MIT Press; 376 pages; $34.95 and £32*

THE NATIONAL Chinese Characters Typing Competition is rarely cause for excitement, but in 2013 it was. Huang Zhenyu, a student, produced 222 characters per minute, or 3.7 per second, the equivalent of someone typing more than 200 words per minute in English. (The average typist manages about 40 English words per minute.) Mr Huang's performance was a dramatic moment in one of the Chinese-speaking world's long-running challenges: how to use the 26 letters on the Western QWERTY keyboard to type thousands of Chinese characters.

The Chinese language's lack of an alphabet has been a source of concern. In the 19th and early 20th centuries, it meant Chinese typewriting and telegraphy were much slower. Leaders including Mao Zedong believed characters were constraining China's economic and social development. He wondered whether they should be ditched altogether in favour of an alphanumeric system. The alphabet anxiety intensified when the personal-computing revolution in the West began to transform the world.

Thomas Mullaney, a professor at Stanford University, has written an informative and enjoyable history of how China addressed this crucial technical question. He observes that Chinese people, when typing on a Western-designed computer or phone, are required to operate entirely in code in order to turn keyboard letters into characters. As late as 1989, one of America's most eminent linguists wrote that, compared with Western languages, "There is not, and I believe never can be, as efficient a system for inputting and outputting Chinese characters." In alphanumeric languages, what you type is what you get. In Chinese, it never is.

"The Chinese Computer" zeroes in on some forgotten but memorable characters. Kao Chung-Chin worked with IBM in the 1940s to develop the electric Chinese typewriter using a different four-number code for every character. Samuel Caldwell, a professor at the Massachusetts Institute of Technology, spoke no Chinese but developed a system whereby each key on the QWERTY keyboard represented a brush stroke in a character; typing the first few strokes linked to a photographic storage matrix. (Caldwell, therefore, unwittingly invented the "autocomplete" function in the 1950s, decades before it would become a time-saving smartphone feature.)

In the 1970s China contemplated abandoning QWERTY altogether and produced huge keyboards of characters. But from the 1980s onwards, new "structure-based" input systems flourished, such as *wubi* (the system used by Mr Huang). In those methods, each QWERTY key correlates with a different visual component of a character so, typed consecutively, they form a full character. The lure of the Chinese market meant Western computer companies were eager for a solution.

And, for all its tricksiness, the QWERTY keyboard has prevailed. Of the different codes it is *pinyin*, which writes characters phonetically using the Roman alphabet, that has won the day. Type in a Chinese sound using Latin letters—*tong*, for instance—and a menu appears of the most commonly used characters with that sound. It has been greatly helped by the fact that the Communist Party has taught *pinyin* in schools for decades.

Whoever thought that a book about "hypographic semiotics" could be so absorbing? Geeks will enjoy the computing conundrums and Sinophiles will love the history; laymen, too, will learn plenty. Mr Mullaney points out that half the world's population uses scripts that require workarounds with a QWERTY keyboard. This is a global issue of which few Westerners are aware. China has, he writes, "saved the Western-designed computer...from its foundational limitations".

Mr Mullaney's book does not cover the current tech wars between China and America. It does, however, underline the impressive progress China has achieved in computing. For decades the country has been fighting—and typing—with one hand tied behind its back. ■

Free trade

A peace offering

Left-wingers have abandoned free trade. They should not have done

Pax Economica. By Marc-William Palen. *Princeton University Press; 328 pages; $35 and £30*

FOR MOST of modern political history, free trade has been a radical idea. *The Economist* was founded in 1843 to campaign against the Corn Laws, tariffs on Britain's grain imports which kept food expensive for the poor while enriching landowners. We were allied with the Anti-Corn Law League, a group formed in Manchester and led by Richard Cobden, a pacifist who saw tearing down trade barriers as the ultimate anti-nationalist, anti-imperialist project. But Cobdenism was so radical—populist, even—that James Wilson, our founder, tried to keep the League at arm's length. He would convince the elites that food tariffs should be abolished. Cobdenism was for the masses; its disciples would later pair the principles of "Marx and Manchester".

In "Pax Economica", Marc-William Palen of the University of Exeter chronicles the history of left-wing free traders. They are a breed that is now almost extinct, but remnants of their influence are everywhere. He traces the tradition of thought from Cobden and Henry George, an advocate of land taxes in the late 19th century, through to Cordell Hull, Franklin Roosevelt's secretary of state, and other internationalists who helped build the rules-based world order in the mid-20th century.

The Manchester viewpoint duelled with the "American school" of Alexander Hamilton and "German historical school" ideas of Friedrich List, which argued for protecting domestic manufacturers. Marx himself supported free trade, albeit only as a step in capitalist development before the proletarian revolution (he called the Anti-Corn Law League a "squint-eyed set of Manchester humbugs"). Cobden thought no revolution was necessary. Free trade would usher in a global Utopia in which all boundaries—nations, races, classes—would be broken down. Peace would reign (hence "Pax Economica").

Where did the left-wing free traders go? Today's progressives, like the right's economic nationalists, have turned towards protectionism. Both sides increasingly disdain markets, which enjoyed a burst of freedom in the 1990s and 2000s. President Joe Biden favours "Buy American" clauses and recently announced big tariffs on Chinese electric vehicles. Britain's Labour Party opposes what it calls "hyperglobalisation". Even some prominent economists, including Angus Deaton, now doubt many of the benefits of trade.

In Mr Palen's telling, the world was on its way to realising Cobden's vision after the second world war, when international institutions, such as the IMF and the UN, were built. But later in the century the free-trade cause was captured by "neoliberals" such as Ronald Reagan and Margaret Thatcher who, he claims, prioritised free enterprise above other freedoms, supported authoritarian-but-capitalist regimes and used the institutions visionaries had built to impose austere "Washington Consensus" policies on the developing world.

But not much of his familiar critique of the supposed neoliberal era matches the facts. Far from working against the interests of the world's poor, the era of globalisation saw more than 800m people lift themselves out of poverty in China. The Washington Consensus did not fail. After 1990 low- and middle-income countries began to enjoy catch-up growth, closing the gap with the rich world. Mr Palen writes that after the Reagan and Thatcher revolutions the world was "becoming more unequal" when the opposite is true: global inequality—surely the only kind that should matter to a cosmopolitan—has fallen since 1980. A recent paper by Maxim Pinkovskiy of the Federal Reserve Bank of New York and three co-authors finds that, even measured within individual countries, inequality has mostly been flat since 1990.

Like many critics of economic policy after the 1980s, Mr Palen also claims that "free enterprise displaced the welfare state". In fact redistribution grew in America because of tax credits and the expansion of publicly provided health care. In 1979 the bottom fifth of American earners received means-tested transfers worth on average 32% of their pre-tax income. By 2019 the figure had more than doubled, to 65%. And though it is true that Western governments have hardly been Cobdenite pacifists, in 2005 the world did enjoy a low in the global death rate from state-based conflict, providing some fleeting evidence for the idea that a globalised economy might be a more peaceful one.

The biggest challenge for Manchester-school ideas has been the world's recent descent into a new cold war. At the turn of the century President Bill Clinton and others made a Cobdenite prediction: that China's integration into the global trading system would cause it to turn towards democracy. Instead, growth in China has so far unleashed a mercantilist power that has become more authoritarian, and in turn inspired economic nationalism in the West, which Mr Palen rightly laments.

China's ability hitherto to sever the link between trade and freedom is the biggest failure of Cobdenism in practice, not the record of the late 20th century, during which the benefits of free trade for the world's poor were manifest. The modern left has been part of the failure to defend that progress. As a result, on all sides of the political spectrum supporting free trade once again feels radical. ■



Cobden, unfairly relegated to the shadows



PRIFYSGOL BANGOR UNIVERSITY

EXECUTIVE EDUCATION

Cutting edge & innovative learning for the global financial services sector

Chartered Banker MBA

Financial Crime & Compliance MBA

bangor.ac.uk/Executive-Education

BUSINESS & PERSONAL



STRONGKEY

SECURING SENSITIVE DATA SINCE 2001

GETSECURE@STRONGKEY.COM

Readers are recommended

to make appropriate enquiries and take appropriate advice before sending money, incurring any expense or entering into a binding commitment in relation to an advertisement.

The Economist Newspaper Limited shall not be liable to any person for loss or damage incurred or suffered as a result of his/her accepting or offering to accept an invitation contained in any advertisement published in *The Economist.*

The Economist

To advertise within the classified section, contact:

UK/Europe
Alexandra Helmer-Jensen
alexandrajensen@economist.com

North America
Richard Dexter
richarddexter@economist.com

Asia
Chris Phang
chrisphang@economist.com

Middle East & Africa
Philip Wrigley
philipwrigley@economist.com

Economic & financial indicators

	Gross domestic product, % change on year ago				Consumer prices, % change on year ago			Unemployment rate		Current-account balance	Budget balance	Interest rates			Currency units	
	latest		quarter*	2024†	latest		2024†	%		% of GDP, 2024†	% of GDP, 2024†	10-yr gov't bonds, latest,%		change on year ago, bp	per $, Jun 12th	% change on year ago
United States	2.9	Q1	1.3	2.2	3.3	May	3.0	4.0	May	-3.8	-6.3	4.4		64.0	-	
China	5.3	Q1	6.6	4.7	0.3	May	1.0	5.0	Apr‡§	1.2	-4.8	2.0	§§	-39.0	7.25	-1.5
Japan	-0.1	Q1	-1.8	0.8	2.5	Apr	2.3	2.6	Apr	2.9	-4.8	1.0		59.0	156	-10.4
Britain	0.2	Q1	2.5	0.4	2.3	Apr	2.6	4.4	Mar††	-2.8	-4.2	4.3		7.0	0.78	2.6
Canada	0.5	Q1	1.7	1.9	2.7	Apr	2.4	6.2	May	-0.4	-1.1	3.5		10.0	1.37	-2.2
Euro area	0.4	Q1	1.3	1.0	2.6	May	2.4	6.4	Apr	3.0	-3.1	2.6		24.0	0.92	1.1
Austria	-1.1	Q1	0.7‡	0.5	3.4	May	3.5	4.7	Apr	2.9	-2.3	3.1		10.0	0.92	1.1
Belgium	1.3	Q1	1.3	1.1	4.9	May	3.0	5.8	Apr	-0.2	-4.6	3.2		16.0	0.92	1.1
France	1.3	Q1	0.6	1.2	2.7	May	2.7	7.3	Apr	-0.3	-5.2	3.2		31.0	0.92	1.1
Germany	-0.2	Q1	0.9	0.2	2.8	May	2.1	3.2	Apr	6.5	-1.5	2.6		24.0	0.92	1.1
Greece	1.9	Q1	3.0	2.8	2.4	May	3.2	10.8	Apr	-5.5	-1.4	3.8		13.0	0.92	1.1
Italy	0.7	Q1	1.4	1.0	0.8	May	1.5	6.9	Apr	1.0	-5.4	4.1		-4.0	0.92	1.1
Netherlands	-0.7	Q1	-0.4	0.4	2.7	May	2.8	3.7	Apr	8.2	-1.2	2.9		20.0	0.92	1.1
Spain	2.4	Q1	2.9	2.4	3.8	May	3.0	11.7	Apr	2.2	-3.5	3.5		1.0	0.92	1.1
Czech Republic	-0.3	Q1	1.3	1.4	2.6	May	2.2	2.8	Apr‡	-0.3	-2.5	4.3		-7.0	22.7	-2.6
Denmark	-0.2	Q1	-6.9	1.4	2.2	May	1.7	2.9	Apr	9.5	1.6	2.7		-2.0	6.88	0.7
Norway	-0.8	Q1	0.7	1.0	3.0	May	3.3	3.9	Mar‡‡	15.9	12.0	3.6		11.0	10.5	3.1
Poland	2.0	Q1	2.0	2.9	2.5	May	3.8	5.0	May§	0.2	-5.2	5.7		-18.0	3.99	3.5
Russia	5.4	Q1	na	2.7	7.8	Apr	7.1	2.6	Apr§	1.8	-1.6	14.9		396	89.1	-6.5
Sweden	0.3	Q1	2.9	0.3	3.9	Apr	2.0	8.9	Apr§	5.6	-1.0	2.4		-1.0	10.3	5.0
Switzerland	0.6	Q1	1.8	1.0	1.4	May	1.4	2.4	May	6.6	-0.3	0.8		-11.0	0.89	2.2
Turkey	5.7	Q1	9.9	3.0	75.4	May	55.8	8.5	Apr§	-2.9	-4.7	26.7		1,115	32.3	-26.8
Australia	1.1	Q1	0.5	2.0	3.6	Q1	3.2	4.1	Apr	1.2	-1.0	4.2		46.0	1.49	-0.7
Hong Kong	2.7	Q1	9.6	3.2	1.1	Apr	2.2	3.0	Apr‡‡	8.1	-2.8	3.7		17.0	7.81	0.3
India	7.8	Q1	5.4	6.6	4.7	May	4.9	7.0	May	-1.1	-5.3	7.0		-1.0	83.5	-1.3
Indonesia	5.1	Q1	na	5.1	2.8	May	3.0	4.8	Q1§	-0.3	-2.2	7.0		73.0	16,294	-8.8
Malaysia	4.2	Q1	na	4.4	1.8	Apr	2.5	3.3	Apr§	2.1	-4.4	3.9		3.0	4.72	-2.1
Pakistan	2.8	2024**	na	1.8	11.8	May	19.7	6.3	2021	-2.9	-7.0	14.0	†††	-106	279	3.2
Philippines	5.7	Q1	5.3	5.4	3.9	May	3.7	4.0	Q2§	-2.5	-5.9	6.8		82.0	58.7	-4.5
Singapore	2.7	Q1	0.2	2.4	2.7	Apr	2.9	2.1	Q1	19.5	0.1	3.3		25.0	1.34	nil
South Korea	3.1	Q1	5.3	2.7	2.7	May	2.6	3.0	May§	2.5	-1.6	3.4		-20.0	1,376	-6.4
Taiwan	6.6	Q1	1.1	3.3	2.2	May	2.0	3.4	Apr	14.2	0.5	1.6		46.0	32.4	-5.0
Thailand	1.5	Q1	4.6	2.8	1.5	May	0.8	1.1	Apr§	2.5	-3.6	2.8		13.0	36.7	-5.7
Argentina	-1.4	Q4	-7.3	-3.4	289	Apr	223.2	5.7	Q4§	nil	-0.8	na		na	902	-72.6
Brazil	2.5	Q1	3.1	2.0	3.9	May	4.1	7.5	Apr§‡‡	-1.4	-7.7	12.0		80.0	5.40	-9.6
Chile	2.3	Q1	7.8	2.8	3.4	May	3.6	8.5	Apr§‡‡	-3.3	-2.3	6.0		65.0	917	-11.8
Colombia	0.9	Q1	4.4	1.0	7.2	May	6.6	10.6	Apr§	-2.8	-5.7	10.5		5.0	4,036	3.6
Mexico	1.6	Q1	1.1	2.3	4.7	May	4.5	2.6	Apr	-0.3	-5.0	10.3		139	18.9	-8.3
Peru	1.4	Q1	3.2	2.5	2.0	May	2.6	8.5	Apr§	-0.4	-3.1	7.0		-30.0	3.77	-2.9
Egypt	2.3	Q4	na	2.6	28.2	May	30.7	6.7	Q1§	-3.4	-5.0	na		na	47.7	-35.2
Israel	-0.6	Q1	14.1	1.6	2.8	Apr	3.0	3.4	Apr	5.9	-6.8	5.0		117	3.69	-2.4
Saudi Arabia	-0.8	2023	na	2.0	1.6	Apr	2.1	4.4	Q4	0.5	-1.5	na		na	3.75	nil
South Africa	0.5	Q1	-0.2	1.1	5.1	Apr	4.8	32.9	Q1§	-2.0	-5.2	10.3		-54.0	18.5	0.5

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. †††Dollar-denominated bonds. Note: Euro area consumer prices are harmonised.

Markets

In local currency	Index Jun 12th	% change on: one week	% change on: Dec 29th 2023
United States S&P 500	5,421.0	1.3	13.7
United States NAScomp	17,608.4	2.4	17.3
China Shanghai Comp	3,037.5	-0.9	2.1
China Shenzhen Comp	1,693.9	-0.7	-7.8
Japan Nikkei 225	38,876.7	1.0	16.2
Japan Topix	2,756.4	0.3	16.5
Britain FTSE 100	8,215.5	-0.4	6.2
Canada S&P TSX	21,961.6	-0.8	4.8
Euro area EURO STOXX 50	5,034.4	nil	11.3
France CAC 40	7,864.7	-1.8	4.3
Germany DAX*	18,630.9	0.3	11.2
Italy FTSE/MIB	34,358.8	-0.4	13.2
Netherlands AEX	931.8	1.4	18.4
Spain IBEX 35	11,245.4	-0.9	11.3
Poland WIG	85,072.1	-0.3	8.4
Russia RTS, $ terms	1,119.5	-1.8	3.3
Switzerland SMI	12,167.6	0.1	9.2
Turkey BIST	10,165.5	-1.8	36.1
Australia All Ord.	7,963.1	-0.7	1.7
Hong Kong Hang Seng	17,937.8	-2.6	5.2
India BSE	76,606.6	3.0	6.0
Indonesia IDX	6,850.1	-1.4	-5.8
Malaysia KLSE	1,609.0	nil	10.6
Pakistan KSE	72,797.4	-1.9	16.6
Singapore STI	3,307.4	-0.7	2.1
South Korea KOSPI	2,728.2	1.4	2.7
Taiwan TWI	22,049.0	2.6	23.0
Thailand SET	1,316.7	-1.6	-7.0
Argentina MERV	1,568,096.4	-0.2	68.7
Brazil BVSP*	119,936.0	-1.2	-10.6
Mexico IPC	52,975.9	-2.6	-7.7
Egypt EGX 30	26,133.4	-1.9	5.0
Israel TA-125	1,959.2	-0.2	3.8
Saudi Arabia Tadawul	11,651.8	0.9	-2.6
South Africa JSE AS	77,050.8	0.3	0.2
World, dev'd MSCI	3,479.9	-0.1	9.8
Emerging markets MSCI	1,065.7	0.3	4.1

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 29th 2023
Investment grade	104	154
High-yield	365	502

Sources: LSEG Workspace; Standard & Poor's Global Fixed Income Research. *Total return index.

Commodities

The Economist commodity-price index, 2020=100	Jun 4th	Jun 11th*	% change on month	% change on year
Dollar Index				
All Items	137.7	136.1	-0.2	8.2
Food	149.0	147.9	2.7	7.2
Industrials				
All	128.3	126.3	-2.8	9.2
Non-food agriculturals	136.5	137.7	3.4	21.8
Metals	126.2	123.4	-4.4	6.1
Sterling Index				
All items	138.4	137.6	-1.1	7.3
Euro Index				
All items	144.6	145.0	0.8	9.0
Gold				
$ per oz	2,326.8	2,312.1	-1.6	18.5
Brent				
$ per barrel	77.6	81.8	-0.7	10.1

Sources: Bloomberg; CME Group; Fastmarkets; FT; LSEG Workspace; LME; NZ Wool Services; S&P Global Commodity Insights; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional.

For historical indicators data, visit economist.com/economic-and-financial-indicators

OBITUARY
William Anders

The Apollo 8 astronaut who captured Earthrise died on June 7th, aged 90



FOR A WHILE, Bill Anders had high hopes of landing on the Moon. He test-drove the lunar-landing training vehicle and, as a keen amateur geologist, he wanted a closer look at those rocks. Yet the mission he actually went on, Apollo 8, was never intended to land there. It was originally an Earth-orbit checkout of the lunar module and, when the module was delayed, NASA took the bold step of turning Apollo 8 into a manned reconnoitering flight round the Moon. Human beings had never left Earth orbit before. Major Anders reckoned there was one chance in three they wouldn't come back, and two in three that the mission would be aborted. It wasn't, mostly because NASA wanted to get a spacecraft into lunar orbit before the Commies did.

He was sorry to fly without the lunar module and, as it turned out, pretty disappointed with the Moon itself up close. "Boring", "stark", "beat-up", "ugly", were the words that sprang to mind. Forget the poetry. The first human view of the back of the Moon was so intensely black that it put up the hairs on the back of his neck. The first lunar sunrise was interesting, with low rugged mountains showing through a purplish haze, but beyond that it looked like nothing so much as a grey, dirty beach.

Nonetheless they had to scan the terrain in detail for the Moon landing that would follow. Frank Borman, the mission commander, had a camera mounted in his window that took a photo every 20 seconds. Jim Lovell, the navigator, made sextant sightings from the lower bay. He, Bill, at 35 the rookie on the flight as well as the man who made sure that everything worked, was the designated photographer. Like the others, he had almost no training in that. They were all fighter pilots, and he was a nuclear engineer, a field he returned to when his space days were over. But the cameras and film were stowed on his side, and he shot from his right-hand window with his Hasselblad anything that looked useful.

On their fourth lunar orbit he was doing this as usual, his lens filled with shades of grey. Then suddenly, as they rolled to go forward, he saw colour. It was shocking. Over the Moon's horizon rose a delicate blue orb, shining and wreathed with white cloud. The day was Christmas Eve, and it looked like a Christmas-tree ornament, one that could break just as easily. It was small, gorgeous, but almost insignificant. And it was home.

He hadn't felt this emotional when they first left Earth, and he had looked back to photograph it glowing alone in space. Then it had looked like the classroom globe sitting on the teacher's desk. He had picked out Australia and lingered on America's west coast to see if he could spot San Diego, where he and the family lived. Cloud frustrated him. A bit less and he could have pinpointed Washington state where he partly grew up, with all the blackberries he could eat and all the garter snakes he could catch. It had been fun as well as amazing to see the Earth that way. Now what struck him was its beauty and fragility against the barren Moon. "Oh my God," he cried, "look at that picture over there! There's the Earth coming up. Wow, is that pretty!"

His window was the clearest; leaking sealant had smeared the others. Immediately, though, Borman and Lovell saw it too. They yelled for cameras, and he floated them across, but their film was black and white. He needed colour and his telephoto lens. Quick, quick, quick. He asked Lovell to find a roll. A colour exterior. Anything, quick. Then find the right setting. They had no light meter in the craft; he had to guess it. Then, changing F-stops with every click, he just pointed the thing at the Moon.

He took three photographs. More would have been nice, but that was not on the flight-plan. They were meant to be saving film for future lunar-landing sites. Borman sent him and Lovell to their couches to sleep. He couldn't, though he tried. He just kept peeping out of his window at the Earth. On their telecast that evening he read the first verse of Genesis. "And darkness was upon the face of the deep" rang differently now.

Back there, on that blue pearl, war was raging in Vietnam and riots were convulsing Europe. Missiles and rockets were raining down, forests were burning. Yet this beautiful little planet was all humanity had. It could not be fought over any more. From where he was, 240,000 miles out, the difference between Washington and Moscow could be spanned with his finger and thumb.

No one got that message as overwhelmingly as the crew of Apollo 8. Fairly soon, however, thanks to his photographs, millions did. The next year, "Earthrise" appeared on American stamps; it ran in magazines and newspapers and was pinned, as a poster, on countless walls. And it changed the conversation. The modern environmental movement took off, and grew. The picture made people think, even if it didn't make them think enough.

It changed Bill Anders, too. He had gone into space a convinced Catholic, but now it made no sense that there was some super-computer up there, wondering whether Billy was a good boy yesterday. And what had the pope to do with anything? That stuff he left aside. He also redoubled his efforts to take big-deal projects and cold-war politics out of space exploration. It should be done for science and human benefit, not for ruinous ideas like a manned mission to Mars. Rather than returning to space, though he was asked, he accepted the president's invitation to help make space policy. Those were his constant recommendations.

He worked for GE for a time and went on to run General Dynamics, but he would not have minded going back to space. On the other hand, he was content to collect vintage aircraft and fish for salmon under the rainy Washington skies. His picture had brought him fame, and it was good to get away from that. One remark he had made seemed especially popular, though it was so poetical that it was hard to imagine he had said it. They had gone all the way to the Moon to discover the Earth. ■

Subscriber-only live digital event

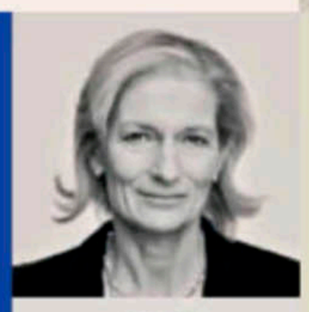
Ukraine at war: new offensives and counter-strikes



Thursday June 20th
4pm BST / 11am EDT / 8am PDT

As Russian forces continue their offensive in Donbas and Kharkiv, Ukraine is striking back in Crimea and deep inside Russia. Can Ukraine regain the initiative on the ground? Join our editors for an in-depth look at the situation on the battlefield, and the diplomacy around the world.





Zanny Minton Beddoes
Editor-in-chief



Edward Carr
Deputy editor



Shashank Joshi
Defence editor



Arkady Ostrovsky
Russia editor

Reserve your place:
economist.com/registertoday

The Economist



There are journeys that turn into legends

Dolomites, Italy

Discover more on louisvuitton.com

LOUIS VUITTON