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Volume 452 Number 9406

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

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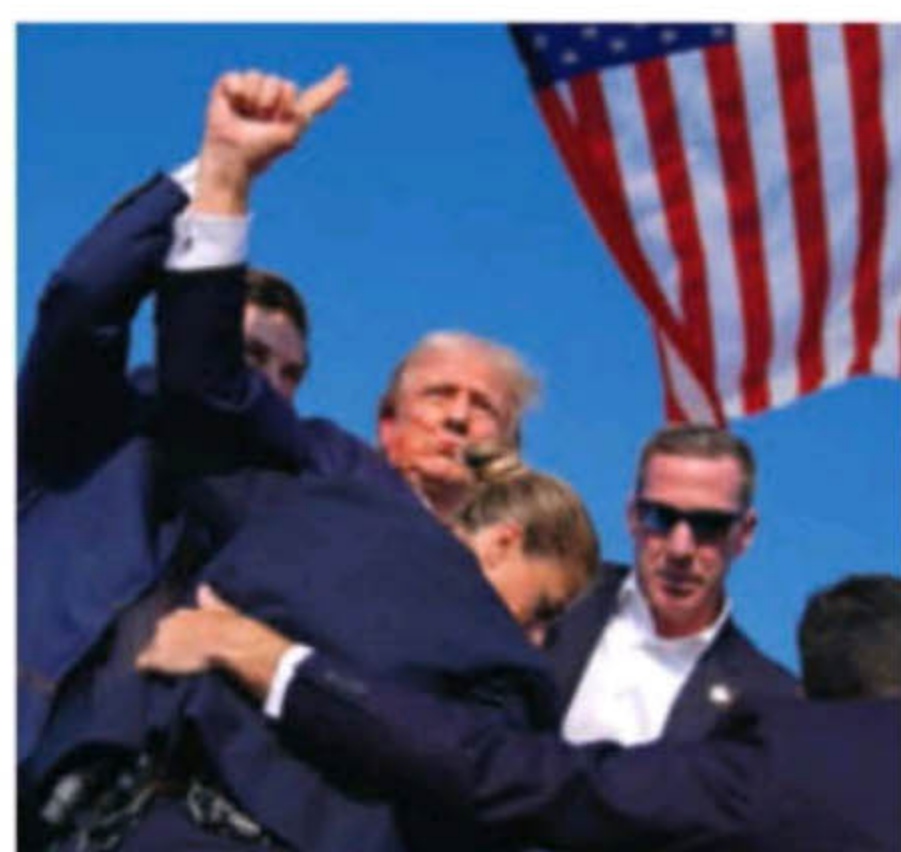
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The world this week Politics



The FBI began an investigation into why a 20-year-old man tried to assassinate **Donald Trump**. Questions were raised about how Thomas Matthew Crooks was able to get so close to Mr Trump at a campaign rally in rural Pennsylvania. His volley of shots from a nearby rooftop came close to killing the Republican, grazing his ear. One man was killed and two seriously injured. Secret Service snipers shot Crooks dead. The motive for the assassination attempt was not immediately clear. Crooks was a gun enthusiast and described as a quiet loner, but with no mental-health issues. Mr Trump left the stage exhorting his supporters to "Fight! Fight! Fight!"

"A working-class boy"

Two days after the shooting Mr Trump, his ear bandaged, attended the Republican convention in Milwaukee and chose **J.D. Vance** as his running-mate. Mr Vance, a senator from Ohio for just 18 months, is best known for his "Hillbilly Elegy", a memoir of growing up poor surrounded by drug-addicted relations. If Mr Trump wins in November Mr Vance, as vice-president, will have the deciding vote if the Senate is tied. He is notably a firm opponent of aid to Ukraine.

The judge overseeing legal proceedings against Mr Trump over his misuse of **classified documents** dismissed the case, finding that the appointment of the special counsel who laid the charges was unconstitutional. The ruling could upend the Justice Department's ability to appoint special prosecutors to investigate specific acts of misconduct.

Adam Schiff, a prominent Democratic congressman, called on **Joe Biden** to withdraw from the presidential race. Democratic apparatchiks want to make Mr Biden's nomination official before the party's convention, even though two-thirds of Democrats want him to stand aside. Mr Biden, meanwhile, caught covid again and is self-isolating.

Israel bombed a compound targeting Muhammad Deif, the commander of Hamas's military forces in **Gaza** and mastermind behind the attack on Israel on October 7th. Israel said the strike killed Raafa Salamah, a Hamas commander, but it was not clear whether Mr Deif was also killed. According to the Hamas-controlled health authority, around 90 people died in the attack.

Louisa Hanoune, an opposition leader in **Algeria**, dropped out of the presidential race citing "unfair conditions" in an election scheduled for September. She had been running against Abdelmadjid Tebboune, the incumbent, who is favoured to win.

Rwanda's president, Paul Kagame, won 99% of the vote in an election after several of his opponents were barred from the race. The 66-year-old has held power since the end of the Rwandan genocide in 1994.

Gabriel Attal formally resigned as prime minister of **France**, as did his entire cabinet, following gains by the hard left and right in the recent parliamentary election. Mr Attal and his ministers are staying on in a caretaker role until a new government is formed. With parliament hung, the parties are bickering over who should get his job.

Britain's new Labour government laid out 40 bills for its first parliamentary session. The ambitious agenda includes streamlining the planning process for housebuilding, boosting renters' rights, creat-

ing a state-owned green energy company, re-nationalising the railways and new workers' safeguards. Labour also announced an early-release scheme for prisoners to ease prison overcrowding.

No welcome in the valleys

Labour's Vaughan Gething quit as first minister of **Wales** four months into the job. His leadership came under strain over a campaign donation from a company run by someone convicted for environmental offences, and other issues. Mr Gething had refused to resign after losing a vote of confidence. The final straw came when several ministers in the Welsh cabinet resigned.

It emerged that a **North Korean** diplomat defected to South Korea last November, an embarrassment for Kim Jong Un, North Korea's dictator. The high-ranking official was based in Cuba.

Six people were killed in **Bangladesh** amid protests against quotas for government jobs. Around a third of the jobs are reserved for the families of Bangladeshi veterans who fought for independence, which critics say is discriminatory. Schools and universities across the country were closed until further notice.

The **Pakistani** government said it wanted to ban the political party of Imran Khan, the country's former prime minister, who was imprisoned a year ago. The attempt to outlaw Pakistan Tehreek-e-Insaf comes after the Supreme Court ruled that it was eligible for 23 extra reserved seats in Parliament. Mr Khan's aide said the ban was "a sign of panic". Separately 28 people were killed by militants in two attacks on an army base and a health centre.

The Central Committee of the **Chinese Communist Party** held a long-delayed four-day meeting in Beijing. A communiqué said the meeting decided to "place reform in a more

prominent position." It accepted the resignation from the Central Committee of Qin Gang, a former foreign minister who disappeared from public view a year ago.

The Chinese and Russian navies held joint manoeuvres off **China's southern coast**. The drills, including air-defence and anti-submarine exercises, followed a joint patrol by the two navies in the north Pacific.

In **Venezuela** 77 opposition activists have been arrested since the start of official campaigning for the presidential election on July 28th according to Foro Penal, an NGO. Polls show that the opposition candidate, Edmundo González, would easily defeat Nicolás Maduro, the authoritarian incumbent, in a fair vote. The detainees include the security chief of María Corina Machado, the opposition's leader.

A court in **Ecuador** sentenced two of the organisers of the murder last year of Fernando Villavicencio, a presidential candidate, to long jail terms. One was a leader of Los Lobos, a criminal gang. But Mr Villavicencio's family believes others, including politicians, may have been involved.



Argentina won the Copa America with a 1-0 victory against Colombia. The match was held in Miami and delayed for 82 minutes because of chaotic disorder in admitting **football fans** to the stadium. America will be a joint host of the World Cup in 2026. In Berlin Spain won the European championship, beating England 2-1.

The world this week Business

America's big banks released quarterly earnings. Net profit at JPMorgan Chase rose by 25%, year on year, to \$18.1bn. At Morgan Stanley it surged by 41%, to \$3.1bn. Goldman Sachs exceeded expectations (for once), more than doubling its profit to \$3bn. Citigroup's net income was up by 10%, but profit fell at Bank of America and Wells Fargo. Excluding Wells Fargo, fees for the other five big banks from investment banking jumped by a combined 40% amid a resurgence in the industry.

Georges Elhedery was named as the new chief executive of **HSBC** and will take over from Noel Quinn in September. Mr Elhedery joined the bank in 2005 and has been its chief financial officer since early 2023. He grew up in Beirut and studied at the Ecole Polytechnique in Paris.

Kaspersky Lab, a Russian cyber-security firm, decided to wind down its operations in America, a month after the Commerce Department determined that its products posed an unacceptable national security risk and the Treasury Department imposed sanctions on 12 of its executives. Kaspersky strongly denies claims that its anti-virus software collects private data for Russian intelligence. It has worked with numerous American companies in the past, including Microsoft, to root out threats from malware.

China's GDP grew by 4.7% in the second quarter, year on year, down from 5.3% in the first quarter. It was the slowest pace of expansion since the start of 2023, underlining weak domestic demand caused by the slumping property market and job insecurity. The sluggish economy has affected many industries, not least **luxury-goods companies**, which are slashing prices to tempt Chinese shoppers. Richemont, owner of the Cartier brand, Swatch and Hugo Boss released earnings

that related various woes in China. Burberry issued a profit warning, in part because of a steep fall in Chinese sales. It replaced its chief executive.

An equity analyst argued that **Apple's** new artificial-intelligence platform will lead to a surge in demand for its products. Apple's share price briefly jumped to a new high in response. Its stock has surged since its announcement in June of Apple Intelligence, pushing the tech company's market value to as high as \$3.6trn.

End of the sale

Macy's terminated discussions with two investment firms seeking to buy it out, claiming the deal was undervalued and financially uncertain. The takeover proposal first emerged in December. The retailer now wants to focus on its turnaround plan, which includes store closures.

Investors weren't buying it; the company's share price plunged by more than 10%.

Amid a general slowdown in demand for electric vehicles, the boss of **General Motors**, Mary Barra, said that the car-maker won't now reach its aim

of producing 1m EVs by the end of 2025 "just because the market is not developing, but it will get there". For two years the company has stuck to a production-capacity target of 1m.

The British government said it had no plans at the moment to impose tariffs on **Chinese EV imports**, a stark contrast with the EU, which has set stiff provisional duties on the cars. The EU is split, however, with Germany leading the opposition to the tariffs.

Britain's consumer prices
% increase on a year earlier



Britain's headline annual rate of **inflation** stayed at 2% in June, slightly above analysts' forecasts. Services inflation remained sticky at 5.7%. The figures caused some traders to reduce their bets that the Bank of England will cut interest rates in August.

Chip companies saw their share prices fall sharply, in part because Donald Trump cast doubt on his commitment to defend Taiwan. TSMC, one of the world's largest chipmakers, is based in Taiwan. The NASDAQ had its worse day since December 2022. TSMC later reported a huge surge in quarterly revenue and profit.

The price of **gold** reached a new record high of \$2,465 a troy ounce. Goldbugs are betting that weaker inflation data will lead to interest-rate cuts in America, and that a Trump presidency will boost the precious metal's status as a haven for investors.

Hissy-fit management

Elon Musk threatened to move the headquarters of X and SpaceX from California to Texas because of a new law in the state that stops municipalities from forcing schools to tell parents if their child has changed gender identity. Mr Musk, who is estranged from his trans daughter, said it was the "final straw" in a series of laws attacking "families and companies". Earlier in the week Mr Musk endorsed Donald Trump for president.



Our regular illustrator, KAL, is away this week. We have chosen to re-run this poignant cartoon from ten years ago.

A ticket to where?

Donald Trump and J.D. Vance carry a message about the direction of the party most likely to run America

AMERICA HAS passed through one of Lenin's weeks in which decades happen. Had Thomas Matthew Crooks fired an inch to the right, had Donald Trump not turned his head, he would now be dead. Fortunately, Mr Trump was not seriously hurt. And fortune blessed him in other ways, too. In Florida a judge dismissed the strongest case against him, and his enfeebled opponent, Joe Biden, remains in the race, though more Democrats are urging him to drop out. At the Republican convention in Milwaukee this week Mr Trump's presence was greeted as a sign of divine providence. Delegates sported baseball caps with "45/47" on them. That used to be an aspiration; today it looks like a prediction.

One of the best arguments Democrats can use against Mr Trump is that he threatens democratic norms. Yet his courage in the moment of the shooting made him seem, however briefly, more like a defender of American values than a threat to them. His calls for unity afterwards buttressed his claim to be a strong leader in a dangerous world. Yes, any effect on the polls may be temporary. America is so partisan that the nominees have a reinforced-concrete ceiling. The conciliatory mood of both parties will fade, too. However, some effects of the shooting and its aftermath may last (see United States section).

For one thing, this week has crystallised how utterly Mr Trump dominates the Republican Party. When it last gathered to nominate him in person, in 2016, it contained so few high-profile enthusiasts that a prominent convention role was given to the general manager of Trump Winery. Weeks before the election that year, the then Republican speaker of the House said he could no longer defend Mr Trump's behaviour. In January 2021 Mr Trump was dragged out of the White House in disgrace. Earlier this year Nikki Haley, a former rival for the nomination, said that "Many of the same politicians who now publicly embrace Trump privately dread him." In Milwaukee she was one of a procession of such people who endorsed him, the first candidate to be nominated three times by a major party since Richard Nixon.

This week also offered clues as to how Mr Trump will govern. In 2016 he picked a social conservative as his running-mate, to placate pro-life voters. So confident is he of victory today that he has tapped J.D. Vance, an articulate anti-globalist, anti-big business, anti-immigration, pro-worker, MAGA enthusiast who has little experience and does nothing to broaden Mr Trump's electoral appeal. Mr Vance has said in the past that were he vice-president he would not have certified the 2020 election result. Now he has become Mr Trump's heir apparent. MAGA politics, which started as an erratic vehicle for one man's ambition, now looks much more likely to become a programme for government that will endure beyond 2028.

One consequence is that Reagan Republicanism is all but dead. In recent years the Republican Party has been united around personality, not policy. It contains free-traders and supporters of universal tariffs; internationalists and isolationists; champions of corporate America and people who believe

big companies are rapacious and unpatriotic. In the past Mr Trump has done enough to please all these people that they can claim he is really on their side. The choice of Mr Vance tips the balance towards the strand of MAGA that is most worrying for America's economy and for its allies.

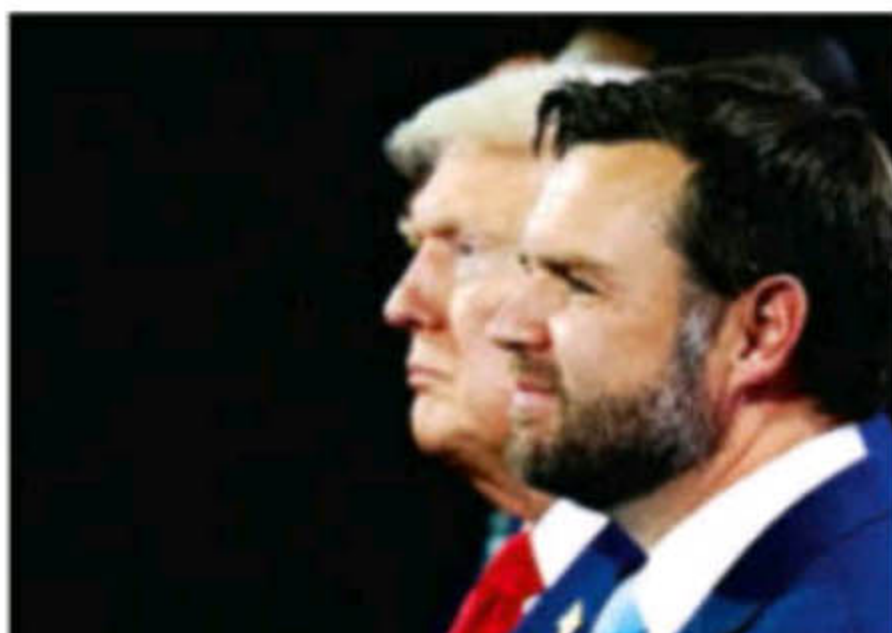
In foreign policy, Taiwan and Ukraine are test cases for the Reagan Republicans' view that it is in America's interest to cherish order, norms and alliances. On Taiwan, Mr Vance's views are unclear, while Mr Trump says the island should pay for American protection from China. On Ukraine, Mr Vance has gone further than Mr Trump, saying that he does not care which side wins, to the alarm of European allies. Recently he has backed away from this. The most hopeful interpretation is that Mr Trump realises that allowing Vladimir Putin to rampage across Ukraine would make him look weak in the same way that Mr Biden looked weak after pulling out of Afghanistan—and more than anything Mr Trump hates looking weak.

For America's economy, Mr Vance's views mix online meme culture, venture-capital-speak and some lefty policies that would thrill Bernie Sanders. He wants the state to protect blue-collar workers from competition and raise the minimum wage to \$20 an hour. Like Lina Khan, the head of the Federal Trade Commission who has riled tech bosses, he thinks big tech companies should be broken up (see Schumpeter). He belongs to a movement on the right that views big firms as un-American for stretching their supply chains across the world. He sees restricting immigration and raising tariffs as a way to raise productivity at home, boosting pay and strengthening American industry.

Were he to become vice-president, Mr Vance's views would not automatically become the positions of Mr Trump's government. The office is weak: one former veep said it was "not worth a bucket of warm spit". Mr Trump's fans say that he likes to play off opposing views in the room. His treatment of Mike Pence does not suggest that he will let Mr Vance run the White House while he works on his putting. Yet Mr Trump is old, too: if he wins, he will be older than Mr Biden is now when he leaves office. And, crucially, Mr Vance's views fit with Mr Trump's all-caps electoral platform.

MAGA 2030

Mr Trump leaves the convention in Milwaukee stronger than seemed possible only a few months ago. His legal cases no longer threaten him, his party is in thrall to him, the polls promise a clean sweep of Congress and the White House. Meanwhile, the Supreme Court has cut back legal scrutiny of the presidency and cramped the freedom of government agencies. The prospect of a dominant Trump presidency is troubling for those who, like this newspaper, believe that foreign policy should be more than a transaction, that international trade spurs productivity and that immigration is a source of renewal and vitality. But that increasingly looks like what America and the world will get. ■



Markets v politics

The bull's big blind spot

Euphoric financial markets are ignoring growing political risks

THE PAST year has brought war to the Middle East, escalation of the trade conflict between the West and China and, on July 13th, an attempt to kill the frontrunner in America's presidential race. But if you look at financial markets, you'd think nothing was amiss. No amount of blood or political rancour, it seems, can distract Wall Street from the good economic news: that fears of recessions have so far proved wrong, and that inflation has nonetheless tumbled. As a result markets are at, or close to, all-time highs in America, the euro zone and Japan, and many emerging-economy stocks are booming, too. Optimism is rife (see Finance & economics section). Compared with companies' profits, America's stocks have only ever been this pricey during two previous booms.

It may be that the attempt on Donald Trump's life was a random act without profound implications. America has a long history of attacks on politicians; neither the two attempts on Gerald Ford's life in 1975 nor the one on Ronald Reagan's in 1981 brought on crises. Yet the fact that it is easy to imagine partisan loathing inspiring an assassination attempt is a reminder of America's political dysfunction, which is spilling over into global disorder. And if Mr Trump and his young running-mate, J.D. Vance, ride on a wave of solidarity to the White House, there will be another round of disruption (see Leader). As his speech at the Republican convention showed, Mr Vance amplifies, more eloquently, Mr Trump's isolationist instincts. Europe could face at once the loss of its NATO security umbrella and the economic pain of more American protectionism.

Why are investors unperturbed by these threats? One reason is that the real economy has so far adapted to global tumult remarkably well. As the trade war has raged, Western companies have redirected their supply chains through "alt-Asia" countries including Vietnam and India (often veiling links to China, rather than severing them). When it had to wean itself suddenly off Russian gas, the German economy adjusted rather than collapsing. The damage wrought by tariffs has been obscured by America's long-running jobs boom and the stimulus provided by its enormous deficits. Innovation, most notably the advent of generative artificial intelligence, has proceeded apace.

Yet it would be naive to think that the global economy is impervious to politics. Its prosperity ultimately depends upon the liberal, democratic and peaceful foundation on which modern capitalism has been built (see Free exchange). It is telling that the good news investors are celebrating—the relatively painless reduction in inflation—has been achieved by central bankers, who are relatively insulated from political meddling. But politicians could set aside the taboo on interfering with interest rates, just as they have lately got over past misgivings about subsidies and tariffs. Mr Trump excoriated Jerome Powell, the chairman of the Federal Reserve, during his first term. If Trumpism lives on after 2028 through Mr Vance, who laments the strong dollar, then it is hard to see how the Fed will keep its independence in the long term.

The countries that are sitting out today's stockmarket boom offer cautionary tales about the consequences of adverse politics and disruptions to trade. The worst-performing big market over the past year is China's, which is down about 10% in dollar terms. Despite increasing admiration in the West for Chinese state capitalism and crowing in Beijing about turbulence in America, China's recent economic growth has been disappointing. Its authoritarian government, lacking the discipline and dynamism demanded by democratic politics, has failed to resolve its property crisis or to fight the slowdown by stimulating consumption. In the West, Britain's stockmarket has underperformed terribly since the country voted to leave the European Union in 2016, a decision which has disrupted trade flows with its closest partners. This week shares in TSMC and other tech firms fell after Mr Trump suggested that Taiwan should pay America for its defence guarantees.

In parts of the world—albeit not places that investors care much about—the real economy is suffering from the decline of the old order. Since the covid-19 pandemic developing countries have no longer, on average, grown faster than rich ones, as they did during the heyday of globalisation after 1990. Many of the poorest countries are encumbered by large debts that are difficult to escape because creditors, including China, are reluctant to respect the special status of the IMF, which they view as an arm of Western power.

Eventually political and geopolitical ructions will hurt the rich world, too. Nothing encapsulates Wall Street's complacency about this possibility better than a growing belief that Mr Trump's return to the White House would be good news for investors.

In recent days, as the perceived odds of interest-rate cuts and a Trump victory have grown, they have piled into small-cap stocks (see Buttonwood). It is true that cutting the corporate-tax rate from 21% to 15%, an idea Mr Trump has floated, could mechanically boost profits, that deregulation helps and that bigger deficits are stimulative. But the economy is running hotter and America's budget is far more stretched than at the start of Mr Trump's first term in office, both of which mean higher inflation is likelier than faster growth. Mr Trump has long viewed the stockmarket as a gauge of his performance and so may ditch his barmiest ideas. But it is not a good sign that being bullish about Trumponomics means hoping that its most harmful parts will be ditched under duress.

Bulls and a China shock

And if Messrs Trump and Vance were to allow more wars in Europe, or move towards the total decoupling from China that some national conservatives advocate, economic chaos would ensue. Investors would be hammered. Such a descent of the world order into turmoil would be worrying for investors were stocks priced normally. With their valuations sky-high, it is a recipe for a crash. Political risk is difficult for markets to price. But that does not mean they should ignore it. ■





I'm a fan.



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The Middle East

Mogadishu on the Med

There is too much magical thinking on Gaza. Time for grim realism

THE WAR in Gaza is in a new phase. The fighting is tapering down, although Israel is still conducting air strikes against Hamas. One of these on July 13th may have killed the military mastermind behind the October 7th attacks, Muhammad Deif, as well as scores of fighters and civilians. Ceasefire talks continue in Qatar and Cairo, with signs that Hamas is prepared to agree to a temporary truce and a swap of hostages and prisoners, without first demanding a permanent Israeli withdrawal.

Binyamin Netanyahu, Israel's prime minister, is clinging to power. On July 24th he is due to address Congress in Washington, where he is likely to dwell on the threat posed by Iran and its proxies to Israel and the region—and evade the question of what happens next in Gaza. America should call him out (see Briefing). As our forthcoming podcast from the exclave explains, it could become a failed statelet, a “Mogadishu on the Med”. This is an awful prospect for Gazans. It would also make Israel less safe.

A ceasefire would be welcome. It could allow the release of Hamas's surviving hostages in return for Palestinian prisoners in Israel. It would allow a flood of aid and a de-escalation on Israel's northern border, where the Israel Defence Forces (IDF) and Hizbullah, a militia which like Hamas is backed by Iran, are engaged in tit-for-tat strikes that could turn into a war. Yet there should be no illusions about the vacuum in Gaza. Its 2.2m people live in a devastated, lawless hellscape, without a reliable supply of food or water. The IDF directly controls perhaps a quarter of the territory. Elsewhere gangs and criminals roam, along with the rump of Hamas.

Many of the platitudes about Gaza are bunk. It is common to say that the Palestinian Authority (PA) in the West Bank could become Gaza's governing body. Our interview with Mohammad Mustafa, the PA's prime minister, shows it has plans to administer and provide security for the exclave. Yet the PA's

finances are shot, partly because Israel is withholding tax revenues owed to it, and any PA security force would be unwilling to confront Hamas. Similarly, it is often said that Arab governments could step in. The Gulf states are willing to provide cash, and Jordan could train security forces. But they are unlikely to put boots on the ground, for obvious reasons: an Arab force could face a guerrilla war with Hamas and would be viewed by most Arabs as being complicit with Israel.

On the present trajectory, two grimmer scenarios are likely. One is anarchy, with crooks, warlords and Hamas competing for turf, and the IDF controlling the border and transport arteries while conducting periodic strikes. The other is a gradual re-occupation of parts of Gaza, with the IDF steadily being sucked in, hoping to buttress Israel's security. Israel's far right might then seek to re-establish settlements. In both cases there would be little hope for Gazans and none of the predictability that reconstruction requires.

When in Washington Mr Netanyahu will emphasise the threat to Israel, the region and the West posed by Iran. It is indeed a serious danger, with its network of militias, nuclear enrichment drive and ties with Russia. But Americans on all sides must remind Mr Netanyahu that a different approach to the Palestinians would enhance Israel's security, not erode it.

Releasing funds to the PA would strengthen its capacity to administer parts of Gaza. Opening a path to talks on a two-state solution would foster long-term bipartisan support for Israel in America. It would also make it easier, politically, for Arab states to support the PA in Gaza and for the PA to co-operate with the IDF to contain and deter what remains of Hamas. Repairing Arab-Israeli relations would allow deeper defence co-operation between America, the Gulf states and Israel, which would help counter Iran. The day after in Gaza is going to be hellish. Magical thinking won't help. ■



Spendthrift and stagnant

How to halt Brazil's decline

To allow boa-constrictor interest rates to loosen, Lula should cut public spending

WHEN IN 2022 Luiz Inácio Lula da Silva narrowly defeated Jair Bolsonaro in Brazil's presidential election, democrats everywhere were relieved. Mr Bolsonaro, a hard-right populist, had spread intolerance and guns, and encouraged the despoliation of the Amazon rainforest. His threat to democracy was summed up by his failed attempt to persuade the armed forces to overturn his election defeat. Whatever his faults, Lula is a democrat. And he has moved quickly to curb deforestation, which is in both Brazil's and the world's interest.

But in other respects Lula's third stint as president has disappointed. In the first, from 2003 to 2007, he stabilised the

economy with orthodox policies and pushed through economic reforms and social programmes that boosted growth, cut poverty and secured him re-election. Aided by a commodity boom, his second term saw a public-spending splurge. Some of the money went on corruptly padded contracts. The boom ended, but the splurge continued under his chosen successor, Dilma Rousseff, who added wasteful and ineffective industrial policies. That eventually tipped Brazil into its deepest recession since 1930, while activist judges sent scores of politicians, including Lula himself, to jail for corruption.

Times are now tougher, but his third term is shaping up to ►►

► be more like the spendthrift second than the first. As Talleyrand reputedly said of the Bourbons, Lula appears to have learnt nothing and forgotten nothing. His graft conviction was overturned, but prison seems to have made him mistrustful. Although he owed his victory to the support of liberal centrists, he has found little space for them in his government.

The Brazil he inherited had lost its way. Annual economic growth in the ten years to 2022 averaged just 0.5%, though it has picked up a little since the pandemic. The problem is that Lula is spending as if the country were far richer than it is. Outlays so far this year have risen by a whopping 13% above inflation compared with the same period last year, and the overall fiscal deficit is 9% of GDP (see Americas section). Spending by government, at all levels, is heading for almost 50% of GDP and public debt for 85%. Faced with an expansionary fiscal policy, to curb inflation the central bank has resorted to the monetary policy of a boa constrictor. This combination is familiar in Brazil, where consistently expensive credit holds back growth.

This is not all Lula's fault. Brazil's voracious Congress grabbed more budgetary power under Mr Bolsonaro, who also offered pre-election giveaways which have been hard to scrap. Lula's allies have less weight in Congress than in the past,

obliging him to buy the support of others. Much of the spending involves freebies for special interests. But Lula could stop some of it, by sticking strictly to the fiscal framework his government drew up to replace a rigid spending cap which broke down under Mr Bolsonaro. Instead he has sniped at the central bank, confusing the symptom of high interest rates with their underlying cause: fiscal incontinence.

Cut budgets, not trees

Investors have noticed. Brazil's currency, the real, lost 17% of its value against the dollar over the 12 months to mid-June, the worst performance of any major currency. That seems to have jogged Lula. This month he gave more wholehearted support to Fernando Haddad, his finance minister, whose strenuous efforts to restrain spending have faced political resistance.

Lula will turn 80 at the next election. He should look to the future, promote younger successors and battle for the state reform that Brazil needs, to make fiscal space for genuinely progressive policies. Instead, he seems bent on repeating the past formula of taxing and spending his way to yet another term. There is little immediate risk of a currency crisis. Rather, the problem is that Lula is following a path of managed decline. ■

Avian influenza

What to do about bird flu

As isolated human cases of H5N1 emerge, now is the time to prepare

OVER THE past couple of years the largest outbreak of avian influenza (H5N1) in recorded history has torn across the planet. The virus, which is deadly to birds, has devastated wild and domesticated flocks alike. Attempts to stop transmission have seen hundreds of millions of birds culled on farms since the strain was first identified in 1996. Wild bird deaths are probably in their millions at least. The danger is that, as the virus mutates, a bird pandemic becomes a human one. Precisely how H5N1 will adapt and spread is impossible to predict. But the time to prepare is now.

In the past year the virus has spread in a range of mammals, and it is now rife among dairy cattle in America. This has led to several confirmed infections in farm workers (see Science & technology section). So far, these have been mild and isolated. However, many more cases in cows and people are thought to be going undetected, because of gaps in surveillance.

For now there are no known cases of the virus being passed from one person to another. Nor is there evidence of airborne transmission from dairy cattle to humans. But that is no cause for complacency. Each infection is a chance for new mutations to arise. Scientists have found the virus has acquired many adaptations, including some that may help it spread more easily. There is a risk that it could become a highly dangerous airborne human pathogen.

Don't be flustered, don't be scared. Be prepared

In many respects the world is better prepared for an influenza pandemic than it was in 2020 when covid-19 began to spread. It is not starting from scratch. Influenza viruses frequently circu-

late among humans, providing some degree of immunity. Anti-viral drugs can help treat those who are infected. A limited supply of vaccines already exists; efforts to produce more, and to develop better jabs, are ramping up.

Yet more needs to be done to ensure that governments can react speedily, should signs emerge that the virus is spreading from person to person. Countries, including America, need to strengthen their surveillance of infections. More targeted testing needs to take place on farms. Wastewater sampling, to help detect outbreaks, needs to be expanded. Standards of hygiene on farms could be checked and improved. Where stocks exist, vaccines should be deployed to the most exposed people, such as farm workers.

Now is also a good time for governments to dust off their pandemic plans and check that their stockpiles of diagnostic kits, vaccines and protective equipment are in good order. Countries need to work together, too, to share genetic sequences and outbreak data more readily. One big lesson of covid-19 was that transparency and cross-border collaboration can save a lot of lives. Secrecy and selfishness tend to have the opposite effect.

Preparing for H5N1 will be helpful even if the virus does not become a threat to humanity. Better monitoring of wastewater, for instance, is an investment in monitoring a whole range of infections in human and animal populations. Human influenza pandemics have been common for centuries, occurring three times in the 20th century alone. Another one at some point is highly likely, perhaps even inevitable. Improvements in detection, surveillance and vaccines will help the world cope when it comes. ■



Letters

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What AI means for war

Your briefing on how artificial intelligence is changing warfare was timely ("Model major-general", June 22nd). Indeed the Israeli systems—Lavender, and the unironically named, Where's Daddy—have crunched thousands of pieces of data to establish credible intelligence as to whether an individual is a Hamas operative or not and his rank in the organisation. The latter determines prioritisation in the targeting process and adjusts the "acceptable collateral damage" variable. As we have seen, scores of civilians can be killed in a strike on a supposedly high value target.

The Israeli systems are not fully automated, but this seems to make little difference to the kill or abort decision. Independent research by the Israeli *+972 Magazine*, and reporting by Queen Mary University of London, indicate that the AI targeting system moves very fast and the human in the loop is pressed to, as one operator put it, "Accept, accept, accept."

The pressure of time is a constant in military operations. As one trope has it, better a good plan now than an excellent one too late. No modern army is therefore going to abandon the advantages that AI might bring. However it is clear that the moral and political constraints on the use of AI in war have not caught up with the technology. This must be tackled soon. The thought of unrestrained autonomous warfare is simply horrific.
SIMON DIGGINS (COL, RETD)
Defence analyst
Rickmansworth, Hertfordshire

Less AI is more

The solution for peer reviewing the deluge of artificial-intelligence assisted scientific research is not to beef up the process by "paying reviewers for the time they sacrifice to scrutinise papers" ("Can you make this clearer?", June 29th). Instead AI should be adopted as a first pass on submissions, thereby accelerating the review process to the same degree

as authorship.

For example, an early argument for the use of large language models was the authorship of software. Now, the industry is instead increasingly asking LLMs to perform a preliminary review of proposed code changes. After an initial review by AI, a human is pulled into the loop for a final validation of accuracy. That human review is often assisted by AI in the form of inquiry.

All this acceleration is a boon for the proliferation of high-quality scientific research. It will speed up the authorship and review processes while freeing researchers to perform the important task of researching.

KEVIN ALWELL
Director of solutions
engineering, financial services
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Those who outsource the writing of papers to LLMs forget a crucial fact. In science, writing and thinking are intimately connected. The writing process provides the creative space for new ideas and interpretations to emerge, change shape and in some cases die. Only by putting pen to paper can scientists fully flesh out arguments, detect logical errors and discover new lines of research. Antoine Lavoisier, an 18th-century French chemist, wrote that "We think only through the medium of words. Languages are true analytical methods."
MICHAEL BUNSICK
Post-doctoral fellow
Princeton University
Princeton, New Jersey

Renewable energy in Europe

"Gridlock" (June 22nd) highlighted the irony that renewables in Europe, once deemed too costly, are now considered too cheap. This is a mistake. Low prices are an opportunity, not a problem. Although price volatility is nothing new, the surging demand for clean energy to meet mass-electrification is novel. Significant future growth is forecast for

energy consumption, which will naturally balance the scales. Now is the time to get ahead of the game by speeding up the push for renewables.

Long-term power-purchase agreements allow large companies to lock in prices for up to 20 years and cushion the impact of volatile spot prices. Although spot prices attract attention, they do not necessarily reflect the broader financial health of renewable energy projects. Those who seize upon low prices as an opportunity to undermine the clean-energy transition do so at their peril.

DR HARALD OVERHOLM
CEO and founder
Alight AB
Stockholm

Factory farms for fish

There are other problems raised by open-sea salmon farms that were not mentioned in your report ("Death and salmon", June 22nd). These include the pollution of the environment from fish faeces and the chemicals used against the inevitable build-up of parasites. This decimated the sea trout populations of the Western Highlands when millions of fish were packed together in a small space.

Moreover, the farms have had a disastrous effect on wild salmon, causing their numbers to crash. Tens of thousands of fish escape from the farms every year. Those that survive may breed with wild fish, producing offspring which lack the distinctive genetic inheritance that every river system requires. It is time to stop treating the ocean like a dustbin and either regulate the farms far more strictly or move the whole operation to land-based salmon farms.

GEORGE CHAMIER
London

Deadly fentanyl

The problem with drug overdoses and deaths in Vancouver is complex and difficult to tackle ("Fentanyl v Vancouver", June 29th). There are many factors in play. One is that in addition to fentanyl's known

potency, adulteration is a major problem. The Canadian Centre on Substance Use and Addiction has demonstrated that British Columbia has the highest rate of adulteration of other drugs, such as stimulants with fentanyl. People who might think they are ingesting cocaine or methamphetamine are thus exposed to fentanyl, often with tragic consequences.

Another factor is the relative shortage of rehabilitation facilities. Harm reduction works best when coupled with robust rehabilitation and prevention strategies, which are less than optimal across Canada. Without these resources, harm reduction alone is a one-legged stool.

DR MICHAEL RIEDER
Division of clinical
pharmacology
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London, Canada

Jewish football teams

The Economist explainer on football in Austria (June 28th) underplayed the Jewish contribution to the game in Vienna before the Holocaust. The reason why Austria's top team in the 1920s and 1930s plummeted after the war is because the Nazis, with strong support from the Austrian population, expelled or murdered the Jews.

You unforgivably did not mention Hakoah Vienna, the most incredible story of any club in the history of football. The avowedly Zionist and exclusively Jewish team, amid unrelenting hostility from opposing fans and players, won the Austrian league in 1925. It was forcibly shut down in 1938, the players' successes erased from the history books.

DAVID BOLCHOVER
London

Boutique law firms

I commend your guest Bartleby on providing legal advice to her hairdresser within the span of a single hair appointment ("Why you should think like a lawyer", June 29th). One assumes it was a cut and dried case.

DOMINIC JAMES-MOORE
Berkhamsted, Hertfordshire



International Organization of Securities Commissions (IOSCO) Call for Applications: IOSCO Secretary General

IOSCO is the leading international policy forum for financial markets regulators and the global standard setter for financial markets regulation. It develops, implements and promotes adherence to internationally recognized standards for financial markets regulation and works closely with other international organizations on the global regulatory reform agenda.

The organization's membership regulates more than 95% of the world's financial markets in some 130 jurisdictions. By providing high quality technical assistance, education and training, IOSCO supports its members to come together to achieve its three objectives:

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The Secretary-General is a full time executive, appointed by and accountable to the organisation through the IOSCO Board and Board Chair and is responsible for supporting the pursuit of IOSCO's strategic objectives and for heading the General Secretariat under the leadership of the Board Chairman.

The General Secretariat, which is based in Madrid, Spain, is around 40 full time staff strong – comprising c. 25 permanent staff and c. 15 secondees from IOSCO members.

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The Candidate

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Applications

For any queries please contact Tim Pinkowski at SG-Vacancy@iosco.org or the IOSCO Board Chairman at president@fsma.be. Applications should be submitted to the Nominations Committee at SG-Vacancy@iosco.org by close of business on 5 September 2024 (CEST).

Applications must be accompanied by:

- A full curriculum vitae;
- Any other information about the person needed to adequately brief the Nominations Committee on their credentials for the role, such as relevant references;
- Compelling track-record of people management and managerial skills, drawing on the individual's experience in leading an organisation or relevant team through change; and
- Where the nomination is by an IOSCO member, a written assurance that the person nominated is interested in being considered for the role of the Secretary General and has the adequate profile and credentials to occupy the position.

More information, including the job description, is available at:
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Briefing Ending the war in Gaza



Glad-handing and grinding teeth

JERUSALEM AND WASHINGTON, DC

Will Binyamin Netanyahu's visit to America repair or weaken ties?

RARELY HAS so divisive a figure been so honoured by America's political class. On July 24th Binyamin "Bibi" Netanyahu, Israel's prime minister, will deliver his fourth address to a joint session of Congress—more than any other foreign leader, including Winston Churchill.

It was as recently as March that Chuck Schumer, leader of the Democratic majority in the Senate, excoriated Mr Netanyahu as an "obstacle to peace" and called for new elections to remove him. The snub was all the sharper, given that Mr Schumer, Congress's most prominent Jewish member, thinks of himself as a *shomer* or "protector" of Israel. Three months later the *shomer* yielded, joining other congressional leaders in inviting Mr Netanyahu to give his oration. "America's relationship with Israel is ironclad and transcends one person or prime minister," he explained. President Joe Biden, a friend to Israel but long exasperated by Mr Netanyahu, will receive him at the White House, too.

The red-carpet welcome, nine months into the Gaza war, reflects the political

cunning of Mr Netanyahu, Israel's longest-serving prime minister (pictured above, during a previous speech to Congress). American domestic politics is also a factor: Republicans decided to invite Mr Netanyahu, daring Democrats to shun an ally. Above all, the visit is evidence of Israel's special hold on America's political imagination. Mr Netanyahu is unpopular in Israel, where most want him to step down, either immediately or after the war. In America left-wing Democrats decry what they regard as his "genocide" in Gaza. Yet America's political elite still pays its dues to Israel's leader, as controversial as he is.

Bibi A or Bibi B?

Which Mr Netanyahu will appear in Washington? The gracious one, thanking Mr Biden for his extraordinary political and military help during the war? Or the cynical

one, seeking to turn attention from Gaza to Iran, and to obstruct Mr Biden's effort to end the war? Probably both.

Mr Netanyahu has sent word that he will deliver a bipartisan speech. Many Democrats are suspicious, with good reason. In a video message in June he complained about the "inconceivable" slowdown in American arms deliveries. Some suspect the prime minister wants to jab at a weakened Mr Biden to ingratiate himself with Donald Trump. After the assassination attempt on the former president, Mr Netanyahu claims he, too, is the object of incitement to violence by opponents. Democrats, though, remember how Mr Netanyahu in 2015 came to rally Congress against Barack Obama's diplomatic deal to limit Iran's nuclear programme. Bibi failed to stop the "Joint Comprehensive Plan of Action", but got his way in the end when Mr Trump abrogated it in 2018.

This time Mr Netanyahu is resisting important parts of Mr Biden's plan to stabilise the Middle East. Phase one envisages a six-week ceasefire in Gaza with a partial Is- ►►

→ ALSO IN THIS SECTION

16 When the shooting stops

► raeli pullback from population centres and the exchange of some Israeli hostages and Palestinian prisoners. Phase two features a permanent ceasefire with the full withdrawal of Israeli forces and the release of the remaining hostages. Phase three calls for a multi-year reconstruction plan for Gaza and the return of the remains of dead hostages. Beyond is a grand regional package to revive talks on Palestinian statehood and normalise relations between Israel and Saudi Arabia.

Mr Netanyahu ostensibly supports much of this, but opposes the idea of a permanent halt to the war, blocking phase two. He spurns a role for the internationally recognised Palestinian Authority in running Gaza and rejects all the more fiercely the notion of a Palestinian state, which probably kills the idea of a regional deal. "Bibi's message used to be, 'Only I can deliver America.' Now it's, 'Only I can stand up to America,'" says Shalom Lipner of the Atlantic Council, an American think-tank.

Yet negotiators reckon the odds of a phase-one deal are improving. Hamas has dropped the demand for a permanent ceasefire from the outset. And Israel thinks it has killed Muhammad Deif, the head of Hamas's military wing, which may seem a sufficiently large scalp to allow it to claim it has beaten Hamas. A deal over Gaza, in turn, ought to end the worsening exchange of fire with Hizbullah, a Lebanese militia, over Israel's northern border.

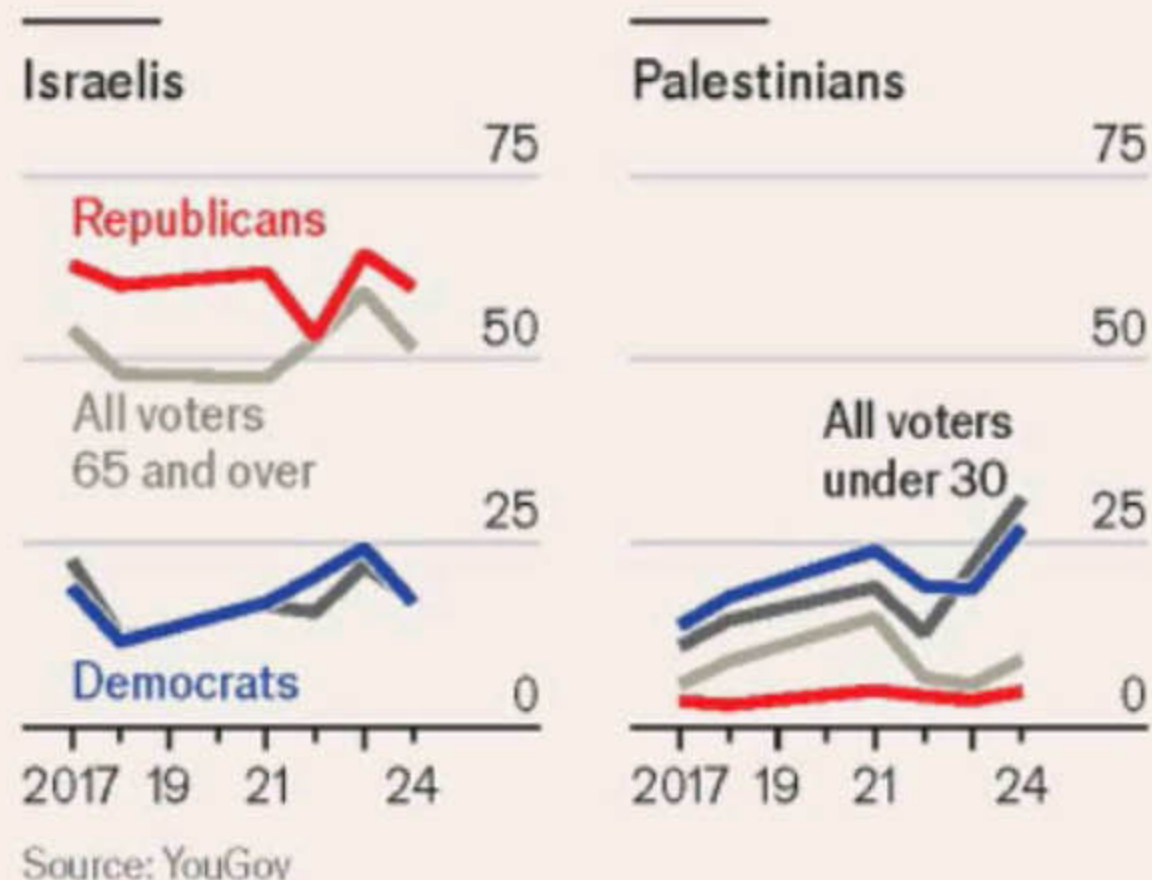
Bibi's bind

Mr Netanyahu is under intense pressure from Israel's security establishment to accept the deal. He faces nightly protests demanding the return of the hostages. But far-right members of his coalition threaten to depose him if he accepts even phase one. A three-month recess of Israel's parliament, which begins on July 28th and would briefly shield Mr Netanyahu from efforts to topple his government, thus offers an opportunity to clinch a deal.

America's hope is that even a temporary halt to the fighting will transform political dynamics, end the war permanently and deny China, Iran and Russia a potent rallying cry. Mr Netanyahu, though, wants to turn the spotlight on what he sees as the ultimate cause of trouble: not the dispossession of Palestinians but the aggression of Iran. He is likely to tell Congress that the war in Gaza is just one of seven fronts opened by Iran and its "axis of resistance". The others are with Hamas in the West Bank, Hizbullah in Lebanon, the Houthis in Yemen, other militias in Syria and Iraq, and Iran itself, whose nuclear programme is accelerating. He will probably denounce "lawfare" against Israel, not least the accusation of genocide being heard by the International Court of Justice, and claims of war crimes before the International Crimi-

Indispensable, but not in accord

"In the Israeli-Palestinian conflict, are your sympathies more with...", % responding United States, by party affiliation and age



nal Court. He may also claim that antisemitism and anti-Israeli prejudice are on the rise around the world.

If Israel fails to destroy Hamas, Mr Netanyahu believes, all diplomatic manoeuvres are futile: no alternative Palestinian body can hope to run Gaza; no Arab state will help with security or reconstruction and Israel will be less able to deter Iran. In fact, endless raids to stop Hamas regrouping are likely to destabilise Gaza indefinitely (see next story).

Israelis, it is true, do not want a Palestinian state. Even so, Mr Netanyahu's open discord with America strikes many of them as reckless. "There is no national security without America," says Amos Gilead, a former defence official. And, American officials add, if Bibi wants to deter Iran, why create a public rift with Israel's indispensable diplomatic and military protector?

Mr Netanyahu, though, thinks scraps with America can help him. He claims his complaint about American weapons speeded up their delivery. At any rate, America recently resumed supplies of 500-pound bombs (but not yet 2,000-pound ones). And Mr Netanyahu reckons his fight with Mr Obama over the JCPOA won the

admiration of Gulf states, opening the way for the Abraham accords, under which the United Arab Emirates, Bahrain, Sudan and Morocco established diplomatic relations with Israel in 2020-21.

Mr Netanyahu anyhow takes a hard-nosed attitude to American politics. Bipartisanship towards Israel is waning. Most American Jews vote Democratic, but a growing share of Democrats sympathise with Palestinians, as do many younger voters (see chart). Republicans once tried harder to balance relations with Israel against priorities in the Arab world. Dwight Eisenhower, Ronald Reagan and George Bush senior all at times turned the screws on Israel. But latterly, in part because of the influence of evangelical Christians, support for Israel has become a touchstone for mainstream Republicans. Though his ties with Mr Netanyahu are strained, Mr Trump says America should let Israel "finish the job" against Hamas.

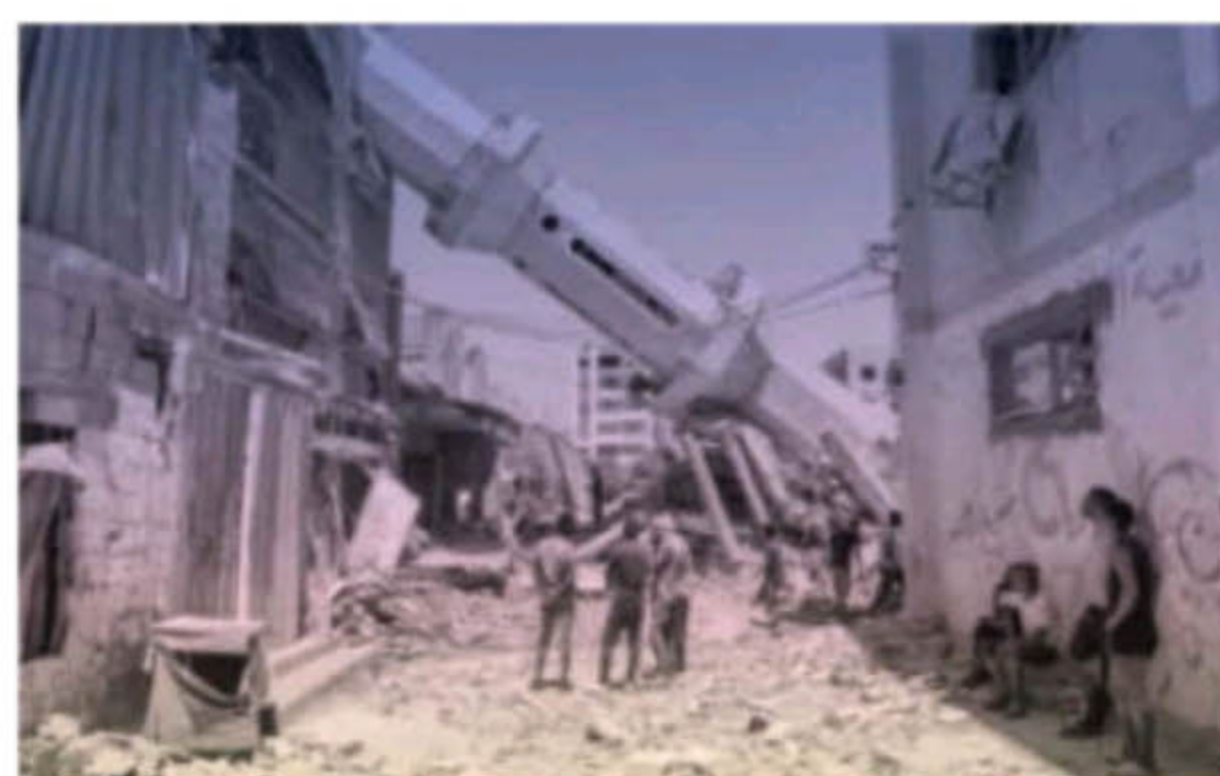
Michael Oren, a former Israeli ambassador to Washington under Mr Netanyahu, notes that the two countries have a peculiar sort of alliance. They have no formal mutual-defence obligation. Israel has repeatedly been asked to lie low—for instance during America's two wars against Iraq, in 1991 and 2003. Yet they are intimately bound together through military technology and intelligence-sharing.

On April 13th, when Iran fired hundreds of drones and missiles at Israel, America orchestrated a defence involving Britain, France, Jordan and Saudi Arabia. All but a handful of warheads were intercepted.

The incident offered a glimpse of a new Middle East—exposing Israel's unprecedented vulnerability to missile attack from Iran's "axis of resistance", but also hinting at an unprecedented counter-axis. Yet Mr Netanyahu will not yield to American and Arab entreaties to move towards some minimal form of Palestinian state. Perhaps he thinks he can win over the Saudis without such concessions or perhaps he thinks no compromise can ever dispel the enmity of Israel's foes.

Either way, he seems intent on redoubling investment in military technology, mobilising the world against Iran and decrying critics as ignorant or antisemitic. He will take broad American support where he can find it, but will make do with narrow, partisan backing if necessary. You could call it an "Israel First" policy.

Much of this approach is received sympathetically in Washington, even by the Biden administration. Yet there is another way of looking at Mr Netanyahu's visit. Many think he is dragging out the fighting to extend his hold on power, despite the damage to Israel's budding relations with the Gulf and its decades-old alliance with America, not to mention the appalling human cost. Call it a "Bibi First" strategy. ■



Listen to our podcast

In a special edition of the Weekend Intelligence, "Gaza, after the dust settles", to be released on July 20th, our editor-in-chief, Zanny Minton Beddoes, and colleagues look at dangerously rosy thinking about Gaza's future.



The war in Gaza

When the shooting stops

GAZA AND JERUSALEM

Optimistic plans for post-war Gaza have little basis in reality

AFTER ALMOST 300 days, planning for the end of the fighting in Gaza is beginning to seem otherworldly. Politicians and generals have been talking about what might happen when the shooting stops since the start of the war in October. Diplomats have spent months shuttling around the Middle East, trying to broker a ceasefire. Yet the moment has not come—and even if it does, the obstacles to lasting calm in Gaza are daunting.

When many Western officials talk of the “day after”, they have a specific scenario in mind. It starts with buffing up the Palestinian Authority (PA), which runs parts of the West Bank, so that it may return to Gaza and govern there as well. Israel would commit to ending its half-century occupation and creating a Palestinian state. That would allow Saudi Arabia, the most influential Arab country, to normalise ties with Israel. A ruinous war could give way to a lasting regional peace.

It is a hopeful vision, but also an improbable one. It rests on two questionable assumptions. The first is that the fighting in Gaza will truly end—that there will be a clear line between war and its aftermath. The other is that complex, phased regional diplomacy can bring immediate relief to the 2.2m Gazans who need help urgently.

In fact, the day after may look much like today. Even if there is a truce to facilitate a hostage deal, Israel will eventually resume military raids in Gaza. Hamas will keep

fighting. Binyamin Netanyahu, Israel’s prime minister, will not commit to Palestinian statehood, thus stalling any bigger diplomatic push. Amid all this, someone will have to provide security, distribute aid and start rebuilding an exclave that has slipped ever further into anarchy and misery over the past nine months. No one has a serious plan to make all that happen—only a hope that someone else will do it.

Lawless, homeless, helpless

The scale of the problem is enormous. Start with security. Israeli troops control two corridors in Gaza: one in the centre, the other along the border with Egypt. The rest of the territory is largely ungoverned. Criminals steal humanitarian aid, run extortion schemes at bank machines and loot ruined homes and shops. Crammed into tent camps, civilians have violent (and sometimes deadly) disputes over food and other supplies. The police who kept Gaza safe before the war have mostly disappeared: they are afraid of being targeted by Israel or are busy caring for their families.

Officials in Ramallah, the PA’s administrative capital, say they could field a police force to restore basic law and order. America is keen on this idea. The nucleus of the force might be around 2,500 ex-policemen, who lost their jobs when Hamas took control of the territory from the PA in 2007. They might help reduce crime, although it would take years to train enough officers

to patrol the whole territory.

What such a force would not do, however, is fight Hamas. Although Israel has killed many of the militant group’s fighters and leaders, including, it believes, the head of its armed wing, Muhammad Deif, on July 13th, plenty more remain. These remnants might be willing to cede civil authority in Gaza to the PA to let someone else clean up the mess. Disarming is a different story. “If they stop resisting, they stop existing,” says an official from the PA. “Hamas will continue to fight.” That sets up continued fighting with Israel, which would conduct operations to assassinate Hamas’s leaders and stop it regrouping.

Hamas would also be a threat to the PA. In March the authority sent a group of intelligence officers to accompany a humanitarian-aid convoy in Gaza, a pilot scheme of sorts to see if it could help secure deliveries. When Hamas discovered the scheme, it arrested and tortured the officers; three were killed. If Hamas thinks the PA is amassing too much power in Gaza, it will not hesitate to attack its rival.

The solution, argues the PA official, is to bring an Arab peacekeeping force to Gaza. Hamas would not target the PA if it had the backing of powerful Arab states. “It’s about an Arab trusteeship for three or four years, until we can manage or we judge we are capable of ruling Gaza,” he says.

Politicians in Israel have a similar hope. Yair Golan, who leads the Labour Party, thinks “moderate Sunni countries” like Egypt and the United Arab Emirates would help secure and administer parts of Gaza. People close to Mr Netanyahu make similar claims. So does Naftali Bennett, a former prime minister. “Working with President Sisi in a smart way, he’d be willing to do it,” he says, referring to Egypt’s dictator. Israeli lawmakers rarely agree on anything, but they all seem to believe that Arab states will swoop in to stabilise Gaza.

The only sceptics are the putative peacekeepers themselves. It is not that Arab countries rule out any role in Gaza. Gulf states would stump up for reconstruction; Jordan could help train security forces. But they are not keen on sending troops, lest they be seen as abetting Israeli oppression. Even if they did agree, Arab armies have limited experience of peacekeeping and even less of working with one another. A joint force would require an unprecedented degree of co-operation.

Without security, post-war Gaza will be bleak. Lawlessness is already making it hard for the UN to distribute aid—and Gazans cannot survive without it. Fully 79% of them are unemployed, estimates the International Labour Organisation. The economy has been blitzed: GDP has shrunk by 84% since October. Hospitals have mostly stopped working; children have missed almost an entire year of school.



► Mohammad Mustafa, the PA's prime minister, says it is ready to take charge. Over coffee in his office in Ramallah he and his advisers outline plans to restore basic services like education and health care. "This is not some hostile acquisition we're trying to do. This is our land, our people," says another Palestinian official.

But it is hard to square this hopeful talk with the PA's dismal reality. It is broke. Israel is withholding about 6bn shekels (\$1.6bn) in tax revenue that it has collected on the authority's behalf, in part to punish it for transferring money to Gaza. The suspension of work permits for the 160,000 Palestinian labourers with jobs in Israel has further crimped revenues. Civil servants did not receive their May pay until July 10th (and half received only partial wages). Mr Mustafa and his boss, Mahmoud Abbas, the Palestinian president, are wildly unpopular. The PA, in other words, barely has the capacity to govern the West Bank, let alone Gaza.

Even if it did, Mr Netanyahu would not allow it to. He has resisted months of American pressure to bless a role for the PA in Gaza. Some Israeli officers have instead begun to talk of creating enclaves that would be run by Palestinians unaffiliated with Hamas. Israel would direct aid to those areas. Locals would distribute it; in time, they would set up ad hoc administrative systems to provide basic services. The army calls them "bubbles". Mr Golan, who was a deputy army chief before he entered politics, refers to them as "islands of hope". "It's not enough to destroy the military capabilities of Hamas," says Mr Golan. "You need to provide an alternative."

This is a common approach to counter-insurgency, usually called an "ink-spot strategy". But Palestinian and Western officials say it is a fantasy. Hamas has already killed or assaulted several members of prominent Gazan families to discourage such co-operation. Yoav Gallant, Israel's defence minister, has championed a version of the bubble scheme for months, but has found few volunteers. In March six big clans issued a public statement insisting that they had rejected Israeli overtures.

Nor would these sorts of local administrations be up to the task of rebuilding Gaza. More than half of the buildings in the strip have been destroyed, the UN says. Close to 400,000 homes have been damaged or destroyed. Even clearing the rubble will be an unprecedented challenge. The war has created 39m tonnes of debris—more than 107kg for each square metre in Gaza, and 16 times more than was generated by the war in 2014.

The World Bank estimated in April that damage to homes, businesses and infrastructure in the enclave would cost \$18.5bn to repair, equal to 97% of Palestine's pre-war GDP (and six times today's output).

Donors will not contribute much until Gaza has both security and an administration capable of overseeing a vast reconstruction effort. "Until Hamas is gone, nobody is going to come in," says an official close to Mr Netanyahu.

As long as there is a chance of Hamas regenerating, the IDF believes it will have to hold on to its corridors inside Gaza and enforce the buffer zone a kilometre or more in width it has cleared all along the Gazan side of the border. An analysis by *Haaretz*, an Israeli newspaper, estimated that Israeli troops now control 26% of Gaza's territory (see map). No one would control the other 74% and Israel's continued occupation would constitute an obstacle for ceasefire talks.

There is also the question of who controls the border crossings into Gaza, through which aid and eventually building materials for reconstruction must pass. Israel has been reluctant to reopen the crossings from its territory, which handled two-thirds of imports to Gaza before the war. But it also wants some say over the management of the Rafah crossing with Egypt, through which Hamas smuggled most of its weapons. The uncertainty will continue to crimp flows of aid.

The likeliest outcome of all this is that a battered Hamas ends up competing with clans and gangs in a largely lawless Gaza. Crime and violence would be widespread. Aid groups would have to make deals with gunmen to protect their convoys. Charities would try to fix a few bits of vital infrastructure, such as desalination plants, but large-scale reconstruction would remain a distant dream. Some UN officials have taken to calling this scenario "Mogadishu on the Mediterranean".

An alternative might be called the "West Bank model". Perhaps Israeli lawmakers instigate a snap election to boot the unpopular Mr Netanyahu from office, and his replacement allows a role for the PA in Gaza, at least in civil matters. Or per-

haps, amid so much hardship, necessity will compel Gazans to work with the Israeli army to restart basic services.

Yet even if the Israeli opposition manages to replace Mr Netanyahu, the prospects for a two-state solution are dim. Opposition-party leaders concede that Israelis are currently "too traumatised" by the October 7th massacre to contemplate such an eventuality. A recent survey commissioned by a right-wing think-tank reported that 64% of Israelis are against a Palestinian state, even if that means forgoing a historic peace agreement with Saudi Arabia.

So Israel will probably end up as the occupying power in Gaza, much as it already is in the West Bank. "There will be Palestinians who control the municipal functions," says Yoaz Hendel, an Israeli former minister and a reserve colonel in the army. "But we will be able to get in and out whenever we like." Open-ended occupation is perhaps less awful than anarchy. But hopes of regional peace will be dashed, and even reconstruction might be slow. Gulf states, for example, say they will not open their chequebooks without a long-term plan for Palestinian statehood.

Get real

On the outskirts of Cairo, where the city's chaotic sprawl gives way to barren desert, three women from Gaza have fled the war but not escaped it. They live with their children in a dark apartment, sleeping on donated mattresses, cooking donated food in donated pots. Their husbands are still in Gaza: it was cheaper and easier to send off the women and children alone. The television is permanently tuned to Al Jazeera, and each report of a deadly Israeli strike in Gaza brings a moment of worry. They hope to go home one day, but not if it means going home to a squalid tent camp.

No one knows how many Gazans have fled to Egypt since the war began. One aid worker in Cairo says the number could be as low as 80,000 people, or as high as 300,000—between 4% and 14% of Gaza's pre-war population. Most have paid extortionate sums to escape, up to \$5,000 per adult and \$2,500 per child, to a company with close ties to Egypt's security services.

In another sparse apartment, Maha (not her real name) has a story both tragic and typical. Her house in central Gaza was destroyed by Israeli shelling earlier this year; her husband was killed. Life in Cairo has not been easy. Without legal residency, she cannot enroll her two children in school (they are taking virtual classes through a school in Ramallah). But she has no desire to return to Gaza, even after the war: "What is there for me? My life is over."

Waiting, fear, sorrow: this is life for Gazans, inside or outside the enclave. Talking about the day after the war seems a hopeless abstraction. ■



United States



The Republican Party

The Republican Party's MAGA future

MILWAUKEE

The selection of J.D. Vance means that Donald Trump's influence may linger longer

WHAT A DIFFERENCE eight years make. When Donald Trump mounted his hostile takeover of the Republican Party in 2016, the mood at the Republicans' convention that year in Cleveland was poisonous. In 2024, at their convention in Milwaukee, Mr Trump became the first person to secure three consecutive major-party nominations for the presidency since Franklin Roosevelt. Republicanism has become synonymous with Trumpism now.

Eight years ago Ted Cruz, a Republican senator from Texas, gave a convention speech that failed to endorse Mr Trump. This year Mr Cruz opened his remarks with the words "God bless Donald J. Trump" as the former president looked down from his imperial box. Ex-challengers like Nikki Haley, until recently a slashing critic of Mr Trump's isolationist foreign policy, went supine. The Republican platform has been cast in Mr Trump's image, right down to his esoteric style of capitalisation. Mr Trump's daughter-in-law is the new co-chair of the Republican Party.

His son was instrumental in the selection of his running-mate, J.D. Vance, a recently elected senator from Ohio.

The party had united behind Mr Trump even before his near-assassination at a rally in Butler, Pennsylvania, on July 13th. Now it is in awe of him. And the elevation of Mr Vance, a 39-year-old acolyte of Mr Trump's pugnacious populism, suggests that Trumpism may live on for years to come.

This would be worth paying attention to if America were facing a typical knife-edge election. But it is especially so given

the state of the race. Our election model now gives him a three-in-four chance of victory in November (see chart on next page). His party is united, whereas Democrats are divided on whether President Joe Biden ought to abandon his bid altogether.

The past three weeks—a woeful debate performance by a sitting president, an effort by his party to dethrone him, a failed assassination—rank among the most turbulent in modern American politics. But they leave the Republicans in fine shape. The race has shifted from a referendum on Mr Trump's fitness to return to office, given his supporters' attack on the Capitol and his felony convictions, to one on Mr Biden's ability to do the job. The Democratic fundraising advantage looks likely to evaporate as Democratic donors hesitate and Republican ones splurge. The NATO summit held last week in Washington celebrating the alliance's 75th anniversary was supposed to be triumphal; instead it was a dour exercise in Trump-proofing.

Compared with all that, a vice-presidential pick could seem inconsequential. But Mr Trump's advanced age (and recent brush with mortality) have turned attention to the succession plan for the MAGA movement. The selection of a relative moderate like Doug Burgum, the governor of North Dakota, would have been a consolation prize for the emaciated Reaganite wing of the party. No such compromise is necessary now. Trumpists like to divide ►►

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▶ their party, country and world along Manichean lines, as a grand contest between globalists (who like wokeness, migration, free trade and foreign wars) and God-fearing nationalists. The selection of Mr Vance shows that Mr Trump is supremely confident of winning in November.

Mr Vance was not picked because he is from a swing state or appeals to a wavering demographic group. Famous for his book "Hillbilly Elegy", about his upward mobility from a broken family in Ohio to Yale Law School, Mr Vance offers Trumpism in slick millennial, meritocratic packaging. And whereas Mr Trump has never worried much about policy details, Mr Vance's version is more seriously intellectualised and detail-oriented.

Trumpism beyond Trump

On economics, Mr Vance is one of the new breed of Republicans who have appropriated Democratic contempt for Wall Street and professed admiration for the working class. He is solicitous of labour unions, but dislikes "Big Labour" (along with "Big Tech" and big business). He has more in common with Elizabeth Warren, a progressive Democratic senator from Massachusetts, than you might expect. Last year he introduced a bill with her that aimed to claw back compensation from bank executives. He once endorsed a German-style proposal for giving workers seats on company boards. He has praised Lina Khan, Mr Biden's antitrust enforcer and a pariah to Silicon Valley, as "one of the few people in the Biden administration that I think is doing a pretty good job".

He has made positive sounds about industrial policy, tariffs and expanded tax credits for families. He justifies immigration restrictions by claiming they raise the wages of the native-born. "At the basic conceptual level, he's in favour of worker power," says Oren Cass, the founder of American Compass, an outfit that is taking conservative economics in a more populist direction. "Vance is the most distinctive possible choice [for Mr Trump], which shows that the centre of gravity for the Republican Party has permanently shifted."

On foreign policy, Mr Vance has managed to outdo even Mr Trump in his scepticism towards NATO and opposition to American aid for Ukraine. Mr Trump is often elliptical on Ukraine, claiming that he would somehow settle the conflict in one day. When Volodymyr Zelensky visited Capitol Hill to beg for more military aid and urge Republicans against linking it to extra border funding, Mr Vance criticised the Ukrainian president's actions as "disgraceful". "There are a lot of bad guys all over the world, and I'm much more interested in some of the problems in East Asia right now than I am in Europe," Mr Vance told the Munich Security Conference.

Still, Mr Vance maintains that it is important for America to continue giving military aid to Israel because that, in contrast to Ukraine's case, has "clear end goals", including weakening Iran. Like Mr Trump, he is sceptical of America's capacity to shape the world. At a recent confab of anti-globalists he even fired some shots at America's closest ally. "I was in London last year, and it's not doing so good," he said, before musing that Britain might be the first Islamist country to have nuclear weapons, given Labour's election victory.

The vice-presidency can be a tragicomic position. And those who drift too close to Mr Trump can find themselves excommunicated or in serious legal trouble. Might Mr Vance wind up similarly sidelined? Two reasons suggest he might not.

First, he has already proved adept at managing up, successfully moving beyond his past publicised worries about Mr Trump as "cultural heroin" and "America's Hitler". Such canniness does not just disappear. Second, when Mr Trump became president he was content to delegate policymaking to congressional figures like Paul Ryan, then the speaker of the House, and Mitch McConnell, then the Senate majority leader. His vice-president, Mike Pence, was not a policy maestro. All three were from the old guard. This time he would have not just a sharp vice-president interested in policy, but a Trumpified Congress as well. The speaker of the House if Republicans kept their majority would be deferential to the president. Mr McConnell will be leaving his leadership post.

What began as an insurgent movement within the Republican Party, organised around a cult of personality, has become steadily more mainstream and professionalised. There are now parallel institutions including think-tanks armed with detailed plans for power. Mr Trump and his allies have fostered their own international alliance of like-minded anti-globalists. The next presidential term would be the last for Mr Trump; but it may well not be the last for Trumpism. ■

Secret Service failures

Off-target

PITTSBURGH

The Trump shooting reveals the holes in presidential security

WHEN TRYING to put in context how close Donald Trump came to being killed on July 13th, Anthony Cangelosi, a former Secret Service agent, now an academic at the John Jay College of Criminal Justice, uses an analogy that the former president could appreciate. "It's a chip shot," he says. For the benefit of non-golfers: one that is easy for somebody who practises. "It's not hard to hit a target from 150 yards with a rifle," he says. The shooter, Thomas Matthew Crooks, a 20-year-old from a suburb of Pittsburgh (see box on next page), was a member of a rifle club, though he was apparently rejected from his high-school shooting team. Had he been a slightly better shot, America's election would now look very different.

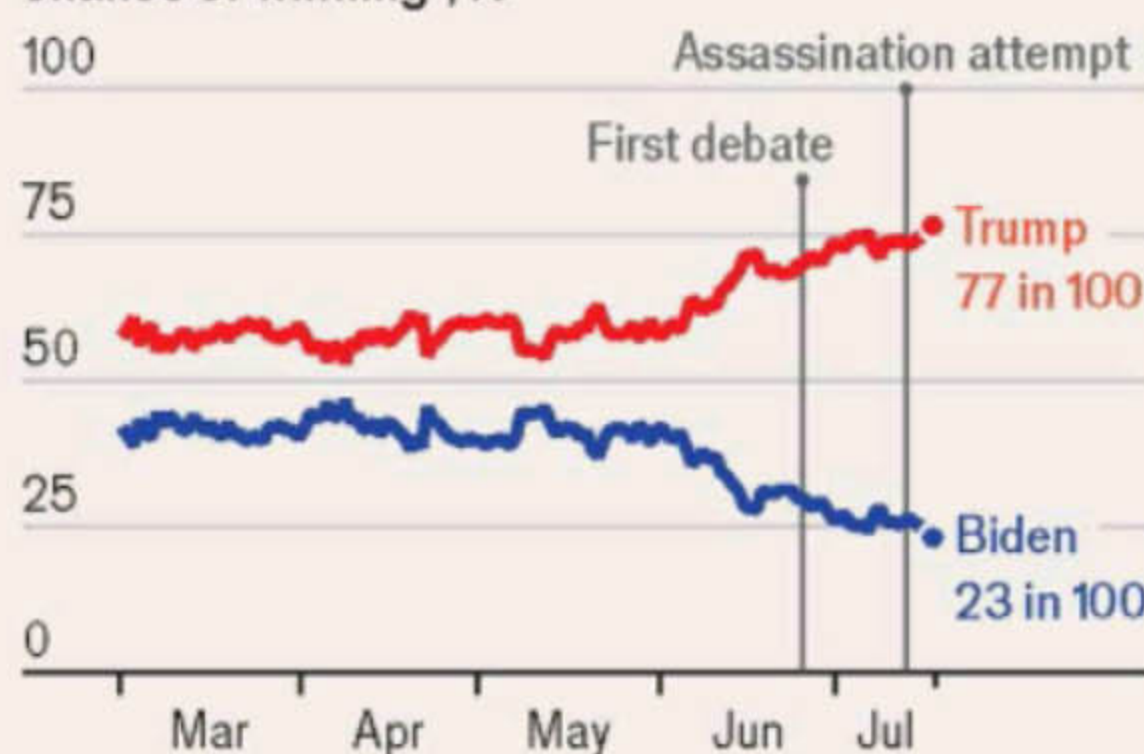
But how on earth was he able to get onto a roof with a clear view of Mr Trump, and enough time to aim and fire? That question now seems likely to launch an enormous review of presidential security.

The law creating the Secret Service was signed by Abraham Lincoln on April 14th 1865. Unfortunately its original purpose was to take on counterfeiters, not presidential assassins, or else it might have come in handy on that first day—when an out-of-work actor shot the president. It turned to protecting presidents only in 1901, after the assassination of William McKinley. Since then, three presidents have been shot: Theodore Roosevelt, John F. Kennedy and Ronald Reagan. Franklin Roosevelt was also almost killed in 1933, and a shooter missed Gerald Ford by inches in 1975. In recent decades, however, the force has grown to 8,000 agents, and no attempt has come so close in 43 years.

As the aftermath of the shooting in Butler, a town north of Pittsburgh, is revealing, that may not be enough. "In a perfect world at that site in Pennsylvania, there would have been 500 agents and 30 counter-sniper teams," says Bill Gage, another former Secret Service agent, who now works for a private security firm. But in reality, he says, "the Secret Service is stretched so thin." These days it is not only presidents who have details. Even Joe Biden's grandchildren have them. To secure large rallies of the sort that Mr Trump loves, the service relies on the support of local police agencies. In this case, police officers from Butler County and from two neighbouring counties were assisting. But poor communications and co-ordination

Hardly a toss-up

United States 2024 presidential election, chance of winning*, %



▶ seem to have limited their effectiveness.

Crooks was in fact noticed and reported as a suspicious presence by police officers from Butler County nearly 30 minutes before he fired his gun. Between then and the shooting, numerous people in the crowd also spotted him climbing onto the roof with his rifle and reported it. Minutes before, a Butler County police officer was being hoisted onto the roof where Crooks was perched and he was confronted by the young man's rifle muzzle. "Rightfully and smartly, the officer let go," the county sheriff, Michael Slupe, told CBS. Yet snipers still did not shoot until after Crooks fired. One reason may be that, because of the panoply of agencies involved, all in different uniforms, they did not realise that the man in their sights was not a colleague.

Why wasn't somebody on the roof in the first place? In an interview with ABC News on July 16th Kimberley Cheatle, the director of the Secret Service, seemed to suggest that health-and-safety regulations were the reason. "There's a safety factor that would be considered...we wouldn't want to put somebody up on a sloped roof. And so, the decision was made to secure the building from inside," she said.

That admission seems likely to haunt her. Ms Cheatle is expected to testify in front of a House committee on July 22nd. For now she has the "100%" confidence of Alejandro Mayorkas, the secretary of homeland security, and she says she is staying in post. Republicans are exerting pressure on her to resign. The idea that safety rules might have prevented an agent being placed on a roof will not help her.

Other criticisms she has faced seem more cynical. "One thing I've seen is massive DEI hires," said Cory Mills, a Republican congressman from Florida, on Fox News. DEI means "diversity, equity and inclusion", and the accusation seems to be that hiring women has weakened the Secret Service. Three female agents were in the crowd who surrounded Mr Trump immediately after the shooting, and one seemed to briefly struggle with her holster. But former members of the service do not see fault in that part. "My initial response was that the agents in and around the president there did a pretty good job," says Robert McDonald, who now teaches at the University of New Haven.

Whatever Ms Cheatle's fate, the size of the Secret Service seems sure to grow. Its budget is already \$3bn, an amount equivalent to half the entire budget of the New York City Police Department. But America is a country awash with high-powered rifles and people who know how to use them. In many places, carrying them around in public is legal. A shooter only has to get through once. The most important Americans will get more protection. Everyone else takes their chances. ■



Thomas Matthew Crooks

Day of the jackals

BETHEL PARK

What was the motive of Donald Trump's would-be assassin?

BY 8.45AM ON July 15th, the stretch of Milford Drive that was home to Thomas Matthew Crooks, the 20-year-old who shot at Donald Trump, is already host to a traffic jam. Outside the Crooks family's home, dozens of journalists were setting up camp. Not much was happening. The vibe was that of a pride of lions lolling in the midday sun.

The world's media were trying to answer a question that has so far eluded the even more numerous ranks of the Federal Bureau of Investigation: exactly what led Crooks, who worked at a nearby care home, to drive to Butler, a town 40 miles north, climb onto a factory roof with his father's rifle and shoot half a dozen or so bullets in the direction of the Republican presidential candidate?

Any movement stirs the journalist pack, which hopes for some new detail. On the porch of the house opposite, Kelly Little (pictured), wearing a hoodie advertising the "Ann Arbor hash bash", with a large picture of a cannabis leaf at its centre, is one of the only residents to have returned to the street. Two FBI agents arrive, interview her and leave. Immediately the press pack jumps at the chance to find out what they asked. She offers disappointingly little. She says the agents asked her the same thing the reporters did—what does she know about the family opposite? And she gave the same answer: she knows nothing.

She is hardly alone in that. Interviews

with Crooks's schoolmates suggest he was a quiet young man who was good at maths and interested in politics. But few seemed to know him well. He may have been bullied at school, or he may not have. Public records reveal he was registered as a Republican. But he left no "manifesto" or message behind, and he also donated \$15 at one point to a liberal political action committee.

Bethel Park hardly seems likely to drive anybody to violence. "It's a great community," says Jack Allen, the mayor. He is a Republican, but he says that politics scarcely enters into local government. "The overall split is about 50/50, Democrats and Republicans," he says, and he claims he cannot remember which of his colleagues on the municipal council are from which party. Walking around, your correspondent counted two Trump 2024 signs but also two rainbow "all are welcome" flags. American flags easily outnumbered both.

But then, the words "a quiet suburb where nothing happens" have been intoned by news anchors at the scenes of tragedies thousands of times before. There have been 300 mass shootings so far this year in America, according to the Gun Violence Archive, which tracks them, and five since Mr Trump was shot at. That Crooks's bullets came so close to killing a presidential candidate makes this incident rare. But shootings are happening all of the time.

Trump's classified-documents case

Courting chutzpah

NEW YORK

A maverick judge's ruling in Florida helps the former president

A WELCOME PIECE of news arrived for Donald Trump on the first day of the Republican National Convention. The criminal case against him for allegedly removing classified documents from the White House (and piling them in, among other places, a ballroom and bathroom at Mar-a-Lago, his Florida home) was thrown out by the presiding judge. Higher courts will probably look askance at the ruling, but it means that Mr Trump's tactics have pushed his trial past the November election—if it ever begins at all.

Judge Aileen Cannon, appointed by Mr Trump in 2020, has been stretching out the calendar in the first of two lawsuits styled *United States v Trump* since she was randomly assigned to the case in June 2023. This week's ruling contends that the prosecution was illicit from the start. Jack Smith, the special counsel, was installed in violation of the constitution's "appointments clause", which requires "officers of the United States" to be nominated by the president and confirmed by the Senate.

The "critical constitutional restriction" on appointing officers is fundamental to America's separation of powers, Judge Cannon writes. To allow Merrick Garland, the attorney-general, to tap a private citizen as special counsel "usurps" Congress's role and dismantles a "structural liberty". The 93-page opinion is technical and thorough. Yet the veneer is misleading. The ruling is novel, it manhandles precedent and its implications are sweeping.

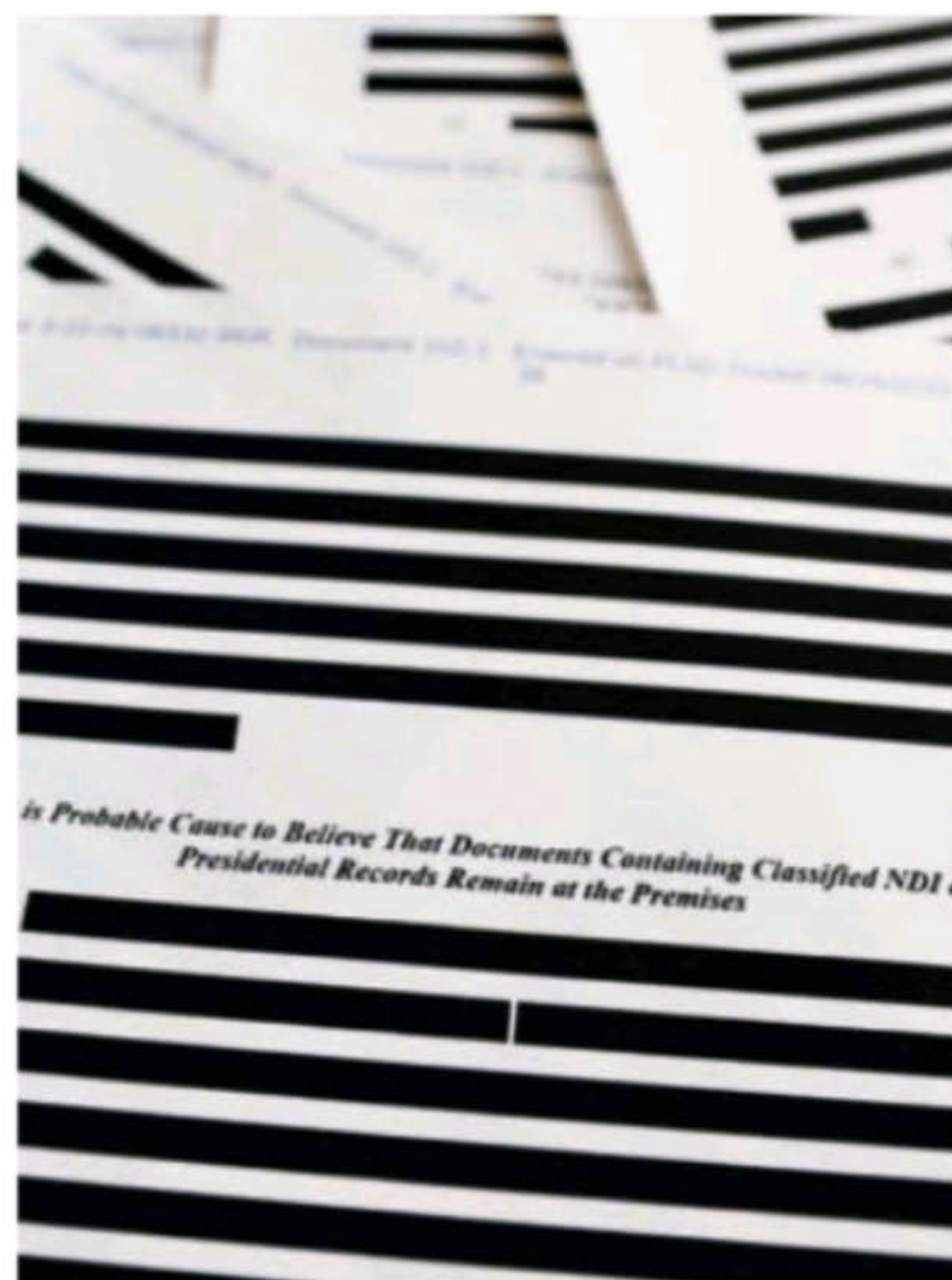
Attorneys-general have long been appointing special counsels with limited pushback and less judicial eyebrow-raising. Defending Mr Garland's naming of Mr Smith, the government pointed to two laws empowering such moves—taken when the impartiality of an investigation by the Department of Justice itself might be questioned. According to Title 28, section 533 of the US Code, the attorney-general "may appoint officials...to detect and prosecute crimes against the United States". Section 515 provides that lawyers "specially appointed" by the attorney-general may "conduct any kind of legal proceeding".

For Judge Cannon, neither suffices as a legal basis for Mr Smith's appointment. She says it is "implausible" that Congress meant to "wedge appointment power for special counsels" into a statute that primarily concerns lower-level personnel. And, she reckons, Section 515 involves "al-

ready-retained attorneys", not a "new appointment power". Judge Cannon acknowledges that her interpretations differ from those of judges who have confronted the question in the past. Jurists on the District of Columbia Circuit Court of Appeals may have upheld special-counsel appointments in 1987 (for Lawrence Walsh in the Iran-Contra affair) and 2019 (for Robert Mueller's investigation of Russian interference in the 2016 election), but their analysis just wasn't good enough, it seems.

Judge Cannon then takes a red pen to a line in *United States v Nixon*, the Supreme Court decision involving the Watergate tapes. When the justices wrote that Congress empowered the attorney-general to "appoint subordinate officers to assist him in the discharge of his duties", they weren't announcing the law but writing "dictum"—basically, just jabbering. That turn is especially jarring in light of Judge Cannon's reliance on last month's concurring opinion by Justice Clarence Thomas in the other *United States v Trump*, the election-subversion case. Justice Thomas says there that Mr Smith may have been appointed illegally, and Judge Cannon follows his lead. But unlike *US v Nixon*, which was unanimous, Justice Thomas's musings are his alone and do not carry the force of law; none of his eight colleagues co-signed his opinion.

At the 11th Circuit Court of Appeals, to which the government has said it will appeal, Judge Cannon's ruling will probably face scepticism. That court, conservative as it is, has dressed her down for previous missteps. But the appeal will take months, may end up at the Supreme Court and will matter only if Mr Trump loses the election. Otherwise, charges for his document-stuffed bathroom and post-election plotting alike will disappear soon after the defendant takes his second oath of office. ■



Redaction ad absurdum

Bidenworld

Dem dilemmas

NEW YORK

Momentum to oust Joe Biden as the Democrats' nominee is mounting again

WINSTON CHURCHILL'S maxim that "nothing in life is so exhilarating as to be shot at without result" has a political corollary: when a presidential candidate survives an assassination attempt, it can have a rallying effect. Exhilarated Republicans made a display of this in Milwaukee, where the party formally chose Donald Trump as its presidential nominee.

The attack on July 13th has also affected Democrats, who have been in turmoil since President Joe Biden's catastrophic debate performance last month. It disrupted the effort within the party to replace Mr Biden as its nominee. After the shooting, the atmosphere of shock made it untenable for Democratic rebels in Congress to advance their attempt to challenge Mr Biden's candidacy. For a few days, no new House member or senator publicly called on the president to step aside.

Meanwhile, the president and his allies played for time. The strategy seemed to be working. Two weeks ago PredictIt, a political betting market, signalled that Mr Biden was more likely than not to be replaced. On July 16th it gave him a 70% chance of being the nominee. But Mr Biden has now said he would reconsider his campaign if doctors told him he had some medical condition. On July 17th he tested positive for covid-19. And his chances on PredictIt plunged again, to 38%.

Some Democrats held out hope that a fresh attempt to change candidates might be possible after Republicans wrap up their convention, if new polls showed Mr Trump with a larger lead than he already enjoys. Mr Biden has consistently waved off poll data. On July 15th, in an interview with Lester Holt of NBC News, he sounded almost Trumpian in his denial of reality: "There's no wide gap between us. It's essentially a toss-up race."

In private, however, it appears that the Democrats' leaders in Congress, Senator Chuck Schumer and Hakeem Jeffries, have made their concerns clear in separate meetings with Mr Biden. Nancy Pelosi, a former House speaker, is also said to have told the president about the perils facing Democrats if he stays in the race. And on July 17th Adam Schiff, an influential congressman from California who is running for a Senate seat (and is probably worried about Democrats' prospects in several competitive House races in the Golden State), joined the chorus calling for Mr Bi-



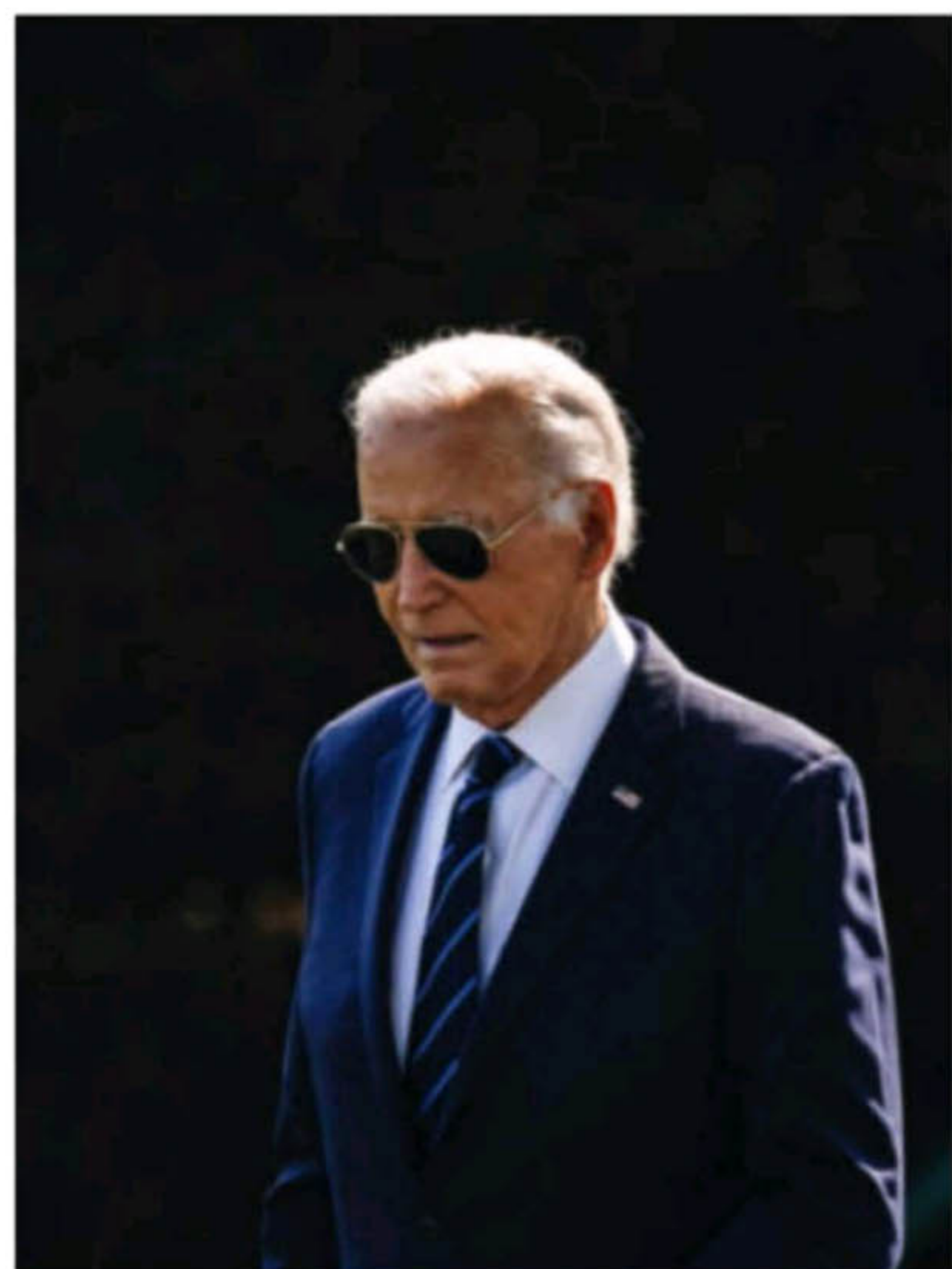
den to drop out. Pressed by Messrs Schumer and Jeffries, Mr Biden's allies in the party have delayed by a week their plans to hold an online delegate vote ahead of the Democratic National Convention in Chicago in August. Once Mr Biden is formally nominated there would, realistically, be no going back.

As *The Economist* went to press, the pressure on Mr Biden was rapidly mounting. Even assuming that he remains the Democrats' nominee, he will have to consider how, in the aftermath of last Saturday's attack, he can continue to call out Mr Trump over the threat that his restoration to the White House would pose to American democracy. Republicans led by J.D. Vance immediately blamed Mr Biden's campaign messaging for fostering the assassination attempt.

In the NBC interview this week, Mr Biden apologised for a recent comment he made on a private call to donors in which he said it was "time to put Trump in a bullseye". Yet he pivoted to attack Mr Trump for predicting a "bloodbath" if he loses in November. So much for calm and unity.

Mr Biden's chances of victory have greatly diminished, but they have not vanished. He cannot undo his debate failure, reverse the ageing process or prevent the media from focusing on his frailty. But he can return to fundamentals by drawing a clear contrast between his record and the radicalism of Mr Trump and his running-mate, Mr Vance. He can lay out policies for a second term and encourage the grassroots movement mobilising to defend abortion rights.

The past three weeks have provided a reminder that American presidential campaigns—indecently long—are intrinsically unstable and vulnerable to sudden turns of fortune. And it is only July. ■



A matter of time

Politics for profit

Bob you're uncool

NEW YORK

Senator Bob Menendez is found guilty of corruption

"THIS CASE HAS always been about shocking levels of corruption," said Damian Williams, the federal attorney for the Southern District of New York. Even by New Jersey standards—and corruption is embarrassingly common in the Garden State—the allegations were indeed stunning. Bob Menendez, New Jersey's Democratic senior senator, received hundreds of thousands of dollars in bribes in the form of cash, a Mercedes-Benz, mortgage payments and gold bars. On July 16th a jury found him guilty of 16 federal charges, which included bribery, fraud, conspiracy, obstruction of justice and corruption.

There was more. Perhaps most damning, Mr Menendez was found guilty of acting as a foreign agent and sharing sensitive information with Egypt and Qatar while using his influence as chairman of the powerful Senate Foreign Relations Committee. Mr Williams told reporters after the verdict that "this wasn't politics as usual—this was politics for profit."

Political corruption is not new to New Jersey. Harold Hoffman, a popular governor in the 1930s, confessed on his deathbed that he had stolen \$300,000 from the state treasury while in office. Scores of public officials have been convicted of corruption in New Jersey, including mayors, state lawmakers, congressmen and senators. Mr Menendez continues that tradition and then some. (He is adamant that he did nothing wrong and intends to appeal.)

During the nine-week trial, the prosecution laid out a convincing case detailing how Mr Menendez committed corruption, sometimes directing his wife Nadine to act as an intermediary. They showed text messages, sometimes written in code, that he and Mrs Menendez wrote to each other. His lawyers, meanwhile, pointed the finger at his wife, blaming her for any perceived shadiness. This tactic left a bad taste in the mouths of many New Jerseyans, and possibly the jury's. Mrs Menendez is also charged with multiple counts of conspiracy, fraud and corruption, but her trial has been postponed indefinitely while she undergoes treatment for cancer.

Using fingerprints and DNA evidence, prosecutors traced thousands of dollars in cash from Mr Menendez to one of his two co-defendants, who were also found guilty on all counts. Serial numbers on some of the gold bars could also be traced back. The defence lawyers tried to explain away

the piles of cash that the FBI found at Mr Menendez's house—some of which had been stashed in jacket pockets, a boot and a plastic bag—by saying that hoarding money was part of his culture. They also said he was merely helping his constituents, not interfering in their criminal cases; and that he received gifts, not bribes, from his co-defendants. As for helping Egypt and Qatar, the information he shared with those countries was publicly available, they argued.

Mr Menendez may have hoped he was on firmer ground. He was indicted in 2015 on other corruption charges, but that trial ended in a hung jury in 2017. Courts in recent years, including the Supreme Court, have narrowed the definition of criminal bribery involving public officials. So his guilty verdict sends a powerful signal, says Micah Rasmussen of the Rebovich Institute for New Jersey Politics. "It is an interesting message to would-be corrupt politicians: no matter what else you've heard from the Supreme Court, we will still make the case against you."

Politically, the senator's career is over, even if he is successful on appeal. "In the eyes of his colleagues, he's clearly guilty," says Ashley Koning of the Eagleton Institute of Politics. Mr Menendez voluntarily gave up his chairmanship after the indictment but, remarkably, remains a senator, still sits on the Foreign Relations Committee and is running as an independent for re-election in November. "There really is no set rule for what happens" after a politician is convicted, says Daniel Weiner of the Brennan Centre, a think-tank.

Now that the guilty verdict is in, Chuck Schumer, the Senate majority leader, has called on the senator to step down and "do what is right for his constituents, the Senate, and our country and resign". As Mr Weiner says, "It is a bad look to have a member of your caucus who is a convicted crook." Typically, if someone is convicted of a serious crime they resign under pressure. Expulsions are vanishingly rare. But if Mr Menendez refuses to go, that last disgrace may well await him.

If the seat is vacated Phil Murphy, New Jersey's governor, will appoint an interim senator. Andy Kim, the front-runner in the Senate race who comfortably won the Democratic primary last month, said he would accept the seat if offered. He has promised to restore integrity to the job. ■

LEXINGTON

The truly imperial presidency

Prosecuting Donald Trump strengthened him and led to constitutional protections for presidents, not citizens



TO PRESIDENT JOE BIDEN, former President Donald Trump and his “MAGA Republican extremists” are a threat to “the very foundations of our republic”. Democrats once insisted that prosecuting Mr Trump for his conduct as president would illuminate his menace and bar him from the office. For their part, federal prosecutors have never given a hint of partisan objectives; they wanted to vindicate the principle that no one is above the law.

As Mr Trump acquires the Republican presidential nomination for a third time, these political and legal aspirations are disintegrating. Prosecuting Mr Trump boosted him politically. It rallied Republicans to him in the primaries and, perversely, helped him redirect the very charge that he threatened democracy to Mr Biden by falsely claiming the president was “weaponising” the Department of Justice. And, as of this month, prosecuting Mr Trump has resulted in a new constitutional standard that presidents can, in fact, forever be uniquely beyond the reach of the law. The political and legal consequences are converging to probably make Mr Trump—now the victim of that most antidemocratic of acts, an attempted assassination—the first president to begin a term with this new understanding of unassailable executive power.

It is honourable, if puzzling, that Democrats retained enough faith to expect a different legal outcome. Did they not believe their own warnings about conservative capture of the Supreme Court? Its ruling on July 1st in *United States v Trump* undercut the federal and state prosecutions of Mr Trump by asserting broad immunity for presidents who commit crimes in office. Beyond the immediate implications for this election, the decision clarified this court’s view of the capacious scope for the use not only of a president’s power, but of its own.

In the court of public opinion, prosecuting the case against Mr Trump as a threat to democracy has always made more sense as a way for Mr Biden to excite core supporters than to appeal to a broad majority. Polls have consistently shown that Americans are more worried about matters such as the economy and immigration—matters the Republicans emphasised at their convention—than abstract threats to democracy. When voters are pressed about democracy, their views do not necessarily favour the presi-

dent. A poll in six swing states by the *Washington Post*, published in June, found that 44% of voters thought Mr Trump would do a better job of handling “threats to democracy in the US”. Just 33% felt that way about Mr Biden. That may have had less to do with any analysis of each man’s values than with Mr Trump’s own core argument, that he is strong and Mr Biden is weak. Regardless, it suggested Mr Biden was not persuading enough people that Mr Trump threatened democracy.

And yet though Mr Biden can point to real policy achievements he continues to reprise his pitch of the last campaign, that he is out to save “the soul of the nation”. When Mr Trump announced Senator J.D. Vance as his running-mate, Mr Biden’s campaign attacked him by saying first that he “will do what Mike Pence wouldn’t on January 6th,” before describing his opposition to abortion rights. Since, unlike Mr Trump, Mr Biden has yet to present a detailed domestic agenda for a second term, voters may be wondering if all the talk of democracy is a distraction.

The president is in a bind. Whereas Mr Trump’s victories in the primaries and the attempt on his life unified Republicans, Mr Biden is waging an intraparty struggle to cling to his own nomination. He has been shoring up support on the left, which argues against boasting about his recent success in blocking illegal immigration and instead falling back on warnings about Mr Trump. It is surely no coincidence that, according to the *Washington Post*, Mr Biden chose to reveal to the Congressional Progressive Caucus on July 13th that he plans to propose an overhaul of the Supreme Court, possibly including a constitutional amendment to eliminate the presidential immunity created by *United States v Trump*.

The idea, which would face long odds of passage, gives the measure of how deep a hole Mr Biden believes the prosecutions of Mr Trump have accidentally placed the country in. In a potent dissent against the court’s ruling, Justice Sonia Sotomayor reeled off crimes she feared presidents could now commit with impunity, from ordering assassinations to organising coups. But in writing for the majority, Chief Justice John Roberts conjured up a different fear, not of presidents but for them, of “the more likely prospect of an executive branch that cannibalises itself, with each successive president free to prosecute his predecessors”.

Faction or fiction?

Chief Justice Roberts worried not about lawbreaking but about vindictive prosecution. “Such types of prosecutions of ex-presidents could quickly become routine,” he warned. “The enfeebling of the presidency and our government that would result from such a cycle of factional strife is exactly what the framers intended to avoid.” He had a point: cycles of factional strife are the dizzying output of this polarised era. This decision may have done as much to protect Mr Biden as Mr Trump.

But at what cost? Chief Justice Roberts wrote that fear of prosecution might leave a president “unable to boldly and fearlessly carry out his duties”. Yet for more than 200 years presidents had no reason to assume they were immune. Despite that, as Justice Clarence Thomas wrote in a concurring opinion, “numerous past presidents” took actions “that many would argue constitute crimes”. Equipped with this new shield of immunity, what might a president of low character do? The court has acted to protect presidents from one another. Other Americans may not prove so lucky. Mr Trump may well pose a threat to democracy; prosecuting him, it turns out, already has. ■

The Americas



Brazil's economy

Lula points to a spending binge

SÃO PAULO

The finance minister's unequal battle to bring order to the public accounts

IN THE YEAR to mid-June Brazil's currency, the real, fell against the dollar by 17%, the worst performance of any major currency over this period. The São Paulo stockmarket lost 8% of its value even as other emerging markets rallied. The reasons for this slump are not hard to divine: investors doubt the commitment of Luiz Inácio Lula da Silva, the left-wing president, to responsible fiscal and monetary policies, and mistrust his renewed flirtation with a big state. Their worries now seem to have been heeded, at least partly. This month both Lula and his politically influential wife, Rosângela "Janja" da Silva, went out of their way to back Fernando Haddad, the finance minister, and his efforts to cut the fiscal deficit. Markets have responded: the real has gained about 5% from its low at the start of the month and the stockmarket has risen too.

But the signals are mixed. Lula's government is spending lavishly and he often

seems reluctant to rein that in. He has been meddling in state-controlled companies. He has frequently sniped at Roberto Campos Neto, the president of the central bank, which has been formally independent since 2021. Mr Campos Neto's term ends this year, along with that of two of the bank's eight other board members. The government will be able to replace them, if the Senate approves. That means that six of the nine members of the board will have been appointed by Lula.

The immediate worry is fiscal. After two years of primary surpluses (ie, before interest payments), the IMF reckons that Brazil racked up a primary deficit of 2% of GDP in 2023, Lula's first year back in office

(he was president from 2003 to 2011). The fund thinks this will fall to 0.7% this year. The problem is that because fiscal policy has been loose, to control inflation monetary policy must be tight. That in turn means that the overall deficit—which includes interest payments—has widened to 9.4% in the 12 months to June, compared with 5.8% for that period in 2022-23, according to Goldman Sachs. This is pushing up the public debt, which has risen from 60% of GDP in 2011 to 85% today and may reach 95% by 2029, according to the IMF.

Part of the deficit's rise in 2023 can be blamed on Jair Bolsonaro, Lula's hard-right populist predecessor. On his watch Congress grabbed more spending powers, doling out subsidies to special interests and federal money for election campaigns. To try to win re-election in 2022, Mr Bolsonaro scrapped fuel taxes and ramped up welfare payments. He also put off paying *precatórios*, which are court-ordered payments in disputes over taxes or pensions. Since the end of 2023, the government has had to pay almost 90bn reais (\$16bn or 0.8% of GDP) in *precatórios*.

But most of the increase in the deficit is not inherited. Spending so far this year has risen by 13% in real terms compared with the same period last year. This excludes interest payments. Lula has further expanded transfers to Brazil's poor. He raised the

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▶ minimum wage, to which many state pensions and social benefits are linked, by more than inflation. Spending on social security is up 10% year-on-year, driven by a suspicious rise in the number of disability claimants. The government has changed the rules to link spending on education and health to the rise in federal revenues rather than inflation. That change alone raised spending on health by 50bn reais in the past year, according to Marcos Mendes of Insper, a university in São Paulo. Catastrophic floods in the south of the country also pushed up outlays. Lula has also announced new industrial policies which are set to cost \$1.3trn reais cumulatively by 2026, around a tenth of GDP. He appointed an ally to run Petrobras, the state-controlled energy firm, raising fears of a return to past mismanagement.

To stabilise the debt, last year Lula's finance minister, Fernando Haddad, set out a new fiscal rule that caps the rise in government spending at 2.5% in real terms per year (excluding interest payments). He pledged to eliminate the primary deficit this year and post primary surpluses of 0.5% of GDP in 2025 and 1% in 2026. But in April, after it became clear that spending was outstripping revenue growth, Mr Haddad asked Congress to loosen the targets. Investors worry that the government is not serious about balancing the books.

Those fears have been amplified by Lula's criticism of the central bank. Last month his Workers' Party filed a lawsuit against Mr Campos Neto, aimed at barring him from making political statements. The lawsuit was filed after Mr Campos dined with Tarcísio de Freitas, the conservative governor of São Paulo state and a potential challenger to Lula in the next presidential election. At that dinner Mr Campos was allegedly offered the post of finance minister if Mr Freitas becomes president (though he denies this). This outside pressure makes it harder for the central bank to lower its interest rate, currently at 10.5%, as inflation comes down (it is around 4% annually). In real terms, that is one of the highest bench-

mark rates in the world.

Mr Haddad's defenders say he is doing his best to keep the public accounts in order despite hostility from his own party. But so far he has done this by raising revenues, which are up by 10% in real terms this year. He has taxed offshore investment funds, raised tariffs on imported vehicles and reinstated fuel taxes. On July 3rd Mr Haddad sat down with the president and appeared to have convinced him to desist from sniping at Mr Campos.

The minister has said he will go through social-security payments with a "fine-tooth comb", which could lead to savings of 25bn reais next year. On July 22nd he is expected to announce budget cuts. To keep even the diluted fiscal rule on track, these must amount to at least 23bn reais, says Mr Mendes. Mr Haddad has floated the idea of linking both education spending and pensions to inflation. Lula has rejected this. "What's important is that the

economy is growing, employment is growing, wages are growing," he said this week.

The risk is not of an immediate financial crisis. The central bank has \$360bn in reserves, making it resilient to global shocks. Almost all the public debt is in local currency. Labour, pension and tax reforms approved over the past seven years are providing some boost to growth, which, while modest, has beaten forecasts. For better or for worse, Brazilians are past-masters at fiscal brinkmanship.

But there is no room for complacency. The population is ageing and the pension bill, which already gobbles up 44% of federal spending, will rise further. Productivity is stagnant, education deficient and infrastructure shoddy. Both the president and Congress seem wedded to the notion that high commodity prices, cheap money from state banks and subsidies to favoured businesses will revive Brazil. There is little evidence to suggest they will. ■

Peru

Congress rules

LIMA

The president survives because she's not in charge

IN RECENT times Peru has become accustomed to impeachment attempts, threats to dissolve Congress and accusations of coup-mongering in relentless battles between the president and the legislature. Yet the past year has seen an eerie peace between Dina Boluarte, the president since December 2022, and Congress. That is because both are deeply unpopular. Pollsters give Ms Boluarte an approval rating of just 5%, the lowest in the Americas.

She has never been loved. She came to office because she was the vice-president of Pedro Castillo, a leftist impeached and arrested because he declared a coup against Congress and the courts. Her first weeks were marked by sometimes violent protests in which security forces killed around 50 demonstrators. The economy has languished on her watch, while crime and poverty have risen. Formerly a low-paid bureaucrat, she has struggled to explain her penchant for Rolex watches.

Initial demands for early elections have faded, as have calls for the president's impeachment over the Rolexes (she says they were "loans"). Why does she survive? The short answer is that she is not running the country; those in charge are the right-wing and centrist lawmakers who run Congress, which itself has an approval rate of just 4%. Since Ms Boluarte lacks a vice-president, the constitution requires that if she falls,

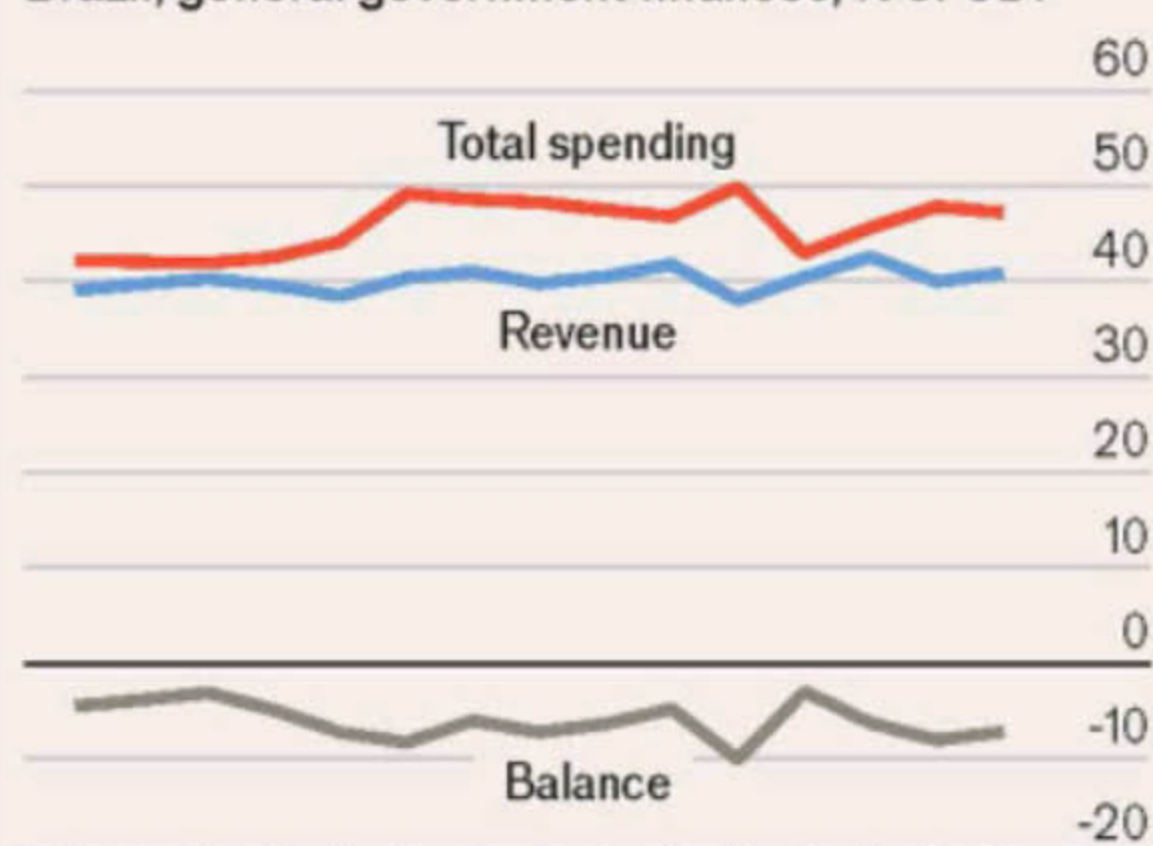
Congress must call an election. But its members have no desire to cut short their term and the lavish salaries and perks they command.

While Ms Boluarte often has nothing scheduled in her official diary, lawmakers are busy. They have sought to oust the members of the board that oversees the judiciary and have passed counter-reforms that dismantle previous efforts to strengthen institutions and the rule of law. Congress has repealed a law to curb illegal mining, neutered a body tasked with regulating for-profit universities that cater to poorer students, and allowed thousands of schoolteachers who have failed basic tests to return to classrooms.

Some of the new laws have merit. Congress has repealed a ban, approved by referendum in 2018, against its members standing for consecutive terms. That was popular but misguided: politicians were denied a career and voters could not hold them to account. The result: more than half of the current 130 are suspects in criminal probes, according to *La República*, a newspaper. The mining law was ineffective: there are now around 700,000 illegal miners in Peru. But many of the changes are self-serving. One involves a new law cutting fines for parties that fail to report campaign expenses, a boon to politicians who use them to enrich themselves. ▶▶

Forever deficits

Brazil, general government finances, % of GDP



Source: IMF

*Forecast

► The constitutional court, too, has added to the legislature's power after Congress appointed new justices to it in 2022. One of its decisions has allowed Congress to initiate new spending measures, which the constitution itself bans. That is bad for Peru's hard-earned fiscal credibility. Lawmakers have approved almost 50bn soles (\$13bn) in off-budget spending so far, according to the fiscal council, an official advisory body. In the past the economy ministry tended to curtail lawmakers' populist whims. But it kept quiet as Congress awarded bonuses for pensioners and judges, drew up regressive tax breaks and ignored its own limit for the fiscal deficit. "There's no longer an adult in the room," says Alonso Segura, a former finance minister who heads the council.

Earlier this month Congress passed legislation to exempt from prosecution crimes against humanity committed before 2002. That is contrary to international human-rights law. The best-known beneficiary is Alberto Fujimori, who ruled Peru as an autocrat from 1990 to 2000. The measure would quash his conviction for orchestrating the killing of 25 civilians while president. But prosecutors say it would also force them to close 600 cases of murder, torture and rape stemming from the battle between the security forces and the Shining Path, a Maoist terrorist group, in the 1980s and 1990s. Ms Boluarte has already defied the Inter-American Court of Human Rights by releasing Mr Fujimori from prison after a local court upheld a pardon.

Many Peruvians hope that the next election, due in 2026, will bring better leadership. The omens are not good. More than 30 parties plan to take part. Improbably, Mr Fujimori, who is 85, says he plans to run again. And the next president will face an empowered Congress. ■



A president with time on her hands

Bitcoin mining in Paraguay

Pulling the plug

ASUNCIÓN

The government promises a crackdown on cryptocurrency cowboys

THE COUNTRY is used to drug busts and bank heists. But the hooded gunmen who recently burst into a warehouse in Minga Guazú, in Paraguay's rural east, weren't after cocaine, weed or cash. Instead they sped off with 150 sophisticated computers that had been secretly hooked up to the grid. The shaken caretaker called the police. But when they came, he declined to reveal who owned the clandestine bitcoin-mining operation.

In recent years, Paraguay has become a mecca for bitcoin miners. So-called "cryptocurrency farms" are springing up inside disused factories, half-finished tower blocks, and containers on cattle ranches. Paraguay's taxes are ultra-low, its politics are predictable, and the necessary gadgets can be imported inexpensively, explains Fernando Arriola of the Paraguayan Fintech Chamber, a lobby group. In addition, the legal system is rickety and, above all, the country has cheap electricity to burn. Though poor, small in population and short of manufacturing, Paraguay owns half the output of Itaipú, a colossal hydroelectric dam it shares with Brazil. Miners are allowed to use this spare power to generate digital assets like bitcoin, provided they pay a set tariff to ANDE, the state energy firm. Some 50 companies do so.

Others prefer not to. ANDE says that power worth some \$60m a year, enough to light up a city, is stolen by unlicensed miners. This annoys many Paraguayans. The country's creaking transmission lines are increasingly overloaded. Asunción, the capital, suffers from regular power cuts, causing food to rot and office workers to broil in the sub-tropical heat.

Public anger has prompted the government to declare what an official calls an "all-out attack" on crypto cowboys. On July 10th the Senate approved a law to sentence energy thieves to up to ten years in jail. Since 2019 ANDE has shut down 71 illegal bitcoin farms, but until now few of their owners have faced serious punishment.

The government is friendlier towards miners who play by the rules and to other energy-intensive industries. While a quarter of Paraguayans still cook with firewood, Santiago Peña, the president, talks of his country becoming a "centre of digital integration" for Latin America and the world. He would like it to host the power-guzzling data centres used by artificial-intelligence software and an internet cable link-

ing the Atlantic and Pacific. There are plans, too, for plants generating hydrogen and ammonia via electrolysis, and for a wood-pulp mill costing \$3bn. The fintech lobby is working with legislators from Mr Peña's party, the Colorados, to draft a bill to regulate the mining of cryptocurrencies, though it would not make them legal tender, as in El Salvador.

This is meant to win over wary foreign investors and banks. "It's going to be halal and kosher," promises Mr Arriola. Under the 1973 Itaipú treaty, Paraguay has to sell its leftover electricity to Brazil cheaply. Better, officials argue, to use it to mine crypto at home, generating jobs and cash.

Not everybody agrees. Under a previous administration in 2021, the ministry of industry and business reported that crypto mining generated few benefits. The central bank warned that it could be used to launder drug money and finance terrorism. Hizbullah, a Lebanese militant group backed by Iran, is thought to have raised funds among the Lebanese diaspora in Ciudad del Este, Paraguay's second city.

Crypto mining "deepens the extractivist model" of Paraguay's economy, from which only a select few benefit, argues Lis García, co-author of a report by TEDIC, a local think-tank. And like the country's big soyabean and cattle industries, hydroelectric output is vulnerable to climate change. The country has recently been scorched by drought and heatwaves. As these worsen, Itaipú will produce less energy. The cooling systems required by crypto farms will demand more. Official projections suggest Paraguay's electricity surplus will be used up by as early as 2030. "The outlook is alarming," warns Ms García.

Paraguay's pervasive corruption means that many rogue crypto barons may escape the threatened crackdown. ANDE has admitted that it is investigating claims that seven of its engineers illegally installed crypto farms, complete with their own power transformers. Senators want to quiz ANDE's president about electricity thefts and a recent rise in the tariff for legal users.

In May police and prosecutors made the country's biggest bitcoin bust to date, near the border with Brazil. They found more than 2,700 computers on shelves, strewn across the ground or on a getaway truck. The criminal crypto compound had been operating less than three kilometres from ANDE's local substation. ■

Asia



Sino-Indian tensions

From break-up to make-up?

DELHI

India and China had a bitter rupture in 2020. Under Modi 3.0 conciliation is in the air

ASK AN INDIAN diplomat about relations with China and they will repeat a well-rehearsed mantra: there can be no return to normality until peace is restored on their disputed Himalayan border. That has been the official line for most of the time since 2020, when a deadly clash occurred there between Indian and Chinese troops. On the face of it, India's stance is a rejection of China's suggestion that the two countries should set aside the dispute, which has pushed India closer to America, and focus on areas of mutual interest.

Relations are indeed still far from their pre-2020 normality. And they are unlikely to return to it soon. Even so, there has been a quiet yet notable shift in recent months towards a new phase of relations defined by border stability and closer commercial ties. The shift reflects India's urgent need for Chinese technology, investment and

expertise to meet its immediate industrial needs. It is also based on China's mounting concern about its own economy and escalating trade barriers worldwide.

The first sign of the shift came in November last year, when Indian restrictions on visas for Chinese professionals in some industries were relaxed. That was followed by a softening of rhetoric on China from Narendra Modi, the prime minister. In an interview with *Newsweek* magazine published on April 10th, weeks before the Indi-

an election, Mr Modi described relations with China as "important and significant" and expressed hope that border stability could be restored. His defence minister, Rajnath Singh, said in late April that border talks were "progressive and satisfactory" and "no fresh tension has come up". Then in May a new Chinese ambassador, Xu Feihong, arrived in Delhi after a hiatus of 18 months in which China's embassy there operated without one. Mr Xu has since been on a charm offensive, meeting several members of the political elite.

China has also been unusually restrained in its public statements on India. Xi Jinping, China's leader, did not congratulate Mr Modi on his re-election in June. However, China gave a relatively low-key response when Mr Modi thanked Taiwan's new president, Lai Ching-te, for doing so (China claims Taiwan as its territory). And Chinese officials avoided criticising India after an American congressional delegation met the Dalai Lama, who it views as a separatist, there.

One reason for the recalibration is the apparent success of a new mechanism for managing border tensions. It relies on "buffer zones" where both sides withdraw troops and cease all patrols. Through 21 rounds of talks between military com- ▶▶

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— Banyan is away

manders, the two sides have already established such zones at five of seven flash-points and are discussing others, although their strategic importance makes them more contentious.

The other impetus for change is a recent surge of demand for Chinese technology in India, despite official efforts to reduce its economic dependence on its neighbour. After the clash in 2020, India's government banned 320 Chinese apps, launched tax raids on Chinese companies and introduced new rules requiring government approval for any Chinese investment. Bilateral trade dropped, and Indian officials joined Western counterparts in trying to "de-risk" supply chains.

And yet India's dependence on Chinese imports has only grown (see chart). In the 2023-24 financial year China edged past America to reclaim its position as India's top trading partner. India's imports from China increased to \$102bn (about 56% more than in 2020) out of a total \$118bn in bilateral trade. India's trade deficit with China has risen by around 75% since 2020.

More strikingly, China was India's biggest source of major industrial products in 2023, accounting for around 30% in categories such as electronics, machinery, cars, chemicals and textiles, according to a recent study by the Global Trade Research Initiative (GTRI), a Delhi-based think-tank. The study found that India's reliance on China was highest in imports of electronics, telecoms and electrical products, at 39%. Machinery was second, at 38%.

A year ago, "the narrative in India was that our imports from China are a worry", says Ajay Srivastava, an Indian former trade official who runs the GTRI. That narrative has changed over the past two or three months, he adds; now the dominant theme is that not only does India need Chinese products, but it needs Chinese companies to make stuff in India. Under pressure from some Indian firms, the government is planning to relax visa restrictions to allow in more Chinese technicians.

Indian public views of China remain

generally hawkish. Diplomatic relations are still touchy too: Mr Modi skipped a summit attended by Mr Xi and Russia's president, Vladimir Putin, in Kazakhstan in July. And a bilateral Xi-Modi meeting does not seem imminent. But commercial ties look set to expand further in the coming years, as Indian and Chinese companies form joint manufacturing ventures in India, which will probably import machinery and components from China. Many of these ventures involve big and influential Indian companies. They are also in industries such as electrical vehicles and mobile-phone assembly that the government is subsidising to boost manufacturing.

In one high-profile example, SAIC Motor, a state-run Chinese company that owns the MG Motors brand, announced a joint venture in November with India's JSW Group to produce electric vehicles in Mr Modi's home state of Gujarat. The venture has since committed to sell a million vehicles annually and capture a third of India's electric-vehicle market by 2030. JSW also plans to make electrical-vehicle batteries in eastern India, through a technology transfer deal with a Chinese manufacturer.

The trend suggests that some Western firms' efforts to shift manufacturing to India from China may not result in a clean break. Apple already produces about 14% of its iPhones in India. But the latest public list of Apple suppliers shows that several of its Chinese component-makers have started manufacturing in India. Several more may soon follow suit.

Chinese technology is also integral to India's infrastructure plans. A single state-run Chinese company, ZPMC, has already provided at least 250 of the cranes at Indian ports. Yet despite security concerns over these hi-tech cranes in India and America, private Indian port operators continue to install them. The Adani Group, one of India's biggest conglomerates and port operators, took delivery in May of the final six out of 24 such cranes for a new port it is building in Kerala.

On the military front, India continues to hedge against China by enhancing ties with America and its allies. It is also bolstering relations with Russia to try to offset China's growing influence there, as seen by Mr Modi's recent bear hug with Mr Putin. And India and China still compete for influence elsewhere in the world.

Still, like its Western counterparts, India's government has to balance the interests of military chiefs with those of business leaders, who argue that most alternatives to Chinese tech are too costly. Mr Modi will also be mindful that the recent loss of his party's majority in parliament was partly because of frustration over a shortage of high-quality manufacturing jobs. India's leader has good reason to fear China. For now, though, he needs it too. ■

Climate change

Too much and not enough

DELHI

Monsoons are becoming far more dangerous

IN THE EARLY hours of June 28th your correspondent was woken by an almighty crash of thunder. The other side of the street had vanished behind a wall of water: the monsoon had arrived in Delhi. By the end of the day, 23cm of rain had fallen on India's capital, three times more than it usually gets in the entire month of June, making it the rainiest 24 hours since 1966. The forecourt roof of a recently refurbished airport terminal collapsed, killing a taxi driver. Ten more people died in "rain-related incidents".

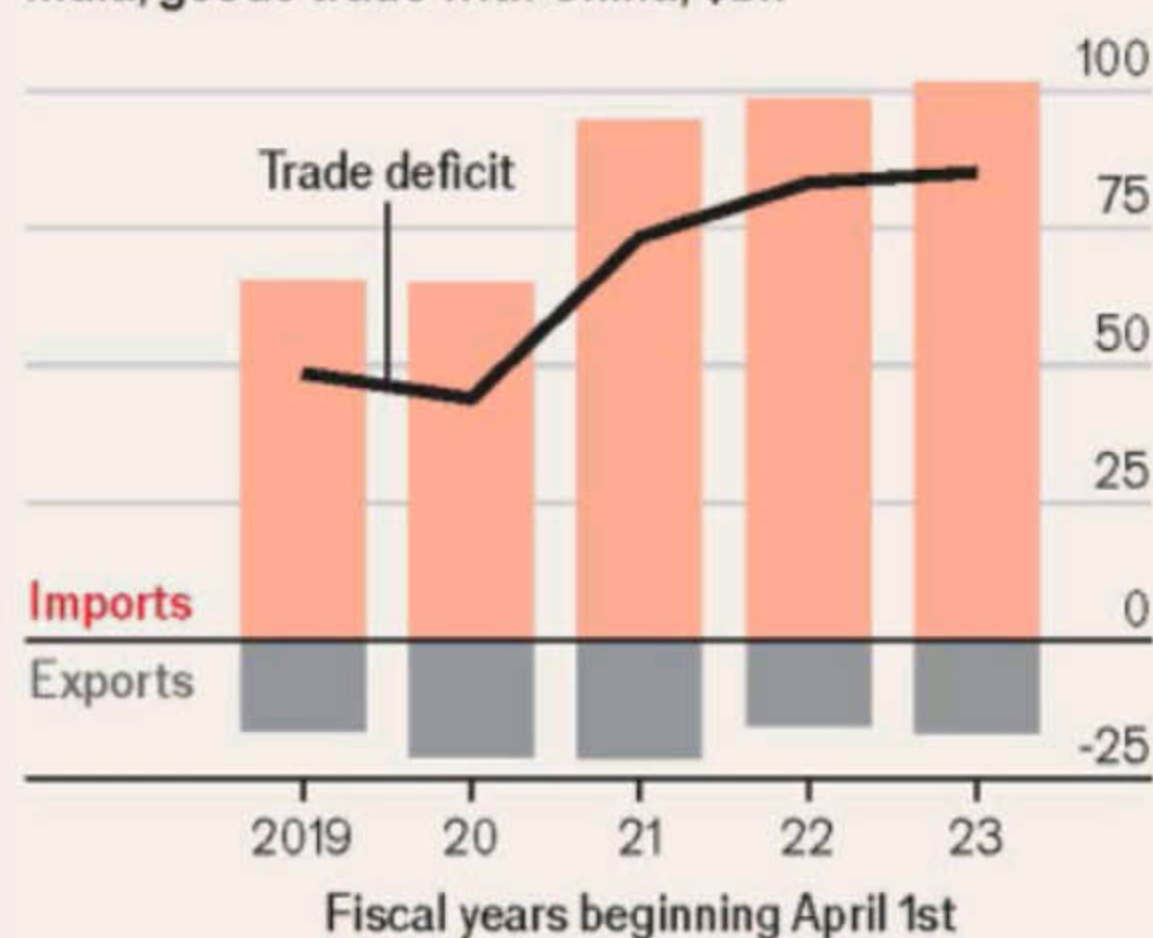
People in parts of India and South Asia can probably expect more days like this. Since the middle of the 20th century the number of "extreme rain days" (defined as more than 150mm of precipitation in 24 hours) in India has gone up. Global warming appears to be making the monsoon more variable. And as temperatures rise further, the monsoon's extremes could become more damaging.

In an ideal year the monsoon brings plentiful (but moderate) rain to India between June and September, irrigating crops and replenishing groundwater as it moves steadily northward from the country's southern tip. Of course, things are often different in reality. The monsoon is influenced by a huge range of factors, and has always been a notoriously tricky weather system to forecast. It often turns up in fits and starts. Long dry spells are followed by sudden deluges, which parched earth or city sewerage can struggle to absorb. But as the climate heats up, these variations seem to be growing more pronounced (see chart).

A warmer atmosphere can hold more »

Unequal partners

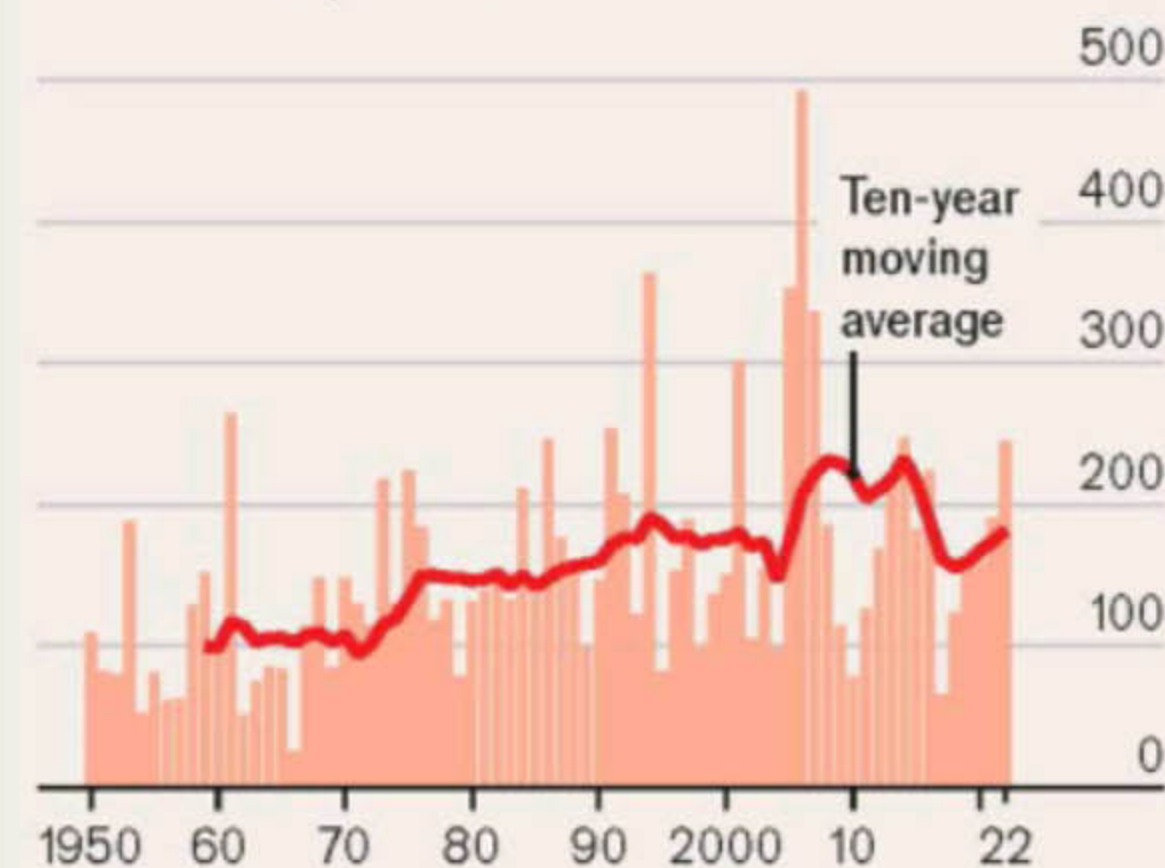
India, goods trade with China, \$bn



Source: Ministry of Commerce and Industry

After the deluge, another deluge

Central India, extreme rain events*



*150mm of rain per day in a 700 square km area
Source: Indian Institute of Tropical Meteorology

► moisture; warmer oceans mean more water evaporates up into it. The Indian subcontinent should expect 5.3% more precipitation during the monsoon for every additional degree Celsius of global temperature rise, according to a study published in 2021. And this extra rain looks more likely to be dumped all at once than spread evenly. "You frequently get droughts and floods in the same place in the same season now," says Roxy Mathew Koll, a climate scientist at the Indian Institute of Tropical Meteorology in Pune, a city in Maharashtra.

The places that tend to get the most and least rain are changing, too. Some of north-central India's agricultural regions are getting drier, even as other parts of the country grow drenched.

Unpredictability is bad news for India's farms, 60% of which have no access to water other than from the sky. Trends in the monsoon affect when farmers choose to sow and harvest their crops; this year, for example, a limp start to the monsoon delayed sowing season in some places. Over the past decade, forecasters have been getting better at predicting the monsoon's national and regional patterns, says Yogesh Patil of Skymet, a forecasting company in Mumbai. Yet forecasts at the local level still founder. Nobody foresaw the scale of the deluge in Delhi, or a more recent massive downpour in Mumbai.

Mr Patil hopes better data will help. His company draws information from 5,500 sensors around the country; the government maintains another 1,500. The agriculture ministry is now championing a plan to make land available for companies, such as Skymet, to set up tens of thousands more. The northern state of Uttar Pradesh, for example, could end up hosting some 50,000 rain sensors. Other states may follow suit. "Once they have collected data for three years or so, our local models should improve a lot," reckons Mr Patil. He also hopes for better co-operation between different government bureaucracies, such as the agriculture ministry and the disaster-management authorities.

Yet forecasting can do only so much. Adaptation will also be essential if South Asian countries are to limit the death and destruction the rains cause each year. Farms need better irrigation systems, both to water thirsty crops and to weather harsh storms. Building more reservoirs, or reactivating old ones, would help store water from excessive rainfall, rather than letting it go to waste. Cities and villages need better drainage, too. In recent years Indian cities have begun developing "heat action plans", designed to help their inhabitants cope with more frequent heat waves. But Mr Koll thinks there is not nearly as much thought going into dealing with floods. It would be a bad idea to wait until the next monsoon before getting those afloat. ■

Pakistan

To ban or not to ban

ISLAMABAD

Imran Khan's party could be outlawed

IT IS THE oldest trope in Pakistani politics. On July 15th the government declared that Pakistan Tehreek-e-Insaf (PTI), the party of Imran Khan, a popular former prime minister who is currently in jail, is involved in "anti-state activities". The allegations? That the PTI sabotaged negotiations with the International Monetary Fund (IMF) and hired an American lobbying firm. For good measure the government is also initiating high-treason proceedings against Mr Khan, a crime that attracts the death penalty. "Imran Khan and Pakistan cannot go together," said Attaullah Tarar, the information minister.

The harassment of the opposition suggests that the minority government of Shehbaz Sharif, the prime minister, is feeling the heat. On July 12th the Supreme Court returned the PTI to Parliament: the party had been barred from contesting the general election in February, forcing its candidates to run as independents. The Supreme Court also declared that the PTI is eligible for a share of parliamentary seats reserved for women and non-Muslims. This means that Mr Khan's party looks set to become the largest in Parliament. More damagingly for Mr Sharif, his hopes of assembling a two-thirds majority, and with it the power to amend the constitution, appear to be over.

This judicial setback for the government comes alongside other bad news. On

July 13th Mr Khan was acquitted in an unlawful-marriage case, one of the three convictions for which he was sentenced to a combined 34 years earlier this year. (Mr Khan looks set to face new charges of graft.) In his press conference Mr Tarar claimed that Mr Khan and his party got "undue relief" from the courts. He has said the government will appeal against the Supreme Court's decision.

The day after the announcement, the deputy prime minister seemed to waver, saying that no decision has been made yet over whether or not to ban the PTI. If the government did go ahead, however, a long-dormant constitutional process would be activated, requiring the government to declare the PTI's actions "prejudicial to the sovereignty or integrity of Pakistan". The ban would then have to be referred to the Supreme Court for a final decision. Can the government ask the court that just returned the PTI to Parliament to ban it altogether? "Legally it does not make sense at all," says Ali Zafar, a PTI senator.

Quixotic as a ban is, the government may be tempted to come good on its threat. Pakistan's generals, who have backed Mr Sharif since falling out with Mr Khan in 2021, tried to rig the election in February. But they failed to deter Mr Khan's voters. And Mr Sharif's party, the Pakistan Muslim League Nawaz (PMLN), failed to bring out its voters, who were seemingly turned off by Mr Sharif's earlier stint supplanting Mr Khan in 2022.

The government is beleaguered in other ways, too. On July 12th the IMF approved a 37-month \$7bn bail-out, the country's third in five years. External debt and liabilities have climbed to \$130bn, or 70% of GDP. Interest payments on debt are more than half of government revenue. Mr Sharif has committed to raise the tax-to- ►►



One of Mr Khan's many fans

► GDP ratio from a lowly 9% to 12% and to tax the retail and agricultural sectors. But these are core political constituencies of the PMLN and its allies. The government has already had to reverse electricity price rises for the poorest consumers after a backlash. Growth, which was negative last year, is forecast to be 2.4% this year.

And terrorism appears to be surging again. The same day as the government's announcement to ban PTI, 28 people, including 10 soldiers, were killed in two attacks claimed by the Tehreek-e-Taliban Pakistan (TTP), the Pakistani branch of the Taliban. The South Asia Terrorism Portal, a website, has tracked 397 fatal militant attacks this year, compared with 136 in 2019. In 2023 militancy-related fatalities hit a six-

year high. The government announced a new counter-terrorism campaign last month. But success is likely to depend on co-operation from Afghanistan. The TTP is the largest terrorist group operating in Afghanistan, with more than 6,000 fighters.

The last time Pakistan banned a major political party was in the 1970s. The first was the Awami League of Sheikh Mujibur Rahman, who fought for Bangladesh's independence from Pakistan. Six months later Bangladesh seceded. The other was the National Awami Party, which opposed Zulfikar Ali Bhutto, founder of the Pakistan Peoples Party. Two years later Bhutto was ousted in a military coup and hanged. Pakistan's leaders may want to remember that history. ■

Maritime integration

Bay of dreams

COLOMBO AND MATARBARI PORT

Could the Bay of Bengal become an economic superpower?

IT IS THE biggest bay on Earth—so big that five countries define the Bay of Bengal's rim, among them India, the biggest country in the world by population, and Bangladesh, the eighth most populous. As such, the Bay of Bengal should be a natural and thriving economic space, binding South Asia and dynamic South-East Asia into one. But today it is a relative backwater. Ambitions are building to change that.

Elsewhere natural "macroregions", a wonkish term beloved by planners, have cohered as reasonably powerful blocs: for example Europe, North America and South-East Asia itself, with its Association of South-East Asian Nations (ASEAN). But following post-colonial independence in the late 1940s, India, Bangladesh (first as part of Pakistan), Sri Lanka and Burma (now Myanmar) turned inward. Protectionism and even animosities rose.

Compared with other blocs, the trade that the Bay of Bengal's countries conduct today with the outside world is paltry, despite being near one of the world's busiest business shipping routes. Worse, they trade alarmingly little among themselves: only just over 6% of their total trade, compared with about 23% for ASEAN. The regional economy is fragmented.

However, change is under way. Constantino Xavier of the Centre for Social and Economic Progress, a Delhi-based think-tank, describes a "race to correct the fragmentation". The impetus comes from India, says Ali Sabry, Sri Lanka's foreign minister. It is motivated by a desire not only to foster regional development but also to

counter China's own efforts to increase its influence in its backyard.

Combined with this, Bay countries now mostly understand that connectivity and trade are key to prosperity. One indication is a splurge of infrastructure spending on ports, power and the like: from the construction of Bangladesh's first deep-water port at Matarbari at the top of the Bay to the vast expansion of Colombo port, which sits on major trans-ocean shipping routes, at the bottom. The Matarbari project—which is the largest in Bangladesh—is backed by the Japan International Co-op-



Containing ambition

eration Agency (JICA), a body charged with development assistance. One part of the Colombo port is being developed by China; another by India's Adani Group, along with American development financing.

Meanwhile India's government is leading an attempt to revive the group charged with helping develop a regional economy. Founded in 1997, BIMSTEC (short for the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Co-operation) includes the five Bay countries, plus Bhutan and Nepal. It is poorly staffed, while initiatives run into the sand for lack of interest or consensus. Only recently did it adopt a basic charter. But hopes in some quarters are now rising that its summit in Bangkok in September—the first in two years—will see greater co-operation.

In many places, change can already be glimpsed. Tomohide Ichiguchi, JICA's head in Bangladesh, reckons the country's main transport bottlenecks will be sorted within a few years. (JICA is also involved with improving links with Bhutan, Nepal and landlocked north-eastern India.) And obvious gains from improved cross-border energy trade are starting to be reaped. For instance, India is selling increasing amounts of power to Bangladesh from West Bengal, while Bhutan and Nepal are starting to sell their abundant hydropower to India.

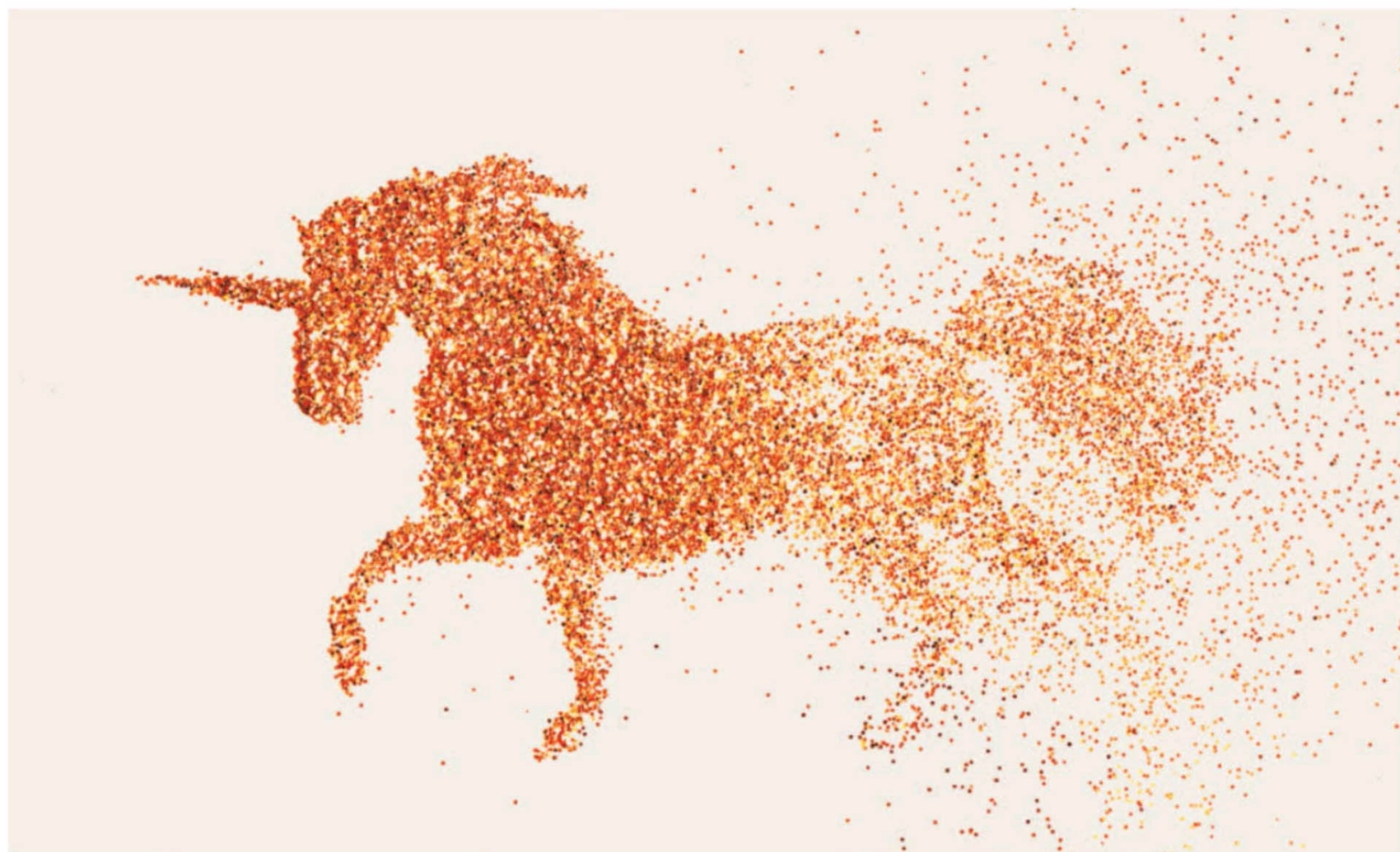
Grounds for scepticism remain. In 2007 the Asian Development Bank laid out a plan that detailed the road, rail and port links needed to boost regional connectivity. For years the plan gathered dust. Neighbours neglected to inform each other of infrastructure projects, let alone co-operate on them. A failure to bring down barriers to trade is another problem—import tariffs not only provide tax revenues but an opportunity for corruption.

And even if the political will is found for deeper integration, two huge challenges loom. The internal one is Myanmar. It is the natural link between South Asia and Thailand and the rest of South-East Asia. But the country is at war with itself. The benighted junta in charge has neither the appetite nor the expertise to think about long-term planning.

Water works

The other challenge is geopolitics. The Bay of Bengal is an important place in the rivalry playing out across the Indo-Pacific. For example, China is increasingly interested in Myanmar as a way to get access to the Indian Ocean. The Chinese government also seeks to spy on rivals' navies: that is one reason why India is exercised about the possibility of Chinese radar stations being built on Myanmar's Coco Islands and in Sri Lanka. Even if its member-states find greater means to co-operate, contestation also looks set to become a permanent feature in the Bay of Bengal. ■

China



The Chinese tech scene

Love-bombing entrepreneurs

It will take a lot more for Xi Jinping to win back businesspeople's broken hearts

CHINA'S LEADER, Xi Jinping, worries about "black swans" (unexpected crises) and "grey rhinos" (big problems that are ignored). Recently he has been fretting about vanishing unicorns, too. In May he asked a group of bosses to explain why fewer Chinese startups were turning into these beasts: privately held startups with a valuation of a billion dollars or more. In June the State Council, China's cabinet, acknowledged that investors were fearful of putting money into risky new ventures and that it was difficult to cash out.

Reviving China's flagging entrepreneurial spirits has become urgent. As this article was published, the Communist Party's Central Committee ended a four-day meeting in Beijing. The meeting decided to "place reform in a more prominent position". During the event new data added to gloom, showing that GDP growth in the second quarter of 2024 slowed to 4.7% year-on-year. Successful startups could

boost growth and technological self-sufficiency, which are key party aims.

China used to breed many unicorns. Between 2016 and 2018 the country created at least as many as America and three times more than the rest of the world. But so far this year China has produced only half as many new billion-dollar startups as America. The total in 2024 is likely to be less than one-third of the number in 2021, when China begat a record 109 unicorns. A global slowdown in startup activity is only partly to blame.

In 2020 Mr Xi began worrying about a

"disorderly expansion of capital" as tech giants moved into businesses over which the state wanted tight control. Regulators lashed out, alarming entrepreneurs and investors. In 2021 China forced Didi, a ride-hailing app, to delist in America over data-sharing concerns. Offshore listings have become frowned upon, while domestic ones have dried up. The value of onshore initial public offerings (IPOs) fell by 84% in the first half of 2024 compared with the same period last year. One reason is that regulators curbed them in an effort to buoy China's sagging stockmarkets.

The environment has become so forbidding that some firms are switching nationality. Joshua Xu is the kind of ambitious entrepreneur that Mr Xi will need to encourage. Four years ago Mr Xu founded HeyGen, an artificial-intelligence startup in China. In 2022, however, he moved the firm to Los Angeles to get easier access to capital and advanced computer chips. Last month, during its latest funding round, HeyGen's worth shot up to \$500m. That means it is halfway to becoming a unicorn, but an American one. Hundreds of other startups have moved abroad.

The Chinese government may now see the error of its ways. Mr Xi and the prime minister, Li Qiang, have been meeting entrepreneurs, urging them to invest and innovate. But reviving the unicorn scene is

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not straightforward. The original boom depended on American investment funds, often staffed by executives with Chinese roots. Seven in every ten Chinese unicorns have foreign, mainly American, backing. A single firm, HongShan, had a hand in 96 of 369 Chinese unicorns, according to KPMG, an accountancy firm. HongShan was part of Sequoia Capital, a renowned Silicon Valley venture capital (VC) firm, until it split off in 2023 as tensions rose between China and America.

Attracting Silicon Valley cash is much harder now. American funds investing in China face greater scrutiny and policy uncertainty. For example, draft rules published on June 21st by the treasury department ban some investments in Chinese artificial intelligence, expanding America's security net to include outbound capital flows. Reflecting these risks, this year foreign investors are on track to fund fewer Chinese startups than in any other of the past ten years. Data from AVCJ, a research firm, suggest they have provided only one-fifth of VC funding in 2024, down from two-thirds between 2014 and 2021.

As a substitute the government wants to replace foreign cash with more of its own, through state-backed vehicles known as guidance funds that invest directly and back other VC firms. In last month's State Council directive, the government promised to make it easier for Chinese firms to list at home, and abroad too, if they are not in sensitive industries. The change of tone has had some effect: within days of the pivot in June a handful of IPO applications in mainland China were accepted. Yet the state's growing role in filling the gap left by the exit of foreign capital is amplifying a different set of fears.

Mr Xi favours "new productive forces" (party-speak for favoured cutting-edge tech industries) which may distort the allocation of venture capital. "Our job all day," says one fund manager in Beijing, "is to figure out where the government is going to be investing and bet on it." And investors who lose money, as VCs often do, risk graft charges when using state funds. Li Bo of Peking University and fellow academics write that some fund managers are willing to forgo millions of dollars in government money rather than involve the state.

Entrepreneurs remain pessimistic. Even within the bureaucracy there are misgivings. In a blog last month a government researcher in Beijing outlined the tensions inherent in China's stance on startups. Officials must balance a push for self-reliance with the need to stay open to foreign capital, and enforce tough regulatory controls while maintaining business confidence. The government has woken up to the scale of the problem, but the fix for how to reconcile its contradictory goals is proving as elusive as one-horned beasts. ■

Food safety

Oil change

A scandal over mixing fuel and cooking oil sparks public anger

INVESTIGATIVE JOURNALISM is a rarity in China. The Communist Party prefers stories that puff up its achievements. So readers paid particularly close attention when a newspaper run by the Chinese capital's own party committee, *Beijing News*, deviated from the norm. On July 2nd it reported that cooking oil was being transported by lorry in containers that were also being used to carry liquid fuel. It said that, to save money, the vessels were being switched from one use to the other without being cleaned. In a country where food safety has long worried the public, this news was sensational. The newspaper even provided video that implicated a giant state-owned firm, Sinograin.

"A great nation is rising. But it can't even guarantee the basic safety of cooking oil," wrote one of many outraged users on Weibo, a social-media platform. Some netizens pointed out the difference between the authorities' strict control of speech and media and seemingly lax approach to food. "If there are issues with food, it harms us; if there are issues with films and television, it harms them," one said. Many shared links to a remark by Xi Jinping in 2013, about a year after he came to power: "If our party, while governing China, cannot even ensure food safety, and cannot do so over the long term, then people will start to question whether we are qualified to govern."

The story was too big for the central

government to ignore. On July 8th the national broadcaster called the oil-mixing "tantamount to poisoning". On July 9th the government said it would investigate. Sinograin as well as other firms named in the report and local authorities have also launched inquiries. But censors have been scrambling. They have restricted Weibo searches for some related terms and deleted critical articles and videos. The Weibo account of Han Futao, the reporter who broke the story, has been shut down. The tracking function on a logistics app that some netizens used to locate the lorries in the *Beijing News* story has been disabled (the app says it is being updated).

On July 12th, however, another news outlet weighed in. *Caixin*, a Beijing-based business magazine, reported that Chinese cargo ships were also being used to carry both cooking oil and toxic fuels, without adequate cleaning in between these uses. This report has been censored, too. A nationalist influencer, Sima Nan, who has more than 3.2m followers on Weibo, said *Beijing News*'s reporters had ulterior motives and should be investigated themselves. Other online cheerleaders for the government have suggested that the press is colluding with foreign companies to sow distrust of state-owned firms.

But Chinese citizens remain upset. More than 75% of refined vegetable oil in China is transported in containers to factories where it is repackaged for consumers or used to make other products, according to Wang Yuanliang of Hunan Agricultural University. Those who do not buy cooking oil from the implicated firms may have ingested contaminated oil in processed foods, from chocolates to chilli sauces. Netizens have resurfaced reports from a television station in Hunan province in 2015, exposing the same issue of lorries carrying toxic chemicals and cooking oil in the same containers without thorough cleaning between uses. Local authorities ordered an investigation after the report and punished the company involved. But the problem has persisted.

Memories are still strong in China of another food-safety scandal. In 2008 milk powder tainted with melamine, a dangerous chemical, was found to have sickened 300,000 infants and killed six. In response the government tightened its food-safety regulations in 2009 and set up a food-safety commission in 2010. Under Mr Xi, China has revised its food-safety law twice more to add harsher punishments and strengthen enforcement. Yet public confidence remains low. A survey in 2023 by *Insight China*, a magazine, found only a quarter of respondents in China were satisfied with food-safety standards. Cooking oil ranked tenth on the survey's list of most-distrusted items. It would now be a strong contender for the top slot. ■



Fuelling his appetite

Trickle-down economics

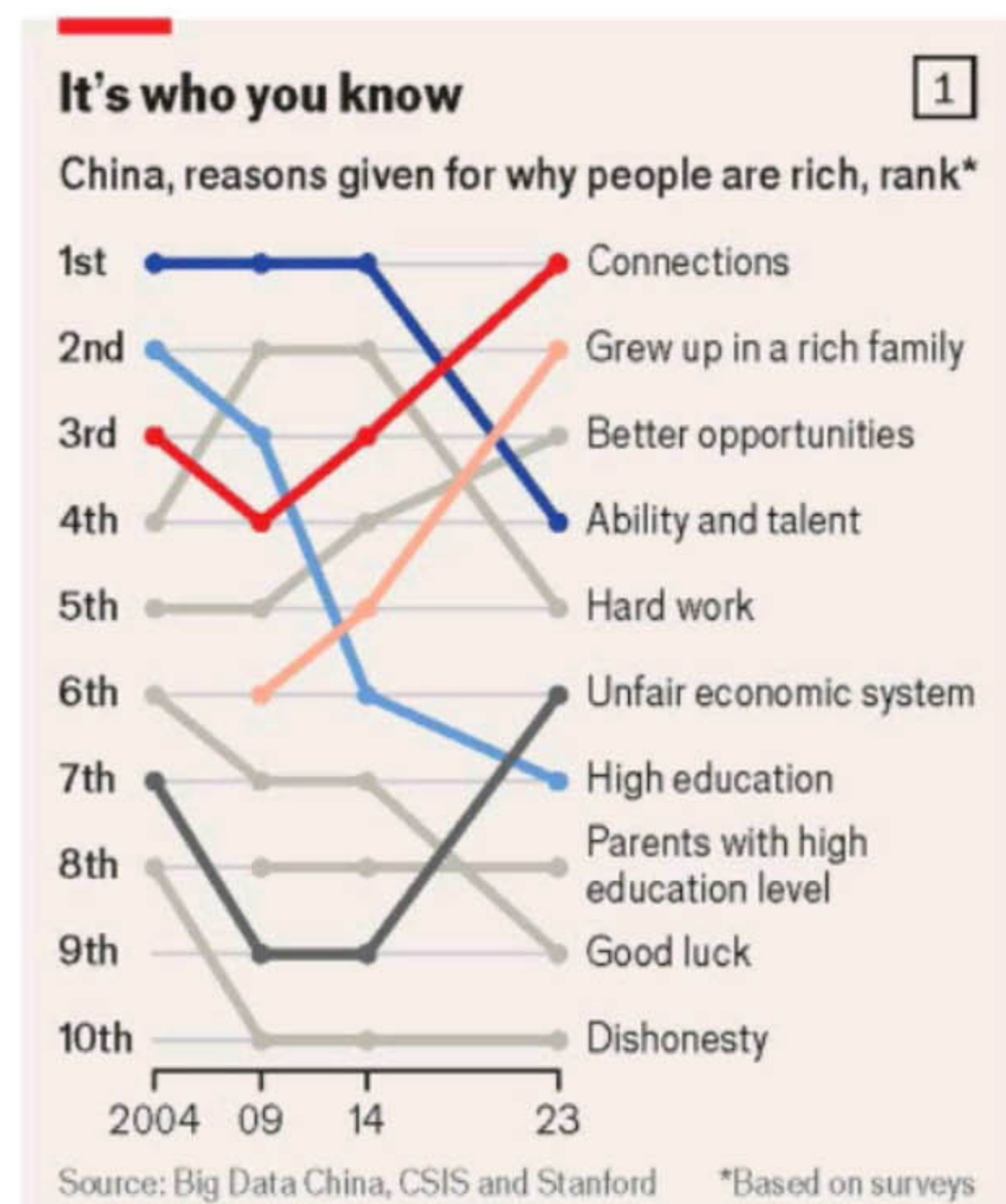
The big divide

A rising share of Chinese people believe connections are the key to success

CHINA'S ANCIENT thinkers knew about the dangers of inequality. "Rulers need not worry about scarcity, but unevenness," said the "Analects", a collection of sayings attributed to Confucius, a philosopher of the 6th and 5th centuries BC. China's leader, Xi Jinping, uses the language of Mao Zedong, but the message is the same. He calls for "common prosperity", warning that in the West, wealth gaps have caused dangerous social divisions.

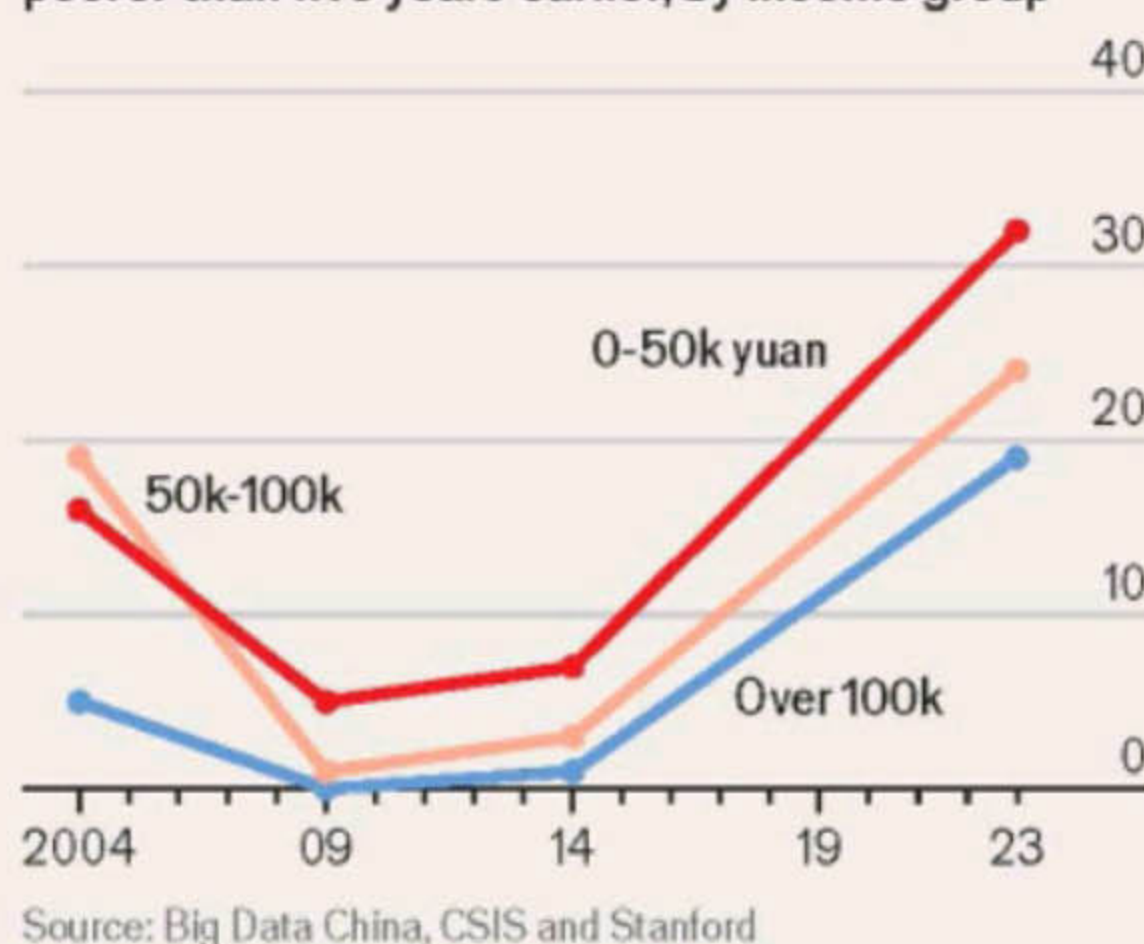
In China, the gap between rich and poor rose sharply in the 1990s before levelling off, official data show. Research led by two American scholars of China, Scott Rozelle and Martin Whyte, found that people accepted this, remaining optimistic about their chances of improving their own lot. But their latest findings paint a different picture. Public misgivings about inequality are growing. People are blaming the economic system.

The academics conducted surveys in China in 2004 and 2009, before Mr Xi came to power, and in 2014 and 2023, during his rule. Sample sizes ranged from less than 3,000 in 2009 to over 30,000 in 2023. In 2004 respondents named ability and education as the most important enablers of wealth in China. But by 2023 these factors had dropped to 4th and 7th places among reasons cited for getting rich. Instead, those surveyed said that being well-connected and growing up rich were more important (see chart 1). When asked why people were poor, respondents pointed to lack of ability and effort in 2004, but to unequal



Feeling pinched

China, % responding that their households are poorer than five years earlier, by income group



opportunities and unfairness in 2023.

The poor have been hit hardest by the faltering economy. In 2023 nearly one-third of respondents who earn less than 50,000 yuan (\$6,900) per year said their households were poorer than five years earlier, compared with only one-fifth of those who made over 100,000 yuan. But

gloom about the economy is pervasive. In 2023 more people than ever, from all income groups, reported being worse off (see chart 2).

The cause of this changing mood is China's slowing economy. In the 1980s Deng Xiaoping, then China's leader, declared that some could "get rich first" and others later. But the surveys show that, as economic opportunities dry up, faith in trickle-down economics is tested. For China's leaders, this may have worrying implications. They have used economic growth as a way of demonstrating the Communist Party's right to rule.

Could this lead to large-scale unrest? China Labour Bulletin, a Hong Kong-based NGO, logged almost 1,800 protests by workers in 2023, more than double the number in 2022. But these are small and scattered. Messrs Rozelle and Whyte do not expect discontent to explode soon. People have "not become overwhelmingly negative and pessimistic", they write. Mr Xi has a mighty security apparatus. But he must hope the scholars are correct. ■

Superstition in Hong Kong

The spectre of lower prices

HONG KONG

Property buyers beware—of ghosts

PROPERTIES ON THE Peak, a rich neighbourhood in Hong Kong, are among the world's most desirable. But nobody lives in Dragon Lodge, an Italianate mansion built in the 1920s. It was abandoned shortly after it sold, for HK\$118m (\$15m), in 1997. Rumour has it that nuns were beheaded there during the Japanese occupation in the second world war; they haunt the shadowy halls.

Dragon Lodge is known in Cantonese as a *hongza*, or "calamity house". In Hong Kong's expensive property market that label can make even the swankiest homes places to avoid. A paper in 2020 by Utpal Bhattacharya of the Hong Kong University of Science and Technology and fellow academics said ghost-inhabited homes in the city lose a fifth of their value on average; the prices of flats on the same floor as one drop by 9%. Murders can kill prices by 34%.

Property dealers need to be wary of ghouls. In 2004 a court ordered Centaline Property, an estate agency, to pay \$40,000 for failing to tell a buyer that a property was a *hongza*. Spacious, a rental website, features a grisly page that lists properties where untimely deaths occur. Buyers of such places must pay more for

their mortgages because their properties are harder to sell. Hui Wing Cheong, an estate agent, says his company has a hauntings database.

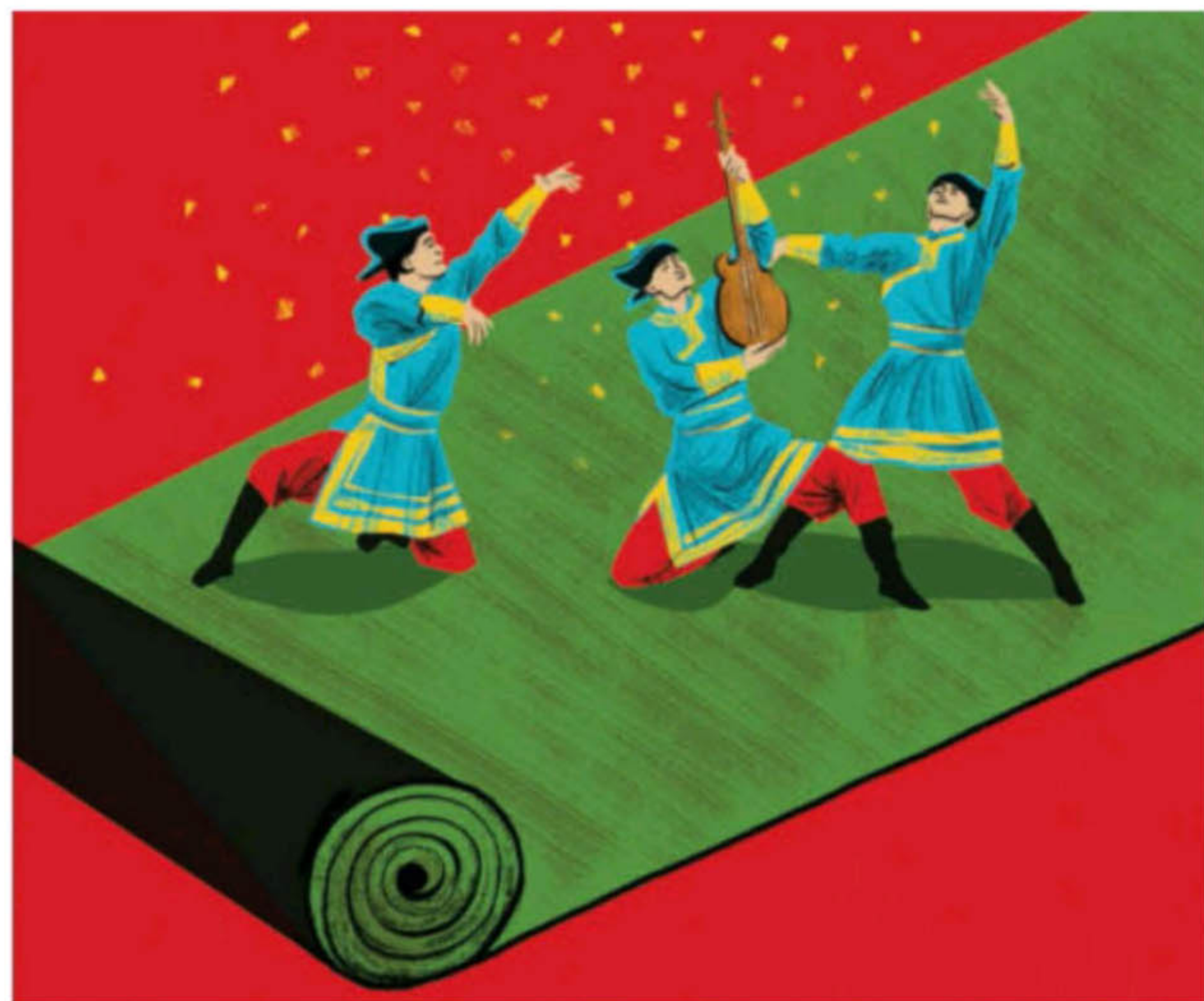
Homes do not need to be haunted to be tainted by death; those near cemeteries and funeral parlours are cheaper too. Even the prices of homes for the dead—columbariums—drop by half if they might be haunted, says Andrew Kipnis of the Chinese University of Hong Kong. Mr Kipnis points out that rural communities in China do not typically show an aversion to the dead. The deceased are usually kept at home before funerals. But Hong Kong is different.

Unlike the mainland, the city has not undergone fierce campaigns against superstition. The dead are hurriedly removed from premises, heightening a sense that they are to be feared. People in big cities are also more likely to live and die on their own in unhappy circumstances. A study in 2023 found that 41% of elderly people surveyed in Hong Kong were socially isolated. Hong Kong's rapidly evolving cityscape conjures apparitions, too. The turnover of tenants and buildings results in a greater fear of skeletons lurking in the closet.

CHAGUAN

When propaganda falls flat

To control ethnic Mongolians, Xi Jinping is reviving a Mao-era tool



CHINA'S COMMUNIST PARTY has an Astroturf problem. For a decade the party has worked to revive grassroots networks that withered during the me-first, get-rich-quick years of the 1990s and 2000s. Under Xi Jinping, China's leader since 2012, vast resources have been deployed to make the party a growing presence in everyday life. Alongside lessons in Xi Jinping Thought, Maoist campaigns and slogans have been resurrected, tapping into popular nostalgia for a time when China was poor but more equal.

Alas for propaganda chiefs, some grassroots are more organic than others, and the Chinese public can tell the difference. This is notably true when the party co-opts local traditions for aggressively ideological ends. This produces something at once artificial and rootless, or Astroturf, to borrow a term used by American political campaigns to denote fake grassroots activism.

The cynicism provoked by some—though not all—grassroots party work was revealed when Chaguan visited Hulun Buir, a huge swathe of grasslands, birch forests and conifer plantations in the far-northern region of Inner Mongolia. His ambition was to see an *Ulan Muqir* troupe perform. Founded in 1957, early *Ulan Muqir* teams (their name means “Red Bud” in Mongolian) would journey for weeks by horse-cart and army-grade lorry, carrying news and party ideology to far-flung herding families and border posts, in the form of simple songs and dances.

This Mao-era propaganda tool was all but forgotten in the boom decades that followed China's embrace of capitalism. It enjoyed sudden, renewed fame after 2017, when Mr Xi wrote to one of the oldest troupes and urged it to “carry forward the fine tradition of the *Ulan Muqir*, put down roots and serve the herders”. Quickly, officials scrambled to create new troupes, eventually dispatching 3,500 performers in 75 *Ulan Muqir* groups to all corners of Inner Mongolia. More than a mere public service, these “grassroots cultural teams” represent “heart, sincerity and warmth”, according to the *People's Daily*, the party's official mouthpiece. Today *Ulan Muqir* troupes perform in town squares and retirement homes, army bases, schools and mines. Most outdoor shows are packed into the short Mongolian summer, before winter temperatures plunge to -40°C. In Yakeshi, a forestry town, a battered Jie-

fang (Liberation) lorry was being used as a mobile theatre. Tough enough to reach remote encampments of *gers* (as Mongolians call the round tents some foreigners call *yurts*), the *Ulan Muqir*'s lorry has sides that unfold to make a canopy and stage.

As official media tell it, *Ulan Muqir* troupes are rugged propaganda workers bringing cheer to the rural poor, and as such capture the essence of Mr Xi's “New Era”. Today's party presents itself as a selfless, mission-driven organisation, inspired by the hardships and dangers that its members endured in the pioneering early years of the People's Republic. Ambitious young officials are encouraged to “serve the people” by spending time in poverty-stricken rural areas.

The ideological content of *Ulan Muqir* shows is all of a piece with Mr Xi's New Era. Under him, the limited autonomy once granted to regions with large ethnic populations, including Inner Mongolia (home to 4.2m ethnic Mongolians), has been replaced with coercive assimilation. *Ulan Muqir* performers increasingly sing in Mandarin Chinese, not Mongolian. Lyrics are strictly policed by party ideologues and reflect official slogans, for instance about ethnic unity or the dangers of non-approved religious sects.

Revealingly, it is unclear that official praise for *Ulan Muqir* troupes is matched by actual grassroots popularity. Your columnist caught up with a troupe at a half-empty mountain resort outside Yakeshi. Dancers capered round the stage in Mongolian silk robes, pretending to ride horses like grasslands nomads. For all their energy, it was a distinctly generic performance. Few of the dancers were ethnic Mongolians, and Yakeshi's local minorities were by tradition forest dwellers, not herders. The crowd of mostly Han Chinese tourists was small and increasingly skittish.

Impoverished families from the area are sometimes treated to *Ulan Muqir* shows, a local resident explained. In fact, the local went on, the poor “don't want this sort of entertainment” and would rather have free rice, flour and cooking oil.

Back in Yakeshi a retired lumberjack, encountered playing music in a park, praised the “genuine” *Ulan Muqir* of his youth for entertaining “common people” in hard-to-reach pastoral areas. In contrast, today's troupes play for “mayors and officials”, he growled, adding: “Serve the people? Fuck that.”

Sometimes, low-key is best

Not all grassroots party work is unpopular. This July an open-air stage in Yakeshi hosted several concerts to mark the party's 103rd anniversary. A children's choir rehearsed a song about winter sports and a mostly Han Chinese crowd of pensioners prepared to dance in red Mongolian robes. A middle-aged spectator asserted cheerily that the pensioners had gathered “by themselves” to organise the dance. In reality this was a party event, as confirmed by an official from a local neighbourhood committee. But the ideological content was hard to detect and the prevailing atmosphere was festive, not bossy.

Amnesia about the party's history in Inner Mongolia also helps. In 1957, when the first *Ulan Muqir* troupe was formed, many ethnic Mongolians were angry about the recent collectivisation of their herds. In the late 1960s, as the Cultural Revolution raged, Maoist zealots and Red Guards accused ethnic Mongolians of separatism and of spying for the Soviet Union. Tens of thousands of Mongolians were killed, some of them burned to death. In Mr Xi's China, such grim history is outlawed. The party likes to boast about its deep historical roots, not have them examined. ■

Middle East & Africa



African infrastructure

A new railway age

LUSAKA AND THIÈS

Sino-American tensions are playing out on the tracks

“**E**VERY INHABITANT of Thiès”, wrote a Senegalese novelist, Ousmane Sembène, in 1960, “depended on the railway.” Like many African cities, Thiès was a product of the continent’s first, colonial-era rail revolution. The French-built railway that ran through it stretched from the Senegalese port of Dakar to Mali, deep in the Sahel, ferrying peanuts, gold and other raw materials to the coast for export. But in recent decades the line has atrophied. A succession of foreign firms took over its management after it was privatised in 2003. Each failed to maintain or expand it. In 2018 the leg from Senegal to Mali halted operations entirely. Its rusting remains in Thiès lie under rubbish and weeds.

The story of west Africa’s most famous railway is a cautionary one for governments across the continent. Africa’s entire rail network is today only slightly larger than France’s and Germany’s combined. In west Africa only one cross-border line is still working. By one estimate, investments

of up to \$105bn a year until 2050 are needed if Africa’s network density is to match China’s or India’s. Yet between 2012 and 2022 total private investment in rail infrastructure was no more than \$6bn, according to the World Bank. That was roughly the same as in the previous decade, despite a surge in infrastructure investment from China. Where Western firms have occasionally shown interest, grand promises have usually remained on paper.

Yet in at least some parts of the continent a new rail age may be emerging, fuelled by geostrategic rivalries and renewed competition over natural resources. In Angola a 1,300km colonial railway from the port of Lobito across the border to the copper mines of Congo is being revamped. In

Zambia officials hope that 800km of track will soon be laid from the northern copper belt to the border with Angola (see map on next page). The American government is funding at least \$250m of the \$2.3bn price tag, making the Lobito corridor, as the projects are collectively known, its largest-ever infrastructure investment on the continent. It is also a proving ground for the theory that competition between the West and China will benefit Africans.

America hopes rail investments can pull the resource-rich region into its orbit, and secure the minerals critical for the transition to green energy. Africa is home to around 30% of the world’s mineral resources. Zambia and Congo are Africa’s largest producers of copper, which is used in solar panels and wind turbines; Congo is the world’s largest producer of cobalt, which is used in batteries for electric vehicles. And Angola has 36 of the 51 minerals crucial to renewable-energy technologies.

China, whose firms own many of the mines and send their output home for processing, is gaining a stranglehold on supply. Amos Hochstein, Joe Biden’s envoy for energy security, hopes that, by redirecting exports to the Atlantic, supply chains will shift decisively westward. American officials are also currying favour with their African counterparts by investing in sectors such as agriculture and energy. That a Western-led consortium beat Chinese

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firms to the contract to rebuild the railway in 2022 was seen as a diplomatic breakthrough. The EU and the World Bank have since added their weight to the project.

China, alarmed by the apparently more pro-Western leanings of the governments in Angola and Zambia, has raced to respond. In February Chinese officials promised \$1bn to refurbish a rival railway, built by Maoist China in the 1970s, from the copper belt to Dar es Salaam in Tanzania. The catch, insiders say, was that the deal had to be announced before the Biden administration unveiled its own list of investments in Lobito. Zambia obliged.

Superpower rivalry offers Africa opportunities. "Playing them against each other is really helping us," says a Zambian official. The government in Guinea—like those in Angola and Zambia—is keen to reduce the dominance of Chinese mining companies and to diversify its foreign partners. Last year it renegotiated the licences for a \$20bn iron ore mine in order to ensure that a consortium of Chinese firms teams up with Rio Tinto, a Western mining giant, to jointly finance more than 600km of fresh tracks from the pits to the sea. The mining companies are expected to provide freight and passenger services, says Gerard Rheinberger, the managing director of Rio Tinto's Guinea operations. The idea, notes a Western diplomat, is that the so-called Trans-Guinean railway "should not just take iron to the port, but open up the interior of the country as well".

It is unclear, though, whether such high-profile projects can be easily replicated. Very few railways in Africa are seen by private investors as commercially viable. Ever since the colonial period those that are have almost always been linked to mineral extraction. Even then, the Trans-Guinean line, serving what is said to be the world's largest mining project, is a rarity. A new scheme hatched by Robert Friedland, a Canadian mining tycoon, to raise \$3bn-5bn for a similar line from the iron deposits of Guinea's Nimba mountains to the coast of neighbouring Liberia, is "pie

in the sky", argues Nick Branson of Africa Practice, a consultancy. "These days it is only the highest-grade iron which warrants a new railway." Nimba's may not.

Most African rail investments are thus likely to need "de-risking" by development agencies or multilateral lenders. The American government is paying for the feasibility study for Lobito's Zambian leg because, officials concede, the project would struggle to attract funding otherwise. Yet that makes projects vulnerable to political winds in foreign capitals.

For African governments the long-run challenge is to overcome the "pit-to-port" model that has defined the continent's railways since their colonial heyday. To this end, the Angolan government signed a memorandum of understanding last year with the All-American Rail Group (AARG), an American rail consortium. The group intends to spend \$4.5bn connecting Luan-

da, the capital, with Congo and says it will "integrate" places and industries far beyond mining. "In the past the focus was building a railroad," says the AARG's Jason Ford. "We want to help build an economy."

Recent history does not inspire confidence. Ethiopia once planned a national rail network. So far it has completed only one line, which is drowning in debt due to instability and low traffic. Much the same can be said for Kenya, which spent \$4.7bn revamping a railway inland from the coast that may never turn a profit (although Nairobi, the capital, once began as a railway depot). Elsewhere in the world railways have often helped build nations by spurring urbanisation, creating industrial clusters and delivering economic growth. If Africa's latest railway age is to deliver these kind of spillovers it will have to go beyond merely connecting up commodity corridors to ports. ■

Israel

Politicising the police

JERUSALEM

Binyamin Netanyahu's far-right partner is turning Israel's police force into his political militia

ISRAEL HAS long stood out as a raucous democracy in a region with precious little of it. But on a recent Saturday in Tel Aviv police officers demanded to see the placards of protesters calling for a ceasefire in Gaza and for early elections. The police justified this breach of freedom of expression by claiming it was to ensure there was no "incitement". In fact, it was a sign of how the police have been politicised in the 18 months they have been under the control of Itamar Ben-Gvir.

Mr Ben-Gvir, who leads Jewish Power, a far-right and openly anti-Arab party, was once on the distant margins of Israeli politics and seen as such a threat to national security that the Israel Defence Forces (IDF) refused to recruit him. Now, as national-security minister, he is central to the coalition keeping Binyamin Netanyahu in office as prime minister.

The power he wields is worrying. Though the understaffed and demoralised police have never had the cachet of the IDF, Mr Ben-Gvir campaigned to head the ministry in charge of the force, promising to make it clear "who is the landlord".

One of the first laws passed by the new government gave the minister operational control over the police. The attorney-general and the Supreme Court have blocked its implementation, but Mr Ben-Gvir has put his imprint on the police by appointing compliant officers. Kobi Shabtai, the out-

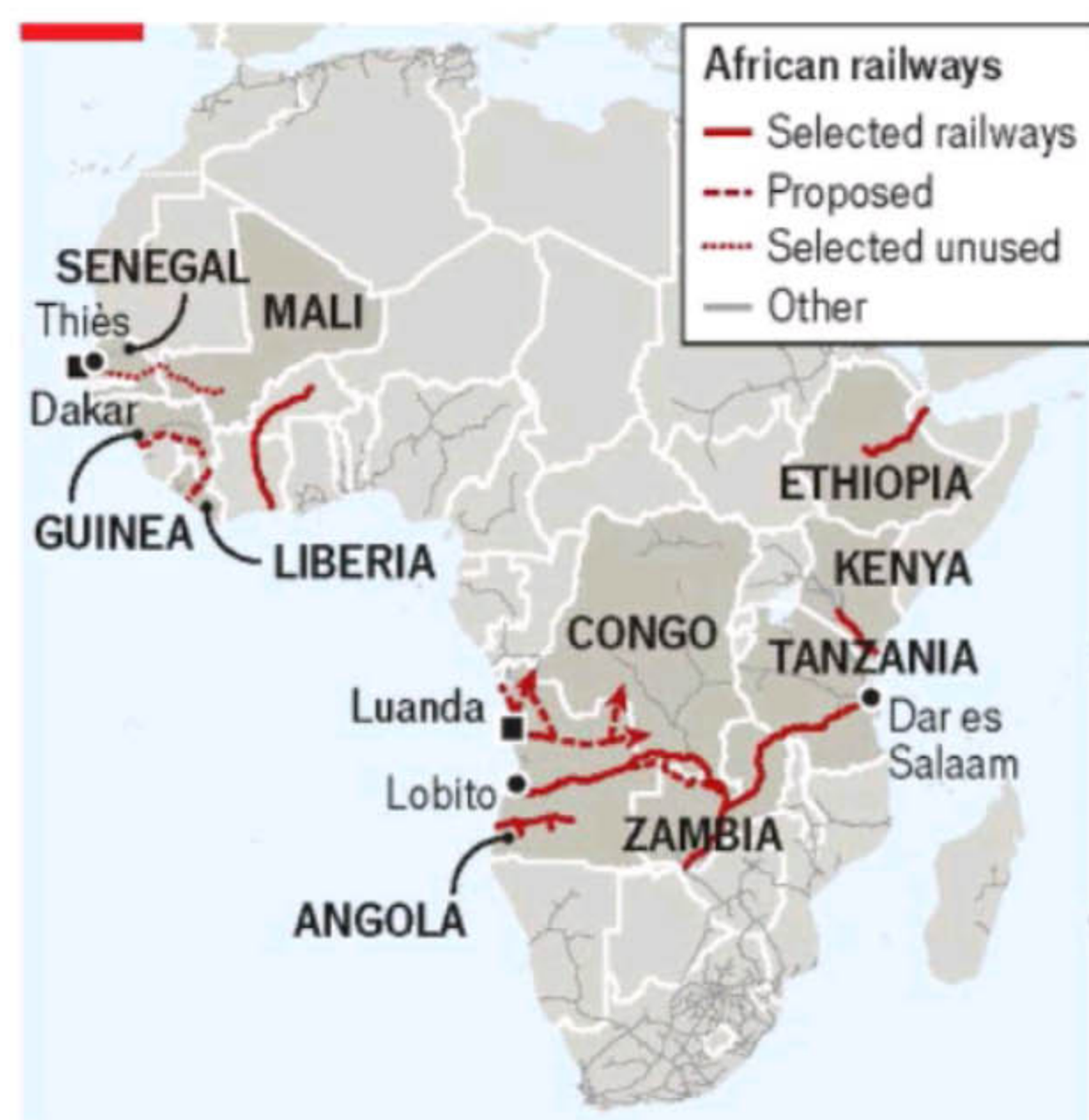
going police commissioner, warned on July 14th that "the fight against the politicisation of the police...is at its peak".

Mr Ben-Gvir's proposed replacement for him, Avshalom Peled, is short on experience and was censured after being investigated in 2015 on suspicion of breach of trust and abuse of office. (A police spokesman reportedly said this was merely a "commander's warning" and that he is a decorated officer.) But he is loyal to the minister. So far a civil-service committee has blocked the appointment. But this has not stopped Mr Ben-Gvir from making him acting commissioner.

"Ben-Gvir combines a fascistic ideology with total incompetence at running large organisations," says his predecessor, Omer Bar-Lev, a Labour politician. "He has found that the only way he can influence the police is by intimidating officers by blocking their promotion." One example was the chief of Tel Aviv's force, who was forced out for being seen as soft on anti-government protesters. His successor's approach has included the excessive use of horse charges and water cannons.

Mr Ben-Gvir has protected officers accused of violence. The commander of a riot squad who threw a percussion grenade into a crowd, nearly tearing the ear off a protester, is to become a station chief.

The minister's influence is felt also in the West Bank, where the police have juris-



► diction over Jewish settlers. Although settler violence has spiked, the number of investigations into it fell by half in the first 12 months of Mr Ben-Gvir's term. The Shin Bet internal-security agency requested action against 15 Israeli "targets", but the police acted in only three cases.

Instead, the police opened nearly 600 investigations into Palestinians with Israeli citizenship accused of online "support for terror" between October and April, some for acts as innocuous as posting a picture of Palestine's flag. The state prosecutor has said that in some cases the police acted without authority. Mr Ben-Gvir has also raised tensions by easing restrictions on Jews praying on Jerusalem's Temple Mount, or al-Aqsa compound, a site holy to Muslims and Jews. And he has ordered officers not to guard aid convoys on their way to alleviate hunger in Gaza from attack by Jewish extremists.

Under Mr Ben-Gvir, homicides (not related to terrorist attacks) more than doubled last year, to 299. Most of these take place among Israeli Palestinians, who are just 20% of the population. Perhaps this is because Mr Ben-Gvir has dropped the previous government's plan to reduce gun crime in Arab communities. "The police force is failing its basic missions and competent officers are leaving in droves," says Amnon Alkalay, a former deputy commissioner. "They're failing to attract new officers and the force has had to lower the minimum requirements for candidates."

Still, the force suffered from low morale and public mistrust well before Mr Ben-Gvir took charge. Mr Netanyahu has long held a grudge against it for investigating his alleged corruption. In 2015 his government named Roni Alsheikh as commissioner. Mr Netanyahu may have hoped that this former deputy head of the Shin Bet would devote resources to counter-terrorism. Instead Mr Alsheikh authorised in-

vestigations into the prime minister's affairs, for which Mr Netanyahu, who denies wrongdoing, is now on trial. Determined to shift the police's focus, the government then appointed Mr Shabtai, who had spent most of his career in the paramilitary Border Police, rather than detecting crimes.

Relations between the prime minister and his national-security minister are fraying. Mr Netanyahu refuses to admit Mr Ben-Gvir to the small group of ministers directing Israel's war against Hamas. And he has quietly transferred some of the minister's responsibilities for counter-terrorism to other departments. Mr Ben-Gvir has responded by blocking government legislation. Mr Netanyahu cannot fire him, however, as that would mean losing his majority. Though the prime minister does not want Mr Ben-Gvir involved in running the war, he seems happy to let him undermine the integrity of Israel's police. ■

Wars of the future

Students of destruction

Western armies are learning lessons in urban warfare from Gaza

FOR ARMIES lucky enough to be at peace, other people's wars are learning opportunities. Take Israel's northern front, where the Israel Defence Forces (IDF) have been exchanging rockets and drones with Hizbullah, the Lebanese militant group. To stop Hizbullah's increasingly capable drones, the IDF has resorted to heavy jamming. The impact on the electromagnetic spectrum is so strong that Israeli soldiers have had to eschew digital maps for printed ones. That is one of many tactical lessons identified in a new report by the Royal United Services Institute (RUSI), a think-tank in London, based on extensive interviews with IDF officers. ("Hamas commanders were not accessible for interview," the authors observe, laconically.)

Many Western armies believe future wars will involve intense urban combat, whether they are NATO defending Baltic cities from Russia or America parrying a Chinese invasion of Taipei, Taiwan's capital. The battle for Gaza city, which began in November, is a cautionary tale. Israel's heavy firepower reduced much of it to rubble. Tank drivers struggled to judge the depth of craters through night-vision goggles, causing vehicles to roll over. Troops calling in artillery or air strikes found it harder to describe precise locations, because distinguishing features had been blasted away, and to differentiate fighters from civilians (see International section).

Critics have inferred from Russia's war on Ukraine that the tank is too vulnerable to be effective. In Gaza, by contrast, the active protection systems (APS) on Israel's tanks—which counteract incoming projectiles—largely kept them safe from anti-tank missiles. Tanks were especially useful in pairs, because their overlapping APS provided additional protection.

The authors, Jack Watling and Nick Reynolds, also shed light on Hamas's use of tunnels. They describe two sorts, those for commanders and those for lowlier operatives, with the former deeper and better equipped. The IDF initially thought it would first occupy territory and then search for tunnels. It soon learnt that this allowed Hamas to mount ambushes before retreating underground.

The lesson is that armies cannot bypass tunnels, but need to fight on and beneath the ground simultaneously. This was especially tricky because the boundaries between one Israeli unit and another—essential to avoid friendly fire—did not map neatly onto subterranean routes. Tunnel warfare also proved "extremely stressful", with the possibility of meeting Hamas around every corner creating "a staccato quality to the pressure on individuals that was corrosive of morale".

Above ground, drones proved essential. Previously, small strike drones, like the first-person view (FPV) explosives-laden ones commonly used in Ukraine, were not in the Israeli order of battle and held only by one experimental unit, much as in other Western armed forces. Once the war began, the IDF discovered that these could be highly effective if pushed down to small units like companies (80-plus soldiers). Those with strike drones, say the authors, "could monitor more urban terrain and conduct precision strikes at tempo". The catch was that it proved impossible to track everyone's drones. The result was a "high degree of air-defence fratricide".

Some might question whether these lessons are truly useful for American or NATO forces. Most European armies are far smaller and more feebly equipped than the IDF, which has deployed more than 20 brigade combat teams thanks to the use of conscription and defence spending that exceeds 5% of GDP. Those armies are, in turn, contemplating a war against adversaries that are larger and better armed than Hamas, which has fought sporadically using small platoons and with no air power and only rudimentary jamming capabilities. Mr Watling and Mr Reynolds flip the proposition around with a slightly mischievous analogy. "For the British Army, it is in some respects more useful to consider itself in Hamas's position," they suggest, "defending urban areas with a coastline to the rear against a numerically superior enemy operating at divisional scale." ■



Heavy-handed

Europe



Russia's diminishing weaponry

Running out

Why Russia might have to scale back its offensive in Ukraine

FOR A LONG time it seemed that a war of attrition between Ukraine and a Russia with five times its population could end only one way. But the much-vaunted Russian offensive against Kharkiv in the north that started in May is fizzling out. Its advances elsewhere along the line, especially in the Donbas region, have been both strategically trivial and achieved only at huge cost. The question now is less whether Ukraine can stay in the fight and more how long can Russia keep up its current tempo of operations.

The key issue is not manpower. Russia seems able to go on finding another 25,000 or so soldiers each month to retain around 470,000 men at the front, although it is having to pay more for them. Production of missiles to strike Ukrainian infrastructure is also surging. But for all the talk of Russia having become a war economy, with some 8% of its GDP devoted to military spending, it is able to replace its staggering losses of tanks, armoured infantry vehicles and artillery only by drawing out of storage and

refurbishing stocks built up in the Soviet era. Huge though these stocks are, they are not infinite.

According to most intelligence estimates, after the first two years of the war Russia had lost about 3,000 tanks and 5,000 other armoured vehicles. Oryx, a Dutch open-source intelligence site, puts the number of Russian tank losses for which it has either photo or videographic evidence at 3,235, but suggests the actual number is "significantly higher".

Aleksandr Golts, an analyst at the Stockholm Centre for Eastern European Studies, says that Vladimir Putin has the old politburo to thank for the huge stock-

piles of weapons that were built up during the cold war. He says that Soviet leaders knew that Western military kit was much more advanced than their own, so they opted for mass, churning out thousands of armoured vehicles in peacetime in case of war. Before the Soviet Union's demise, says Mr Golts, it had as many armoured vehicles as the rest of the world put together.

When the then defence minister, Sergei Shoigu, boasted in December 2023 that 1,530 tanks had been delivered in the course of the year, he omitted to say that nearly 85% of them, according to an assessment by the International Institute for Strategic Studies, a London think-tank, were not new tanks but old ones (mainly T-72s, also T-62s and even some T-55s dating from just after the second world war) that had been taken out of storage and given a wash and brush-up.

Since the invasion, about 175 reasonably modern T-90M tanks have been sent to the front line. The IISS estimates that annual production this year could be approaching 90. However, Michael Gjerstad, an analyst with the IISS, argues that most of the T-90Ms are actually upgrades of older T-90As. As those numbers dwindle, production of newly built T-90Ms this year might be no more than 28. Pavel Luzin, an expert on Russian military capacity at the Washington-based Centre for European Policy Analysis, reckons that Russia can build only 30 brand-new tanks a year. ►►

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► When the Ukrainians captured a supposedly new T-90M last year, they found that its gun had been made in 1992.

Mr Luzin reckons that Russia's ability to build new tanks or infantry fighting vehicles, or even to refurbish old ones, is hampered by the difficulty of getting components. Stores of components for tank production that before the war were intended for use in 2025 have already been raided, while crucial equipment, such as fuel-heaters for diesel engines, high-voltage electrical systems and infrared thermal imaging to identify targets, were all previously imported from Europe; their sale is now blocked by sanctions. The lack of high-quality ball-bearings is also a constraint. Chinese alternatives are sometimes available, but are said not to meet former quality standards.

Those are not the only problems when it comes to building new armoured vehicles or trying to modernise old ones. Ferroalloy production has actually decreased in the past two years, says Mr Luzin. Most welding in the weapons factories is still done by hand, and despite factories supposedly working triple shifts, Mr Luzin says that the firms are struggling to recruit enough workers. They also largely depend on machine tools imported years ago from Germany and Sweden, many of which are now old and hard to maintain.

Moreover, the old Soviet armaments supply chain no longer exists. Ukraine, Georgia and East Germany were all important centres of Soviet weapons and components manufacture. Ironically, Kharkiv was the main producer of turrets for T-72 tanks. The number of workers in Russia's military-industrial complex has also fallen dramatically, says Mr Luzin, from about 10m to 2m, without any offsetting step-change in automation.

Another concern is artillery-barrel production. For now, with the help of North Korea, Russia appears to have enough shells, probably about 3m this year—sufficient to outgun the Ukrainians until recently by at least 5:1 and in some places by much more. But the drawback of such high rates of fire has been the wear and tear on barrels. In some highly contested areas, the barrels of howitzers need replacing after only a few months.

Over a barrel

Yet, says Mr Luzin, there are only two factories that have the sophisticated Austrian-made rotary forging machines (the last one was imported in 2017) needed to make the barrels. Each can produce only around 100 barrels a year, compared with the thousands needed. Russia has never made its own forging machines; it imported them from America in the 1930s and looted them from Germany after the war.

The solution has been to cannibalise

A high price to pay

Equipment losses in Ukraine war, '000
Feb 24th 2022-Jul 17th 2024



barrels from old towed artillery and fit them to self-propelled howitzers. Richard Vereker, an open-source analyst, thinks that by the start of this year about 4,800 barrels had been swapped out. How long the Russians can carry on doing this depends on the condition of the 7,000 or so that may be left. Mr Gjerstad says that with multi-launch rocket systems, such as the TOS-1A, eking out barrel life has already meant much shorter bursts of fire.

But the biggest emerging problem is with tanks and infantry fighting vehicles, which are still crucial to any offensive ground operations at scale. Although the IISS estimated that in February this year Russia may have had about 3,200 tanks in storage to draw on, Mr Gjerstad says up to 70% of them "have not moved an inch since the beginning of the war". A large proportion of the T-72s have been stored uncovered since the early 1990s and are probably in very poor condition.

Both Mr Golts and Mr Luzin reckon that at current rates of attrition Russian tank and infantry-vehicle refurbishment from storage will have reached a "critical point of exhaustion" by the second half of next year. Mr Gjerstad gives it a few months longer. But the Russians will not want to reach a cliff-edge when they suddenly have only very few new tanks to send to the front. The new defence minister, Andrei Belousov, appears to be focused on ramping up production of drones.

Unless something changes, before the end of this year, Russian forces may have to adjust their posture to one that is much more defensive, says Mr Gjerstad. It could even become apparent before the end of summer. Mr Putin's interest in a temporary ceasefire may soon increase. ■

Ukraine's electricity supply

Racing against time

KYIV

Half its power is knocked out, with winter only a few months away

ON A TOUR of a destroyed power plant—unidentified for security reasons—the monumental damage wrought by Russia's spring campaign against Ukraine's electricity-generation infrastructure is clear. The vast Soviet-era coal-fired power station is gutted: walls charred by a fire that burned for over 24 hours, windows blown out, roof collapsed, machinery wrecked, pipes and ducts broken; everywhere a mess of rubble, twisted metal support struts, flayed steel cables, loose wire.

Serhiy (who asked that his surname not be used), a senior engineer, puts his finger in the shrapnel holes in the 20mm-thick hulls of the turbines, to illustrate the force of the blast. Incredibly, there were no casualties among the 15 or so key staff that are required to remain on site during air-raid alerts, hunkered behind sandbags in control rooms in the centre of the plant. Rain falls into pools of light from the holes in the shredded roof. It is unnaturally quiet.

Maxim Timchenko, CEO of DTEK, which runs most of Ukraine's non-nuclear

power plants, including the one *The Economist* visited, says that 90% of their generating capacity has been destroyed this year. Waves of attacks since March have targeted thermal and hydro plants as well as, for the first time, solar-energy installations. As Russia struggles to make any serious gains on the battlefield, power lines have become the new front line.

Before the invasion, Ukraine's generating capacity was 36 gigawatts (GW) of electricity. Russia targeted its electricity infrastructure in late 2022, and half of that capacity had already been lost—either occupied, destroyed or damaged—before the attacks renewed this year. Ukraine had managed to restore some capacity, and last winter managed just about to keep the lights on, restoring capacity almost to the 18GW then needed.

But this year's attacks have destroyed 9GW of capacity. Pretty much all that is left comes from nuclear power stations, which the Russians have refrained from attacking. The chug of generators has returned to ►►

► Kyiv's streets; power cuts affect every Ukrainian city; Russian attacks continue. There are not enough air-defence batteries to knock out all the missiles.

Now what? Ukraine currently imports 1.7GW from the EU; this could be upped to around 2GW, according to optimists, but imported electricity cannot provide more than an incremental boost. In the short term the damaged power stations may be repaired sufficiently by this winter to produce another 2-3GW of capacity. Ukrainian engineers are scouring Europe for second-hand equipment from decommissioned Soviet-type power stations.

It is unclear how realistic this is. "We will try," says Serhiy, the engineer, sadly surveying his power station's wreckage. Everyone understands that even if you could partly refurbish existing plants, they are large sitting ducks. All of them have been hit often.

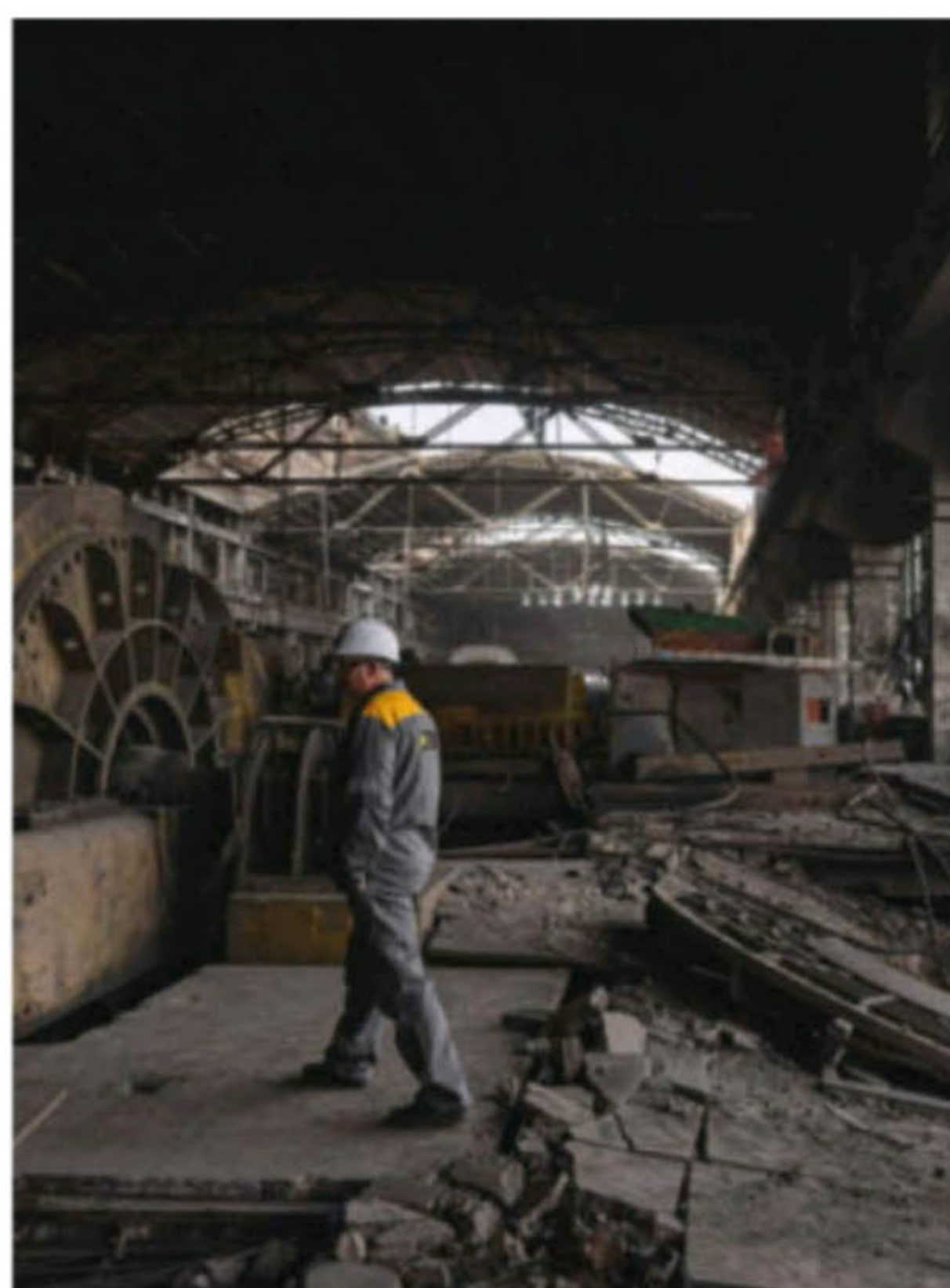
Repairing existing thermal power stations could be a relatively cheap stopgap. But even without the war, Ukraine would need to reorient its energy policy away from coal-fired stations. The government has decided to invest in nuclear; it announced that four new reactors would be built at Khmelnytsky, one of the three nuclear plants still under Ukrainian control, producing most of the power Ukraine still has. (Russia occupies the fourth, at Zaporizhia, and has shut it down.)

Some Ukrainian energy analysts are sceptical. "They are spending money on something we don't need," says Volodymyr Omelchenko at the Razumkov Centre, a think-tank. "It's a very bad decision in my opinion," he adds. "It looks like a way to tie up a lot of money in investing in a project over ten years."

Meanwhile local municipalities, desperate to be able to provide the critical services of heating and water-pumping this winter, are installing mini power plants in the form of modern, efficient, gas turbines with a capacity of anything from five to 70 megawatts (MW). These mini power plants can plug in locally, but it is unlikely that enough could be installed before the coming winter.

"The irony of this destruction and this war is that it accelerated the decarbonisation of the energy industry of Ukraine," says Mr Timchenko. DTEK finished building a 114MW wind farm just 100km from the front line last year. When a Russian missile hit one of their solar-panel fields, they repaired the damage in just four days. Wind and solar are not just greener options, but are resilient, too. "It's only one missile to destroy a 300MW coal-fired power station," points out Mr Timchenko. "But they need 50 missiles to destroy the same capacity in a wind farm."

Ukrainians have already learned how to adapt to electricity shortages. Small busi-



Lights out

nesses have diesel generators. Medium-sized factories have invested in gas turbines and can even sell their extra supply to the national grid. Cafés are open for co-working. But when it comes to keeping the heating and the lights on over winter, all of Ukraine will be sorely tested. ■

Free movement

Pluses and minuses

Romania is becoming a hub for international medical students

AFTER STRUGGLING to land a place on a medicine course in France, Louise Louvet reluctantly heeded a friend's advice: give Romania a chance. "I thought there was no way in hell I'd move there," she says, now a sixth-year medical student at the University of Medicine and Pharmacy in Cluj-Napoca. A visit to the campus had quickly changed her mind. Crowds of international students and the school's focus on practical care and teaching offered a welcome contrast to the dour rote-learning she had experienced in France. "After that, I said let's do it."

Louise's case is hardly unusual. Romania pumps out a prodigious number of doctors each year. In 2021 the country boasted some 26 medical graduates per 100,000 inhabitants: higher than in almost any country in the OECD, a club of 38 mostly rich economies. Among those newly minted graduates, international students are edging out the locals. Figures from the OECD show that whereas overall places on medical degrees in Romania

grew by 17% between 2011 and 2019, those on foreign-language medical courses leapt by 75%. Nearly a third of all medicine programmes in Romania are now taught in either French or English. In 2020, the last year for which government figures are publicly available, around 12,000 foreign students were studying for medicine, dentistry or pharmacology degrees.

Trekking to Transylvania makes a good deal of sense for aspiring doctors. Restrictions, generally on grounds of cost, often limit the number of places on medical programmes in their home countries. In France less than a quarter of applicants for places are successful each year.

Entry requirements in Romania are less stringent: universities often ask for little more than a high-school diploma and some have done away with gruelling entrance exams. EU-wide recognition of diplomas means students can theoretically practise their trade back home on graduation. Cheap tuition and living costs can also be a boon. Annual tuition fees in Romania run anywhere between €3,000 and €8,500. In Britain, by contrast, students must part with a yearly £9,250 (£11,000).

Romanian medical schools have been keen to cash in on foreign demand. They are usually free to set their own quotas on intake, as long as they are signed off by an independent accreditation agency. Many have grown creative at targeting foreign students. Cluj-Napoca University, for example, goes for the French. It is a member of the Agence Universitaire de la Francophonie, a global network of French-speaking higher-education institutions, and offers help to students seeking internships in French hospitals. The University of Targu Mures, for its part, has a distinctly Teutonic edge, and opened a Hamburg campus in 2019. Additional income from foreign students helps Romanian medical schools recruit and retain academic staff as well as invest in upgrading facilities, notes Professor Bogdan Popescu from the University of Carol Davila.

Yet despite its booming medical schools, Romania has long suffered a shortage of doctors. EU membership has been good for roving students going eastward, but another result has been a westward drain of Romanian doctors. Around one-third of all Romanian doctors emigrate to richer countries.

The main reasons are low pay (in Germany, they can earn far more) and poorly equipped hospitals at home. Mr Popescu notes that emigration has started to slow, in large part thanks to better wages and investments at home. Some international students are opting to stay too, he adds. Asked if she could see herself staying in Romania, Louise shrugs. She will be going back to France. There's a shortage of doctors there, too. ■

Cyprus

Fifty years of division

NICOSIA AND FAMAGUSTA

There seems no prospect for the reunification of the island, half a century after Turkey invaded the north

AS ONE OF the world's oldest conflicts turns 50 this week, a resolution to the division of Cyprus remains far away. Unless, that is, you consider the status quo to be a resolution of sorts.

The island of Cyprus won independence from Britain in 1960 and was almost immediately riven by disputes between its largely Greek south and its largely Turkish north. After violence broke out in Nicosia, the capital, in 1963, the UN sent in peacekeepers. In 1974 the junta that ruled Greece tried to unite Cyprus with Greece, ousting the president of the island. That led Turkey to invade on July 20th, eventually taking control of just over a third of the island. In time, the Turkish part, divided from the Greek bit by a UN-administered buffer zone, became the Turkish Republic of Northern Cyprus (TRNC), recognised by Turkey but nobody else.

International efforts to unite the island in a "bi-zonal, bi-communal federation" failed in 2004 and 2017. Cyprus is now experiencing its longest-ever period without serious negotiations. Earlier this year António Guterres, the UN secretary-general, appointed an envoy, María Ángela Holguín Cuéllar, a former foreign minister of Colombia, to assess whether enough common ground exists for talks to resume. Her conclusions have yet to be made public.

For better or worse, the political and economic dynamic suggests that the current division could continue indefinitely. "The Cyprus problem is difficult to solve, but relatively easy to manage," says Hubert Faustmann, a law professor at the University of Nicosia in the south. In 2012 two academics, Constantinos Adamides of the University of Nicosia and Costas Constantinou of the University of Cyprus, coined the term "comfortable conflict" to describe the standoff. In contrast to the Palestinian-Israeli or Armenian-Azerbaijani conflicts, Cyprus's division is almost literally a walk in the park: since 2003, both sides have allowed free crossings of the buffer zone.

The ability to move freely has been "a huge confidence-building measure" for the once-claustrophobic portions of the island, says Sertac Sonan, a scholar at Cyprus International University in the portion of Nicosia, the divided capital, on the TRNC side. Mr Sonan himself crosses the buffer zone almost every day.

During your correspondent's multiple foot crossings through Nicosia's two

checkpoints in the course of a week, the wait never exceeded a minute. Car crossings can take longer but are common in both directions. Turkish-Cypriots from the north come to work in the richer south or shop for brands that are unwilling to do business in the unrecognised north. Greek-Cypriots from the south, meanwhile, head north for inexpensive dining, haircuts and dentistry, a chance to visit a growing number of casinos, and to buy petrol, which is a lot cheaper in the TRNC.

Extremist violence has been all but non-existent; the conflict's last deaths came in 1996. The younger generations are psychologically removed from the fighting and property dispossession of the 1970s. The Republic of Cyprus—the officially recognised entity, which de facto consists of the predominantly Greek south—joined the EU in 2004. Many residents of the north can get a Republic of Cyprus passport, giving them access not just to southern Cyprus but also to the EU and its perks. Turkish-Cypriots are generally eligible so long as they were born there before the invasion or both parents were. A large majority have taken up the offer. (Those that arrived afterwards usually do not qualify.)

Freedom of movement and access to Europe have reduced the pressure on both sides to unify. For many Greek-Cypriots, unification has only a downside. They would have to share power with Turkish-

Cypriots (and, indirectly, with Turkey itself). The difference in incomes (GDP per head is twice or more as high as on the Greek side than on the Turkish one) could cause economic upheaval.

In all, many Greek-Cypriots would see reunification as a "real risk of becoming Lebanon, and our parents already lived through that," says Michael Sirivianos, an engineering dean at Cyprus University of Technology in the southern coastal city of Limassol. Efforts to forge a bi-communal mindset with Cypriot institutions that span the buffer zone have seen only limited success.

The sultan's tighter link

Although Turkish-Cypriots did vote for unification in a referendum held in 2004 shortly before Cyprus formally joined the EU (the Greek ones rejected it), the current political dynamic raises questions about whether that would happen again. Immigrants from mainland Turkey, and their descendants, may already be the majority in the north. Turkey under its president, Recep Tayyip Erdogan, has become increasingly influential in Turkish-Cypriot affairs, both in politics and by offering as an economic lifeline.

The discovery of offshore gas deposits led some to hope that fossil-fuel development might help both sides cut the Gordian knot. But it has instead meant more squabbling. Turkish-Cypriots are now, on the whole, more interested in a two-state solution than any form of federation.

"It saddens me to say, but I think the status quo has been very sustainable in Cyprus," says Ahmet Sözen, a political scientist at Eastern Mediterranean University in the northern city of Famagusta. "The longer the division continues, the more concrete it gets." ■



How it started

CHARLEMAGNE

A Gaullist hillbilly in Washington

Vive le Vance! An honorary Frenchman in America sends Europe into panic mode



WHEN AMERICAN senators are asked to name a political idol, they usually reach for a figure carved on Mount Rushmore. J.D. Vance, the newly minted Republican nominee for the vice-presidency, unexpectedly plumped for a Frenchman. Asked by Politico, a news site, earlier this year whom he looked to for inspiration, Mr Vance paused for a moment then cited Charles de Gaulle. *Zut alors!* Might this transatlantic admiration be good news for Europe, badly in need of allies in the Trumpian camp it fears will be back in power in Washington come January? Not so much. What Mr Vance admires in the French post-war president was the “invigorated self-confidence” he exuded on behalf of his country, diplomatic talk for telling allies to go stuff themselves when he felt like it (as the general did with NATO when it displeased him, say). Europeans fretting about America’s continued support for Ukraine are unlikely to be reassured.

A glum mood has pervaded Europe as the realisation of a return of Donald Trump to the White House has become not just possible but likely. The former president’s choice of an establishment Republican figure as running-mate might have soothed nerves set jangling by past promises that the war in Ukraine would be settled “in 24 hours”, whatever that means. Mr Vance is not that. His MAGA rhetoric on Europe exudes the brash confrontationalism perfected by Mr Trump. If the man on the top of the ticket has a visceral feeling America is being ripped off by Europeans scrimping on defence, his vice-presidential pick adds a layer of indifference to what is happening in a faraway land of which he knows little. “I don’t really care what happens to Ukraine one way or another,” he once told an interviewer. Earlier this year he spearheaded the opposition to a \$60bn military-aid plan to Ukraine, then skipped a meeting with its president, Volodymyr Zelensky. A peace settlement Mr Vance has mooted includes Ukraine losing much territory and accepting “neutrality”, two Kremlin demands.

Things are both worse and better than they look. Pessimists among Europeans, a dominant faction these days, will look beyond Mr Vance’s bluster on Ukraine and find much else to dislike. His bashing of the foreign-policy elite includes Republican grandees whom ambassadors from Europe have spent years schmooz-

ing. Like his putative boss, Mr Vance is an instinctive isolationist, keen to raise tariffs on imports from Europe and elsewhere. He plainly dislikes the rules-based international order Europeans built alongside America. He has questioned whether humans cause climate change. Like many “national conservatives” state-side, he admires Viktor Orban, the Hungarian prime minister who infuriates most of his European Union counterparts. Those in the political mainstream have found their efforts to butter up the Ohioan backfire. David Lammy, Britain’s new foreign secretary, included a shot of “my friend” Mr Vance in a promotional video of a recent trip to America. The senator returned the favour by saying Britain under Labour was now a nuclear-armed Islamist state.

Optimists should take comfort in the fact that Mr Vance is Europe-curious in ways that his boss never was (beyond his choice of wives). At the risk of volunteering for the guillotine, Charlemagne would venture that Mr Vance is something of an honorary Frenchman. He came to fame as a navel-gazing memoirist and public intellectual, essentially a French profession. He is sceptical of big business, thinking it too often steamrolls the little man he professes to defend. Mr Vance is against tax cuts for the rich and has argued for European-style collective bargaining. The man once even joined striking workers on a picket line, *pour l’amour de Dieu*. Speaking of which, Mr Vance converted to Catholicism in 2019 based on his appreciation of René Girard, a French philosopher. Like much of the Parisian elite today, the MAGA millennial is a denouncer of woke ideology, obsessively worried about declining birth rates and until not so long ago thought Mr Trump a danger to democracy. In different circumstances, he could have been imported to break the current political imbroglio in France.

A year in pro-Vance

The glumness in Europe is overdone, at least as regards the prospect of a Vance vice-presidency. For what has really changed? Mr Trump, like de Gaulle, is hardly one to have his mind swayed by flunkies. His new understudy is nothing if not ideologically flexible: if he changed his mind on Mr Trump, might he switch tunes on Ukraine, too? Bluster aside, Mr Vance sometimes sounds reasonable. He thinks America should remain in NATO, the very institution de Gaulle partially pulled France out of; and that Russia seizing all of Ukraine would not be in the interest of America.

Best to think of Mr Vance as repeating, in a different register, what both Mr Trump and his foes have been saying for over a decade. His bashing of free trade is a continuation not just of the Trump administration’s, but the Biden one’s too. That Europe needs to carry more of the burden to defend itself, given that America wants to “pivot” to other priorities, was first mooted by Barack Obama. There is an opportunity for Europe: if a Trumpian America wants to isolate China, its diplomatic and security efforts will be far more effective with Europe alongside it, for example.

In Brussels and beyond, the mere prospect of a Trump-Vance combo in the White House ought to add urgency to the debate about Europe’s future. How can it fund the defence spending it needs to make up for two decades of over-indulging in the post-cold war “peace dividend”, and thus not be so dependent on America? A summit of EU leaders on October 17th—in the final throes of the presidential campaign in America, as it happens—is due to consider its 27 members jointly borrowing hundreds of billions to upgrade their military capabilities. Germany is sceptical. France is in favour. It is what J.D. Vance would want, after all. ■

Britain



Criminal justice

Cell signals

Labour's response to a crisis in prisons is its first big test

IT WAS NO coincidence that Shabana Mahmood chose HMP Bedford for her first visit as justice secretary on July 12th. In December Charlie Taylor, the chief inspector of prisons, reported that conditions at the Victorian-era facility were among the worst he'd ever seen: "On very wet days, raw sewage covered the floor and cells were dark, damp and dilapidated." Violence was rife, staff out of their depth and the prison hopelessly overcrowded.

The last of these problems has caused the first big headache of the new Labour government's term in office. Britain's prisons are full: space for new inmates is on course to run out within months, possibly weeks. Ms Mahmood warned that a lack of custody space would mean "vanloads of dangerous people circling the country"; police would be taken off the streets to manage overflow cells. The government's short-term fix is to extend early releases, so some prisoners will be let out with less of

their sentence completed. Its long-term plans are fuzzier and more intriguing.

There are 88,000 people locked up in England and Wales, a number that has risen by 12% in three years. For the system to run well, the Ministry of Justice (MoJ) needs to keep around 1,400 places free. There are now only 700 free places, with a particular squeeze in adult-male prisons. Get below 300 and prisons would have to stop taking new arrivals to meet health-and-safety protocols, says Tom Wheatley

of the Prison Governors' Association.

This is not a new problem. Britain has long struggled to build enough prisons to keep up with the consequences of a tough stance on law and order. The prison population in England and Wales almost doubled in the 1990s and 2000s, largely as a result of a higher conviction rate and tougher sentencing. The last Labour government also ended up almost running out of space and, just as now, being forced to implement an early-release programme.

From the 2010s the pressure was exacerbated by a further push to lengthen sentences, says Cassia Rowland of the Institute for Government, a think-tank. The average custodial sentence in crown courts rose by a quarter between 2012 and 2023; for a robbery charge that means an extra 13 months. Tougher sentencing has a lagged effect. It is now starting to bite. The prison population is set to exceed 100,000 by the end of 2025 (see chart on next page).

Two more factors explain the crunch. One is a surge in prisoners on remand (those waiting to be tried or sentenced), largely because of post-pandemic backlogs in courts. Since 2019 this group has grown by 84% to 16,500, almost a fifth of the prison population. The other is a big increase in "recalls"—when prisoners breach the terms of their parole and are returned to the cells. That reflects a lack of

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— Mission-led government

► support once they leave, in part due to widespread problems within the probation service. It is, says David Gauke, a former justice secretary, a “perfect storm”. Decades of ever-tougher policy and underinvestment have been compounded by the feedback loops of a creaking system.

Ms Mahmood’s short-term plan is to allow prisoners—apart from those charged with violent, sexual or terrorist offences, or crimes “connected to domestic abuse”—to be let out after serving 40% of their sentences, rather than 50% as before. There are few other options. Alex Chalk, Ms Mahmood’s Tory predecessor, had been working on a similar plan; the Tories had already introduced a scheme to let some prisoners out ten weeks early.

Implementing the policy, which takes effect in September, will not be straightforward. Some inmates are serving time for multiple convictions; domestic abuse is not a specific criminal offence. The worry with any such plan is that someone released early goes on to do something awful. Still, it does buy some breathing space.

The government also says it will speed up the building of prisons. In 2021 the Conservatives promised six prisons with space for 20,000 inmates by the mid-2020s, but two have been held up by planning delays. The MoJ is unlikely to build its way out of trouble, however, given how many government departments will be after money.

That leads to the question of whether Labour is thinking about bolder reforms. None were trailed in its manifesto, which talked only of making sentencing “more straightforward” and sounded hawkish on shoplifting. Yet Sir Keir Starmer used his first press conference as prime minister to say there were “too many” prisoners, a break from his predecessors. And he has appointed as a prisons minister James Timpson, a businessman who has long employed ex-convicts and backs reform.

An obvious area to start would be ending the use of short custodial sentences of under 12 months. A weight of evidence shows that they suck low-level offenders

deeper into crime. Mr Timpson’s role is meanwhile likely to focus more on improving rehabilitation inside prisons, although success will depend on getting things under control. “With such overcrowding you can’t do much but keep people in pens,” says Pia Sinha, a former governor who now heads the Prison Reform Trust.

Taking a more liberal approach to criminal justice is risky. Several Conservatives, including Mr Gauke and Mr Chalk, tried to phase out short sentences, only to be blocked by Number 10. Labour frets about appearing soft on crime. But the new government has an opportunity to make the case that something has to change. A system marked by rampant reoffending and the highest rate of incarceration in western Europe neither keeps the public safe nor achieves value for taxpayers.

The first step in forging a new consensus is typically condemning what has come before, notes Phil Tinline, a historian. Ms Mahmood castigated the Tories as “guilty men” for neglecting the criminal-justice system, an echo of attacks on appeasers who had stood in the way of a new social and economic settlement in the 1930s. She and her colleagues will ultimately be judged on whether the public realm, including places like HMP Bedford, is in better shape at the next election. Their first act is to prosecute their predecessors. ■

Flightless birds

Penguins v modernism

REGENT’S PARK

An empty pool at London Zoo

SET BETWEEN the llamas and the Land of the Lions, the penguin pool in London Zoo is a mini-modernist masterpiece. Built in 1934 and designed by Berthold Lubetkin, it is sleek, swooshy and perfectly proportioned; its cantilevered concrete ramps, slender as apple peelings, were revolutionary. There was just one problem. The penguins didn’t like it.

The refurbished concrete hurt their feet. The elegantly shallow pool was too shallow. The minimalist white walls hurt their eyes. London Zoo’s keepers do not like to talk about penguins being “happy” or “unhappy” (it is anthropomorphising). But, says Jessica Fryer, team leader of penguins and flying birds at the zoo, some of the penguins’ feet became “so sore”. They developed a foot disease that, in its severest form, can lead to penguins being put down. It may not be possible to say whether penguins are “happy” or “unhappy”. But “dead” is definitely worse than “alive”.



Forward march

The penguins were moved out in 2004. The pool has been empty ever since. Lubetkin’s daughter has suggested it is “time to blow it to smithereens” but that is not an option, for it is listed. It cannot be repurposed (and certainly not re-porpoised) as it is too shallow and not right for other animals. The penguin pool has become a white elephant.

In some ways its fate is emblematic of that of modernism in Britain. At first, the country embraced this minimalist architectural style, with its ethos that “less is more” and ornament is “crime”. But from around the 1960s, Britain fell dramatically out of love with it. Architects may like geometric designs: a film in the 1930s celebrated the fact that the zoo no longer dealt in “artificial reproduction” of animals’ “natural surroundings”. But organic animals, argues Thomas Heatherwick, a designer, have organic needs. There is a mental-health aspect to buildings; that is true “for a penguin as much as [it] is for a human”.

Penguins were, for a time, modernist pin-ups. Those at London Zoo inspired the logo of Penguin, a pioneering publisher. Socially, too, they were modernisers: in an era when many claimed homosexuality was “unnatural”, penguins proved otherwise. Edwardian-era Antarctic explorers had observed males having sex not only with female penguins but also with male ones, and with dead ones. This helped change heteronormative assumptions. Or, as one Edwardian put it: “There seems to be no crime too low for these penguins.”

Britain’s social revolution has moved on. Today, the zoo’s website bears the banner: “Some penguins are gay. Get over it.” (Necrophilia, perhaps a taboo too far, is not mentioned.) But its modernist revolution has fared less well. Lubetkin once wrote that his buildings “cry for a world which has never come into being”. And in London Zoo, a soft summer rain falls into an empty penguin pool. ■

Prison breaks

England and Wales, prison population and capacity, '000



Sources: Ministry of Justice; Institute for Government

Stockmarkets

Shein on?

A fast-fashion IPO is a test case of London's allure as a listings venue

AT ITS PEAK in 2005 the London Stock Exchange (LSE) attracted nearly one in five companies that went public globally. In 2023 that share was around 1% (see chart 1). To arrest this alarming decline the City's regulators are loosening listing rules. And to show that it can still be a venue for blockbuster debuts, the LSE is chasing what would be its biggest-ever initial public offering (IPO)—for Shein, a fast-fashion giant and one of the most valuable startups in the world.

There's a lot on the line. The LSE needs fast-growing companies to list there, but also wants to avoid being seen as a dumping-ground for contentious firms. By becoming a public company, Shein means to subject itself to more intensive levels of scrutiny. Each would hope to burnish the other's reputation. The risk is that the shine comes off them both. "It's a fertile environment for something bad to happen," says one analyst.

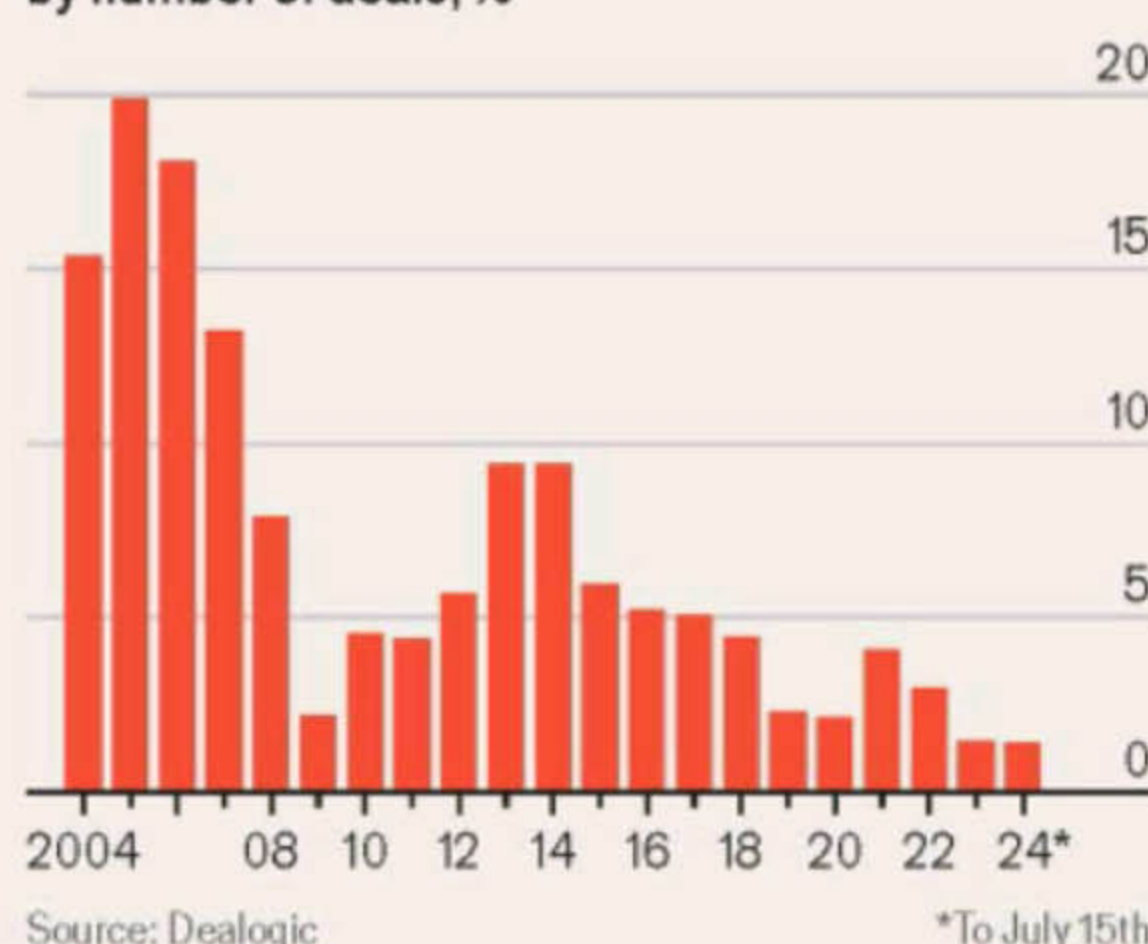
The new rules, unveiled by the Financial Conduct Authority (FCA), Britain's financial watchdog, on July 11th, will come into force this month. Among other things, they relax restrictions on dual-class shares, a standard feature of tech IPOs in New York that offers founders more powerful voting rights. They also drop the requirement for previous shareholder votes on making acquisitions or disposals.

The FCA concedes that its reforms involve greater risk. Market debutants will no longer be required to present a three-year financial record to be eligible for a listing, for instance. "It puts more onus on investors to know what they are buying, rather than assuming a listing guarantees quality," says Mark Hiley, founder of The Analyst, an independent research firm. But regulators hope the changes will attract fast-growing tech startups of the sort that have turned their backs on London.

A Shein IPO, which could value the company at £51bn (\$66bn; see chart 2), would certainly create a splash, and not just among pension-fund managers. "Younger generations invest in crypto and place bets on a game of football," says Martin Graham, a former director of markets at the London Stock Exchange Group, the LSE's parent company. The presence of the world's most-searched-for fashion retailer—the sort of high-tech company in short supply on an exchange filled with miners, tobacco companies and banks—could help

Arrested development

London's share of global IPOs by number of deals, %



draw more people to stocks.

It would also help raise London's profile among firms—and one group in particular. Shein was founded in China in 2012, although it moved its headquarters to Singapore in 2021. A listing would open the floodgates for a growing number of Chinese firms hoping to float their offshore assets in the City, according to John Xu, a Hong Kong-based lawyer at Linklaters, a law firm. Chinese entrepreneurs who once flocked to Wall Street are now deterred by strained relations between Beijing and America (Shein itself has toyed with the idea of listing in New York). Hong Kong has lost some of its allure as the Chinese economy has slowed down.

But courting Shein comes with hazards. Campaigners balk at the environmental impact of fast fashion, which relies on sell-

ing high volumes of low-cost clothing. Between July and December 2021 Shein added up to 10,000 items to its app every day, according to research by *Rest of World*, a non-profit publication. The company has pledged to cut carbon emissions across its supply chain by a quarter by 2030.

Shein also invites scrutiny for its links to China. The firm is keen to play down its connections to its home country: it has no customers in China and likes to refer to itself as a global company. But it nonetheless struggles to shake off questions about its precise relationship with China; it has yet to receive approval from Chinese authorities to list in London, for example. Laws that require firms to co-operate with state intelligence agencies provoke scepticism of all Chinese companies. Sporadic crackdowns on tech firms by regulators in Beijing have wiped out trillions of dollars in market value, spooking investors.

The fact that Shein sources the bulk of its materials from China raises other, more specific concerns. The firm has already solicited the help of Oritain, a forensic-technology firm, to tackle concerns that it gets clothing from China's Xinjiang region, where the government violates the rights of Uyghurs, a Muslim minority. Oritain carried out 2,762 tests of Shein samples between August 2022 and November 2023. The probe found that 1.7% tested positive for cotton from "unapproved regions", compared with an average of 6% for Oritain's other retail clients.

Package deals

Tighter import rules could also threaten the firm's profits. Lawmakers round the world are looking to close "de minimis" tax loopholes, which allow retailers like Shein to avoid hefty customs duties by shipping small packages directly to consumers rather than via warehouses. In 2022 Gap, a retailer, paid \$700m in tariffs on bulk shipments to America—equivalent to just under half of Shein's net profit last year. "De minimis rules and tariffs in different regions are not foundational to our success," responds Donald Tang, the firm's chairman. Shein is opening distribution centres in America, Europe and elsewhere; it is adding suppliers in Turkey and Brazil.

All these concerns about Shein will stoke investor worries about declining governance standards on the London stockmarket. But they also help to make the argument for why an IPO should go ahead. Shein claims to want the scrutiny of public markets in order to remove some of the opacity that surrounds it. "I want to make it crystal clear that the foundational element of our success is our unique business model," says Mr Tang. The real test for the LSE will not just be persuading Shein to list its shares in London, but putting it properly under the microscope. ■

Trendsetter

London Stock Exchange's largest IPOs*, £bn



*IPOs prior to 1995 are not included as LSE does not consider the data to be accurate
Source: Dealogic

BAGEHOT

The secret of good government? Trying

Effort always beats ideas in British politics



THE POWER of a new government stems not from its ideas but its enthusiasm. Labour, which took power on July 5th, kicked off with a flurry of green measures approved with the simple squiggle of a minister's pen. Three giant solar farms were nodded through. A ban on onshore wind farms was removed by ministerial diktat. Or as Sir Keir Starmer, the prime minister, put it in peculiarly teenage syntax: "It was just, like, 'delete'."

A new government is a reminder of an old lesson: effort is the most underrated force in British politics. What governments should do is endlessly debated; how they should do it is almost completely ignored. In his book "How To Run A Government", Sir Michael Barber, a former New Labour adviser and perhaps the most effective aide of the past half-century, sets out a rule of thumb: "Policy is 10% and implementation 90%." In politics, in other words, trying is nearly everything.

When ministers try, things happen. At the start of their tenure in 2010, Conservative politicians charged into the education department with near-Leninist zeal. Senior department staff were shuffled out (or "purged", as Dominic Cummings, a former education adviser turned Brexit Svengali, put it). Ministers and advisers pushed in the same direction, overhauling the curriculum despite howls of protests. It took years of concerted effort, but the results showed up eventually: English schools improved and pupils shot up the international rankings.

Compare the progress made at the start of the Conservatives' period in office with the inertia at its end. In 2023, not long after becoming prime minister, Rishi Sunak pledged to make English children study maths until they were 18 years old. By the time Mr Sunak called the election, that aim was little closer to becoming reality. It was not as if the government had much else on. In its final session Parliament sat for little more than seven hours a day; it regularly knocked off hours early. Bills were few and often trivial (step forward the Pet Abduction Act 2024). In short, Mr Sunak's government had stopped trying.

Inactivity is a choice, not an inevitability. A common complaint among ministers is that "the levers are not attached to anything". It is true that Whitehall does not have an "improve growth" but-

ton. But there was a giant "approve solar farm" button that Conservative ministers refused to press. The projects approved by Labour in its first full week had sat on the desks of Tory predecessors for months. The Conservatives shared the goal of net-zero carbon emissions by 2050. They were simply not trying as hard to meet it.

Effort is required even if a target is improbable. Labour wants to decarbonise the energy grid by 2030. It is probably impossible, say wonks. But if all goes well, the government will come close. In general, the Samuel Beckett approach is best: "Ever tried. Ever failed. No matter. Try again. Fail again. Fail better." Too often, British governments offer a bastardised version: "Ever tried?" "No."

Defeatism haunts Whitehall and wonkland, where pessimism is mistaken for sophistication. Saying something is hard is easy, and usually taken as the end of the conversation rather than its beginning. Yet few things in government are truly complex; many more are merely either unpopular or expensive. Too often technocratic solutions are sought for the inherently political problem of convincing voters something is a good idea or worth paying for. "No amount of analysis can replace the need for political courage," writes Sir Michael.

Entire chunks of the state have been left more or less untouched by politicians, largely due to political cowardice. About a fifth of all government spending goes on Britain's National Health Service (NHS). Its post-pandemic collapse, when waiting lists soared, is one of the main reasons why the Conservative Party became so unpopular. Yet it has been well over a decade since a government minister thought seriously about how to improve it. Instead policy was in effect outsourced to NHS England, a gigantic quango, which has day-to-day control over the health service offered to England's 60m citizens. The NHS has had plenty of money. What it has lacked is attention. If the NHS is in a mess, it is partly because no politician has seriously tried to clean it up.

We've tried nothing and we're all out of ideas!

Effort, or the lack of it, explains why some government services thrive while others struggle. During the pandemic a bureaucratic backlog built up, with everything from passport renewals to driving tests affected. The crisis in Britain's passport office was swiftly solved. Effort was lavished on it. Extra staff were brought in. Trying proved such a novelty that an explanation of how passports were fixed was among the most-read stories in the *Sunday Times* in 2023, proof that readers sometimes like good news (alongside less cheery fare such as the tale of a dogwalker mauled to death by her charges). A problem was solved because people tried to solve it.

Driving tests, in contrast, are still a mess. Learners can either endure a six-month wait to book or hand over £350 (\$455) to a scalper who is selling on test slots as if they were Taylor Swift tickets. The British state has a budget of £1.2trn. Its word is law; those who defy it are jailed. Perhaps it cannot stop scalpers from holding driving-test slots hostage. There is a more likely explanation: the government simply has not bothered to fix it. To govern is to choose whether to try.

Trying is not sexy. Good government takes place away from television interviews and speeches to adoring activists. It consists of meetings, emails and checklists; it takes months and years until a trend starts to move in the right direction. Yet whether policy succeeds depends on politicians having the stamina for a boring, determined slog. A Labour government with a stonking majority can achieve many things. But only if it tries. ■

International



The Geneva Conventions at 75

No more the laws of war?

Already under strain, a great-power conflict could push them to breaking point

GLOOM WILL accompany the 75th anniversary of the Geneva Conventions next month. Debates rage as to whether this batch of treaties, which govern how wars may be fought, and later protocols, which ban genocide, torture and more, remain fit for purpose. The head of the International Committee of the Red Cross (ICRC) has warned of “increasing elasticity” in how countries apply the laws of war, which the conventions underpin.

Take Russia. In Ukraine and Syria the country has disdained the laws of war and frequently hit civilian targets without compunction: on July 8th a children’s hospital in Ukraine’s capital was bombed. Israel is also criticised for its conduct in Gaza as it fights Hamas. Some 38,000 Palestinians have been killed. Yet Israel insists on the legality of its strikes on schools, hospitals and refugee camps. Meanwhile, in Sudan conflict between the Sudanese Armed Forces (SAF) and the Rapid Support Forces

(RSF), a paramilitary group, has flattened swathes of the country. More than 750,000 people are at risk of famine.

Courts are scrambling to keep up. The International Criminal Court’s (ICC) prosecutor has requested arrest warrants for Binyamin Netanyahu and Yoav Gallant, Israel’s prime minister and defence minister, as well as the leaders of Hamas, on charges of war crimes. It has also issued an arrest warrant for Vladimir Putin, Russia’s president. In Sudan’s Darfur region, ICC prosecutors are collecting evidence of atrocities committed by both the SAF and RSF. And in May the International Court of Justice, which tackles governments rather than individuals, ordered Israel to restrain its Rafah offensive.

The erosion of respect for the laws of war looks likely to continue as the world enters a new era of great-power rivalry. Western countries are re-tooling their armed forces to fight a “near-peer” adver-

sary. Many armed forces are reassessing the legal and policy constraints under which they expect to do battle. Some Western officials increasingly believe China or Russia might ignore the laws of war. A major conflict between America and China could lead to the demise of the laws.

Whether laws can actually regulate wars has long been debated. Many of the related moral principles are centuries old; some even stem from religious texts. But it was the horrors of the second world war, from Nazi atrocities to Allied atom bombs, that prompted new international rules on conduct in conflict.

The Geneva Conventions do not outlaw warfare; at their core they seek to reconcile a clash between humanity and military necessity. What is necessary to defeat the enemy is permitted. Inflicting unnecessary suffering is not. They protect combatants who have been captured, wounded or have laid down their arms, and are therefore no longer able to fight. Prisoners-of-war are entitled to minimum standards of treatment. Most important, the laws of war protect civilian non-combatants from deliberate or indiscriminate attack, reprisals, hostage-taking and starvation.

The laws of war do not presume that civilians in war zones must be—or even should be—spared. Armed forces are granted broad discretion to achieve legiti- ►►

mate military objectives. "It's a very permissive system to begin with," argues Aurel Sari of the University of Exeter in Britain. Though always imperfect, the laws of war continue to tackle "the very fundamental needs of people in armed conflict", argues Cordula Droege, the ICRC's chief legal officer. They try to advocate for war's victims, both present and potential.

In the 1950s and 1960s in particular, many Western armies applied aggressive, even unlawful, interpretations of the laws. American strategic bombing campaigns in Korea, for example, paid little heed to the principle of distinction—which requires differentiating between civilian and military targets—resulting in millions of casualties. Nor were the laws evenly applied during brutal wars of decolonisation.

It wasn't until the 1970s that Western armies started to take a more expansive view of their humanitarian duties. Allegations of American atrocities in Vietnam focused minds. So did developments in technology: advances in precision-guided weapons around that time meant many felt that there was little excuse for civilian deaths. By the 2000s the idea was that lawyers could persuade citizens tired of the war on terror that military action was legitimate. The need to win over locals during counter-insurgency campaigns also helped keep Western soldiers in check. Even so, American, Australian and British special forces have faced allegations of war crimes in Afghanistan and Iraq.

Back to basics

Now some generals are calling for a return to a more basic, permissive understanding of the laws of war in the face of growing tension between America and its rivals. That was expressed most bluntly in an article penned in 2021 by Lieutenant-General Charles Pede, then the US Army's top lawyer, in *Military Review*, a journal. He warned that American forces were suffering from a counter-terrorism "hangover", accustomed to "highly constrained, policy-driven rules of engagement". Such restrictions, if applied to a war with Russia or China, he warned, "would be disastrous".

One problem military planners identify is that wars will speed up. A fight against China or Russia "will not provide commanders the luxury of time, nor...near certainty regarding collateral effects", write Lieutenant-General Stuart Risch, currently the US Army's top lawyer, and his colleague Colonel Ryan Dowdy in the *Army Lawyer*, another journal. "You're going to have extremely high-tempo operations which are going to be faster than the speed of lawyering," explains Matthew Waxman, a professor at Columbia Law School in America and a former Pentagon official.

In such a fast-paced, chaotic environment, armies are debating how far they will

delegate what they call target-engagement authority—essentially the right to conduct an attack—down the chain of command. That comes with increased risks to civilians. There will be less vetting of targets by lawyers and a greater reliance on soldiers' own grasp of the laws of war. In Iraq and Afghanistan, Western forces were able to launch drones that could loiter for hours, if not days, to verify targets and minimise collateral harm with precision-guided weapons. That may not be possible in a war over the Baltic states or Taiwan.

That might not matter in a limited engagement, where military targets are much more obvious: think of a Chinese invasion fleet in the Taiwan Strait. But as conflicts grind on and escalate, civilian and dual-use targets are more likely to get caught in the crosshairs. In a war of attrition, striking "war-sustaining" facilities, though legally murky, could become commonplace.

A second issue is the sky-high stakes in any big conflict. The laws of war require armies to ensure that any civilian harm from an attack is proportionate to an expected military advantage. (The legality of using nuclear weapons is contested, but would in any case need to conform to the principles of distinction and proportionality.) In wars where national survival or swathes of territory are at stake, commanders might tolerate high levels of civilian harm and reconsider targets once deemed off-limits. Even in wars of choice, America has tested the limits. In Iraq in 2003 its strikes on some Iraqi power facilities caused considerable suffering among civilians. That sort of thing might become more routine in a great-power war.

A third challenge is how to apply the laws of war in emerging arenas of conflict. One example concerns the electromagnetic spectrum. As all-seeing sensors make

battlefields more transparent, adversaries could be tempted to make their electronic emissions mimic protected objects, such as hospitals, to try to fool the enemy. The line between lawful deception and perfidy is already fine, but in future conflicts "the impetus to look like something innocuous to blend in with a civilian environment will really be strong", argues Sean Watts of the Lieber Institute for Law and Warfare at West Point, America's military academy.

These problems will worsen when battles are fought in cities, whether Gaza today or Taipei tomorrow. Almost any piece of infrastructure—a road, a reservoir, an energy grid—can serve both military and civilian purposes. A new report on Israeli operations in Gaza by the Royal United Services Institute, a British think-tank, argues that many of the humanitarian demands placed on the Israel Defence Forces "are incompatible with achieving the military tasks which they have been assigned".

Terrifyingly, death and destruction on a vast scale may become much more common. That became vividly apparent in a recent wargame conducted by the Stimson Centre, a think-tank in Washington, which sought to "stress-test" NATO's policy on civilian-harm mitigation in a scenario where the alliance faced a "near-peer competitor"—read, Russia—"during a high-intensity, urban conflict". More than 66,000 civilian casualties occurred in some rounds. The report concluded that NATO's aspirations for reduced civilian deaths "have never been achievable and are even less so" in that sort of intense urban war.

Would Western publics, unaccustomed in their lifetimes to serious warfare, stomach such carnage? The short answer is: probably. Studies suggest that public support for civilian immunity can be brittle and swiftly overcome by the imperatives of war. In a paper by Scott Sagan of Stanford University and Benjamin Valentino of Dartmouth College, published in 2017, participants were asked how they would respond to a hypothetical Iranian attack on American forces. Some 67% of respondents opted for a conventional bombing attack that deliberately killed 100,000 Iranian non-combatants if it saved the lives of 20,000 American troops.

Although such scenarios raise troubling questions, pockets of optimism remain. The laws of war are much more institutionalised and public scrutiny has never been greater, argues Janina Dill of Oxford University. And they continue to serve an important legitimising role for countries. But given the breadth of the laws, industrial-scale bloodshed does not necessarily contravene them. In recent decades armies have largely "ratcheted to more and more humane rules of warfare", says Mr Watts. The fear is that a great-power conflict could turn the clock back. ■



Deserted?

Business



Innovation

Research developments

SHANGHAI

China is the West's corporate R&D lab. Can it remain so?

CHINA IS, FAMOUSLY, the world's factory and a giant market for the world's companies. More unremarked is its growing role as the world's research-and-development laboratory. Between 2012 and 2021 foreign firms increased their collective Chinese research personnel by a fifth, to 716,000. Their annual R&D spending in the country almost doubled, to 338bn yuan (\$52bn). Add investments by local firms and China now matches Europe's R&D tally (see chart on next page). Only America splurges more.

In 2022, despite harsh covid-19 lockdowns, 25 new foreign R&D centres opened in Shanghai. Last year, when overall foreign direct investments in China shrivelled by 80%, those in R&D rose by 4%. In the process, Western R&D centres in China have been re-engineered, from places to learn about the domestic market into hotbeds of innovation whose fruits

can be found in products sold everywhere.

Foreign chief executives now believe that China's brainpower and its innovation-curious regulatory regime are crucial ingredients of their companies' global success. Nowhere else in the world can new-fangled technologies, from novel drugs to flying taxis, be tested as quickly as in China, marvels a foreign diplomat. So even as the Chinese economy slows—it grew by

a surprisingly tepid 4.7% in the second quarter, year on year—and multinational businesses try to reduce their reliance on Chinese supply chains amid mounting geopolitical tension, global CEOs are desperate to protect this critical third function of their Chinese operations.

Last year Volkswagen invested more than \$1bn in an innovation centre in the inland city of Hefei. Bosch, a fellow German firm that supplies parts to Volkswagen and other car giants, is building its own \$1bn R&D outpost in nearby Suzhou. HSBC, a British bank, employs thousands of people at an R&D centre in southern China, where they are working on uses of AI, as well as other advanced technology such as blockchains and biometrics.

In February AstraZeneca, a British pharmaceutical company, said it would turn its Shanghai operation into a global R&D hub. In March Apple, maker of the iPhone, unveiled new R&D initiatives around Shenzhen. The next month Bayer, a German drugs-and-chemicals firm, said it was increasing its presence in Shanghai to bring "more technology from China to the world". In June Tesla, an American electric-vehicle (EV) pioneer, was granted permission by Shanghai's authorities to conduct tests of its most advanced autonomous-driving systems on the city's streets. »

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▶ A big reason for doing lots of R&D in China is the country's surplus of young engineers and scientists. Southern China is full of small companies developing all manner of clever technologies, from new chemicals to artificial intelligence (AI). This is a giant talent pool in which foreign multinationals can fish.

The Chinese boffins are certainly quite a catch. They are no less talented than their counterparts in the West, where many of them studied and worked, but still command considerably lower pay. The average monthly salary for a newly minted PhD at a foreign company in China is around 13,000 yuan, a third of what they would make in America. One multinational's China boss reckons he gets 30% more working hours out of his research staff in China than his company manages to coax from similar workers in Europe.

A lot of this work is focused on D rather than R. In many areas China still produces less basic research than America but, by many accounts, more applications. Its app economy is the world's most sophisticated and, as one AI researcher at a foreign firm in Shanghai explains, leading the world in bringing machine learning to the masses. Cosmetics companies tend to launch more products in China than in other places—and also discontinue more. This lets them test consumers' reactions more rapidly than in other places, says a marketing specialist. Products which pass the Chinese test can then be offered abroad.

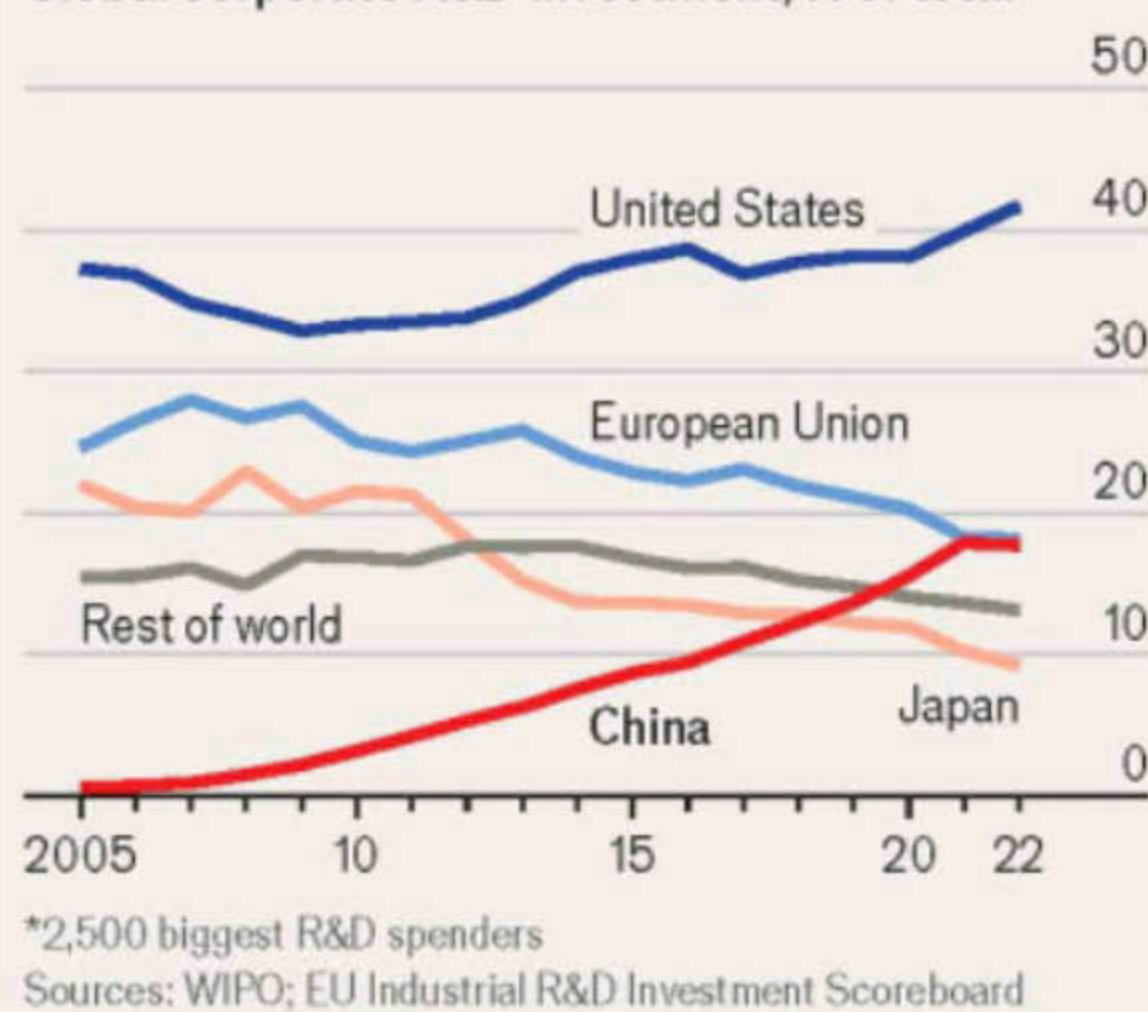
Pharmaceutical companies, among the world's biggest spenders on R&D, can tap a burgeoning network of world-class contract-research outfits that carry out trials more cheaply than in the West. They have also found that the Chinese are keener to participate in clinical trials than people in other places. China's population of 1.4bn means that it is also easier to recruit sufficient numbers of patients even for trials of drugs targeting rare diseases, adds Eric Bouteiller of China Europe International Business School.

Trials, whether of cosmetics, apps, medicines or autonomous vehicles, are made simpler by China's regulatory forbearance. Local governments vie with each other, and with other countries, to be leaders in emerging industries that will undergird what Xi Jinping, China's president, calls "high-quality growth".

Pharma executives praise Chinese rules for clinical studies that are independently designed and conducted by researchers rather than drugmakers. In some fields, such as cell therapies for cancer, these investigator-initiated trials in China are identifying successful treatments faster than in other places, says Susan Galbraith of AstraZeneca. Developers of passenger drones are similarly complimentary about rules that allow them to fly their contrap-

Chinese trials balloon

Global corporate R&D investment, % of total*



tions in designated zones springing up in Chinese cities. Volkswagen began testing a prototype drone in the province of Inner Mongolia in 2022, a world first for a legacy carmaker. Forget San Francisco, says a foreign executive participating in such tests. If you want to set up a testing programme quickly, you had better come to China.

Western companies would understandably hate to be shut out of this R&D paradise. Some are nonetheless bracing for such an eventuality. In June America's Treasury department issued draft rules that would ban American firms from investing in AI, semiconductors, microelectronics and quantum computing in China. These could come into force later this year.

Lab leaks

At the same time, Mr Xi's paranoid security apparatus is making it harder to move some intellectual property (IP) generated in China outside its borders, ignoring economically minded officials' concomitant efforts to attract foreign investment. Exports of some AIs, such as speech- and text-recognition software or even TikTok's recommendation algorithm, now need permission from the commerce ministry. So far this has not stopped most IP from leaving the country. But this may change at any moment, says Alex Roberts of Linklaters, a law firm. "We are at a tipping point."

In anticipation of tougher American and Chinese IP regimes, some foreign companies have started to move research staff out of China. Even as Apple doubles down on its Chinese R&D, Microsoft, its big-tech rival, is said to be offering AI researchers in Beijing relocation packages as it winds down more sensitive R&D in China. Although AstraZeneca and Bayer remain ostensibly bullish on Chinese research, some pharmaceutical companies are seeking more clarity about the rules for cross-border transfer of data and IP, says an industry insider, and are rethinking new investments. The flying-taxi firms are staying put for now. One day they, too, may have no choice but to take flight. ■

Burberry

Lower your aspirations

BERLIN

Can the British fashion label put its chequered past behind it?

PITY EUROPE'S luxury giants. On July 15th Swatch Group, a Swiss watchmaker, said its revenues and operating profit ticked down in the six months to June, by 14% and 70% year on year, respectively. The next day Hugo Boss, a German fashion house, cut its earnings forecast for 2024 and Richemont, another Swiss group, reported that its quarterly sales in China, which accounts for a quarter of the \$1.6trn annual global luxury market, plunged by 27% compared with last year. All eyes are now on the world's luxury colossus, LVMH, which will report results on July 23rd.

All luxury stocks are suffering (see chart). But so-called aspirational brands have been hit the hardest. Burberry is a textbook example. On July 15th the 168-year-old British maker of chequered trench coats reported that sales slumped by 21% in the second quarter, year on year, cut its dividend and sacked its chief executive.

Burberry's woes were years in the making. Faced with a choice of becoming Britain's answer to Coach, a lower-luxury fashion firm from America, or moving upmarket, it chose the latter. It invested in flagship stores at swish addresses in London (New Bond Street) and Manhattan (Fifth Avenue). In 2022 it hired Daniel Lee, a British designer, to play up the brand's Britishness. Mr Lee produced sophisticated collections but little buzz. Burberry also raised prices in its high-street shops while simultaneously selling about \$1.3bn-worth of products at a discount in outlets, which tarnished the brand's image.

That has made it particularly vulner- ▶▶

Burberry coats' trench

Share prices, July 3rd 2023=100



able in China, which remains the company's biggest market and where it is now slashing prices. In the latest quarter Burberry's sales in mainland China also fell by 21%, year on year. Amid the Communist Party's crackdown on opulence, Chinese consumers are becoming more cautious about displaying bling in public. Federica Levato of Bain, a consultancy, remarks that China is in the grip of "luxury shame".

Perhaps as a result, Chinese luxury buyers are becoming more discerning, preferring fewer, more chic items. Hermès, an uber-elegant maker of scarves and handbags that never sells at discounted prices, reported that its sales in China jumped by 17% in the first quarter, year on year, to

€3.8bn (\$4.2bn). Brunello Cucinelli, a similarly exclusive Italian brand, reported a 14% increase in Asian sales in the first half of 2024. Loro Piana and Zegna, two other posh Italian labels, are also doing fine.

Bain predicts that by 2030 the Chinese will again be the world's keenest buyers of luxury, accounting for 40% of sales. But if their tastes continue to evolve towards the poshest of the posh, Burberry may not be a beneficiary of that reversal. Its incoming boss, Joshua Schulman, is expected to give up on his predecessor's high-end ambitions and settle for the second tier, alongside his former employers, Coach and Michael Kors, and labels like Hugo Boss. Rational, perhaps. But not aspirational. ■

Plutocrats

Married, with chiding

DELHI

What a \$600m wedding says about India's attitude to wealth

WHEN BEYONCÉ performed at a pre-wedding party for Isha Ambani in 2018, India was agog. Merely receiving an invitation conferred bragging rights on status-obsessed business leaders and politicians. The cost of the nuptials, with countless ancillary events, was said to be in excess of \$100m. That is a staggering sum for almost anyone—but not the Ambani family, which owns a controlling interest in Reliance Industries, the country's most valuable company, dominating everything from telecoms to oil refining. Despite some anti-rich finger-wagging, many Indians appear to have viewed the event, which even the maharajas of yore would envy, as evidence that India—and Indian business—could once again glitter.

You might therefore have expected the months-long knot-tying celebrations of Isha's brother Anant, which concluded on July 14th, to provoke a similarly positive response. It featured even more international stars (Katy Perry, Justin Bieber and Rihanna), more bling (outfits embroidered in gold along with enough golf-ball sized rubies, diamonds and emeralds) and a higher price tag (the figure \$600m has been bandied about).

It also contributed handsomely to India's booming matrimony business, which generates perhaps \$130bn a year in revenues; only food makes up a bigger share of Indians' retail spending. Behind the innumerable beautiful saris at the Ambani wedding were thousands of designers, tailors and seamstresses; behind the dances and elaborate backdrops were thousands of choreographers, musicians and carpen-

ters. The assorted festivities filled hotels, private jets, a fleet of golf carts and at least one cruise ship.

Yet instead of awe and pride like six years ago, the reaction this time was considerably more mixed. As the *Juggernaut*, an online publication, summed it up, it "shows us the power of Asia's richest family. But it also gave us the ick."

It wasn't just the *Juggernaut* that felt a bit icky. India's prime minister, Narendra Modi, did make an appearance at one of the events leading up to the ceremony. But the Gandhi family, which leads the left-of-centre political opposition, pointedly did

not. Foreign political leaders who attended were mostly former ones (Sir Tony Blair, Boris Johnson). A few seemed an odd fit. John Kerry, America's former climate envoy, was rubbing shoulders with Amin Nasser, chief executive of Saudi Aramco, the world's biggest oil company, at an event bankrolled by wealth derived primarily from Reliance's giant petrochemicals operation that, to complicate matters further, refines oil from Russia.

Indeed, Anant's matrimonial extravaganza looks likely to be the last of its kind for a while. That is not just because he was the only remaining unmarried child of Mukesh, the Ambani clan's patriarch, and because no one (with the possible exception of the family of Gautam Adani, India's second-richest industrialist) can match the Ambanis' deep pockets. Mr Modi's government has become increasingly aware of voters' distaste for rising inequality, which may have cost his Bharatiya Janata Party its absolute majority in a general election earlier this year.

Strong GDP growth and a soaring stock-market have created more wealth for India's rich, but not that many new jobs or wage gains for its poor. Between Isha's and Anant's weddings India's GDP per person rose from \$2,000 to \$2,500 (not adjusted for inflation). By comparison, in the same period the Ambani family fortune swelled from \$47bn to \$122bn.

More gallingly to many Indians, it has shot up by \$10bn in the past month alone. Reliance's share price rose by 8% after the company's Jio telecoms business raised prices for its 470m customers. To the Ambanis, this may have made their lavish family celebrations look like a bargain. To almost everyone else, it makes them look disconnected from India's economic and social reality. ■



Unreality show

Cyber-security

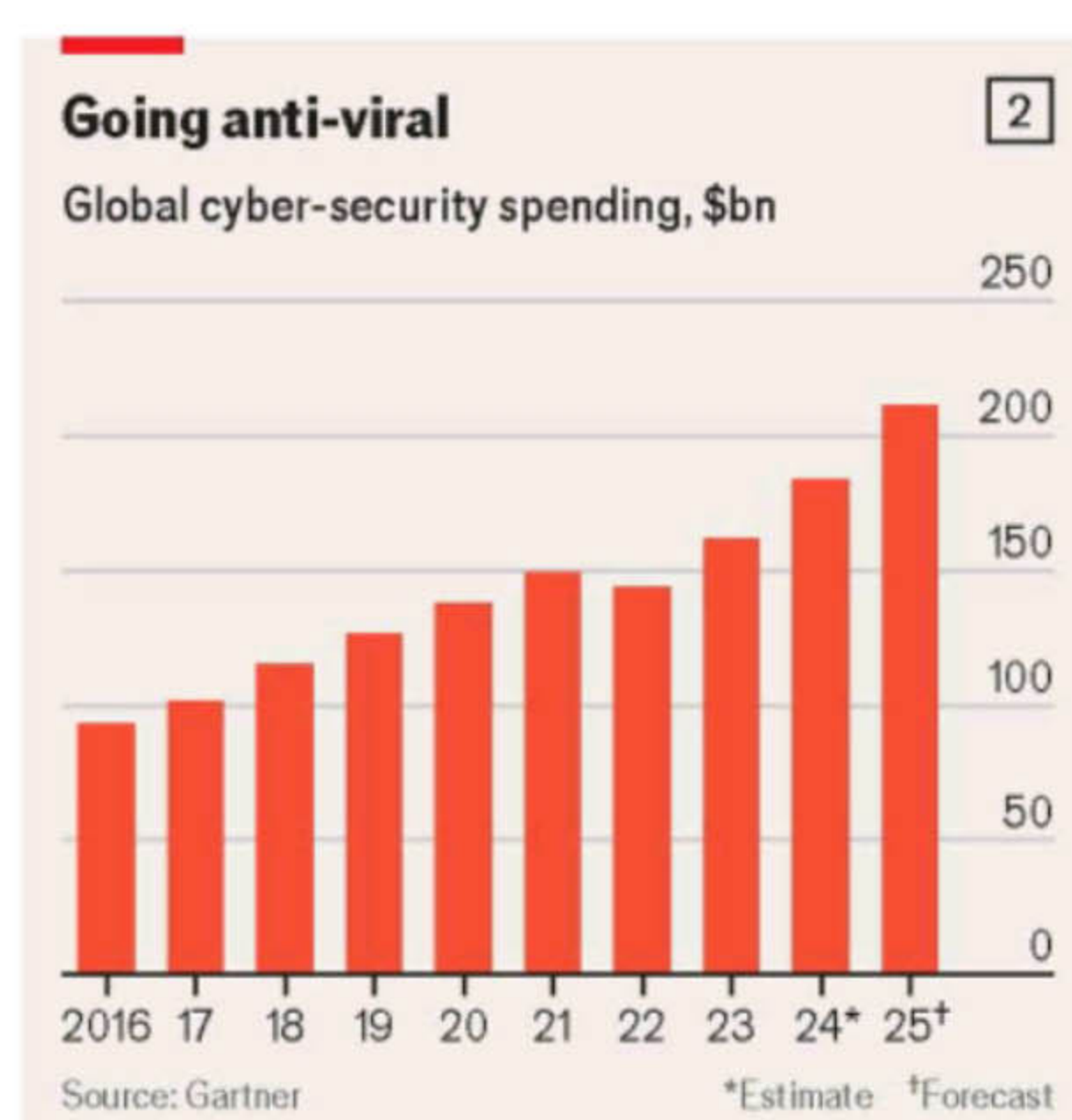
Wiz kid

Google is splashing \$23bn on a cyber-security firm

IN LATE 2022 Wiz, a cyber-security start-up, boasted that it was “the fastest-growing software company ever”. A stretch, maybe, but not a big one. At that point, 18 months after it was founded, annualised sales hit \$100m. By 2023 they were \$350m. In May Wiz raised \$1bn at a \$12bn valuation. On July 14th it emerged that Alphabet, Google’s parent company, was in talks to acquire Wiz for \$23bn. It would be the biggest purchase of a cyber-security firm in history and Alphabet’s biggest takeover ever (see chart 1).

Wiz is the brainchild of four former Israeli soldiers. In 2015 they sold their three-year-old first startup, Addollum, to Microsoft. The quartet then worked for Microsoft Azure, the software giant’s cloud service, before launching Wiz in 2020. Its technology helps clients identify security risks in the cloud, such as which employees are using which apps or who has a weak password. By stitching together lots of data Wiz allows customers to spot vulnerabilities that hackers could exploit.

The firm sits at the intersection of two trends reshaping the cyber-security business. The first is computing’s inexorable move to the cloud. This year businesses will spend around \$300bn worldwide on cloud services. This creates new vulnerabilities—and new opportunities for start-ups like Wiz. In 2023 global sales of cloud-security products grew by 32%, compared with 13% for computer-security overall, according to Gartner, a research firm. And whereas many cyber-security incumbents,



such as Palo Alto Networks and Fortinet, mostly sell firewalls and other safeguards for older IT systems, Wiz has from the start specialised in protecting the cloud.

The second change is in how companies buy security software. They used to purchase lots of individual tools, layered one on top of another. As a result, big businesses often have between 50 and 70 separate security applications, notes Charlie Winckless of Gartner. Duplication is rife, costs high and IT managers unable to tell which tools work and which do not. In February Nikesh Arora, boss of Palo Alto Networks, admitted that “customers are facing spending fatigue.”

Nowadays IT departments favour one-stop shops. These are easier to manage and the tools talk to each other. Cyber-security providers are thus busily adding services, often via acquisitions. JPMorgan Chase, a bank, notes that over 50 security firms have been acquired this year, more than in all of 2022 or 2023. Wiz itself has bought two in the past year, and raised capital in May partly to buy more. Being swallowed by Alphabet gives Wiz a giant platform atop the world’s third-biggest cloud.

For Alphabet, swallowing Wiz bolsters its own cyber-security business. This is thought to be modest, especially compared with that of Microsoft, which last year said its cyber-offering surpassed \$20bn in annual revenue, a tenth of its total sales. To catch up, in 2022 Alphabet bought Siemplify, another Israeli startup, for \$500m and Mandiant, an American one, for \$5bn. Wiz would enable Google’s clients to assess threats in other clouds they use, a capability that Microsoft has offered since 2022. It is an important one, given that four-fifths of cloud users have data spread across several clouds.

In recent years trustbusters have looked askance at big tech’s attempts to buy companies even outside their core business. Alphabet will be hoping that they will conclude that by taking the fight to Microsoft, the Wiz deal will make the cyber-security business more competitive, not less. ■

Retail

Shop lifting

Can anyone save Macy’s?

IN THE 1990S Macy’s, a chain of department stores based in New York, began gobbling up rivals across America. By the late 2000s that strategy had turned it into the biggest fish in a steadily evaporating pond. Sales across American department stores fell from \$232bn in 2000 to \$133bn last year as consumers switched to buying their frocks and fridges online. Many of Macy’s rivals have collapsed along the way. Sears, once America’s largest retailer, went bankrupt in 2018. JCPenney followed in 2020, as revenues dried up amid lockdowns. Recent years have brought little relief. The surge in the cost of living has led shoppers to seek cheaper alternatives to department stores.

The future of Macy’s has been in question since December, when Arkhouse Management and Brigade Capital Management, two buy-out firms, were reported to be circling the retailer. After their takeover offer valuing it at \$5.8bn was rejected in January, the duo began to agitate for a shake-up of its board. Macy’s then agreed to talks on a sweetened proposal and handed two seats on its board to the interlopers. On July 15th, however, it called off discussions, blaming uncertainty over how the deal would be financed. Its share price plummeted by 12%, lowering its market value to \$4.7bn.

The barbarians at Macy’s gate were lured not to the business itself—its sales declined from a peak of \$28bn in 2014 to \$24bn last year—but to its treasure trove of properties. It operates 718 stores, including those of Bloomingdale’s, its swankier sister brand, and Bluemercury, a high-end cosmetics boutique it bought in 2015. It owns 286 of these buildings, among them its flagship store on Herald Square in New York. CoStar, a property-research firm, reckons those assets are worth between \$7.9bn and \$10.5bn—more than Macy’s current market value. The figure would be towards the higher end of the range if Macy’s were to offload the properties and then rent the floorspace.

Such transactions yield a quick buck for investors, but can be disastrous for a company’s long-term prospects as rising rents erode profit margins. That may explain why Macy’s has been slow to sell off properties. Sears, under the stewardship of Eddie Lampert, a hedge-fund boss, embraced the strategy enthusiastically in the years leading up to its bankruptcy. »

Secure transaction

Alphabet, biggest acquisitions, \$bn

Wiz, 2024 reported offer*	23
Motorola, 2011	13
5 Mandiant, 2022	
3 Nest Labs, 2014	
3 DoubleClick, 2007	
3 Looker Data Sciences, 2019	
2 Fitbit, 2019	
2 YouTube, 2006	
1 dMarc Broadcasting, 2006	
1 HTC†, 2017	

*14th July †A part of the smartphone division only
Sources: Dealogic; press reports

► Macy's has instead opted to stick with the turnaround plan unveiled in February by its newish chief executive, Tony Spring. It will close 150 Macy's stores and improve its online shopping experience while expanding Bloomingdale's and Bluemercury. In other words, it will continue doing precisely what it has done for years. The company has already shrunk its footprint of stores, which peaked at 868 in 2015. It began selling online in 1996 and has revamped its offering many times since then.

Its e-commerce sales last year accounted for less than 1% of America's total.

Macy's has expanded Bloomingdale's and Bluemercury to a total of 216 stores, up from 192 in 2017, and wants to add at least another 45. But growth will not be easy. Many luxury brands have been shifting towards selling directly to customers through their own ritzy shops. On July 4th Hudson's Bay Company, which owns Saks Fifth Avenue, a posh department store, announced it would buy Neiman Marcus, an-

other upmarket emporium, and merge the two. That will stiffen competition for well-heeled shoppers.

In November Macy's will celebrate the centenary of its Thanksgiving Day Parade, in which giant inflatable balloons representing cartoon characters are marched from Manhattan's Central Park to the Macy's on Herald Square. The spectacle, which New Yorkers will attend in droves, will be uplifting as usual. Its organiser, though, is looking increasingly deflated. ■

BARTLEBY

Knowing when to quit

Bosses have a shelf life and plenty of incentives to misjudge what it is

DECIDING TO CALL it quits is a relatively simple judgment early on in a career. If you find the prospect of going to work on Monday morning more depressing than a Lars von Trier film, it is time to leave. If you have nothing left to learn in your current organisation, you should probably grab more stimulating opportunities elsewhere. But knowing when to quit is less easy when you are in a role that already confers lots of status, novelty and purpose. And moving on is particularly difficult when it might be the last big job you have.

What is true of American presidents is also true of chief executives. Bob Iger has made not leaving Disney into an art form. The surest way to know you will not succeed Jamie Dimon at JPMorgan Chase is to be anointed his successor. Both bosses are stars, and their firms have reasons to hang on to them. The same cannot be said of Dave Calhoun, Boeing's CEO, who will lead the company until the end of the year despite the enormous reputational damage it has sustained on his watch. (Mr Calhoun was supposed to have departed years ago; instead the firm raised the mandatory retirement age to allow him to stay.)

The incentives for CEOs and other leaders to stick around are material: assistants, chauffeurs, private jets and all. They are also psychological. People who reach the top of organisations do not often lack ego; the idea that someone else can do the job well may be hard to stomach. Michael Watkins, a professor at IMD Business School in Switzerland, calls this "the aura of indispensability". The prospect of retirement can be particularly gruesome—this week, a farewell trip to Davos; next week, a strategic review of the spice rack.

There is some research that can help

bosses think about how long to stay in a role. A study by Francois Brochet of Boston University and his co-authors looked at the relationship between CEO tenure and firm value to see if they could identify an optimal period in charge. They found that firm value started to decline, on average, after a CEO had been in the job for 14 years. That is not particularly helpful. There are too many differences between executives, firms and industries for one number to be a useful guide. Many chief executives get booted out an awful lot quicker than that; some bosses will warrant more time in the job, not less.

More usefully, however, the researchers did confirm a hump shape in firm performance. Things improve over time as CEOs master the complexities of their role but fall away later as they become more fixed in their ways and accrue more power. Similar humps have been observed from college basketball to Hollywood.

Changes in circumstances can shorten the duration of the hump. Separate research, by Bradley Hendricks of the University of North Carolina at Chapel Hill

and Travis Howell, then at the University of California, Irvine, suggests that firms led by founder-CEOs are associated with a valuation premium when they first list on public markets but that this premium disappears within three years as the demands of the top job evolve.

If bosses are prone to misjudge when to quit, what can be done? Blunt instruments do exist, from mandatory retirement ages to explicit term limits. But strict rules have drawbacks, too. CEOs may be approaching their peak, not past it, at the time they are required to throw in the towel. Bosses approaching the end of their terms risk being seen as lame ducks, says Mr Watkins. And the knowledge that the end is nigh can change a CEO's own behaviour in potentially unhelpful ways.

Research by Sam Yul Cho of Oregon State University and Kim Sang Kyun of Sungkyunkwan University in South Korea suggests that firms run by bosses with short "career horizons" (ie, less time to go until they retire) generate fewer big innovations. Another paper, by Dirk Jenter of the London School of Economics and Katharina Lewellen of the Tuck School at Dartmouth, found that the likelihood a firm would be taken over jumped when a CEO was at retirement age. The bosses of target firms often lose their jobs; that is less of a concern when a career is winding down.

Rigid rules are not the best defence against people overstaying their welcome. More important are institutional constraints on CEO power—most obviously, a board that has a mind of its own—and bosses with the self-awareness to recognise that everyone has a natural shelf life. One of the first questions to ask a would-be senior hire is how long they think they should last.



SCHUMPETER

J.D. Vance in their pants

Tech bros love Donald Trump's running-mate. Many CEOs are scared stiff



J.D. VANCE'S LIFE is full of twists and turns. His memoir from 2016, *Hillbilly Elegy*, chronicles how a boy from a drug-afflicted home in the Ohio rustbelt, who almost flunked high school, made it to Yale Law School. As a bestselling author, celebrated by liberals for his unflinching portrayal of left-behind people and places, he turned staunchly anti-establishment, attacking what he saw as business elites benefiting from moving factories abroad and paying low wages at home. As a venture capitalist, he was mentored in Silicon Valley by Peter Thiel, a conservative contrarian who then backed him for the Senate. Now he crusades against the very tech giants that, like Meta, owner of Facebook, made Mr Thiel billions as an early investor. He was once a "never-Trumper". Now he is Donald Trump's vice-presidential running-mate.

Among entrepreneurs in Silicon Valley and elsewhere, Mr Vance's nomination has led tech bros who once kept their arch-conservative clothes in the closet to come out in full MAGA regalia. Elon Musk, who according to the *Wall Street Journal* is planning to throw \$45m a month behind Mr Trump's presidential run, said the Trump-Vance ticket "resounds with victory". Delian Asparouhov of the Founders Fund, a venture-capital (VC) firm co-founded by Mr Thiel, jumped the gun with boyish insouciance, tweeting: "We have a former tech VC in the White House. Greatest country on earth baby." Marc Andreessen and Ben Horowitz, the eponymous co-founders of a VC Goliath, released a video the day after Mr Vance's nomination backing Mr Trump (albeit with pretend sheepishness: "Sorry Mom," Mr Horowitz bleated).

There is naked self-interest in these declarations. Their justification, they say, is that the startup industry is being burned by the anti-tech zeal of President Joe Biden. In Mr Vance, they no doubt see a kindred spirit whom they can influence. Yet in corporate America at large, the recognition that Mr Trump looks increasingly likely to win the election also comes with deep misgivings about Mr Vance as his consigliere. Both men are driven by grievances. Both are highly unpredictable. Yet for all the Ohioan's twists and turns, his antipathy towards big business and his desire to break up big tech appear to run deep. That may make him harder to deal with than the transactional Mr Trump.

It is strange to see parts of Silicon Valley shifting to the MAGA camp. In 2016 Mr Thiel was almost unique among the tech elite in throwing his weight behind Mr Trump, and was pilloried as a result (this time he says he may vote for Mr Trump but will not give money to his campaign). Yet the Andreessen-Horowitz duo, who used to vote Democrat, offer a full-throated argument for being pushed into the arms of Mr Biden's opponents. They frame it as an existential battle of "little tech" against big tech.

Their first gripe is over cryptocurrencies and the blockchain. These, they say, are vital for encouraging innovation beyond the confines of big tech. Yet crypto startups are hobbled by what the venture capitalists argue is excessive regulation, particularly from the Securities and Exchange Commission. This is a view shared by Mr Vance. In what sounds like an echo of the "little tech" manifesto, the Republican platform promises to end Democrats' "unlawful and unAmerican Crypto crackdown".

Next come concerns about Mr Biden's efforts to regulate artificial intelligence (AI). Some in Silicon Valley take particular issue with his executive order last year requiring builders of powerful AI models to report to the government for safety reasons. They say the order provides an unfair advantage to tech giants, which have vastly more resources to deal with red tape. Mr Vance agrees. He recently told a congressional hearing that though he was worried about the threat of AI to child safety, he wanted to prevent "pre-emptive overregulation" from entrenching big tech.

The third, and most immediate, concern is Mr Biden's latest budget proposal, which includes a 25% tax on unrealised capital gains for those with over \$100m of wealth, and which Messrs Andreessen and Horowitz say threatens to kill the VC industry. On top of hurting innovation, it makes the distinction between the two candidates' approach to business taxes all the starker. Mr Trump wants to cut these, not raise them.

Beyond Silicon Valley, concerns about Mr Biden run deep, too. Many CEOs would love him to step aside in favour of a younger candidate. Yet a Trump-Vance ticket is more of a worry. Although bosses may like the sound of tax cuts and deregulation, they fear further descent into protectionism and political chaos.

There are Mr Trump's tariff threats, echoed by Mr Vance, that risk inflaming trade wars, and the spectre of mass deportation of immigrants, which may exacerbate labour shortages. There is economic populism: "We're done...catering to Wall Street," Mr Vance thundered in a deeply isolationist speech on July 17th at the Republican National Convention. There is geopolitical uncertainty, as illustrated in a recent interview in which Mr Trump, in a reminder of how loose-lipped he can be, reaffirmed his misgivings about arming Taiwan against China. As for the Biden administration's obsession with antitrust, Mr Vance promises more of the same. He is a fan of Lina Khan, who heads the Federal Trade Commission. Like her, he wants to stick it to giants like Google.

Oh for boredom in the boardroom

Picture this: Mr Trump and Mr Vance in the White House, and Mr Musk, Mr Thiel and other tech billionaires influencing policy from behind the throne. No wonder Silicon Valley's libertarians are salivating. Put yourself in a boardroom, though, where instead of discussing business, CEOs will be bogged down by trade wars, geopolitical rifts or social divisions, and you are likely to have your heart in your mouth. Things are fractious enough under Mr Biden. They could be worse under Messrs Trump and Vance. ■

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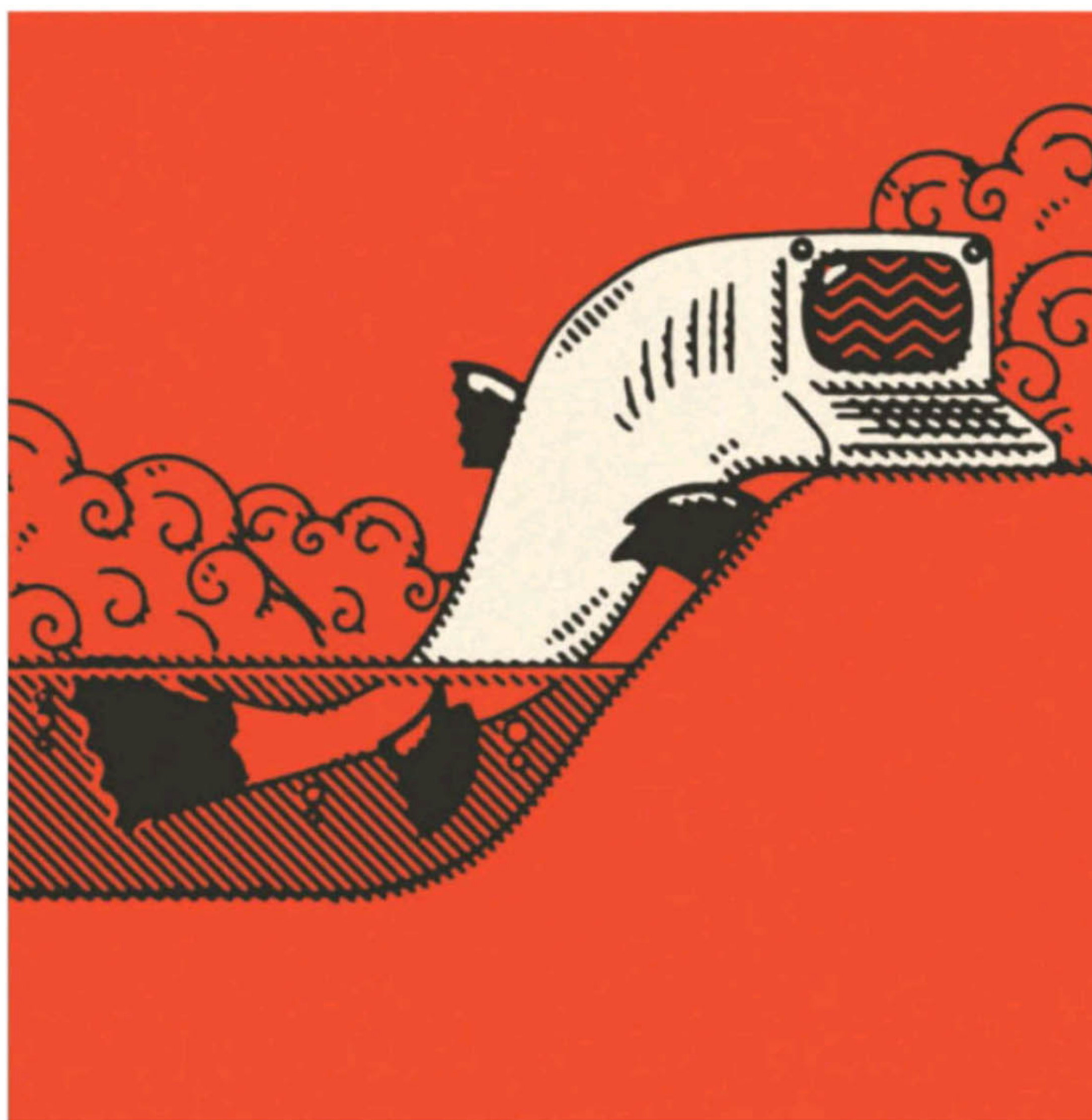
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A short history of AI

For decades, artificial intelligence failed to achieve its lofty goals. In the first of six weekly briefs, we ask what changed

OVER THE summer of 1956 a small but illustrious group gathered at Dartmouth College in New Hampshire; it included Claude Shannon, the begetter of information theory, and Herb Simon, the only person ever to win both the Nobel Memorial Prize in Economic Sciences awarded by the Royal Swedish Academy of Sciences and the Turing Award awarded by the Association for Computing Machinery. They had been called together by a young researcher, John McCarthy, who wanted to discuss “how to make machines use language, form abstractions and concepts” and “solve kinds of problems now reserved for humans”. It was the first academic gathering devoted to what McCarthy dubbed “artificial intelligence”. And it set a template for the field’s next 60-odd years in coming up with no advances on a par with its ambitions.

The Dartmouth meeting did not mark the beginning of scientific inquiry into machines which could think like people. Alan Turing, for whom the Turing prize is named, wondered about it; so did John von

Neumann, an inspiration to McCarthy. By 1956 there were already a number of approaches to the issue; historians think one of the reasons McCarthy coined the term artificial intelligence, later AI, for his project was that it was broad enough to encompass them all, keeping open the question of which might be best. Some researchers favoured systems based on combining facts about the world with axioms like those of geometry and symbolic logic so as to infer appropriate responses; others preferred building systems in which the probability of one thing depended on the constantly updated probabilities of many others.

The following decades saw much intellectual ferment and argument on the topic, but by the 1980s there was wide agreement on the way forward: “expert systems” which used symbolic logic to capture and apply the best of human know-how. The Japanese government, in particular, threw its weight behind the idea of such systems and the hardware they might need. But for the most part such systems proved too inflexible to cope with the messiness of the real world. By the late 1980s AI had fallen into disrepute, a byword for overpromising and underdelivering. Those researchers still in the field started to shun the term.

It was from one of those pockets of perseverance that today’s boom was born. As the rudiments of the way in which brain cells—a type of neuron—work were pieced together in the 1940s, computer scientists began to wonder if machines could be wired up the same way. In a biological brain there are connections between neurons which allow activity in one to trigger or suppress activity in another; what one neuron does depends on what the other neurons connected to it are doing. A first attempt to model this in the lab (by Marvin Minsky, a Dartmouth attendee) used hardware to model networks of neurons. Since then, layers of interconnected neurons have been simulated in software.

These artificial neural networks are not programmed using explicit rules; instead, they “learn” by being exposed to lots of examples. During this training the strength of the connections between the neurons (known as “weights”) are repeatedly adjusted so that, eventually, a given input produces an appropriate output. Minsky himself abandoned the idea, but others took it forward. By the early 1990s neural networks had been trained to do things like help sort the post by recognising handwritten numbers. Researchers thought adding more layers of neurons might allow more sophisticated achievements. But it also made the systems run much more slowly.

A new sort of computer hardware provided a way around the problem. Its potential was dramatically demonstrated in 2009, when researchers at Stanford University increased the speed at which a neural net could run 70-fold, using a gaming PC in their dorm room. This was possible because, as well as the “central processing unit” (CPU) found in all PCs, this one also had a “graphics processing unit” (GPU) to create game worlds on screen. And the GPU was designed in a way suited to running the neural-network code. »

→ See online

To read this, and past, series of briefs go to: www.economist.com/schools-brief

► Coupling that hardware speed-up with more efficient training algorithms meant that networks with millions of connections could be trained in a reasonable time; neural networks could handle bigger inputs and, crucially, be given more layers. These “deeper” networks turned out to be far more capable.

The power of this new approach, which had come to be known as “deep learning”, became apparent in the ImageNet Challenge of 2012. Image-recognition systems competing in the challenge were provided with a database of more than a million labelled image files. For any given word, such as “dog” or “cat”, the database contained several hundred photos. Image-recognition systems would be trained, using these examples, to “map” input, in the form of images, onto output in the form of one-word descriptions. The systems were then challenged to produce such descriptions when fed previously unseen test images. In 2012 a team led by Geoff Hinton, then at the University of Toronto, used deep learning to achieve an accuracy of 85%. It was instantly recognised as a breakthrough.

By 2015 almost everyone in the image-recognition field was using deep learning, and the winning accuracy at the ImageNet Challenge had reached 96%—better than the average human score. Deep learning was also being applied to a host of other “problems...reserved for humans” which could be reduced to the mapping of one type of thing onto another: speech recognition (mapping sound to text), face-recognition (mapping faces to names) and translation.

In all these applications the huge amounts of data that could be accessed through the internet were vital to success; what was more, the number of people using the internet spoke to the possibility of large markets. And the bigger (ie, deeper) the networks were made, and the more training data they were given, the more their performance improved.

Deep learning was soon being deployed in all

ChatGPT and its rivals really do seem to “use language and form abstractions”

kinds of new products and services. Voice-driven devices such as Amazon’s Alexa appeared. Online transcription services became useful. Web browsers offered automatic translations. Saying such things were enabled by AI started to sound cool, rather than embarrassing, though it was also a bit redundant; nearly every technology referred to as AI then and now actually relies on deep learning under the bonnet.

In 2017 a qualitative change was added to the quantitative benefits being provided by more computing power and more data: a new way of arranging connections between neurons called the transformer. Transformers enable neural networks to keep track of patterns in their input, even if the elements of the pattern are far apart, in a way that allows them to bestow “attention” on particular features in the data.

Transformers gave networks a better grasp of context, which suited them to a technique called “self-supervised learning”. In essence, some words are randomly blanked out during training, and the model teaches itself to fill in the most likely candidate. Because the training data do not have to be labelled in advance, such models can be trained using billions of words of raw text taken from the internet.

Mind your language model

Transformer-based large language models (LLMs) began attracting wider attention in 2019, when a model called GPT-2 was released by OpenAI, a startup (GPT stands for generative pre-trained transformer). Such LLMs turned out to be capable of “emergent” behaviour for which they had not been explicitly trained. Soaking up huge amounts of language did not just make them surprisingly adept at linguistic tasks like summarisation or translation, but also at things—like simple arithmetic and the writing of software—which were implicit in the training data. Less happily it also meant they reproduced biases in the data fed to them, which meant many of the prevailing prejudices of human society emerged in their output.

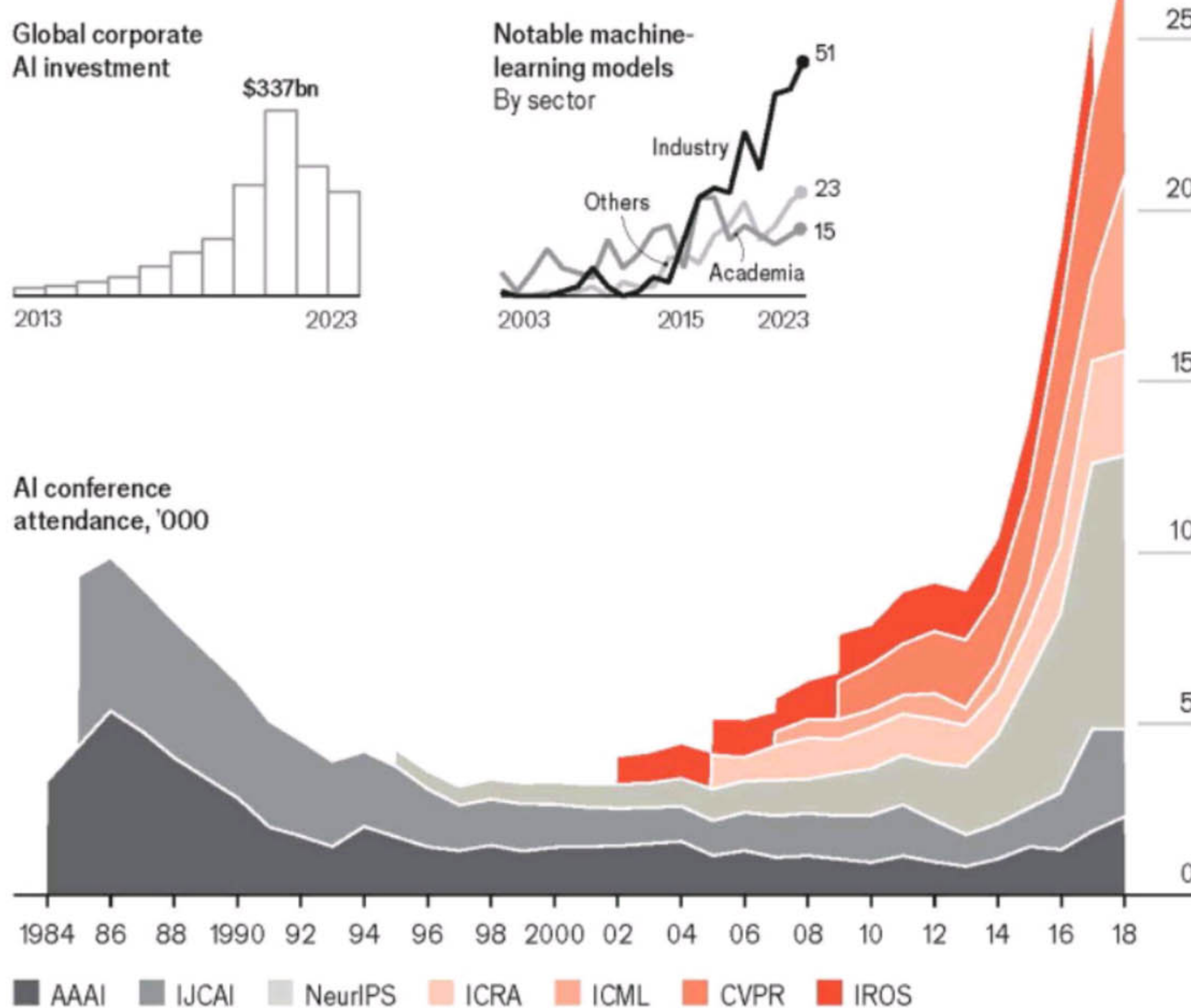
In November 2022 a larger OpenAI model, GPT-3.5, was presented to the public in the form of a chatbot. Anyone with a web browser could enter a prompt and get a response. No consumer product has ever taken off quicker. Within weeks ChatGPT was generating everything from college essays to computer code. AI had made another great leap forward.

Where the first cohort of AI-powered products was based on recognition, this second one is based on generation. Deep-learning models such as Stable Diffusion and DALL-E, which also made their debuts around that time, used a technique called diffusion to turn text prompts into images. Other models can produce surprisingly realistic video, speech or music.

The leap is not just technological. Making things makes a difference. ChatGPT and rivals such as Gemini (from Google) and Claude (from Anthropic, founded by researchers previously at OpenAI) produce outputs from calculations just as other deep-learning systems do. But the fact that they respond to requests with novelties makes them feel very unlike software which recognises faces, takes dictation or translates menus. They really do seem to “use language” and “form abstractions”, just as McCarthy had hoped.

This series of briefs will look at how these models work, how much further their powers can grow, what new uses they will be put to, as well as what they will not, or should not, be used for. ■

→ Break on through to the other side



Source: Stanford University AI Index report 2024

Finance & economics



Financial markets

Matadors gather

NEW YORK

Stocks are on an astonishing run. What could bring it to an end?

ALL AROUND the world, stockmarkets have been rising at a breakneck pace. Whether you are in America, Europe, Japan or India, prices listed on a bourse near you have spent most of this year setting fresh records, only to break them again straight away (see chart 1 on next page). America's S&P 500 index has jumped by over 70% since a trough in 2022, and risen during 28 of the past 37 weeks, its best streak in more than three decades. True, Chinese investors are in a funk, with stocks yet to recover from a plunge that began last year. But they cut lonely figures: exclude China from MSCI's index of emerging-market shares, and the remainder have been clocking rapid gains, too.

To a certain extent, this record-smashing is to be expected. Dump the losers periodically, as benchmark indices containing the biggest stocks tend to, and the history

of equities is one long (albeit frequently interrupted) march upwards. Bear markets and crashes abound, but once prices recover to set one new high, a stream of others usually follows. It is this pattern that has led global stocks to deliver an annualised real return of 5.1% since 1900, and American ones of 6.5%. Worry all you like that the narratives being spun around today's

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boom—from techno-euphoria in America to a corporate-governance revolution in Japan—are overblown, and that a reversal must surely be coming. Those seeking riches should simply set aside such concerns and invest for the long run.

Yet in the long run everyone is dead, and in the short run investors face few greater temptations than trying to predict—and dodge—the next crash. For the professionals doing so is part of the job, and just now plenty fear a correction, particularly in America. “A lot of people I speak to are very worried,” says Torsten Slok, chief economist at Apollo Global Management, an asset manager. “The bubble is just getting bigger and bigger. That’s when you need to worry that everyone will run for the exits at the same time.”

Mr Slok is in good company. Earlier this month Goldman Sachs's strategists published a note entitled “Summertime blues”, warning that share prices have risen relative to bonds even as the risk of shocks has grown. JPMorgan Chase went much further, arguing that large numbers of investors have aggressively crowded into positions based on improbable expectations of earnings growth. Such “hyperbolic moves in price and sentiment”, the bank's researchers conclude, “are more often viol- ▶▶

ently corrected than not when the exuberance runs its course." Mike Wilson, a famously bearish chief investment officer at Morgan Stanley, who departed from his usual pessimism earlier this year to predict share prices would keep rising, has conducted a reverse-ferret. "I think...a 10% correction is highly likely some time between now and the [American] election," he told Bloomberg Television recently.

Analysts have plenty of reason to be jittery. Valuations, or the multiples by which underlying earnings are scaled up to generate share prices, have risen from pricey to alarming. Since the start of 2020, before the crash that accompanied the spread of covid-19, the nominal market value of America's S&P 500 index has risen by almost 80%, more than twice as much in percentage terms as the increase in American GDP. The index's cyclically adjusted price-earnings (CAPE) ratio, a measure popularised by Robert Shiller of Yale University, is 36. It has been higher only near the worst of the dotcom bubble and in 2021, both of which preceded crashes.

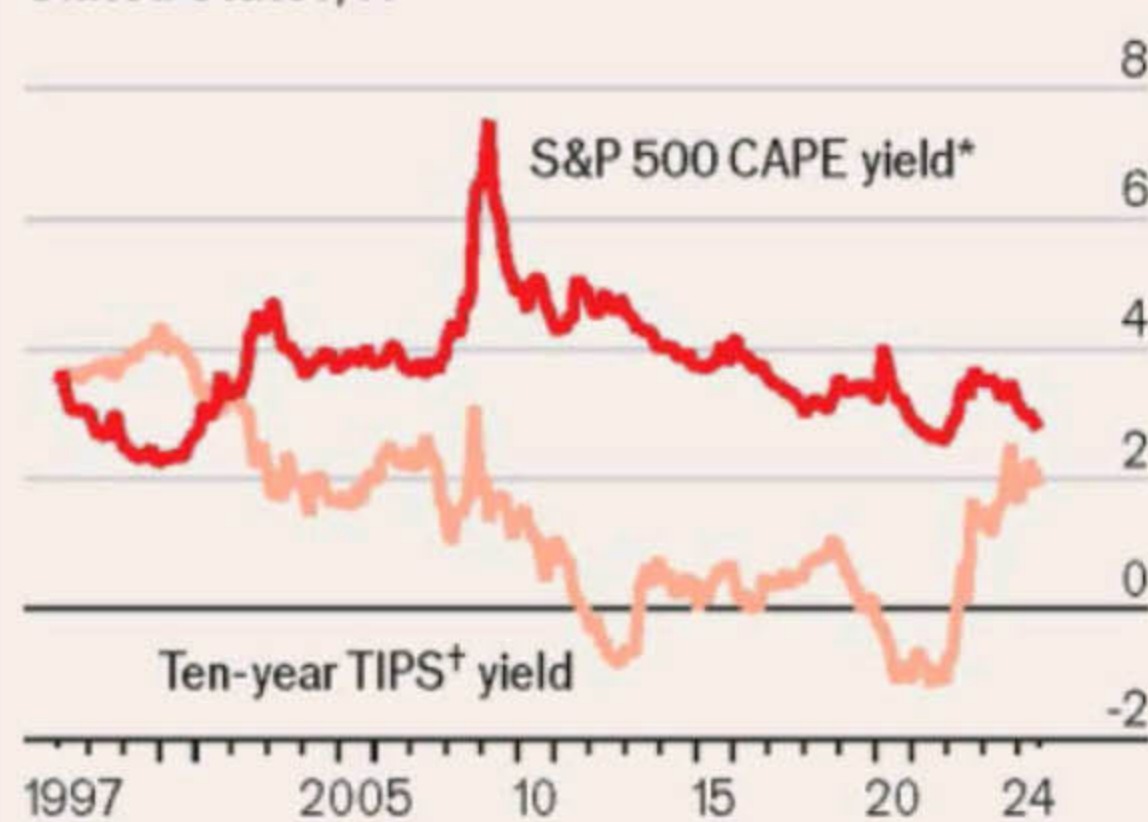
Death in the clouds

This does more than merely set investors' nerves on edge. It also means that the "CAPE yield", the CAPE's inverse and a predictor of real returns, is close to a historic low, providing an impetus to sell stocks. Indeed, the CAPE yield only just beats the guaranteed real yield on inflation-protected Treasury bonds (see chart 2).

All that is needed, in other words, is a change in the financial mood and an excuse for investors to abandon their positions. At current interest rates, American share prices would need to fall by around one-third for the gap between the CAPE and real Treasury yields to revert to the mean. For the CAPE to return to its long-run average, they would have to crater by more than 50%. In India valuations are even more extreme; in Europe and Japan, they are a bit less, but still unusually high relative to recent levels. Nevertheless, since American stocks comprise the lion's

Unfinished portrait

United States, %



*Inverse of the cyclically adjusted price-to-earnings ratio

†Treasury Inflation-Protected Securities

Sources: Bloomberg; Robert Shiller, Yale University

share of global equity value, it is their problems that investors must focus on. And so the question, even for those with decades-long time horizons, is nigh unavoidable: what might prompt such a crash?

To keep the doom-mongering tractable, divide the worries into three groups. The first concerns shocks from outside the financial system. If Mr Trump wins America's presidency and enacts the tariffs he has promised, a tit-for-tat response might trigger a downturn at the same time as it drove up inflation. War in the Middle East, or in Ukraine, could spill across more borders, ratcheting up oil prices. Worst of all, a Chinese blockade of Taiwan might draw America into conflict with another superpower. Some stocks are especially exposed: the share price of TSMC and other tech firms fell after Mr Trump recently said that Taiwan should pay for its security, and the Biden administration floated tighter restrictions on exports of chips to China. But extreme scenarios, with low probabilities and mighty consequences, are notoriously difficult for financial markets to price. In any case, geopolitical flare-ups tend to be associated with such uncertainty that it is not clear whether investors can do much to hedge against them at all.

The second group of worries involves shocks from within the financial system—where the Treasury market is the main source of concern. In March Phillip Swagel, head of Congress's fiscal watchdog, warned that America's yawning fiscal deficit (currently 7.4% of GDP) could spark a bond-market panic similar to that caused by Liz Truss, Britain's prime minister for several weeks in 2022. Stuart Kaiser, Citigroup's chief equity-trading strategist, points out that America's deficit has risen in plain sight, so it is hardly "something that sneaks up on you". The risk is that weak public finances attract greater attention during the election campaign, and especially once the new president reviews taxation in 2025. Such scrutiny, Mr Kaiser notes, could be the catalyst for a bond-market crash. By threatening financial sta-

bility, and probably forcing a growth-harming degree of austerity, this could easily infect the stockmarket, too.

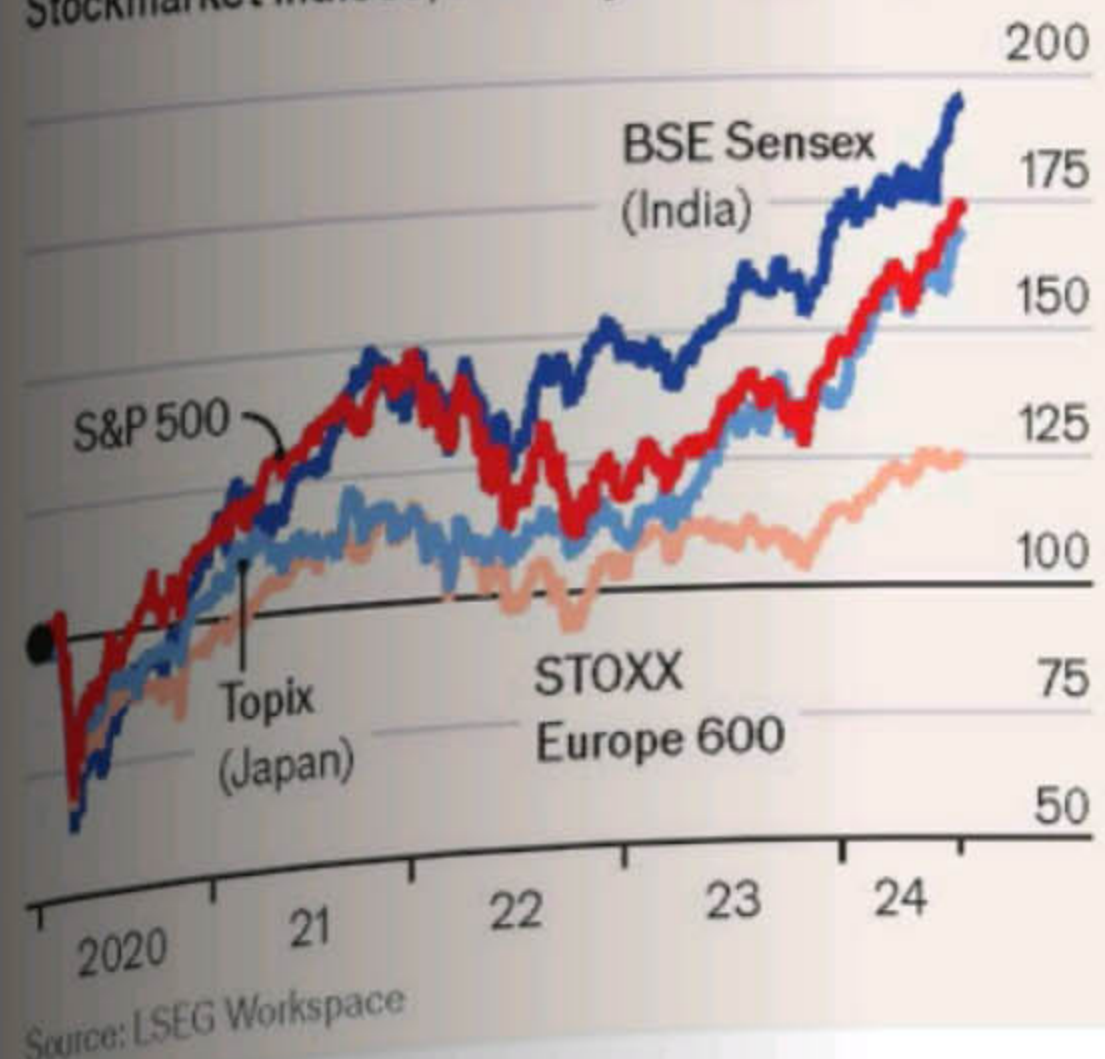
The final group concerns economic developments that investors are more used to pondering: changes to growth, interest rates and corporate earnings. Growth figures are unlikely to set share prices plunging solely by continuing to slow. Having beaten expectations throughout 2023, America's economy set the stage for the bull run. Share prices then accelerated even more once the expansion slowed. Instead, the danger comes from the near-perfect "soft landing", or fading of inflation without a downturn, that investors have priced into the market, says Apollo's Mr Slok. Such central-banking coups have rarely been pulled off in the past. Should any other scenario come to pass—a "no landing" which saw disinflation come to a halt, say, or a delayed recession—high expectations baked into share prices would make them vulnerable to a correction.

Three-act tragedy

Consider the monetary policy that would accompany a "no landing" scenario. Throughout the tightening campaign begun by the Federal Reserve in 2022, investors have pinned hopes on rate cuts. The only change has been how many they expect, and how quickly. At present, traders have priced in three by the year's end. What they have priced out almost entirely, and more so after America's consumer-price inflation fell to 3% in the year to June, is the chance that rates could rise. Jerome Powell, the Fed's chairman, has become more dovish in his public speeches, meaning this is unlikely. Yet disinflation has slowed to a crawl (see chart 3), wages are rising faster than productivity growth and 2% inflation would allow, and with geopolitics volatile the risk of shocks is ever-present. Although the odds of central bankers turning hawkish again may be low, they are not zero. Just as the prospect of unanticipated tightening tipped shares over the edge in 2022, it could do so today. ➤

The big four

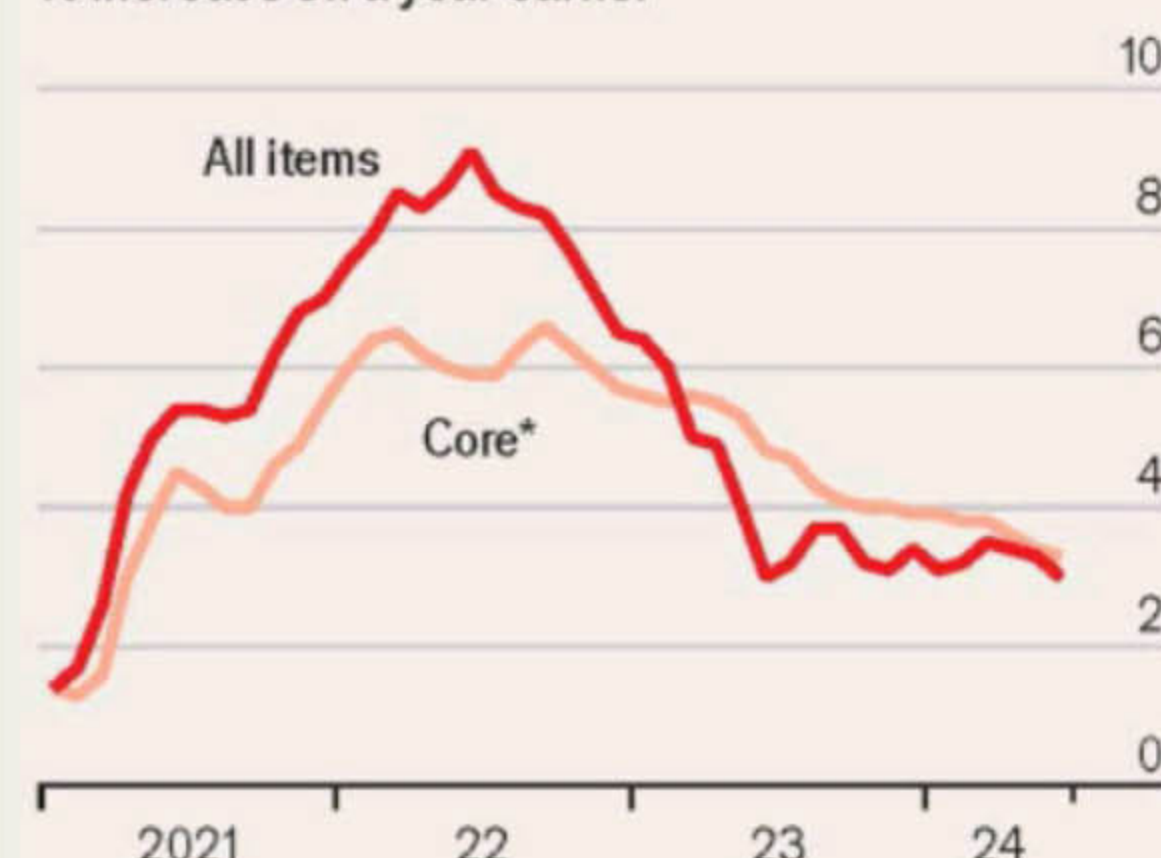
Stockmarket indices, January 1st 2020=100



Source: LSEG Workspace

Destination unknown

United States, consumer prices, % increase on a year earlier



Source: BLS

*Excluding energy and food

And then there are corporate earnings. As JPMorgan's analysts note, the consensus view is for them to shoot the lights out, with annual rates of nominal growth in the double digits, in aggregate, for the foreseeable future. (By way of comparison, over the three decades to 2019 real profits rose by 4% a year.) That is even as the economy cools, demand fades and profit margins appear to have peaked. As a consequence, it is not only artificial-intelligence stocks to which investors have attached extrava-

gant hopes—though Nvidia, where analysts expect revenues to double over the coming year, before doubling again over the next four, stands in a class of its own. Should earnings fall short of such stratospheric expectations, the bull market could come to an abrupt end.

What is striking about the list of reasons to worry is that you do not need to reach for its more lurid examples of financial or geopolitical catastrophe to envisage a gut-churning plunge. The likeliest culprit

to kill the bull market is probably something as run-of-the-mill as a few underwhelming earnings reports. After all, the bursting of the dotcom bubble came not from any seismic shock but a simple realisation that investors had got high on their own fumes. A dizzying ascent in the past few months has brought America's stock-market to within striking distance of being more vulnerable than it has ever been before. It does not take much to crash a market that is priced for perfection. ■

BUTTONWOOD

Cap and trade

Why investors have fallen in love with small American firms

BELIEVE IT OR not, corporate America still makes room for the little guy. Around half of working Americans are employed by a firm with less than 500 workers. Nine in ten banks are community institutions that hold less than \$10bn in assets. This rather parochial picture, however, is not reflected in the country's stockmarket, where the falling number of public companies and extreme concentration of value are a concern. Among America's 3,000 largest public firms, the biggest 1,000 account for 95% of total value. The next 2,000, which form the Russell 2000 index, are collectively worth less than Apple, the world's most valuable company.

Now the unloved miniatures of America's stockmarket are having their day in the sun. For most of the year, their shareholders watched the bull market from the stands: the Russell 2000 barely budged, while the S&P 500 index of large American firms rose by almost a fifth. Until the past week, that is, when the Russell 2000 was hurled forward as if by both of the market's charging horns. The index has jumped by 9%, reaching its highest level since the beginning of 2022. Compared with the S&P 500, which is down slightly over the past week, its outperformance is the largest in history. Analysts are debating whether the move is a freak incident, the beginning of a "small-cap summer" or even a "great rotation" from big stocks to small ones.

It is never wise to entirely rule out freak one-offs, especially when it comes to moves of such magnitude. And there remains plenty that could go wrong for the tiddlers. Max Grinacoff at UBS says that there is "rampant" call option activity relating to the Russell 2000 index, which he sees as investors "renting upside" rather than going all in. There

have also been previous false dawns. Before Christmas small caps rallied, fuelled by expectations of imminent interest-rate cuts, only for things to calm when it became clear cuts were a way off. Similarly, this time round, any data indicating that interest rates may be slower to return to Earth than investors now anticipate could quickly ruin the doveish mood.

That said, the case for America's small caps has been growing for months. Compared with the achingly high valuations of the country's biggest companies, the miniatures look like a rare and ever-more attractive bargain. Lori Calvasina of Royal Bank of Canada says that recent revisions to earnings estimates indicate the biggest American firms are no longer the sole object of analysts' enthusiasm. On top of this, the two events that have dominated markets during the past week—an inflation surprise and an attempted presidential assassination—have both bolstered the case for buying small.

On July 11th data showed that American consumer-price inflation dropped to 3% in the year to June, coming in below

expectations. Interest-rate cuts by the Federal Reserve, which typically benefit small stocks more than big ones, now look increasingly likely. Not only are the fortunes of the Russell 2000 more closely tied to the health of America's domestic economy, lower interest rates would also provide their balance-sheets with welcome relief. According to Bank of America, around 40% of borrowing by firms in the index is taken on at a floating rate. A lower cost of capital, combined with attractive valuations, could also mean more Russell 2000 firms become takeover targets. Even if not all investors are fully convinced about owning small caps, private-equity firms desperate to strike deals and bigger companies looking for growth might be.

Two days later Donald Trump survived an assassination attempt at a rally in Pennsylvania, surely increasing his chances of winning re-election in November. Any investor yet to place their "Trump trade" is now scrambling to do so. For every one that sees fiscal indiscipline pushing up companies' cost of capital and tariffs zapping profits, another predicts that corporate tax cuts and deregulation will boost the stock-market. Investing in small firms appears to be a reasonable way to prepare for an administration that claims to be pro-business but despises the dominance of the largest technology firms. Indeed, the Russell 2000, with its domestic focus, could be a safe haven from Mr Trump's blunders abroad, while benefiting from reshoring efforts and lower corporate tax at home. J.D. Vance, whom Mr Trump has selected as the Republican nominee for the vice-presidency, even once helped invest a venture-capital fund called "Rise of the Rest". Small really could be beautiful for investors.



American banks

Main street sags

NEW YORK

At last, Wall Street can celebrate

CAPITAL MARKETS are twitchy. When interest rates spiked in 2022, their response was fast. Stocks plunged; bosses deferred plans to go public, issue stock and buy rivals. Sharp-suited bankers suddenly found their calls going unanswered. By contrast, the economy adapts slowly. As inflation climbed, people did not cut back much on spending, instead using their credit cards more. With the labour market healthy, they did not struggle to repay debt as rates rose. The result was a bonanza for consumer banks. They raked in ever more interest from resilient borrowers as defaults and delinquencies stayed low.

This mixture—no IPOs, but plenty of APR—has been the status quo for two years. Now, however, it appears to be over. When second-quarter earnings were reported by America's largest lenders between July 12th and 16th, it became clear that, at long last, investment bankers are bustling with business once more, just as consumers are starting to struggle.

Start with the good news from capital markets. Interest rates, as measured by yields on ten-year Treasuries, appear to have peaked. They have dropped 0.5 percentage points since the end of April. As inflation abates, investors increasingly expect the Federal Reserve to cut interest rates this year—then to keep cutting. And while the economy might have slowed a little, it has by no means crashed. America added a robust 160,000 jobs a month in the second quarter of the year. Stocks keep climbing to new highs.

All this is spurring company bosses to make moves. At JPMorgan Chase and Morgan Stanley investment-banking income was up by around 50% year on year, as companies began issuing more debt and equity. Firms including Reddit, a social-media site, have gone public. Others, like Skims, a clothing firm, and Stubhub, a ticket vendor, may soon follow. With bond markets swinging around and stocks booming, trading desks also did well.

On to the less happy news. Consumer banks' bottom lines are being pinched for three reasons. First, deposit bases continue to shrink. Consumers are well aware that interest rates are no longer zero and are enthusiastically moving deposits into high-yield saving accounts. The amount that banks are paying for funding has steadily climbed, and continued to do so in the second quarter. Wells Fargo pointed to depos-

it flight as the main reason its net interest income—the difference between what it collects on loans and pays out on deposits—fell by 9% year over year.

Second, as interest rates seem to have peaked, the amount bankers can collect on loan books is gradually starting to fall. This is also compressing net interest income.

Third, credit quality is slipping. Banks have begun to write down the value of their loan books, especially in credit-card businesses, as consumers start to struggle with their debt burdens. At JPMorgan such net charge-offs jumped by 57% year-over-year. At Citigroup credit-card loans that are 90 days delinquent now make up 1.5% of total credit-card loans, up from just 1.1% in the same period last year.

These credit losses are still low in absolute terms and consumer banks remain very profitable. JPMorgan generated roughly the same amount of profit from its consumer bank in the second quarter of this year as it did in the second quarter of 2019, despite having to deduct write-offs and provisions for loan losses that were almost double their level five years ago. But the shift does indicate that ordinary folk are feeling a little more economic pressure than they have done in recent years.

Whereas Wall Street felt the pain of higher interest rates immediately, Main Street has felt it a little more slowly. There is a bright side, though. If the economic picture remains rosy—with decent jobs growth, falling inflation and declining interest rates—then Main Street should feel the balm of lower rates soon enough. ■

Foreign-exchange markets

Currency paradox

SINGAPORE

Japan's strength produces a weak yen

IT DOES NOT require a financial detective to work out what is going on. Three sudden surges in the value of the yen, on July 11th, 12th and 17th, have raised suspicions that the Bank of Japan (BoJ) is again intervening in currency markets (see chart). The bursts have left the currency, at ¥156 to the dollar, up by 4% against the greenback and marginally above the 37-year lows it reached earlier this month.

Preliminary data suggest that the central bank sold over \$35bn of foreign-exchange reserves on July 11th and 12th (the scale of the most recent apparent intervention remains unclear). These sales would add to over \$120bn of intervention in the past two years, more than half of which occurred between late April and late May.



Bargain-hunting

Such moves burn the fingers of currency traders. They are unlikely to have a long-term impact on the exchange rate, however, which will disappoint officials and delight the tourists now flooding Japan.

The yen's astonishing weakness is most commonly explained by the divergence between American and Japanese monetary policy. Although the BoJ has lifted interest rates a fraction, the rise has hardly matched the Federal Reserve's, meaning that investors have preferred dollars over the past few years. Yet things have recently moved in a different direction: the gap between America's and Japan's five-year government bond yields has narrowed by more than a percentage point since October. Oddly, over the same period, the yen has fallen by another 4% against the dollar.

Why is the yen continuing to weaken? Successful corporate-governance reforms may be in part to blame. As a consequence of changes that began under Abe Shinzo, whose second spell as prime minister ran from 2012 to 2020, Japanese companies have become increasingly focused on returns on investments and have shed needless shareholdings in other firms. Indeed, the country's stocks have outperformed those in most of the non-American rich world over the past decade.

But the focus on returns is also pushing money overseas. In the year to the end of May, Japanese firms invested \$178bn more abroad than foreign firms invested in the country, up from \$72bn in 2010. Although flows of portfolio investment in and out of Japan—money entering and leaving stocks, bonds and other securities—are volatile, direct investment is clearly going in one direction: out of the country.

A recent decision by TSMC to build factories in Kumamoto province, in the south of Japan, caught international attention, but the Taiwanese semiconductor giant re- ▶▶

► mains an outlier. Japan's cultural oddities and language barriers ultimately deter many overseas companies considering a move. The total stock of foreign direct investment in the country is worth just 5% of GDP—a figure that puts it near the very bottom of global rankings, between Kiribati and Burundi, and far below the global average of 44%. As such, there is simply not much demand for the yen.

The greater focus on returns has changed what Japanese companies do with overseas profits, too. Rather than bringing home cash made abroad, they now increasingly keep it in higher-yielding foreign bonds and investments. Japan ran a trade deficit of ¥4trn in the year to May. According to Japan's official statistics, this is more than offset by the earnings of the country's companies overseas, known as the "primary-income balance", which registers a healthy surplus of ¥37trn. But if these earnings are not actually returning to Japan, and being converted to yen, then they will not support the exchange rate. That makes Japan's consistent current-account surplus, which should in theory prop up the currency, something of a mirage. Indeed, an estimate by Karakama Daisuke of Mizuho Bank suggests that only a tenth of the primary surplus is reflected in actual flows of cash returning to the country.

Over the very long run, Japan's attractiveness as a location for supply-chain diversification may help to strengthen the yen. More immediately, if the Federal Reserve begins to cut interest rates faster than markets now expect, the narrowing of the gap between American and Japanese bond yields will support the currency.

However, there are also forces pulling in the opposite direction. Given Japan's shrinking labour force, it is difficult to imagine that a rush of companies will follow TSMC's example. Moreover, as long as Japanese firms continue to become more disciplined, lean and effective, they will continue to put pressure on the currency. That is, at least, good news for Americans keen to sample some *omakase*. ■

Party problems

Sour spot

China's leaders must contend with miserable economic-growth figures

THE JINGXI HOTEL in Beijing is known for its home-made yogurt—and for hosting some of the most important meetings in the history of the Chinese Communist Party. These gatherings include the "third plenum" of 1978, which confirmed Deng Xiaoping's rise to power and the opening of China's economy. From July 15th-18th, the country's leaders met for another "third plenum" in this closely guarded venue. With luck, they savoured their yogurt. Because outside the hotel walls, the economy was again turning sour.

Figures released on the opening day of the meeting showed that the economy grew by 4.7% in the second quarter, compared with a year earlier. The number was both weaker than expected and slower than the previous quarter's figure, when growth seemed to be stabilising. It puts the government's official growth target for this year—around 5%—in doubt.

Beneath the headline figure, things were even worse. Nominal GDP, unadjusted for inflation, grew more slowly than the adjusted figure. The gap implies that prices across the economy continue to fall. In fact, by this measure, China has suffered its fifth quarter of deflation in a row.

Since China's housing slump began in mid-2021, economists have feared that the world's second-biggest economy might follow in the footsteps of Japan, which suffered two lost decades of deflation after asset bubbles burst. By some measures, China is a fast follower. Japan did not enter the fifth quarter of its deflationary spell until the end of 1995, over four years after its property market peaked. In Japan the pattern of falling prices persisted, with few interruptions, for another 18 years.

In both Japan then and China today, deflation is a symptom of lacklustre demand. China's retail sales, for example, grew by only 2% in nominal terms in June, compared with a year earlier. Vehicle sales shrank by more than 6%. The slump in property rumbles on. Even the push to finish half-built homes, one of the government's priorities, seems to have lost momentum. The amount of floor space completed by developers in June was almost a third less than a year earlier.

Just as deflation reflects weak spending, it can also cause it. Firms will hesitate to borrow and invest if falling prices mean that the money they must repay is worth more, in real terms, than the money they

borrowed. In response to slowing credit growth, China's central bank could cut interest rates. But it worries that lower rates would weaken China's currency and erode the profitability of its banks. The central bank's recent announcements have instead focused on refinements to its policymaking apparatus, helping it prop up bond yields and keep interest rates in a narrower range. It has been more active in sharpening its tools than using them.

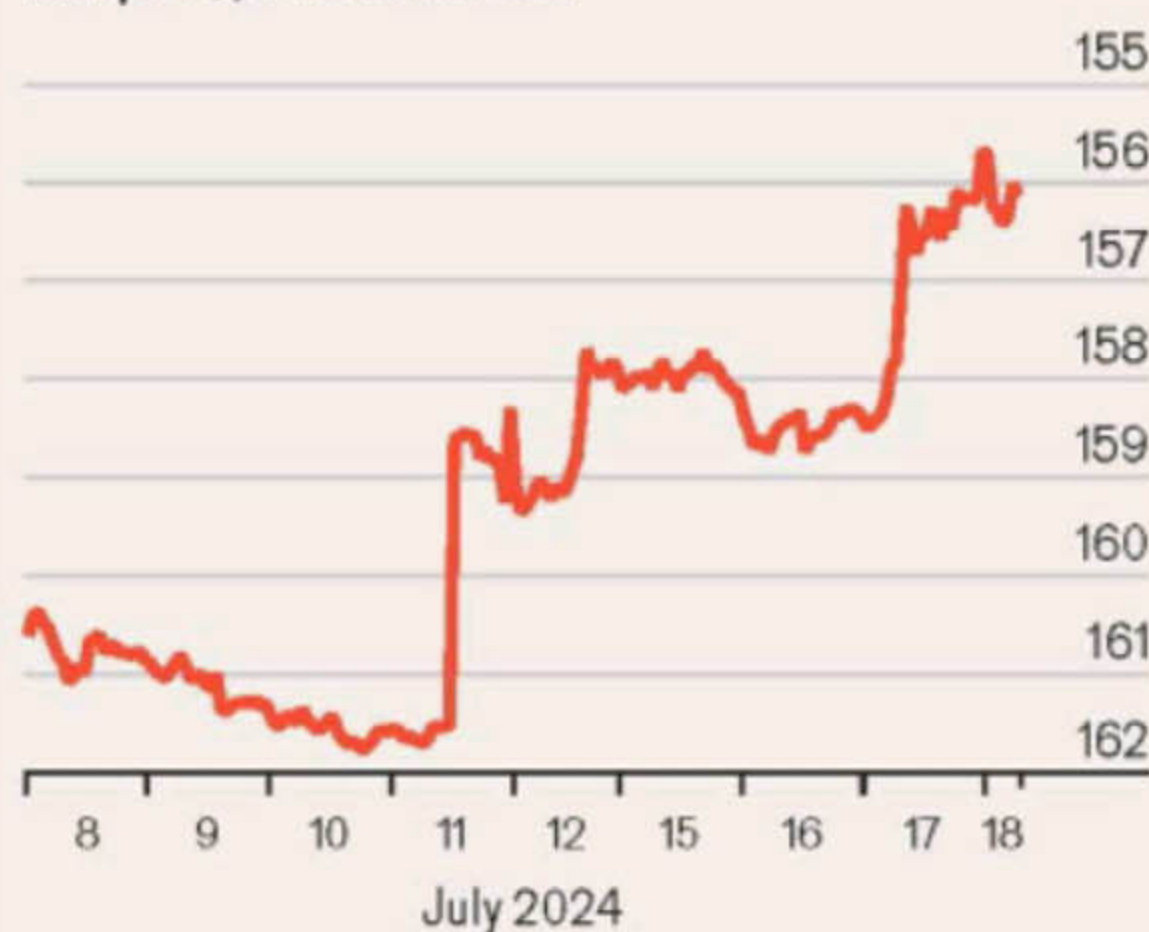
Could policy signals from the third plenum come to the rescue? In recent days official media have presented Xi Jinping, China's ruler, as an "outstanding reformer", much like Deng. A communiqué on July 18th vowed to "place reform in a more prominent position", "actively expand domestic demand" and "give better play to the role of the market mechanism". But these pronouncements may not be convincing enough to lift the mood. The party routinely promises to boost consumption and honour private enterprise. The problem is that it also periodically cracks down on successful firms and forswears consumer-friendly handouts in times of distress. Ultimately, confidence is low not because policy signals have been absent, but because they have been mixed.

Some reforms could even make the country's cyclical problems worse. Local governments, for example, need new sources of revenue to replace dwindling proceeds from selling land. One answer could be an annual tax on the value of property. However, introducing such a tax would be perverse in the midst of a property slump. Another possibility is expanding China's consumption tax, which falls mainly on luxuries, like jewellery, and sinful goods, like booze. Yet such a tax would only further depress weak retail sales.

Over the next few days and months, China's leaders need to keep this balance in mind. Long-term reforms following the plenum must be sweetened with further stimulus spending in the short term. The Jingxi hotel's yogurt reportedly tastes even better with a sprinkling of sugar. ■

Spot the interventions

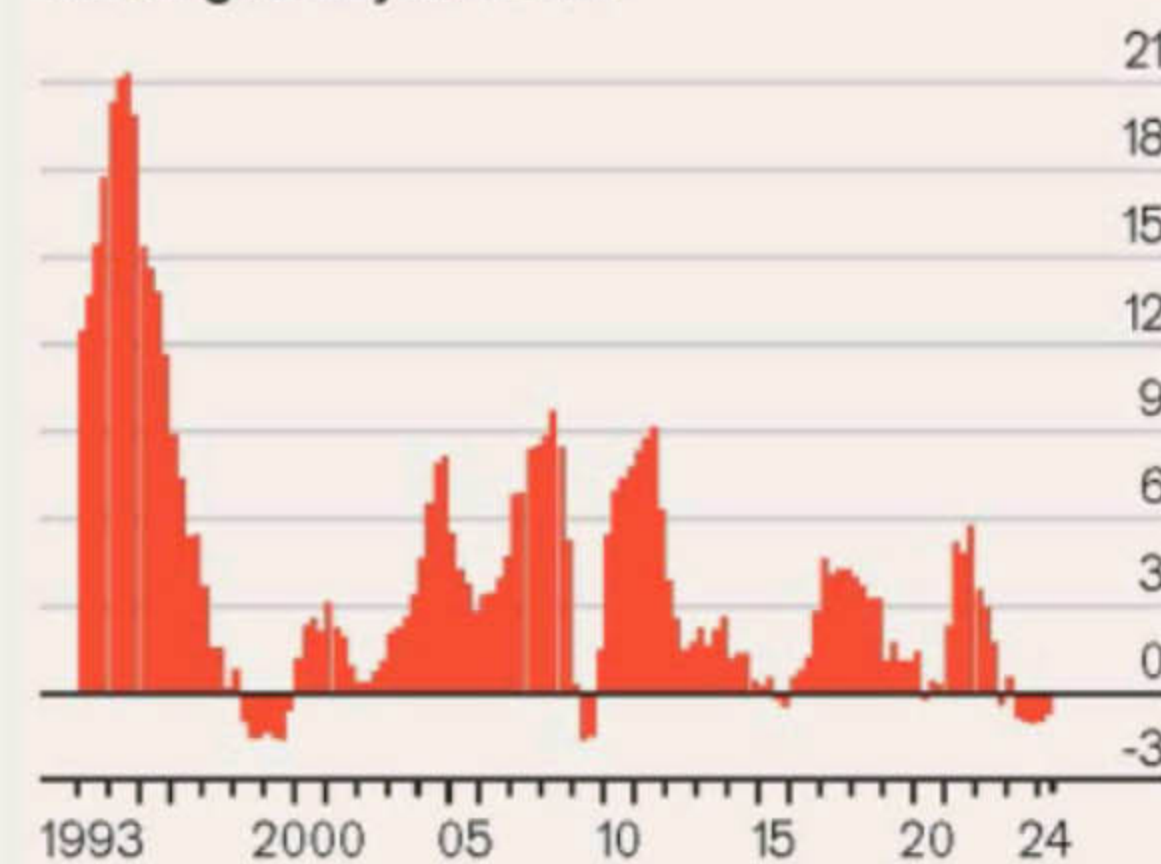
Yen per \$, inverted scale



Source: LSEG Workspace

A state of ferment

China, GDP price deflator, % change on a year earlier



Source: Haver Analytics



Housing reform

Yes, please

AUSTIN

Two cities show the promise—and limits—of YIMBYism

HOUSES IN BOULDIN CREEK, a neighbourhood in Austin, Texas, are cavernous, but occupy only a fraction of their plots. Rules known as the “McMansion ordinance”, intended to preserve the area’s character, ensure there is space between them. Architects must squeeze the design of a new home into an imaginary tent rising five metres from the plot’s edge, then angling in at 45 degrees. The rules seek to prevent sprawling developments from replacing small houses. Instead, the cost of complying with them has ensured that only large, expensive homes are viable.

Things are now starting to change. Alongside Auckland in New Zealand, Austin has become a test case for housing deregulation. For YIMBYs, activists who say “yes in my backyard” to development, reforms in the cities are shining examples to be followed elsewhere. There are signs such campaigners are winning the debate in the anglosphere. Britain’s new Labour government has made “getting Britain building again” a central aim; a push for affordable housing is core to the appeal of Canada’s opposition Conservative party. As case studies for the effectiveness of YIMBY reforms, both Austin and Auckland show signs of success. Yet they also show that changes are slow to take effect and may, on their own, have a modest impact.

Austin’s reforms are more recent than Auckland’s. Although the city’s housing rules were tweaked in 2015, YIMBYism took

hold only in December, when the council passed the Home Options for Middle-Income Empowerment Initiative. In parts of the city, this allows up to three units in a lot designated for a detached house, as well as more floor space within plots and less space between homes. Another change in May cut minimum lot sizes. Councillors are hoping to create a “missing middle” of affordable housing for young families.

Feeling flat

An index by Apartment List, a rental portal, finds that over the past year rents in the city have fallen by 7%—among the sharpest drops in America. House prices are down by 4% over the same period, according to Zillow, a listings site. YIMBYs have jumped on this as proof of the reforms’ success. That is a little hopeful. Austin’s housing market boomed during the covid-19 pandemic as techies looked for places cheaper than California to work from home. Between 2020 and 2022 prices rose by 60%. Tech firings and higher interest rates have since dampened the market, yet prices are still 8% higher than if they had followed the pre-pandemic trend.

Auckland’s changes have had longer to bed in. Eight councils that make up the Kiwi city merged in 2010. They had to create a citywide plan for zoning, which led to a more permissive approach. In 2013 “special housing areas”, in which building was encouraged, were introduced. In 2016 three-

quarters of the city was “upzoned”, meaning blocks of flats could replace houses. The aim was to create a well-connected, environmentally friendly “compact city”.

Since these changes, rents in Auckland have not fallen, but they have grown more slowly than both incomes in the city and rents in the rest of New Zealand. Properties built in the city now tend to be smaller than those elsewhere, making like-for-like comparisons difficult. But Ryan Greenaway-McGrevy of the University of Auckland has found that rents, adjusted for property quality and size, are 28% lower than they would be had they continued to track a “synthetic Auckland”, based on a mixture of smaller Kiwi cities that resembled Auckland before the reforms.

House prices have risen just as fast as in the rest of New Zealand. Mr Greenaway-McGrevy attributes this to the fact that upzoning has increased land values: pre-existing smaller homes now sell for more since they are bundled with the option to build larger units. Once the market adjusts, prices may begin to rise more slowly or even fall. It is also hard to spot an impact on economic growth. That may be because the reforms exclude a band of colonial-era housing in pretty inner-city suburbs surrounding the central business district. Economists tend to see agglomeration benefits, which arise from people living and working in the same space, as crucial. If new housing is farther from productive workplaces, the gains will be smaller.

Austin’s reforms, which are limited to the city rather than bordering counties, may in time have more impact. Areas just outside the city have long had permissive zoning, notes Jake Wegmann of the University of Texas at Austin, providing a pressure valve for its booming housing market. Building has already spiked in the wider metro area, even if not in the city proper where developers have to contend with the McMansion ordinance and similar rules. This has led to congestion as the residents of the unincorporated counties commute to jobs downtown. Allowing more density in the city itself may reverse this pattern.

New transport facilities could further increase the benefits of building. Auckland has opened a dedicated route for buses and plans another one. A new link between the city’s commuter rail lines will be completed in November next year. Congestion charging, currently under consideration, would help make better use of existing infrastructure. In 2020 voters in Austin approved a ballot initiative to fund their own light rail system through property taxes. The state attorney-general has, however, sued the city, alleging the project has no legal standing to sell debt. If they want to get the biggest benefit from their reforms, cities that say “yes in my backyard” cannot take no for an answer from others. ■

FREE EXCHANGE

The fraught balance

Political instability is an economic problem. But so is political stability



AMERICA'S STABILITY can no longer be taken for granted. That is one possible conclusion from the near assassination of Donald Trump, reinforcing lessons already learned from the attack on the Capitol in January 2021. Regrettably, America is not exceptional in this regard. The past few months alone have featured a shooting of Slovakia's prime minister, an assault on Denmark's prime minister and attacks on politicians in Germany.

Such violence strikes at basic tenets of democracy: that differences are resolved via elections and peaceful transitions of power. It also challenges one of the most reliable economic relationships of modern times: between democracy and prosperity. Often, the causality is thought to run from wealth to voting. But democracy, and the rule of law intrinsic to it, is crucial to accumulating and maintaining wealth. Is this relationship now coming unstuck? And should Americans long for a return to stable bipartisanship?

The downsides to instability are proportionate to the level of chaos. At its most extreme, instability undermines certainty about the future, and is a disincentive to savers and businesses alike. A revolution that topples a regime may also wipe out contracts and laws. Faced with upheaval, individuals seek to move money abroad or into assets such as gold, while entrepreneurs lose confidence. Marist, a pollster, finds that 47% of Americans think there is a chance of civil war, the most severe form of instability, in their lifetime. But their pessimism should be taken with a hefty pinch of salt. The fact that so few are dumping dollars and that so many businesses continue to pour money into America is evidence that the country is far removed from a true political cataclysm.

It does, however, exhibit a lower level of political instability, which carries its own costs. One is dysfunctional government. This plays out differently in every country. France's fragmentation has left it with a caretaker administration for now, though it will probably fare better than Belgium's recent record of 652 days without a government. In the short term this gap may not undercut growth because other public institutions from schools to rubbish collection remain intact. Nevertheless, the inability to approve budgets or pass laws allows problems to fester and can cripple state capacity. In America the two-party system ensures that one

or the other always prevails, but hyper-partisanship has led to gridlock in Washington. The country's repeated brushes with its debt ceiling, raising the spectre of a sovereign default, are an example of how its leaders struggle to handle routine tasks.

Another concern is the rise of populism as an outcome of the instability. Mr Trump talks of tariffs as a magical lever that will bring about a manufacturing renaissance in America. A more credible estimate from the Tax Foundation, a conservative think-tank, is that his tariffs would cause a nearly 1% decline in GDP and eliminate 700,000 jobs. Attacks on central bankers are another populist staple, seen in Brazil, Turkey and, quite possibly, a second Trump administration. Examining a century's worth of data, Manuel Funke and Christoph Trebesch of the Kiel Institute for the World Economy and Moritz Schularick of the University of Bonn have documented the damage. Fifteen years after populists enter office, GDP per person is about 10% lower than in similar countries with more conventional governments. Meanwhile, public indebtedness climbs more under populists, as does inflation.

That political instability is bad for an economy should therefore be evident. More controversial is the opposite statement: that political stability can also hurt an economy. To be clear, this is not a criticism of orderly government—the ideal for any country—but of excessive stasis. "The Rise and Decline of Nations", published in 1982 by Mancur Olson at the University of Maryland, is the most famous expression of this idea. He argued that institutional sclerosis may arise over time as special-interest groups gain a foothold in stable democracies. Their dominance of politics leads to declining economic efficiency. Empirical tests across a range of countries have lent support to his hypothesis, though there are exceptions and caveats. As with instability, it is useful to think of stasis in the extreme—say, the decades of one-party dominance in Mexico that enabled endemic corruption and cronyism.

Destruction can be creative

A corollary to Olson's original theory was his view that systemic shocks were needed every now and again to loosen the grip of vested interests. He saw the defeat of Germany and Japan in the second world war as paving the way for their superior economic performance relative to America and Britain in the subsequent decades. Mercifully, it is now clear that growth-enhancing systemic shocks do not have to be bloody. Margaret Thatcher's revolution in Britain is a case in point—something that may have influenced Olson's strong support for democracy in his later writings. In a paper for the Swedish Institute for European Policy Studies, economists looked at thirty-plus European countries over a quarter-century, and found that some institutional instability is conducive to growth. The worst outcomes occurred in countries with stable but bad institutions; the best where institutions were more flexible and able to accommodate new, beneficial policies.

A common lament in America is the decline of bipartisanship. This is misplaced. There is reason to worry about bitter enmity in politics, such that one party's supporters view the other's as treacherous enemies. But vigorous disagreements that result in profound changes to institutions and policies are the essence of renewal in democratic countries and help underpin economic growth. It is a fraught balance—neither extreme instability nor excessive stasis, all while staying within the bounds of civilised discourse. That this balance has been the norm for decades in much of the West is a miracle. To lose it would be a tragedy. ■

Science & technology



H5N1

Betting the farm

Avian flu's spread through dairy cows in America could lead to a human pandemic. Existing immunity and vaccines may blunt its edge, but will not be enough

ON JULY 14TH America's Centres for Disease Control and Prevention (CDC) reported five new cases of the H5N1 avian flu virus in humans, bringing the total number of cases reported since April to nine. All five were involved in culling infected poultry in Colorado, and appear to have the same strain that has been spreading in dairy cows across the country since December. So far, there is no evidence the virus has adapted to spread between humans, a prerequisite for a flu pandemic. But things can change quickly—the more the virus circulates in animals that come in close contact with humans, the bigger the risk that a pandemic strain will emerge.

Should H5N1 go down this path, would the world be prepared? When SARS-CoV-2 emerged in 2019, humans had no natural immunity, drugs or vaccines. All three exist for H5N1, though how well any of them would work against a possible pandemic virus remains unclear.

H5N1 was identified in wild geese in 1996 and has been circulating in birds ever

since. The virus is deadly for poultry and hundreds of millions of chickens have been culled over the decades to prevent its spread on farms. Occasionally, birds with H5N1 have infected mammals, including humans. Luckily, these have been dead-end infections, with no further spread. In 2023, however, the H5N1 virus acquired genetic changes allowing it to spread between marine mammals. This is the kind of adaptation the virus needs to begin spreading between humans, says Malik Peiris, a virologist at the University of Hong Kong. If the current outbreak in cows in America continues, he says, then mutations to ease its transmission between humans will almost certainly arise.

Alternatively, someone infected with a seasonal flu virus could become infected

with a bovine H5N1. That bovine H5N1 virus could then pick up the gene segments from the seasonal flu virus that makes it contagious between humans, a gene-swap trick that flu viruses are particularly adept at. Known as viral reassortment, this kind of swap happens particularly easily in pigs because they can become infected with both avian and human flu viruses simultaneously, acting as melting pots for viral evolution.

H5N1 adapting to pigs is “the really scary thing” says Dirk Pfeiffer, a veterinary epidemiologist at the City University of Hong Kong. Pigs infected with flu viruses are often asymptomatic, so by the time any H5N1 virus adapted to humans could be found in them, it would have already spread in people, he says. The recent mammalian adaptations of H5N1, as well as its presence on dairy farms, make scientists think it is only a matter of time before it adapts to pigs.

It is not possible to predict how deadly a pandemic strain of H5N1 could be. Since the virus first emerged, around 900 human infections have been confirmed. Half were fatal, but asymptomatic infections would have gone uncounted, making the true fatality rate lower. The nine H5N1 cases in dairy and poultry workers found in America since April this year were all mild, though that will not necessarily hold true for future infections. To understand how widespread human infections are, the CDC

→ ALSO IN THIS SECTION

65 Caves have been found on the moon

66 Predicting tipping points with AI



► is now testing for antibodies in people on farms that have had H5N1 outbreaks.

There are several reasons to believe that, should an H5N1 pandemic occur, things may be less dire than they were with covid-19. No one had immunity against covid when it emerged, for example. By contrast, studies suggest that most people have some degree of flu-related immunity that could prevent severe H5N1 infections.

Antibodies for the flu are primarily directed against the two proteins on the surface of the influenza virus, hemagglutinin (H) and neuraminidase (N). Most potent is the protection directed at the H protein. Antibodies for H5, the form of H present in H5N1, are rare in people because it is not found in seasonal flu viruses.

First line of defence

But Michael Worobey, an evolutionary virologist at the University of Arizona, and his colleagues have discovered that someone whose first-ever flu infection was with an H1 or H2 flu virus will probably have some protection against avian H5N1. This effect is due to an outsize “immune imprinting”, probably by the flu strain in global circulation in the year after they were born. Using historical data on seasonal flu strains, Dr Worobey’s team estimates that most people born before 1968 may have this type of immune protection against H5N1. Most of those born subsequently—and especially in the past decade—will not. Though this immunity may not prevent infection, there is a good chance that it will shape the severity of disease, says Dr Worobey, and “make a big difference in terms of who lives and who dies”.

Similar, though less powerful, immunity may arise from previous exposure to the N1 component, as well as from T-cells primed to attack other types of flu virus.

These, too, may mitigate the severity of a new flu pandemic, says Dr Peiris.

It is not only the human body that is better prepared to face H5N1 than covid. Pharmaceutical companies are too. Existing antiviral drugs used for seasonal flu are likely to work against H5N1 because they target a virus’s replication mechanism, which is similar across strains.

Vaccine development is also more advanced. Many countries, including America, have a stockpile of H5N1 vaccines as part of their generic pandemic preparedness plans, reserved for those at the highest risk of becoming infected. Fifteen European countries are also adding the vaccines to their stockpiles. Finland, for its part, has started offering the jabs to farm workers most at risk, such as those working with poultry, foxes and mink. As the vaccines are thought to primarily prevent severe disease, rather than infection, American officials have not followed suit.

A pandemic, however, will require billions of vaccine doses. The fastest way to make them would be to use mRNA technology, which uses a section of the virus’s genetic material, rather than the whole virus, to provoke an immune response in the host’s body. These can be made in four weeks, compared with the six months needed for the typical seasonal flu jabs. The American government has commissioned Moderna, a pharmaceutical company, to develop an mRNA vaccine for H5N1. GlaxoSmithKline and CureVac, both biopharmaceutical companies, are also in the early stages of developing such a vaccine. Drew Weissman, who won a Nobel prize in 2023 for developing mRNA technology, is testing a rival mRNA vaccine with colleagues at the University of Pennsylvania.

Dr Weissman also hopes to develop an mRNA vaccine that can be administered to

animals in the form of an oral tablet or patch. This would simplify mass vaccination of poultry and cattle, preventing further spillovers. At the moment, no H5N1 vaccine has been approved for animal use in America or Europe.

All this vaccine development will take time, as will building up the stockpiles needed to prepare for a large outbreak in humans. Such time would be well-spent. Should H5N1 become a human pandemic, it is possible—assuming vaccine supplies ran low or existing stocks could not be speedily deployed—that it could kill as many people as covid did. The lack of aggressive measures to halt the outbreak in cows in America is exacerbating matters. The risk, says Dr Peiris, is that the virus will become permanent and eventually spread beyond the country. “Then,” he adds, “there is no stopping it.” ■

Selenology

One giant leap for troglodytes

A massive subsurface cave has been found on the Moon

FROM AN ESTATE agent’s perspective, the lunar surface has little to recommend it. Its none-too-metaphorical lack of atmosphere means it is bombarded by meteorites, cosmic radiation is unrelentingly harsh and temperatures range from lows of -246°C to highs of 121°C . Subsurface lunar caves, on the other hand, with stable temperatures and cover from projectiles, would be much more enticing habitats. The only question is, do any exist?

In a paper published in *Nature Astronomy*, Lorenzo Bruzzone and Leonardo Carer, at the University of Trento, and their colleagues, offer a definitively affirmative answer. They provide evidence of a cave about 80 metres long and 45 metres wide at the bottom of a 135-metre-deep pit in the Sea of Tranquility. The neighbourhood is a historic one: plains which surround the pit are the site of humanity’s first lunar landing. Though the site’s selenological (the lunar equivalent of geological) origins are unclear, it may be the remains of a subsurface tube forged by a river of lava. When the tube’s ceiling caved in—perhaps after a meteor impact—a giant pit (with its associated caves) was all that survived.

The researchers discovered the annexe by analysing data from the *Lunar Reconnaissance Orbiter* (LRO), which has been circling the Moon since 2009. Aboard the LRO is a radar instrument primarily designed to hunt for water ice under the Moon’s surface. The instrument also col- ►►



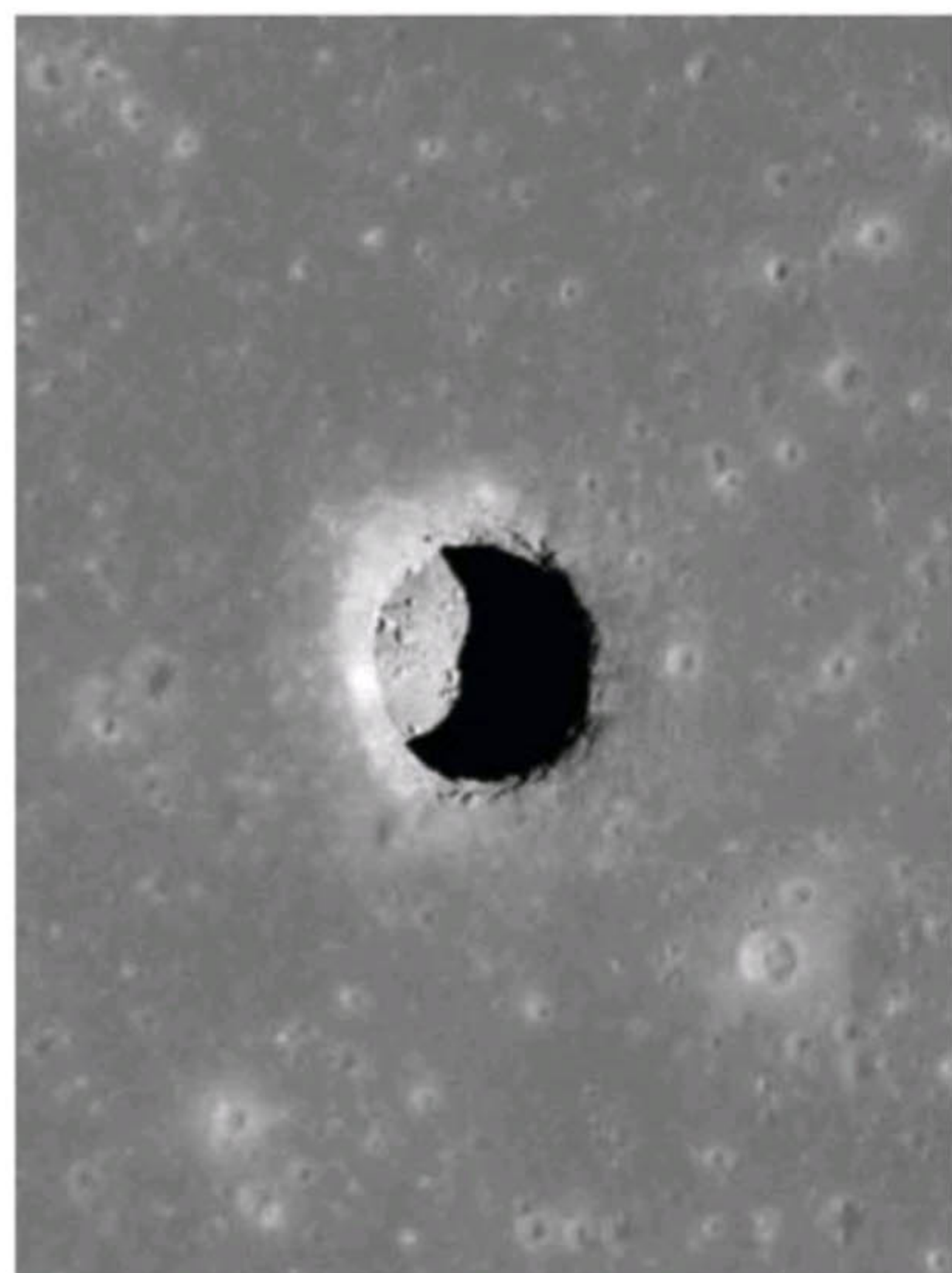
Warning shots

lected data about the shapes of pits such as the one in the Sea of Tranquility. Although the images the radar instrument created have been available since it broke down in 2011, says Dr Bruzzone, nobody had previously looked at them in the right way to be able to spot a cave.

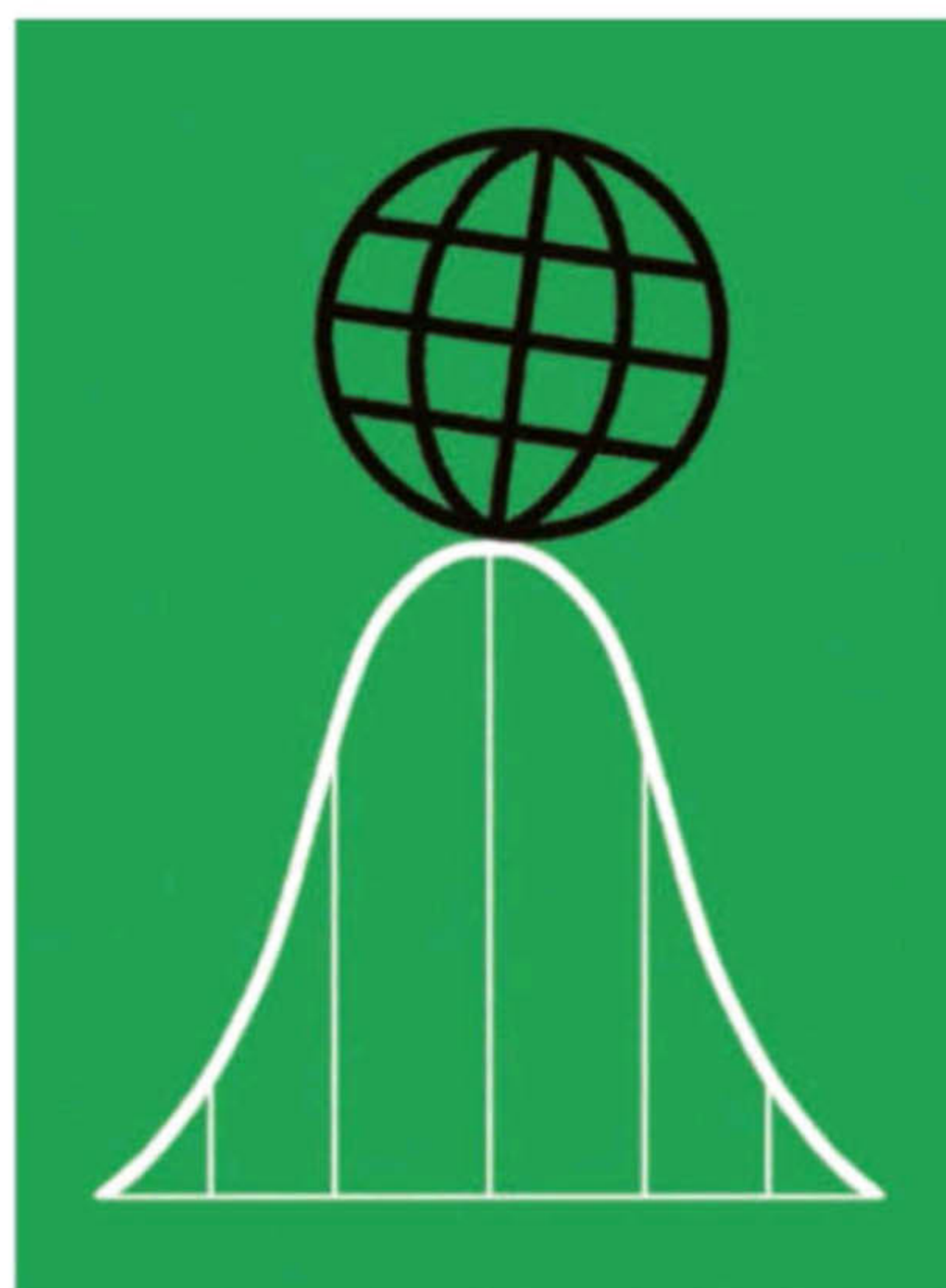
That changed when the team compared the pictures with satellite images of Earth created using radar technology similar to the LRO's. That helped them spot the tell-tale signature of a cave, as well as to work out the different radar signals given by different subsurface geometries. The team then ran simulations to compare the data from LRO with those expected from pits of varying shapes and sizes. The best match for the Sea of Tranquility data, it turned out, was a pit with a spacious hidden cave. Importantly, its entrance is accessible. "We found a front door," says Dr Carrer. This means that it could be explored in future lunar missions.

Such exploration could be useful for more than house-hunting. Subsurface lunar caves are thought to contain valuable resources that future Moon-dwellers might need to set up permanent bases. Water, for example, could be drunk as well as used as a potential source of fuel and oxygen. It has already been found in both solid and liquid form on the lunar surface, but more may be hidden beneath.

The caves would also possibly shed light on how the Moon came to be. Just as studying Earth's inner layers reveals clues about conditions on the planet when each layer was formed, studying the walls of a pristine lunar cave could paint a fuller picture of the Moon's formation. Scientists could use them to map the extent of volcanic activity on the Moon, perhaps, or determine the composition of the lunar core. All that's needed is a tenant with vision. ■



Home sweet hole



Machine learning

Critical moment

AI can help predict tipping points before they happen

ANYONE CAN spot a tipping point after it's been crossed. Also known as critical transitions, such mathematical cliff-edges influence everything from the behaviour of financial markets and the spread of disease to the extinction of species. The financial crisis of 2007-09 is often described as one. So is the moment that covid-19 went global. The real trick, therefore, is to spot them before they happen. But that is fiendishly difficult.

Computer scientists in China now show that artificial intelligence (AI) can help. In a study published in the journal *Physical Review X*, the researchers accurately predicted the onset of tipping points in complicated systems with the help of machine-learning algorithms. The same technique could help solve real-world problems, they say, such as predicting floods and power outages, buying valuable time.

To simplify their calculations, the team reduced all such problems to ones taking place within a large network of interacting nodes, the individual elements or entities within a large system. In a financial system, for example, a node might represent a single company, and a node in an ecosystem could stand for a species. The team then designed two artificial neural networks to analyse such systems. The first was optimised to track the connections between different nodes; the other, how individual nodes changed over time.

To train their model, the team needed

examples of critical transitions for which lots of data were available. These are hard to find in the real world, because—cue circular logic—they are so hard to predict. Instead, the researchers turned to simplified theoretical systems in which tipping points are known to occur. One was the so-called Kuramoto model of synchronised oscillators, familiar to anyone who has seen footage of out-of-sync pendulums beginning to swing together. Another was a model ecosystem used by scientists to simulate abrupt changes, such as a decline in harvested crops or the presence of pests.

When the researchers were happy that their algorithms could predict critical transitions in these systems, they applied them to the real-world problem of how tropical forests turn to savannah. This has happened many times on Earth, but the details of the transformation remain mysterious. Linked to decreased rainfall, this large-scale natural switch in vegetation type has important implications for any wildlife living in the region, as well as the humans who depend on it.

The researchers got hold of more than 20 years of satellite images of tree coverage and mean annual rainfall data from central Africa and identified the times at which three distinct regions transitioned from tropical forest to savannah. They then wanted to see if training their algorithm on data from two of these regions (with each node standing in for a small area of land) could enable it to correctly predict a transition point in the third. It could.

The team then asked the algorithm to identify the conditions that drove the shift to savannah—or, in other words, to predict an oncoming phase transition. The answer was, as expected, down to annual rainfall. But the AI was able to go further. When annual rainfall dropped from 1,800mm to 1,630mm, the results showed that average tree cover dropped by only about 5%. But if the annual precipitation decreased from 1,630mm to about 1,620mm, the algorithm identified that average tree cover suddenly fell by more than 30% further.

This would be a textbook critical transition. And by predicting it from the raw data, the researchers say they have broken new ground in this field. Previous work, whether with or without the assistance of AI, could not connect the dots so well.

Like with many AI systems, only the algorithm knows what specific features and patterns it identifies to make these predictions. Gang Yan at Tongji University in Shanghai, the paper's lead author, says his team are now trying to discover exactly what they are. That could help improve the algorithm further, and allow better predictions of everything from infectious outbreaks to the next stockmarket crash. Just how important a moment this is, though, remains difficult to predict. ■

Culture



Water wars

Fluid thinking

Two new books warn of battles over ocean management and freshwater supply

The High Seas. By Olive Heffernan.

Greystone; 352 pages; \$32.95. Profile; £22

The Coming Storm. By Liam Fox. Biteback; 368 pages; £25. To be published in America in October; \$29.95

WHAT WOULD summer be without water: without frolicking on a beach, fishing in a lake or savouring a novel pool-side? And yet, for anyone who cares about the health of the world's oceans, 2024 has been a bleak year. Mass fish deaths, driven by drought and heat, have been reported on opposite sides of the world, in Vietnam and Mexico. Most of the world's coral reefs have bleached, a process in which unusually warm water temperature makes coral brittle, bone-white and susceptible to disease and possibly death.

Nor is the news much better for people. In March the UN reported that around half the world's population experiences "severe water scarcity" annually. Drought has caused one of Mexico City's main res-

ervoir systems to run dry, and population growth has led the city to overtax its water table, leading it to gradually sink—a similar fate to Jakarta, which is subsiding so quickly that Indonesia is building a new capital on a different island. Humanity, a species nurtured on a watery planet, is struggling to manage its most abundant resource, as two new books highlight.

Olive Heffernan's "The High Seas" is the more compelling and better reported of the pair. It focuses on the 64% of the world's oceans that are outside the control of any country and cover around half of the

Earth's surface. She argues that the world is witnessing a saline tragedy of the commons on a vast scale. Oceans are Earth's greatest carbon sink, having absorbed roughly one-third of all carbon emissions since the dawn of the industrial age. Phytoplankton—tiny flora and bacteria—take in about as much carbon as all plants and trees on land combined. Oceans also provide around one-sixth of the world's animal protein eaten by humans.

Countries and companies, all making individually rational decisions, risk doing irreparable damage to both of those functions. Sometimes these decisions are legal: no law stops Russia from sending its decommissioned satellites to rest in a remote part of the Pacific Ocean, despite risks to the marine ecosystem. But often they are not: some Chinese fishing vessels, for instance, use illegal nets, seize protected fish such as sharks near the Galapagos and lie about their catch.

Nowhere is this tension between rationality and risk clearer than in people's quest to fish the ocean's mesopelagic zone, the region between where photosynthesis stops (around 100 metres below the surface) and the part entirely devoid of light (which starts at around 1,000 metres down). This area is home to some odd fish, including the siphonophore, a tentacular colony of stinging creatures, and slender snipe eels with 750 vertebrae (most adult humans have 24). Mesopelagic creatures

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► account for 95% of the ocean's fish by weight; every day they complete the largest animal migration in the world, rising from the depths to feed at higher levels.

Several countries have tried and failed to fish the mesopelagic zones, citing high costs and low catches, but Norway is making a more sustained effort, processing unappetising creatures into fishmeal for its thriving (and lucrative) salmon farms. But mesopelagic fish play a vital role in the ocean's carbon-sequestration cycle, and nobody knows the effects of thinning them out—whether the zone can be sustainably fished or whether it could quickly become as overfished as the surface. (As one researcher explains, “If this works, it will be an opportunistic fishery...you'll have to go and get as much as possible before it disappears.”)

This speculation about short-term benefits versus unknown but plausibly catastrophic long-term harms crops up throughout the book. The seabed is rich in minerals, including valuable ones such as gold and platinum, and although no one has yet found a way to mine them cheaply, efforts are intensifying. Some of these minerals may help the world get greener, but disturbing seabeds creates plumes of sediment that smother creatures below and cause lasting damage to biodiversity.

Sometimes Ms Heffernan's concerns descend into excessive hand-wringing. Marine life offers immense commercial potential. AZT, an HIV drug, and Remdesivir, the first approved covid treatment, came from compounds found in sponges. Some 34,000 marine compounds have been found suitable for a range of products including cattle feed, ice cream and virus tests. Once scientists harvested these compounds from marine life itself; today they can use genetic information uploaded to online databases. Ms Heffernan asks whether using digital gene-sequencing amounts to “biopiracy”, but precisely what is being stolen and from whom is unclear.

Overall, however, her book is admirably clear-eyed, refusing the easy consolation of toothless treaties and mollifying pabulum from politicians. Just as Saudi Arabia is building a greener economy while also positioning itself to be “the last man standing” when it comes to oil extraction, she notes that many countries likeliest to ratify a treaty intended to protect the high seas will keep polluting and overfishing.

Whereas Ms Heffernan crossed the globe and plumbed the depths to write her book, Sir Liam Fox, a former Conservative politician, appears to have plumbed Wikipedia's depths for his almost comically fact-rich tome. He wrote it “to join the dots” and explain why water—battles over access, climate-driven threats and maritime conflicts—will prove as much a flashpoint in this century as oil was in the 20th.

His reasoning is sensible: in the coming decades much of the world's population growth will take place in African and Asian countries that already struggle to provide their citizens with fresh water. Countries' water management can affect their neighbours, stoking the prospect of conflict. Strife can also erupt over access to shipping channels, as the low-level conflict in the South China Sea demonstrates. Failure to provide citizens with clean water can also lead to malnourishment and disease. And abundance can quickly turn to scarcity: “Today's flooded will become tomorrow's thirsty,” Sir Liam argues.

Yet despite (or perhaps because of) Sir Liam's worthy concerns and puppyish enthusiasm, his book reads like a school report. Declaring that it “is difficult to precisely predict the effects that climate change...might have in the future on human health” wins zero points for bravery.

Still, Sir Liam's book has value. It is alarming but not alarmist and compiles a tremendous amount of water-related information. Neither book offers concrete recommendations beyond heightened concern. But if, over the course of this century, water and the life it sustains grow scarce or imperilled, conflict and privation seem not just possible but inevitable. ■

Geopolitics

Gangsters-in-chief

Autocracy, Inc. By Anne Applebaum.

Doubleday; 224 pages; \$27. Allen Lane; £20

How Tyrants Fall. By Marcel Dirsus.

John Murray; 304 pages; £22. To be published in America in January; \$29

IN 1999 HUGO CHÁVEZ made a choice. He had won Venezuela's presidency promising revolutionary change. His chief of internal police brought him evidence of graft within his regime: some top officials were stealing from a fund for the poor. Chávez listened, said nothing and sacked the whistleblower. Insiders got the message: if you are loyal, you can steal. Chávez (pictured) wanted to stay in power for ever. He bet “that corrupt officials would prove more malleable than clean ones, and he was right”, writes Anne Applebaum.

Ms Applebaum, a journalist, made her name with “Gulag”, a history of the Soviet Union's prison camps that won the Pulitzer prize. Her new book, “Autocracy, Inc”, is shorter and more urgent. Whatever their professed ideology, today's strongmen typically crave little besides power itself



Power to the potentate

and the loot it brings. They share an enemy: checks on power, and the democratic world that espouses them. That common enemy spurs them to collaborate, spinning global networks of mutual support.

For example, when America slapped sanctions on Venezuela, Russian energy giants stepped in to invest in its oil business. Cuba helped it spy on its people and weaponise rations to starve the opposition. Iran's theocrats sent petrol and food to Venezuela's socialist rulers, who allegedly laundered money for Hizbullah, a pro-Iranian militia. Zimbabwe's president summed up the new autocratic mindset pithily. A veteran anti-colonial warrior, he warmly endorsed Russia's colonial invasion of Ukraine and was rewarded with a helicopter. Gloating over it, he said: “The victims of sanctions must co-operate.”

Such relationships are transactional, so they have limits. But all autocrats want to paint the democratic alternative as ghastly. Their propaganda is mendacious (European governments take children from straight families and give them to gay couples!), but based on a shrewd understanding of the West's divisions. “Americans who rarely think about Russia would be stunned to learn how much time Russian state television devotes to America's culture wars,” writes Ms Applebaum. Mr Putin's pose as a guardian of the traditional family against Western cultural imperialism is so effective that other despots, from Africa to Central Asia, have copied it.

Sometimes repressive regimes lend each other megaphones. When reputable satellite networks dropped RT, a Kremlin mouthpiece, China's StarTimes started carrying it. Across Africa and the Middle East, despots welcomed the way it ignored their abuses and heaped bile on the West.

If Ms Applebaum emphasises auto- ►►

► crats' strength, Marcel Dirsus of Kiel University in Germany stresses their weakness. From 1946 to 2010 69% of them were jailed, killed or forced into exile when they lost power. All shudder at what happened to Muammar Qaddafi, the Libyan dictator who was overthrown, dragged from a drain and sodomised with a bayonet.

In "How Tyrants Fall", Mr Dirsus looks at how other autocrats seek to avoid such a fate. They face several dilemmas. They must keep their cronies happy, since insiders are best placed to knife them. But if they let them steal too much, they may provoke unrest. They often keep the security forces divided to make coups harder. But divided forces are less effective against external foes, as Saddam Hussein found when he invaded Iran.

Dictators ferociously punish dissent. Yet by silencing critics, they deprive themselves of honest advice. And if they surround themselves with spy chiefs who are paid to spot threats in every shadow, they develop a paranoid worldview. This is terrible for their subjects and neighbours.

Mr Dirsus mines history for evidence about how to get rid of dictators. He finds that non-violent uprisings, if they succeed, are nearly ten times more likely to lead to democracy than violent ones (57% to 6%). And autocrats who allow democratic reforms are much likelier to enjoy a serene retirement than those who try to maintain an iron grip to the end. Autocratic party states, meanwhile, are more durable than personalised dictatorships—which China's Communist Party might bear in mind, as Xi Jinping's personality cult thickens.

The historical data in "How Tyrants Fall" are thought-provoking, but will the techniques that toppled despots of old still work in an age of mass surveillance? Mr Dirsus notes how hard it is for rebel armies to hide from drones, or for dissidents to organise when the state can monitor every bus trip and keystroke.

Ms Applebaum worries that "autocracy, inc" is poisoning minds and corrupting decision-makers in the democratic West. "Nobody's democracy is safe," she asserts. With Donald Trump a strong favourite to win back the presidency on a platform of vengeance and startling proportions of Americans saying they approve of political violence, it is easy to share her pessimism.

But democracies are not defenceless, and both authors offer useful tips for resisting. Ms Applebaum would do more to police where kleptocrats hide their cash: no more anonymous real-estate deals, shell companies or trusts. Mr Dirsus says outsiders should aim to "damage the pedestal faster than the dictator can repair it", by training exiled activists and supporting the free flow of information. Since democracy has, by far, the better story to tell, it should ultimately prevail. ■

Sport and cities

Moving the goalposts

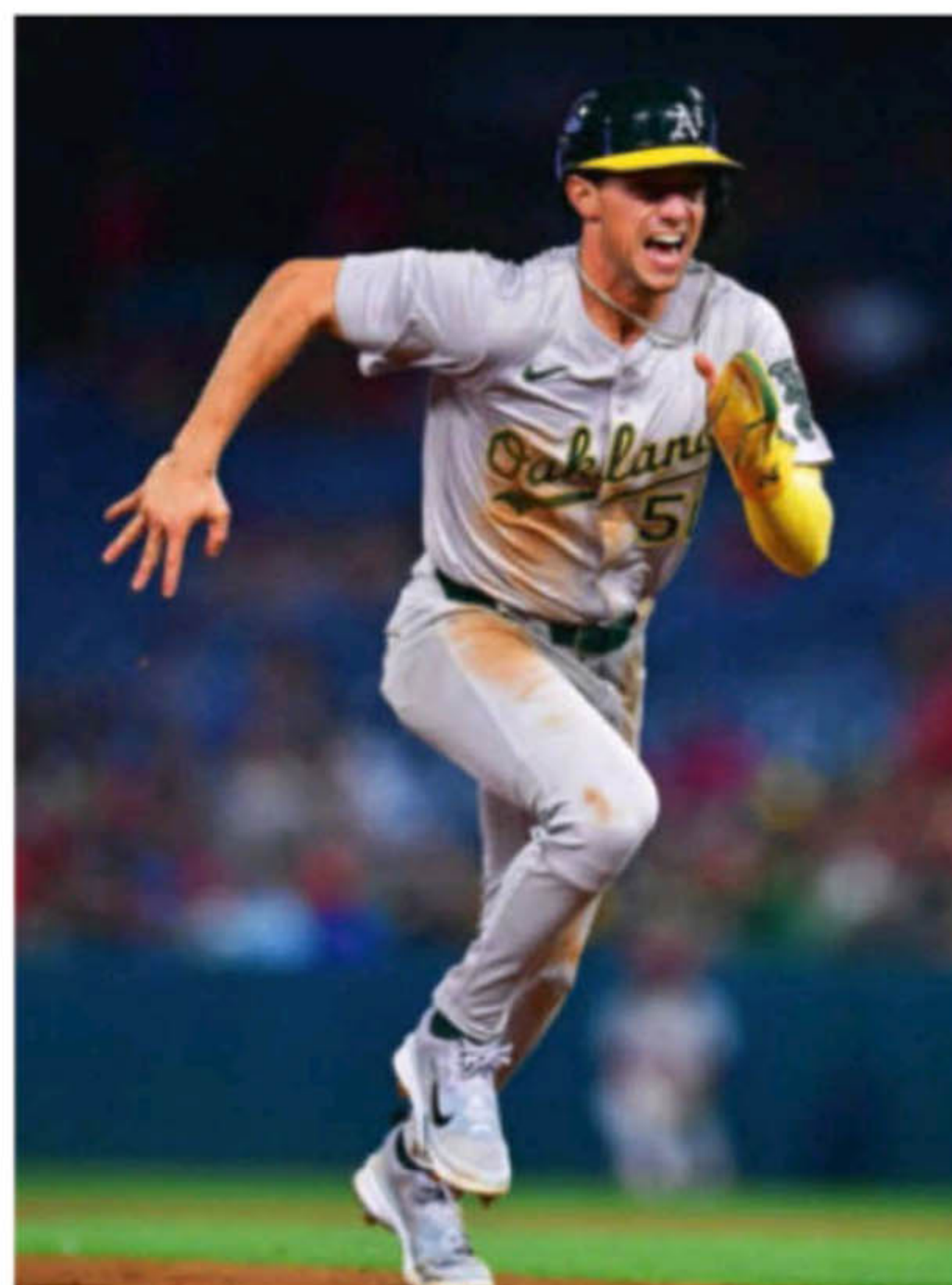
OAKLAND, CALIFORNIA

Why American teams move so often

EVEN BEFORE Michael Lewis wrote "Moneyball", about the genius of the Oakland Athletics (A's) for doing more with less, the team was among baseball's most celebrated. They are one of just two teams to win more than two consecutive World Series. Though they last triumphed in 1989, they have since made 13 playoff appearances. This year they sit last in their division, but they have a scrappy, spirited young squad.

Yet at a recent evening game against the Kansas City Royals, Oakland Coliseum was all but deserted. On the ramp connecting the stadium to the commuter train, rather than a gauntlet of vendors hawking team gear, there was just one. The crowd was too sparse to roar; individual claps and shouts echoed off tens of thousands of empty seats. The A's average attendance this year—just over 6,400 in a park seating 63,000—is the lowest in America's four major sports leagues. In this tomb of a stadium lurks a reminder for Americans and a warning for the rest of the world.

The reminder is that unlike a city's landmarks or museums, teams can move. For all of the A's success in Oakland, it is their third home; they began in Philadelphia and moved to Kansas City before settling in California. Since 1953, 12 major-league baseball teams have moved cities. So have 14 American-football teams since 1946 and 23 basketball teams since 1951.



Rushing to another base

The impetus to move is almost always financial—a team thinks it can get a more favourable stadium deal or attract more fans elsewhere. But the impact on the fans left behind is often devastating. An old joke about Walter O'Malley, who moved the Dodgers from Brooklyn to Los Angeles in 1958, goes, "If a Brooklyn man were in a room with Hitler, Stalin and O'Malley but only had two bullets in his gun, what would he do? Shoot O'Malley twice."

The owner of the A's, John Fisher, spent years angling to replace the decaying stadium. He failed to reach a deal with Oakland, so will move the team to Las Vegas; they will become known as the Las Vegas A's. But the stadium in Nevada will not be ready until 2028. The team's lease in Oakland, however, expires at the end of this season, so the A's will play in a minor-league park in Sacramento. Fans have responded with a boycott.

To non-Americans, this saga is somewhere between ridiculous and sinister. Roger Bennett, the host of a football podcast, notes that when the owners of England's Wimbledon football club ("the Dons") moved it to Milton Keynes in 2003, "They were despised, not just by fans in Wimbledon, but by fans of all teams."

Outside America, teams—especially European football teams—often emerged from local workers' associations and were composed of players who from the same town or neighbourhood. That is no longer true, especially in the upper echelons of football, but roots that deep are not pulled up easily. Nor are they immune to transplant. Europe's leading sides play pre- and post-season matches around the world. The president of European football's governing body said last year that playing the Champions League final in America was "possible". And Liverpool's chairman has said that he wanted to see a day when Premier League teams "play one game in Tokyo, one game a few hours later in Los Angeles, one game a few hours later in Rio, one game a few hours later in Riyadh".

None of these would count as a full-scale move—but they all prioritise the financial interest of clubs' owners over local fans, as American owners have been doing for decades. "Once that one game is played" abroad, Mr Bennett warns, "all bets are off." Fans do not like being made to feel "like third cousins at a wedding, just lucky to be invited". Making them fly across an ocean to see a match usually played down the street does just that.

Wrexham, a club in the third tier of English football enjoying a giddy revival under the ownership of two Hollywood actors, will play games this summer in California and Canada. If any Wrexham fans who head to California want to know how it feels to be jilted, they can just head up the coast to Oakland. ■

Espionage

The telephone game

Dark Wire. By Joseph Cox. *PublicAffairs*; 352 pages; \$32 and £25

IN JUNE 1970 the CIA did something audacious. In partnership with the BND, Germany's spy agency, it secretly bought Crypto AG, a Swiss firm that was then the world's leading purveyor of cipher machines. The devices were used by over 120 countries to encrypt sensitive diplomatic and military communications. For almost 50 years America, having subtly rigged the machines, could read many of those messages. "It was the intelligence coup of the century," boasted a CIA report.

In 2018 the FBI went one better with Operation Trojan Shield. "Dark Wire" by Joseph Cox, a technology journalist and the co-founder of 404 Media, a website, tells the story of how American and Australian officials quietly established Anom, an encrypted messaging service, to attract criminals seeking to evade surveillance on traditional platforms.

The app promised whizzy features, such as messages that would auto-delete and the ability to send voice notes that scramble a user's voice. In reality, all the data was funnelled to a server in Lithuania, which was an open book to the FBI. The result was an intelligence bonanza, with the FBI processing as many as 1m messages a day in 45 languages. That led to the arrest of more than 1,000 people and the seizure of hundreds of firearms by the time the operation was wound up, and the subterfuge revealed, in 2021. It was the largest law-enforcement sting operation ever.

Mr Cox, who spent years doggedly tracking the story and getting to know its players, many of them unsavoury international gangsters, has written a vivid account of the saga. The pages pop with dramatic irony: criminals trade cocaine and confess to lurid murders in the belief that their incriminating texts and messages are safe from prying eyes. One agent confesses "chuckling to myself, as these guys in whatever foreign country are going back and forth, talking about the FBI".

Drug smugglers and hitmen speak for themselves, their personalities memorably captured by their own messages. Maximilian Rivkin, known as "Microsoft", a sociopathic Swedish polyglot, plots crimes in Croatian, English, Spanish and Swedish. "He punctuated his assassination plans with heart and thumbs-up emojis," writes Mr Cox. At one stage, Mr Rivkin requests

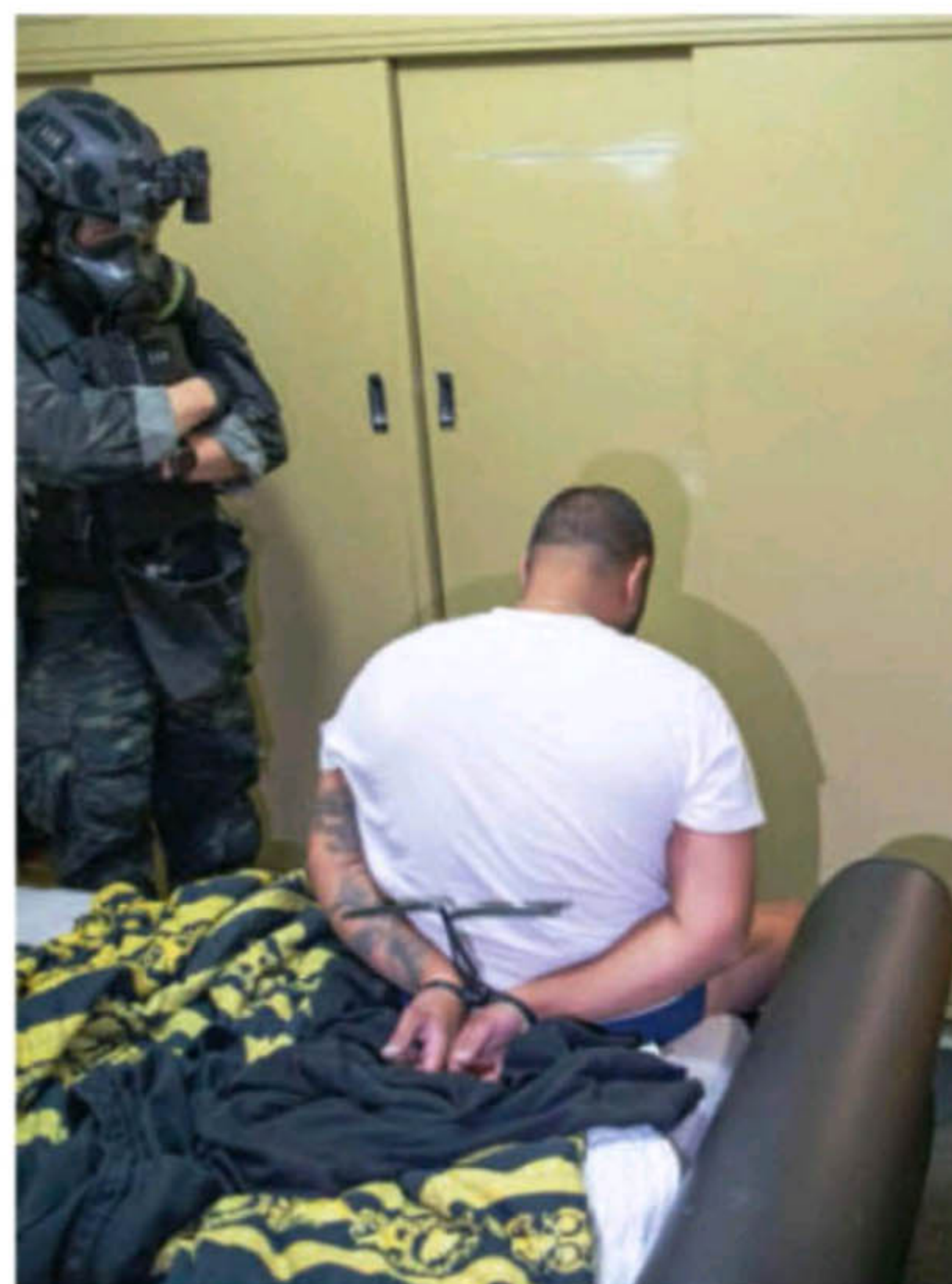
a bulk discount for ordering multiple murders at once.

"Dark Wire" conveys the moral ambiguities and grubby trade-offs inherent in this sort of intelligence work. "The FBI was happy to allow some crimes to play out...if it meant collecting intelligence on other ones," writes Mr Cox. "Some crimes ultimately weren't worth burning the entirety of Anom over." On around 150 occasions the FBI had to intervene to stop a threat to life, passing on details of murder plots to local authorities around the world, often disguising the source of the intelligence.

The book also raises deeper questions about the nature of secrecy, privacy and the law. If you want to communicate securely with someone without others eavesdropping, it makes intuitive sense to choose a device optimised for that purpose, such as Anom. The problem is that the people who go to such lengths to communicate privately often tend to be those who have something to hide, such as spies or criminals. Those devices, like Crypto AG machines before them, thus become particularly attractive targets for intelligence agencies and police forces. That, at least, is how it used to work.

Nowadays "end-to-end" encryption—the method of enciphering your messages so that they look garbled to anyone who should intercept them en route—is widely available on apps such as Meta's WhatsApp, Apple's iMessage and Signal. The result is that criminals and law-abiding citizens mingle on the same platforms.

Mr Cox says that security agencies see "large-scale, bulk interception missions" like Operation Trojan Shield as the future of the fight against organised crime. But can they pull off such a big coup again? Criminals will no doubt be warier of digital Trojan horses. ■



Got the message

Investigating etymologies

Can we have a word?

Origin Uncertain. By Anatoly Liberman. *Oxford University Press*; 344 pages; \$29.99 and £22.99

MANY WORDS are puzzles themselves. "Conundrum" confounds scholars; "bamboozle" beguiles them. Anatoly Liberman, an etymologist at the University of Minnesota, explains why in "Origin Uncertain", a delightful romp through the annals of words' origins.

Compiled from some 20 years of blogs he wrote for Oxford University Press, "Origin Uncertain" takes a broadly thematic approach. He covers words that are "bizarre, misbegotten and born by mistake", such as punk, spunk and funk, and terms with "troublesome phonetics", including the related words sneak, snack and snuck.

All of this will delight logophiles. The book may also appeal to true-crime fans; it reads like a detective story. The hunt for the Middle English word "henchman", for example, has "villains and casualties at every step". It first surfaced in 1360; etymologists thought it meant "horseman", from *hengst*, an Old Germanic word for "stallion". Yet *hengst* had died out in English a century earlier, making this coinage unlikely. The word eventually became *henchman*, before vanishing in the 17th century. Walter Scott, a poet, revived it some 200 years later, bestowing the definition "one who is always at his master's haunch". This bears some resemblance to its meaning today, as an unscrupulous or corrupt crony.

Mr Liberman does not manage to prove the true origins of "henchman", concluding that the "criminal" leaves the "investigators partly at bay". Some readers may grow tired of the unsolvable linguistic riddles in this book. Yet they demonstrate the capricious nature of vocabulary. So many words have quietly fallen out of fashion; others have survived only because famous writers such as Shakespeare used them.

In few cases is the invention of a word recorded. William Thoms, a 19th-century British writer, coined the term "folklore" ("the lore of the people") in a letter in 1846. As "folklore" became popular, however, Thoms had to keep reminding readers that he came up with it. If a word "finds approval by the community", Mr Liberman explains, "it survives, and the inventor's name is soon forgotten". The origins of bamboozle will continue to bamboozle, a fact that would doubtless have delighted its unremembered creator. ■



What to stream on your summer holiday

Screen time

The best film and television of 2024 (so far)

“La Chimera”

A rumpled English archaeologist (Josh O’Connor) slouches his way around Tuscany in the 1980s and helps a rollicking band of grave robbers unearth Etruscan artefacts to sell on the black market. An odd and playful Italian film.

“Curb Your Enthusiasm”

In its 12th and final season, Larry David’s comedy of bad manners reaches new heights of misbehaviour and greater depths of meaning. Episodes touch on the usual themes—mainly Mr David’s hang-ups and screw-ups—but also ageing and the show’s own legacy. Pretty, pretty, pretty good.

“Furiosa: A Mad Max Saga”

The fifth film in the franchise, a sprawling prequel, charts the traumatic youth of the rebellious Furiosa (Anya Taylor-Joy). All the usual pedal-to-the-metal action sequences, grotesque villains and post-apocalyptic desert vistas are there, but “Furiosa” adds human interest and political intrigue.

“Hit Man”

A mild-mannered college professor (Glen Powell) gets a second job working undercover for the New Orleans Police Department. He discovers that when he is pretending to be a ruthless contract killer, he becomes more attractive than normal. A fun and surprisingly romantic caper.

“Hoard”

The sometimes disgusting but ultimately affectionate story of a teenager (Saura Lightfoot-Leon) who grew up in a house piled high with rubbish. When she begins a relationship with an older man (Joseph Quinn), her own hoarding instincts kick in. A notable debut from Luna Carmoon, a British writer-director.

“House of the Dragon”

In the second season of the “Game of Thrones” spin-off, half-siblings Aegon and Rhaenyra Targaryen battle for the Iron Throne. Silver-haired egoists, brutal acts of revenge and spectacular dragon pyrotechnics make for engrossing TV.

“Immaculate”

An American nun (Sydney Sweeney) is impregnated against her will by a geneticist-turned-priest who wants to clone Jesus Christ. One of the most cinematic and cleverly constructed horror movies in years, “Immaculate” is provocative in its treatment of religion and female autonomy.

“Love Lies Bleeding”

This darkly comic crime thriller follows besotted lovers (Kristen Stewart and Katy O’Brian) embroiled in a bloody mess, who come face-to-face with one of the pair’s gun-running fathers (Ed Harris). The film gets more violent and sweatily sensual as it goes along. Not for the faint-hearted.

“Monster”

This humane film plays clever games with structure and genre. A widow (Ando Sakura) is worried by the strange behaviour of her son (Kurokawa Soya). Events are shown from three angles in three sections: the first a mystery, the second a satirical farce and the third a wistful drama.

“Mr & Mrs Smith”

Matrimony, the film of 2005 winkingly suggested, is an exercise in subterfuge. The TV version amplified the emotional questions; the politics were starker, too. The result was a show more nuanced and equivocal than its movie counterpart, but with plenty of car chases and explosions.

“The New Look”

This drama charts Christian Dior’s rise to the top of the fashion world in Paris during the second world war. It explores his rivalry with Coco Chanel and probes the moral quandaries of life under Nazi occupation. A superb cast including Juliette Binoche and John Malkovich brings the surprising, stylish tale to life.

“One Day”

David Nicholls’s novel about the vicissitudes of fate already had millions of fans. Netflix’s new adaptation created millions more. (It also bestowed heart-throb status on Leo Woodall.) The show’s portrayal of love and coming-of-age is compelling, but its depiction of grief is heart-rending.

“Ripley”

Steven Zaillian trades the pastel hues of “The Talented Mr Ripley” from 1999, for stark black and white; he also extends the running time from just over two hours to around eight. The result is beautifully shot and paced. Andrew Scott is perfect as Ripley: charming, ruthless, greedy and cold-blooded.

“Robot Dreams”

This animated film tells the tale of an anthropomorphised dog who becomes fast friends with a robot. It has an ingenious joke in almost every frame and is as insightful as a cartoon can be. It is all done without a word of dialogue.

“Shogun”

In 17th-century Japan, Lord Toranaga (Sanada Hiroyuki) and an English sailor (Cosmo Jarvis) become unlikely allies. This show offers a beautifully shot, impeccably acted study of political and personal power. It is the historical epic viewers did not know they needed. ■

All titles on this list are available to watch in America and Britain





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Economic & financial

	Gross domestic product	
	% change on year ago latest	quarter* 2024
United States	2.9	Q1 1.4
China	4.7	Q2 2.8
Japan	-0.7	Q1 -2.9
Britain	0.3	Q1 2.9
Canada	0.5	Q1 1.7
Euro area	0.4	Q1 1.3
Austria	-1.1	Q1 0.7†
Belgium	1.3	Q1 1.1
France	1.3	Q1 0.6
Germany	-0.2	Q1 0.9
Greece	1.9	Q1 3.0
Italy	0.7	Q1 1.4
Netherlands	-0.6	Q1 -2.0
Spain	2.4	Q1 3.2
Czech Republic	-0.2	Q1 0.9
Denmark	1.3	Q1 -5.4
Norway	-0.8	Q1 0.7
Poland	2.0	Q1 2.0
Russia	5.4	Q1 na
Sweden	0.3	Q1 2.9
Switzerland	0.6	Q1 1.8
Turkey	5.7	Q1 9.9
Australia	1.1	Q1 0.5
Hong Kong	2.7	Q1 9.6
India	7.8	Q1 5.4
Indonesia	5.1	Q1 na
Malaysia	4.2	Q1 na
Pakistan	2.8	2024** na
Philippines	5.7	Q1 5.3
Singapore	2.9	Q2 1.4
South Korea	3.1	Q1 5.3
Taiwan	6.6	Q1 1.1
Thailand	1.5	Q1 4.6
Argentina	-5.1	Q1 -9.9
Brazil	2.5	Q1 3.1
Chile	2.3	Q1 7.8
Colombia	0.9	Q1 4.4
Mexico	1.6	Q1 1.1
Peru	1.4	Q1 3.2
Egypt	2.2	Q1 na
Israel	-0.4	Q1 14.4
Saudi Arabia	-0.8	2023 na
South Africa	0.5	Q1 -0.2

Source: Haver Analytics. *% change on previous quarter. **5-year yield. ***Dollar-denominated bond

Markets

In local currency	Index Jul 17th
United States S&P 500	5,588.3
United States NASComp	17,996.9
China Shanghai Comp	2,962.9
China Shenzhen Comp	1,599.3
Japan Nikkei 225	41,097.7
Japan Topix	2,915.2
Britain FTSE 100	8,187.5
Canada S&P/TSX	22,851.2
Euro area EURO STOXX 50	4,891.5
France CAC 40	7,570.8
Germany DAX*	18,437.3
Italy FTSE/MIB	34,379.6
Netherlands AEX	916.5
Spain IBEX 35	11,105.2
Poland WIG	85,141.1
Russia RTS, \$ terms	1,137.5
Switzerland SMI	12,333.9
Turkey BIST	11,134.1
Australia All Ord.	8,303.5
Hong Kong Hang Seng	17,739.4
India BSE	80,716.6
Indonesia IDX	7,224.2
Malaysia KLSE	1,633.5



NOT MANY people like to boast how much they have achieved. Dr. Ruth Westheimer did. She was all of six feet, a metre and a half. To reach the top of her parents' bedroom where they kept a bookshelf, she had to climb a wicker chair. When she went to lectures in psychology, she had to find a way to get up on a window sill to see over the heads of the audience. Her husband, Fred, first appealed to her because she was as good at skiing. On late-night television, she lay a confiding hand on the host to talk about genitalia, her little feet swung in the air.

There were plenty such shows. In the 1990s her fame mushroomed, until she became a therapist to the nation. Wise words poured from her mouth, and they became books, 45 at the last count. She wrote about sexual literacy, so that Americans could talk about penises and vaginas, what they wanted more of. No more silly idea that it wasn't quite right to do so. Americans should talk about sex as they talked about the ideal teacher. She was motherly, like a man-Jewish-American with an accent to match. She gave out advice on foreplay as readily as children's names.

She started the whole thing when, as a researcher for Planned Parenthood, she found out how many people needed help. How about a radio station in New York gave her 15 minutes on Sundays, for "Sexually Speaking". In 1984 she answered only 20 or 30. In 1984 "The Dr. Ruth Show" was a phone-in. As many as 653 calls would come in. From then on she was never idle. No more. Twice she made David Letterman walk away in very shocking. She told him she was a woman, if she wanted to feel something like a man. The next time, she reported that

holiday
union

more in your next issue

The Economist, including a supplement on narrative journalism.

but we will continue to publish content on August 1st, on our website and app.

reads
each-friendly articles



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e of history
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out themselves



OBITUARY

Dr Ruth

The sex therapist who shook America out of its puritan ways died on July 12th, aged 96



NOT MANY people like to boast how short they are, but Ruth Westheimer did. She was all of four foot seven or, in rough metric, a metre and a half. To reach the shelf of the cabinet in her parents' bedroom where they kept a book all about sex, with a juicy chapter called "The Ideal Marriage", she had to climb on a chair. When she went to lectures in psychology at the Sorbonne as a young woman, she had to find a strong, handsome guy who could pop her up on a window sill to see the teacher. Her third husband, Fred, first appealed to her because he was short too, as well as good at skiing. On late-night talk shows, when she took a chair beside the host to lay a confiding hand on his arm and chat about genitalia, her little feet swung inches above the ground.

There were plenty such shows. Throughout the 1980s and 1990s her fame mushroomed, until she became a psycho-sexual therapist to the nation. Wise words poured out of her, and many became books, 45 at the last count. She had one mission: to promote sexual literacy, so that Americans could talk freely and frankly about penises and vaginas, what felt good and where, and what they wanted more of. No more blushes and wriggings or the silly idea that it wasn't quite right to discuss these things. Americans should talk about sex as they talked about food. And she was the ideal teacher. She was motherly, latterly grandmotherly, German-Jewish-American with an accent to match, and could dish out advice on foreplay as readily as chicken soup.

She started the whole thing when, working as a sex therapist and as a researcher for Planned Parenthood, she could see that people needed help. How about a radio programme? In 1980 a local station in New York gave her 15 minutes, after midnight, on Sundays, for "Sexually Speaking". In a year it was an hour-long phone-in. As many as 653 calls would come, of which she could answer only 20 or 30. In 1984 "The Dr Ruth Show" aired on TV, and from then on she was never idle. Nor quiet. Nor manageable. Twice she made David Letterman walk off-set, but really for nothing very shocking. She told him she had advised a lonely older woman, if she wanted to feel something in her vagina, to try a cucumber. The next time, she reported the anxiety of a young man whose girlfriend liked to toss onion rings onto his erection. Mr

Letterman thought her show should be called "Great Salad Hints".

She liked to be outrageous, but also kind. At her public Q&As she never asked personal questions, and her answers were simple. Fantasies while lovemaking? Fine, but *keep your mouth shut*. Aphrodisiacs? Pointless, because the only aphrodisiac you needed was right between your ears. The G-spot? No such thing. Bored in the bedroom? Be like a turtle (she collected turtles, toy ones), and stick your neck out. Try new positions, perhaps just on Wednesdays, and see where they get you. Also, wrap up your worries in a package and leave them outside the door; drink a little wine, and have a little sleep—before, not after. He wants more sex than you? Give him an orgasm. It only takes two minutes! Masturbation? Perfectly healthy, and people should do it more. She preferred, though, to call it "self-gratification". Her audience should always know that she was properly trained in psychology and sociology as well as sexual therapy, and had a doctorate in education. It took serious dedication to train—just by talking!—the best lovers in the Tri-state area.

How were her own relationships? Varied. Her first husband, David, wanted to go back to his native Israel, and she wanted to keep studying in Europe. Separation was a good deal: he got the Lambretta scooter, and she got the divorce. Second came Dan, French-Israeli, gorgeous-looking; but they were boyfriend-girlfriend really, not solid enough for marriage. He got the car, and she kept their daughter Miriam. Third came Fred, her real husband of 36 years. It was Fred who heard her out when she came home from her sex-therapist course exclaiming that there must be something wrong with these people. They didn't talk about politics, or the weather, or restaurants! All they talked about was sex! And Fred who tolerated her newly eyebrow-raising conversation when she discovered for herself, only days later, that sex was a truly fabulous topic. But he was banned from her public discussions, because he would only raise his hand to say, "Don't listen to her, it's all talk!" And he had once remarked, when asked point-blank about their sex life, "The shoemaker's children don't have shoes."

Sex, though, was not her only subject. She liked to broaden it out, to love and *joie de vivre*. She did not dwell on the tragedy that ended her sunny German childhood, when her father was arrested by the Nazis and her mother sent her to Switzerland, to a children's home that soon became an orphanage. After 1941, no more letters came for her. At 16 she took herself to Palestine, joined Haganah and fought for the new land of Israel, staying a Zionist her life long. She was trained as a sniper, so she could assemble and take apart a sub-machinegun in the dark, and knew how to throw hand grenades. She never killed anybody, but could have done. It was sometimes fun to remind interviewers of that.

She also liked to evoke her Orthodox upbringing. Though she campaigned so fiercely for sexual liberty and gay rights, she was also the girl who went weekly to synagogue with her father. She was old-fashioned and a square; she liked long relationships, and urged contraception outside marriage. Match-making was fine with her, good taste was her watchword, and she had a whole sheaf of quotes from the Talmud up her sleeve. Her favourite was "A lesson taught with humour is a lesson retained." Along with the giggling came a lot of finger-wagging, too.

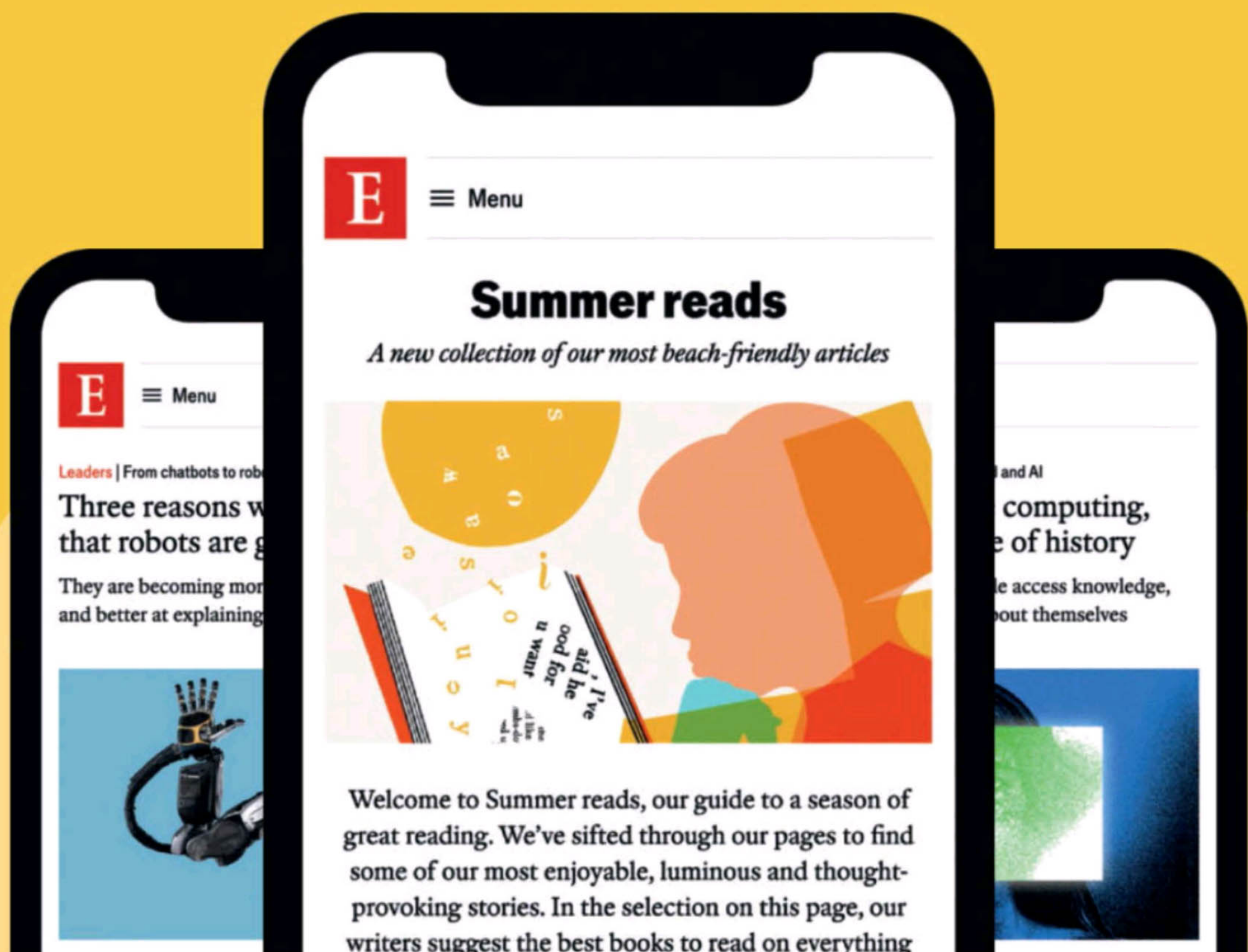
Secure in all these ways, she breezed into old age. Interestingly, by her late 80s she had lost a quarter of an inch in height. Much more, and you wouldn't see her. But you would still hear her! No possible doubt of that. ■

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