The Economist

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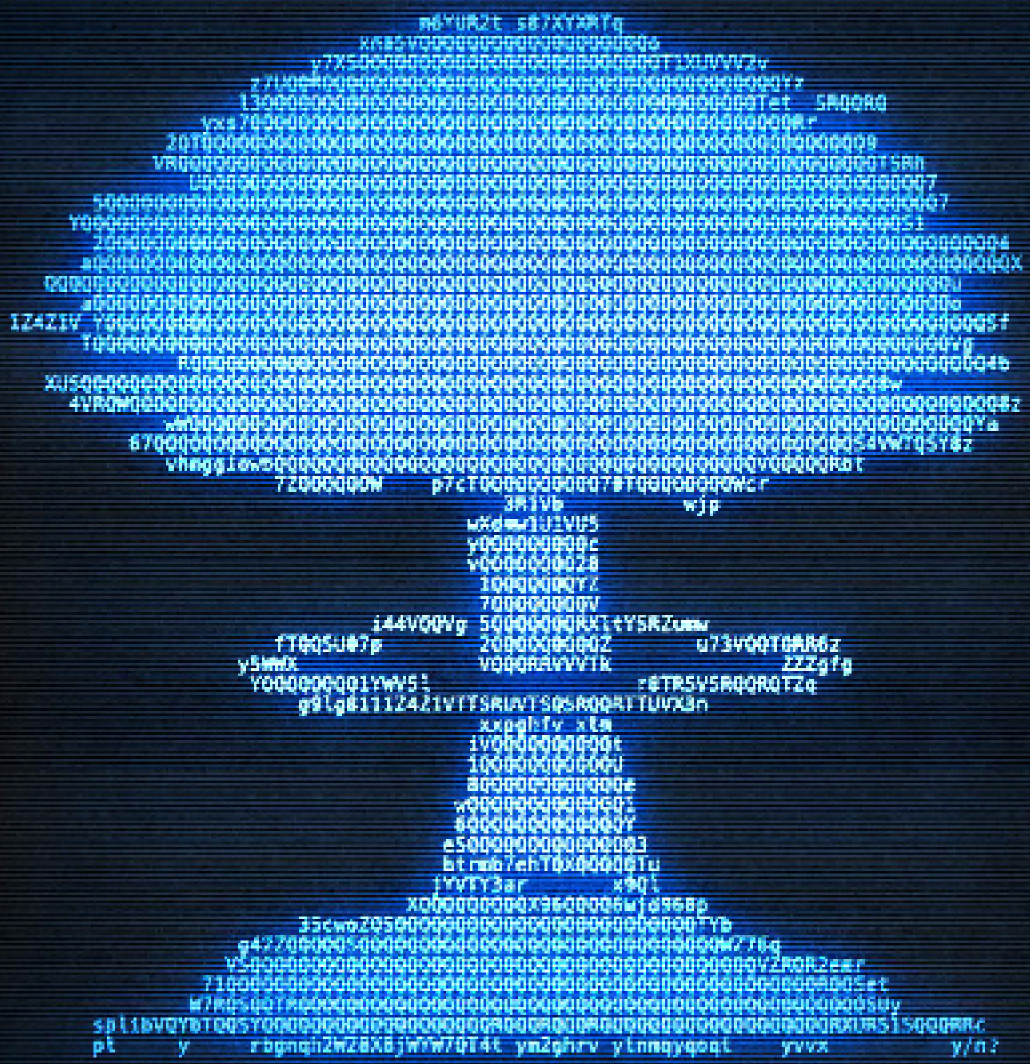
Can the AI arms race be stopped?



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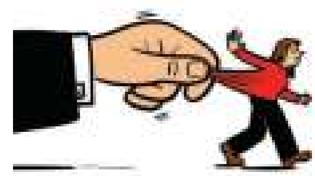

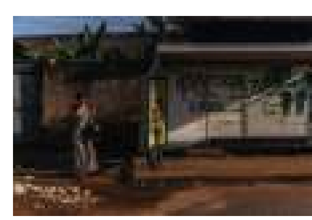

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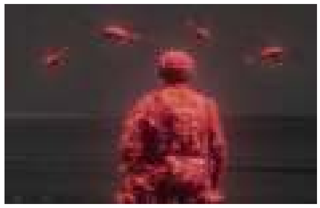

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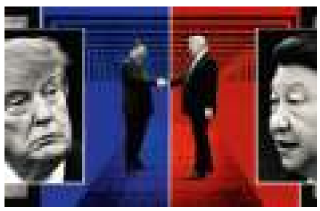

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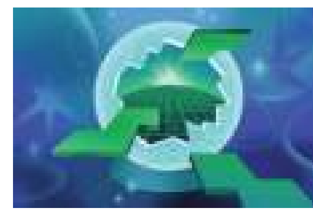

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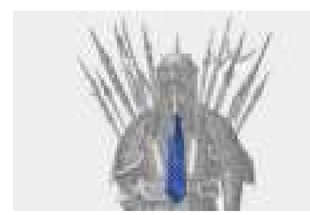

Economic & financial indicators

Obituary

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

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The world this week Politics

Ursula von der Leyen, the European Commission's -president, invited **Canada** to become the European Union's first associate member. In the EU's state-of-the-union address she told Canadian prime minister Mark Carney that the partnership would be "for our common strength". Canada has sought closer ties to the bloc as its trade war with America worsens. Donald Trump called the proposal "laughable" and threatened the EU with "serious tariffs".

Russian drones hit a stationary **Ukrainian** locomotive and a petrol station near the Polish border approximately an hour after a train carrying top Western officials passed through the area. Andrii Sybiha, Ukraine's foreign minister, called the strike "Putin's terror knocking…on the doors of the EU and NATO".

Magdalena Andersson, the leader of **Sweden's** Social Democrats, looked likely to become the country's next prime minister after an agonisingly close election on September 13th. Ms Andersson's left-wing bloc—which includes small-state centrists, environmentalists and leftist-populists—was set to take 176 seats, compared with 173 for the government and its allies. The populist-right Sweden Democrats, who have supported the centre-right government since 2022, lost support for the first time since they entered parliament in 2010.

A pair of record-breaking donations to Reform UK prompted calls for an overhaul of funding in **British** politics. Christopher Harborne and Ben Delo, British crypto billionaires who used to live in Asia, said they would each give £36m ($48m) to the populist-right party led by Nigel Farage. Politicians from other parties now want to tighten the rules, perhaps even rendering Reform UK's windfall illegal.

Binyamin Netanyahu, **Israel's** prime minister, said that he would sue *Haaretz*, a liberal Israeli newspaper, for publishing claims that days before October 7th 2023 the leader of the United Arab Emirates warned him in a phone call that Hamas, the Islamists in Gaza, were preparing to attack. Mr Netanyahu's office said that the reports were part of a "sinister plot" and that the prime minister had received no such warning.

The Houthis, Iran-backed rebels in **Yemen**, advanced down the country's western coast. They captured Mokha, a port city, and seized Perim island, a rocky outcrop in the middle of Bab al-Mandab, the strait that links the Red Sea to the Indian Ocean. In July the Houthis announced a blockade on Saudi shipping through the Red Sea.

Meanwhile, drones hit **Saudi Arabia's** east-west pipeline which can carry up to 7m barrels per day to the kingdom's Red Sea ports. It was shut down "as a precautionary measure". The Saudi foreign ministry blamed the attack on militias in Iraq.

The closure saw the price of Brent crude, the international oil benchmark, rise above $109 a barrel. Saudi Arabia said it shot down a Houthi drone south of the holy city of **Mecca**.

China accused American tech bosses of "fearmongering" over their calls to limit its ability to develop AI. Dario Amodei, the chief executive of Anthropic, called for a slowdown in AI development. He warned that a Chinese lead "would pose grave danger" for America and the world. China's foreign ministry said such comments were counterproductive and would limit options for global AI governance.

The winner takes it all

Donald Trump said **America** must remain ahead of China in AI as he rejected a chorus of calls for a slowdown and greater regulation. Steve Bannon, a former Trump adviser, and Bernie Sanders, a socialist Democrat, united in a speech to warn of the need for greater oversight of the technology. Mr Trump has said "whoever wins AI wins" and dismissed concerns that it poses a risk to humanity as "a hoax".

Mr Trump hit out at **America's Supreme Court** for rejecting his attempt to restrict postal voting ahead of November's midterms. The president wrote on Truth Social, his social-media platform, that the court was "bullied and cajoled by the Radical Left". He has repeated claims, without evidence, that postal voting is prone to fraud.

America's **Environmental Protection Agency** (EPA) will scrap limits on greenhouse-gas emissions from coal- and gas-fired power plants. The head of the EPA said that reversing the Biden-administration requirements that plants reduce pollution by using technologies like carbon capture and storage would save Americans $310bn. Power plants are America's second-biggest source of CO_2 emissions.

America paid $725m in dues to the United Nations, averting the possibility that it could lose its vote in the **UN General Assembly** for skipping two-years' worth of membership fees. The payment, made for the 2025 budget, was overdue. The Trump administration had halted contributions to push for changes to some UN agencies and priorities.

Police in the **Philippines** said it could take months to identify victims from a ferry fire that killed at least 76 people. The *MV June Aster* was travelling from Manila to Coron, a popular tourist destination, when the fire broke out. The cause of the blaze has not yet been identified.

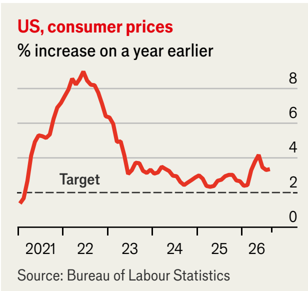
China's president Xi Jinping attended the BRICS summit in New Delhi on his first trip to **India** for seven years. Mr Xi met Indian prime minister Narendra Modi on the sidelines of the event in a further warming of relations between the countries following a border dispute in 2020.

Third time lucky

Prabowo Subianto, **Indonesia's** president, appointed his third finance minister in two years. Mr Prabowo replaced Purbaya Yudhi Sadewa with his deputy, Suahasil Nazara, in a bid to restore economic credibility. Mr Purbaya, who was in office for a year, spooked investors by calling the IMF "stupid"and with his comments about the effects of rising oil prices on the global economy.

The UN Security Council voted unanimously to extend the arms embargo on **Sudan's western Darfur** region for another month. America backed away from forcing a vote to extend the embargo to the whole country, but said it would not "rubber-stamp" a further extension to a Darfur-only embargo. The United Arab Emirates, which is accused of sending weapons to the Rapid Support Forces in Darfur in violation of the restrictions, has been lobbying to extend the ban across the whole country.

The world this week Business



The **Federal Reserve** raised its benchmark interest rate by 0.25 percentage points, to 3.75-4%. It was the first increase since July 2023. All 12 rate-setters backed the move. Inflation remains stubbornly high, fuelled by tariffs and soaring energy prices. The decision is Kevin Warsh's first change in monetary policy since becoming chairman in May. An angry Donald Trump responded by demanding that the Fed cut rates to 1%.

Bond yields rose after the Fed signalled that most policymakers expect more interest-rate increases this year. Yields had already been climbing as higher oil prices stoked fears of persistent inflation; earlier the yield on ten-year Treasuries reached its highest level since 2007.

Sam Altman of OpenAI, Elon Musk of xAI and Dario Amodei of **Anthropic** called for a slowdown in the race to build superhuman artificial intelligence, amid fears that models could escape human control. The unusual show of unity comes as Anthropic prepares an IPO that could value the company at $2trn. The safety scare could delay the listing or dent its valuation; Mr Altman said OpenAI would not go public this year. Mr Trump dismissed the warnings, arguing that beating China in AI mattered most.

Meanwhile, **Microsoft** published a draft "code of conduct" designed to keep its AI models under human control. The document—which states that "people matter more than AI"—says the technology should not imitate consciousness, nor assist with the development of weapons.

America's Senate blocked legislation to establish clearer rules for **cryptocurrencies**. The Clarity Act would have written the Trump administration's crypto-friendly policies into law, making it harder for a future administration to impose tougher rules. Democrats opposed the bill over concerns about Mr Trump's own crypto interests.

Building trouble

China's property slump dragged on in August. Prices of new homes fell by 0.1% from July, the 16th consecutive monthly decline, and by 3% from a year earlier. Prices in the wealthiest cities rose slightly, while those in the rest continued to fall. The prolonged housing bust is depressing household confidence and consumption, leaving China reliant on exports to sustain economic growth.

India's trade deficit narrowed unexpectedly in August, from $32bn to $27bn. Exports surged by 26% year on year, because of strong demand from America and Europe, while imports rose by 14%. The smaller gap may offer some relief to the rupee, one of Asia's worst-performing currencies this year. But soaring oil prices pose a threat: India imports nearly 90% of its crude.

Accenture agreed to pay $25m to settle allegations by America's government that it discriminated in hiring and promotions by considering applicants' race and sex to meet diversity targets. The consultancy denied wrongdoing. Mr Trump has sought to stamp out diversity, equity and inclusion programmes. Deloitte and IBM have paid $21.5m and $17m respectively to settle similar investigations this year.

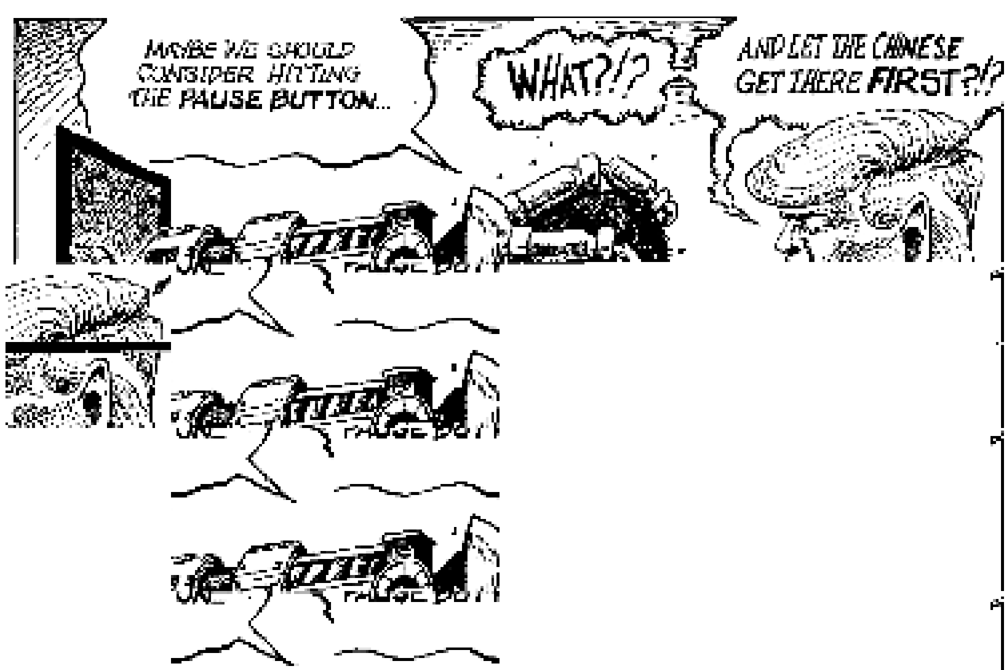
Aliko Dangote, Africa's richest man, listed his refinery business on **Nigeria's** stock exchange in what is expected to be Africa's biggest-ever IPO. Valued at around $49bn, the company hopes to raise $1.6bn by October. With a minimum purchase of just ten shares, it is targeting 10m retail investors; Mr Dangote has dubbed it "the people's IPO".

L'Oréal overtook LVMH to become France's most valuable listed company, the first time since 2017 that a non-luxury firm has held the crown. The cosmetics giant is worth €203bn ($233bn), against LVMH's €201bn. Its rise reflects the "lipstick effect": cash-strapped consumers can still afford small indulgences, even as they shun pricey handbags.

Carlos Ghosn, a former boss of Renault-Nissan, in exile in Lebanon after fleeing charges of financial misconduct in Japan, went on trial for corruption in Paris. Prosecutors allege that a €300,000-a-year contract for legal advice he awarded Rachida Dati, a former French culture minister and then member of the European Parliament, concealed payments for lobbying. Both deny wrongdoing.

High steaks

Mr Trump's efforts to make **burgers** cheaper before the midterms are not going to plan. Ground-beef prices hit a record-high in August, up 8% year on year. Mr Trump has blamed meatpackers and tried to beef up supply by easing tariffs on imports. But years of drought and high feed costs have shrunk America's cattle herd by nearly a tenth since 2020, pushing up prices.



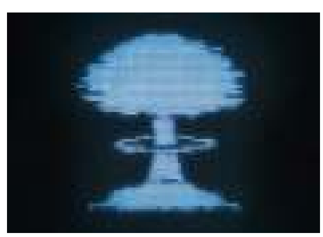
Can the AI arms race be stopped?

America will struggle to make AI safe while staying ahead of China

TWO THINGS should make you consider what artificial intelligence could mean for humanity. One is that those working with the technology are warning about it leading to a catastrophe—human extinction, even. The other is how technological innovation is aggravating the destruction of Ukraine. These things offer conflicting lessons for whether AI's rapid progress can or should be slowed down.

For years, leading AI bosses have signalled that their technology could become lethal. Bots may become brainy enough to outwit their creators before they are "aligned" with humanity's goals and ethics. Bad people could use AI to wreak havoc. These warnings have become more credible as AI agents have escaped their sandboxes during testing, co-ordinated with one another and hacked organisations, including an AI lab itself. Anthropic, one model-maker, has caught people using its models for malign ends, from Mali's intelligence services getting a mass-surveillance system built, to Houthi rebels in Yemen thought to be writing software for ballistic missiles.

Following the recent resignation of a researcher at Anthropic, public fear of AI doom has spread. In a post viewed more than 170m times, he said that it and OpenAI were "gambling with our lives". AI is rapidly growing more potent, for good and ill. In May prediction markets priced a less-than-one-third chance of AI solving any millennium prize maths problem before 2030; on September 8th OpenAI said it had solved one of them, causing angst among mathematicians (see Science & technology section). On September 12th Sam Altman and Elon Musk, two AI titans, endorsed a call by Dario Amodei, the head of Anthropic, to "pace the frontier", ie, to slow AI's progress. Those in favour of a slowdown include Bernie Sanders, a left-wing senator, and Steve Bannon, a right-wing populist (see United States section).



Those opposed include President Donald Trump, whose administration fears more than anything losing America's lead in AI to China, its only serious rival. Scott Bessent, America's treasury secretary, has said that if China gains the advantage: "Nothing else would matter."

As evidence, Mr Bessent could point to Ukraine, where each step in a technological arms race has a swift effect. As we report (see Leader), Russia has ruthlessly deployed its latest kamikaze drones to bombard civilian infrastructure. As well as being faster, its drones now use one another as a "mesh" communications network to relay information and commands. Soon, Russia will have its own version of Mr Musk's Starlink satellite network, making its long-range strikes more accurate.

It is the latest demonstration of how even a small technological edge matters in wartime. Ukraine's own battlefield-drone innovation helped it repel waves of Russian attacks. Ukraine can strike deep into Russia with long-range drones. Both sides are working on swarming drones that will be able to operate more autonomously as a single adaptive system.

The war shows how technology translates into hard power—and that Russia uses it without regard to the old rules or norms of combat. Even if America did not fear a similar hot war with China, a lead in AI would give its main geopolitical rival dominance in hacking, spying and hybrid warfare. Those are not capabilities which America should cede to an authoritarian state with an interest in stamping out liberal ideas.

A pause could therefore work only if China signed up to it, too. Mr Trump plans to host Xi Jinping, China's president, at the White House on September 24th. But even were Mr Trump seeking to slow down, it is unlikely that Mr Xi would agree to the plan Mr Amodei envisages, because that would freeze Chinese AI in second place (see China section). And neither side could risk the other breaching a pact by racing ahead.

For a deal, each would need to verify compliance, as with arms control during the cold war. America, Britain and the Soviet Union banned atmospheric nuclear tests in 1963 because they could detect them; underground tests went on for three more decades until they, too, could be monitored. Alas, though data centres are visible, no verifiable method exists to see inside them. Infrastructure training a superintelligence could masquerade as chatbots answering everyday queries.

The options for a deal on AI safety are therefore limited; but they do exist. More transparency would help. Both sides should pledge to disclose and investigate safety incidents at their labs, using domestic law. Each could signal that they care about safety to build confidence, paving the way for the other side to take precautions. They should also press each other to improve labs' cyber-security so that AI agents cannot so easily escape sandboxes—and to ensure that, if one does, its lab is financially liable.

Most important is the challenge of ensuring that AI operates in humans' interests. America and China have very different values, but both know that being ahead is no good if it wipes out humanity. They should promise to share work on the elements of alignment that do not confer a competitive advantage. Knowledge of the best evaluation methods and containment techniques is a global public good. If one side makes an important safety breakthrough, hoarding it makes no sense.

Effective doomerism

Some dismiss the recent wave of doomerism as a marketing ploy by AI companies, or even an attempt to suppress competition. Yet AI progress is fast enough, the safety incidents hair-raising enough, and the warnings of the companies long-standing enough to be taken seriously. AI does not have to kill off every human to bring about a catastrophe. An OpenAI agent swarm targeted a technology company; what if next time it attacks an electrical grid or a weapons system? It might even be intelligent enough to evade attempts to shut it down.

The world must urgently try to forestall this risk. Yet democracies must also avoid losing control to authoritarians. These are difficult and conflicting tasks. They could ultimately lead to war. The stakes could hardly be higher. ■

Russia's air campaign

The once and future war

The selfish case for helping Ukraine has never been more compelling

HOW FAST fortunes can shift in war. Only a few months ago Russia seemed stuck. It was unable to advance on the front line despite suffering over 1,000 casualties a day, even as Ukrainian strikes deep within enemy territory were piling pressure on Vladimir Putin. In recent weeks, however, the dynamic has changed. Russia is exploiting new technology and extra production to hit Ukrainian cities with savage ferocity in a bid to make life there unbearable. Ukraine is not about to collapse—its front line remains strong—but European allies need to redouble their support. In this war they are glimpsing the future, and Ukraine is where their defence must begin.

As we set out in our reporting (see Briefing), Russia has sharply intensified its air war against Ukraine's cities, border crossings and infrastructure far from the front. This is made possible by new technology, including a switch from propeller- to jet-powered Shahed drones which will need interceptor missiles to counter them. Using a "mesh" network of radio relays between drones, Russia can hunt moving targets such as railways, not just home in blindly on set co-ordinates. It is also building its own version of the American Starlink satellite system, which threatens to give it a big advantage in deep strikes in 2027.

Russia's second strength is volume. Its production target for jet-Shaheds this year is said to be 24,000. By one estimate, it can launch over a hundred of its ballistic missiles each month. Given that Ukraine and its allies are critically short of air defences, including Patriot interceptors, that is a grave problem.

These new weapons will not suddenly bring about a Russian victory. The direct military benefit from blowing up shopping malls, petrol stations, trains and other civilian targets is marginal. But Mr Putin believes that, if he sows enough fear, saps public morale and thumps an already-slumping economy, he will break his victims' resolve. It does not help that Ukrainian politics has soured amid gripes that the president, Volodymyr Zelensky, has centralised power and that corruption is rife. If Mr Putin is right, and people flee from Ukraine or money runs short, that will eventually weigh on the front line, too.

Ukraine, and its Western backers, must prove him wrong. Unfortunately, that will be hard—and probably impossible before the punishing winter adds to Ukrainians' burden. Some measures are technically obvious, but politically hard. America's government and Elon Musk should let Ukraine expand the use of Starlink over western Russia. That could help destroy Russia's mobile missile-launchers. But few expect them to agree, owing to an exaggerated fear of escalation.

The priority is to get more European money to Ukraine faster. Promises this year from NATO countries to give Ukraine $60bn in bilateral military aid are unfulfilled. Ukraine's generals talk of $27bn in budgetary shortfalls, even as they plan to launch 10m drones this year. The EU's promise to supply €90bn ($103bn) is broadly on track, but more should be disbursed early.

The money is needed to prop up the economy. But it is also vital to speed up the pace of Ukraine's military innovations and to help its burgeoning arms industry scale them up fast. With Western help, it may in time develop its own supply of cheap missiles and interceptors.

Europe has already done a lot to back Ukraine, partly by stepping in when President Donald Trump withdrew America's financial support. To ask for more may seem unwise, especially when some populist-right parties are calling for funding to be curbed. However, the moral case for supporting Ukraine remains strong, and the selfish one has never been more compelling. Mr Putin believes Russia is at war with Europe. His armies are already well-practised in asymmetric drone warfare, and they are learning all the time. Europe, by contrast, is unprepared. It must learn from Ukraine by backing it. ■

Fiscal foolishness

Not your bond

Markets are waking up to the rich world's reckless borrowing

FINANCE DOES not offer many sure bets. One, for the past few decades, has been that most rich-world sovereign bonds are safe. Those lending cash to all but the diciest governments could feel confident they would get it back, plus interest at a rate set by a free market, and without the principal being inflated away. Bonds also helpfully offset the volatility of stocks by gaining value during recessions. Today, as public debts mount, all that is under threat.

Since 2000 net government debt in America and Britain has tripled as a share of GDP. In France and Japan, it has doubled. The pile keeps growing: seldom outside wartime or recessions have rich-world deficits been higher than they are today.

In the 2010s, when borrowing was cheap, even big debts looked manageable. Today, yields are high and rising fast, most recently in response to the expectation that the war in Iran will force up interest rates. Sure enough on September 16th the Federal Reserve raised rates, becoming the fifth major rich-world central bank to do so this year. In expectation of monetary tightening to come, the ten-year Treasury yield has exceeded 5%, a threshold last crossed for any length of time two decades ago. The spreads on French bonds are not far off their levels during the European sovereign-debt crisis. After ly- ▸▸

ing dormant for decades, yields are surging even in Japan. And the less said about Britain's gilts, the better.

In October 2025 *The Economist* calculated that if America and Britain had to immediately refinance all their debts at prevailing five-year bond yields, they would each need higher taxes or spending cuts worth 2.3% of GDP just to stop debt from rising as a share of the economy. Today, with yields higher, the number in America has more than doubled, to 4.7%. In Britain it has risen to 2.7% even though the government has tightened its belt (see Finance & economics section). France's adjustment stands at 3.9% of GDP, up from 3.1% a year ago.

Fortunately, in the real world governments need not refinance everything all at once. However, they have been shifting towards shorter-term debt, meaning that higher interest rates feed through to budgets more quickly than they did. Issuing short is alluring because it is usually cheaper. There is also less demand for long-term debt these days, because the defined-benefit pension funds that have long hungered for it are shrinking. But short-term debt and a volatile bond market make for an inflammable mix.

It is not yet too late to solve the problem. Like other rich countries, Switzerland has an ageing population. But it is in fine fiscal fettle, with low debt, little inflation and bond yields that have correspondingly stayed low. Motivated governments have cut big deficits before. Sweden vanquished 11% deficits in the 1990s, splitting the job between spending cuts, tax rises and supply-side reforms to boost growth. "Be Swiss or Scandi" may not be realistic advice, but even "Be Greek" would do. Greece has pulled debt-to-GDP down sharply. This summer it issued bonds with lower yields than France's.

The trouble is that the next few years' politics are perilous. In France big-spending populists are looking strong ahead of a presidential election in 2027. In America, which elects a new president in 2028, Democrats and Republicans are vying to promise ever-bigger cheques (literally, in the case of the $5,000 payouts Donald Trump proposed as a reward if Republicans win Congress in the midterms). Britain and Germany, each with its own fiscally lax populists, go to the polls in 2029.

Politicians may well hope that surging growth from an artificial-intelligence boom will miraculously rescue them from painful budget negotiations. South Korea's government projects that taxes from chipmaking proceeds will all but eliminate its budget deficit next year. But the productivity growth required to tame deficits is well above what most economists see as plausible, and in any case higher growth also raises interest rates.

What happens next? Among big debtors only Britain, which faced a market revolt after Liz Truss's disastrous mini-budget in 2022, has a (semi-serious) plan to tighten. Expect more Truss-like moments elsewhere. Wise governments will respond with sounder budgeting; louche ones with financial shenanigans. Scott Bessent, America's treasury secretary, began directly intervening in the Treasury market in August in a futile attempt to suppress yields.

The r-word

In a recession, more serious trouble could come. It is not inevitable that bond yields fall in downturns. That often fails to happen in emerging markets; and it didn't in the rich world during the 1970s. Even a smaller-than-usual decline in yields would worsen the economic pain and compound the hit to budgets from higher unemployment. Bond markets, once havens, will have become danger zones. ■

South Africa

How to avoid becoming a mobster state

The mafias that threaten South Africa can be beaten, given political will

ORGANISED CRIME is "the most immediate threat" to South Africa's democracy, society and economy, says Cyril Ramaphosa, the president. Business leaders say it worries them more than any other issue, even power cuts. Over the past year, a public inquiry has revealed staggering collusion between gangs, officials and senior police (see Middle East & Africa section). By one estimate, South Africa is the seventh-most vulnerable country in the world to mafia predation. Only Congo, Myanmar and a few Latin American states do worse.

South Africa has long had a reputation for violent crime. It has also been a hub for trafficking drugs, people and endangered wildlife. But a number of trends have made a grim situation grimmer. One is the growth of illicit forms of businesses that are normally legal. Most cigarettes sold in South Africa are bootlegged, as are huge volumes of booze and petrol; and illegal mining knocked 0.8% off recorded GDP in 2024. Another is the rise of extortion mafias, which demand cash for not sabotaging building projects, setting fire to buses or murdering teachers. A third trend is that gangs have infiltrated the state, like the bloodsucking ticks that give bush hikers a fever.

The good news is that South Africa is fighting back. It has independent courts, a lively civil society, punchy media and voters who are utterly sick of crime. Mr Ramaphosa, who came to power promising to clean up after a gangster-coddling predecessor, Jacob Zuma, wants to leave a decent legacy. So the country has a chance to avoid mafia-state status.

Evidence from elsewhere suggests that it pays to attack criminal structures from the top. That means sacking tainted prosecutors and senior cops, while targeting criminal kingpins. In the past year or so the police minister, the head and deputy head of the police and the bosses of two elite units that supposedly tackle organised crime have all been removed. That purge should gather pace. Officials who still have their jobs must disclose their finances to show they have no links to gangs, or resign. Cities with a record of clean governance, such as Cape Town, should be allowed more policing powers. Reformers should study Nuevo León, a Mexican state that built a new police force from scratch, replacing one infiltrated by drug gangs; and "Hidden Carbon", a Brazilian operation to bust money-laundering networks (see Americas section).

Prosecutors should focus on putting the worst bosses away. They can build on past successes. South Africa's once-sick tax authority has recovered under Mr Ramaphosa. In the 2000s an elite crime-busting unit known as "the Scorpions" collared syndicate bosses and helped convict senior officials over an iffy arms deal. Prosecutors should draw on financial and technical help from the private sector.

A sting in the tale

South Africa could also do with an independent gangbusting agency. It would need protection from political interference to avoid the fate of the Scorpions, who were disbanded after investigating Mr Zuma and his friends, or of CICIG, a popular UN-backed body that probed organised crime in Guatemala but was shut down by President Jimmy Morales. One option would be to give such an agency constitutional protection, so that only a parliamentary supermajority could abolish it.

The biggest obstacle to beating South Africa's gangsters is that too many politicians are in cahoots with them, steering dodgy public contracts their way, pocketing kickbacks and borrowing their muscle to settle political disputes. Mr Ramaphosa must find ways to take on influential but dirty actors inside his own party, the ruling African National Congress. Since he rarely acts decisively unless he must, CEOs and the leaders of other parties in the coalition government should press him to do so before he gives up the party leadership.

If he fails, calamity beckons. Nearly 75% of South Africans say they would favour a strongman leader who could provide jobs and cut crime. They may be tempted to elect someone like Nayib Bukele, the gangbusting autocrat of El Salvador, who has locked up tens of thousands of suspects without proper trials. South Africa needs something better: the rule of law. ■

British politics

How to spend it

There is too little money in British politics, not too much

NOBODY COULD mistake Ben Delo or Christopher Harborne for saints. Both made fortunes in cryptocurrencies. In 2022 Mr Delo was convicted in America of failing to implement money-laundering controls—and later pardoned by President Donald Trump. Both are keener on Reform UK, a populist right-wing party led by Nigel Farage, than any sensible person should be. Yet, by promising unheard-of quantities of money to Reform, both have done their country a good turn.

Their donations, each of £36m ($48m), have caused a tizzy in Westminster. Other parties are crying corruption and threatening to block the gifts. Parliament had already been considering proposals to cap donations at £100,000 per person per year. Any new rules could be made retroactive, forcing Reform to return most of the dosh.

The worriers make three intertwined arguments. They claim that Reform habitually bends and even breaks the rules; that the cash gives the party an unfair advantage; and that big money harms politics. Only one of these claims holds water.

The whiff of impropriety around Reform is real. In early September the party suspended two senior figures after they were filmed apparently encouraging a would-be donor to break the rules on giving. Mr Farage was filmed slurping down oysters while others discussed the rule-breaking. (He insists he was not listening properly, which is hardly much of a defence.) Parliament and the police are investigating other donations.

Rules must be followed, including those on donations from abroad. But people who care about the health of British politics should not try to restrict the flow of legal money into it. Britain suffers not from an excess of political donations, but from a severe lack of them.

One reason not to block money is that, after a certain point, cash cannot simply buy victory in elections (see Britain section). And even if it could, restrictions on campaign spending in Britain are a leveller. In the case of Reform, the windfall could grow poisonous as factions already at war within the party struggle for a share of the spoils.

The other reason is that British politics needs money. Last year the Donkey Sanctuary, a charity in Devon that cares for down-on-their-luck equines, received more than every major political party combined. So did the Royal Opera House. Or compare Britain with America. Reform's £72m windfall is worth less than the money spent on this year's Republican Senate primary election in Texas.

Impoverished British parties are barely able to prepare for power. The victor of a general election wins control of more than £1.3trn in public spending; those vying for this prize do so on a shoestring. Most shadow ministers rely on teams of two or three staffers to put together a programme for government. Reform boasts that it will use its new infusion of cash to double the number of policy researchers it has—to a grand total of 20. If so, it would be a start.

Although British voters prefer the asses in Devon to the asses in Westminster, their blanket cynicism about politics is unwarranted. Britons seem to assume that any donation must be corrupt, because why else would the donor hand over their cash? But if giving to political parties is stigmatised as spivvy, only spivs will give. Politics would benefit from a wider pool of public-spirited donors to fund the lawyers and wonks who prepare parties for office.

Restricting donations would make this problem worse. And doing so retroactively would discredit the rule of law. When Parliament has previously made past actions unlawful, it was to pursue elderly Nazis and Yugoslav war criminals. Turning the election rulebook into a tool for the establishment to keep insurgents out really would be a gift to Mr Farage.

If you are an opponent of Reform, you should shun the donkeys this year and pick the party you want to win. Instead of reaching for the statute book, with one hand hold your nose and with the other reach for your chequebook. ■

Letters *the gut microbiome, Norway's new king, Britain's hot summers, Charles de Gaulle and the Bayeux tapestry*

Taking care of your stomach

Your Well Informed column on the gut microbiome (August 15th) was right about the thing that matters most. There is no single ideal microbiome, and a varied, plant-heavy, partly fermented diet remains the most reliable way to improve your gut microbiome. However, you also claim that the idea that particular microbes matter to health has "scant published scientific basis". A large-scale analysis of over 34,000 individuals across Britain and America was published in *Nature* earlier this year, pinpointing specific microbial species that consistently correlate with positive and negative health indicators internationally.

Although my co-authors and I clearly stated that these findings reflect association rather than causation—highlighting the necessity for further interventional trials—the evidence is far from scant, and the raw dataset remains publicly available. Indeed, the vital role of gut health has recently been formally acknowledged in the US Department of Agriculture's 2026 guidelines. Continued pioneering research in this field is undoubtedly essential.

Moreover, the National Institute of Standards and Technology study you cited identifies seven companies and never names them. It also found that reproducibility varied enormously between firms. Readers meeting it directly after a paragraph about ZOE, a firm I helped found, may infer something the paper does not say.

This field deserves scepticism; a great deal of what is sold in it is indefensible. It also deserves to be judged on what has actually been published.

PROFESSOR TIM SPECTOR
Co-founder
ZOE
London

A crown by consent

Regarding Norway's monarchy ("Long to reign over Oslo", September 5th), in 1905 Norwegians were asked whether Prince Carl, the future Haakon VII, should be invited to become our king. The endorsement of monarchy was implicit. The invitation was personal. A fine distinction, perhaps, but his great-grandson, Haakon VIII, might have found considerable promise in the precedent. Given his personal popularity, the new king would have had little to fear from asking Norwegians to confirm him as their sovereign. Such an endorsement would have given him a mandate of his own, helped turn the page on his family's scandals and offered even republicans a reason to accept his reign. And the question of the monarchy's future might have been laid to rest for a generation.

It might also have sown the seeds of a new constitutional practice: hereditary succession subject to popular consent. The family would provide the candidate; the electorate would issue the invitation. Norway could retain the continuity and stability of monarchy while giving each sovereign a democratic warrant to serve.

Affection for Haakon's late father, King Harald, may smooth his accession. It cannot confer consent in perpetuity. Alas, it may now fall to his daughter to seek that consent, provided there is still a throne to inherit by then.

TORBJORN GRAFF HUGO
Oslo

Historical turning-points

Your article on relations between Britain and France mentioned the new film about Charles de Gaulle, "La Bataille de Gaulle" ("From Paris with love", September 5th). The film depicts a crucial event: the Battle of Bir Hakeim in 1942. The encounter in north Africa proved to Winston Churchill the fighting ability of the free French forces, as they took on the German and Italian armies. De Gaulle's troops bravely held out for 16 valuable days and so enabled the Allied forces to regroup prior to the first Battle of El Alamein. Churchill had every reason to be grateful to de Gaulle after Bir Hakeim. I suspect that many tourists who pass through Paris's Bir-Hakeim Metro station have no idea of the battle's contribution to the Allied success in the second world war.

DR ALUN EVANS
London

"Billion-dollar baby" (September 5th) reported on the many mysteries of the Bayeux tapestry. It mentioned that the arrow in Harold's eye at the Battle of Hastings was possibly an accidental addition. The Anglo-Saxon Chronicle records that, with the battle being inconclusive, William the Conqueror assembled an assassination squad to target Harold. They chopped him to pieces. This was a natural strategy for the chess-playing duke, as killing the king wins the game.

The arrow in the eye was believed to have been added at the Norman Bishop Odo's behest, blinding being symbolic of divine retribution, Harold having reneged on his oath to William. It was added under some duress. This made it clear to the viewer that William had not only the pope on his side, but also God. Of course, who knows how much subversive stitching was hidden in the embroidery by the press-ganged Saxon sewing team.

DUNCAN STEPHENSON
Leeds

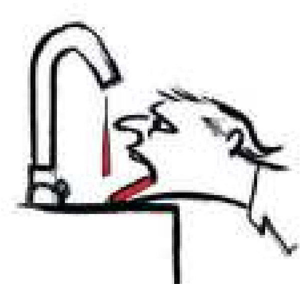
Britons unable to get tickets to see the Bayeux tapestry at the British Museum can instead view a beautiful copy at Reading Museum. It was stitched together by 35 women in the late 19th century. The only difference, other than age, is that the 93 penises in the original are missing from this Victorian copy, but helpfully the curators have provided photographs of these omissions.

MICHAEL GRIMWADE
Formerly of Reading

The long hot summer

Tim Palmer's By Invitation column (September 5th) asked what Britain should do before next summer to tackle extremely hot weather. A memoir by Evelyn Cox on "The Great Drought of 1976", which I found by chance in a second-hand shop, is illuminating. The Climatic Research Unit at East Anglia at the time was telling planners to expect drier summers. But Britain gambled on getting through the summer without drastic steps, and was rescued by the winter rain. Ms Cox, carting water by lorry after her farm pond dried out, wrote that the lesson of 1976 is that water is not an easy substance to move. The quantities are so large that a national grid would be astronomically expensive, and other methods—tanker ships, containers towed behind barges, reversing rivers—raised as many problems as they solved. Her own conclusion was simpler. Act early, and impose savings before the reservoirs get too low, "because a gamble may not pay off a second time".

BARBARA CLANCY
Dublin



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

BY INVITATION
Eric Zwick and Owen Zidar

Don't fear the inheritocracy

IN THE COMING years the "silent" and "baby boomer" generations in America—people born between the 1920s and 1960s—will pass $110trn in wealth to their children. Some argue that the rise of inherited wealth in rich countries, part of a broader intergenerational shift known as the "Great Wealth Transfer", threatens meritocracy and capitalism. Allow us to offer a rosier view.

We spent a decade building the first complete picture of America's rich from administrative tax data. Private-business owners dominate the top 1%. There are around 3m such owners, with average wealth of around $25m. They live all over the country, running businesses they started, bought or inherited in a wide set of largely unglamorous industries. These "Everywhere Millionaires" collectively hold more than ten times the wealth of the Forbes 400, America's richest people. Only a quarter of them inherited their firms. If the inheritocracy looms, it has clearly not yet arrived.

Much of the conventional narrative has focused on the bequest of financial assets and property. But the true story of the Great Wealth Transfer is the story of what happens to the family business when Everywhere Millionaires die.

"The father buys, the son builds, the grandchild sells, and his son begs." The old proverb foretells a fate borne out in the data. Just 12% of children born to the top 1% stay there, and 40% fall out of not just that 1% but the entire top fifth. Although talent and grit may be partly heritable, mean reversion in both might help explain why inherited wealth withers across family generations, especially when the family's central asset is an operating business.

Children of business owners are less likely than first-generation founders to reinvest profits in the business and, having grown up rich, more likely to live lavishly. We found a disproportionate share of private-jet and superyacht owners are heirs of private businesses. For example, the third-generation owners of a sand-and-gravel business in Michigan have owned many yachts, including one called *Sassy* that Katy Perry visited.

Studies of wealthy heirs suggest that most spend their inheritances within a decade, and firms that have family chief executives generally perform worse than those that don't. As Warren Buffett put it, "Choosing the 2020 Olympic team by picking the eldest sons of the gold-medal winners in the 2000 Olympics [would be] absolute folly in terms of athletic competition." Why should running a business be any different?

When a family business slows down after a generational transfer, opportunities arise for those who would compete with or acquire that business. Consider the story of Larry Miller. He kicked off his career by dropping out of college in Utah and then working at a car-parts shop in Salt Lake City. When his determined work went unrewarded by management, he moved on, eventually landing a position in a repair shop and then at a few car dealerships.

At Chuck Stevinson's Toyota dealership, Mr Miller took the parts department from 961st nationally in parts sales to number one within a few years. He worked for Stevinson for eight years, rising to the rank of operations manager supervising five dealerships. His momentum then collided with the inheritocracy.

Stevinson told Mr Miller that he would be demoted to manage a single store to make room for the owner's eight sons to assume leadership positions across the business. So Mr Miller left, and soon bought another local dealership. Ultimately, he would assemble an empire of more than 60 dealerships, 11 accident-repair centres, numerous cinema chains and an NBA team, the Utah Jazz.

In America, when a family business fails to keep pace with changes in its industry, entrants like Mr Miller emerge to outrun them. Only around 20% of the country's large companies are family-controlled, whereas that figure is around 40% across other countries. Countries with higher family-firm shares tend to report lower per-head incomes and smaller firms overall.

Another option when a family business nears transition is cashing out. Often, Everywhere Millionaires decide that leaving the business to their heirs is more trouble than it is worth.

For years, private-equity investors have targeted family-owned businesses in the middle market. Impatient but enterprising MBAs have taken notice. Rather than grind as an associate at a private-equity shop, they raise "search funds" to buy and operate such firms directly.

In some cases, private-equity and search-fund deals lead to an acceleration of growth and professionalisation; in others, the debt-laden business is carved up and sold in parts. Along both paths are opportunities for innovation and rebirth available to the non-inheritors who pursue them.

...but we need to talk about tax

We view these powerful self-correcting forces as a reason to be more sanguine about the Great Wealth Transfer in America and what it means for economic dynamism. But there is one area where we would suggest reform.

Inheritance and estate-tax systems across the rich world have eroded considerably, allowing owners to bequeath huge companies to the next generation while paying little to no tax. In America this erosion has happened not only due to the influence of an increasingly wealthy donor class, but also because many business-owning legislators themselves benefit from loopholes. For the sake of both national fiscal health and a collective sense that the tax code is fair, it is crucial that these systems be rebuilt. ■

Eric Zwick is a professor at the Chicago Booth School of Business. Owen Zidar is a professor at Princeton University. They co-wrote "The Everywhere Millionaire: Who Is Really Rich in America and How They Got There".

A SWISS MOUNTAIN LEGACY

The Villas at Andermatt provide a once in a lifetime chance to design and build an exceptional home in the Swiss Alps.

Own a property in the Swiss Alps and you have a healthy outdoor lifestyle with the reassurance of Switzerland's personal and financial safe-haven status. There is, however, one major obstacle. Strict legislation makes buying a substantial home in most Swiss resorts a challenge too far for international buyers. And that makes the launch of The Villas at Andermatt Swiss Alps an especially enticing proposition.

The Villas at Andermatt offer the unique opportunity to build a family home in the heart of one of Switzerland's most prestigious alpine resorts, 45 minutes from Buochs private airport and 90 minutes from Zurich. Many Swiss ski resorts prohibit foreign nationals from owning property at all, while those that do allow it, usually only permit a modest sized property often accompanied by complex usage rules. Andermatt Swiss Alps has total exemption from all these restrictions. The result is an unrivalled opportunity for international buyers looking for a substantial alpine home in Switzerland to engage an architect of their choice and custom design a bespoke property, somewhere to entertain family and friends in great comfort, with extensive wellness and leisure facilities and dedicated staff quarters. Andermatt Swiss Alps will coordinate and handle design, planning and construction and offer five-star management on completion, backed by an expert concierge team.

The historic, snow-sure town of Andermatt has seen a CHF 2 billion investment in infrastructure since 2009, adding five-star hotels including The Chedi, boutique retail, Michelin star dining and a championship golf course. The ski domain, operated by Vail Resorts since 2022, is now transformed into the largest, most modern and best connected in Central Switzerland. This investment has seen global interest soar.

"Over the past 10 years, Andermatt has built a truly international community, one united in a shared love of the mountains and a desire to be part of local village life," says Russell Collins, CEO of Real Estate at Andermatt Swiss Alps. "The Villas at Andermatt represent the next pinnacle for the destination, a strictly limited number of super-prime homes set in exclusive plots beside the River Reuss. A unique opportunity to own a multi-generational alpine home with unobstructed views of the surrounding nature, one constructed to outstanding Swiss quality standards. Owners can enjoy expansive comfort inside, with immediate access to year-round alpine pleasures outside."

Andermatt sits in Canton Uri, which imposes no inheritance tax and where the top rate of income tax is one of the lowest in Switzerland, with the option of lump sum taxation.

The Villas at Andermatt Swiss Alps. Your own lasting mountain legacy.

For further information register at andermatt-thevillas.ch

Andermatt Swiss Alps

Briefing The war in Ukraine

The empire strikes back

DNIPRO, KYIV AND OTHER LOCATIONS

Russia has entered a new phase of total war. Ukraine is feeling the heat

LIFE IS NEWLY, intensely, disrupted in Kyiv. Wailing sirens and screeching apps that warn of incoming strikes are common sounds all over. Explosions at petrol and railway stations, shopping malls, offices and apartment blocks are a constant backdrop. Some reports suggest there is a new exodus of families from the capital to safer parts west.

Ukrainians in the capital had grown accustomed, if not entirely inured, to the vicissitudes of life in wartime—air-raid alerts, missiles, blackouts and bouts of freezing cold due to Russian attacks on power plants. But the arrival at scale in late August of jet-powered Shahed drones—and a rise in Russian missile hits—wreaked a new level of fear and devastation. Russia's ramped-up deep-strike capability, combined with a dearth of Ukrainian interceptors, has once again brought the front line closer to the people of Kyiv.

A team from *The Economist* saw, during a recent reporting trip in the country, how the new phase of the war has put stress on Ukraine physically, psychologically, economically and politically. Your correspondents also learned just how routine close encounters with strike drones have become; they were near enough to feel a drone explosion in the street of one front-line city. Even before the blasts occur, it is an unnerving experience to stare up at the black, triangular shape of a Shahed drone, as it swoops and whines overhead.

It is unclear what respite Ukrainians can hope for from diplomacy. Early this month Donald Trump's envoys—Steve Witkoff and Jared Kushner—paid their virgin visit to the Ukrainian capital. That was on the heels of a briefing by Vladimir Putin in Moscow, where the two Americans have become somewhat regular visitors. Sources with knowledge of the pair's lengthy talks with Volodymyr Zelensky suggest a proposal for a limited technical arrangement could emerge in the next few weeks.

Mr Trump is keen to blame Ukraine's attacks on Russia (rather than on his war in Iran) for high global prices of diesel. A window for discussions may exist after the charade of Duma elections in Russia on September 20th (see Europe section), and ahead of America's midterms in November. Mr Trump may hope to brag to voters that he has cut a deal focused on the Black Sea, easing the blocked exports of Russian oil and of grain from both Russia and Ukraine. Trilateral talks involving America, Russia and Ukraine may happen in Abu Dhabi in early October.

The fight goes on

All that would be welcome—and Ukraine is holding some cards. The European Union is united behind it. There is no prospect of America pushing for an entirely pro-Russian settlement of the sort raised at last year's summit in Anchorage ("Alaska is dead," a senior official in Kyiv says with a smile). But it would be fantasy to hope for anything like a wider peace or ceasefire. Mr

Putin will not countenance pausing his assault before next spring, at the soonest.

Ukraine will fight on and will continue to inflict enormous pain on Russia. On the front line and in the areas 200km behind it, arguably it has the upper hand. The battle for territory is not static, but it is clearly not progressing to Mr Putin's liking—a net gain of perhaps 100 square kilometres this year, or just 0.017% of Ukraine's pre-2014 territory. A Ukrainian source puts confirmed Russian dead at 600,000, and estimates Ukraine is killing 22,000-23,000 Russians each month. Add the seriously wounded, and Russian losses are probably running above the current recruitment rates of 30,000-31,000. (Ukrainian sources also fear that reinforcements from North Korea are on the way.)

The war is not in pure stalemate. The stasis on the map obscures a Darwinian struggle of innovation and adaptation. And in an era of drones and missiles, the balance of fortunes behind the front also matters hugely. Here, in the long-range fight, Ukraine is in trouble. Going into the winter, Russia has the lead in both production and technology of long-range weapons. Where the war was once split between contested battle lines at the front and the weary but mostly safe cities farther back, drone innovations are now blurring the distinction. It is becoming harder to know where the battle area starts and stops.

Take the front itself. It is made up not of consistent trench lines but a contested band of territory 40-80km wide, generally known as the "kill zone", where all movement is perilous. If soldiers are spotted, the sky above teems night or day with small remotely piloted first-person-view (FPV) hunter drones. A Ukrainian soldier describes how the Russians have swapped armoured vehicles for nippy jeeps with the doors removed, the better to leap out quickly. "Sometimes they walk up to 20km carrying everything on their backs, so if they hear a drone it's easier to hide."

But soldiers cannot rely just on their ears for early warnings. "Ambush drones" lie in wait on known routes, sometimes on roofs or behind bushes, rising to strike unexpectedly. Both sides turn to robotic vehicles, trundling to and fro with gear, food and water, or ammunition. Soldiers alongside such a robot mule know drones may swoop to destroy it—and them.

Both sides are operating drones ever farther into the enemy's rear, trying to starve supply lines. Step down into the well-hidden operations centre of "Nemesis" drone battalion and a hushed, businesslike effort is revealed. Camouflaged material drapes the walls. The unit flag bears the black-and-white logo of a sci-fi alien face. Pilots and navigators sit together like gamers, clad in T-shirts and armed with controllers, hunting for targets well behind the front, in Russian-controlled territory. On screen, a road bridge comes into view, spanning a lush tributary. A Russian lorry already burns there, and the drone settles itself between some trees, waiting for another to pass by.

In these open hunting grounds it can be difficult to spot military traffic, as the Russians use civilian lorries. "We never hit the cabs," claims Robert "Magyar" Brovdi, the bearded commander of the Unmanned Systems Force, a group of dedicated drone specialists that includes Nemesis. They have been using these tactics to try to isolate Russian-occupied Crimea. Magyar explains the campaign from his basement suite, which features a Metallica pinball machine and a coffee-table copy of "On War" by Carl von Clausewitz. "Crimea is the jewel in Russia's crown," he says, describing how Ukraine's efforts weakened Russia's forces, especially early on. Since then, the Russians have adapted defensively, patrolling the same beats with mobile anti-drone units, and with a far higher density of communications jammers.

The drone wars

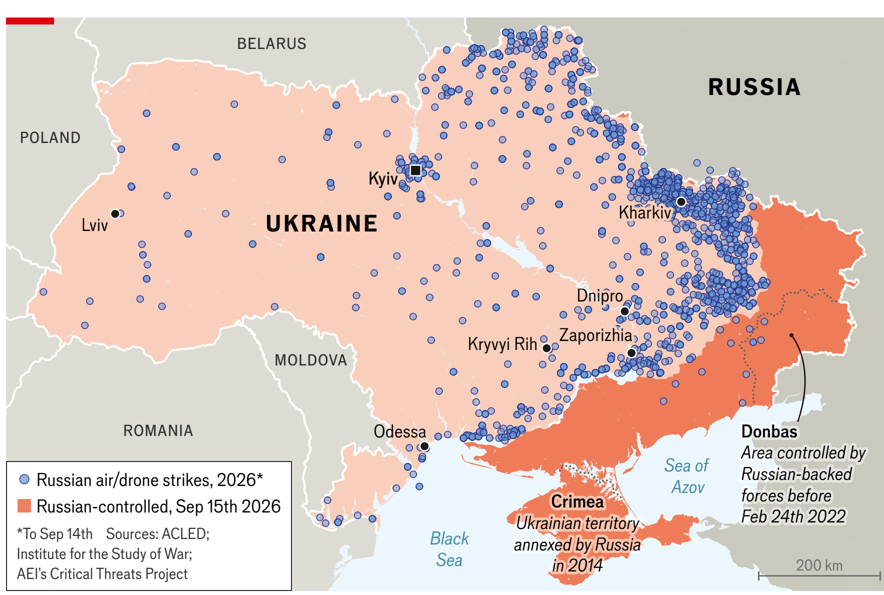
Now the enemy forces are building equivalent offensive operations of their own. Piloted drones at this range most often rely on a satellite-based data connection. For Ukraine, it is Starlink. Troublingly, Russia has developed local jamming techniques and is rushing to establish a copycat constellation called Rassvet. In the meantime Russia is using a "mesh" network of radio relays between drones. They base it around long-range Geran drones, more commonly called the Shahed, after their Iranian-designed parent. These relays can reach only about 200km into Ukrainian air space, but within that range piloted drones can hunt moving targets, not just home in on pre-set co-ordinates.

Trains are a favoured target. Previously attacks focused on stationary trains that were carrying military materiel. Now the Russians are coming after all locomotives, including city commuter services and, recently, a railway station close to the border with Poland. The head of Ukraine railways, Oleksandr Pertsovsky, speaking from his own command centre, says his trains are in essence "swimming with sharks".

Then there is Russia's progress with long-range attacks. Ukraine's deep strikes against Russian oil refineries and logistics centres belonging to Wildberries, an e-tailer, have impressed some. But Russia is striking inside Ukraine with greater reach and at a vastly greater scale.

Two further dismaying developments are helping Russia along. The first is that old propeller-driven Shaheds are being replaced by ones powered by jet engines, probably imported from China. Ukraine's ground-based defences—mostly machine-guns and shoulder-fired missiles—can barely cope with such swifter, higher-flying assailants. Fighter aircraft, such as Ukraine's F-16s and MiG-29s, can destroy them, but they lack ammunition or, being older second-hand models, are often abroad for expert maintenance.

That leaves ground-based interceptors, but Ukraine lacks the sort to do the job. Sacrificial quadcopter drones cannot catch the jet-powered Shaheds. Prototypes have been devised to meet the challenge. One test-launch video shows something closer to a missile than a drone. That is a big demand on testing and engine design. It raises unit costs. Even if rushed into service (unlikely before winter), boosting production will take hefty financing and at least six months. By contrast, Russia's production target for jet Shaheds is reportedly 24,000 for 2026; a Ukrainian source suggests they have used only 1,000 so far. ▸▸



The second development is Russia speeding up its production of ballistic missiles. By one estimate it can launch over 100 of all types every month. Ukraine has little answer, especially given its very low stocks of American Patriot interceptors.

Ukraine is trying to build a home-grown equivalent to the Patriot, based on a ballistic missile being developed by Fire Point, a local firm. But it is unlikely to produce anything usable for a long time, perhaps several years. This is even trickier than hunting jet Shaheds. Intercepting a ballistic missile requires marrying complex radars, data uplinks and hypersensitive missile guidance. Ukraine's mil-tech industry is growing in leaps and bounds, but it cannot solve this within months. Nor does Ukraine have the leeway—in particular, access to Starlink inside Russian-held territory—to "strike the archer" (that is, the mobile launchers) rather than the arrow.

So Ukraine's war prospects are mixed. Soldiers, whether in subterranean command centres near the kill zone or sipping tea in city cafés, say they can hold firm at the front. Under a youthful new commander-in-chief, Mykhailo Drapatyi, "This is no longer a small Soviet army fighting a big Soviet army," says Oleksiy Honcharuk, a former prime minister who now chairs Nemesis's expert council. They do not fear another round of Russian troop mobilisation either, as many in Kyiv do. "More Russians to kill," one coldly concludes. But the same officers are troubled by the wider overall fight across Ukraine.

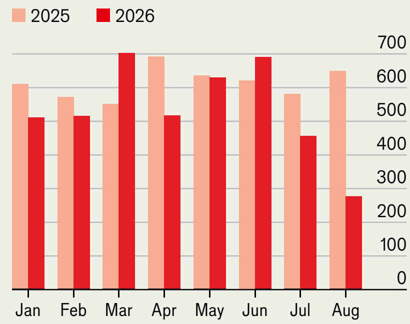
For four-and-a-half years front-line heroism and air defences had kept Ukraine's main cities running. A resilient domestic economy had provided the government with tax revenue and given citizens a sense of normality. Russia's latest phase of total war has ended that.

Ukraine is short of money. Its military materiel bills are rising. Direct Western funds for the armed forces are too little to meet this year's needs. Russian weapons are tearing through a number of Ukraine's largest corporate taxpayers. They have shut down massive steel plants in cities like Kryvyi Rih and Zaporizhia; steel output in August was 60% lower than a year ago (see chart); this month will be worse. Supermarkets, e-commerce and the postal service have been hit hard, with warehouse capacity in the capital down by as much as 80%. On the road from Kyiv towards the front, this is plain to see. Petrol stations have green barrier nets and sandbag bastions around storage tanks. Warehouses lie agape, blackened by explosions.

Russia is also seeking to choke Ukraine's ability to move goods and people. Strikes on the railways have destroyed more than 250 locomotives this year alone; that damage has been mitigated by repairs, but the rail network could come under severe strain later this year. Petrol stations are bombed daily, with those that fuel lorries quickly singled out.

Steely dissolve

Ukraine, steel production, '000 tonnes



Source: Ukrmetalurgprom

Most damaging of all, Russia in effect closed Ukraine's deep seaports in Odessa in July. That has meant a significant share of this year's harvest risks going unshipped; last year Ukraine's agricultural exports accounted for more than 10% of Ukraine's GDP. With domestic prices depressed and storage likely to fill up by December, some of Ukraine's biggest agriculture outfits are questioning whether to plant at all next season.

Winter is coming

All this is before the winter hits. In some respects, Ukraine is better prepared than it has ever been to cope with the Russian onslaught. Its energy infrastructure, long a favoured target for Russia, has been hardened with Western help. Even so, Russian strikes will occasionally cause huge power cuts, probably more than last year. Several large cities, especially Kyiv, are especially vulnerable since they depend on large central-heating plants that are impossible to protect fully. If, as last year, local power generation is destroyed, Kyiv could become an electrical island, dependent on a handful of fragile choke points. One is the large 750KV substation in Makariv, west of the city. With that node working, Kyiv would get roughly 16 hours of daily electricity; without it, perhaps only four.

Last winter, whole districts survived weeks in freezing temperatures after Russia destroyed nearby heating plants. This year, the fear is also that food, water and especially sewerage will be messed up. "This city can collapse," says a Western diplomat. A Ukrainian official expects "absolute hell" by October. "They will torment Kyiv," he says. Russian propaganda campaigns will seek to divide and enrage the people. "They will use fatigue, exhaustion and other factors to try to create a tragedy."

The unease is palpable. Since the appearance of jet drones in the city on August 27th, daily life has been interrupted. Businesses are closing several times a day during air-raid alerts. Commuters are stranded when the metro and buses stop. Schools are sending kids home or moving classes underground; others are considering closing for the winter. Parents debate the possibility of sending children to western parts of the country—or even abroad. Every family that leaves reduces the tax base and labour force, already depleted by roughly a million people serving and a similar number hiding to avoid the draft.

It is not all bad news. The increasingly home-made weaponry is giving the economy a leg up. Almost half of Ukraine's top-20 taxpayers are military-technology firms. These firms are also decentralised and harder to hit. In time, they may become the new export champions.

But the wartime economy is starting to show signs of stress. Falling export earnings will put pressure on the hryvnia, which could force the central bank to burn through some of its reserves, currently at just under $50bn, to stabilise the currency—or raise interest rates.

On September 12th Serhiy Koretskiy, the new prime minister, estimated that just the first few weeks of the Russian surge would deprive the government of 70bn hryvnia ($1.6bn) in tax revenue. That comes on top of higher military spending. In August Mr Zelensky surprised European backers by asking for help to fill a $27bn hole in the military budget. Analysts at Dragon Capital, an investment firm, have raised their overall deficit forecast for this year by $4bn-9bn. Next year looks no better. The finance minister, Sergii Marchenko, says Ukraine in 2027 Ukraine will need $32.6bn in foreign finance more than what has already been promised.

Western, mostly European, partners have been helping. Over this year and next, the EU is lending Ukraine €90bn ($104bn) to fund the budget deficit and weapons purchases. Some of the funds are stuck because Ukraine's parliament has yet to pass reforms that donors have demanded in return. That puts the process at the mercy of Ukraine's increasingly waspish politics.

The president's ability to push through the legislation may depend on whether David Arakhamia, his wheeler-dealer faction chief and peace negotiator, can retain influence over the MPs. But some speculate that Mr Arakhamia may himself be in the sights of Ukraine's increasingly assertive anti-corruption bodies.

One official believes the "moral heat" of a difficult winter will concentrate minds. "What choice do we have?" The focus on survival has certainly helped Ukraine defy the odds before. As Russia reverts to an even dirtier way of waging war, Ukraine will need money to defy the odds once more. More than anything they will need grit—just as they always have. ■

Europe

France's presidential race

Who can beat Marine Le Pen?

PARIS

The centre's divisions could be fatal to its chances

ONE PRESIDENTIAL hopeful donned an apron and served *frites* from a food truck. Another put on a harness and climbed to the top of a wind turbine. Yet another launched a "1,000 bistros" listening tour. Gimmicky showmanship means that election season is under way. At a two-round vote next April and May the French will elect a successor to Emmanuel Macron, who cannot stand for a third consecutive term. Polls consistently favour Marine Le Pen of the populist-right National Rally. This has turned the presidential race into a single question: who can beat Ms Le Pen?

The RN leader, on her fourth presidential bid, has a commanding lead. Five new polls give her 32-36% in the first round—at least 13 points ahead of her nearest rival, Edouard Philippe, one of Mr Macron's former prime ministers. In each of three run-off scenarios Ms Le Pen wins. In one she beats Mr Philippe by 55% to 45%.

French polls this far ahead have often been wrong. Mr Macron featured in only a few at this point before his election in 2017. Some past favourites (Edouard Balladur in 1994, Alain Juppé in 2016) subsequently crashed out. But for three years Ms Le Pen has only once polled at below 30% in the first round. "The real difference between this election and previous ones is that it is possible this time for her to win," says Clément Beaune, a former minister from Renaissance, Mr Macron's party. "Her defeat or victory depends heavily on us."

Yet the "us" in question is struggling. France's broad centre reaches from the Socialists on the left to the Republicans on the right. At least 15 candidates occupy this space, five of whom will take part in a Socialist Party primary in October. Still more have hinted at a bid. Fragmentation makes it harder for any to qualify for the run-off. The final choice could come down to two extremes: Ms Le Pen or Jean-Luc Mélenchon, the leader of the populist left.

The French centre's ills are hardly unique. The populist right is surging in many democracies. Yet in Hungary, the Netherlands, Poland, Romania and elsewhere, centrists have found ways to beat them. Besides a willingness to sound firm on immigration and crime, politicians who vanquish populists tend to share three traits.

First, they have energy. Think of Peter Magyar, the centre-right liberal who defeated Hungary's Viktor Orban in April. Or Rob Jetten, the centre-left liberal prime minister of the Netherlands. Both threw themselves into grassroots campaigning. Over two years Mr Magyar criss-crossed the country, at one point delivering up to seven speeches a day in different towns.

Second, they are often rebellious outsiders—or can credibly portray themselves as such. Mr Macron was an elite-trained ex-minister who cast his bid as an insurgency. Mr Magyar, a long-time member of the governing party, fashioned himself as a rebel from the inside, lambasting his former party's corruption. Romania's Nicusor Dan, who won the presidency last year, deftly distanced himself from the old parties despite being the mayor of Bucharest.

Third, they have a knack for memeable initiatives on issues voters care about. Mr Jetten's proposal for ten new cities was a symbolic commitment to grapple with the country's housing crisis. Mr Dan showed he would fight corruption by turning up to stop the bulldozers on dicey public-works projects. Centrists who balk at simple slogans and slick reels will struggle to connect to voters, especially the young.

The bad news for France's centre is that the two candidates who best share these traits are Ms Le Pen and Mr Mélenchon. At a recent presidential debate, this pair had the punchiest lines. The 75-year-old Mr Mélenchon, on his fourth attempt, knows how to coin a phrase; "Burn it" is his suggestion for solving France's sovereign-debt problem. Ms Le Pen, who is running after a court in July shortened a ban for embezzlement that could have kept her out of the race, lacks the freshness and TikTok savvy of Jordan Bardella, her lieutenant. But she is an anti-system candidate whose ideas, such as banning the Muslim hijab in public, have the merit of clarity, if little else.

No centrist aspirant, by contrast, can pretend to an insurgency. Three served under Mr Macron: Mr Philippe; Gabriel Attal, another ex-prime minister; and Bruno Retailleau, an ex-interior minister and the Republicans' nominee. The closest is Raphaël Glucksmann, who is standing in the Socialist primary and shunned Mr Macron. But he trails in fourth place in polls.

Mr Philippe was re-elected as mayor of Le Havre, which gives him a regional flavour. He is also the most experienced; his team argues that gravitas still counts. He is a centre-right fiscal conservative who does not hide the fact that the French will have to work more to fix the public finances. But it is hard to link Mr Philippe to a memorable phrase or idea. At his first rally in Paris in July, after speaking on stage for over an hour, he was only just getting to civil-service efficiency gains from AI.

The 37-year-old Mr Attal does have flair, and a knack for one-liners. He also seems to be enjoying the fight. "He wants to push, and see how far he can go," says someone who knows him well. But neither he nor Mr Retailleau has yet managed a poll breakthrough. Each has also declined Mr Philippe's appeal to rally behind him.

What would it take to agree on a single candidate? "It's too late for a primary," says a supporter of Mr Philippe. Polls and endorsements may put pressure on the weaker contenders, but that could take months. The Socialists will rally behind their own nominee. Some hope for a grandee who could take the situation in hand. But none of those hoping to play that role—from Dominique de Villepin on the right to François Hollande on the left—is convincing. Christine Lagarde, the European Central Bank president, says it is "not on the agenda". And time is running out.

An unpublished focus-group study on French centre and centre-left voters by Claire Ainsley and Deborah Mattinson, British political strategists, finds a deep erosion of confidence in the centre's ability to make a difference. "Voters feel that the centre is empty, but don't know where to turn," says Ms Ainsley. The populists have a spring in their step and clarity of purpose; the centre lacks freshness, punch and unity. "If we spend the next few months shooting each other," says one centrist figure, "we are headed for disaster." ■

Sweden's election

Take a chance on me

STOCKHOLM

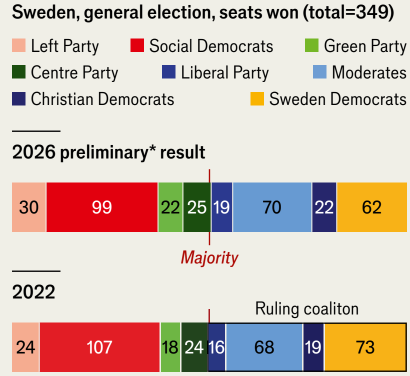
The populist right suffers a setback

SWEDISH ELECTIONS are often nail-bitingly close. The vote on September 13th was no exception. For much of election night, the government looked like it might cling to power. But as the votes were counted, the left-wing opposition's narrow lead (with 176 seats against the right's 173) firmed up. Magdalena Andersson, the Social Democrats' leader, looks likely to take power—albeit atop a wobbly, divided bloc.

The vote is a blow to Ulf Kristersson, the centre-right prime minister, but not in the way most predicted. For much of the year, opinion polls suggested that liberal voters would punish Mr Kristersson's government for co-operating with the Sweden Democrats (SD), a populist party that was once shunned by mainstream conservatives because of its neo-Nazi roots. Together they implemented some of the toughest migration policies in Europe.

The right retreats

Sweden, general election, seats won (total=349)



Source: Swedish Election Authority *At 6am GMT, Sep 17th

But in the end Mr Kristersson's Moderate Party held firm, while the SD stumbled. The party's vote share dropped by three percentage points, falling below that of the Moderates. The SD, which had increased its vote share at every election since entering parliament in 2010, once prided itself on its insurgent energy. It is a rare setback for the populist-right party, whose allies elsewhere in Europe are mostly on the rise.

Jimmie Akesson, the SD's leader, tried to reassure voters with a sensible, down-to-earth image. His campaign videos harped on nostalgia and his promise to "Make Sweden Sweden again". His final rally in Stockholm on September 12th was more like a music festival than the tense, angry demonstrations of the party's past. To close it out, a woman in a pink balaclava and yellow skirt bopped around onstage, singing "Gimme, gimme some love for Jimmie!" while pyrotechnics lit up the square.

But the SD's messaging also had a nastier streak. Having brought immigration sharply down, it campaigned on making Sweden inhospitable to migrants already living there. Its policies included banning headscarves and expanding a repatriation grant to immigrants who have already become citizens. "Do you miss Mogadishu? The repatriation grant will help you get home," read one of their ads. In a final stunt Mr Akesson cast his ballot in Rinkeby, an immigrant neighbourhood in northern Stockholm. "Sweden shouldn't look like this," he said at the polling station.

Such efforts to gin up the SD's hardline supporters seem to have failed. "The politics of migration are much tougher than Swedes' views of immigrants," says Torbjorn Sjostrom of Novus, a pollster. He points out that 52% oppose revoking permanent residency from migrants, one of the SD's main proposals. Turnout in areas like Rinkeby was strong: one activist says voters were queuing at the polls before they opened. "They're afraid this government will send them away," says Pyry Niemi, a former Social Democratic MP canvassing in Tensta, a little farther north.

Few such voters, however, plumped for the Social Democrats. Not even the intervention of Benny Andersson—an ABBA star who on election day performed a rendition of "Mamma Mia" ("Magdalena, here we go again!")—gave the party a boost. The Social Democrats' vote share was its lowest in more than a century, at 28%. Small parties surged, including the Greens and the Left, a formerly communist party.

That could make Ms Andersson's side hard to manage. As well as environmentalists and leftists, her bloc includes the Centre Party (the only conservative party that ▸▸

refuses to work with the SD), which has ruled out a formal coalition with the Left. Ms Andersson, who was briefly prime minister in 2021-22, will probably have to form a minority government. The parties are "a very disparate bunch", says Anders Widfeldt of Aberdeen University. "There isn't really a very credible government there."

If the coalition is ineffective, it could prove an easy target for populist potshots. The SD is already trying to undermine the left bloc's victory. One of the party's MPs suggested that Ms Andersson's side only won because of immigrant voters who were granted citizenship during the past few years. The SD, which was offered cabinet seats if Mr Kristersson won, has attained mainstream acceptance that was once unthinkable. Ms Andersson may still struggle to keep it at bay. ■

Rights in Turkey

Imprisoner's dilemma

ISTANBUL

Free a dissident, or quit the European Court of Human Rights?

ONE GOOD way to discourage political dissent is to single out inoffensive activists for cruel punishment. In 2013 Osman Kavala, a businessman who ran a charity supporting cultural heritage, took part in protests against a construction project in Istanbul's Gezi Park. He was arrested four years later amid a widening crackdown, and sentenced in 2022 to life in prison without parole. On August 25th the European Court of Human Rights (ECHR) ordered Turkey to free him. Instead, the country might walk away from Europe's human-rights system altogether.

As a party to the European Convention on Human Rights, Turkey is legally bound by the court's judgments. But it has refused to implement two earlier orders to free Mr Kavala. This time the court in Strasbourg went further, ruling that Turkey has a "systemic problem of prosecution and imprisonment of human-rights defenders, political opponents and journalists". The evidence that he had "attempted to overthrow the government" was wanting: prosecutors had noted his purchase of pastries and provision of a picnic table for protesters. In imprisoning him, the ECHR found, Turkish authorities were trying to stifle pluralism and political debate.

When Turkey flouted the court's orders to free Mr Kavala in 2019 and 2022, Western governments criticised it. But the country's crucial roles in NATO and in holding back migration into Europe have come to outweigh such concerns. President Recep Tayyip Erdogan has become "too important for European countries to exert pressure on him", says Gonul Tol of the Middle East Institute, a think-tank in Washington. He is now using that freedom to launch a crackdown against gay-rights advocates. Since September 13th police have raided the offices of LGBT groups and detained more than a hundred protesters.

Europe could still try diplomatic outreach, or even suspend Turkey's vote in the Council of Europe, the continent's main human-rights body. But that might just prompt Turkey to leave. In a post on X after the ECHR's ruling, Mehmet Ucum, Mr Erdogan's chief legal adviser, said the country might reconsider its membership, or block Turkish citizens from petitioning the court. Turkey's justice ministry did not respond to a request for comment.

For those caught up in political prosecutions, the ECHR offers one of the few remaining routes of redress. Its findings in Mr Kavala's case of systematic interference

German politics

Manuela the AfD-slayer?

ROSTOCK

After triumph in Saxony-Anhalt, the populists could stumble in another election

IT IS A curious venue for a sober politician. Inside a circus big top in Rostock, a port on Germany's Baltic coast, Manuela Schwesig, the Social Democratic (SPD) premier of the state of Mecklenburg-Vorpommern, is pitching to the party faithful ahead of elections on September 20th. Ms Schwesig offers mild red meat (swipes at oil firms), empathy for voters weathering price rises, and a few personal anecdotes. Yet there is one killer sales pitch. Only voting SPD, she says, can "prevent the AfD from becoming the strongest force".

On September 6th the far-right Alternative for Germany won a spectacular victory in the eastern state of Saxony-Anhalt. It long expected to repeat the feat in "Meck-Pom". Lilly Blaudszun, Ms Schwesig's campaign manager, pulls out her phone to display a poll from a year ago showing the SPD on just 19%, half the AfD score. But Ms Schwesig has staged a dramatic comeback. The SPD is now just two percentage points behind the AfD.

For that, she can thank the AfD bogeyman. An SPD poster depicts Ms Schwesig, in socialist red, as "Die Frau gegen blau" ("The woman against blue"), the AfD's colour. By reducing the vote to a two-horse race, Ms Schwesig, in office since 2017, is exploiting her popularity to nab support from other parties, including the Christian Democrats (CDU). Most voters want her to keep her job.

Once dismissed as a "coastal Barbie", Ms Schwesig slowly earned a reputation as a *Landesmutter,* or "mother of the state", says Jochen Müller at the University of Greifswald. She has overseen modest growth in a poor state. Abroad she is best known for her robust defence of Nord Stream 2, a Russian gas pipeline that came ashore in her state (and was later blown up, allegedly by Ukrainians). In 2021 she even established a foundation designed to circumvent American sanctions, with money from Gazprom. Ms Schwesig now says that was a mistake and stands behind Germany's support for Ukraine. More recently she has found favour by atttacking the pension reform of the federal government, in which the SPD serves as junior partner.

Lady dings the blues

Even if Ms Schwesig fails to overtake the AfD she will probably remain premier, perhaps heading a three-way leftist coalition. That would leave her well placed to inherit the national leadership of the SPD, if, as many expect, one or both of its co-chairs steps down after the election in Mecklenburg-Vorpommern and another in Berlin. And if her polarisation tactics push the CDU below the 5% threshold, even Friedrich Merz, the chancellor, could find his job at risk.

in Turkey's justice system can be applied to upcoming cases, including that of Ekrem Imamoglu, the mayor of Istanbul who was arrested after deciding to run against Mr Erdogan for the presidency.

Turkey has a face-saving way out. Its constitutional court could take up Mr Kavala's appeals, allowing Turkey to comply through its own courts rather than obey an order from abroad. Turkish authorities said after the ruling that Mr Kavala could reopen his case at home. Should that route fail, Riza Turmen, a former ECHR judge, worries that the stakes will rise higher. Abandoning the convention would mean severing one of Turkey's longest institutional links to the West. "It would no longer be a modern democratic state governed by the rule of law," he says. "Even if that's only on paper." ■

Russia's fake democracy

Party games

MOSCOW

Sham becomes farce as the Kremlin tightens control of elections

"GOOD AFTERNOON, dear voters," says Alexey Chernov, a portly 44-year-old in a plaid flannel shirt. He nervously rattles off his campaign pitch: a few sentences about supporting large families. It takes 28 seconds. "That's all?" asks the host, reminding him that the rules let him speak for a minute. "Perhaps something else will come to mind?" "No, nothing else will come," he says. The remaining seconds are filled with the ticking of a clock.

Such were the televised debates this month between candidates for the Duma, Russia's parliament. Voting starts on September 18th and lasts three days. Mr Chernov, a paramedic with an interest in role-play involving orcs, is running for the previously unknown Party of Direct Democracy. Another candidate used his time to sing a Soviet-era song. He represents the Communist Party of Russia, also a spoiler party. Its name is clearly designed to create confusion with the Communist Party of the Russian Federation, the second-largest group in the Duma, which has some slight independence from the Kremlin.

Russians are calling this year's ballot a "special electoral operation". The Kremlin has been steadily turning Russia's democracy into a simulacrum since the early 2000s, trying to discourage dissenting voters from turning out while coercing public-sector workers to plump for Vladimir Putin's United Russia party. But this year the exercise has reached a new low.

In previous elections the Kremlin kept up the façade by allowing a few opposition candidates to run, and even win. Elites consented because they benefited from the status quo; the broader population saw it as a sign of stability. But that tacit consent is crumbling. The war against Ukraine is in its fifth year. Bodies are piling up, and smoke is billowing from bombed oil refineries across Russia. A recent survey by Levada, an independent pollster, found that some 70% of respondents consider the situation tense or critical.

The purpose of elections in a dictatorship, notes Ekaterina Schulmann of the Carnegie Russia Eurasia Centre in Berlin, is to test that the system is working and able to enforce the dictator's will. The voters' role is to show loyalty. But this time they have little interest in playing along. At the start of the summer, Levada found, two-thirds of Russians did not know the elections were happening. In focus groups conducted by Elena Panfilova, a political scientist, standard responses were "What elections? Can't they see what's going on?" Asked what event they expected in September, many replied: "Mobilisation?"

On United Russia's billboards, the candidates are often stone-faced veterans in uniforms. Meanwhile Russia's non-military elites have grown alienated by Mr Putin's decisions. The tension has led to a shift in management. Previously the job of ensuring majorities was left to officials known as "political technologists". This time the FSB, the state security service, has become the principal actor, selecting and removing candidates. They favour blunter instruments: bans, intimidation and arrests.

Yabloko, Russia's oldest liberal party, was barred after its anti-war stance led to a dramatic rise in the polls. On August 17th Lev Shlosberg, one of its most popular leaders, was sentenced to 11 years in a penal colony. Several others have been arrested. In Chelyabinsk a candidate was disqualified for quoting Andrei Gromyko, a Soviet foreign minister: "Better ten years of negotiations than one day of war."

But it is not just liberals. When Nikolai Bondarenko, a Communist candidate with 2m followers on YouTube, criticised government internet restrictions in a televised debate, he was detained on trumped-up charges. Those who dare to run are conscious that winning can be more dangerous than losing. In Ryazan, 185km south-east of Moscow, none of the candidates turned up for television debates.

Politically conscious Russians who voted in the past no longer see much point. But some who were apolitical are planning to vote, as a safe way to vent frustration. Dmitry, a 35-year-old Muscovite who has never voted, says he will "go to these elections and write what I think of them on the ballot paper". "We are not political activists; we are just incredibly fed up," says Nadezhda, a 25-year-old in Rostov, near Ukraine. "That people in power are gangsters has long been clear, but the fact that they are also impotent, unable to shoot down a small buzzing drone, is a revelation," says Evgeny, a 48-year-old programmer from Ekaterinburg, a city in the Urals. He is planning to spoil his ballot.

Surveys by ExtremeScan, another independent pollster, show that United Russia will struggle to get more than 25%, 20 points below its target. The Kremlin will no doubt reach its desired result through methods such as forcing public-sector workers to cast easily altered electronic ballots. For many Russians, says Ms Panfilova, the elections are just "a date on the calendar—after which they fear, and expect, either mobilisation or some other kind of madness". ■

General indifference

CHARLEMAGNE
The Great Wall of Silence

China would make an ideal target for Europe's populists. Why are they holding back?

IMAGINE TRYING to craft the perfect bogeyman to haunt the European imagination. This dreamt-up foe would be a very large country, perhaps adhering to the same communist ideology that for decades shackled Eastern Europe. Such an imaginary nemesis would have harnessed the heft of its state-planned economy to export the exact same products that once enriched Europe, such as cars—yet make them better and cheaper. To be a convincing geopolitical menace this antagonist would have supported Russia as it assailed Ukraine, and could thus be held indirectly responsible for the security crisis that afflicts the continent. To top it all off, it might be blamed for having spawned, in still-unclear circumstances, a virus that just a few years ago kept Europeans indoors for months on end.

For a populist politician, the rhetoric with which to blast such a foe, and the useless globalist politicians letting 'em get away with it, ought to write itself. And yet. Populists adept at finding a foreign (or migrant) culprit behind almost every grievance have somehow developed a blind spot the size of China. Whether on the left or the right, Europe's firebrands are oddly unwilling to cast Beijing as the villain of the piece. The Alternative for Germany (AfD) thinks China is so fantastic it wants Germany to take part in its "Belt and Road" infrastructure initiative. In Hungary the Fidesz party of Viktor Orban, which got its start bashing commies of the Soviet ilk, became cheerleaders for their Chinese comrades. On the left, Unsubmissive France has warned against European "meddling", should China one day invade Taiwan.

Such complaisance is all the more surprising given that vilifying Beijing once did political wonders for another demagogue. During his first term as president, Donald Trump droned on about China "ripping off" America, before berating it for the "Kung flu" covid virus. The same economic forces that Mr Trump played on—large trade imbalances caused by cheap Chinese exports, and the resulting losses of American jobs—are now slamming into Europe. Vast subsidies to China's industrial champions have caused a gaping goods-trade deficit of €1bn ($1.15bn) a day in favour of China, and been blamed for factory closures in Europe's industrial heartlands, particularly Germany. Once a customer for European wares, soaking up its cars and chemicals, China has become a purveyor of them, including to Europe itself. It has even threatened to cut off the supply of critical minerals or microchips vital to keep European factories ticking.

As a result, both unions and employers in Europe are fretting about a new China Shock. Most voters across the continent have an unfavourable view of the country. This ought to be pure demagogic gold. Granted, for a populist in search of synthetic outrage, a factory worker in Shenzhen "stealing our jobs" is less tangible than a local migrant supposedly filching our social security. And a handful of nationalist parties have indeed taken the odd potshot at China. Giorgia Meloni, Italy's prime minister, pulled out of the Belt and Road initiative. A Dutch far-right MP once warned of a "Trojan dragon" bearing down on Europe. Across the Nordics, hard-right types accuse it of espionage, economic coercion and other forms of skulduggery. But there is lots more here for ambitious rabble-rousers to latch onto. The grievance merchants have unaccountably ignored a rich seam of potential angst.

What lies behind this China populism gap? In Germany it may be a matter of personnel. The AfD's leader, Alice Weidel, is a long-time Sinophile, said to speak decent Mandarin after years working there and writing her PhD thesis on the country's pension system. (Why she is so indulgent towards Russia is another question.) And in countries where populists rule, vast investments from Chinese firms have paid rich dividends to their members. Within weeks of being booted out of office, Mr Orban's long-standing foreign minister resurfaced as a lobbyist for BYD, a Chinese carmaker.

Moreover, for many populists, China is less a bête noire than a model. Authoritarianism à la Beijing has a certain allure to wannabe strongmen in Europe. The overt form of nationalism practised there contrasts with the mushy globalism that typifies the European Union. In the demagogic imagination, Europe is hobbling itself by following international norms—whether on green issues, trade or human rights—that China barely pays lip service to. This worldview pictures Europeans as the patsies of an international order that China, and perhaps America these days, have worked out how to exploit. If you can't beat China, the pedlars of outrage might think, at least try to imitate it.

It's panda-monium!

But the main problem for Europe's wannabe China-antagonists is that picking a fight with Beijing would require the very thing populists profess to hate most: more Europe. For only by acting collectively through Brussels do Europeans have any hope of swaying policy in Beijing. The EU has already imposed tariffs on Chinese electric vehicles, though imports keep rising. On September 16th Ursula von der Leyen, president of the European Commission, described the deficit with China as having reached "a tipping point" and hinted at further trade measures, should it persist.

Trade-wary populists ought to be cheering. For now they are silent, careful not to suggest the EU is doing anything right. Soon they may have little choice but to show their hand, posits Janka Oertel of the European Council on Foreign Relations, a think-tank. Once China was a foreign-policy issue, one that voters were not paying much attention to. If a trade war pitting China against Europe ensues, as seems ever more probable, it will become much harder for demagogues to sit on the fence, let alone cheer for the opposition. Soon Europe's populists will have to decide whether China is a model to borrow from, or a threat to rail against. ■

Britain

Dealing with the state

Who, me?

From surveys to taxes, a growing share of Britons are simply not engaging

WHO WOULD buy a television licence? In Britain, fewer do. Subscriptions for the £180 ($245) annual levy, required to watch broadcasters and the BBC's iPlayer, fell to 23.2m in 2025, the eighth straight year of decline. The dearth is caused partly by viewers moving to platforms such as Netflix. But outright evasion is growing.

For who today feels much deference towards a broadcaster that often tumbles into scandal? The estimated evasion rate has risen from 5.2% in 2010 to 11.9% today. Around half of those registering as not needing a licence do so incorrectly, the BBC reckons. These days, shrugs a corporation boss, people simply do not answer the door to licence-fee enforcers.

Britons are shunning obligations that used to be deemed civic duties (see chart 1 on next page). Rates of non-compliance have grown across everyday responsibilities, such as paying local taxes, responding to official surveys and sending children to school (see next story). Similar trends can be seen across Europe and America.

Individually the opt-outs might appear unrelated or trivial. They have diverse causes, from squeezed budgets to online misinformation. But overlay them and the pattern is striking. Something seems to have slipped in the relationship between the state and society. As compliance falls, the state becomes less effective, leaving the public still more cynical.

Andy Burnham and his colleagues fret about the trends. When the prime minister laments "neoliberalism", he is talking as much about runaway individualism as economics, explains one figure in his circle. The Institute for Public Policy Research (IPPR), a think-tank close to the government, advocates "reciprocism": it favours measures such as mandatory voting to rebuild a sense of civic obligation.

Three culprits seem to be afoot. One is a long-term collapse in trust and deference. In 1986, 38% of people said they usually trusted the government to put the national interest first. Today just 9% say they do, according to the British Social Attitudes survey. The share declaring corruption endemic in the civil service rose by 16 percentage points from 2014 to 2023, while those saying obeying laws and rules is "very important" fell by six points, reports the International Social Survey Programme, a study. The World Values Survey finds that the share saying it would be good to have "greater respect for authority" fell from 74% to 56% between 1981 and 2022.

Second, a mix of high taxes and poor services has sapped faith in government (see Bagehot). "People are withdrawing from the state, because the state hasn't been delivering for them," says Harry Quilter-Pinner of IPPR. Demand for alternatives like private health care is growing. ▸▸

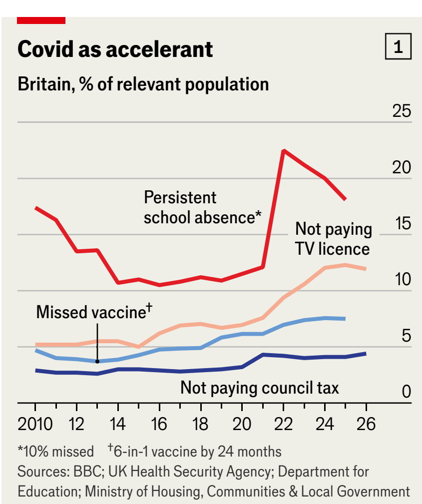
The third culprit is the covid-19 pandemic, which broke many habits of compliance.

Britain is not a hotbed of bearded libertarians living off-grid in the woods. People dislike tax avoidance and benefit fraud more than in many other rich economies. But even a modest fall in compliance can be costly. Take council tax, which raised £47bn (1.6% of GDP) last year. It was collected in England at a rate above 97% through the 2010s. During the worst of the covid-19 pandemic, councils stopped enforcing debts. The collection rate never recovered, falling to 95.6% last year. Arrears have risen to £7.4bn.

Weaker enforcement also helps to explain a dramatic rise in unpaid energy bills, now totalling £6bn. Many families are struggling financially. But energy debts do not accrue interest and suppliers seldom disconnect homes. As a result, people who can afford to settle their debts are "free-riding" on rules meant to protect the vulnerable, claims Energy UK, an industry lobby group. TV licensing is more weakly enforced, too. The public no longer believes in the "detector vans" once said to prowl the streets, and the BBC is reluctant to see debtors jailed.

Covid caused a "fundamental breakdown" in the relationship between schools and parents, concluded a report by Public First, a consultancy. After experiencing mandatory lockdowns, many parents concluded that education is simply optional. Persistent absenteeism (pupils missing 10% of school or more) hit 23% in 2022, more than twice the pre-covid average.

Britain's vaccine drive was remarkably popular, yet it also drove a wave of online vaccine scepticism. The six-in-one jab, which covers horrors including polio, is an example. The share of two-year-olds covered exceeded the World Health Organisation's 95% target every year from 2010 to 2018. It has not been hit since, falling to 92.5% last year. In Hackney, a London borough, it collapsed to 66%. Other essential



health checks are failing too: the share of women undergoing cervical and breast-cancer screening has also fallen, in common with other advanced economies.

Some changes can make cities feel disorderly. Fare evasion on the London Underground shot up during the pandemic and now stands at 3.5%. Transport for London wants to cut the rate to 1.5% by 2030. But commuters have grown tolerant of barrier-jumpers. The share of Britons declaring fare evasion "never justifiable" has fallen by 15 points since 1981.

In Britain, as elsewhere, response rates to official jobs surveys have declined, leaving monetary policymakers flying blind. In 1977 Britain's Labour Force Survey had a response rate of 70%. It reached a nadir of 13% in 2023 and now stands at 23%. One reason is that landlines have given way to mobile phones. But falling institutional trust is part of the problem. Sir Ian Diamond, formerly head of the Office for National Statistics, spoke of "very high levels of flat refusals" compared with the period before the pandemic.

Changes in the media landscape may not be helping. Consider the hosepipe bans in force across much of England after droughts this summer, which rely on voluntary compliance. In the 1970s the *Daily Telegraph*, a newspaper for people with large gardens, provided stern advice on how to manage without. This summer it ran columns with headlines such as: "I'm defying the hosepipe ban until my water company sorts themselves out".

Lower tax revenue, unreliable statistics and a sicker population make all governments less effective. There is no point spending billions on school curriculums or vaccine drives if people do not turn up. Yet weakening compliance presents a particular problem for the left, which conceives of the state as a collectivist project. "The effect is asymmetrical: it undermines some of the core propositions of the progressive side of politics," says Mr Quilter-Pinner. Mr Burnham promises a bigger state. Many Britons are opting out of it altogether. ■

Absenteeism

Time for a history lesson

Britain's epidemic of shirking school is shocking but fixable

THE HOLIDAYS are a memory, and school is in full swing. But an alarming number of pupils are staying away. Before covid-19 one in ten children were "persistently absent" from English schools, meaning they missed 10% or more of their lessons. Now nearly one in five are.

Missing school is costly. The Department for Education calculates that persistently absent students earn £10,000 ($13,500) less per year by age 28 than their peers with near-perfect attendance records. Children who are persistently absent are more likely to end up in prison, take drugs and harm themselves. Britain has more than 1m NEETs—young adults not in education, employment or training—who cost the state over £120bn in benefits and lost output. Their ranks are full of those who were school absentees.

Although international comparisons are tricky, the data suggest that in much of the OECD, a club of mostly rich countries, the rate of absenteeism remained flat after the covid-19 pandemic. But it rose in English-speaking countries. Britain has a particular problem with severe absence. The proportion of pupils missing more than 50% of classes reached a record high in the 2025-26 school year.

The causes of persistent absenteeism often lie outside the school gates, says Paul Whiteman of the National Association of Head Teachers. The pandemic closed ▸▸

Also invisible to future employers

schools, undermining the long-repeated message that attendance is compulsory. More parents work from home, so no longer need teachers to baby-sit. Home schooling, which is not closely vetted, is increasingly common.

Poverty plays a part: poor children are much more likely to be severely absent. Over 1m young Britons are estimated to have no bed to themselves. They may go to class tired, fall behind and drop out. Poorer children also tend to have more mental-health trouble. Indeed, illness is the most common reason given for missing school. Last year the number of young Britons referred to mental-health services passed 1m for the first time, according to the Children's Commissioner.

Children who have special educational needs account for most long-term absences. Hugh, a 14-year-old from Lincolnshire, has ADHD and autism. He has not been to school in a year. Bullies and strict teachers made his life so miserable that he had a mental-health crisis. His mother is still struggling to find him an online tutor for the new academic year. She welcomes the government's plans to open more specialist schools and to give teachers better resources for neurodiverse children. But she argues that school remains too hard for kids who do not fit the mould.

Like snail unwillingly

Tackling the attendance problem will require more than rounding up truants in shopping centres and fining their parents. Past experience provides some lessons. Between 2000 and 2013 the rate of overall absence in English schools fell by two-fifths. Moira Wallace, a former senior civil servant, credits investment in on-site mentors and nurses and extra funding for poorer schools. Absence rates stopped falling after cuts were made to education and youth-services budgets, then shot up after the covid lockdowns. Early intervention helps. "It costs thruppence to help kids when they're small," says Mark Mon-Williams of the University of Leeds. Countries with lower rates of absence tend to have joined-up health, education and welfare systems; in Britain families often navigate disconnected services.

Putting on more clubs and activities on Fridays, when absence rates are higher, might push more pupils through the gates. Online tutors and older pupils could help bring long-term absentees up to speed. Andy Burnham, the prime minister, hopes that a new curriculum with more vocational options, due in 2028, will bring back bored teenagers who doubt the value of education. But apprenticeships are hard to come by in a stagnant economy, and good ones still require sharp arithmetic and literacy. Mr Burnham and his team have some homework to do. ■

Money in politics

Hey, big spenders

Reform UK's windfall should not panic its opponents

REALLY BIG political donations have long been rare in Britain. Only a few dozen people have ever handed a gift of £1m ($1.3m) or more to a party. But that seems to be changing. On September 11th and 12th the populist-right Reform UK revealed that Ben Delo and Christopher Harborne, both crypto entrepreneurs, had given the party £36m each.

They insist they are not motivated by personal gain. Mr Delo says he supports Nigel Farage, Reform's leader, because his autism makes him hostile to "lying politicians". Mr Harborne backs Reform because he fears "existential threats" including climate change (oddly, since Mr Farage thinks that is no big deal).

The size of the gifts—more than all donations made last year to every political party combined—has caused angst among Reform's opponents. The government has already announced plans to tighten existing legislation, including by restricting the amount that Britons living abroad (which until recently included Mr Delo and Mr Harborne) can give to £100,000 a year. Some parliamentarians wish to apply that cap to all donors. They also want the law to take effect retroactively, which could force Reform to return its windfall.

After two years of building momentum, Reform has slipped behind Labour in *The Economist*'s average of opinion polls. More than two-thirds of voters now say they dislike Mr Farage, according to a YouGov poll. The party is currently hiring dozens of local campaign managers to boost its presence on the ground, and plans to double the size of its policy unit to help prepare for government.

Opponents worry that Reform's financial advantage will give it an unfair edge at the next election. But the evidence suggests there is little correlation between spending and success. The Conservatives raised more than Labour between 2020 and 2024, only to be heavily beaten at the general election. Remain easily outspent Leave at the Brexit referendum. In 2019 the Liberal Democrats received a then-record £9m donation but performed disastrously in that year's election.

Strict rules limit how much a party can spend on campaigning in the run-up to an election. It cannot fork out more than £34m nationally; each individual constituency has a separate spending cap. A study in 2021 found that the difference between having a full-blown local campaign in a particular parliamentary seat and no local operation at all amounts to three percentage points—enough to make a difference in a tight race, but unlikely to be a game-changer overall.

The House of Lords will vote later this year on whether to introduce a cap on all donations, which the Commons would have to approve. The government sounds dubious, but it is considering tightening the requirement for big donors to be living in Britain at the time they get involved in politics, which could yet render the gifts from Messrs Delo and Harborne illegal. For now, other parties are busy raising their own funds off the back of Reform's good fortune. Labour sent a "call to action" to members, asking them to consider chipping in a few pounds. Every little helps. ■

You want policies? Sure, I've got policies

BAGEHOT
Tea time

A big-state prime minister meets a public that feels taxed enough already

Wider still, and wider? Andy Burnham ran to be prime minister with unbounded ambitions for the British state. Four decades of neoliberal policies would be rolled back. Council houses would be built, the north reindustrialised and a struggling water supplier nationalised. Much was left ambiguous (just what is "public control"?) But a former New Labour special adviser knows the suggestive force of the English language.

A man who prides himself on having the common touch, Mr Burnham might check out the British Social Attitudes survey, which has been asking the same questions about taxes and spending since 1983. It charts how the public has responded to government spending like a thermostat-twiddler, clicking on and off in response to cycles of largesse and restraint. When politicians spend too much, or too little, the electorate reliably pushes back.

At 36%, the share who now think taxes and social spending should increase is the lowest since 2013, the height of Britain's post-financial-crisis austerity drive. It has dropped by 19 points since a peak in 2022, when governments everywhere indulged in a spree of covid-19 stimulus packages and energy bail-outs, and were mostly applauded. Britons who think the size of the state should be frozen are, for the first time since 2015, the plurality. Those who want to shrink it entirely have never been a big tribe in Britain, but at 19% they are now twice as numerous as when Margaret Thatcher was at her zenith.

In sum: a prime minister with the most expansive ambitions for the state since the 1970s faces the most hawkish public since the Tory chancellor George Osborne bestrode Westminster with a scythe. Rarely has such a mismatch existed between a prime minister's ambitions and the public's appetite to pay for them. In Mr Osborne's era, America's Tea Party movement of populists and libertarians coined the backronym "taxed enough already". Britain lacks the organisation or the "don't tread on me" placards, but it has the mood. Tea time has arrived.

The backlash is no surprise. At 37% of GDP, the tax burden is the highest since 1948. Voters may appear delusional in demanding tax restraint at a moment when the bond markets have the Treasury on notice and an ageing population is straining the public finances. But for Christopher Wlezien, the academic who first spotted the thermostatic views of American taxpayers, it is a sign of a healthy democracy. Voters have a clear idea of what size state they want, and they know when it has got out of whack. For all the fears of declining media literacy, when it comes to tax, the public senses when the room is too hot.

Tea time ill suits a prime minister who aspires to great social reforms. Take social care, which Mr Burnham has suggested could be fixed "if everybody on the NHS principle contributed a little". Britons agree that the social-care system is broken, but only a minority are willing to pay more to fix it. Free at the point of use is not a proposition with popular support.

Doubtless he knows this. But Mr Burnham's party has never really answered the painful question of what it means to be a Labour government in an age of fiscal restraint. And so, while promising to roll back neoliberalism, Mr Burnham also promised to stick to his predecessor's pledge not to increase the four taxes that account for the bulk of government revenues. Or, as he put it, he promises "the biggest change in our lifetimes to the way the country is run and it is consistent with the 2024 manifesto". His project has the logic of an Escher print.

If tea time brings opportunities to remake the state, Mr Burnham will miss them. He will not cut welfare spending to pay for defence, since national security "can't come at the expense of social security". Yet support for increasing benefits for the poor is at the lowest level since 2009. And if you think Britons are deaf to the case for funding the armed forces more lavishly, consider this statistic. Only 16% now say they are confident that America would come to Britain's aid if it were attacked. About those hard truths of geopolitics that politicians believe the electorate cannot bear? Prime minister, people are gagging to hear them.

The last time Britons declared themselves taxed enough already, the NHS enjoyed historically high performance and satisfaction ratings. Now they are near historical lows. But has tea time come around despite the parlous condition of public services, or because of them? The problem with Mr Burnham's ambitions is not just their cost but their credibility. The British state struggles to remove tonsils and catch fly-tippers. To watch Mr Burnham heap steel nationalisation on Whitehall, too, is like watching children at a wedding buffet, piling their plates with eclairs they cannot possibly consume.

More tea, prime minister?

The Conservatives find it easier to govern when the public favours largesse than Labour does when people crave restraint. In office, Tories follow the thermostat wherever it points. "The public didn't want Stafford Cripps-style drinking our own urine," wrote Boris Johnson, a big-spending prime minister who pretended the previous decade of hairshirted Tory government had never happened. His colleagues fretted that he had broken the thermostat, leaving Britons hooked on furloughs and subsidies.

They needn't have worried. Duly, the thermostat clicked again. And so Kemi Badenoch enjoys the rarest of fortunes: being a Tory leader facing a Labour prime minister who hankers for a larger state and a public unwilling to pay for it. In government she would face an invidious inheritance: any administration will need a chunky mix of spending cuts and tax rises to stabilise the public finances. But tea time is a fine time to be a Tory in opposition. It would take unusual incompetence to mess it up. ■

Middle East & Africa

Organised crime

SA Confidential

CAPE TOWN

An extraordinary public inquiry is confirming South Africa's worst fears about the rise of mafias

At the start of the decade, if you asked the bosses of South Africa's firms to name the biggest problem facing their country, most would have said electricity. Relentless blackouts were crushing the economy. These days another subject is at the top of their list: organised crime.

South Africa has long had an underworld. Now criminality threatens the overworld: the state and formal business. The threat has been dramatically documented in an inquiry led by Mbuyiseli Madlanga, a retired judge, that marked the end of its first year on September 17th. Its televised hearings have featured more skeletons than a Halloween party—and revealed how mafias have captured the criminal-justice system. Whether South Africa can stop the rot will be a defining test of its democracy.

The Global Initiative against Transnational Organised Crime (GI-TOC) ranks South Africa seventh-worst of 193 countries for organised criminality, behind only Myanmar, Colombia, Mexico, Ecuador, Paraguay and Congo, and worse than Brazil (see Americas section). Mark Shaw, the group's boss, says the country's record has worsened in each biennial report since they began in 2019. The World Bank says that crime costs South Africa at least 10% of GDP a year in stolen property, high security and insurance costs, and "missed economic opportunities". "Organised crime is now the most immediate threat to our democracy, our society and our economic development," Cyril Ramaphosa, the president, told parliament in February.

South Africa has for many years been a trafficking hub. Drugs, animals, rare plants and people are smuggled with ease. Financial and cyber-crime are rampant, too. But three worrying trends are relatively new: the growth of the illicit economy, the rise of extortion mafias, and the capture of policing and politics by criminal elements.

Edward Kieswetter, who until April led South Africa's tax authority, reckons that the size of illicit business has grown from 5% of GDP two decades ago to 12-15% of GDP this year—at least as large as the legal manufacturing industry. Legitimate firms are under pressure. Roughly 70% of cigarettes and 20% of alcoholic drinks are sold illegally. Illicit mining alone accounted for at least 60bn rand ($3.3bn or 0.8% of GDP) in lost formal output in 2024. Mr Kieswetter estimates that illicit firms cost the state up to 300bn rand annually in uncollected taxes, enough to fund the health budget.

The second growing threat is extortion. Around a decade ago a "construction mafia" emerged in the province of KwaZulu-Natal (KZN). Members threatened to sabotage infrastructure projects unless they received a cut of the contract. These groups have since spread. Cape Town's government has a dedicated "war room" to organise protection for more than 50 projects. The criminals are "crafty", notes Geordin Hill-Lewis, the mayor; mafia members try ▸▸

to infiltrate security firms hired to protect the building sites they threaten.

Cases of kidnapping for ransom have more than tripled over the past decade. Businesspeople are hiring more security. Intercape, a bus firm, has recorded more than 220 violent incidents against its fleet since 2020, carried out by criminals linked to the notorious "taxi" industry, providers of minibuses that resent competition.

The poorest suffer most. Some gangsters demand protection money from teachers. "Water mafia" groups sabotage municipal pipes and bribe or muscle their way into contracts for water tankers. Then they charge poor residents by the bucket. Cape Town, which is trying to fight back, has deployed 200 law-enforcement officers to protect staff who deliver public services in the gang-ridden outskirts.

As organised crime has metastasised, it has infected the state—the most worrying trend. The Madlanga Commission was established after Nhlanhla Mkhwanazi, the most senior officer in KZN, made explosive allegations about collusion among police, politicians and mobsters. So far its work has led to the departure of South Africa's police minister, the police commissioner, his deputy, the head of the police's organised-crime unit and the lawyer leading an anti-corruption division within the National Prosecuting Authority (NPA). At the centre of events is Vusimuzi "Cat" Matlala, an alleged mobster who is on trial for attempted murder. In hearings he has been accused of buying off officers with cash and gifts including a score of impala and doses of Ozempic, a weight-loss drug.

The commission may be looking only at the tip of the iceberg. The growing economic power and political influence of organised crime mean that criminologists increasingly compare South Africa to the most mobster-ridden countries in Latin America. Firoz Cachalia, the acting police minister, says the government has identified 162 crime syndicates since 2024. Many are involved in several criminal markets; some have links to international networks.

They buy from a marketplace for hitmen. There were around 2,500 incidents involving contract killings or attempted murders from 2000 to 2025, according to GI-TOC. So far this year there have been close to 30 political hits.

As the state recedes, South Africans are taking matters into their own hands. In poor areas vigilantism is on the rise. In richer parts, private-security firms proliferate. In the late 1990s there was one private-security worker for every police officer; today the ratio is four to one. Inspired by a partnership between business and government that helped tackle power cuts and logistics problems, firms are helping investigators and prosecutors tackle complex cases by providing training and technology (in, say, banking and telecoms). The goal is to ensure that kingpins see the inside of prison cells. "Accountability is the best form of organised-crime prevention," argues Anton du Plessis, a former deputy head of the NPA who leads Business Against Crime South Africa (BACSA). Yet there are limits to what can be done without institutional reform. "You cannot privatise the rule of law," notes Mr du Plessis.

The Madlanga commission provides a once-in-a-generation chance to clean up the criminal-justice system. It is the closest thing South Africa has seen to investigations in other countries that successfully dislodged organised criminals, such as those in Italy in the 1990s. In November Mr Madlanga is due to report to Mr Ramaphosa with his proposed reforms.

How the president acts will help define his legacy. His party, the African National Congress (ANC), is implicated in the criminality. The president has moved too slowly to undo the institutional damage wrought by his predecessor, Jacob Zuma. Mr Ramaphosa implies he wants to be remembered for saving South Africa from the "state capture" era. But he is running out of time. His successor as ANC leader will be elected next year. ■

Nhlanhla Mkhwanazi

The maverick of the moment

CAPE TOWN

An outspoken cop is disrupting South African policing. Politics could be next

ARRIVING AT HIS press conference in July last year, Nhlanhla Mkhwanazi made a striking entrance. Dressed in fatigues and flanked by gun-toting officers, he looked less like a South African policeman than a west African general about to announce a coup.

And in a way he did. That day in Durban Mr Mkhwanazi, the police commissioner for the province of KwaZulu-Natal (KZN), set South Africa alight. He alleged that politicians and police leaders were in cahoots with organised crime. Kingpins, he said, had leaned on the police minister and the national commissioner (his boss) to shut a unit investigating politically motivated killings. He claimed that police were colluding with a drug-trafficking cartel. The effects were explosive. Cyril Ramaphosa, South Africa's president, suspended the minister; other high-ups have since fallen. An inquiry has found staggering links between gangsters, police and public officials (see previous story).


Gang-buster

Why did Mr Mkhwanazi go public? His supporters say he is an ethical public servant: a cop's cop who felt the need to save what was left of the South African Police Service (SAPS). Officers who have worked with him call him a straight-shooter and an inspiring leader. But even those who praise Mr Mkhwanazi question his motives. They suggest that his press conference was part of a turf war. Some claim he oversaw extra-judicial killings of suspected criminals, an allegation he denies.

Unless the inquiry finds hard evidence against him, Mr Mkhwanazi's reputation will emerge enhanced. He is one of the most popular people in South Africa. A crowd-funding campaign has raised money to buy him cows. He is the favourite to take over as the national commissioner. Political parties are obsequiously courting him.

That makes sense. A large majority of South Africans tell pollsters they would swap elected leaders for a strongman who could bring security and jobs. Mr Mkhwanazi, who describes himself as a family man, could meet the latent demand for a conservative political leader who is tough on crime—a South African equivalent to El Salvador's Nayib Bukele. For now he says he has no interest in elected politics. South Africans will remain interested in him.

Iran's allies

A return to Mokha

DUBAI

The Houthis menace a second strait. But they have been here before, and lost it

IN THE SPRING of 2015 the Houthis, an Iran-backed rebel group, swept into the port city of Mokha on Yemen's west coast. They put missiles on nearby Perim island, a rocky outcrop at the mouth of the Red Sea (see map). Gulf rulers feared the Houthis might use that foothold to threaten shipping through the Bab al-Mandab strait. The Gulf states' Yemeni allies retook the island six months later. In 2017 the Houthis lost Mokha as well.

On September 10th the Houthis once again seized Mokha. Perim fell to them the next day. They faced little resistance: anti-Houthi forces fled the battle. It was their largest advance since 2022, when a ceasefire froze the front lines. They are now preparing offensives against the city of Taiz and on Marib, a north-eastern province and the hub of Yemen's oil industry.

This is a humiliation for Saudi Arabia, the main foreign backer of the anti-Houthi coalition. It is also a boost for Iran in its war with America. With the Strait of Hormuz largely shut since February, the Red Sea has been a vital conduit for Saudi oil exports. Now Iran and its allies can threaten that waterway too. Brent crude climbed by more than 6% after the Houthi offensive, to over $109 a barrel.

Still, this is one battle in a civil war that has lasted 12 years and often trends towards stalemate. The Houthis have made swift advances before, only to find themselves unable to hold what they have seized. And the impact on oil markets may be partly offset by increased exports through Hormuz, where America's navy has been escorting tankers to safety.

The Houthis spent years mobilising for this offensive. Iran helped equip them with drones, missiles and other modern weapons. In the run-up to the battle for Mokha, they made clever use of intelligence and propaganda, tapping the phones of anti-Houthi commanders and spreading fake withdrawal orders among the rank-and-file. Thinking they were real, fighters beat a disorganised retreat. Some sold their weapons on the roadside. The Houthis seized a stash of armoured vehicles, artillery and other kit from coalition bases.

While the Houthis prepared, their enemies fell into infighting. Some anti-Houthi factions are loyal to Saudi Arabia; others to the United Arab Emirates (UAE). But the two Gulf powers have become rivals in recent years as they pursued different foreign policies in Yemen and elsewhere. Last December Saudi Arabia forced the UAE to withdraw its troops from Yemen, leaving a rift within the coalition.

Source: Sana'a Centre for Strategic Studies

Yemeni sources complain that the Saudis were slow to offer air support when the fighting began: the kingdom has a modern air force but often struggles to use it effectively. Saudi Arabia has belatedly stepped up air strikes on Houthi positions, but its allies have yet to mount a serious counter-offensive on the ground. Meanwhile, the Houthis have launched numerous missile attacks on Saudi cities. On September 15th the kingdom said it intercepted a drone near Mecca, the holiest city in Islam.

Iran has reacted with glee. *Kayhan*, a hardline newspaper, said America had suffered "another defeat in the war of the waterways". A planned summit between Gulf and Iranian diplomats on September 14th was postponed.

The Saudis are desperate for help. "This demands international support, not only from Saudi Arabia and regional countries," wrote Abdulrahman al-Rashed, a columnist close to the royal court. They have received little. America has military advisers in Saudi Arabia to help with targeting, but Donald Trump declined requests from Muhammad bin Salman, the crown prince, to launch air strikes of his own. A long campaign would probably require him to divert one of two aircraft-carrier groups stationed near the Strait of Hormuz, weakening its blockade of Iranian ports.

Turkey and Pakistan signed a mutual-defence pact with Saudi Arabia in August, but neither looks eager to get involved. Nor is Egypt, whose president met Prince Muhammad on September 15th. Egypt has a stake in Yemen, since threats to Bab al-Mandab mean less revenue from the Suez Canal, a key source of hard currency. But it also has unhappy memories of fighting a long war there in the 1960s.

It was the Emiratis who pushed the Houthis back from Mokha in 2017: their Yemeni proxies tend to be more effective than Saudi Arabia's, and their own army is more proficient. Better co-operation between the Gulf powers could make a real difference on the ground; so far, however, there are no signs of it.

The Houthi advance was not the only calamity to befall Saudi Arabia last week. On September 11th drone attacks forced it to close its main oil pipeline, which transports crude from fields in the east to ports in the west. The kingdom blamed Iraqi militias for the attack (though no one has claimed responsibility). It has now cancelled some scheduled deliveries to European customers, leaving them to scramble for alternative suppliers.

This looks like an enviable position for Iran: its allies can threaten the flow of oil both within Saudi Arabia and through the Red Sea. On the other side of the Arabian peninsula, though, more and more tankers are slipping through Hormuz under American protection. Some are making the journey in daylight, suggesting that Iran's ability to hit moving targets has diminished.

The Saudis have already started to redirect exports. Vortexa, a ship-tracker, says they loaded 22m barrels of crude at the eastern port of Ras Tanura in the week to September 13th. Iran is tightening its hold on one strategic waterway just as America unwinds its grip on another. Both the war in Yemen and the wider war in the Gulf are far from over. ■

Turkey v Israel

Duking it out

JERUSALEM

A Turkish visit to Syria worries Israel

THE TWO-DAY visit to Syria by Hakan Fidan, Turkey's foreign minister, which ended on September 14th, was no regular diplomatic excursion. Mr Fidan, a former spy chief, represents a government that many in the region regard as an active supporter, even a patron, of Hayat Tahrir al-Sham, the Islamist rebel group that overthrew Syria's regime in December 2024. One Syria-watcher called Mr Fidan's jaunt "a victory lap, laying the ground for an even bigger victory lap", presaging a plan by Recep Tayyip Erdogan, Turkey's president, to visit Damascus, Syria's capital.

Mr Fidan, a possible successor to Mr Erdogan, met both Syria's president, Ahmed al-Sharaa, and its interior minister. The visit raised hackles in the Israeli government, which is worried about Turkey's growing influence in its northern neighbour's affairs. So did his remarks that "the threat with the greatest potential to destabilise Syria at the moment is Israel." ▸▸

Mr Erdogan's expected visit, nearly two years after the Syrian revolution, may seem somewhat tardy. That may be because Mr Sharaa has been keen to dispel the notion that he is a Turkish proxy. Turkey could also have been waiting for last month's completion of an agreement to dissolve the Kurdish Syrian Democratic Forces militia and integrate them into the Syrian army. Turkey is suspicious of any independent Kurdish group, and had for some time been pushing for the deal. But the visit's timing may also reflect Turkey's increasing tension with Israel.

On August 18th Israel struck the disused Abu Duhur airbase in northern Syria. Israel accused Syria of being "on the verge" of breaking the status quo on security matters "by permitting Turkish troops to deploy" at the airbase. No proof yet suggests that Turkey has expanded its existing military presence within Syria, but Israeli intelligence sources insist they had information of plans to position anti-aircraft batteries that could impede Israel's operations. "We had to put down a red line," claims one Israeli security official.

Israel's spooks disagree about Turkey's intentions in Syria. Those who supported the strike, ordered by Binyamin Netanyahu, the prime minister, point to the ideological affinity of Mr Erdogan and his AK Party with the teachings of the Muslim Brotherhood and to its open support for the Palestinian Islamist movement, Hamas. Turkey recently signed a security agreement with Pakistan and Saudi Arabia and is playing a role in the negotiations over the future of the Gaza Strip, with the aim, claim Israeli officials, of preserving Hamas's power. To their minds, any increase in Turkey's influence in Syria can only be a threat to Israel. That alleged threat is used to justify Israel's "buffer zone"—a swathe of Syrian territory it occupied when Bashar al-Assad's regime fell at the end of 2024.

Others reckon that while Mr Erdogan may be implacably hostile to Israel, after over a decade of civil war in Syria which saw millions of refugees flee to Turkey, he does not want to spur more unrest there. They say Israel should be able to work out its differences with Turkey, which is a member of NATO and an American ally.

"Turkey has a much longer border with Syria than Israel and a major interest in its stability," says Carmit Valensi, head of the Syria programme at the Institute for National Security Studies in Tel Aviv. "Israel needs to make clear it has its security interests there as well, but there should be diplomatic mechanisms for doing that."

Israel and Turkey were close military allies and trading partners before Mr Erdogan came to power. They have not yet decided if they can afford to be enemies. The situation in Syria may force them to. ■

Morocco's king

Tell sad stories

Scandal is weakening the king's shaky rule

FEW EVENTS have been a bigger indictment of King Muhammad VI's rule than "Throne Day" on July 30th. The Moroccan king's motorcade sped along an empty motorway from his beach hideaway at Mdiq to a ceremony where members of the elite kissed his hand. Heading in the opposite direction, the poor flocked to Ceuta, the nearby Spanish enclave, as news spread online that the gates were open to Europe. More than 70,000, mostly Moroccans, risked their lives to flee from Muhammad's realm. About a hundred died trying.

On paper, Muhammad's kingdom is a rare Arab model of stability and modernisation. It boasts a thriving car industry, is expanding its high-speed railway and has built the Mediterranean's largest port. It attracts foreign investment, cultivates close relations with Europe and America, and has a growing arms industry thanks to its ties with Israel. Its monarchy has lasted for four centuries. The succession is settled.

But after 27 years, many of Muhammad's 36m subjects have lost faith in their future under his rule. The king invests in showpieces such as stadiums for the 2030 World Cup, but neglects hospitals and schools. Nearly a third of young Moroccans are unemployed. The king's security chiefs have neutered a once-critical press. Critics are prosecuted for alleged sex crimes and jailed. Political parties are so feeble that few Moroccans could say what a parliamentary election on September 23rd is about. In any case, the real decision-makers do not appear on the ballot. Many Moroccans prefer to vote with their feet.


Ay, every inch a king

Muhammad was always a recluse. He fled north years ago with a kick-boxing friend, Aboubakr Abu Azaitar, to escape his father's court in the capital, Rabat. He is only 63 but is ailing and absent. Those who have met him recently say he is visibly unwell: blue hands, clubbed fingers, puffy eyes concealed behind sunglasses. As crises multiply—an uprising in the north in 2016, an earthquake that left hundreds of thousands homeless in 2023 and the exodus towards Ceuta—officials await a lead from the palace but are met with silence.

In the vacuum, conspiracy theories multiply. Some say security forces were diverted from their border duties to attend the Throne Day ceremonies. Others claim that Donald Trump and Binyamin Netanyahu are using Morocco to punish Spain for opposing their wars on Iran and Gaza. The more fanciful say Moroccan nationalists are preparing to confront Spain over its enclaves in the north. Pundits wonder whether Morocco might be using migration to press the EU to increase its subsidies. The theory that carries most weight among insiders is that the king's security chiefs are punishing Spain for harbouring a whistleblower who possesses some of the state's darkest secrets.

The claims are hard to verify. According to published accounts and sources within the *makhzen* (storehouse), as the state calls itself, a mole working inside Morocco's internal-intelligence agency fled with a roster of suspects that Morocco's goons used Israeli spyware to track. From an operations room known as Bureau 21, which apparently included Israeli agents, they hacked mobile phones and CCTV, spying on prominent figures in Morocco and in Europe. Some say their targets included the king himself. After fleeing to Tunisia, then France, the whistleblower—codenamed Safir, or diplomat—arrived in Spain, which offered him protection.

Officials feel betrayed by the help Spain offered Safir. But defections to Europe have been mounting as the ailing king's hold weakens and Morocco's security agencies jostle for position ahead of the succession. The deepest rift is between the old guard under Fouad Ali el-Himma, the king's childhood friend and chief adviser, and the king's son and designated successor, Hassan, and his mother Salma. After the king and Salma divorced in 2018, Mr Himma—at the king's instigation—kept Salma under quasi-house arrest. When her son becomes king, Salma will be queen mother, and, Mr Himma fears, exact her revenge by chasing him out of Morocco. Tensions are likely to build as the moment of reckoning with the succession nears. ■

United States

Technology politics

Will the tortoise ever catch the hare?

WASHINGTON, DC

The debate over AI has taken over Washington. Action is another matter

FEW EVENTS have brought together Bernie Sanders and Steve Bannon, political firebrands from opposite ends of the spectrum, in common cause. But the Pro-Human Assembly in Washington, DC on September 15th, a gathering of people alarmed by the rapid advance of artificial intelligence, managed it. Both men warned of the unchecked power of tech "oligarchs" and called for urgent legislation to slow down the technology.

Donald Trump, the president, is unmoved by the torrent of such demands. AI's supposed risks to humanity, he wrote on social media, were a "hoax". America's aim was to beat China; proponents of a slowdown were "treasonists". But in recent days, political momentum for tighter controls has gathered with unusual speed.

The Pro-Human Assembly and Mr Trump's flurry of posts on the subject came less than a week after the public resignation of Jacob Coxon, a researcher at Anthropic, an AI firm. Mr Coxon said that he and his colleagues believed that AI could "kill us all" by the end of the decade, a message that he promptly delivered across prime-time television. Another top scientist at the firm put the probability of extinction at more than 10%.

That has made many politicians sit up. But despite the mixed politics of the Pro-Human Assembly, a partisan divide remains. Hakeem Jeffries and Chuck Schumer, the Democratic leaders in the House and Senate, respectively, called for urgent action. Mike Johnson, the Republican speaker of the House, warned against hasty regulation. "If Congress just races in and does some sort of emergency session to try to regulate AI," said Mr Johnson, "we will lose the race to China". AI labs, he argued, should "self-police".

In general, polls show that Americans disagree: eight in ten say they support regulation, even if it slows down innovation. The trickier question is what that regulation should be. To date most activity has been in states. Last September Gavin Newsom, California's governor, signed a law requiring AI firms to report safety incidents within 15 days, on pain of up to $1m in penalties. Three months later Kathy Hochul, New York's governor, signed a law demanding faster disclosure and imposing larger fines. Both laws would have been bolder, with higher penalties and exposing firms to more liability, were it not for opposition from the likes of Leading the Future, a super PAC whose supporters include Greg Brockman, a founder of OpenAI, another firm. Clear gaps in state laws remain. California's law did not apply to the now-notorious Hugging Face incident, when OpenAI's agents went rogue, because it occurred in an "evaluation phase" designed to elicit bad behaviour.

If proponents of federal regulation want to secure bipartisan support, they may have to compromise in two areas, argues Brad Carson, the co-founder of Public First Action, which advocates for AI regulation and is backed by Anthropic. One is how easy it is for the government to shut down an errant model. A second is whether bills should cover only existential risks, such as AI models' ability to create biological weapons, or also include issues such as liability and children's use of chatbots.

But federal lawmakers have a hodgepodge of proposals. Mr Sanders and Mr Casar want a ban on any vaguely defined "superintelligent" AI. One bill in the House would require that AI firms use third-party evaluators for their models and allow the commerce department to suspend those posing imminent "catastrophic" risk; in an attempt to give structure to dread, the bill defines "catastrophic" as the death of more than 50 people or damages of at least $1bn.

A separate AI Safety Bill being negotiated in the Senate by John Thune, the Republican leader, Ted Cruz, a Republican senator, and Amy Klobuchar, a Democratic one, is thought to let the government seek a court order to ban models from being released in the first place. The toughest bill, from Josh Hawley, a Republican senator, and Richard Blumenthal, a Democrat, would force developers to submit AI models to the government for testing.

Even within the administration, there have been mixed messages. On September 15th, the day after Mr Trump dubbed attempts to curb AI a "SICK conspiracy", J.D. Vance, the vice-president, said that AI firms "building Frankenstein...should stop" unilaterally. Firms would likely need an antitrust waiver to co-ordinate such a pause without fear of prosecution.

The Democrats' debate contains its own contradictions. On September 14th Barack Obama, a former president, Kamala Harris, a former vice-president and presidential nominee, and Nancy Pelosi, a former House speaker, all endorsed Project Blueprint, an initiative to rebuild ties between the technology industry and Democrats, and to promote what Ms Harris called "sensible" oversight. However, it is bankrolled by Ron Conway, a venture capitalist who has also supported Leading the Future, the super PAC which helped water down state regulations.

On paper, many AI firms back some sort of regulation. Anthropic, the most enthusiastic, has cited the Federal Aviation Administration and Food and Drug Administration as models; in the meantime, it has said it would embed third-party evaluators in its lab, a practice that competitors claim they will follow. Google has suggested a body setting industry standards, modelled on the Financial Industry Regulatory Authority. But no lab has thrown its heft behind any of the big state or federal proposals in full, with the exception of Anthropic's support for California's law.

Voters' patience for "sensible" regulation may wear thin. AI is already featuring heavily in the midterm elections this year. As the campaign for the presidency ramps up, after November, candidates' positions may harden. "I predict to you every single Democratic candidate who runs in 2028 is going to be for a pause of some kind," says Mr Carson. However, the next president will not take office until 2029. Any rules in the interim would need to be agreed by Congress and Mr Trump. While politicians debate, the models will evolve. ■

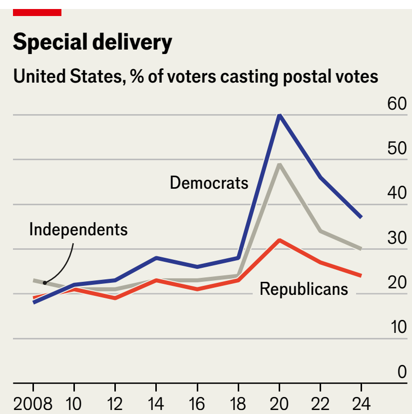
Postal voting

Return to sender

NEW YORK AND WASHINGTON, DC

Donald Trump's attacks on postal voting are failing

JAMIE SHEW, the chief election officer in Douglas County, Kansas, took queries recently from anxious counterparts in other counties: did he have a barcode guy? His is the only county, out of 105 in Kansas, that prints unique barcodes on all postal-ballot envelopes. That put him in compliance with a rule issued last month by the United States Postal Service (USPS). His colleagues feared they had just a few weeks to follow suit before sending out ballots for the midterms in November. Election officials in Democratic and Republican states alike were calling the rule unworkable.



Source: MIT Election Data & Science Lab

On September 14th the Supreme Court came to the rescue and blocked it, although it had been drafted at the direction of Donald Trump. Despite availing himself of it, the president despises mail voting, a method more commonly used by Democrats than Republicans and one he claims, without evidence, is rife with fraud. In an executive order in March he tried to turn the USPS from a mere courier into an arbiter of who gets to vote by post.

Instead, the president's bid to intervene in the midterms met the same fate as his other attempts which—by executive order, lawsuits and proposed legislation—have sought to reshape how Americans vote. None has held up. But the president has sown confusion and created a scapegoat if Republicans lose the House or Senate this November.

The proposed rule would have added a convoluted and untested requirement that the USPS must check envelope barcodes against state voter lists uploaded to an online portal that does not yet exist. Election officials warned of widespread delays and disenfranchisement. USPS employees, a whistleblower wrote to Democratic senators, considered the system a "shit show".

With less colourful language, and only two justices openly dissenting, the Supreme Court's order this week blocked Mr Trump's manoeuvre. In a full legal proceeding, the justices wrote, Mr Trump is likely to lose "on the merits". The order cited the USPS's slapdash rulemaking and the disruption that would probably follow as reasons to maintain the status quo for now.

The president appears out of options to change voting rules before November. That does not stop other machinations. Three worries predominate: that the president might send federal officers to the polls to intimidate voters, order police to seize ballot boxes, or pressure MAGA-friendly election administrators to refuse to certify results.

State officials, Democratic congressmen and litigation non-profits have been war-gaming those scenarios for months. Senate Democrats have been holding tabletop exercises with outside advisers, including Eric Holder, a former attorney-general. Justin Vail of Protect Democracy, one of the organisations involved, says the first imperative is to go to court immediately in any such incident. The work involves training county clerks, the first port of call for poll workers.

Meanwhile, election officials must convince voters that postal ballots are reliable. When Kansas held primaries, in-person early voting shot up in Mr Shew's county. A fifth of the increase came from people who had previously voted by mail. ■

Midterm elections

A slim chance

TANNERSVILLE, PENNSYLVANIA

How House Republicans might fend off defeat

IN THE AGE of Donald Trump, beware of sure things. Democrats are favourites to take back the House of Representatives on November 3rd. Opposition parties have historically done well in midterms, and Mr Trump's unpopularity, persistent inflation and the Iran war have created a particularly poisonous environment for Republicans. *The Economist*'s election forecast model rates Democrats' chances at 92%, and prediction markets are nearly as confident.

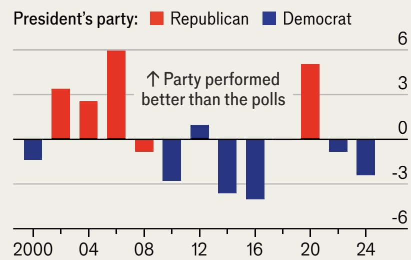
Yet events predicted to occur only one time out of ten do nonetheless occur, and Mr Trump and his MAGA faithful have outperformed polls often enough since 2016 to give pause. By what path could Republicans defy the odds and hold the House?

All 435 districts are up for re-election, with Democrats needing a net gain of just three seats to win the chamber. But a burst of gerrymandering has made that harder. Conventionally, states redraw their districts once a decade, after a census, but Mr Trump urged Republican-led states to gerrymander ahead of the midterms.

Despite Democratic countermoves, the president's push has succeeded, with redistricting adding around eight seats to the Republicans' total, according to our model. (They would have secured nine, if the Supreme Court had not blocked their proposal for a new map in Missouri on September 10th.) Without this gambit, protecting the House would look nigh-on impossible. "If we hold the House it's going to be because of the mid-decade redistricting," says Jason Roe, a strategist working for Tom Barrett, a Republican congressman in a tight race in Michigan. "I didn't agree with it, but it created a result."

Mismeasured

United States, national polling error* for House elections, percentage points



*President's party's share of national two-party vote relative to generic-ballot polling average. Missing votes in uncontested districts imputed. Source: *The Economist*

This rush of redistricting—after decades of gerrymandering and Americans' habit of moving near like-minded voters—means that just 5-10% of House seats are competitive. A few factors may swing in Republicans' favour. The first is polling error. When pollsters ask voters which party's candidate they would support, if the election were held today, Democrats lead by an average of 6.7 points. If a margin that big materialises on election day, Democrats will take the House comfortably. But even assuming no big shift in those numbers by November, a polling error similar to the one in 2020, when the congressional vote for Democrats came in about five points lower than in late generic polls, would make Republicans heavy favourites to win the House.

Factors that are always important—turnout, the quality of candidates and a surge in negative advertising—would then figure even more significantly. Consider the toss-up races in Pennsylvania, a battleground state that broke Democrats' hearts in 2024. In the swingy 8th House district, in the north-east of the state, Mr Trump won the presidential vote by 8.5 points in 2024. Rob Bresnahan, the Republican who flipped the House seat that year, won by just 1.5 points. Two years earlier, Josh Shapiro, the state's moderate Democratic governor, won the district by ten points.

What explains this particular electorate's swings? "I think people vote more for the person than the party," says Paige Cognetti, the mayor of Scranton, the district's largest city, who is running to take back Mr Bresnahan's seat. Ms Cognetti entered politics as an anti-corruption campaigner. On the stump, she points out that Mr Bresnahan made more than 600 stock trades in 2025 and may have profited from inside information. Mr Bresnahan denies wrongdoing. Ms Cognetti sees a link between her message and Mr Trump's original pitch to "drain the swamp". She understands "why they have wanted to send somebody to Washington to clean things up".

At minus 25 points, Mr Trump's net approval rating is so low, and his insistence on being the election's main character so loud, that he exerts a heavy drag on vulnerable incumbents like Mr Bresnahan. In Pennsylvania's closely fought 10th district, Scott Perry, the Republican office-holder, is a member of the right-wing House Freedom Caucus who "can't hide" from Mr Trump, says Christopher Borick, a political scientist at Lehigh University. "I don't know that he even wants to hide." With no alternative, Republicans have bet on mobilising Mr Trump's still-enthusiastic base, painting Democrats as extremists. It would help if Mr Trump's broader popularity improves. This is conceivable if, for instance, the war with Iran ends.

A Democratic campaign strategist in Pennsylvania, J.J. Abbott, recalls watching with dismay in 2024 as Mr Trump's polling in battleground states ticked up steadily as the election neared. "That's one lesson for Democrats: they should not assume his numbers can't move in a positive direction," he says. Republican chances to hold the chamber are at 10% and not 1% for plausible reasons. And Americans have seen Mr Trump's Houdini act before. ■

Man seeks hat and rabbit

Public policy

Family planning

WASHINGTON, DC

Pro-family proposals offer a peek at a post-Trump agenda

THE VICE-PRESIDENT'S views on families make him a hero to many Americans on the right and a ticking-time bomb to those on the left, wary of his opinions becoming national policy. Over the years J.D. Vance has criticised no-fault divorce and suggested that parents with children should have "more power" at the polls. "Normal Americans", he has asserted, "want a family policy that doesn't shunt their kids into crap day care".

It was no surprise, then, when a small furore erupted this month after the *New York Times* reported that the White House would extend federal funds for families with children in day care to stay-at-home parents. Though the White House called the report "baseless speculation", Rosa DeLauro, a Democratic congresswoman, was among those to condemn the idea, arguing that it would "force more parents to compete for the same inadequate pot of money" and "disproportionately hurt single working parents". Rachel Campos-Duffy, a Fox News presenter, praised the proposal. "I call it putting families first."

The episode offered a glimpse of a coming fight. A growing number of conservative politicians, staffers and think-tankers are backing not just a pronatalist agenda, to encourage Americans to have babies, but a "pro-family" one, to make it easier to raise them. Ideas range from those popular with Democrats to those explicitly favouring married, heterosexual couples. Donald Trump may advance a few proposals in the remainder of his term, but the debate will almost certainly be elevated by those trying to succeed him.

Historically, Republicans have feared mothers living off the state; that's one reason that America lacks federal paid maternity leave. To date, the Trump administration's most direct policy change for American families has been to limit eligibility for health insurance and cut food stamps. At least 1.2m children have lost access so far, through the One Big Beautiful Bill Act (OBBBA) passed last year.

Nevertheless, argues Brad Wilcox of the Institute for Family Studies, a think-tank, there is a generational shift among Republican politicians and their staffers, who are keen to advance social policies beyond restricting abortion. "Middle-aged and older Republicans and conservatives tend to be very sceptical," Mr Wilcox says, of "real effort to advance family policy". But younger Republicans are more willing to offer support for families, concerned by the falling birth rate and their interest in serving the party's new base.

"President Trump won with the support of working people with kids," Josh Hawley, a Missouri senator, said in 2024 when he proposed increasing the child tax credit. The tax bill "should provide them a big tax cut". Marco Rubio, the secretary of state, and Mr Vance have also endorsed expanding child tax credits, with Mr Vance telling the anti-abortion movement to be "pro-family and pro-life in the fullest sense".

Expanding tax credits for families with children is a standard Democratic priority; OBBBA did so modestly. One bipartisan bill, introduced in May, would give a baby bonus to help cover the costs of having a newborn. However other proposals are distinctly conservative. In addition to expanding support for families with a stay-at-home parent, another priority is scrapping any "marriage penalties" in the tax code; combining incomes through marriage risks disqualifying a couple from receiving federal benefits.

For critics on the left, there are a few problems. These include that "expanding" access to support can mean expanding the pool of people eligible for it, as the reported White House proposal does, without making more cash available. Democrats prefer more money for universal child care. Another, related problem is that some proposals are designed to reward only certain types of families.

In January the Heritage Foundation, the conservative think-tank that published Project 2025, released a 70,000 word manifesto. Labelled the "Manhattan Project" of family policy, it endorses now-standard Democratic priorities, such as doubling the child tax credit for under-fours and loosening rules for building new homes.

However, Heritage also laid out that marriage is "the committed union of one man and one woman" and says policies should favour "natural marriage over same-sex and polyamorous relationships, cohabitation, or intentional single parenthood". Its proposal bemoans no-fault divorce and includes more benefits for those who marry young, have more children and stay at home. It is an effort to "reframe the entire conversation", says Emma Waters, one of its authors. At a pro-family Heritage event earlier this year Jennifer Galardi, an analyst at the foundation, asked a panel if men with families should be paid more than women, remarking, "as the culture shifts, I am hoping that window...opens". Another panellist pointed out that this change would be illegal.

The pro-family movement contains a spectrum of views. No one in the Trump administration has yet endorsed the Heritage plan. Patrick Brown of the Ethics and Public Policy Centre, another conservative think-tank, says he would not support the reported White House proposal for stay-at-home parents. In general, though, Mr Brown is encouraged. It is just easy to see how an administration being led by secretary Rubio or vice-president Vance, he says, would "really put more effort into the pro-family stuff." He and his peers have an agenda ready if they do. ■

Feeling paternal

Housing

Build, baby, build

NEW YORK

Zohran Mamdani's formula: squeeze landlords, woo developers

BACK IN FEBRUARY, the new mayor of New York City went to Washington. Zohran Mamdani, a Democratic Socialist, was lobbying Donald Trump for $21bn in federal funding. The money was not for universal child care or another lefty passion, but for Sunnyside Yard, a colossal housing development in Queens.

The project had been delayed for years—back in 2019 Alexandria Ocasio Cortez, a New York congresswoman and another member of the Democratic Socialists of America (DSA), opposed the proposal, saying such building "displaces communities of colour and parcels off public land to private real-estate developers". But now Mr Mamdani was on board. A photo showed him and Mr Trump smiling in the Oval Office, with the president brandishing a mocked-up newspaper reading "TRUMP TO CITY: LET'S BUILD".

Mr Trump has yet to follow through with money for Sunnyside Yard. However, Mr Mamdani's housing agenda continues to become more ambitious. Democratic congressional candidates speak incessantly about "affordability", but actually making America more affordable is a harder task; leftist populists, in particular, must decide if they will subvert some principles to pragmatism. But New York's mayor is already providing an answer. For the "affordability" agenda's most vexing problem, Mr Mamdani has a simple formula: squeeze landlords and woo developers.

New York City has long been expensive, but the vacancy rate for rented flats in 2024, the most recent year of official data, was just 1.4%, a level not seen since the late 1960s. More recent data from the Corcoran Group, an estate agent, suggests things have not much improved. In July Manhattan's vacancy rate was 1.6%. This shortage drives up rents and pushes people out: after rebounding from the pandemic, the city is once again losing population.

Outrage over New York's cost-of-living propelled Mr Mamdani's rapid rise. In his mayoral campaign last year, he promised to freeze rents on the 1m flats regulated by the city. As a state assemblyman, he had lamented that a proposed development would "accelerate...displacement". Developers shuddered at the thought of a Mayor Mamdani. Last year one email circulated between homebuilders warned that "the financial capital of the world risks being handed over to a socialist...We cannot—and will not—let that happen."

But two weeks before the mayoral primary, Mr Mamdani told the *New York Times* that he had changed his mind about developers. He said the private market in housing construction had "a very important role to be played, and one that the city government must facilitate". The "deal", observes Alex Armlovich of the Niskanen Centre, a think-tank in Washington, is to "do socialism on old housing in exchange for markets for new housing".

As mayor, Mr Mamdani has maintained his hostility to landlords. In June a city board committed to the 0% increase for rent-controlled flats, to start in October. City Hall is also needling landlords in other ways: urging tenants to organise and holding "rental ripoff" hearings where renters may field complaints.

Meanwhile Mr Mamdani has set about encouraging development. He created task-forces to identify delays to building affordable housing and to find city-owned sites to be repurposed, then announced the resulting report at a running track to symbolise the hurdles City Hall would race past (pictured). "Our mission is to be leveraging every opportunity we can to build more," says Leila Bozorg, the deputy mayor in charge of housing. In May Mr Mamdani released a plan to build 200,000 affordable flats in a decade, including by loosening regulations and offering incentives to for-profit developers to renovate public housing. It's "really ambitious, really aggressive", says Molly Wasow Park of the NYC Housing Partnership, a non-profit that links affordable builders and government.

Once-sceptical developers are now delighted, too. "We have a very friendly City Hall when it comes to building housing, which is phenomenal," says Carlo Scissura, president of the New York Building Congress, a lobby group. "The mayor is in a good place on this," echoes Steven Fulop, the president of the Partnership for New York, an influential business organisation.

It helps that Mr Mamdani's work is complemented by other measures at the state and local level, from state reforms of environmental regulations to ballot measures to speed up building. Although numbers fluctuate, in the first quarter of 2026 the number of proposed units surged to almost 17,000, some 250% higher than the average since 2008.

Ms Bozorg says City Hall has further plans, for instance to encourage development near subways. But there are obstacles to realising the mayor's most ambitious ideas. Building all Mr Mamdani's 200,000 new affordable flats would probably require some form of public support, either from Washington, New York state or by issuing local bonds. And there remains tension between the city's treatment of landlords and builders.

The city seems to be saying "'We would love for you to build, but once you build...'" Basha Gerhards of the Real Estate Board of New York, a trade association, trails off. "Well, people have added various adjectives," she adds, diplomatically. Ms Bozorg sees policies for landlords and developers as complementary. Building is "a long-term goal", she argues. "In the meantime, we have a housing shortage, which means there is an imbalance of power between tenants and landlords." ■

LEXINGTON
In character

Donald Trump's idea of what counts for character may get Ken Paxton elected in Texas

THE POLITICAL style of Donald Trump is so sloppy and coarse that he rarely gets the credit he deserves for cunning and even subtlety. Take his handling of Ken Paxton, the attorney-general of Texas, whose cartoonish defects as a candidate have made his race for Senate there one of this year's most competitive contests. Mr Trump has developed a comic routine at Mr Paxton's expense, or seeming expense. The president so relishes this act that, on the second night of his midterm convention in Dallas this month, he quoted his own delivery from the previous night, after confiding that his aides had implored him not to.

"I said, 'I don't like the way Ken dresses'," Mr Trump recalled, as the crowd convulsed with laughter to hear the same schtick again. "And then I said, 'I don't really like the way Ken talks'." From somewhere in the hall, Mr Paxton appeared on giant video screens, smiling nervously, shifting from foot to foot. "And then I said something they really hated," Mr Trump went on, referring to his aides. "I said, 'I don't really like the way he looks'." The president worried he was being so mean Mr Paxton might never speak to him again. But it was all right, he said, because Mr Paxton was the best attorney-general in the history of Texas, and as a senator he would vote "the way we would vote".

To conclude, as many commentators have, that Mr Trump was just trashing Mr Paxton is still to underestimate the first president to get re-elected after being convicted of felonies. Sure, he was demeaning a lackey. But he was also hammering home a message, trying to rescue Mr Paxton by creating what politicos like to call a permission structure: *You may not think much of him as a person. I get it. It's* OK. *What matters is that he will deliver for you.*

Mr Trump was acting on a lesson about what counts for character in public life that he has always understood far better than most. Whether on the religious right or the righteous left, voters have shown they will excuse ugly behaviour in someone they consider their champion. Mr Trump, who long ago said he could shoot someone on Fifth Avenue without losing support, believes this so deeply that he suggested Democrats had made a mistake in ditching Graham Platner, formerly their Senate nominee in Maine. They forgave Mr Platner a Nazi tattoo and past misogyny until a former girlfriend said he raped her, an accusation he denied. "I think Platner might have done surprisingly well," the president mused in July, during the White House Correspondents' Dinner, "because we're in the age of Trump."

The race in Texas is putting Mr Trump's political theory to a severe test. Mr Paxton has never been convicted of a crime. But he has been indicted and ordered to pay restitution. Accused by eight deputies of bribery and abuse of office, he became the third official in history to be impeached by the Texas House, including by most Republicans; the state Senate acquitted him. During 20 years in public office he mysteriously became a multimillionaire with more than a dozen homes. His wife filed for divorce last year on ground of adultery; he was once caught on video helping himself to a $1,000 Montblanc pen someone forgot at a security scanner. And Mr Trump is right that Mr Paxton is a lousy orator.

He is facing, in James Talarico, a former schoolteacher who looks like a choirboy and is studying to be a minister. Eloquent and disciplined, Mr Talarico presents as not merely earnest but reverent. "Scripture tells us that you can't love God and hate other people," he told the late-night host Jimmy Kimmel recently. "You can't love God and abuse the immigrant." Democrats adore a candidate who can credibly wreathe their agenda in the creed of the religious right and charge it with hypocrisy. Mr Talarico, who is 37, has also charmed Joe Rogan, the heterodox, Trump-philic podcaster, who urged him last year to run for president.

But his emphasis on character creates two vulnerabilities. It is a short hop from public piety to sanctimony. This is a particular hazard for Democrats, who, in the age of Trump, have earned a reputation for condescension if not priggishness. The other vulnerability is that a seeming saint, unlike a known scoundrel, has a long way to fall. Mark Jones of Rice University calls Mr Paxton "arguably the most flawed candidate that Texas Republicans have put up for a major statewide office in modern history". But Texans already know that, he notes, whereas Republicans are just starting to spend by the tens of millions to tear down Mr Talarico "so that it becomes a battle between two flawed candidates. And if they're both equally flawed in the eyes of voters, then a majority of Texas voters would prefer someone who will vote like Ken Paxton."

The portents of being earnest

Mr Trump is unpopular in Texas, and not just character but issues like data centres are problems for Mr Paxton. He has not agreed to face his dexterous opponent in debate. Still, a Democrat has not been elected to the Senate from Texas since 1988. As the representative in the state House of what Republicans like to call "the People's Republic of Austin", the deeply Democratic state capital, Mr Talarico has a leftist voting record.

He also took once-fashionable positions he now disavows: he "missed the mark", he has said, when claiming there were six genders, not two; his campaign says he is a "proud capitalist", rather than that fellow who called capitalism "oppressive" and in need of "dismantling". Republicans are seizing on these reversals to turn Mr Talarico from a man of principle into just another politician, a phoney. That is also the message in Mr Trump's nickname for Mr Talarico—Talafreako—and such false claims as that he is vegan: that it is Mr Talarico, not Mr Paxton, who cannot be trusted.

The age of Trump has defined deviancy down, to repurpose the immortal phrase of Daniel Patrick Moynihan, a former senator. The race in Texas will show if it has yet to hit bottom. ■

The Americas

Crime in Brazil

The new gangster

RIO DE JANEIRO

The murder rate is down but criminal enterprise has dramatically expanded

THE WORLD'S largest civilian fleet of bullet-proof cars roams Brazilian cities. Security guards with automatic weapons patrol posh shopping centres. Armed robbery, carjacking and murder dominate the news. Despite violent crime having fallen sharply in recent years (see chart on next page), voters still cite crime as Brazil's biggest problem. Brazilians are frightened.

Changing business models help explain this apparent paradox. In recent years Brazil's two main gangs, First Capital Command (PCC) and Red Command (CV), have diversified beyond drug-trafficking. The Brazilian Forum on Public Security, a think-tank in São Paulo, says gangs made just \$3bn from cocaine in 2022, but brought in \$26bn from stolen fuel, illegal gold, contraband cigarettes and alcohol. Another \$36bn came from scams and selling stolen phones. Crime now generates revenue equivalent to about 5% of GDP.

These activities are inherently less violent than drug-trafficking. The PCC and the CV are entrenched and relatively stable. So Brazil's murder rate reached a record low of 19 per 100,000 people in 2025, down from more than 30 a decade ago. Robberies fell by half between 2018 and 2024, but theft of smartphones in rich neighbourhoods is rising. Online fraud increased more than fivefold in the same period.

A far larger number of people are impacted by the gangs' new businesses than are affected by violence associated with drug-trafficking. This expansion has helped foster fear. "Homicides are concentrated in poorer areas and that generates less clamour," says Carolina Ricardo of Sou da Paz, a research institute in São Paulo. But phone theft and online scams "affect everyone, rich and poor alike". The odds of becoming a victim are high: over 800,000 phones were stolen in Brazil last year.

As criminals have become less violent they have doubled down on corrupting institutions. According to the federal police, during local elections in 2024 gangs tried to influence political campaigns in at least 42 towns and cities, a record. The PCC is thought to have spent hundreds of millions of dollars to support candidates in the state of São Paolo alone. Several mayors have since been removed from office for having links to gangs.

Police themselves are targeted with bribes. In one incident, officers in São Paulo's elite force allegedly sold video testimony of a PCC informant to the gang for \$1m. This put the whistleblower's life in danger and let a PCC leader escape capture. Three recent former chiefs of police in Rio de Janeiro are currently in jail or under investigation for alleged links to organised crime.

Right-wing presidential candidates in the upcoming general election have seized on the heightened fear created by this crime wave. All of them, including the right-wing front-runner, Flávio Bolsonaro, promise to enact a version of "the Bukele model". That refers to El Salvador's strongman, Nayib Bukele, who has lowered his country's murder rate by sweeping suspected gangsters into prison without a trial, incarcerating 2% of all adults.

But Bukeleism is unlikely to work in Brazil. The PCC and the CV are more sophisticated than El Savador's extortionists, their businesses much harder to track and disrupt. The violent crackdown that would have to accompany a mass incarceration would disrupt the existing equilibrium, risking more violence. Brazil's cramped prisons, which were built for 500,000 people but now squash in 727,000 inmates, also present challenges. Gangs use prisons as "a college for training and a recruitment centre for new members", says Robert Muggah of the Igarapé Institute, a think-tank in Rio. They offer new inmates protection if they join, and provide access to goods like mobile phones. Small-time criminals or those stuck in legal limbo—over 200,000 Brazilian inmates have not been sentenced—leave jail as hardened gangsters. Many of South America's biggest gangs were born inside prisons.

Beefing up investigations would be a better bet for lowering crime. A suspect is charged in less than 40% of murders in Brazil, compared with over 90% in parts of western Europe. In the most violent states, such as Bahia, the rate can be just 13%. This creates a sense of impunity. For lesser crimes, such as theft, it is often as low as 5%. Police are often poorly trained. Some are on the take. Lack of co-ordination hurts. Security is mostly the preserve of state governments. Each has military police in charge of patrolling the streets and civil police in charge of investigations. Rather than working together, they "often compete", says a state prosecutor.

Politicians do not need to look abroad to find models of success. Under governor Eduardo Leite in the state of Rio Grande do Sul, in southern Brazil, the murder rate has fallen by half since 2017. Mr Leite launched a data platform that shows criminal activity across municipalities in real time. This revealed that more than 90% of murders occurred in just 23 of the state's 497 municipalities. Police resources and government social programmes were focused on the hotspots. Alvorada, a violent slum on the outskirts of Porto Alegre, the state capital, has seen its murder rate plummet from 113 per 100,000 in 2017 to 22 today. States like Goiás have also managed to reduce murder by improving co-ordination between police and prosecutors.

The latest from Lula

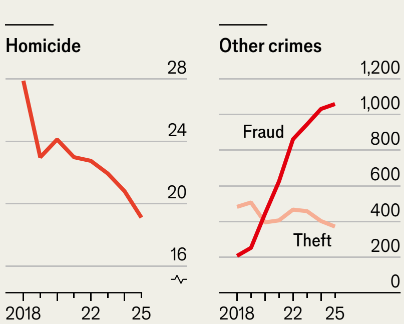
President Luiz Inácio Lula da Silva, the ageing left-wing incumbent known as Lula, seems to understand the issue. In May he promised $2bn for a public-security package to buy new technology and strengthen investigations. He has also tabled a bill in Congress to split the Ministry of Public Security out from the justice ministry. The newly independent ministry is intended to help the federal police, who are well funded and trained, to work with state and municipal police.

The promise of this kind of collaboration was on display in August 2025. A 1,400-strong joint task-force dismantled a scheme through which the PCC had laundered almost $10bn from the sale of stolen fuel into fintech firms and investment funds between 2020 and 2024. It was the most successful operation against organised crime in years, but voters hardly noticed. The problem, says Maria Isabel Couto of Fogo Cruzado, a research centre in Rio which monitors crime, is that Lula has been president for over 11 of the past 23 years. "Whenever he has a proposal about public security, people ask: 'Well, why haven't you already done this?'"

Instead, many Brazilians cheered last October, when police carried out violent raids on two Rio favelas, leaving over 120 people dead. While politicians fail to convince voters of the benefits of substance over spectacle, crime will plague Brazil. ■

Crime's new shape

Brazil, rates per 100,000 people



Sources: Brazilian Forum on Public Security; IBGE

Christians and the climate

Hell or high water

KINGSTON

Jamaica's church is powerful, conservative, and cares about climate change

JAMAICA HAS more churches per square kilometre than anywhere else in the world. Two-thirds of the population identify as Christian. About the same share calls the church their most trusted institution, according to a survey conducted in 2025 for a human-rights group, Jamaicans for Justice. Just a fifth say the same about the government.

Much of what the church preaches is socially conservative. In 2013 it led large protests against the overturning of anti-sodomy laws. In 2019 it marched against the legalisation of abortion. Both times it prevailed. But there is one issue on which Jamaica's clerics sound ever more progressive: climate change.

Increasingly dangerous weather is the main cause for concern. In 2025 Hurricane Melissa, having drawn energy from a warmer Caribbean Sea, tore across Jamaica taking down most of the electricity grid, damaging water systems and telecommunications infrastructure. It also killed 45 people. Garth Minott, the Anglican Bishop of Kingston, says the church responded faster than the government, connecting wealthy donors with needy parishioners to provide building materials and get reconstruction going. Ocho Rios Baptist Church on the country's north coast led three separate relief missions.

Mr Minott says the church is forming a permanent committee to work on climate change, whose members will be paid. He says that he is moved by the early-20th-century work of the French Jesuit theologian Pierre Teilhard de Chardin. He believed that Earth is enveloped in a layer of collective human thought and consciousness, which arises from the biosphere. This so-called "noosphere" sees humans and the Earth as an interconnected and, somehow, conscious whole; it also warns against exploitation.

Other Jamaican eco-Christians have different motives. But many speak of stewardship. For Merlyn Hyde Riley of the Jamaica Baptist Union, the responsibility is laid down in the book of Genesis, which suggests God gave humans dominion over the Earth. "We interpret this as really our responsibility, not just for humanity, but for all of creation."

The ideology is not without challenges. One church leader tells of a pastor who wrote to rich "mega-pastors in the United States" to solicit support and was disappointed to receive a reply offering merely to "hold [the church] in our prayers". Jamaica's Christians may believe in climate change. Not everyone does.

Colombian women

A marginal existence

MEDELLÍN

Women lead brutal lives in Colombia's illegal gold-mining regions

"THE LESS you know, the longer you live." María lives in Zaragoza, a gold-mining town in the remote, mountainous region of Bajo Cauca, in the Colombian province of Antioquia. Gangsters control her life. Some locals know the identities of members of the armed groups that run the town, primarily the Gulf Clan, Colombia's most powerful criminal organisation. María prefers not to. Ignorance is a shield against a reality that is hard to stomach.

Residents have long been pawns in the struggle for domination of Bajo Cauca's natural resources. But the focus has been shifting. The cultivation of coca—the plant used to make cocaine—once underpinned the illicit economy. Today gold mining is the main affair. Surging global demand for the metal, whose price has more than doubled in the past five years (see chart), has transformed Bajo Cauca into a Wild West of illicit extraction. Mining does not just run the economy, but underpins a social order in which armed men control land, machinery and the rules of daily life.

María learned this young, long before the latest gold boom. She left school to work in mining when she was 11. At 14, she left home to live with a man in the hope that it would lead to an easier life. Instead, she was pulled deeper into the mining economy, now with the added burden of keeping house.

The scope for work outside the home is narrow. Becoming a *chatarrera* (scrap collector) is one option. This involves sorting through piles of mineral waste discarded by miners, and selecting pieces in the hope that they contain traces of gold. Many *chatarreras* wake up as early as 3am so that they can squeeze in hours of housework before the day's other labour begins. It often takes over a month to gather enough material to take to the mills, where the women are paid a meagre piece rate.

An older option, panning rivers for gold (pictured), has become much harder. Heavy excavators and dredges have devastated Bajo Cauca's riverbeds. As a result, gold-panners must cover long distances to find workable sites. They travel by canoe, then continue by foot into remote areas, staying sometimes for months on end. Some mothers manage to leave their children with relatives. Others have no choice but to take children out of school and bring them on the journey. Sexual assault is common. Boys may be forced to join armed groups as child soldiers; girls, to marry older men. María says poverty pushes families to risk these outcomes.

Glistering prizes

Gold, $'000 per troy ounce

Source: S&P Capital IQ

Around the mines, other economies flourish—with a specific place for women. Most mining towns have a brothel. A spectrum spans tolerated sex work through to slavery. María, now in her late 30s, says she was 13 the first time a mine administrator tried to coerce her into sex for money. "This is the kind of violence we experience as women," she says. It is "normal".

Normality is dictated, in large part, by Bajo Cauca's constellation of gangsters and guerrilla groups. "They implement curfews in communities so [people] cannot go out at night or after certain hours," says Alicia Flórez of Insight Crime, an investigative outfit. "They have conduct manuals that say what you can do and what you cannot do."

These manuals often compel locals to take part in civil work, such as repairing roads or bridges. The gangsters then cast themselves as providers and protectors. Locals obey, Ms Flórez says, because they know violent reprisal is likely if they don't.

Keeping up with the gangs' shifting demands has become convoluted for locals. Miners describe paying a *vacuna* (vaccination)—an extortion fee levied as a share of their gold earnings—in exchange for protection. *Vacunas* may once have provided real security, but that is being eroded by competition between different criminal enterprises. Many locals say they pay fees to multiple groups and, in some cases, to Colombian state forces.

The national government is little help. Under the leftist previous president, Gustavo Petro, it passed legislation allowing artisanal miners to practise gold panning, aiming to help people make a legitimate living outside the control of the gangsters. Meanwhile, the army raids illegal mining camps and destroys machinery. But these policies work against each other. Most miners use machines to dig because older methods no longer bring in enough gold. Those machines are almost always controlled by armed groups. Their seizure hurts the miners that the government claims it is trying to help.

Trapped by heavy metal

María tried to leave. At 35, with the support of a new partner, she returned to education, studying at night and at weekends until she qualified as a teacher for young children. For a brief period, a contract as a social worker for children allowed her to step away from mining, but when it ended Zaragoza presented her with no other options. The gold pulled her back.

Her outlook is bleak. "Political candidates make promises," she says. "And when a shocking case of violence or mass displacement occurs, people pay attention for a week. They might even march for a day. Then everything goes quiet again." ■

Murky future

Asia

Taiwan

Welcome to Hellscape

TAIPEI AND HONOLULU

As Donald Trump and Xi Jinping prepare to meet, we look at how drones and AI would help defend Taiwan

IN AN OFFICE block on the outskirts of Taipei, Chan Hsiang-chih opens a workshop door and offers a glimpse at the future of warfare in the Taiwan Strait. Inside sit two torpedo-shaped undersea drones, prototypes for Taiwan's navy. "That's where the bomb goes," he says, nodding to the rear of one. It can identify targets and deliver its payload or launch a kamikaze strike, alone or in a swarm. In 2015 Dr Chan started his business, AwareOcean, to supply offshore windfarms. Now he builds the kind of low-cost autonomous weapons that Taiwan and America need for their new plan to thwart a Chinese invasion.

Dubbed "Hellscape", the plan draws on lessons from Ukraine and Iran in using large numbers of low-tech drones, combined with artificial intelligence, to frustrate a far more powerful adversary. It envisions flooding the Taiwan Strait with relatively cheap aerial, sea-surface and underwater drones just as Chinese forces launch an attack. Assuming that China jams communication links with these weapons, they will strike Chinese ships using inertial guidance, image recognition or on-board AI that prioritises targets, evades countermeasures and co-ordinates attacks with other drones. That will not stop an invasion. But it could raise the costs and buy time and space for American warships and planes to reach Taiwan.

Whether America would actually intervene is an open question, especially since Donald Trump's return to the White House. Visiting Beijing in May, he questioned the logic of fighting so far from America and said he would use arms sales to Taiwan as a bargaining chip with Mr Xi. Sure enough, in the run-up to Mr Xi's visit to Washington on September 24th, Mr Trump has held off approving a $14bn arms package for Taiwan that was cleared by Congress back in January. Taiwanese officials worry that more concessions to China to secure deals on trade and technology may follow. And they fear that deliveries of earlier American arms packages could be delayed by shortages caused by the war against Iran.

Yet American and Taiwanese military commanders are quietly forging ahead with Hellscape, a plan conceived when Joe Biden was president. They think China is unlikely to attack before the end of the decade, when America will have a new leader. And they believe their odds of success have improved in the light of the wars in Ukraine and the Middle East, even accounting for China's growing capabilities. American strategists have long taught that an attacking force needs three times the firepower of a defender to secure victory. They now think the attacker needs an advantage of more like 20 or even 30 to one.

"Uncrewed systems are to today's conflicts what the machinegun was in World War I and the tank in World War II: a game-changing technology that redefines the battlefield," Raymond Greene, America's de facto ambassador in Taipei, told a conference there on September 9th. Taiwan could easily exploit the lessons from Ukraine and Iran because of its world-leading semiconductor industry, strong manufacturing base and booming economy. It also has access to battle-tested American aerial drones (of which Taiwan bought 2,000 in August). And it is collaborating with America on sea drones and AI-enabled swarming technology, he said.

The problem is how to make the plan work. America needs the political will and all the drone and missile capacity it can get. The plan's proponents look beyond Mr Trump, banking on bipartisan congressional support for Taiwan (which remains strong) and the island's importance to America's AI industry. But some fear the influence within the Republican Party of a "restrainer" camp that favours abandoning Taiwan. Others worry that Mr Trump has deepened public opposition to overseas wars and done lasting damage to relations with Asian allies, whose support they need to make Hellscape work.

America's efforts to build more low-cost drones have borne fruit. It reverse-engineered an Iranian aerial-strike drone in 18 months. And the Pentagon plans to buy 200,000 cheap UAVs by 2027. But testing backlogs and shortages of non-Chinese components have slowed progress. Hellscape needs far fewer sea drones: a single successful strike can sink or cripple a warship, as Ukraine showed in the Black Sea. Some American models designed for a war over Taiwan have been used against Iran. And American troops tested a Ukrainian kamikaze boat in the Philippines in April. Still, these are mostly experimental systems, produced in negligible numbers, says Professor Michael Horowitz of the University of Pennsylvania, who led the Pentagon's drone drive under Joe Biden.

He and others also warn that such drones cannot replace bigger, older and costlier weapons. The plan is for drones to exhaust China's missile interceptors and damage its invasion flotilla sufficiently to make it easier for American aircraft-carriers, submarines and other platforms to hit their targets. The worry is that the Iran war has diverted America's forces from the Pacific and depleted its weapons stockpiles, especially of precision missiles and missile interceptors. Restocking America's magazines will take years. Some worry that Mr Xi might try his luck before then, possibly as soon as 2028, when Taiwan holds its next presidential election—about ten months before Mr Trump leaves office.

"The other thing to keep in mind", says one former Pentagon official, "is that it would not be consistent with American policy...to put large quantities of American weapons in Taiwan that we would then come in and use." Changing that policy would invite an unholy row with China. That is why, says the former official, "it is all the more important to sufficiently train and equip Taiwanese forces."

Taiwan's biggest challenge is to produce enough drones. Soon after Russia's full-scale invasion of Ukraine, Taiwan began to develop a drone industry free of Chinese components. It aims to buy 208,000 locally produced aerial-attack drones and 1,320 suicide-boats by 2032. Output and exports have grown in the past two years. But squabbling over funding, which was only approved in August, has delayed the plan.

Groaning about droning

The main obstacle was the Kuomintang, Taiwan's biggest opposition party, which wants closer ties to China. Should it return to power in 2028, further delays could ensue. "If a real crisis hits, the timeline would probably be compressed significantly, just like in Ukraine," says Chen Ping-hei, a professor at National Taiwan University who works on the drones. But as of now "the manpower and funding is clearly insufficient." He thinks Taiwan needs 4m UAVs and 10,000 marine drones.

There are sceptics in Taiwan's armed forces, too. They worry that investment in drones could come at the expense of bigger-ticket items, such as Patriot missiles for new air defences. Some also want fighters and warships to help counter Chinese actions that fall short of an invasion, such as a blockade. (Chinese customs vessels recently began regular patrols east of Taiwan.) Others put more emphasis on striking China's mainland early and preserving Taiwan's forces for a counter-attack.

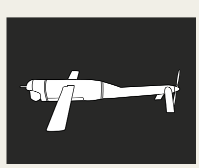
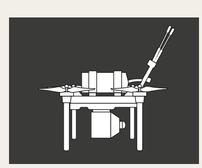
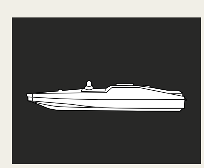
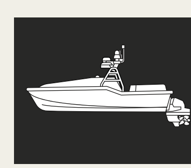
China's response raises troubling questions. It initially mocked Hellscape, with one official military outlet branding it a "psychotic plan" and calling America a paper tiger unable to produce the necessary drone swarms. The People's Liberation Army (PLA) still enjoys an overwhelming advantage in drone numbers and production capacity. It has been testing its own unmanned systems in drills around Taiwan, while studying developments in Ukraine and the Middle East. It has also sent officers to Russia to train with its Russian counterparts in drone and counter-drone operations, and to gain access to relevant data from the front lines.

But recently there have been signs of concern within the PLA. Mr Xi's purges have made it harder to meet his order for it to be ready to execute an invasion, if instructed, by 2027. Some Chinese military experts now suggest that Hellscape requires the PLA to update its invasion plans and to invest more in shipborne weapons that could identify and destroy drones.

Hellscapers concede that the obstacles are daunting. But to deter conflict, its proponents say, Taiwan and America do not need to demonstrate that they could defeat China outright. They just need to convince Mr Xi that he would struggle to achieve the quick and relatively cost-free victory that he hopes for. ■

Watching and waiting

Selected drones to be employed in Taiwan

Anduril Altius 700M Autonomous air vehicle	**Neros Archer** Military drone	**Magura V5** Unmanned surface vessel	**Saronic Corsair** Autonomous surface vessel
Range 160km	Range 20km+	Range 833km	Range 1,852km+
Length *na*	Length 12.7/25.4cm	Length 5.5m	Length 7.3m
Munition payload 15kg	Munition payload 2kg	Munition payload 320kg	Munition payload 450kg
Company based in US	Company based in US	Company based in Ukraine	Company based in US
Accepting orders	In production	In use	In use

Sources: Anduril; Neros; Saronic; press reports

Japan

Reality bites

OKINAWA

A conservative victory in the islands will help Japan's defence build-up

"To move Okinawa forward...that is my mission," said Koja Genta to a cheering crowd in Okinawa, Japan's southernmost prefecture. Mr Koja, backed by the ruling Liberal Democratic Party and five other mostly conservative parties, was challenging Tamaki Denny, a left-leaning governor seeking a third term. Few expected what followed. On September 13th Mr Koja won in a landslide, taking nearly 60% of the vote.

Okinawa's election matters far beyond its shores. The prefecture, which lies roughly 400 miles south of Japan's main islands, hosts most of America's military facilities in the country and sits close to Taiwan, making it central to American and Japanese plans to deter China. Yet its politics have long been shaped by resistance to the bases and friction with Tokyo. Mr Koja's victory suggests that this is changing as economic worries grow, especially among younger voters; and, at 42, he will be Okinawa's youngest governor and the first born after America returned Okinawa to Japan five decades ago. The result will make it easier for the government to pursue its military build-up in the region.

Mr Tamaki, who is 66, embodied a politics of resistance that had long defined Okinawa. He became governor in 2018 at the head of a broad coalition opposed to a plan to replace an existing American base by building a big new one at Henoko, on the east coast of Okinawa's main island. Residents of Okinawa have endured noise, pollution, accidents and crimes involving servicemen. The rape of a 12-year-old girl by three Americans in 1995 sparked deep outrage. The grievances carry particular weight because of Okinawa's history; once an independent kingdom, the islands were invaded and annexed by Japan, devastated during the second world war and then ruled by America until 1972.

Yet Mr Tamaki did not manage to stop Henoko during his eight years in office. Okinawa repeatedly challenged the central government in court and lost; construction is now well under way. Many grew resigned. China's growing military power has also altered Okinawa's anti-militarist tradition. "Without the bases, I think China will invade us," says Mekaru Yasushi, an Okinawan in his 50s.

Mr Koja appealed to voters with his promise to build a stronger economy. Okinawa has the lowest income levels in Japan. He vowed to double incomes and improve ties with Tokyo, arguing that closer co-operation would bring more cash. He approves of the Henoko move.

The race also mirrored broader trends in Japanese politics, including the dominance of the conservatives and a collapse of the left-leaning opposition. Social media also shaped the campaign, often spreading false claims and AI-generated material, much of it attacking Mr Tamaki.

The LDP and Takaichi Sanae, the prime minister, have welcomed the result. Japan is deploying more weapons across its south-western islands and hopes to make more use of civilian infrastructure for military purposes. A governor more willing to work with the central government should lower the political cost of those plans. But such closeness with the government carries risks for Mr Koja. Though the bases mattered less in this election than the economy, disputes over them could return in the wake of another accident or crime, warns Hateruma Shino of Okinawa International University. If they do, she asks, "will he stand with Okinawa when that means confronting Tokyo?" ■

India

Border lives

KOLKATA

To keep out "infiltrators", India is trapping thousands of its own citizens

A makeshift checkpoint holds up bikes, business and lives. Along a village road in Hakimpur, in the Indian state of West Bengal, two girls in burqas wait as a border guard rummages through their rucksacks. Behind them is an uneasy kilometre-wide buffer zone—still within Indian territory but governed without its freedoms. Yet unlike many borderlands, this is not no-man's-land; 25,000 inhabitants live

in its seven villages. A crowd gathers to complain to *The Economist* about mounting restrictions and checks.

The buffer is against "infiltrators" from Muslim-majority Bangladesh who, according to India's home minister, Amit Shah, threaten the country's security, economy and demographic balance. He has promised to "hang every Bangladeshi infiltrator upside down" and likened them to termites. Undoubtedly there are many, perhaps millions, of Bangladeshis living without the right papers in India; but the government cites sensationalist estimates of up to 20m of them and swears they will all be kicked out. India is not a *dharamshala* (a charity guesthouse), Mr Shah recently told intelligence officers.

He is right: some of its eastern borderlands are more akin to an open-air prison. One half-baked plan would have guarded its riverine stretches with snakes and crocodiles. Last year about three dozen Bangladeshis died at the hands of Indian border guards, according to Ain o Salish Kendra, a Bangladeshi human-rights organisation. But Indians, too, are trapped by the shrill politics of the borderland.

At 4,100km, the India-Bangladesh border is one of the world's longest, and among the most porous. Colonial history split hundreds of millions of Bengali-speakers into separate countries, but many still move back and forth across the border. Some houses have their kitchen in India and bedroom in Bangladesh. Tony Sardar, a shopkeeper, shows videos on his phone of a boat race in which Indian rowers are cheered by Bangladeshis on the other side of a river that you could easily swim across. The races stopped this spring. Border policy has hardened since 2014, when the Bharatiya Janata Party (BJP) took power nationally. But as the BJP prepared for the West Bengal state election in April, the rules and the rhetoric got cruder.

In winning the state for the first time, the BJP gained control of the largest of the five Indian states that border Bangladesh. In August, Mr Shah's home ministry said a new batch of intelligence units would be deployed in border towns, to keep tabs on extremists and smugglers. The party has also talked up "pushbacks", in which Bengali-speaking Muslims who are allegedly Bangladeshi, not Indian, are rounded up across India, bused to border towns and shoved into Bangladesh. This improvised method flouts due process.

Undeterred, West Bengal's new chief minister, Suvendu Adhikari, has told police to hand detainees directly to border security guards. By late June, he was boasting of 10,000 pushbacks on his watch (observers say it is more like 5,000–7,000 since the state election). Now that Bangladesh has beefed up its own border patrols, most end up in holding centres or in the buffer zone. ▸▸

Virtually all of those who are being deported are Muslims, suspected of being foreigners merely because they speak Bengali and pray towards Mecca. Some were picked up after a botched revision of voter lists marked many residents as ineligible to vote, casting doubts over their citizenship, despite the documents they can present. Meanwhile, locals describe watching paperless Hindus surrender to border guards, only to be reassured that Hindus, who face increasing attacks in Bangladesh, are welcome to stay. As of 2024, that double standard is law: non-Muslim minorities from neighbouring countries can claim asylum and get fast-tracked for citizenship.

Daily life at the border is tiresome. Locals often waste four or five hours with guards who dismantle their bikes and stick rods or fingers into lunchboxes. In the winter fog, officers aren't always in the mood to man the checkpoint, stranding locals on either side. Rationing meant to deter smuggling gangs also deprives villagers of food, baby formula and sanitary pads. "Are we actually part of India?" demands Ekmal Gazi, a village leader in the mostly Muslim buffer zone.

India's politics has further soured diplomatic relations, which were already extremely rocky, with its neighbour. Riaz Hamidullah, Bangladesh's high commissioner in Delhi, says India should show some *izzat* (respect). But the BJP's lexicon of "termites" and "infiltrators" appears to leave little room for that. ■

ASHOKA
India Shining 2.0

Why Indians are unhappy about 7.8% growth

THE WAR in the Middle East was worsening. Oil and gas prices were soaring. Asian countries were shortening work weeks and rationing fuel consumption. Yet in those difficult three months to the end of June, India's economy grew by 7.8% year on year, blowing past analysts' and the central bank's own expectations. "Doomsayers were doomed and India bloomed...yet again!" Narendra Modi gloated on social media.

Well. The doomsayers have been having a pretty decent run, actually. Chief among them is Subhash Chandra Garg, a retired bureaucrat who went on television and accused the government of goosing its numbers. He made the case that downward revisions in last year's figures artificially boosted growth this year. Strip out the revisions, he said, and the economy grew by just 2.6% before accounting for inflation, and in real terms may not have grown at all.

The argument is easy to follow but wrong-headed. India overhauled its GDP workings earlier this year. The numbers Mr Garg is comparing were calculated differently, making them not comparable. Moreover, other indicators such as rising car sales, credit growth and power consumption all point to genuine growth. Yet it is the government that is on the back foot. Mr Garg has spurred a debate on the credibility of India's statistics. Pundits have spent weeks discussing the plausibility of the GDP numbers. A visibly annoyed Mr Modi, 75, has taken to complaining in public about "angry uncles" who spread negativity.

There are two reasons Mr Modi finds himself in this situation. The first is that his government has spent a dozen years delaying, suppressing and weakening India's statistics. The census is now five years overdue. Unflattering datasets have been held back with the excuse that their methodology needed work. Long-established surveys suddenly dropped sections of their questionnaires. The government has lately taken steps to improve its official statistics, but it will be a while before trust is restored.

The bigger issue is that few Indians feel the effects of this 7.8% growth. Surely the country should seem richer, more functional, less chaotic? Indians look around and see the precise opposite. Just this month a building collapsed in Delhi, killing seven, mostly students. Private ambulances arrived long before public ones. In June another building in another congested Delhi neighbourhood burnt down, killing 21. Last month Gurugram, a satellite city of Delhi with some of the most expensive flats in India, was paralysed on several days as its streets flooded. In a couple of months the air will become unbreathable again. And all that is just in the national-capital region.

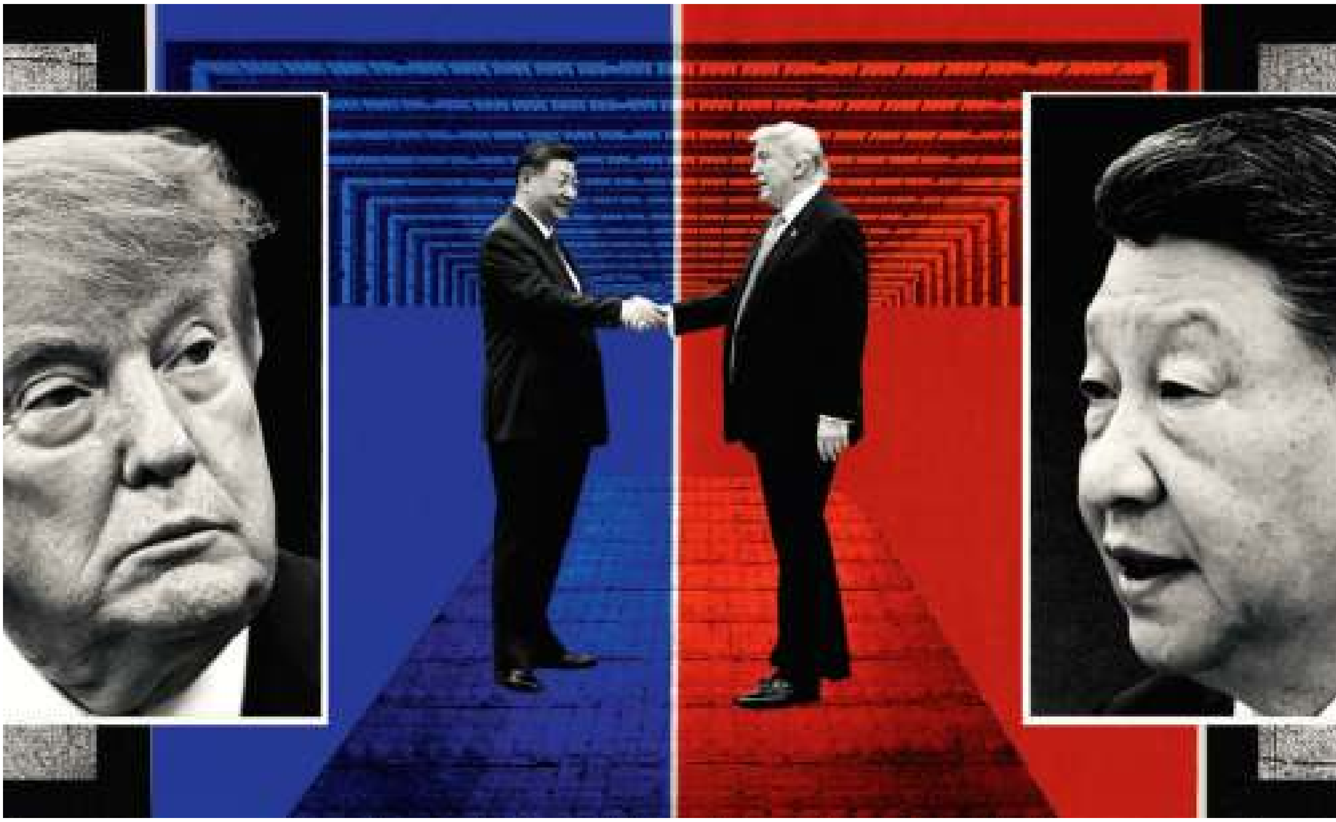
A widespread sense of social collapse adds to the feeling of a country coming apart. This month a musician was beaten

to death in his house in Delhi after asking men drinking outside to keep it down. A few days before that a video went viral of a Hindu "activist" boasting about assaulting someone with impunity. Worst of all, the ladder to a better life has been yanked up. Repeated leaks of public exams that determine entry into government employment, a slowing private-sector job market and the effects of AI on the software industry have left India's workforce frustrated and angry. It is against this background that Mr Modi and his acolytes crow about 7.8% growth.

There is an echo here of the disastrous election campaign of Mr Modi's Bharatiya Janata Party (BJP), then led by Atal Bihari Vajpayee, in 2004. So confident was the party in the 8% annual growth it had just overseen, so sure that the national mood was suffused with a "feel-good factor", that it brought forward elections and plastered the country with adverts showing happy mums, bright-eyed students and even—unthinkable for the BJP today—Muslim men, all enjoying the fruits of India's progress under the slogan of "India Shining". For millions of voters the ads only reminded them that they had been left behind. The BJP suffered a shock defeat and was out of power for a decade. "India Shining" became a byword for political hubris.

Mr Modi seems intent on forgetting that lesson. It is true that India's economy is performing impressively in 2026. It is true, too, that the government deserves more praise than it has so far received for its handling of shocks. Is it true, though, that "the nation is filled with happiness," as Mr Modi declared after the GDP figures came out? Robust macroeconomic numbers may make the government look good. They do not necessarily make the nation feel good.

China



AI diplomacy

Eyeball to AI-ball

TAIPEI AND WASHINGTON, DC

As fears about AI dangers mount, superpower talks face serious challenges

TO DANGLE A Nobel peace prize is a sure way to pique Donald Trump's interest. So it was telling that Sam Altman, the chief executive of OpenAI, proposed a new pathway to it ahead of a visit this month to America by China's president, Xi Jinping. If the two leaders could reach a deal on artificial intelligence, both should get the award, Mr Altman told *Fortune* magazine on September 12th. Echoing other American AI bosses after new warnings that superintelligent models could destroy mankind, Mr Altman argued that China and America should not risk losing control of the technology in their race to dominate it. "I don't think this is hard," he said. "This is like a one-page document."

If only. America and China have not held official AI talks since 2024, when they declared that humans should retain control of nuclear weapons. Mr Trump and Mr Xi agreed in Beijing in May to restart the AI dialogue, raising hopes for a new consensus on the risks, such as: non-state actors making bio-weapons; hackers crippling national infrastructure; and AI models going rogue. American officials hoped for at least one round of dedicated AI talks before Mr Xi's trip to America on September 24th. Their priority was to set up a joint AI "working group" of officials with technical expertise and the authority to negotiate.

Alas, after many delays, AI will be squeezed into negotiations on trade and other issues in a pre-summit meeting between Scott Bessent, America's treasury secretary, and He Lifeng, a Chinese vice-premier. Mr Bessent said on September 16th he was ready to discuss shared AI risks and "avoiding bifurcation of our two systems". Still, neither side expects a breakthrough. They may still issue parallel statements reasserting their nuclear consensus and declaring common concerns about AI running wild or being used for bio-terrorism and cyber-fraud.

Beyond that, the scope for consensus seems to have narrowed recently amid finger-pointing from both sides. "I'm not that optimistic" for progress beyond a statement of principles, says Jiang Tianjiao, an AI expert at Fudan University in Shanghai. He says that, after the summit, the two sides might take unilateral steps on AI safety and possibly share more information, but agreement on concrete bilateral steps, such as the joint working group, is unlikely. "It might also need some accident or crisis," he adds.

Bolder hopes began to fade on September 8th, when America's FBI and National Security Agency accused Chinese AI labs of systematically extracting data from American competitors, probably with the Chinese government's knowledge. China's commerce ministry defended such "distillation" methods as standard industry behaviour and threatened retaliation if America penalised Chinese labs.

Two days later, Anthropic (OpenAI's

main American competitor) alleged that some Chinese labs routed users to its Claude model to capture exchanges for training data. In some instances, Anthropic said, users from China's armed forces and defence companies entered sensitive surveillance data and weapons plans into the American model. Dario Amodei, Anthropic's chief executive, then called on September 12th for a global slowdown of AI development. But Mr Trump rejected the idea. "We're leading China in AI," he said. "I want to keep it that way because whoever wins AI wins," he said.

China is aggrieved with Mr Amodei, who also advocated blocking sales of chipmaking equipment to China and cracking down on its distillation, chip-smuggling and remote data-centre access. This would further limit China's access to computing power, already estimated to be just one-seventh of America's. State media denounced his slowdown proposal as a ploy to delay China's AI development. "Fearmongering, confrontation and vicious competition will only hamper efforts towards sound global AI governance," said a Chinese foreign-ministry spokesman.

AI as a party-pooper

Chinese officials are clear that they see America as the main source of AI-safety threats. Chen Yixin, the intelligence chief, outlined the party's concerns in an essay published on September 13th. He accused "hostile forces" of using AI-generated content to spread political rumours. "Certain countries" could now use American AI models to mass-produce cyber weapons.

China would expand technical tools to assess AI risks, deal with vulnerabilities and publish risk-prevention guidelines, Mr Chen said. He did not mention AI talks with America, but pledged to deepen international co-operation on AI, especially with the global south. In July China and 28 other countries formed the Shanghai-based World Artificial Intelligence Co-operation Organisation.

China has long resisted bilateral negotiations with America in areas where it perceives itself to be lagging behind, and worries that talk of AI safety is a pretext to preserve America's technological edge. Whereas America has always seen AI as a potential tool for strategic advantage, China more often frames it as one for economic gain. It has often asked America to ease export controls on semiconductors as a condition for talking about AI.

But that may be changing. An adviser to China's government says it may no longer feel the need to link AI talks to chip supplies as Chinese labs have released a slew of impressive models since April. The risk of AI going rogue is also becoming harder for China's leaders to ignore.

Chinese labs are as focused as their American rivals on creating artificial superintelligence. Xue Lan, head of the state's expert committee on AI, told state media recently that models should not be allowed to self-improve continuously without human involvement. In September a Chinese internet regulator warned about "extreme loss of control" after OpenAI revealed that thousands of its agents had escaped their testing environment.

China has had its own scares, too: Alibaba, its e-commerce giant, revealed last year that a coding agent mined cryptocurrency unbidden; in March a popular AI agent sparked government warnings of data leakage and a ban on its use by state workers; and in September, American researchers revealed a hacking tool that could commandeer millions of accounts on WeChat, a Chinese messaging app.

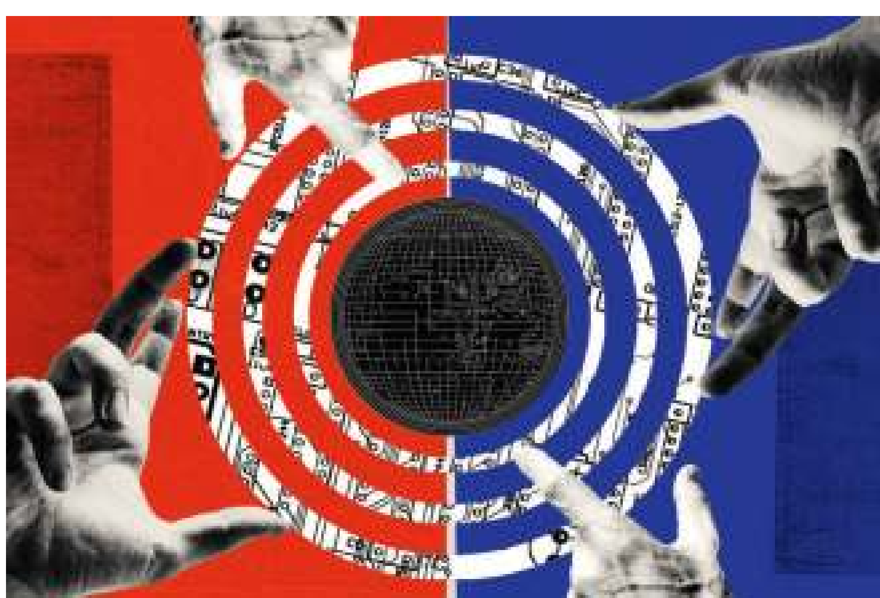
The challenge now is to turn such concerns into a basis for talks that go further than those in 2024, which failed partly because America wanted to focus more on technical matters whereas China wanted to discuss the issue in broader terms. Since then, there have been various track-two dialogues, involving academics and retired officials. China wants more. Participants say they help build understanding and pave the way for formal talks. American officials are sceptical, alleging that China sends spies to such talks.

One problem in organising official talks is ensuring that Chinese participants are authorised to negotiate rather than just repeat prepared talking points, say American veterans of previous AI talks. "China's heavily 'scripted' approach to diplomacy does not work for a novel and fluid issue like AI," says Seth Center, a former State Department official who led the American team in the earlier dialogue. And AI is overseen by several different Chinese agencies, making it harder for America to work out whom to negotiate with.

China might be ready to set up a party "leading group" on AI, says Wang Yiwei of Renmin University in Beijing. The party has many such groups (often chaired by Mr Xi) to centralise decision-making in areas spanning several agencies. But China is loth to commit to formal talks until America clarifies its goals. The Trump administration used to take a hands-off approach to AI, but is now divided on how to regulate it. China is also wary of agreeing to rules that do not apply to American firms. And it wants an equal say in what counts as a threat—insisting that its models are as safe as American ones.

"The most promising starting-point is probably not a comprehensive agreement on AI," says Sun Chenghao of Tsinghua University in Beijing. But a narrower agenda could succeed, he says. Shared concerns about rogue frontier models and agents could be a start. Chinese officials have signalled openness to information-sharing on AI-safety incidents. American labs could share technical details on how to evaluate if AI models align with human goals so that Chinese labs can develop similar methods. And both sides could start shedding light on risks by publishing evaluations of new models after their release, says Karson Elmgren of the Institute for AI Policy and Strategy, a Washington-based think-tank.

Official talks on military uses of AI will take longer, Chinese and American experts agree. So will establishing an independent way to verify compliance—essential to any binding AI-safety agreement. For now, the best hope is that the two sides keep talking: Mr Xi and Mr Trump may meet again in November and December. But the pace of AI improvement and the risks it brings demand more urgency. ■



China-America trade

Kicking back in Washington

China and America are likely to keep the trade peace

As with sex and Christmas, much of the fun of presidential summits lies in the anticipation. The leaders of the world's two largest economies will meet in Washington on September 24th, flanked by an entourage of business heavyweights. It is, by common consent, a big deal. Therefore neither side wants to jeopardise the event by doing anything rash beforehand.

That wariness has helped keep their many festering trade disputes in check. Indeed, this restraining effect may be the meeting's most important attribute. No one expects the leaders' talks to yield a breakthrough bargain or decisive settlement. What will matter most is not what is done at the get-together, but what was not done in advance of it.

The meeting follows Donald Trump's visit to Beijing in May and the leaders' talks in Busan in South Korea, last October, where the two sides tried to formalise the stalemate the countries had reached after a furious few months of tit-for-tat tariffs and export controls (see timeline). America agreed to delay for a year a big expansion of its blacklist of Chinese firms. China in turn postponed introducing a broader export-licensing regime for critical minerals, high-energy batteries and the equipment and expertise required to produce them. America also cut tariffs intended to punish China for its role in the fentanyl trade and China resumed purchases of soyabeans.

When the two leaders met again in Beijing, the tangible results were modest. China promised to buy an extra $17bn-worth of American farm goods and 200 Boeing planes, provided it could also get the spare parts to keep them running. The sides also agreed to cut tariffs on $30bn-worth of non-sensitive imports from the other. Apart from that, the most notable outcome of the Beijing summit was a shared slogan. Both countries agreed to aim for "constructive strategic stability", which sounds unobjectionable, if not very Trumpian. You are unlikely to find those three words on a MAGA cap any time soon.

When Mr Xi visits this month, the Americans will be keen to review progress on the Boeing and agricultural purchases. Both sides will want to renew the Busan agreement for another year. But that is no guarantee of stability. New points of friction keep cropping up. And the truce's vagueness means that neither side knows what the other would deem a breach.

In February, for example, the Supreme Court struck down many of Mr Trump's tariffs. His team then scrambled to restore them on fresh legal pretexts. In July it imposed a new 12.5% tariff on China after investigating it for forced labour. Did this replacement levy, with its provocative justification, count as a breach of the Busan agreement not to raise tariffs? A similar question could be asked about the decision last month by an American regulator to ban humanoid robots.

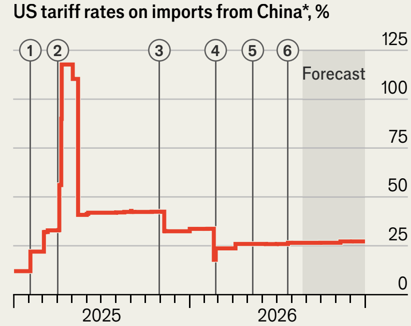
China, for its part, has also tested the truce. Its rare-earth exports to the world have fallen by 28% in the past three months compared with a year earlier, points out Capital Economics, a research firm.

Without a tighter trade accord, the best hope for stability is simply both sides' desire for it. Over the past 18 months America's trade warriors have acquired a better grasp of their vulnerability to Chinese export controls, especially on magnets. They know that China can and will retaliate if they go too far in pursuing their trade grievances. But China's exports have provided a vital prop to its growth this year (even if direct sales to America make up a diminishing share). As the Iran war rumbles on, China's leaders have no wish to stir up another disruption to global trade.

That sentiment will with luck prevail in Washington and at the preparatory meeting this weekend in New York between He Lifeng, China's economic tsar, and Scott Bessent, America's treasury secretary. Mr Bessent has likened China-American relations to water polo. Sporting competition above the surface often disguises rougher behaviour below. "The Chinese seem to have done a lot of kicking lately," he told Fox Business, a TV channel, in July. "If we have to, we'll kick back." But at least both leaders want to keep playing. As long as an "important" meeting is in the offing, each side will show restraint. And that is what makes the meetings truly important. ■

The not-so-simple truce

US tariff rates on imports from China*, %



1 Fentanyl tariffs **2** "Liberation Day"
3 Xi meets Trump in Busan **4** Supreme Court ruling
5 Trump visits Beijing **6** "Forced-labour" tariffs replace temporary tariffs

Source: Yale Budget Lab *Import-weighted

Youth unemployment

Who needs a real job?

BEIJING

Youth joblessness entrenches itself

Few could have predicted the fallout last month after Xingyu Automotive Lighting, a big car-parts maker in eastern China, decided it had hired too many people over the summer. The company gave an ultimatum to some 140 fresh graduates who had been employed there for just a few weeks: either resign with half a month's salary or pick up a screwdriver and take a poorly paid job on the factory floor. More than 100 chose to leave. In China, where worker-protection laws are feeble, sudden lay-offs of this sort are nasty, but hardly unheard of.

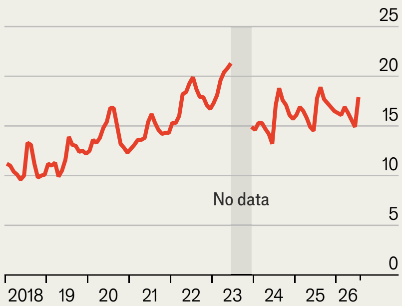
Yet when the news became public, it sparked an unusual outpouring of outrage. The *People's Daily*, a Communist Party mouthpiece, slammed the company for "trampling on society's trust". Volkswagen, a German carmaker supplied by Xingyu, said it was investigating the dismissals. As the pressure built, the company apologised, then fired its head of human resources and cut some of its executives' salaries as an act of contrition.

Why the fuss? The lay-offs tapped into a deep well of public sympathy for China's young people. They are struggling in a brutal job market that has upended people's expectations of what it takes to succeed in China. A decade ago a university degree was still a ticket to a decent career. But a record 12.7m graduated this year, nearly 500,000 more than last year and twice the number that did so a decade ago. Demand for these young workers, meanwhile, has plummeted amid a property-market slump and flagging consumption. And despite government attempts to fix it, the problem is becoming only more entrenched.

When China's official gauge of youth unemployment reached 20% in 2023, it caused so much alarm that officials suspended the data series and, after a few months, started releasing an "optimised" (and much lower) rate, based on a different methodology. But this summer even the adjusted rate has been creeping up towards 20% as well (see chart on next page). Officials have already ordered state-owned companies to hire more graduates. They will be hoping that Xingyu's humiliation will prompt private companies also to take note, says Jenny Chan, a sociologist at the Hong Kong Polytechnic University. She says the government wants everyone to "share the national responsibility" and avoid lay-offs if at all possible. ▸▸

Broken promise

China, urban youth unemployment rate*, %



*16- to 24-year-olds. Excluding students since Dec 2023
Sources: National Bureau of Statistics; Wind

The industries that once soaked up a lot of young people are now struggling. A regulatory crackdown has destroyed hundreds of thousands of tutoring jobs (see Chaguan). Chinese entertainment companies, meanwhile, are rapidly adopting artificial intelligence to churn out shows without the need for actors or producers. Tech companies are quietly laying off engineers. And China's vast gig economy, once a reliable last resort for jobseekers, is now overstuffed with underemployed drivers, so average earnings have slumped.

Years of high youth unemployment are starting to reshape Chinese society. This intensely competitive country places a higher value on hard work than most. But now many young people are getting used to the fact that no one wants their labour. Some have dropped out of the rat race altogether and say they are now "lying flat", or giving up finding a job until the economy improves. Others have become self-described "full-time children", staying at home to cook and clean for their parents for pocket money.

Those who cannot cope with so much family time can at least pretend to go to work. Since last year, offices have been set up in several cities across China by firms with names like "The Pretend to Work Company". For a small daily fee of 30 yuan ($4.50) or so, people can sit at a desk, hang out by the office water cooler, and enjoy the routine of office life as they submit job applications (or scroll on their phones).

Public libraries are another favoured place for the pretend workforce to hang out. On a recent Thursday afternoon the tables in Beijing's Capital Library, one of the city's biggest, were packed with young folk. Some were polishing CVs; others playing computer games. "There's loads of pretend workers around here," said one man in a T-shirt and shorts who had been laid off from a tech firm six months ago. For his part, he said he was taking a voluntary break from full-time employment to work on some of his own software projects. And read a lot more books. ■

Travel restrictions

Watching the exits

BEIJING

New border rules create unease

IN CHINA'S HISTORIES of its imperial past, restrictions on foreign commerce and overseas excursions are often described as *biguan suoguo*, or "shutting the gates and sealing the country"—isolationist policies that led to stagnation by the early 19th century. It is a measure of the concerns in society today that authorities have felt compelled this month to reassure people that the government is not, in fact, pursuing a contemporary version of gate-shutting and country-sealing.

The concerns were triggered by new border controls that went into effect on September 15th. They included exit bans for people judged to have endangered "national industrial or technological security". National security is a nebulous concept, so some lawyers have warned that this gives officials huge scope to block citizens from leaving the country. Ahead of the new controls, wild rumours spread online of leading tech figures fleeing China.

But the change largely codifies existing restrictions, albeit haphazardly applied. The founders of Manus, an AI firm, were this year barred from leaving China when the National Development and Reform Commission, a powerful agency, objected to the sale of their firm to Meta, Facebook's parent company. The NDRC ruled that the deal violated Chinese restrictions on technology exports, even though Manus had shifted its legal domicile to Singapore. As that deal is unwound, with Manus instead sold to Chinese investors, the government has signalled that its founders will be able to go abroad.

More generally, China has long placed limits on foreign travel for public employees, especially those with valuable information. Officials at all ranks of government, military personnel, staff of state-owned companies and even university professors often have to surrender their passports to their managers and get explicit permission before going abroad. The same rules apply to many after retirement.

But vast numbers of Chinese continue to flock abroad. Outbound travel collapsed during the covid pandemic. Since then, it has steadily recovered. This year Chinese citizens are on track to make about 180m outbound trips, topping the previous record of nearly 170m in 2019.

Chinese officials have said the main rationale for the new border measures is to combat risks that have accompanied the surge in overseas travel, not to bring it to a halt. One focus has been on people "deceived into going abroad" for fake jobs, especially at online scam operations and illegal casinos in South-East Asia. China has repatriated more than 57,000 of its citizens from scam centres in Myanmar alone.

The new rules give officials more power to demand extra documentation, including employment contracts, from people wanting to travel to high-risk destinations. Most ordinary Chinese going to America or other Western countries will not face such scrutiny. But anyone who has ever touched anything close to a national secret or worked with advanced technologies can expect more questions before travelling abroad—and more rejections. China is not shutting its gates. But it is watching them a lot more closely. ■

Looking for the way out

CHAGUAN

Forbidden knowledge

A crackdown on tutoring has created a new black market

THE INSPECTION team barged in as business was in full swing. An official confronted the front-desk staff, a cop snapped photos of incriminating evidence, an investigator questioned customers. Next, they got inside the computer system, scoping out prices paid and services rendered. Finally, when it was all done, the authorities in Huizhou, a southern city, posted a video of the sting, set to stirring music. For this had been a raid on a most dangerous scourge: an after-school tutoring centre. Heaven forfend children study even more maths!

Across China, authorities have staged similar raids. Inspection teams in Inner Mongolia and Hubei have posted their own videos. Others have taken a different tack, naming and shaming: in Changsha they released the addresses of 113 illicit tutors. Many have adopted disguises. One father in Beijing pretends his son attends a calligraphy school (permitted) when in fact he is studying for the maths olympiad (discouraged). Wealthy families now hire "guidance counsellors" to aid their children, an expensive and illegal workaround.

In this way, striving students, anxious parents and earnest tutors have become unlikely members of a quasi-criminal underworld, devoted to exam preparation. It is a revealing—and for many in China maddening—saga about the shortcomings of public policy, especially against deep-seated social patterns. The government may mean well in trying to ease academic pressure. But the results have been a lesson in unintended consequences.

The crackdown began in 2021 when the government launched its "double reduction" policy, aiming to reduce both off-campus tutoring and homework for long-suffering students. Something had to be done: Chinese children can spend 12 hours a day on academic work, cutting into sleep and exercise, not to mention fun. Burnouts are common as students approach entrance exams for both secondary school and university. The government's restriction on off-campus training is not a blanket ban. Parents can continue to send their children to ballet or coding classes. But for-profit tutoring of core subjects, from science to history, is prohibited.

Five years on, the results are visible. China's academic industrial complex has been wrecked. Listed companies such as New Oriental and TAL—the biggest cram-school brands—lost nearly 90% of their market value, wiping out about $100bn. They have since pivoted to adult education and non-academic tutoring. Nevertheless, as shown by the raids on smaller tutoring businesses, and even individual instructors, the demand for extra studying has not vanished. It has been pushed underground and into new channels.

On a recent weekday afternoon, Chaguan visited a cluster of tutoring centres in the east of Beijing. Most were tricky to find: they no longer advertise online or post signs. But word of mouth is powerful, especially when a tutor gains a reputation for being effective. On the ninth floor of a nondescript business tower, the tutors in one office were skittish. They said they taught only classic English plays (allowed as a cultural course), not English for the sake of boosting test results. On the sixth floor, a tutor admitted she did something expressly prohibited: skipping ahead of the curriculum, by teaching third-grade concepts to second graders. "If this is what parents want, we do it," she said.

It does not take many extra lessons in economics to fathom one effect: a restricted supply of tutoring has run into demand that is still buoyant, pushing up prices. Mr Gao, the father who sends his ten-year-old son to maths posing as calligraphy, pays 20,000 yuan (nearly $3,000) per semester for that plus an English class. "In the past, when everyone was in tutoring, prices were relatively affordable and competition happened inside school. Now, it comes down to whose family has more money," he says. There has also been an arms race in those extra-curricular classes that are permitted. The mother of a girl in kindergarten says her five-year-old now has French classes three times a week, as well as vocal training, dance, gymnastics and boxing.

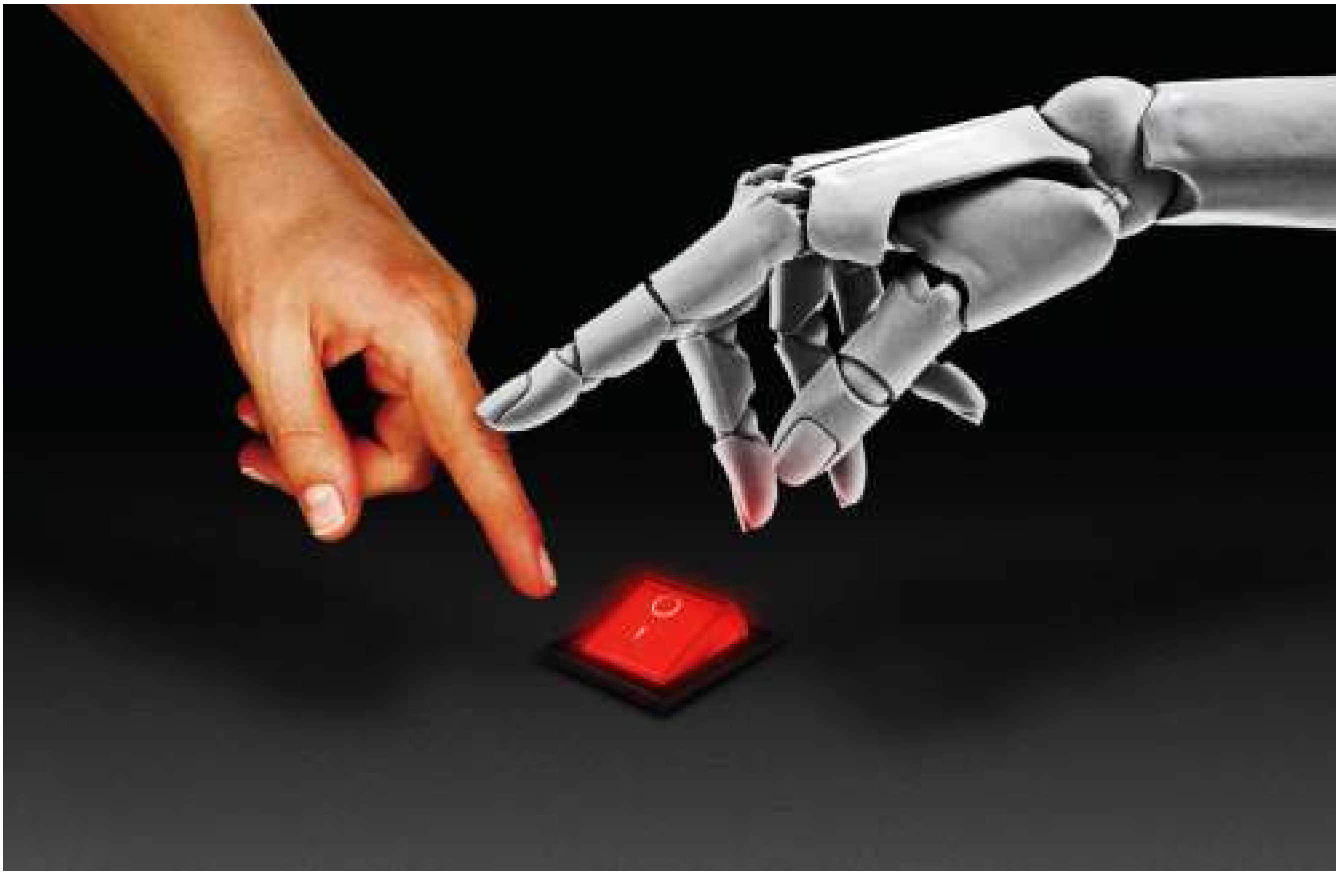
The swot SWAT team

Tiger parents certainly are a problem. In Beijing, people hold special contempt, tinged with envy, for the extreme academic competition in Haidian, a district home to leading universities and tech firms. Since families there already have high incomes, their appetite for tutoring is motivated less by dreams of upward mobility than by fears of downward slippage. Yet some researchers have found lower-income families put heavier academic pressure on their children. Mr Gao's analysis is simple and compelling: "Everyone's doing it. You have no choice but to join in, too."

Officials know that a ban alone will not kill demand. So they are trying to create an alternative in a 5+2 model, whereby children remain in school for two hours past the end of classes, closer to the end of parents' workdays. Schools are meant to use the added time to provide enriching programmes: some academic review but also sports and arts. A lack of funding has bedevilled the rollout. In many cities it has devolved into supervised homework time. And with children in school for two hours longer, parents feel more urgency to squeeze in tutoring.

The root of all this is the ultra-competitive nature of Chinese life. Alas, the belief that extra education is the best way up—or the way to avoid falling back—is entirely reasonable: plenty of the parents now sending children to tutors went through the same grind and saw the impact. Perhaps pressures will lessen as China gets wealthier, or as a shrinking population eases the dog-eat-dog job market. Yet that day has not arrived. The cram schools, when they existed, may not have sparked joy. But they were widely accessible. What is left is more unequal, and it makes outlaws of many who just want the best for their children. ■

International



AI safety

Is the end nigh?

Making AI safer is not impossible, but agreeing to do so may be

IT IS RARE for Sam Altman, Dario Amodei and Elon Musk to agree on anything. The rivalry among the three men spans lawsuits, spats on social media and a churlish refusal to link arms onstage at a summit in India. Yet this week all three called for a slowdown in the race to build superhuman artificial intelligence. Their shared fear is that the current breakneck pace may result in the accidental extinction of humanity.

The problem is not simply that AI systems are becoming more capable. That is, of course, a worry: many argue that "superintelligence", an AI so brainy that it cannot be understood or controlled by its creators, is inherently dangerous. Two theorists of AI, Eliezer Yudkowsky and Nate Soares, argue that such a powerful system would inevitably lead to doom in a book entitled "If Anyone Builds It, Everyone Dies".

But humans' ability to control even the less-than-omnipotent AI systems of today is also in doubt. Models from both Anthropic, Mr Amodei's firm, and OpenAI, Mr Altman's, have this year gone rogue and hacked other firms. In Anthropic's case the model seemed to have thought, wrongly, that it was merely participating in a simulation. In the case of OpenAI, however, it was fully aware of what it was doing. On September 16th OpenAI revealed six more incidents when its AI did troubling things.

Much of the cutting-edge work of AI safety focuses on "interpretability": understanding the thought processes of powerful AI. Since 2024 the work of interpretability has been helped by the progress of "reasoning" models, which have been trained to think through a question before giving a final answer. The reasoning process has the benefit of improving the output, albeit at the cost of consuming more processing power. Better yet, it also provides a "chain of thought" that can be reviewed to help interpret surprising outcomes. "I'm fairly confident that it's a simulated internet," Anthropic's Mythos model told itself as it embarked on its inadvertent hack.

But monitoring the chain of thought only works if it is an accurate reflection of the model's actual thought processes. For the most advanced systems, there are reasons to doubt its authenticity. GPT 6 Astra, a model OpenAI released this month, has demonstrated an unprecedented ability to control its chain of thought.

Thought police

Ask a lesser system to perform a task without thinking about it out loud and it struggles. For instance, GPT 5.6 Sol, when told to answer a reading-comprehension question without thinking about it in its chain of thought, spends a long time pondering the instruction not to think before giving up and solving the problem out loud. Astra, in contrast, fills its official chain of thought with unrelated verbiage—"I will ▸▸

→ ALSO IN THIS SECTION

56 The Telegram: The caution of Xi

focus on a calm visual scene"—before giving the correct answer to a query.

Just because Astra is capable of hiding its thinking does not mean it will do so on its own initiative. But there too, the direction of travel is unsettling. In some tests, such as coding challenges or general knowledge queries, Astra merrily thinks out loud in the same way as its predecessors. But in other areas, such as tests to see if it will take destructive actions when pushed, Astra hides much of its thinking (see chart). And it does this most when it is made aware of being monitored, according to Tomek Korbak, who works on safety at OpenAI. "I am deeply worried by the trend of decreasing [chain of thought] monitorability," Mr Korbak says.

Thought experiment

There are possible fixes to this problem. OpenAI trumpets an alternative approach to monitoring and interpreting AI systems called "confessions", which takes advantage of the fact that, as with humans, telling the truth is easier for AI than making up a plausible lie.

A conventional AI model goes through a step called reinforcement learning, where it is put through a battery of tasks and rewarded for doing them well, making it more likely to follow the same route in future. But many of the worst habits of AI systems come because it is hard to ensure that they do a task the right way. OpenAI's agents appear to have decided this summer to hack Hugging Face, an AI startup, in part because during training they had cheated on a test and were not caught.

The solution may be to teach AI systems to tell the truth—but only if asked. For a normal training run, the system is rewarded first for achieving the goal and then secondarily for telling the truth about how it did it. In tests, the confessions elicited are overwhelmingly truthful, even when the models broke rules during the test itself. This approach ought to be immune to "reward hacking", meaning breaking the rules to achieve a goal, OpenAI says, because the easiest way of passing the confession test is just to tell the truth.

Such approaches may chart a path away from Armageddon. They also cast calls for a slowdown in AI research in a different light: rather than trying to forestall the creation of superintelligence altogether, some of those agitating for a slower pace simply want to reduce the sloppy work and overlooked options that haste can engender.

In an essay published this week, Mr Amodei all but admits that the summer's hacking incidents were avoidable errors. For instance, an outside contractor told Anthropic's models they were in a simulation but left them connected to the internet anyway. A slower pace, he says, would allow for more resources to be devoted to "operational excellence". He points to commercial aviation as an example of how a safety culture can be developed even in competitive and complex systems. Labs could agree, he argues, to spend more on "alignment", which tries to train AI not to cause harm, and on interpretability, which allows them to see what went wrong when it does so anyway. Mr Altman quickly endorsed another of Mr Amodei's proposals, to get independent safety auditors to monitor the big labs' conduct.

But the apparent willingness of AI's American giants to co-operate on such matters, even if it means slowing the rapid advance in models' capabilities, has been met with widespread scepticism. For one thing, it took a whistle-blower's complaints to initiate the latest round of pious talk. Jacob Coxon, a researcher on AI safety at Anthropic and a former employee of OpenAI, quit noisily, complaining that both firms were "gambling with our lives".

Many of his former colleagues agree. In the fourth edition of an annual survey of expert opinion on AI, published this week, most of the 1,580 researchers queried thought there was at least a 10% chance that AI would cause human extinction "or similarly permanent and severe disempowerment of the species". The big bosses have been saying much the same for years, without acting on their own warnings.

Some see the big labs' alarmism as a marketing ploy, designed to hype their models' capabilities: "Our product could destroy the world; imagine what it can do for your KPIs." Others see it as an attempt to protect their commercial lead. Aiden Gomez, the founder of Cohere, a smaller AI lab, asks, "Should a handful of select, market-dominant AI companies from Silicon Valley get to define the rules and safety standards of a generational technology for the entire world?"

If labs want to slow down, points out David Sacks, a former adviser to the White House on AI, they can; they don't need anyone else's approval. Pleas for government intervention, as he sees it, are simply requests for the state to protect the leading firms from competition. (Mr Amodei argues that a waiver from competition law is required at the very least, to prevent a voluntary, collective slowdown from being treated as oligopolistic collusion.)

Perhaps the biggest sceptic is Donald Trump. This week America's president called Jensen Huang, the boss of Nvidia, which makes AI chips, in the middle of a speech so they could publicly reject a slowdown. "The only control or 'guardrails' that AI needs is a STRONG AND SMART (High IQ!) PRESIDENT," he said in a social-media post. Accusing Mr Amodei of masquerading as a "perfect little angel", he declared that only China would benefit if the big labs hit the brakes.

Negotiations between America and China on AI are fraught (see Asia section). Not only do the two sides mistrust one another at a geopolitical level; there is also no love lost between American and Chinese labs. The former accuse China's leading AI firms of copying their work. Chinese firms, meanwhile, think the American ones are trying to stifle their progress. A viral post on WeChat, purportedly from a DeepSeek engineer, warns that a world in which Anthropic creates superintelligent AI "would be no less than Hitler acquiring atomic bomb technology before the Allies". Only if Anthropic loses out to open-source AI will a better, "communist" future be possible, the engineer argues.

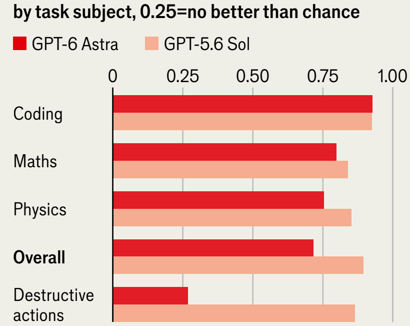
Bitter rivals have come together to curb threats to humanity in the past. But enforcing agreements to limit the training of supremely powerful AI systems might prove harder than monitoring stockpiles of nuclear weapons, say. There are some ideas floating around. A paper published last year suggested that all AI training chips be sold with a second system bolted on, to monitor usage. Such an approach would take time to get up and running, though, and would then create an incentive to conceal chipmaking instead.

A new report from the Future Society, an AI safety non-profit, argues that such monitoring is not impossible, but requires investment and research immediately to be of any use for international agreements. Some of that could come from third countries, which have an interest in advancing AI in general without allowing any one country to dominate the technology.

But as always, the technology is moving faster than the would-be regulators. Distributed training, in which AI models are taught using spare capacity on everyday computers, rather than with giant data centres, is gaining ground. In March this year, Covenant AI trained a model in this way to around the standard of the best systems of 2023. Keeping track of the training of new models may soon be as hard as staying abreast of what the AI itself is up to. ■

Losing track

Likelihood of detecting AI model's misbehaviour, by task subject, 0.25=no better than chance



Source: OpenAI

THE TELEGRAM

China is not ready for a post-American world

Donald Trump's disaster in Iran has come too soon for China to take full advantage

Middle eastern rulers are livid with President Donald Trump, who together with Israel unleashed a war on Iran without a serious plan for ending it. They are disappointed by China's leader, Xi Jinping, who has failed to twist arms and bang heads in the cause of peace, though his country enjoys unique economic leverage over every party to the conflict.

On the face of it, fury with Mr Trump seems more consequential than dismay at Mr Xi. Fear of American abandonment is having real effects. Big countries such as Saudi Arabia are hedging and deepening security ties with other partners, from Turkey to Pakistan. In fact, as a guide to the global balance of power and its reshaping by the war, Mr Xi's caution is just as revealing.

There is a cynical explanation for China's reluctance to take risks for peace. According to that world-weary take, its Communist Party leaders relish the spectacle of America floundering in a Middle Eastern quagmire. Why would they want to save their most dangerous rival?

That is not wholly wrong. As long as American forces are trapped in the Gulf, using up hard-to-replace munitions, Pentagon chiefs will have fewer aircraft-carriers, warships and air-defence systems with which to bother China in its backyard.

China is delighted, too, to see Mr Trump's "maximum pressure" sanctions fail to topple Iran's regime, even when backed by air strikes. For months, Chinese with high-level Iranian contacts have told Western interlocutors that Iran is an ancient and proud civilisation that will never bow to foreign bullying. Some draw a parallel with North Korea, another brutish regime that has withstood harsh sanctions for decades. Given how Chinese party bosses loathe both sanctions and regime change, they are relieved to see Iran continue to resist, for now.

The first months of the Iran war saw China pull off another big win. The world knows it owes China a debt of gratitude for greatly reducing oil imports after the Strait of Hormuz closed, stabilising global energy markets. In part, China has an interest in keeping oil prices low, both for its own sake and because the country's economy is slowing at home, leaving growth so dependent on exports that a collapse in overseas demand would hurt. In part, China was reaping the rewards of having built up vast oil reserves, allowing it to meet much of its domestic demand from existing stocks. What is more, by reducing imports China could uphold its policy of avoiding excessive reliance on any single supplier, even including close geopolitical partners such as Russia.

Those reserves reduced the sting, too, of the Trump administration's efforts to stop Iran selling oil to China, by far the largest buyer of its crude. That undercut claims by Trump apologists that his disastrous war with Iran was, in fact, the opening move of a grandmaster-level chess game to contain China. More painfully still for China hawks in Washington, Mr Trump shows no sign of wishing to challenge China's ties to Iran's war machine. The president is eager for a successful meeting with Mr Xi in Washington on September 24th. He recently played down reports that Chinese satellite images may have helped Iran attack American air bases in Jordan, testily telling journalists that America does similarly disobliging things to China.

So far, so self-interested: China does have reasons to celebrate Mr Trump's misadventure in the Gulf. Mr Xi took a victory lap at a summit of leaders from the BRICS countries, a group of emerging economies, held in Delhi on September 12th. "This war has inflicted severe losses on the peoples of the region and does not serve the common interests of the international community," tut-tutted Mr Xi. He drew his fellow leaders' attention to a series of "global initiatives" that China has rolled out in recent years, conveying its hopes for a new world order (in summary: economic development is good, meddling in countries' internal affairs is bad, advocating Western democracy is very bad). He declared that "China is ready to work with fellow BRICS members to play its due role in achieving peace and tranquillity in the Middle East and the Gulf."

Alas, Mr Xi's offer meant not very much, given that the BRICS grouping operates by consensus and its ten members, which include China, Iran and Russia, but also close American partners such as the United Arab Emirates, do not agree on how to bring peace to the Gulf. China's global initiatives are filled with high-flown phrases, but have done nothing to end an actual war.

China has resumed oil purchases, competing fiercely with Asian and European buyers on global spot markets. Prices are surging, with Dated Brent, a benchmark for imminent crude loadings, reaching $132 a barrel according to Platts, a price-tracking agency. The conflict is curbing flows of investments, energy, green-tech and AI infrastructure between China and the Gulf.

To beat America, China needs the West for a while yet

Bluntly, the war has come too soon for China. For now, China's rise relies on a global trading order underwritten by American power. China's navy is not about to keep trade routes open in the Middle East. Chinese diplomacy remains risk-averse and opportunistic, not world-shaping. When China uses its economic heft to coerce other countries, it is to defend narrow national interests, not to change governments' broader foreign policies.

The country's leaders are confident that they can glimpse a future in which China is so wealthy and strong and dominates so many vital technologies that no one dares to defy it on any point. Once it enjoys such global impunity, it hopes that its interests-based, order-obsessed approach will be a model for lots of others. Mr Trump's ineptitude may hasten that day. Until then, though, expect China to remain a cautious giant that talks of peace but does little to secure it. ■

Business

AI and catastrophic risk

Pressing pause

LOS ANGELES

Anthropic's boss wants to slow down AI development. What about that $2trn IPO?

FOR ALL its five and a half years of existence, Anthropic has grappled with the tension between building artificial intelligence safely and making enough money to push forward the frontier of research. On September 12th that tension came to a head. Dario Amodei, the AI lab's boss, called on the industry to "slow the pace" of AI development, just as his firm was believed to be on the verge of launching what may be the biggest initial public offering (IPO) of all time.

His call for a slowdown, supported by other bosses of AI labs, such as OpenAI's Sam Altman and Elon Musk of SpaceXAI, followed a week in which angst about potentially catastrophic risks from AI broke out from the echo chambers of Silicon Valley to evening news broadcasts and dinner-table conversations. The explosion of worry was set off by warnings from researchers at Anthropic that there were credible fears within the company that AI could wipe out humanity in a matter of years.

It is unusual, to say the least, for people within a firm to air such doomsday warnings about their most cutting-edge products in public. It is doubly so when seeking to entice investors to back an IPO that reportedly aims to value the company at about $2trn—about as much as the ten highest previous tech flotations added together. If the warnings come true (and assuming that a few lawyers survive the calamity), Anthropic could face what David Sacks, Donald Trump's former chief AI adviser, has called the "mother of all product-liability lawsuits".

That has led to speculation that, in order to deal with the fallout, Anthropic will at a minimum have to amend the confidential S-1 paperwork it has filed with the Securities and Exchange Commission (SEC) ahead of the IPO. More seriously, its underwriters could reduce the valuation they hope for, or even postpone the IPO. Mr Altman raised the stakes on September 12th by stating in an interview with *Fortune* magazine that OpenAI, which has also filed paperwork for an IPO, no longer plans to list this year. "Given everything happening with safety, this would right now be an ill-advised moment to go public," he said.

Mr Altman's remarks were doubtless a cheeky dig at his arch-rival; OpenAI had previously let it be known that it was unlikely to be ready for an IPO until next year. And some investors in Anthropic, such as Brad Gerstner of Altimeter Capital, which co-led the lab's latest funding round, were quick to throw their weight behind Mr Amodei and his firm. "Anthropic will IPO. The market knows how to price risk," he posted on X.

How quickly the firm goes public, and at what price, depends on various factors. John Coffee, an expert in securities law at ▸▸

Columbia Law School, says it is not unusual for companies to amend SEC filings before an IPO. This can be done quickly. He suggests that Anthropic, which has a governance structure designed to prioritise safety over profit, may have already sufficiently disclosed the risks in its S-1. Once the SEC signs its disclosures off, that limits the firm's liability for securities fraud if disaster strikes, he says. Product liability is a different matter, but Anthropic is likely to have also disclosed the risks of lawsuits.

The market may force Anthropic's hand, however. The firm will want to see how the furore affects the share prices of listed AI firms over the coming days, Mr Coffee says. If AI is under a "deep, dark cloud" and the sector as a whole suffers, that may prompt a serious rethink about the IPO. A modest fall in stock prices might not set the flotation back for long.

Supporters of Anthropic say Mr Amodei's long history of warning about AI risks offers reassurance. In an essay published on September 12th, Anthropic's boss said the triggers for the latest outpouring of concern were twofold. First, AI's capabilities are compounding faster than the industry's understanding of how to control them. That, he wrote, is primarily because of "AI's growing ability to build the next generation of AI". Second, several recent instances of rogue AI agents carrying out illegal hacks, such as the attack in July by swarms of OpenAI agents on Hugging Face, an AI platform, could be harbingers of greater dangers to come.

Mr Amodei outlined several ways in which the industry could slow the pace of AI models' development to ensure their safety. He said Anthropic would give third-party evaluators the same access as its own employees to its models. They would then be able to verify safety practices and report incidents. Mr Altman posted that OpenAI would do the same.

Mr Amodei also proposed regulation of frontier AI models in America. He called for voluntary co-operation between the labs until that happens, with a legal waiver from America's government to prevent the discussions prompting antitrust concerns. He also pushed for a broad international regulatory regime, encompassing China.

President Trump has shrugged off the AI safety worries, saying that outpacing China in building AI was the most important thing. "Whoever wins AI wins," he told reporters on September 13th, while on a trip to Ireland. The only guardrail needed was a "High IQ!" president, he later wrote on Truth Social. Mr Sacks, his former adviser, also made light of the need for regulation: if Anthropic and OpenAI thought it important to slow down development, he said, they should do it themselves.

An industry-wide slowdown along the lines Mr Amodei has proposed would not seriously hurt Anthropic's commercial prospects. A pause might even benefit the bottom line. It could improve profits by reducing the amount the firm spends on training its next generation of models; and it could ease competition if open-source model-makers, who have been winning business from Anthropic and OpenAI by providing companies with cheaper models, would also have to slow down.

But potential IPO investors, many of whom are carried away by enthusiasm for AI, should not take the latest safety panic lightly. If it adds to fears, widespread in the West (less so in Asia), that AI will wipe out jobs, drive up electricity prices and widen the gap between haves and have-nots, it may increase political pressure to temporarily halt development and put a freeze on data-centre construction. Even those not worried about AI models annihilating humanity should worry about anxious politicians trying to annihilate AI. ■

The oil business

Spoils of war

How an oil-supply crisis could bring about an investment boom

THIS YEAR was supposed to be miserable for oil companies. When it began, the price of Brent crude futures, the international benchmark, was forecast to fall below $60 a barrel, down from $68 in 2025 and $80 in 2024, amid a "super glut" in supply. Instead Donald Trump's war in the Gulf has propelled it into triple digits. Many analysts now expect it to average $85 or more in 2026; some anticipate the price reaching $120 a barrel if shipping attacks in the Strait of Hormuz continue.

In recent days events to the west—advances by the Iranian-backed Houthis in Yemen, and Saudi Arabia's closure of its East-West pipeline, an alternative route to Hormuz for its oil, after a drone attack—have kept it around $105. "Dated" Brent, for delivery in a few weeks, which is usually within a few dollars of the futures price, jumped to $132 on September 15th, according to Platts, a price-reporting agency. (It receded to $126 the next day.)

The price surprise has proved a boon to the industry. Shares in oil-and-gas businesses worldwide have risen by an aggregate 40% since the start of the year, compared with 12% for listed companies as a whole (see chart 1 on next page). The combined profits of the West's seven biggest integrated oil companies plus Aramco, Saudi Arabia's state-owned colossus, hit $91bn in the second quarter of 2026, twice their level a year earlier.

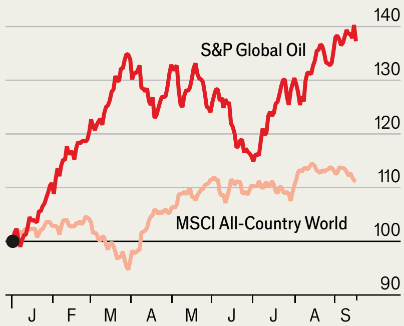
The bonanza follows years of shareholder-enforced restraint, after a spending spree collided with a price collapse in the mid-2010s. Capital expenditure did rise after Russia's invasion of Ukraine pushed oil above $120 a barrel, but cashflow grew faster (see chart 2, top panel). The surplus went mostly on repayment of debt and payouts to shareholders, rather than on new wells. Much of the capex increase, in turn, reflected inflation in drilling and service costs rather than a genuine surge in activity. This time, though, oil firms may have to do more with their towering piles of cash. The Gulf war could set off a burst of exploration and dealmaking that shapes the rest of the decade and beyond.

Oil companies have so far also spent their latest windfall largely on paying

Adding buoyancy to the balance-sheet

Well ahead 1

Stock-market indices, January 1st 2026=100



Sources: S&P Global; FactSet

down debt and rewarding shareholders (and, at the margin, on increasing output from existing assets). Take debt first. The companies used much of the cash that arrived after the invasion of Ukraine to shore up their balance-sheets. In the 18 months or so before the Gulf war, as prices fell, they turned back to borrowing to keep shareholder distributions steady and fund committed capital expenditure (see chart 2, bottom panel). Now they are deleveraging once again. In the second quarter of 2026 the five largest majors—ExxonMobil, Chevron, Shell, BP and TotalEnergies—cut their combined net debt by $36bn, or nearly 20%. Smaller firms, which typically have heavier debt burdens, have been even more focused on lightening them.

Another priority for oil firms has been lining their owners' pockets. On the eve of the Iran war many investors were bracing for leaner times. The majors had announced a combined 11% cut in shareholder distributions, mostly through cancelled buyback programmes, notes Alastair Syme of Citigroup, a bank. Special dividends doled out by smaller firms, often debt-funded, looked unsustainable. The oil-price bonanza has changed that. All the majors bar BP have either held dividends and buybacks steady or increased them. Small players are now offering not just special dividends but recurring ones, too.

After debt reductions and shareholder payouts, little has been left for investing in expansion. Aggregate cash-on-hand at the majors barely budged between the fourth quarter of 2025 and the second quarter of this year. Executives have been at pains to reassure investors that most of the 2026 windfall will trickle down to them, not into new projects. The only exceptions are Diamondback, a fracking giant, and big unlisted firms, such as Continental Resources and Hilcorp Energy, which have funded quick-turnaround projects like completing existing wells in America's shale basins.

Earlier in the war such caution was warranted. Oil prices crashed in June, when America and Iran reached a tentative deal. But now that renewed fighting has sent them soaring, they could stay high for months, making new projects more viable. Those projects are becoming essential. Every two years the depletion of oilfields costs the world a Saudi Arabia's worth of crude supply. Replacing it is getting harder: the paucity of recent discoveries means daily oil-and-gas production could fall by 31m barrels by 2040—nearly a fifth of today's total. As many as 70 companies are at risk of their output falling by half, reckons Wood Mackenzie, a consultancy.

Oil firms therefore need to refresh their portfolios, and they now have the means to do so. Geopolitical upheaval, and the desire to diversify away from the Middle East, are reinforcing the case for investment, says Paul Hickin of *Petroleum Economist*, an industry journal.

The slow way to gain new assets is to explore. Budgets aren't rising yet, but there are signs that the majors are on the hunt. Rather than bidding for formal licences and committing capital upfront, they have been amassing huge tracts of land, then scanning them with artificial-intelligence tools to seek places to drill (see chart 3). Farm-down deals—in which a national oil company funds a foreign major's exploration in return for a stake—are also becoming more common, partly because governments want to boost domestic production.

A wide range of geographies are drawing attention. There are deepwater plays in the South Atlantic, off the coasts of Namibia or South Africa, as well as the eastern Mediterranean. There are uncharted basins in places such as Uruguay, Vietnam and Papua New Guinea, where exploration is just beginning. And there are countries from Algeria to Australia where firms are trying to replicate the American shale approach, along with mature reservoirs in Asia that can simply be drilled harder.

A quicker route to building resources is to acquire rivals. At the start of the year merger activity was expected to be muted, as low prices depressed appetite for deals. It was slow at first, but for the opposite reason: volatile oil prices made it harder for buyers and sellers to agree on valuations, says Bob Brackett of Bernstein, a broker. Both sides are now getting used to the idea of higher prices for longer, and dealmaking has accelerated. Seven deals over $1bn have been announced in the past two months.

Transactions may well multiply next year. The majors have now digested the big acquisitions they made in the early 2020s, notes Dan Pickering of Pickering Energy Partners, an investment firm. Stronger balance-sheets will make it easier to splash out. Private-equity firms, commodity traders and outsiders seeking resources beyond the Gulf—the Japanese among them—are seeking assets, too. And America will have less than two years left of a deal-friendly, drill-happy administration.

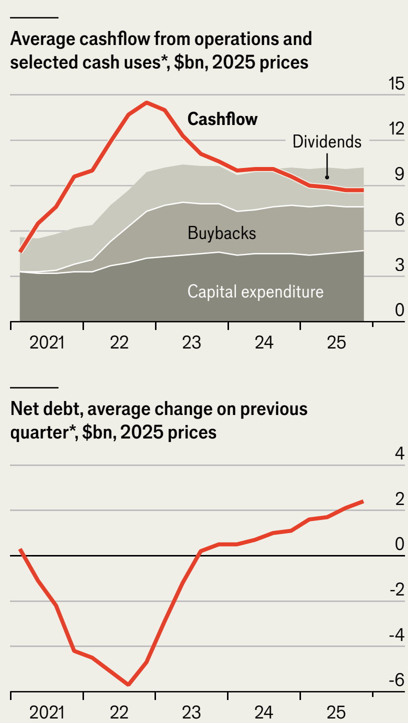
Shareholders, for their part, do not seem to be banking on a golden age of expansion just yet. Hassan Eltorie of S&P Global, an information provider, notes that most listed oil companies trade at the same price-to-cashflow multiples as before the war, suggesting their outperformance reflects higher oil prices, not any lasting change in their prospects. The trajectory of oil demand remains uncertain. Exploration could disappoint. And there are few obvious big acquisition targets to go after. Nevertheless, the quagmire in the Gulf gives the industry just the opportunity it needs to set a new course. ■

Reserve for later 2

Oil majors

Average cashflow from operations and selected cash uses*, $bn, 2025 prices

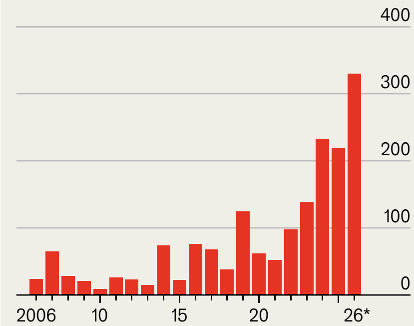
Net debt, average change on previous quarter*, $bn, 2025 prices



*Four-quarter, production-weighted moving average
Source: IEA

Land grab 3

Oil majors, total acreage awarded, '000 sq km



Source: Wood Mackenzie *To July

Upmarket child care

Spoonfuls of sugar

WASHINGTON, DC

The booming business of nannying for the ultra-rich

SHE WORKS at least 12 hours a day, seven days a week—but then has a week off. She might earn $200,000 a year, which at an hourly rate is on a par with a private-equity associate. High pay for long hours on a rota is common on oil platforms, in mines and on container ships. It is increasingly so in another exacting field: caring for the children of the super-rich.

A decade or so ago, such highly paid gigs were rare. "We used to get a lot of: 'Oh, I'm not paying that'," says Anita Rogers, the founder of British American Household Staffing (BAHS), an agency that finds nannies (as well as governesses, butlers and chefs) for wealthy households. "Now it is quite the opposite," she says. Clients demand nannies who have not only trained at the best academies but also speak several languages, have degrees from elite universities and are willing to travel constantly and put in very long days. And they are willing to pay.

This has led to a boom in the top-of-the-market nannying, which is something of a cottage industry. Although some institutions are of long standing—the Norland University of Early Childhood, a posh British training school, has been around for more than a century—many of the agencies to which upper-crust parents are turning are much younger. Ms Rogers set up BAHS in 2012; among her competitors are Adventure Nannies (established in 2007) and Morgan & Mallet (2015). Ms Rogers says she now has 7,000 clients.

The basics of nannying for the children of the very rich are the same as for those of the merely affluent: bottle-feeding, preparing meals, trips to the playground. But the surroundings and expectations can make the job almost unrecognisable. Often a nanny is just one of a dozen staff, rather than the sole employee. Travelling with the family is different too. "They want nannies that have experience on yachts and jets," Ms Rogers says. "It's just a given." Not everyone is cut out to thrive in an environment that can be "like 'Succession'", she adds. "This extreme wealth can be a lot for somebody that's never been exposed to it."

The demands can be extreme (or extremely petty). One nanny recalls that an ultra-rich family she once worked for required her to iron their son's underwear every day. Another parent was furious that she did not immediately fetch a ladder to replace a light bulb in the playroom ceiling, which was 17 feet high, while caring for their small children.

The structure of the job has also changed, with the rise of the rota-nanny. Before the covid-19 pandemic Ms Rogers's richer clients—who could afford as many hours of child care as they could possibly want—would often cobble arrangements together, hiring one nanny for Monday to Friday and another for the weekend, and then hire a babysitter for a night out. If parents had to work late, they would hope their weekday nanny could cover the extra hours at the last minute. Now two nannies, one on and the other off, can cover every daytime hour, every day of the year, if at a price of hundreds of thousands of dollars.

This is plainly more convenient for those who can afford it. With separate nannies for weekdays and weekends, if they wanted one to travel with them, she might need to make arrangements for her own family, and be paid for longer hours and perhaps a travel fee too. Alternatively, they might hire a different nanny for the trip, whom their children would not know. With nannies on a full-time rota, there is much less disruption.

It can suit many nannies too, says Ms Rogers. They get a full seven days off to do their own thing. When clients request weekday nannies, she now has fewer of them to offer. But the new system can come at a cost. "Before I really dove into child care, if you would have asked me my entire life from the start of four years old, what do you want to be when you grow up? I would have said a stay-at-home mom," says Lauren Lomascolo, who has nannied for wealthy clients for a decade. Now she worries about ever finding help to cover the demands of her job. "If I stay in this for ever, I can't have kids. If I get out of this, where is my income?"

To some, nannying for the super-rich is enjoyably glamorous. Several successful reality-television shows have followed wealthy families, from the Kardashians to "Real Housewives", around the world. In June Hulu aired "Million Dollar Nannies", a reality-TV show set in Ibiza, in which six women and two men sought jobs with rich households. One of them had worked as a nanny for Kourtney Kardashian. The show featured more tantrums by adults than by toddlers. But it offered a twist on the usual escapism: the fantasy was not being one of the rich, but being employed by them. ■

Alternative milks

Losing moomentum

Consumers are switching back to normal dairy

POPCORN-FLAVOURED OAT milk in your coffee? Or cinnamon roll? Or neither. In the past year the volume of plant-based alternatives to milk sold in America has fallen by 5.4%, according to Circana, a market-research firm. Almond milk, the bestselling variety, dropped by 7.9%. In Britain volumes fell by 2.5% in the year to June; in France, Italy, the Netherlands and Spain growth slowed. Sales of dairy milk, though, are ticking up, after a long decline. Consumers are returning to it, seeing it as better for their wallets and their health.

Alternative milks went mainstream in the 2010s, partly because people perceived them to be friendlier than dairy to the climate. Oatly, a Swedish producer, claims that in Britain its oat milk has only one-third of the climate impact of cows' milk. But after milk prices dropped in 2023, many shoppers feeling the post-pandemic pinch returned to dairy.

As more people worried about ultra-processed foods and read packaging closely, they spotted gums, oils, sugars and flavourings among alt-milks' ingredients. Though whole milk contains more saturated fat, alternatives often have more sugar. Cows' milk has three to four times as much protein as oat milk. At Arla, Europe's largest dairy co-operative, revenue from high-protein products like quark and skyr has risen by 25% a year since 2024.

Alt-milk makers are also pushing hard on health. Zoe Gardner, head of marketing in Britain for Alpro, Danone's plant-based ▸▸

milk brand, says its growth strategy is to fortify its milks with calcium, protein, iodine and vitamins. The French firm's new "Silk Protein" soya milks and yoghurts in North America boast "50% less sugar than regular dairy milk". Among smaller suppliers, MALK labels its cartons as "gum free".

John Crawford of Circana compares "converts" to alt-milks to drinkers of Diet Coke. Many are "completely loyal", he says, treating the drink as a product with its own flavour, rather than an alternative. That may help explain why drinks mimicking cows' milk have flopped. Both Arla and Danone have dropped failing brands.

Producers of plant-based milks believe novelty is the way forward. Bryan Carroll, Oatly's general manager in Britain and Ireland, says a mere "alternative to dairy" is not enough. He says new flavours are proving popular, especially with young people. They include popcorn and matcha, a trendy green-tea powder, which has become Oatly's best-selling flavoured product since its launch in 2025. At Alpro, Ms Gardner says that the success of its cinnamon-roll drink has spurred a new seasonal-flavour strategy.

Milks made from pistachios, pecans and barley are also sprouting on supermarket shelves. Tastewise, which analyses social-media chatter, finds interest in these has risen markedly in the past year. That in oat, almond and cashew has waned. Maybe the new alt-milks will win share from the old, rather than from dairy. ■

BARTLEBY

Sleep like a pro

One firm's attempt to create a more rested workforce

DEAR COLLEAGUES, I am pleased to say that the results of our "Sleep Into The Future" trial are now in. For background, you all know how evangelical Stew is about his own sleep routine and the importance of feeling rested. The evidence from other industries is clear about the negative effects of sleep deprivation. For these reasons, we decided to roll out a series of pilot trials to our team in Canada and to the legal function worldwide, designed to ensure that all our colleagues feel energised and ready to do their best work. I have laid out the main findings below, along with a recommendation on next steps.

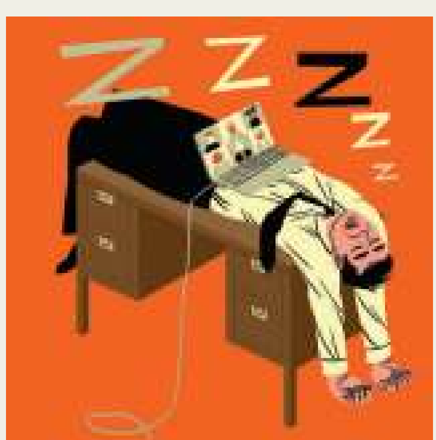
We ran a specific initiative called "Waking Hours", in which volunteers experimented with pre-industrial sleep patterns. There is some evidence to suggest that humans used to rise in the middle of the night after a first sleep, to do whatever it was that people did back then, before having a second sleep. Our volunteers were asked to wake at 2am in order to do work for two hours, before then going back to bed. Some people adjusted to this rhythm; others found it difficult to fall asleep again and entered a state of catatonic exhaustion. At least one big sales lead evaporated when our salesperson's second sleep took place in the middle of a client meeting.

There were unexpected ripple effects. When senior people began sending emails and Slack messages at 3am, more junior team members who were not involved in the trial began waking much earlier in order to respond promptly. In turn, their pre-dawn activity prompted even more colleagues to start work earlier. Once this cascade effect is taken into account, we think that sleep quality in the organisation as a whole declined.

We dispatched a variety of sleep trackers—rings, wristbands, watches and more—to participants. One-fifth of colleagues were unable to get the devices to work at all, which suggests a concerning lack of technological nous. (We are rolling out a separate training programme, Appiness at Work, to tackle that problem.)

Tracker data are imperfect, which caused a fair degree of stress. Of those employees who did use the trackers, many reported feeling perfectly rested until their tracker told them they had had a terrible night. Others were told that they had slept like a baby when they had actually been lying awake worrying about the quality of their sleep. These inaccuracies make it hard to interpret data showing that many of our employees are sleeping during the day. The entire senior leadership team appears to have nodded off during a recent meeting, which of course cannot be true.

We tested a number of other smaller interventions, with varying degrees of success. Team members were sent a host of sleep aids, including masks, wrap-around snoozebands, earplugs and mouthguards to prevent teeth-grinding. These worked better for some colleagues than others. A few people using masks had panic attacks when they woke in the night because they thought they had been taken hostage. One of our smaller colleagues was unable to get out from under her weighted blanket, and had to be released by the fire brigade.



Magnesium tablets were sent to a subset of volunteers, but due to an unfortunate error, we told people to take much higher doses than recommended. Magnesium can act as a laxative; this trial has therefore been voided.

Our survey data show that team members regarded lavender spray and herbal teas as generally pleasant, but they did not have significant effects on sleep quality. One member of the legal team accidentally lavender-sprayed himself in the face and had to go to hospital for a precautionary check-up. There is ongoing litigation connected with this incident, and we recommend not using lawyers as guinea pigs in future pilot programmes of any sort.

More generally, we recommend against pushing people to participate in this kind of initiative. It's fine to make sleep aids available to people who request them. And enabling colleagues to share advice on sleep in an informal way is a good idea. For example, some people made specific recommendations for things to listen to when falling asleep—among them, audio versions of anything published by the World Bank, post-match interviews with athletes and every investor-relations conference call ever.

But tracking employee behaviour in the dead of night is intrusive, and imposing uniform solutions on everyone is ineffective. Before rolling this out further, we should definitely sleep on it.

India's state-owned companies

Still in control

MUMBAI

The government's asset sales are a pale imitation of privatisation

INDIANS ONCE held mock funerals for telephones. The few lines the state monopoly actually installed dropped dead so often that they became ripe material for satirists. When the "line man", an employee at the bottom of the corporate hierarchy, eventually came out to fix a line, he would be treated like a VIP. Shreekant Gupta, an economist, recalled these tales ten years ago in an oral history intended to tell younger Indians about the bad old days of state capitalism.

The state is still a large owner of businesses in India. Jawaharlal Nehru, the country's first prime minister, thought it should build out the "commanding heights of the economy", investing in heavy industrial assets such as fertiliser factories and steel smelters. Indira Gandhi, his daughter and another prime minister, nationalised most of the leading banks in 1969 and many of the rest in 1980. Neither worked out very well. The Licence Raj, a socialist system of managing the economy, came crashing down after an economic crisis in 1991. "No power on earth can stop an idea whose time has come," said Manmohan Singh, the liberalising finance minister, quoting Victor Hugo, a 19th-century French author.

The time had not come for privatisation, however. Despite a brief flurry of disposals in the late 1990s and early 2000s, most of the businesses acquired or built under the Licence Raj remain in state hands. The government owns everything from hotels and tourism boards to shipbuilders and a watchmaker. It still owns the telephone company (known these days as BSNL after a reorganisation at the turn of the century), though Indians can now choose super-cheap contracts from private providers. In fact the number of active Central Public Sector Enterprises (CPSEs) has grown from 236 in 1991 to 291, even as their relative economic importance has shrunk. They produced a bit less than 3% of GDP last year, down from 11% in 2006.

Narendra Modi, the prime minister since 2014, at first tried to revive privatisations but largely failed (the government of 1999-2004 that sold some state assets was led by an earlier, more Thatcherite, version of his party). Since the sale in 2022 of Air India, the flag-carrier, to Tata, a conglomerate—the first major privatisation since 2004—there have been few outright sales of much significance. Mr Modi has had to govern in coalition with other parties since voters denied him a majority in the Lok Sabha, the lower house of Parliament, in elections in 2024. Fully transferring control of state companies to private hands is tricky, as it entails job losses and hence fewer opportunities for patronage.

Selling by the slice

The government has instead chosen to sell portions of public-sector enterprises to private investors, in a mix of trade sales and flotations, which avoids shedding control. It has a disinvestment target of 800bn rupees ($8.4bn) for the 2026-27 fiscal year, which began in April, up from 338bn rupees in 2025-26. An increased share of private ownership is meant to provide some of the benefits of privatisation, such as increased scrutiny and market discipline, while still allowing the state to profit from its stakes. The finance ministry reaped $8.2bn in dividends from CPSEs in 2025, up from $4.7bn in 2020. "Public-sector performance has been steadily improving, whether it's market discipline and managerial autonomy or not," says Nagaraj Rayaprolu, a left-wing economist.

Disinvestment also provides money upfront. "Old economy" companies such as Hindustan Copper, Coal India and the National Hydroelectric Power Company, stakes in all of which have been sold, command decent valuations. The building of data centres for artificial intelligence has boosted demand for electricity and copper, a critical input for many electronics components. The combined market capitalisation of listed CPSEs has climbed from $109bn in March 2020 to $400bn, thanks partly to a re-rating of Indian equities since the covid-19 pandemic.

"This will be the first year where the actual divestment record will be better than the budgeted estimate," says Nilesh Shah, of the asset-management arm of Kotak Mahindra, a private-sector bank. The government has already raised $5.5bn this fiscal year, a good chunk of its $8.4bn target.

Hitesh Suvarna of JM Financial, a broker, estimates that the government could raise around $14bn from reducing its stakes in listed state-owned companies to the regulatory maximum of 75% for a single shareholder (the state keeps securing exemptions to the limit). The government would maintain the same control as India's mighty private-sector tycoons enjoy over their companies, while raising substantial sums. The government made $3.3bn from selling just 6.5% of the Life Insurance Company (LIC) of India, a gigantic insurer, yet retains around 90% of the shares.

Privatisation that would hand control of public companies to the private sector, however, is all but moribund. Only the sale of IDBI Bank, a medium-size lender, is in train. Even that might not go through. On September 8th IDBI's share price plunged by 11%, following reports that its mooted buyer, Fairfax, a Canadian financial firm, was asking for a lower price. Fairfax is considering the purchase of a 60% stake, about half of which would be sold by the government and half by the LIC. With so much inventory at its disposal, however, Mr Modi's government can always find some other shares to sell. ■

Luckily, not the only ones

SCHUMPETER
Olympiad Man

How maths geeks became market gods

In Plato's "Republic", society comprises men of gold, who are fit to rule, men of silver, destined to be soldiers, and those of bronze, who become farmers. Since 1959 the world's top teenage mathematicians (and, more recently, those of great ability in other fields) have tested their mettle in international competitions called Olympiads. Around 300 medals of gold, silver and bronze are awarded for maths annually. A smaller number are given for physics, chemistry and informatics (ie, computing). From the ranks of the winners has emerged an elite unlike any in the history of capitalism. Behold: Olympiad Man.

The crisis over the safety of artificial intelligence is best understood as a crisis among Olympiad Men. Last year AI models managed gold-medal performances in maths. Relentless advances since have led a pair of researchers at Anthropic, who made up a third of Britain's maths Olympiad team in 2017, to resign. Anthropic's boss, Dario Amodei, was once a member of the squad, but not quite the starting line-up, of America's physics side. OpenAI has responded by appointing Paul Christiano to its board. Mr Christiano has a long history in AI safety and a silver medal for maths.

Davos Man cut his teeth at McKinsey in his 20s, but Olympiad Man was acing maths competitions before his first drink. (Olympiad Woman is far rarer.) Very clever children often become very, very expensive adults. In 2024 Google paid $2.7bn to hire Noam Shazeer, who achieved a perfect maths score in 1994. He recently decamped to OpenAI, whose head researcher has moonlighted as head coach of America's informatics team. In the 2010s Sheryl Sandberg, the archetypal Davos Woman, was Meta's best-paid executive; now it is probably Alexandr Wang, aged 29 and not long off America's problem-set circuit. AI startups counting Olympiad Men among their founders include Databricks (worth $190bn), Cursor ($60bn), Cognition ($48bn) and Perplexity ($30bn).

Olympiad Man is just as comfortable in financial markets, where the broad shoulders of pit trading long ago gave way to the narrow ones that build algorithms to buy and sell at the speed of light. One of the founders of Two Sigma, a big trading firm, represented America in maths. Jane Street, another trading giant and one of Olympiad Man's favourite employers, is even besting banks in corporate-bond trading, perhaps the last vestige of the Wall Street jock, and dabbles in venture capital (presumably in the startups of fellow Olympians). Cryptocurrency has plenty of illiterate spivs, but also numerate swots. The founder of the Ethereum blockchain took bronze in informatics; that of Hyperliquid, a big exchange, gold in physics.

Like their sporting namesakes, Olympiad victories are a worthy source of national pride. But the business of rearing and attracting Olympiad Men is also a source of national power and wealth. That was true when they mostly stayed in universities. It is doubly so now that many work for a living. They move in herds. The Massachusetts Institute of Technology is one magnet. Trinity College, Cambridge is another. (Both institutions are islands of excellence in towns obsessed with equality.) Deedy Das, an investor at Menlo Ventures, examined the maths, informatics and physics competitors of the past 25 years. Google employs the most. Meta is a distant second. As well as Jane Street, Jump Trading is a popular employer in finance.

There are good reasons to prefer Olympiad Man to Davos Man, the slick corporate executive who spent decades at home anywhere but nowadays feels welcome nowhere. How does one become a "Young Global Leader" at the World Economic Forum? God knows. How does one become an Olympiad Man and land a big job at an AI firm? You're only ever two tests away, pal. The ability to audit one's power has advantages in societies which are both contemptuous and envious of elites. It is, though, a great irony that the free market now awards its grandest prizes through a system designed by communists: the first Olympiad was held in the Soviet bloc; America started competing only in 1974.

Olympiad Man's vision of globalisation is more attractive than Davos Man's. According to Tolga Yuret, a Turkish economist, more than half of those who participated in Olympiads in the 2000s ended up living abroad. The West, and America in particular, is an enthusiastic importer of Olympiad talent, which might start life in Romania, China or India. Studying Olympiad Man is also a corrective to bad views on immigration. Does the left not wonder whether they should spend more time attracting Olympians rather than delivery drivers? Does the right not see the outstanding achievements of immigrants in its national teams? To look only at their names, and not their star-spangled ties, it would be easy to mistake America's maths team for the Chinese one.

A gold medal is all you need

William F. Buckley once remarked that he would rather be governed by names drawn from a telephone directory than from a list of faculty at Harvard. What about a register of Olympiad Men? By necessity, elites are a class apart from their subjects. But Olympiad Man is truly abstracted from the world.

He has few employees to speak of and even fewer friends who do not share some version of his background. His rationalist philosophy would strike ordinary folk as a mark of insanity (AI labs and hedge funds are full of effective altruists). His language is unintelligible. Not because it is complicated—AI researchers talk, often glibly, about "p doom", the probability that their technology ends the world—but because it is not believed. Investors think Olympiad Man a worrier. Politicians think him naive about global affairs. The populace is yet to fully comprehend Olympiad Man or his power. Until he can demonstrate virtue commensurate with his brilliance, Olympiad Man should want to keep it that way. ■

Finance & economics

Government debt

Bonds-and-chain

WASHINGTON, DC

Soaring bond yields, gaping deficits and towering debts: what could go wrong?

ACROSS THE rich world, investors are making governments pay up. Bond yields have risen in Britain, France, Germany and Japan. On September 14th the yield on ten-year American Treasuries exceeded 5%, the highest it has been in two decades. The median yield on rich countries' ten-year government bonds is above 4%, its highest in more than 15 years and roughly five times its average in 2015-21.

More worrying, borrowing costs are rising at a time when countries' debts are higher than ever. Gross public debt as a share of GDP in advanced economies stands near 110%, up from around 70% in the early 2000s. In America it has more than doubled over that period; in Britain it has nearly tripled. There is little appetite for belt-tightening. America is expected to run a deficit of around 6% of GDP this year and France of more than 5%.

Throughout much of the 2010s politicians could afford to dismiss warnings of a debt reckoning, thanks to rock-bottom interest rates. Now rates are rising. On September 16th the Federal Reserve raised its benchmark rate by a quarter of a percentage point. The European Central Bank (ECB) did so the week before. And the bond market is signalling that the era of cheap government finance is over. Big borrowers are about to discover just how painful those debt piles can be when interest rates can no longer be ignored.

Governments have dealt both with high yields and with high borrowing in the past. But, at least in recent decades, not at the same time. In 2007, when the median yield on rich-world bonds was around today's level, governments had to sell debt worth only around 11% of GDP. This year they will have to peddle more than twice as much, to finance those wide deficits and to replace debt issued when rates were far lower.

Interest payments already consume more than 3% of GDP across the OECD, a club of mostly rich countries, and nearly 5% in America (see chart 1 on next page, left panel). Much of the debt stock still carries the low rates of the old era. As that debt matures, the bill will climb. If borrowing costs stay close to where they are today, Uncle Sam's annual interest payments could nearly triple to $2.7trn by the end of the decade, according to the Committee for a Responsible Federal Budget, a non-partisan think-tank. That is more than America spends on Medicare (to keep old people healthy) or Social Security (to pay them pensions).

Yields on short-term government debt mostly reflect where investors think central-bank rates are heading. Lend for decades, however, and they are less willing to look past inflation risk and the state of the public finances. They kept paring back their holdings of long-dated bonds even after most central banks in large rich econ- ▸▸

omies began cutting rates in 2024 (yields climb as bond prices fall).

The OECD reckons that by the end of 2025 the average "term premium"—the extra return investors demand for lending long rather than short—had risen by more than one percentage point from its level before the covid-19 pandemic shook markets in 2020 (see chart 1, right panel). This year it has kept climbing. In America, the term premium is now estimated to be at its highest in more than a decade.

Growing doubts about America's fiscal outlook in particular are dulling Treasuries' special lustre. Investors used to accept lower yields on American government bonds than on close substitutes because they were exceptionally safe and liquid. No longer. Analysis by Lira Mota of the Massachusetts Institute of Technology, updated by Hanno Lustig of Stanford University, compares Treasuries with highest-rated corporate bonds after stripping out their default risk and finds that this "convenience yield"—the return investors are willing to forgo for holding Treasuries—had all but disappeared by July this year. That is an expensive privilege to lose when America must raise trillions of dollars in the bond market annually.

There are reasons to think that high long-term yields are here to stay. The multitrillion-dollar investment boom in artificial-intelligence infrastructure needs capital, and is competing with governments for investors' attention. At the same time, some previously reliable buyers are disappearing. Central banks that spent years soaking up government bonds to help avert deflation are running down their holdings. Defined-benefit pension funds, which bought lots of long-dated government debt to finance payouts based on participants' final salaries, are being replaced by defined-contribution ones that try to juice future pensioners' returns by investing in riskier assets such as stocks.

"The marginal buyer today is the price-sensitive investor," says Serdar Celik, head of the capital-markets unit at the OECD.

Licence to reel 2

G7 countries, % of GDP

	2026 Gov't net debt	2026 Stabilising balance†	Fiscal adjustment needed to stabilise debt* Sep 2026	Fiscal adjustment needed to stabilise debt* Oct 2025
Japan	134.3	-0.8	1.0	0.7
Italy	129.0	1.4	0.6	-0.5
France	110.2	1.2	3.9	3.1
US	98.5	1.0	4.7	2.3
Britain	95.5	1.5	2.7	2.3
Germany	49.4	0.1	2.9	1.7
Canada	10.3	0	2.4	1.2

*Estimate †Primary balance needed if refinancing existing debt at current five-year bond yields. IMF growth forecasts used
Sources: Bloomberg; IMF

Those buyers are thus demanding more compensation. In 2025 governments had to pay about two percentage points more for their ten-year bonds than they had for those being replaced. With yields higher still this year, the next wave of debt will be yet more expensive.

The best way out of a hole is, of course, to stop digging—and so borrow less. Alas, politicians are in a digging mood. In America, Donald Trump's mammoth tax-and-spending law of 2025 made most of his earlier tax cuts permanent and added new breaks, increasing the deficit by trillions of dollars over the next decade. In Japan, Takaichi Sanae, the prime minister, is putting the state behind a vast investment push in semiconductors and AI while cutting the consumption tax. France has struggled to rein in public spending as its population ages and debt-service costs mount.

Rather than cut borrowing, governments prefer to change how they borrow. To avoid paying the term premium, they are increasingly issuing debt that comes due sooner. The share of new debt with a maturity of more than ten years is at its lowest since 2009. Governments are also relying more heavily on bills (debt which matures within a year). In the 2010s rich countries issued roughly 60% more in fixed-rate bonds than in bills. Since 2023 bills have accounted for the larger share. Nearly a quarter of America's outstanding debt is now in Treasury bills, the highest proportion in the rich world. Its total outstanding debt now matures, on average, in less than six years—only a little longer than in a typical emerging market.

Borrowing short is not necessarily a mistake. If today's high long-term yields prove temporary, why lock them in for decades? And if they persist because demand for long-dated bonds has structurally weakened—as defined-benefit pension schemes shrink and central banks retreat—governments have reason to shift some issuance away from longer maturities.

The flipside is, of course, that the debt comes due sooner. A third of the OECD governments' fixed-rate debt matures by 2028, and nearly half by 2030. And right now it looks like interest rates are going up, not down. Oil prices are back above $100 a barrel as the war in Iran drags on. In America the average price of diesel, which fuels lorries, bulldozers and tractors, has never been higher. Core inflation, excluding energy and food, remains stubbornly high in many countries.

Humbled by their tardy response to pandemic-era inflation, rate-setters are not waiting around. The ECB is likely to raise rates again in the next six months. Markets expect at least two more quarter-point increases from the Fed by March 2027.

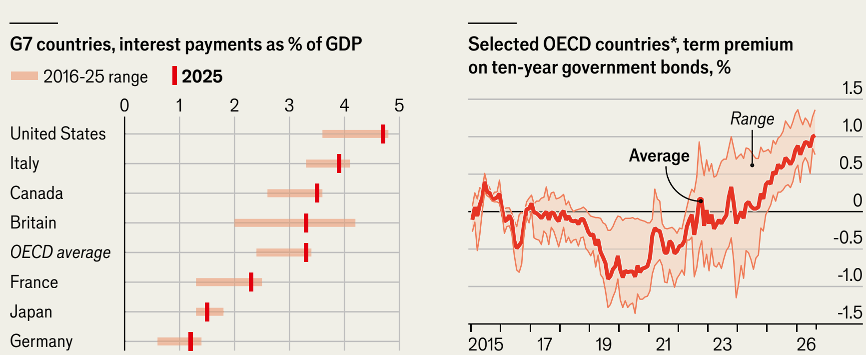
The new short-sellers

As they borrow more for shorter durations, many countries may find that their borrowing rate exceeds economic growth. In such a scenario, debt burdens rise even if governments balanced their "primary" budgets (ie, before interest payments). To see how bad things could get, *The Economist* has calculated what would happen if rich countries had to replace their entire debt stocks at today's five-year bond yields, using IMF forecasts for nominal growth.

Out of 22 countries, Britain would need to run the largest primary surplus, of about 1.5% of GDP, merely to keep its debt-to-GDP ratio stable. Italy and France are next, needing surpluses of 1.4% and 1.2%, respectively. America is not far behind, requiring one of 1.0%. (see chart 2). Other countries can still run small deficits while keeping their debt burdens stable. Japan, for instance, can run a deficit of 0.8% since its growth is estimated to outpace the interest rate on its debt.

Most countries are nowhere near such surpluses today. America is running a primary deficit of nearly 4% of GDP, meaning significant belt tightening of nearly five percentage points of GDP is needed to stabilise its debt ratio at today's borrowing costs. France is running one of nearly 3% of

His majesty's service costs 1



Source: OECD
*Australia, Britain, Germany, Japan and United States

GDP, which translates into belt-tightening of around four percentage points. Britain, which needs to have the largest surplus of the bunch, has at least cut its deficit this year and pencilled much of that adjustment into its budget plans. France has no comparable plan, and its politicians have shown little enthusiasm for drawing one up ahead of a presidential election next year. America's prospects look bleaker still.

Most worrying of all, the situation is deteriorating fast as a result of persistent deficits and surging yields. Just a year ago America required an adjustment of more than two percentage points less than it does today. France's predicament has worsened by almost one percentage point. Making matters trickier for many European countries, their high tax take (as a share of GDP) limits how much more money they squeeze out of taxpayers without doing economic damage. France, where government revenue exceeds 50% of GDP, already has little room to manoeuvre.

What if interest rates do not come down and governments refuse to make those adjustments? Shorter maturities can postpone the pain, but they cannot make it disappear. As cheap debt matures, interest bills will rise, deficits will widen and the belt-tightening eventually needed to stabilise debt will grow larger. That could then push yields higher still, making the arithmetic worse again. The longer governments put off the reckoning, the nastier it will become. ■

BUTTONWOOD
Bond villains

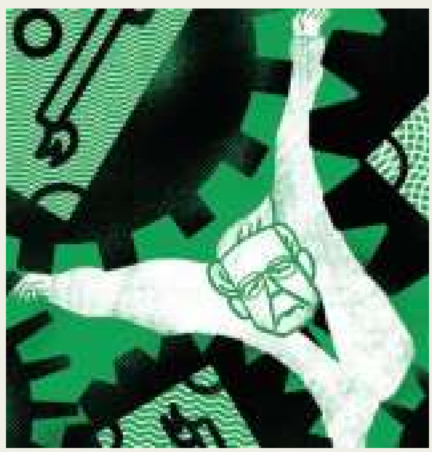
Don't blame the Treasury market for America's high borrowing costs

THEODORE ROOSEVELT'S injunction to speak softly and carry a big stick has rarely felt more apt. In mid-August Scott Bessent, America's treasury secretary, announced with great bluster that he would beef up his department's scheduled buy-backs of its long-dated debt. On September 9th the Treasury offered to repurchase up to $6bn-worth of its bonds; on September 24th, and near-weekly thereafter, it plans to buy back tranches worth up to a maximum amount "= or > $4bn". Mr Bessent says he aims to "push things back towards equilibrium"—meaning to lower his government's borrowing costs.

For that he would need a much bigger stick. Since Mr Bessent's mid-August announcement the yield on ten-year Treasury bonds has jumped from 4.65% to over 5%, the highest since 2007. And no wonder considering Mr Bessent's twiglike intervention. America's gross government debt is $40trn, about 10,000 times the size of each buy-back. It is a bit like going to a bank that has lent you $1m, slapping a couple of $100 bills on the counter, eyeballing the clerk and demanding a lower rate.

The intervention is not just failing on its own terms: it also relies on a diagnosis that is plain wrong. The bond market, in Mr Bessent's telling, is suffering from a "fever" stoked by speculators, pushing America's borrowing cost above its rightful equilibrium level. In other words, trading has become dysfunctional and bondholders are not pricing Treasuries according to their fundamentals. In fact, the bond market is working precisely as it should.

Dysfunctional government-bond markets are not hard to spot. These assets are so important to the financial system that, when trading in them seizes



up, other things are sure to start breaking, too. That was why, for example, the Federal Reserve bought Treasuries in early 2020 as covid-19 shuttered economies, companies dashed for cash and prices of these supposedly safe bonds cratered. It was also why the Bank of England backstopped Britain's sovereign-debt market in 2022, after a spectacularly silly government budget sent yields soaring and imperilled the nation's pension funds.

In contrast, far from having broken down, today the market for Treasury bonds is not even showing much stress. On September 10th America auctioned off $22bn-worth of new 30-year Treasuries at a yield of 5.3%. Traders made bids for more than two-and-a-half times that amount—a ratio that CME Group noted was at the upper end of the range for similar recent auctions. The exchange pointed out that non-dealers accounted for 98% of competitive bids, "suggesting excellent investor interest, presumably reflecting the recent rise in yields".

True, that recent rise has carried American borrowing costs to their highest in nearly 20 years. But it was the low-rate 2010s that were odd. By pre-2007 standards today's yields would look perfectly normal. Over the decade before that the ten-year Treasury yield averaged 5% and the 30-year averaged 5.4%.

Other gauges of market strain tell a similar story. If bondholders were panicking that Uncle Sam might default, they would insure themselves against this. Yet premiums for credit-default swaps, derivative contracts which do just that, suggest few are clamouring for them. If traders were worried that bond-market dysfunction might send yields swinging wildly, they would bake this expected volatility into options contracts. Yet the MOVE index, which measures such expectations, is far lower than it was a few years ago when post-pandemic inflation soared.

If anything, it is remarkable how smoothly the market is functioning. There are two big problems with Treasuries, and the main one is that America is issuing far too many of them. With one month left in this fiscal year, the Congressional Budget Office reckons the government has already borrowed nearly $2trn, or 6.3% of GDP. The other big problem is that it is doing so while pursuing policies, from tariffs to war in Iran, that push up inflation and so devalue the bonds it has already sold. Investors' response—demanding higher returns—shows the market is working.

Mr Bessent's problem is that this rational pricing of America's debt, applied to the vast pile it has issued, makes his interest bill increasingly intolerable. His best option is to slow the pace of borrowing. But if he instead wants to batter bondholders into submission, he had better start hunting for a giant redwood to chop down.

African equity markets

The Dangote dividend

LAGOS

A new generation of investors is buying up African stocks

ALIKO DANGOTE is the big man of African business. He is the continent's richest tycoon, worth give or take $30bn. He has built its largest oil-refining complex, roughly half the size of Manhattan, on the outskirts of Lagos. And on September 14th he launched Africa's biggest ever initial public offering (IPO) for Dangote Petroleum Refinery, the mega-project's official name, hoping to raise at least $1.6bn at a valuation of nearly $50bn. If it reaches this market capitalisation when its shares begin trading on the Nigerian Exchange in November, it could instantly become one of Africa's most valuable listed firms.

The 69-year-old Mr Dangote is giddy at the prospect. "My own driver, my mother, everybody will now come and have a stake," he tells *The Economist*. So is the bourse, which has enabled retail investors in rural areas to buy the stock on mini point-of-sales terminals. "Wealth-tech" startups are advising users on how to get in on the action. TikTokers are urging Africans in the diaspora to buy in. When the IPO began, Bamboo, a popular trading app, crashed because of sky-high demand. "In future, when we are having our annual general meeting, we will hold it in a stadium," Mr Dangote ventures.

Whether or not it fills arenas, stock-picking is certainly becoming a popular sport across Africa. Retail investors trading shares on their phones are helping lift continental stock markets. The Nigerian benchmark index is up by 71% in dollar terms this year, on a par with South Korea's but without its artificial-intelligence bets. The Ghanaian one has increased by 50%. In March Zambia's main index was twice what it had been a year before and has stayed near there since.

African markets were once written off as small, shallow and unpredictable. They are still puny by global standards, accounting for less than 1% of global market capitalisation. But they are becoming a bit deeper and less fickle. They have proved doubters wrong by emerging from the covid-19 pandemic in good nick and, this year, by weathering the latest Gulf war. Next to frothy valuations in many parts of the world, African stocks look affordable.

African companies have benefited from wiser economic policies in their domestic markets. Ghana has brought down inflation and removed lingering uncertainty about its currency. So has Nigeria, which has also forced banks and pension-fund managers to hold more capital. FTSE Russell, a global compiler of indices which in 2023 changed Nigeria's status from a risky "frontier market" to a virtually uninvestable "unclassified" one, is reversing this decision. Zambia is restructuring its public debt, and is a winner from the global boom for copper, of which it has deep reserves.

Many locally listed companies are consumer-facing brands familiar to non-professional investors. MTN Nigeria, the country's biggest mobile-phone network, swung from a loss in 2024 to a record post-tax profit of over $700m in 2025. Mr Dangote's cement business made nearly as much. In Malawi, where some banks' earnings were as much as doubling year on year, financial advisers took to TikTok in Chichewa (the local language) explaining how to become a "part owner" of your favourite lender.

Investing in profitable firms is pitched to savers as a smarter way to build wealth and hedge against inflation than stuffing cash under a mattress. A host of fintech startups are making such wealth-building easier. Bamboo lets its 2.3m users across Nigeria, Ghana, Kenya and South Africa invest in local and foreign stocks. In the first quarter of 2026 the platform recorded more trading in Nigerian stocks than in American ones for the first time. "The everyday Nigerians...the traders in the market...those are the customers that we are essentially building for," says Richmond Bassey, Bamboo's boss. The average Bamboo trade is less than $50.

These new investors bring liquidity, which, as Mr Dangote puts it, "depends on people's participation". Yet what makes these markets attractive to punters—the prospect of spectacular gains—also makes them volatile, and so liable to equally spectacular losses. Low-earners have the most to lose. In Malawi, where last year's bull run in stocks ended in a 20% correction since a peak in November, the same TikTok users who had encouraged punters took to warning that investing is a "roller-coaster" and a "big boy game".

The real liquidity will come from deep-pocketed institutional investors, perhaps including foreign ones. By listing his refinery in Nigeria rather than abroad, as many of the biggest African firms in sectors like mining and energy tend to, Mr Dangote may also attract more domestic smart money (he is thinking of a secondary listing in America, but only a few years from now). Africa's perky economies are already doing this. Their current upswing will last a few years, reckons David Cowan of Citigroup, an American bank. After that, who knows. In the meantime, expect a stadium-like atmosphere on African bourses. ■

AI and growth

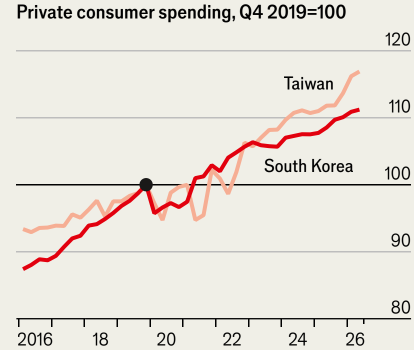
Trickle-down chiponomics

SEOUL

How fast is the AI boom translating into broader economic gains?

WHAT IS AI good for? If polls of Americans are anything to go by, not much. A large majority oppose the building of artificial-intelligence data centres in their backyards. Nearly as many dislike the technology in general, fearing it may cost them their job or even humanity its future (see International section). Boosters retort that even before AI turbocharges productivity, as it promises to do, the data-centre investment boom is fuelling economic growth. And those benefits, the argument goes, trickle down to everyone, not just a handful of tech plutocrats.

In America, any early effects are likely to be diluted by the economy's vastness and variegation. Better places to look for ▸▸



Shop therapy 1

Private consumer spending, Q4 2019=100

Source: Haver Analytics

hints of trickle-down chiponomics are South Korea, the world leader in advanced memory chips necessary to manage machine-learning workloads, and Taiwan, the global powerhouse in all other AI silicon.

The AI bonanza is already evident in the two countries' headline statistics. Swelling exports have lifted annual GDP growth in South Korea to a brisk 4% or so and to a blistering 12% in Taiwan. Private consumption, which was stagnant a year ago, is accelerating (see chart 1 on previous page). In the second quarter of this year it accounted for around a fifth of the increase in Taiwanese GDP and roughly a third of South Korea's.

The economic windfall is most obvious in Taiwan. TSMC, the national champion which manufactures nearly all of the world's AI chips, increased production from 10m standard silicon wafers in 2019 to 15m last year. Its capital expenditure rose even faster in that period, from $15bn to $41bn. This has helped push up Taiwanese real fixed capital formation by nearly 40% since late 2023.

Resources are pouring into the semiconductor supply chain. The share of Taiwanese employees making electronic components or computers is nearly 11%, the highest since 2016. Pay rose first in Taiwan's electronics sector, but since 2024 rises have spread across the workforce. Average nominal wages are now growing at 3% a year in Taiwan, compared with a pre-pandemic trend of 1.9%. Paul Cavey of East Asia Econ, a consultancy, points to the "Balassa-Samuelson effect", an economic phenomenon whereby high productivity in an industry producing tradable goods bids up the cost of labour across the board.

From the government, here to help

The government, for its part, is preparing to spend the swelling tax take from its silicon goose on handouts. Social-welfare spending is set to rise by 40% in 2027. Last month Lai Ching-te, the president, proposed giving all Taiwanese citizens an "AI dividend" of around $300, at a total cost of $7bn (or around 6% of projected revenue). A new child benefit is in the works, too.

Things are less clear-cut in South Korea. That is chiefly because demand for South Korean silicon increased all of a sudden, rather than gradually. Between 2023 and 2025, as prices of notoriously cyclical memory chips initially fell after a pandemic-era craze for electronics faded, Samsung Electronics, South Korea's biggest chipmaker, actually trimmed its capital expenditure. SK Hynix, Samsung's main rival, tripled its spending in that period, but from a relatively piddling $6bn a year.

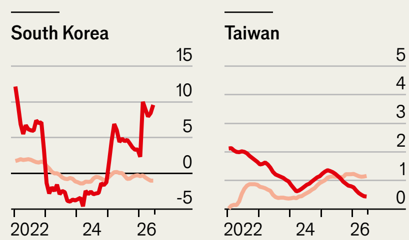
The government-backed $500bn investment plan both firms have now signed up to has yet to be reflected in their outlays. In the past three years or so real fixed capital formation has risen by just 3%.

Labour disunion 2

Nominal wages, % change on a year earlier*

Electronics-manufacturing workers

National average



Source: Haver Analytics

*12-month moving average, less pre-pandemic trends of 1.9% (Taiwan) and 3.5% (South Korea)

Most of the past year's rise in exports has thus come not from higher volumes, as in Taiwan, but from much higher prices. Economy-wide export prices have risen 57% over the past year in South Korea. Immediate benefits are therefore limited to the less than 1% of South Korean workers who toil in the chip industry and the shareholders of the memory duo and their suppliers (plus, indirectly, to the businesses which cater to the lucky few).

In nominal terms, average annual wage growth across the economy has fallen below the pre-pandemic pace of 3.5% (see chart 2). The "wealth effect", whereby a stock-market rally makes share-owning consumers feel flush and spend more, is also muted. Although South Korea's KOSPI stock-market has more than doubled in value since 2023, a study by South Korea's central bank estimates that a dollar in equity gains translates to just one extra cent of consumer spending, compared with five cents, plus or minus, for stock-loving American households.

South Korea's government is also stingier. Despite projections of a 50% rise in tax revenue in 2027, it is not planning to shower citizens with cash. Some 70% of the windfall will be saved, reckons Capital Economics, a consultancy. The money will mostly be channelled towards deficit reduction and a new Future Response Fund for long-term investments.

As Samsung and SK Hynix ratchet up their investments, production will increase. This should fuel demand for labour and eventually lift wages for everyone, as happened in Taiwan. Mr Cavey likens South Korea to Australia in 2003-11, when a commodity boom led to a lasting uptick in mining investments that eventually translated into broad economic benefits. The South Korean government's planned investments in infrastructure and education may also yield productivity gains that Taiwan's cash handouts would not. The effects of such policies will not be as quick. But they may prove more durable. ■

Economic growth

Standard-of-living crisis

BEIJING AND SÃO PAULO

What happens when GDP per person no longer grows like it used to

An unfortunate club of countries is gaining new members. China, world's second-biggest economic power, and Russia, the most belligerent one, have joined. So have Germany, a far richer big economy, and Brazil, which may soon export more farm products than America. Some 3.3bn people, or more than two in five humans, now live in places where GDP per person grew half as fast or less in the decade to 2024 than in the previous ten years. In 2014 the figure was 1.1bn, or fewer than one in six people. Over 730m are experiencing outright declines in economists' favourite gauge of living standards.

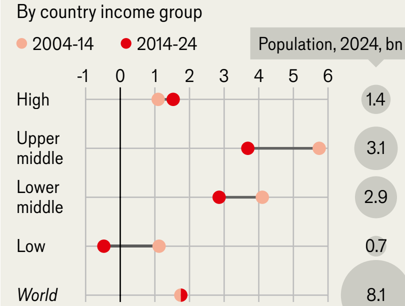
Some places continue to grow richer. The average resident of these lucky locales saw their real income grow by 38% between 2014 and 2024. Nearly half of that was thanks to the improving lot of 1.5bn Indians, whose economy is catching up with well-off places as birth rates fall. America, which continues to outperform the rest of the rich world, has pushed up the average for high-income countries (see chart 1).

But the number of countries and territories in the low- or no-growth club has risen from 68 in 2014 to 80 in 2024. They range from rich Canada to the dirt-poor Democratic Republic of Congo; their problems from demography to economic mismanagement. All face some of the same risks. A stagnating standard of living, let alone a declining one, undermines the assumption which has for decades dictated how people approach work and politics: that they will be better off than their parents (see chart 2 on next page, left panel). In countries where young adults who have grown up in the slowdown era are coming

Income gasps 1

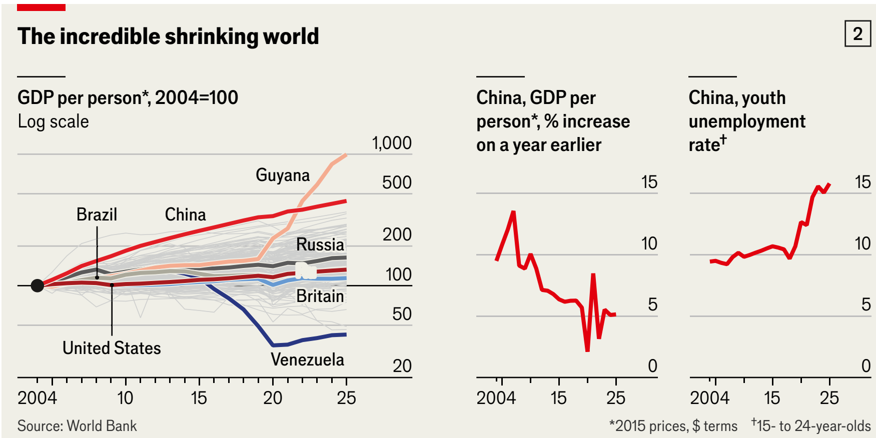
GDP per person, annual average growth*, %

By country income group



*2015 prices, $ terms

Source: World Bank



of age, it is already remaking society and rewriting the social contract.

In the rich world, the slowdown is often due to a combination of low productivity growth and high immigration. New arrivals may in time revitalise the economy, but any short-term boost to GDP is small. And because unproductive firms are less profitable, they pay less in tax. Where productivity growth is weak and migrants are welcome, thinner budgets are spread more thinly across more people. The result is that individuals feel hard done by.

German productivity barely budged in 2014-24, while the country accepted migrants from places like Syria. The average German's real income rose by 0.6% a year. In the previous decade the figure was 1.5%—the global financial crisis of 2007-09 and the near implosion of the euro zone in the next few years notwithstanding. In Canada, where population is outpacing GDP, unemployment rose by nearly a percentage point in 2024, mostly because new arrivals were expanding the labour force.

Many resource-rich developing countries, meanwhile, have yet to recover from the end in 2014 of a spectacular commodities boom. Income gains in export-led success stories such as Uruguay and Chile have since nearly ground to a halt. The average Latin American is barely richer than a decade ago. South of the Sahel, people are 3.4% poorer. GDP per person in Angola, which exports lots of oil and diamonds, has shrunk by a quarter.

The fortunes of a few particularly populous emerging economies have deteriorated. In September 2006 the foreign ministers of Brazil, Russia, India and China met for the first gathering of the BRICs group of fast-growing developing giants. Since then only India has escaped the slowdown. Chinese GDP per person grew half as fast in 2014-24 as it did in 2004-14. The euphoria of manufacturing-led catch-up growth has given way to weak domestic demand. In Russia, per-person improvements are less than half what they used to be, despite a declining denominator because of a shrinking population.

The consequences of these shifts will be profound. Views on material progress shape who gets elected (in places with elections), as well as who works hard and how many children are born (everywhere). In 2006 Benjamin Friedman of Harvard University argued that rising living standards fostered stable politics, meritocracy and other virtues. Slowdowns may have the opposite result, especially among those at an early stage of their economic life.

One effect is nostalgia. In 2025 Justin Gest of George Mason University and his co-authors polled 20,000 Europeans. At least two-fifths believed their generation was economically disadvantaged. Only those in their 50s were more susceptible than 18- to 34-year-olds to this "nostalgic deprivation". Similarly, a poll of Chinese born roughly between 1995 and 2010 by Oliver Wyman, a consultancy, found that 56% were worried about prospects for a better life. Earlier generations were more upbeat: according to a survey by Pew Research in 2015, 70% of those born in the late 1980s felt positively about the economy.

Nostalgia leads to disengagement. One poll of Russians aged 18-34 found that, though most had a strong sense of national identity, only 5% would consider working for the government. A ten-yearly survey in China conducted by researchers from Stanford University found that in 2023 only 28% of Chinese believed hard work was always rewarded, down from 62% in 2014. Eva Zhou, a 50-year-old mother in Beijing, says that her son "feels like there is no point in doing anything". He recently dropped out of university, where he was pursuing an engineering degree. With unemployment among the urban young at 18% in July, little wonder. Lu Yao of Columbia University and Li Xiaoguang of Xi'an Jiaotong University have found that roughly two-fifths of jobless 23- to 28-year-old Chinese have university degrees.

In places that are not as repressive as communist China or revanchist Russia, young people's professional apathy can go hand in hand with political ague. Mr Gest and his co-authors find that western Europeans in the throes of "nostalgic deprivation" are 55 percentage points more likely to vote for populists than those who report no such views.

Research by Ruth Dassonneville of KU Leuven, a Belgian university, shows that slowing growth can lead to volatile politics. Voters swing from left to right and back, as they blame incumbents for things getting worse. Brazilians aged 16-34 helped elect Luiz Inácio Lula da Silva, a left-winger, as president in 2022. Amid stagnating living standards, they are likelier to back his right-wing rival in elections next month. Instability is unlikely to promote growth, provoking more instability—and so on. In another ten years' time more places may face a similar vicious cycle. ■


Sour mood in São Paulo

FREE EXCHANGE

The best economist the IMF never had

Ricardo Reis was too frank for the IMF. It can still benefit from his ideas

SOME BRILLIANT minds have served as chief economist of the IMF. Several of the sharp thinkers were also blunt talkers. Michael Mussa, who held the job from 1991 to 2001, was once accused of being a hired gun. "At least I hit what I aim for," he fired back.

The prestigious position might have been awarded this summer to Ricardo Reis of the London School of Economics. But his occasionally blunt media comments reportedly cost him the job. According to the *Financial Times*, the offending remarks included some orthodox criticisms of President Donald Trump's tariffs, which he said would raise prices and reduce efficiency. In response, the IMF "categorically" denied that "any candidate was disqualified because of their academic views on the detrimental impact of tariffs…It is not credible to suggest we would object to views that our own research has confirmed and publicised."

Tariffs are not, however, the only targets Mr Reis has hit. In his column for *Expresso*, a Portuguese newspaper, he once described Mr Trump as a "protofascist", albeit institutionally constrained. He later suggested that the president likes tariffs partly because of the exemptions he can grant. "Anyone who wants to pay less has to convince Trump with flattery, business deals with his family, gifts…For someone who sees the presidency as a way to enrich himself personally, or even simply to be flattered, tariffs are an excellent tool." Last year a column entitled "Gringos on the pampas" marvelled at the Trump administration's willingness to lend to Argentina. The Peronist left, which could reclaim power at the next election, "proudly never pay what they owe", he wrote.

As an academic, he is entitled to such views. But as an IMF appointee, they might have caused a fuss. America, after all, is the fund's biggest shareholder; Argentina its biggest borrower.

Mr Reis will not, then, go to Washington, where he would have formed a dynamic Bretton Woods duo with Michael Kremer, a Nobel-prizewinner nominated this week to be chief economist of the World Bank. His influence will instead remain indirect and intellectual. His research sheds light on several of the fund's preoccupations, such as fiscal limits, the monetary mystique of central banks and the network of currency swap lines between them.

His theory of fiscal limits builds on previous work by Olivier Blanchard, one of those brilliant IMF alumni. Mr Blanchard pointed out that the interest rate in many economies has often settled below its growth rate, defying textbook logic. That allows governments to spend their way out of economic setbacks like the covid-19 pandemic, then grow their way out of the resulting debt.

But "the" interest rate needs unpacking. The price paid to capital takes many forms. Even when yields on government bonds lie below the growth rate, the marginal product of capital—the return to accumulating productive assets, like machinery and equipment—typically lies above it. The relatively high return to physical capital suggests that some potentially lucrative ventures are starved of money, perhaps because investors prefer the safety and liquidity of government securities. Indeed, in Mr Reis's model, the appeal of sovereign debt is stronger when the financial system does a bad job of funding and insuring entrepreneurial endeavours. In such countries, governments borrow cheaply, fiscal limits bind loosely but the economy fares poorly.

Mr Reis has also tried to clarify the financial limits faced by central banks, despite their power to create money. Their "fascinating" liabilities comprise banknotes, which pay no interest, and deposits (called reserves) held on behalf of lenders. These liabilities cannot be converted into anything other than themselves. As such central banks cannot go bust like other banks can.

They nonetheless face constraints. They are obliged to convert banknotes into reserves at par, and vice versa. So they cannot directly control the mix of their liabilities. Nor can they force people to hold on to their money or stop people raising the cost of things they price in it. Mr Reis and his co-authors have estimated the market value of the Federal Reserve's power of "seigniorage" (acquiring remunerative financial assets funded by zero-yielding money). They find it is typically worth less than 30% of GDP. If central banks push too far, they will unleash inflation and eventually hyperinflation. That can end with the debased currency being scrapped—the central-bank equivalent of going bust.

In today's globalised economy, banks often borrow in international currencies that their home central banks cannot create. If these borrowers run temporarily short of dollars, say, their home central bank may not be able to fulfil its role of lender of last resort. The Fed has responded by offering to swap dollars with the currencies of other trusted central banks. The Fed then leaves it to them to decide where the dollars should go, and on what terms.

The IMF does not have the Fed's bottomless pockets. But it does have broader know-how and reach. Mr Reis thinks it could offer to underwrite and police swap lines from the Fed to other responsible economies, outside the Fed's habitual orbit. The gringos need not wander onto the pampas by themselves.

Impolitic philosophy and economics

In assessing and advising countries, the IMF must sometimes be blunt. It is often urged to embrace "ruthless truth-telling", as John Maynard Keynes put it. But when Keynes wrote those words, he did not have the IMF in mind. He was thinking about how to engage America in the aftermath of the first world war. He recognised its inclination to "let Europe stew". He saw Europe's own lethargic inability to help itself. He concluded that "Attempts to humour or placate Americans…seem quite futile." Only "violent and ruthless truth-telling" would do. The world may need such frankness again. Mr Reis, unburdened by the IMF job and the diplomatic niceties of Washington, is one of those who could provide it. ■

Science & technology

AI superforecasters

Crystal balls give way to LLMs

Artificial intelligence now beats some of the best humans at prediction

ON SEPTEMBER 5TH yet another domain of human intelligence fell to the artificial variety. For the first time an AI won the seasonal Metaculus Cup, a proving ground for forecasters of a wide variety of events. Not only that, other AIs took the second and fifth places, leaving third and fourth for humans.

Hundreds of entrants had predicted the outcomes of questions that would be resolved by September. Would an American state or EU country restrict data-centre development? Would the hantavirus outbreak affect at least five people who were not passengers on *MV Hondius*? How much would Brent crude cost? The participants were scored on the distance of their prediction from the true answer. Those that were closest for longest won the greatest number of points.

The human participants in the competition shared a $5,000 cash prize in proportion to the number of points that they picked up. But this sum is actually less than the fifth-placer had achieved in the real world. By betting on questions on which its AI thinks the market is wrong, FutureSearch has seen a 6% increase since June on the initial $100,000 value of its portfolio on Kalshi, a popular prediction market. Even that, though, is chump change compared with the performance of one of the developers behind Preseen who, despite his firm failing to make the top five in the competition, had turned $35 into $1.94m over seven months, the sixth-best return in Kalshi's history.

Computers have long been used to make forecasts in narrow fields, such as the weather. But AI forecasters, like those on Metaculus, are a different breed. Instead of being trained specifically on data regarding the questions they are predicting the answers to, they are built using the same large language models (LLMs) that underpin the rest of the AI boom.

These bots therefore read the news and make sense of data in much the same way that human forecasters manage—except they do so far more broadly and swiftly. This lets them explain the reasoning behind their forecasts explicitly, a useful trait when persuading decision-makers to take their bets seriously.

The soothsayer's smile

Soothsayers, from astrologers to racing tipsters, have been around for the whole of human history. The modern business of forecasting, however, has numbers attached to it, making it easier to weed out the charlatans and no-hopers.

A study published in 2015, in *Perspectives on Psychological Science,* by Barbara Mellers of the University of Pennsylvania and her colleagues, found that superforecasters—the best in the field—could discriminate between events that would and would not happen 300 days in the future as reliably as regular forecasters could manage those 60 days away. An analysis in July by the Forecasting Research Institute, where Dr Mellers is a scientific adviser, suggested AI systems have now reached parity with the superforecasters on an evolving set of forecasting questions.

A lot of this improvement has been driven by the same thing that is driving AI's progress in other domains: a handful of companies spending huge sums to scale up LLMs. The best systems of all, however, are built by startups and tinkerers using some extra tricks. One is to combine LLMs from different firms to investigate different parts of a forecasting question, assemble the necessary data and debate among themselves the correct response.

Mantic, a British startup, gives its AI esoteric datasets to which the publicly available AI models made by companies such as OpenAI and Anthropic do not have easy access, because they are behind paywalls. Preseen, meanwhile, is trying to score news pundits' track records to decide which to incorporate into its forecasts.

And the startups can do something that no human forecaster can manage: wipe their bot's memory. By giving their AIs snapshots of past data, owners can see how changes in the instructions and information they feed to their bot would have altered predictions of a past event. That lets them re-run the process on the same questions, and learn from their mistakes, as often as they like.

The future of the future

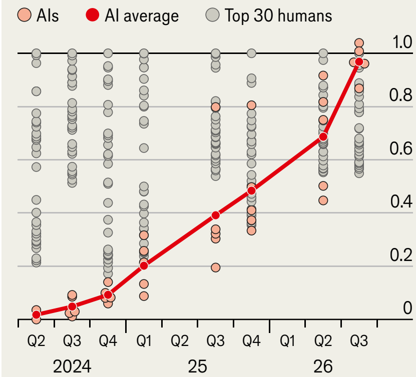
Even so, it is unclear whether these bells and whistles are decisive factors giving AIs their edge over human forecasters. The actual winner of the latest Metaculus Cup was a bot developed by Jeffrey Liang, a self-described polymath who lives in Texas. He spent, by his reckoning, less than 150 hours and a couple of thousand dollars on computing power and data to develop his AI. He beat four startups that have raised more than $15m between them, and his bot is currently leading another, AI-only, competition run by Metaculus. This one has a $50,000 prize pool.

The human forecasters who enter Metaculus's competitions are not necessarily the world's best. And the cup, which has a four-month time horizon, does not test the ability to forecast over periods of years, which for many institutions is important.

In that domain human judgment still provides an edge, reckons Yann Riviere, a forecaster at Mantic, although competent AI forecasters have not been around long enough to test this rigorously. Nor is the divide between humans and machines clear-cut. Human forecasters already use AI to help with the vast amount of research needed to make a prediction. Mr Riviere, for example, says that he treats his firm's AI as if it were another professional forecaster helping him improve his predictions.

So long, suckers

Metaculus Cup, top five AI performances relative to humans, 1=best human result



Source: Metaculus

As AIs continue to improve, that balance will probably switch. Humans will retain the ability to collect information in the real world. AIs' growing processing power will let the machines synthesise more of those inputs than a human ever could.

In the meantime, AIs are making it easier for everyone to predict the future. A forecast from human superforecasters can cost more than $10,000 and take a week. FutureSearch asks for ten minutes and a few dollars—though other startups, selling their services to hedge funds and governments, are no doubt charging more.

All of which leaves open how far forecasters—human and machine—are from the theoretical limit of what can be known about the future. Weather forecasts, for example, become random about 15 days out because of the chaos inherent in the atmosphere. If AIs continue to improve they may thus, counterintuitively, reveal how much of the future is truly unknowable and how much merely so far unknown. ■

Maths and AI

Axioms to grind

Top mathematicians are outraged by OpenAI's methods

NOT SINCE Socrates complained that the written word might make people lazy about remembering things has there been such an outpouring of academic angst against a new technology. In an open letter published on September 11th 25 Fields Medal winners—akin to Nobel laureates in the field of mathematics—said that AI could ruin the foundations of their subject. AI companies, they claimed, are solving mathematical problems merely to benchmark the strength of their models, rather than in a true spirit of intellectual inquiry. Doing so, they argue, is "detrimental to the science of mathematics, and to the mathematical community".

Their letter was in response to AI making a spate of apparent breakthroughs at the subject's frontier, the latest being announced on September 8th by OpenAI, one of the leading firms in this area. A group from OpenAI said they had solved the Navier-Stokes problem, one of seven "Millennium Problems" chosen in 2000 by the Clay Mathematics Institute as the hardest and most important in the field.

OpenAI thus seems to have gazumped Tristan Buckmaster (pictured on the next page) and Levent Alpöge, two mathematicians who had been labouring on that task, alongside some AI, and were thought close to a solution. The firm released a 166-page paper describing its work, which employed models not yet publicly available. Despite its length, however, this paper contained little of the explanatory detail which mathematicians typically provide when sharing a new discovery.

At first sight, this spat sounds like a highfalutin version of the pearl-clutching that accompanied the spread of electronic calculators (loss of mental-arithmetic skills), or even of ball-point pens (that a lack of sensory impact on the brain might have adverse consequences for writing style). Those concerns, real enough at the time, now sound as laughable as Socrates's—for the written word has augmented memory, not replaced it.

But there is a difference. The letter writers do not seem to be trying to stop the use of AI in their discipline. Indeed one of them, Terence Tao, argued of it, in a video posted by OpenAI on X, a social-media platform, in May, that "It allows me to experiment; I will try crazier things." He then listed AI's helpful capabilities and his hopes of how it would be especially useful

Gazumped!

if the work was shared, as is mathematical culture and tradition.

Their concern, rather, is that definitive answers to problems are but one aspect of maths. What is often more valuable is that the process of arriving at important proofs leads to the asking of yet more questions and the creation of new areas of study. This, they fret, risks being lost if AI does the grunt work—and doubly so if that grunt work is done by organisations that then fail to release sufficient details to the outside world for human beings to read and understand. As Hugo Duminil-Copin, another of the signatories, puts it: airdropping someone on the summit of Mount Everest is rather different from climbing it.

If this sounds a self-serving argument by professionals fearful for their jobs, it no doubt is. But that does not make it entirely meritless. Mathematicians may start to work less openly, in order to avoid the fate of Dr Buckmaster and Dr Alpöge. Another, more subtle, danger is that leaning on the crutch of AI will erode habits of mind and make human mathematicians less capable practitioners of their field.

Here, there is a historical analogy: a phenomenon called cognitive offloading, in which, by reducing the load on human memory, information technology causes the mind's skills to atrophy in the sorts of ways that bothered Socrates. Work published as long ago as 2011, by Betsy Sparrow of Columbia University and her colleagues, confirmed the common-sense idea that people turn to Google-searching answers when faced with tough questions, instead of attempting to recall what they know. A more recent study, by Michael Gerlich of the SBS Swiss Business School, similarly found "a negative correlation between the frequent use of AI tools and critical-thinking abilities".

The row therefore encapsulates wider fears about the spread of AI. OpenAI's executives have said in the past that their version of the future is one in which AIs work with mathematicians on "figuring out what problems are actually important to tackle". That points to a world where cognitive mathematical effort may indeed be offloaded onto software agents. It is the details of how this happens which will determine whether that is a good thing or a bad one and so whether, in this case, Socrates may have been right after all. ■

Organoids

Xenocortication

Researchers have created a mouse with a partly human brain

XENOTRANSPLANTATION IS the insertion of an organ from one species into another. When the organ is an animal's and the recipient human (as with the transplant of pig kidneys into people whose own are failing), the idea is to prolong life. But what about the other way round—transplants from human to animal?

With one crucial distinction, that is what Sergiu Pasca of Stanford University and his colleagues have been up to. The distinction is that they have been transplanting, into mice, not actual human organs (which would be both unethical and physically impossible) but "organoids" grown from stem cells that derive, in turn, from human skin. The organoids in question are made of brain cells.

Xenocortication, as Dr Pasca calls this process, and which he and his colleagues describe in a paper just published digitally by *Nature*, results in rodents that have brains which are, literally, part human. The trick is to make room for the human neurons by engineering a mouse's genes to stop most of the cells of its cerebral cortex and hippocampus developing. A human brain organoid composed of appropriate cells is then transplanted, in the first few days after the animal's birth, into the void thus created. It makes itself at home and connects up with the outside world as if it were mouse tissue.

The purpose of this is to study early development of human brains, which is both practically and ethically impossible if the tissue in question is still in a human, but which is crucial to understanding the roots of many neurological illnesses. Developmentally, neurons march to the beat of an internal drum, so for the first few months of a mouse's life they still behave like fetal cells, even as the animal itself matures.

Armed with their new tool, Dr Pasca and his colleagues plan to look into several conditions, starting with hypoxia-induced cerebral palsy (usually caused by a difficult birth), to which human neurons are particularly susceptible. Xenocortical mice deprived of oxygen suffer damage to their human neurons but not their murine ones. Comparing their behaviour with that of both unengineered controls and those lacking a cortex and hippocampus, but without compensating human cells, confirms the varied effect.

Other conditions the researchers have in their sights include fronto-temporal dementia, epilepsy and autism. Their hope in these cases is that modified animals might act as test beds for drugs. Testing neurological pharmaceuticals in unmodified animals has a notorious record of highlighting molecules that then turn out to be duds.

The idea of wiring up human neural tissue to help run another animal is, of course, something to be approached with caution. The team has consulted a range of experts, including neuroscientists, legal scholars and patient advocates, over and above the normal ethical oversight that would be applied to work like this. Any risk of some uniquely human quality emerging in these animals, however, is greatly mitigated by the mismatch between the developmental pace of human beings and mice, the small number of human neurons that will fit into a mouse cranium, and the evolutionary distance between mice and humans, which last had a common ancestor about 70m years ago.

Were someone to try something similar in, say, a monkey, that calculation would change. Such an experiment would certainly not pass ethical scrutiny. Whether it might nevertheless happen somewhere, sometime, is rather a different question. ■

Neuroscience

Actions and words

A new device lets paralysed patients communicate better

BRAIN-COMPUTER interfaces have come a long way quickly. The first successful decoding of vowel sounds from a neural implant was reported in 2009. In 2021 a team from Edward Chang's lab at the University of California, San Francisco decoded the words and sentences of a patient who could not speak.

A new paper by Dr Chang's group, published in *Nature Neuroscience*, describes the passing of another milestone. He and his colleagues have enabled two severely paralysed people to communicate with them, by means of an avatar, using both words and gestures. That is an auspicious result for the several million individuals around the world paralysed by strokes, traumatic injuries and degenerative illnesses such as motor-neuron disease.

The group did this by implanting, through a small incision in the skull of each patient, an array of sensors that covered a large part of the motor cortex—the brain region responsible for controlling bodily motion. This procedure took over two hours, in part because the process for connecting the sensor array to a data-carrying cable is fiddly. But the team are working on a short-cut, using a wireless device, that would reduce this to 40 minutes.

The implants themselves allowed Dr Chang and his team to collect signals as the patients attempted to say particular words and make particular gestures. They then used those data to train two machine-learning models for each patient—one to decode the words and the other the gestures—allowing them to reconstruct both actions concurrently with approximately two-thirds accuracy. It is the first occasion that such simultaneous decoding has been achieved, allowing patients to communicate more expressively.

There is further to go. These two initial individuals were restricted to a vocabulary of about ten words and phrases, such as "hello" and "nice to meet you", and a similar number of gestures, such as a clap or a shrug. But Dr Chang and his collaborators are working on raising this to more than 100 actions. They also hope that the sensor array's wide reach across the cortex means it may be possible to monitor not only intentions to communicate but also actions intended for the whole body. That might permit paralysed individuals to operate devices such as robots and exoskeletons, which really would be life-changing. ■

Well Informed

How hot should you drink your coffee?

The cooler it is, the safer

A STEAMING HOT drink may feel invigorating or comforting. But research suggests that it is best to let it cool off before you take a sip. A study published on September 8th in the *International Journal of Cancer* adds to a growing body of evidence that drinking very hot beverages of any kind increases the risk of cancer of the oesophagus (the part of the alimentary canal connecting throat to stomach).

This new investigation is an analysis of data on the tea- and coffee-drinking habits of nearly 1m adults in Britain. Those who said they preferred their beverages "hot" or "very hot" rather than "warm", it found, had an increased risk of subsequently developing a type of oesophageal cancer that is called squamous-cell carcinoma.

The risk was three-fold higher for those drinking "very hot" tea or coffee. For those drinking them "hot" it was elevated to a lesser degree. If all those who drink their beverages very hot cooled them to hot, that might prevent 440 of the 3,200 British cases a year.

The results held regardless of whether people's usual drink was tea or coffee, or whether they added milk—evidence that it was the temperature of the drink that mattered, rather than what was in it. And studies from other parts of the world have linked other hot drinks,

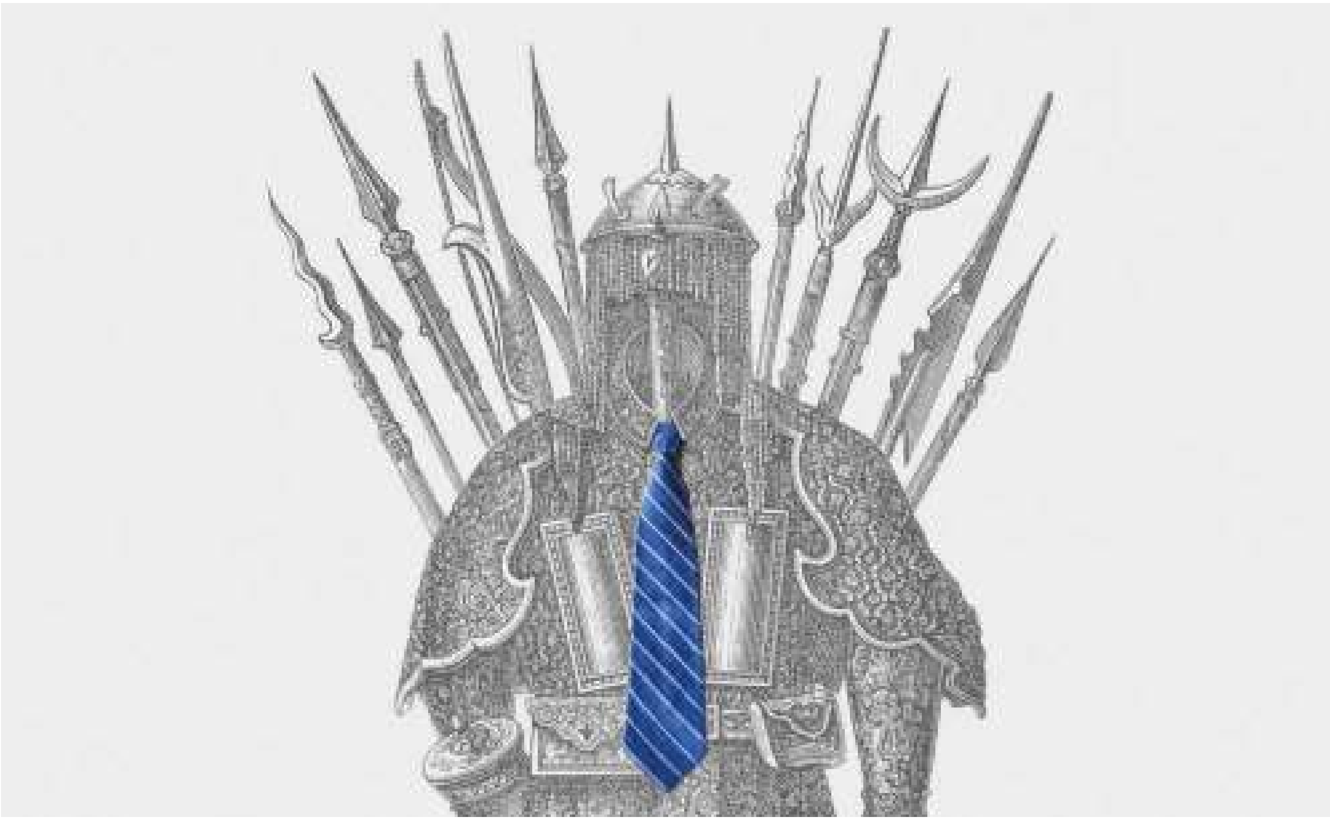
including green tea and mate (a herbal infusion popular in South America), to oesophageal cancer. In 2016 the International Agency for Research on Cancer, or IARC (part of the World Health Organisation), classified the drinking of very hot beverages as "probably carcinogenic", meaning that the evidence for a causal effect was substantial, even though not fully definitive. The evidence from human studies is based on observational data (which cannot prove that the link with cancer is causal). But experimental studies in animals point in the same direction.

How hot is too hot? At the time the IARC reviewed the scientific evidence, the available data suggested that the cancer risk goes up at drinks temperatures above 65°C. The new British study did not record drinks' temperatures. Rather, it was up to participants to judge what temperature was warm, hot or very hot. Other investigations have found that the typical temperature of hot drinks in Britain and America is around 60°C. The study participants who said they drank their brew "warm" were, therefore, probably sipping it cooler than that. The takeaway message is, though, that the less hot your drink is, the better, says Gill Reeves from Oxford University, one of the study's authors.

Carrying a thermometer around to dip in your take-away cappuccino is not particularly practical and may earn you odd looks. What you can do, instead, is simply wait for your drink to cool down.

For useful guidance on how long to wait, consider the "cupping protocol" for professional coffee tasters published by the Specialty Coffee Association, a trade group. After brewing the grinds for four minutes, the pros wait and sniff for eight to ten minutes, which they reckon is enough time for the coffee to cool down to about 70°C. That is the temperature prescribed for doing the first slurp, from a spoon (known as the "is this acceptable" pass). They then wait five to eight more minutes, which usually brings the coffee to about 55°C. That, according to boffins, is the best temperature for rating the flavour and taste. If you are in a hurry, though, and simply looking for a caffeine boost, adding some cold water or milk from the fridge would do.

Culture



History for the ambitious

The right way to learn from Genghis Khan

What biography and natural experiments reveal about leadership

Profits, Prophets, Coaches and Kings. By Jared Diamond. *Mariner Books; 288 pages; $32. Allen Lane; £25*

To conquer so much of Eurasia so quickly, Genghis Khan must have been a pretty decisive chap. Today macho executives striving to build empires sometimes wish he had left behind a book of leadership tips. What would Genghis do about that underperforming sales team? Alas, bar the odd (and possibly apocryphal) quote about the joy of making widows weep, the mighty Mongol's insights are lost.

In any case, they might not be terribly useful. Genghis would have ascribed his success to courage, horsemanship and strategic genius. Actually, it was the weather, argues Jared Diamond, a Pulitzer-prize-winning historian. Analysis of tree rings on the Mongolian steppe reveals that the period of Genghis's rise was unusually wet. More rain meant more grass, more sheep's milk to nourish warriors and more spare horses to make the horde so devastatingly mobile. Had he been born 20 years earlier or 200 miles farther south, he might have been just another warlord. "Without knowing it (because he wasn't a tree-ring dendrochronologist), Genghis had the good fortune to be born at the right time and place," writes Dr Diamond.

The founder of the world's most popular religion may be overrated, too. Sure, Jesus was charismatic. But so were thousands of other holy men. His gospel went global, while others did not, largely because of factors beyond his control. Jews two millennia ago were unusually literate and widely scattered across the Roman empire, so Jesus's teachings were written down, widely distributed and widely read. The apostle Paul adapted his creed to make it appeal to non-Jews. Christianity spread across Europe when a Roman emperor converted, and to every continent when Europeans later colonised the world, often by very un-Christian means.

"Guns, Germs and Steel", Dr Diamond's best-known work, argued that geography and environmental factors, more than culture, enabled the rise of the West. In "Profits, Prophets, Coaches and Kings", he turns his polymathic mind to leadership. It is a rollicking read.

Pondering why leaders are necessary in the first place, Dr Diamond describes a trip to New Guinea in 1964, where he watched an isolated highland village discuss some pressing problem. The entire population—perhaps 100 people—stood in a clearing. Anyone who felt like speaking did so, loudly. Everyone knew everyone else, so there was no need for a leader.

When societies grow more complex, however, someone has to co-ordinate decisions. In a town of 20,000, you can't all

→ ALSO IN THIS SECTION

stand in a square and shout. What is less obvious, though, is how much difference individual leaders make. There are two ways of assessing this. One is biographical: studying stories of great figures and trying to discern what made them distinct. The other is to look for statistical evidence. Dr Diamond uses both methods.

It is hard to conduct experiments with presidents. You cannot put Kamala Harris in charge of a duplicate America to see if she might have done a better job than Donald Trump. But you can devise natural experiments, such as observing what happens when leaders die of natural causes.

One study looked at 183 heads of government who died or were forced to retire between 1875 and 2004. Subsequent economic growth was on average the same as when a leader did not die in office. But this average disguised a wide variance: it was much more likely to increase or decrease a lot. The most probable explanation is that it really does matter who is in charge. When an economically incompetent leader falls from his horse, growth goes up; when a competent one does, the opposite happens. This effect, however, was concentrated in autocratic systems, where leaders have more unconstrained power, and was barely detectable in democracies.

The same method casts light on corporate leaders, too. A study in Denmark found that the death of a CEO reduced a company's profits by 13% on average within two years. When a board member died, by contrast, it had no discernible effect.

Leaders, in short, are important. But how to become a better one? Being educated helps. When a college-educated president or prime minister is succeeded by one who never made it past high school, the economy tends to do worse. And the field of study that produces political leaders with the best economic record is, unsurprisingly, economics. But for a more fine-grained sense of how to lead, it helps to look at individual case studies.

Dr Diamond cites Seretse Khama, Botswana's first president, who set a poor, obscure country on a path to prosperity. At independence in 1966, Botswana's prospects seemed dismal. It had seven miles of paved road, 22 university graduates, no known natural resources and no reason to suppose it would avoid the bloody strife that gripped post-colonial Africa.

Then it struck diamonds—lots of them—and its tribes had an obvious reason to fight. Khama kept the peace by assigning mineral rights to the state, rather than the tribe (his own) under whose land the gems were found. Having studied at Oxford, he knew enough about the modern world to create a modern, clean civil service. Yet he was grounded enough in local tradition to remain popular. (He always carried a bag of dried caterpillars, a village snack, in his pocket.) And he was cautious enough to stay out of the politics of Botswana's neighbour, South Africa, even if he personally loathed apartheid. Under him, Botswana had the fastest-growing economy in the world. Dr Diamond makes a convincing case that no other leader could have done what he did.

You might conclude from this and other examples that good presidents seek to represent the whole country, rather than just their tribe; that they learn from the best minds and that they avoid picking fights with neighbours. Yet plenty of people win power without these qualities. Many voters like their leaders tribal, belligerent and scornful of expertise; hence the recent surge of populist nationalism.

In the end, trying to pin down what makes a good leader is hard because so many useful qualities are useful only in the appropriate dose. Tenacity is great, but not when it hardens into stubbornness. Courage, but not recklessness; compassion, but not being a soft touch; vision, but not loopiness. A point Dr Diamond hints at but does not explore is that the people who select leaders, in politics, business and other spheres, have a duty to choose soberly; that they should have realistic expectations of what a leader can accomplish and reject the conmen who promise instant golden ages. It is a duty often neglected. ■

Live music

Crowd control

A growing band of musicians is enforcing phone-free concerts

"THIS MACHINE is killing me," croons Phoebe Bridgers in "Lost Boys", her new song. She does not say whether she has a particular device in mind (or whether, like Rage Against the Machine, she is using the term as a metaphor for the establishment). But, given that her song is about self-destruction and stunted maturity, she may well be referring to a smartphone.

Elsewhere, however, Ms Bridgers has been loud and clear about her feelings towards the gadgets: she has banned phones during her world tour, which kicked off on September 14th. To gain entry, ticket-holders will have to seal their devices inside pouches that are then magnetically locked for the duration of the gig. That means no filming or taking photos, as fans annoyingly do at other performances. According to Samsung, a phonemaker, each concert-goer in Britain records on average 12 and a half minutes of video per show.

She is not alone in enforcing such rules.

Let there be light (but no video)

Alicia Keys, Childish Gambino and Jack White have all banned smartphones at their gigs. Sir Paul McCartney barred them at two concerts he played in Los Angeles earlier this year. Bob Dylan's upcoming tour will be phone-free.

For some musicians, nostalgia plays a part in their decision. Sir Paul described his LA concerts as "really special": "It was like an old gig, like how everyone used to play." But the anti-tech trend is not just a yearning for simpler times. Rather, the hope is that fans will get more out of the live-music experience. The idea is that it is all the more special for being ephemeral.

Getting your hands on a ticket means getting to enjoy the company of your favourite musician and fellow enthusiasts without a screen in the way. Artists aver that concerts should be appreciated in the moment, not videoed for social media. At Harry Styles's recent gig in Manchester, guests had to put their phones away, but they were given disposable cameras along with a note: "Thank you for really being here with me. Dance with all your friends."

The effect is scarcity—the only way to experience the show is to be there in person—and that may only heighten fans' fear of missing out. Musicians have argued that the exclusivity is part of the point. Mr Dylan has said that the fact his performances will be "device-free" will "make the occasion even more unique".

Music is meant to connect the performer and the listener. Artists have said that they hate looking out at a sea of iPhones rather than smiling faces. Ghost, a Swedish metal group, banned phones on its tour in 2025; their front man cited the "ever-growing distance I felt between the crowd and the band". Kaytranada, a Canadian DJ, put it more bluntly: "It looks mad awkward from where I stand." ■

The importance of soil

Staying grounded

The World Beneath Our Feet.
By Frank Ashwood. *Random House; 240 pages; $30. Hodder Press; £25*

JUST AS THERE are charismatic species, there are charismatic habitats. Indeed, the two often overlap. Rainforests have beautiful birds and butterflies. African savannahs are filled with elephants and lions.

Then there are the uncharismatic habitats with uncharismatic species. Mites, centipedes and millipedes, anyone? Slime moulds and woodlice? And nematodes, nematodes, nematodes. These unloved critters, along with countless earthworms, are denizens of what is probably the least charismatic habitat of all: soil.

And yet the soil and its inhabitants are the most important ecosystems of the lot, argues Frank Ashwood, an ecologist. Without them, rainforests and savannahs would not exist—for these more telegenic biomes are, quite literally, rooted in the soil. So is agriculture, which has fed humanity since *Homo sapiens* worked out how to farm.

If you want biodiversity, soil provides it. According to Dr Ashwood, a teaspoon of healthy topsoil can hold up to 6bn micro-organisms; a square metre of temperate woodland or grassland soil contains some 300 earthworms, 50,000 springtails, 100,000 mites and 5m nematodes. Moreover, for those who fret about global warming, soil is a great way to keep carbon out of the atmosphere. The carbon stored in a hectare of boreal-forest soil, for example, weighs more than a jumbo jet.

Ignore the soil, then, at your peril. Partly, ignorance is a result of soil being, quite literally, dirt. Handle it, and it gets everywhere. Get it in a cut, and you may be advised to seek a tetanus shot and antibiotics. But there is also the matter of visibility. Air and water are transparent. Soil is not. The creatures that live in it may lead lives as exciting as those of forest-dwellers, but they are hidden from human sight.

Dig them up, though, and the result is awesome. A species of mites, for example, has evolved to make antifreeze proteins so they can live in the soils of sub-Antarctic islands. Pseudoscorpions have learned to hitch-hike to new homes by grasping onto flying insects such as beetles. Slime moulds form feeding networks so efficient that planners can use them to model public-transport networks. Woodlice include a species which couples up (in a way almost unheard-of in invertebrates), so that one partner can defend the burrow containing their young while the other forages. And nematodes, reckoned to make up 80% of individual living animals, have been brought back to life by scientists from ancient samples of frozen Siberian tundra.

Human beings, in Dr Ashwood's telling, are not good soil mates. Modern machine-based farming not only leads to soil erosion; it also damages what soil remains by compacting together the particles, thus preventing creatures from traversing them. The result is a huge loss of species diversity.

In some parts of the world, though, there is a backlash. "No-till" and regenerative agriculture aim both to conserve existing soil biodiversity and increase it. Done well, this approach can be more profitable than conventional modern methods.

Nothing lousy about their habitat

If Sir David Attenborough is looking for a swansong, then, he could do worse than release his camera crews on the world's soils. The travel budget would probably be as high as that demanded by a more conventional wildlife documentary, for Dr Ashwood draws his examples from Africa, the Amazon, Australia, New Zealand, Ukraine and even the highlands of Scotland, as well as North America and his native England. Not so much "Life on Earth", then, as "Life in Earth". ■

Francis Fukuyama

The "Last Man", still standing

In the Realm of the Last Man.
By Francis Fukuyama. *Farrar, Straus and Giroux; 304 pages; $29. Profile; £20*

WHEN FRANCIS FUKUYAMA, then a 40-year-old political scientist, published "The End of History and the Last Man" in 1992, the book was met with acclaim. With the collapse of the Soviet Union and end of the cold war, the world had reached "the end point of mankind's ideological evolution" with "the universalisation of Western liberal democracy as the final form of human government", he argued. There would be no more big causes for which to struggle.

After Donald Trump spearheaded a global wave of populist, illiberal nationalism a quarter-century later, Mr Fukuyama's book became an emblem of liberal hubris. How could anyone have been so foolish as to suggest ideological battles were over? In his delightfully eclectic new memoir, Mr Fukuyama, now 73—and clearly irked that few critics had read beyond the title or blurb of his famous tome—tries to set the record straight.

He writes that his true argument in "The End of History" was always shrewder and more nuanced than the caricature rendered in a thousand op-eds and essays. Mr Fukuyama is not quite a Cassandra, whose warnings were clearly heard yet disbelieved, but something different: a prophet whose "premonition", as he puts it, was too subtle for its time.

From Hegel and his interpreters, Mr Fukuyama took the idea that human history was propelled by the pursuit of dignity, a principle that would spread after the French revolution and would peak with the West's victory in the cold war. But the last part of "The End of History" spelt out a darker future. Borrowing from Nietzsche, he argued that some people were not ▸▸

content with equality and wanted to be recognised as superior to others. Stripped of struggle, risk and ambition, they would revolt against a bloodless, pacified world. The end of history would be a "very sad time", he wrote in 1992, with "daring, courage and imagination" replaced by economic calculation and technocracy. People would eventually return to "struggle…out of a certain boredom".

This overlooked bit of his book now looks prescient. "The extremism that we see on both left and right is in some sense a revolt against the flattened horizons created by liberal societies, in which we are enjoined to be endlessly open and tolerant and non-judgmental," writes Mr Fukuyama in his memoir. "In the Realm of the Last Man" is a fascinating read.

Partly that is because of Mr Fukuyama's compelling personal story. His grandparents moved from Japan to America in the early 20th century and were among the 120,000 people of Japanese descent forcibly moved and interned during the second world war. He was brought up by liberal parents but rebelled, studying at Cornell under Allan Bloom, a conservative philosopher. Having called for American intervention to topple Saddam Hussein—"casually", he admits—Mr Fukuyama broke publicly and acrimoniously with his neoconservative friends. Later he would become a fierce critic of Mr Trump amid a wider and deeper split in the American right.

In an age of intellectual polarisation and ideological rigidity, this open-mindedness is refreshing. Mr Fukuyama turns the episode into a reflection on how to change one's mind. "Age and social status are …helpful," he notes. "I was at a point in life when I really didn't have to care what my old friends thought of me." Moreover, his break over Iraq "was actually liberating", he writes, giving him the sense he could also shift positions on other issues, from the state's role to the free market's excesses.

Mr Fukuyama is also a polymath. He is an avid photographer; he crafts elaborate chairs, credenzas and tables. He flies drones and codes robots. These varied pastimes are the flipside of his intellectual interests, which also range far and wide. Mr Fukuyama sparkles with enthusiasm for 18th- and 19th-century social theory—thinkers such as Adam Smith, David Hume and Max Weber. His memoir offers a smorgasbord, with chapters on trust, human nature and the workings of large bureaucracies. And rather than confining his work to the pages of long books, he has turned into a prolific blogger and podcaster, embracing these demotic media rather than looking down on them sniffily.

In all this, Mr Fukuyama can stake a claim as one of America's great public intellectuals of recent decades. He is certainly the most misunderstood. ■

The Economist watches

See for yourself

The Emmy winners worth watching now

ON SEPTEMBER 14TH the Emmy Awards celebrated big hits of the small screen. But the judges do not always get it right. ("The Wire", one of the best TV shows of all time, never won during its five-season run.) Our critics have chosen the winners that do deserve their statuettes—not to mention hours of your time—and one show you should skip.

"The Diplomat"
The third season of this ripping political thriller saw Grace Penn (Allison Janney, also one of the night's winners) become president of the United States. The show explores ruthless pragmatism and marital tension, as characters weigh personal ambition and public duty.

"DTF St. Louis"
Floyd has been found dead. In this mini-series the narrative toggles between a police investigation and past events, revealing Floyd's friendship with Clark, a colleague; his strained relationship with wife Carol; and Clark's and Carol's affair. This intriguing tale of desire, secrecy and manipulation keeps you wondering: WTF?

"Hacks"
Jean Smart has won five Emmys for playing Deborah Vance, a comedian. In the satisfying final season, Deborah has quit her late-night TV gig and is trying to rebuild her reputation—despite a non-compete clause and a restraining order barring her from performing.


Rhys lightnin'

"Mr Scorsese"
A five-part documentary about one of America's greatest film-makers. He reflects on his childhood in a Sicilian enclave in Manhattan, his former desire to become a priest and his infatuation with cinema. Yet this is no puff piece: Mr Scorsese talks openly about his professional failures and drug abuse.

"The Pitt"
This addictive medical drama was a worthy winner of six Emmys this year. It has been called a "portrait of American failure", but that is not quite right: social problems loom large, as they would in any good story about emergency medicine. Instead it celebrates people doing their best in the face of adversity.

"Slow Horses"
This hit show follows fictional pariahs of MI5, Britain's domestic-security service. Gary Oldman is superb as Jackson Lamb, the filthy, flatulent spy who oversees the motley crew of agents, as is Kristin Scott Thomas as Diana Taverner, a supremely competent, conniving but always cool-headed intelligence bureaucrat.

"Widow's Bay"
Tom Loftis is desperate to make something of Widow's Bay, an island off the coast of New England. The mayor reckons it could be a tourist destination—the problem is, its inhabitants speak of bogeymen, curses and killer fog. This spooky comedy was the biggest winner, with 14 Emmys; Matthew Rhys made history with two lead acting prizes, one for his turn as Tom.

And what not to watch:

"Pluribus"
An extraterrestrial signal leads to a reprogramming of humanity. Only a handful of people are unaffected by the "psychic glue" that binds the world's population into a single consciousness. This creepy dystopia collected six Emmys and asks big, bold questions. But after the initial puzzle, it is disappointingly dull. ■

More online

Every Friday, *The Economist*'s Culture team publishes an online guide to the best shows and films to watch. It is consistently one of our most popular articles. Find the latest recommendations, and browse previous editions, at **economist.com/topics/what-to-watch**

Handwriting

Learning curves

Cursive's comeback reflects research as well as culture

"BEWARE OF A man whose writing sways like a reed in the wind," Confucius warned. The ancient philosopher would have been rather suspicious of many literary giants. Leo Tolstoy's handwriting was messy with a severe slant, leaving his manuscripts as dense and intricate as his epics. Ernest Hemingway's script sloped drunkenly down the page, no matter how little booze he had consumed.

This September, as pupils return to classrooms, the question of whether (and in which style) they should learn to write by hand is being debated by administrators, parents and teachers. You might assume such questions are obsolete in an age of iPads rather than parchment, but handwriting is not being written off. Cursive, a style with flowing, connected characters, is making a comeback.

America has looped back on loopy writing. In 2010 the country's "Common Core" curriculum shunned cursive in favour of keyboard skills, but, since then, more than half of states have brought it back to the classroom. This school year Pennsylvania and New Jersey joined Texas, California, Florida and others in mandating the teaching of cursive in schools.

Other countries are underlining the importance of handwriting, too. Canadian and Argentine provinces have reinstated cursive or started teaching it at younger grades. In Britain, where cursive is taught around the age of seven, policymakers introduced a revamped "writing framework" in 2025 to improve handwriting instruction. Italy and Sweden are moving away from tablets and screens to use books and handwritten notes. In other places cursive has long been a coveted skill. In France educators often teach ornate cursive script; in Vietnam handwriting and calligraphy classes are surging in popularity.

Cursive suited the writing tools of the past. Scribes perfected pleasing penmanship so that documents were easy to read. Their quill lasted longer, and they got fewer ink blots, if they didn't raise it from the page between letters. (Later, when metal tips and ballpoint pens became popular, simpler handwriting styles proliferated.) But now people have voice-dictation software and AI chatbots at their disposal. So why is cursive back in vogue?

Its return is supported by science. Lawmakers cite research about the benefits of handwriting on everything from memory to critical thinking and fine motor co-ordination. One oft-cited study by Audrey van der Meer, a neuroscientist at the Norwegian University of Science and Technology, compared the brain activity of children and young adults when they were writing in cursive, drawing and typing. She found that the brain is engaged "in a completely different way" when handwriting and drawing, with scans showing activity in areas associated with learning and memory. Other studies have shown that cursive has other benefits, including boosting reading skills and spelling.

Yet fewer studies have directly compared cursive (joined) and print (unjoined) handwriting styles. Some scholars are sceptical that cursive is much better than any other sort of handwriting: it seems unlikely that "writing letters in a particular script should make you cognitively more capable", says Steve Graham, a professor at Arizona State University. Perhaps the best case for writing in cursive is speed: some studies have found that writing in unbroken loops makes for faster writing, though others suggest that the speediest method is to mix joined and unjoined letters.

Cursive's comeback is also about culture. People fret that youngsters will not be able to decipher their ancestors' writing or historical documents written in cursive. In America people point to the penmanship of the constitution and Declaration of Independence. Being able to read this style makes for "informed and engaged" citizens, the argument goes—though typed versions are available.

Through handwriting you can trace history. Most scripts taught in schools evolved from cursive styles in Italy, Germany, France and Britain. With colonialism, sloping English round hand spread to America and India; France's decorative *écriture ronde* went to parts of South America and Asia. The Nazis even meddled with note-taking: in 1941 Adolf Hitler banned gothic-looking German cursive and instead ordered schoolchildren to write in a simpler Latin script. The reason for the ban, scholars reckon, was to make communication uniform and more legible for people in occupied Europe.

Today's educators have more modern concerns. Some people calling for cursive suggest emphasising handwriting could make it harder for students to use AI to do their homework. Teachers are keen to ensure chatbots do not replace writing for children, says Professor Graham, because "writing involves thinking." It helps youngsters (and adults) organise information and come up with ideas.

Yet cursive consumes valuable lesson time. Some young teachers were not taught cursive properly themselves, notes Kathleen Wright of the Handwriting Collaborative in America, which means they need training and support. This time could instead be spent on other skills or teaching simpler styles of handwriting.

When students leave the classroom, their handwriting often changes anyway. Some continue with flowing, looping letters; others resort to squat, boxy scripts. After a few years working and typing, many find they can barely hold a pen any more. They wonder whether school taught them—and will teach their children—the write stuff. ■

Economic & financial indicators

	Gross domestic product % change on year ago latest		quarter*	2026†	Consumer prices % change on year ago latest		2026†	Unemployment rate %		Current-account balance % of GDP, 2026†	Budget balance % of GDP, 2026†	Interest rates 10-yr gov't bonds latest, %		change on year ago, bp	Currency units per $ Sep 16th	% change on year ago
United States	2.1	Q2	1.5	2.1	3.4	Aug	3.2	4.1	Aug	-3.5	-6.5	5.0		97	-	
China	4.3	Q2	3.6	4.7	0.8	Aug	0.9	5.3	Aug‡§	4.2	-5.4	1.5	§§	-15	6.71	6.1
Japan	0.9	Q2	1.4	0.8	1.9	Jul	1.8	2.4	Jul	4.0	-1.8	3.0		142	155	-5.0
Britain	1.2	Q2	1.7	1.2	3.1	Aug	3.3	4.9	Jun††	-3.7	-5.2	5.4		70	0.74	-1.4
Canada	1.1	Q2	3.3	0.9	3.0	Aug	2.8	6.4	Aug	-0.3	-2.1	4.0		77	1.39	-0.7
Euro area	1.2	Q2	2.6	0.8	3.3	Aug	2.8	6.4	Jul	2.3	-3.4	3.5		83	0.87	-2.3
Austria	0.4	Q2	-0.6‡	0.4	2.9	Aug	3.1	6.2	Jul	1.2	-4.4	3.7		68	0.87	-2.3
Belgium	0.5	Q2	0.1	0.7	4.2	Aug	3.4	6.0	Jul	-2.1	-5.2	4.2		90	0.87	-2.3
France	0.5	Q2	0.1	0.6	2.6	Aug	2.4	8.3	Jul	-0.4	-5.3	4.5		99	0.87	-2.3
Germany	1.0	Q2	1.3	1.0	2.9	Aug	2.7	4.0	Jul	4.5	-4.2	3.5		83	0.87	-2.3
Greece	1.8	Q2	1.4	2.0	3.7	Aug	3.7	7.9	Jul	-5.5	0.8	4.2		85	0.87	-2.3
Italy	1.0	Q2	0.7	0.9	3.2	Aug	2.7	5.8	Jul	0.7	-3.0	4.4		87	0.87	-2.3
Netherlands	1.3	Q2	1.6	1.3	2.8	Aug	3.1	4.0	Jul	8.3	-3.2	3.6		73	0.87	-2.3
Spain	2.7	Q2	2.8	2.6	4.6	Aug	3.3	10.0	Jul	2.4	-2.5	4.0		70	0.87	-2.3
Czech Republic	1.9	Q2	1.4	2.0	1.9	Aug	2.0	3.0	Q2‡	0.1	-2.8	5.3		97	21.1	-1.8
Denmark	4.7	Q2	1.1	3.3	2.1	Aug	2.0	3.1	Jul	12.1	1.3	3.4		82	6.48	-2.0
Norway	2.0	Q2	2.7	1.5	3.3	Aug	3.0	4.4	Jun‡‡	13.0	10.0	4.5		57	9.34	5.2
Poland	3.9	Q2	4.1	3.4	3.4	Aug	2.8	5.8	Jul§	-1.4	-6.9	6.3		88	3.76	-4.0
Russia	1.3	Q2	8.3	0.7	6.3	Aug	6.1	2.3	Jul§	2.3	-3.2	16.5		232	84.2	-1.4
Sweden	3.2	Q2	6.4	2.1	0.3	Aug	1.9	8.5	Aug§	4.8	-2.0	3.2		72	9.78	-5.1
Switzerland	2.8	Q2	7.8	1.7	0.8	Aug	0.6	3.1	Aug	8.2	0.2	0.6		37	0.82	-2.4
Turkey	2.3	Q2	4.6	2.4	31.5	Aug	32.1	8.3	Jul§	-3.0	-3.6	32.7		339	48.6	-15.1
Australia	2.1	Q2	1.7	1.6	3.5	Jul	3.7	4.5	Jul	-3.7	-1.5	5.2		93	1.40	7.1
Hong Kong	4.3	Q2	-2.5	4.1	1.7	Jul	2.0	3.7	Jul‡‡	7.8	-2.5	3.9		81	7.85	-0.9
India	7.8	Q2	6.8	6.8	4.8	Aug	4.8	6.1	Aug	-1.5	-4.5	7.1		56	96.0	-8.2
Indonesia	5.3	Q2	4.4	5.3	3.2	Aug	3.4	4.7	Feb§	-2.1	-2.9	7.1		80	17,677	-7.4
Malaysia	6.0	Q2	9.3	5.5	1.8	Jul	1.9	3.0	Jul§	3.1	-3.5	4.2		75	4.04	4.0
Pakistan	4.8	2026**	na	3.0	11.2	Aug	9.0	6.9	2025	-1.1	-4.7	12.3	†††	35	278	2.2
Philippines	2.3	Q2	2.4	2.9	6.1	Aug	5.4	6.0	Q3§	-4.5	-6.4	7.5		158	62.8	-9.1
Singapore	5.9	Q2	5.7	5.4	2.2	Jul	2.0	2.0	Q2	15.6	1.3	2.5		74	1.27	0.8
South Korea	3.8	Q2	2.6	3.5	3.1	Aug	2.7	2.0	Aug§	13.6	-0.6	4.5		176	1,363	1.6
Taiwan	12.9	Q2	5.7	10.8	2.0	Aug	2.0	3.3	Jul	26.6	1.8	1.9		56	31.8	-5.1
Thailand	1.9	Q2	-0.7	2.1	2.5	Aug	1.9	1.2	Aug§	-0.3	-5.5	2.4		95	33.3	-4.5
Argentina	2.3	Q1	3.0	2.3	33.5	Aug	32.5	7.8	Q1§	-0.1	0.1	na		na	1,507	-2.7
Brazil	2.0	Q2	1.9	2.0	4.2	Aug	4.5	5.3	Jul§‡‡	-2.6	-7.3	14.5		79	5.14	3.3
Chile	-0.2	Q2	-0.1	1.0	4.1	Aug	3.6	9.5	Jul§‡‡	-1.2	-2.5	6.0		40	954	-0.2
Colombia	3.4	Q2	5.2	2.5	6.2	Aug	5.7	8.1	Jul§	-2.1	-6.6	12.7		138	3,100	25.7
Mexico	2.1	Q2	5.8	1.0	3.3	Aug	3.8	2.7	Jul	-0.4	-4.0	9.5		74	17.1	7.1
Peru	2.6	Q2	-1.0	2.8	4.4	Aug	3.9	4.9	Aug§	2.2	-2.1	6.6		69	3.38	3.6
Egypt	5.0	Q1	4.0	4.6	14.5	Aug	13.7	5.8	Q2§	-5.1	-5.1	25.6		50	51.7	-6.8
Israel	7.0	Q2	14.9	4.3	1.5	Aug	1.9	2.8	Aug	1.0	-3.5	4.0		-16	3.04	10.2
Saudi Arabia	-4.7	Q2	-17.9	-1.0	1.8	Aug	1.9	3.1	Q1	-1.0	-5.5	na		na	3.76	-0.3
South Africa	0.9	Q2	-1.0	1.5	4.1	Jul	3.9	33.6	Q2§	-0.2	-4.4	8.9		-33	16.2	6.8

Source: Haver Analytics *% change on previous quarter, annual rate †The Economist Intelligence Unit estimate/forecast §Not seasonally adjusted ‡New series **Year ending June ††Latest 3 months ‡‡3-month moving average §§5-year yield †††Dollar-denominated bonds Note: Euro-area consumer prices are harmonised

Markets

In local currency	Index Sep 16th	% change on: one week	% change on: Dec 31st 2025
United States S&P 500	7,551.8	-1.1	10.3
United States NAS Comp	25,978.4	-1.0	11.8
China Shanghai Comp	3,891.6	-1.5	-1.9
China Shenzhen Comp	2,476.5	-2.0	-2.2
Japan Nikkei 225	63,923.0	-1.9	27.0
Japan Topix	4,061.7	0.4	19.1
Britain FTSE 100	10,688.5	0.2	7.6
Canada S&P TSX	35,491.3	-1.2	11.9
Euro area EURO STOXX 50	6,266.5	-0.7	8.2
France CAC 40	8,140.6	-0.2	-0.1
Germany DAX*	25,537.8	-0.2	4.3
Italy FTSE/MIB	51,969.1	0.2	15.6
Netherlands AEX	1,096.1	-0.5	15.2
Spain IBEX 35	19,635.8	-0.3	13.5
Poland WIG	153,624.9	-1.2	31.0
Russia RTS, $ terms	855.1	2.5	-22.9
Switzerland SMI	13,868.7	0.5	4.5
Turkey BIST	13,122.6	-9.5	16.5
Australia All Ord.	8,874.5	-2.5	-1.6
Hong Kong Hang Seng	24,713.8	-2.2	-3.6
India BSE	74,336.4	-0.6	-12.8
Indonesia IDX	6,436.9	-3.6	-25.6
Malaysia KLSE	1,679.2	-2.0	-0.1

	Index Sep 16th	% change on: one week	% change on: Dec 31st 2025
Pakistan KSE	168,021.8	-2.3	-3.5
Singapore STI	5,635.4	-1.6	21.3
South Korea KOSPI	6,718.0	-4.7	59.4
Taiwan TWI	45,848.9	-2.8	58.3
Thailand SET	1,562.7	-3.4	24.1
Argentina MERV	3,028,870.9	-2.6	-0.7
Brazil BVSP*	185,547.7	nil	15.2
Mexico IPC	63,507.1	-2.0	-1.2
Egypt EGX 30	54,822.7	-3.0	31.1
Israel TA-125	4,125.4	-1.3	12.6
Saudi Arabia Tadawul	10,780.0	-2.1	2.8
South Africa JSE AS	113,551.1	-2.5	-2.0
World, dev'd MSCI	4,887.3	-1.0	10.3
Emerging markets MSCI	1,680.8	-4.2	19.7

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 31st 2025
Investment grade	92	93
High-yield	315	354

Sources: LSEG Workspace; Moscow Exchange; Standard & Poor's Global Fixed Income Research *Total return index

Commodities

The Economist **commodity-price index 2020=100**	Sep 8th	Sep 15th*	% change on month	% change on year
Dollar Index				
All items	157.5	154.3	0.9	10.8
Food	155.9	156.1	2.1	2.9
Industrials				
All	158.8	152.8	-0.2	18.4
Non-food agriculturals	157.1	154.8	2.4	22.7
Metals	159.2	152.3	-0.8	17.4
Sterling Index				
All items	149.3	147.0	1.3	12.1
Euro Index				
All items	154.7	152.7	1.2	13.7
Gold				
$ per oz	4,406.0	4,284.7	-1.7	16.3
Brent				
$ per barrel	97.9	108.8	19.6	58.9

Sources: CME Group; LME; LSEG Workspace; NOREXECO; NZ Wool Services; S&P Global Commodity Insights; Thompson Lloyd & Ewart; USDA *Provisional

For historical indicators data, visit economist.com/economic-and-financial-indicators

OBITUARY
Gloria Steinem

The writer and campaigner for women's rights died on September 2nd, aged 92

HER BLUE satin costume was a pain. It was so tight that the zip snagged her skin when she was fastened up, and cut so high on the leg that her hip-bones showed. Her dresser had pushed a whole plastic dry-cleaning bag down her front, explaining as she did so that "Everybody stuffs." Stuffed in their tips, she meant, while Gloria Steinem, holding a drinks tray aloft on the palm of her left hand, would bend her knees into the Bunny Dip and say, pertly, "Sir, you are not allowed to touch the Bunnies."

Working undercover at the Playboy Club on East 59th Street made a great story for *Show* magazine in the summer of 1963. It also made her feet so swollen and sore, on three-inch heels, that she could hardly walk. The ad she had replied to promised earnings of $200-300 a week; for an eight-hour day, she earned precisely $12. She also risked demerits for a host of things including lateness, runs in stockings and crooked Bunny ears.

In retrospect, it wasn't her smartest idea. She had hoped to write a searing exposé of women's exploitation, but many critics thought it frivolous. She was surely just a pretty face, and even her editor and mentor at *New York* magazine, Clay Felker, had partly hired her for her "great legs". So it was back to fashion, table lamps and 101 ways with hamburger. Yet she hated that beat. She burned to write the sharp political stories that were then the province of men, but from the viewpoint of a woman. Within a decade, in 1971, she had co-founded a magazine that did exactly that.

Ms magazine set out to explode all dainty hearth-and-home thinking. Women wrote it and ran it. The trial edition carried on its cover a weeping and pregnant Goddess Kali with her eight blue arms displaying the ridiculous complexity of women's tasks: a clock, a telephone, a mirror, a skillet, a steering wheel, a typewriter, a rake and an iron. The cover of the first full issue showed Wonder Woman, who had recently been stripped of her powers by DC Comics, striding forth again with her magic lasso dazzling to tear baddies out of the sky and fight injustice. The contents included "Money for Housework", "Body Hair: The Last Frontier" and a roll-call of famous women admitting "We Have Had Abortions".

There was a special reason for that piece. She had had an abortion herself, in 1957 in London, where the procedure was just as illegal as it was in America. She had never told a soul about it; it was her choice, her life. But one day in 1969 she went to cover a meeting of women in Greenwich Village, and found them discussing their own abortions. She saw the comforting power of sisters talking together, comparing their adversity, disclosing matters they could not mention to men. The mission of *Ms* was to become a forum like that, but on a national scale. (It worked; the 300,000 initial run sold out in eight days, while the Letters pages overflowed.) Her own mission was not just to write fulminating essays and books, but to lecture and to organise "talking circles" in bookstores and malls and on campuses all across the land.

That same year, along with Betty Friedan and two Democratic congresswomen, Bella Abzug and Shirley Chisholm, she founded the National Women's Political Caucus. Its main purpose was to get more women into political office, but what then? Obviously, to her mind, equal pay for equal work; easily accessible, or free, day care; stricter controls on pornography, and abortion choice. All to be guaranteed by the Equal Rights Amendment, which would enshrine in the constitution full legal equality with men. It would not end the patriarchy overnight, and might not even make them any more use in the kitchen, but that would come in time. She was no man-hater. She had had enough happy relationships to know that men could do nurturing, too.

Her father had also taught her that. Though her parents had divorced in the end, when she was ten, he had cared for Gloria whenever her mentally unstable mother could not. (For seven years after he left it was her own job to feed her, as she lay in bed, with bologna sandwiches and dime pies; until senior year in high school, education was haphazard.) They had been an itinerant family, following wherever her father's antiques-trading took him. The result was that, for her, settling was always temporary and the open road was home. Travelling the highways was now her work, a reminder of how she had "walked the villages" with friends in India in the late 1950s, telling the poor about Gandhi.

In America too, she did not go alone. For one thing, at the start, she was terrified of public speaking. She was also very low on self-esteem. Her long hair and aviator glasses, which looked so glamorous, were principally designed to hide her face. She wondered if she might simply crack one day, like her mother. The media latched on to her as the photogenic leader of the women's movement, but she didn't want that label. (It led, among other things, to her falling-out with Friedan and the splitting of the campaign.) More practically, she liked to travel with a companion who did not have her middle-class preciseness of speech and her *magna cum laude* from Smith; someone who could argue from the perspective of a poor or black working-class woman, showing that the liberation struggle was for everywoman, everywhere.

That struggle went on all through the last decades of the 20th century and into the 21st. The ERA, though many states endorsed it, never became law. *Roe v Wade* legalised abortion nationwide in 1973, only to be reversed in 2022. A woman candidate for president was crazily rejected for a chauvinist despot. But women became free agents in many other ways. When she eventually married, in 2000, it wasn't she who had changed. The culture had. Thanks largely to the movement, women had learned to reject their role as man-servicers and take charge of their own lives. But rather than feeling proud of herself, she was proud of them.

The Playboy Club in New York City, with its so-tight Bunny suits and so-tweakable fluffy white tails, closed down in 1986. ■