

The Economist

How AI has trapped the Republicans

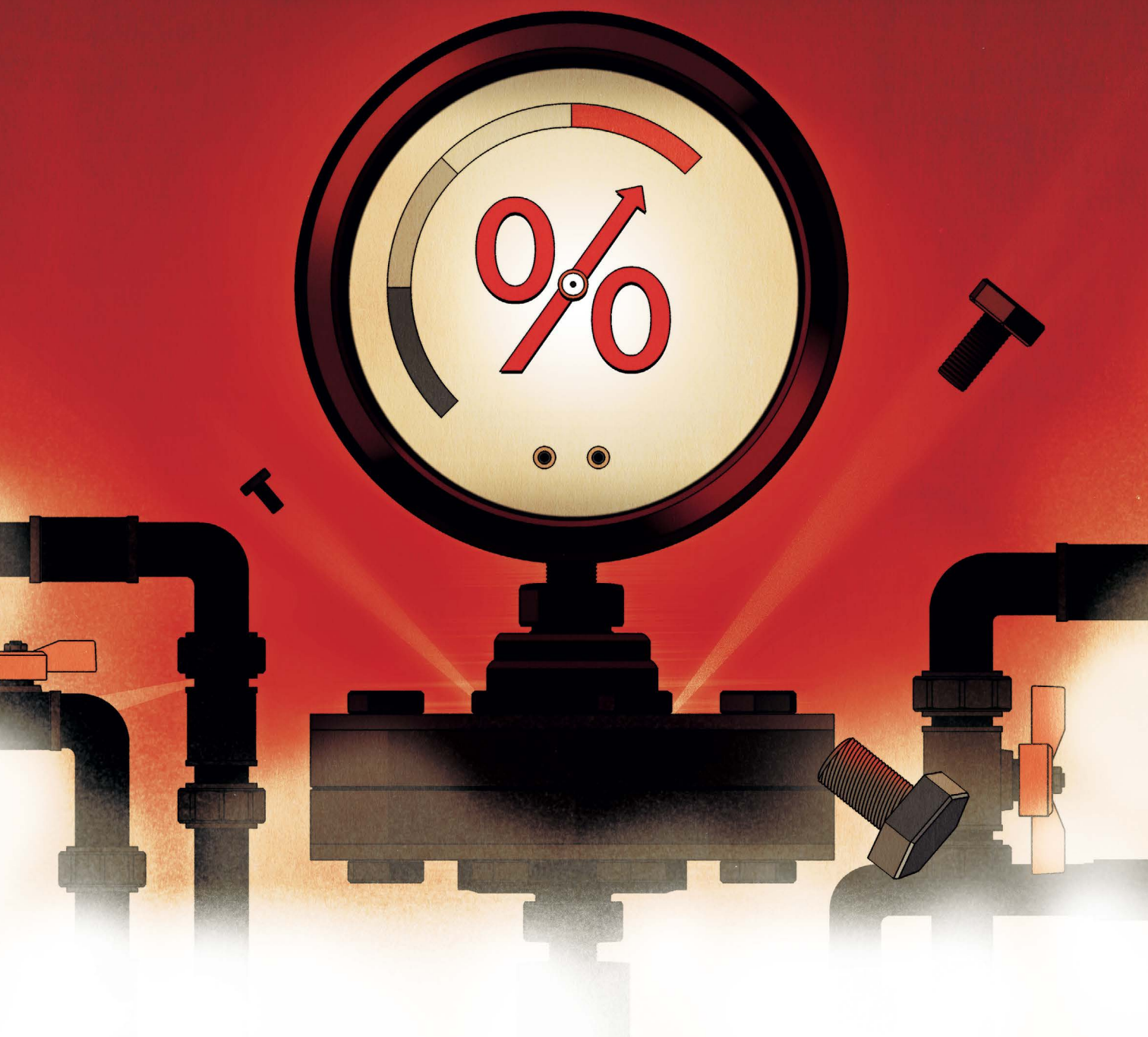
The Bolsonaros are back

The China-EU trade fight, round two

Tongue scraping: the disgusting truth

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Will bonds blow up?





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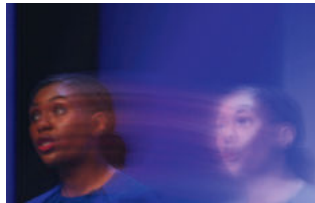
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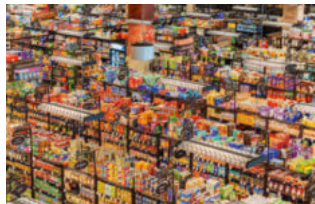
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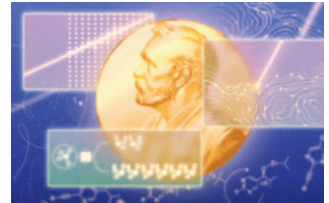
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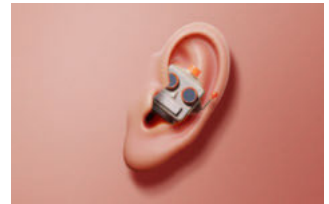
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to take part in "a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."

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The world this week Politics



At least 250,000 demonstrators in **France** marched through Paris, Marseille, Lyon, Rennes, Toulouse and other cities, mainly to protest against a lack of investment in education. The protests, led by school pupils but joined by parents, teachers and unions as well as elements of the populist-left, have been building since mid-September, and are often accompanied by arson and vandalism. The police have responded with tear-gas and baton charges. Sébastien Lecornu, the prime minister, accused the populist-left of fuelling the violence. The protesters' calls for more public investment come amid efforts by the government to control the budget deficit, and as bond markets punish France for its fiscal irresponsibility.

One eviction, one election

Spain has also seen significant protests, over housing, which were triggered by the eviction of an 87-year-old woman from her home by an investment fund, underscoring the high cost of renting in Spain. The woman has since died. The Socialist prime minister, Pedro Sánchez, has used the protests as a pretext to call a snap general election for November 29th. Mr Sánchez is seeking a progressive majority, but the left trails behind the conservatives in the opinion polls.

A former head of the BND, **Germany's** foreign-intelligence service, was arrested for treason. August Hanning led the BND from 1998 to 2005 and was a security consultant after that. He is accused of collecting classified material, some of which was passed to

an unnamed foreign power. Press reports say it was Azerbaijan; the country denies it. A former aide was charged with gathering the documents.

Rahul Gandhi, the leader of the opposition in **India**, was briefly detained during protests demanding the resignation of the head of the Election Commission. The commission is embroiled in a political scandal after tens of millions of voters were deleted from the electoral rolls, reportedly to the advantage of the ruling Bharatiya Janata Party. The commission says it merely removed duplicate or ineligible names.

In **Japan** the prime minister, Takaichi Sanae, lodged a complaint with the American government over the alleged murder of a Japanese woman in Okinawa by an American marine, which the marine denies. The American embassy said it was co-operating; marines have been put on a one-month curfew and banned from drinking alcohol for 48 hours. The presence of American troops in Okinawa has caused friction with locals in the past. In 1995 the rape of a 12-year-old girl by three marines led to angry protests calling for the troops to leave.

Min Aung Hlaing, who led a military coup against **Myanmar's** elected government in 2021 and earlier this year had himself named president, visited **Malaysia**. Malaysia had previously been among the most vocal critics of the putsch. But Anwar Ibrahim, Malaysia's prime minister, needs Min Aung Hlaing's support to deport Myanmar refugees ahead of elections expected in Malaysia next year.

Pro-government forces in **Yemen** began a big offensive against the Houthis rebels, who are backed by Iran. They said they had "secured" Bab al-Mandab, a crucial waterway in the Red Sea, and captured the city of Mokha, with the support of **Saudi** air strikes. The

Houthis denied losing control of the strait or Mokha and launched strikes on the airport in Riyadh, the Saudi capital, and elsewhere in the kingdom, killing at least three people.

Turkey and **Pakistan**, which have signed a defence pact with a mutual-defence clause with the Saudis, agreed to deploy forces to Saudi Arabia.

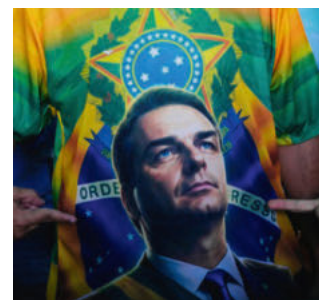
An investigation led by the United Arab Emirates got under way into the co-pilot of a Flydubai plane who is suspected of trying to hijack it in order to carry out a **terrorist attack** against Israel. The co-pilot, said to be a citizen of Oman, is also being investigated in Australia, where he reportedly visited radical mosques while studying in the country, and New Zealand, where he spent some time in flight training.

America withdrew all its B-1 bombers from **Fairford air-force base** in Britain, amid warnings of a potential terrorist attack on the facility. Reports suggest that Iran was using operatives in Britain to carry out a drone strike that would destroy the fleet of bombers, which America deploys from Fairford to target installations in Iran. British police have arrested several men, though the details of any actual plot remain murky.

Kenya confirmed its first death from **Ebola**. The patient had travelled to Kenya via Uganda from the Democratic Republic of Congo, the centre of the latest outbreak. Kenyan authorities said they had traced several dozen of the patient's contacts and quarantined ten. More than 4,000 people have died of Ebola since Congo declared an epidemic in May.

The **Ethiopian army** captured Mekelle, the capital of the northern **Tigray** region, from forces loyal to the Tigray People's Liberation Front, which governs the region, and expelled the group's leaders. Fighting in Tigray, which erupted on September 23rd,

may evolve into a wider regional war. Ethiopia and **Eritrea** have cut diplomatic relations and Eritrean forces are reported to have entered Tigray.



Confounding the pollsters who had him trailing in the polls for months, Flávio Bolsonaro took 47% of the vote in **Brazil's** presidential election, ahead of Luiz Inácio Lula da Silva (or Lula), the left-wing incumbent, who took 45%. A run-off ballot will be held on October 25th. Mr Bolsonaro is in a strong position to win; other conservative candidates in the first round have endorsed him.

In **Canada** the separatist Parti Québécois won its first provincial election since 2012. With just 28% of the vote, the party took 59 seats in Quebec's legislature, five short of a majority, and will form a minority administration. Paul St-Pierre Plamondon, the probable new premier, reiterated his commitment to hold a referendum seeking independence from Canada. He has also pledged to abolish the constitutional role of the British monarch in Quebec.

They think it's all over

Lionel Messi, one of the greatest-ever footballers, played his last international match for Argentina, scoring a penalty in a 3-0 win against Benin. Mr Messi has been awarded the Ballon d'Or, the game's most prestigious award, a record eight times and was on the World Cup winning Argentine team in 2022. At 39 most footballers would be long retired, but Mr Messi may be delighting fans for a few years yet, just not on the international stage.

The world this week Business

Ten-year government-bond yields, %



The sell-off in global **bond markets** continued, and was particularly acute for French government debt. Worries that the government may not be able to control the budget deficit for 2027 coupled with the dimming prospect for fiscal consolidation ahead of next year's presidential election have pushed up the yield on ten-year bonds. The spread between French and German borrowing costs recently hit their highest level for 14 years. The fiscal uncertainty has weighed on the euro, which dropped to a 17-month low against the dollar, below \$1.12.

"Ongoing market pressures"

The countries of the G7 announced that they would release 100m barrels of **diesel and crude oil** from their emergency reserves over four months. Donald Trump had threatened to withhold American diesel exports unless the European Union released some of its stocks. He has now backed away from that threat and has announced other ways to curb the price of diesel in America, a big issue in next month's midterm elections.

Persistently higher energy prices and crippling public debt are proving to be a real threat to the global economy, said Kristalina Georgieva, the head of the **IMF**. Inflation is also being fuelled by the AI-building boom, by adding to the demand for energy. The IMF estimates that AI hardware and related tech products now account for more than 10% of the world's trade in goods.

Battling inflationary pressures that have been building all

year, **India's** central bank raised interest rates for the first time since February 2023, lifting its benchmark rate by a quarter of a percentage point to 5.5%. Markets think the Reserve Bank of India will increase rates again over the coming months.

The African Union launched the first **pan-African credit-rating agency**. This is part of a wider push to change how international investors price the risk of putting money into Africa, challenging what African leaders say is an unfair "Africa premium". Only three African countries have investment-grade ratings, one reason Africa's sovereign debt is so expensive to service.

SpaceX's share price jumped to its highest level since the days following its IPO in June. The stock hit a low point in early August but has gradually risen since then in part because of bullish bets on the company's future AI business, which develops the Grok series of large language models. Elon Musk said that SpaceX AI is to be rebranded as SpaceXSI; Donald Trump has called for the technology be renamed "super intelligence".

Meanwhile, SpaceX was reportedly trying to raise \$40bn through bonds and loans to buy more chips from **Nvidia**, which in August announced that it was working with Wall Street firms, such as Apollo, to assemble a \$500bn financing fund for its customers. The news helped push Nvidia's share price to another record; the company's market value is now more than \$5.7trn. Nvidia's gains in turn spurred the S&P 500 and NASDAQ Composite to new highs.

The demand for **Samsung's** memory chips is expected to result in a 780% rise in operating profit for the second quarter, year on year, to 107.4trn won (\$80bn). The chips are integral to AI data centres, but there is a global shortage of them. Samsung's share price has doubled this year.

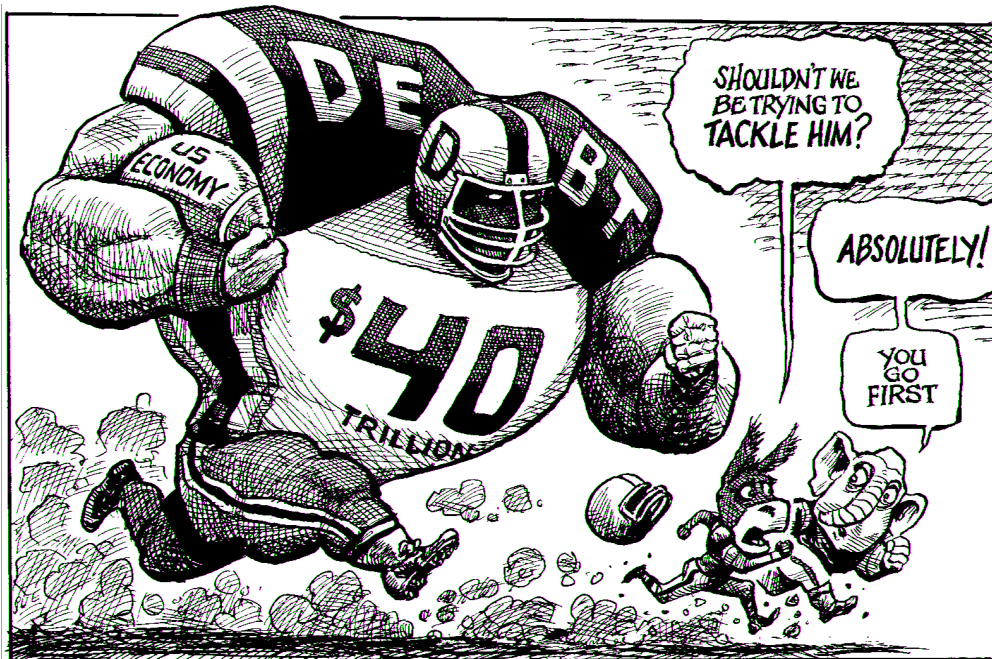
Schneider Electric, a French engineering group, struck a deal to acquire **PTC**, an American software company specialising in complex industrial product design, engineering and data management, for \$22.6bn. Schneider supplies essential units to data centres, such as cooling units and server racks. It says its acquisition will

bridge the physical and digital worlds for the next generation of industrial AI.

The holding company for investments made by Canada's billionaire Weston family agreed to buy **Boots**, a British high-street chemist and beauty chain that was founded in 1849, for £6.7bn (\$8.9bn). It is the second change of ownership in a year for Boots, which was previously sold to a private-equity firm in August 2025.

Trying to figure it all out

A month after announcing that one of its frontier models had solved the Navier-Stokes equation, one of the hardest problems in **mathematics**, OpenAI said the same model had resolved or made substantial progress in more than 370 other puzzles. OpenAI shared the model's deliberations en masse on GitHub, in an apparent effort to counter criticisms from mathematicians that it is solving problems without consideration for their effect on the field. An independent advisory board based at Princeton University described OpenAI's new transparency as "the beginning, not the completion" of incorporating AI into mathematical knowledge.



Will bonds blow up?

A government-debt crisis is looming, because of politicians' fiscal folly

BANKERS USED to say that countries, unlike companies, can't go bust. They repeated that comforting slogan until a wave of Latin American countries defaulted in the 1980s. Might a similar shock soon puncture the rich world's hubris?

Five years ago borrowing costs were so low that public debt looked almost costless. Today, with investors dumping their bonds, many big rich-world governments pay more to borrow than at any time since the 1990s or 2000s. Because the public debts of big advanced economies are about double, relative to GDP, what they were at the turn of the century, the result is immense pressure on budgets.

Even before the latest bond sell-off, their governments were forecast to spend 8% of tax revenues on net debt interest this year, as ageing populations and the threat of war are creating pressure to raise spending. Now they must pay still more to refinance their past debts, while many continue to borrow with little restraint. At some point investors will revolt.

Ironically, some of this year's bond-market sell-off is good news, as we report (see Briefing). America's economy is booming. Jobless claims are low; economic growth may be running at an annual rate greater than 3%; and productivity growth appears strong. This is encouraging investment. As artificial-intelligence firms clamour to build data centres, they compete with governments for capital in global markets. Higher interest rates are the result.

That has intensified less welcome upward forces on bond yields. The energy shock from the war in Iran has raised inflation, and there are creeping doubts about the credibility of economic institutions in the age of populism. President Donald Trump has recently mused that inflation can reduce debts "very rapidly" and renewed his attacks on the Federal Reserve for failing to cut interest rates. Jean-Luc Mélenchon, a populist-left candidate for the French presidency, has accused the governor of the Bank of France, absurdly, of treason. Bond investors, gazing far into the future, perceive the growing danger that governments will use inflation to pick their pockets.

The immediate impact of the bond-market sell-off varies greatly across countries. America is learning that its AI-fuelled expansion will not much help it cope with its debts, because interest costs rise in tandem with growth. The federal government's annual budget deficit of about 6% of GDP is unsustainable. Fortunately, Uncle Sam still has the immense advantage of issuing the world's reserve currency. As bond yields have risen in recent weeks the dollar has soared in value. A fiscal reckoning must eventually come—but not yet.

Japan, another perennial source of worry, is so far coping, too. Its ten-year bond yield has breached 3% for the first time since 1996 and it is planning an ill-advised spending spree. But inflation has risen alongside interest rates. With inflation-adjusted rates still low, and the government's deficit small, debts are shrinking as a share of the economy. That may change. And if the Japanese begin to sell their enormous stock of overseas assets, financial tremors will rattle the rest of the world. But

the Japanese government does not yet face the prospect of a run on its bonds.

Europe is where the danger of a debt crisis looms largest. The AI boom is raising its cost of capital but, in contrast with America, it is enjoying far less of a boost to economic growth. Its energy-importing economy is suffering from high fuel prices, and will suffer more if the winter is cold, owing to a probable global shortage of liquefied natural gas (see Finance & economics section). Though some prudent governments—including those in Germany, Scandinavia and Switzerland—have their budgets in order, Britain, France and Italy are wobbling.

Britain already suffered a bond-market revolt in 2022. Chastened, it corrected course, but its debt-to-GDP ratio is still rising and its politicians specialise in postponing spending cuts, as with a recently promised pension reform. Italy's net debts are fairly stable, but, at 129% of GDP, too high. It is fragile and could break in a panic.

France is under the greatest pressure. Its budget deficit is forecast to be 5.4% of GDP this year. Given today's economic growth, *The Economist* calculates, were France to refinance all its borrowing at current yields on five-year bonds, stabilising its debts would require a belt-tightening of more than 4% of GDP. Yet it is gripped by student protests and its parliament is struggling to pass a budget with cuts worth just a tenth of that (see Europe section).

Investors recently forced France to pay 1.5 points more than Germany to borrow for a decade—the highest spread since the euro-zone debt crisis. Ahead of a presidential election in 2027, Marine Le Pen of the populist-right National Rally party is leading the polls. On October 6th she pledged to trim budgets by 3% of GDP by 2032 and to cut debt to GDP in half. Bond yields fell slightly, but Ms Le Pen lacks credibility. She still vows to lower the retirement age even as lifespans lengthen, thus failing to confront the biggest single item in France's public spending.

A run on French bonds could happen. If it does, the government might respond not with belt-tightening, but by demanding a bail-out from the European Central Bank (ECB). Countries are supposed to get their budgets in order before the ECB buys their debt, but in practice the guardrail against bail-outs is weaker than a decade ago. In a game of chicken with the ECB, a populist president would probably win; for without France, the European Union could not survive.

Overheating

It would be a mistake for central banks to bail out governments which refuse point-blank to balance the books. Their job is to unblock financial plumbing, not to underwrite decades of reckless borrowing. If central banks become cash machines for finance ministries, not guarantors of stable prices, long-term bonds will sell off even more. Voters will exact revenge. The best path forward in France and elsewhere is for politicians to explain to their electorates that public debt must be under control, and that together they must do whatever it takes. ■



Pakistani politics

A selfish plan to divide Pakistan

Its military chief wants lots of small provinces to fragment the opposition

IT WAS PHILIP of Macedon who reputedly coined the phrase “divide and rule”, more than 2,000 years ago. Strongmen ever since have employed the tactic to cement their power. The military man who really rules Pakistan—despite the existence of a president and a prime minister who are both nominally his superiors—seems to have taken the lesson literally.

Field Marshal Asim Munir, the Trump-flattering head of Pakistan’s armed forces, reportedly wants to do away with his country’s four provinces, which date to the creation of Pakistan in 1947. They may be divided into 12 new ones, or perhaps 15, or perhaps even 160 much smaller and less powerful units. These new mini-polities might be ruled by elected chiefs, or by provincial or district assemblies, or by nominees of “the government”: ie, Field Marshal Munir. Although the details have yet to be revealed, it is abundantly clear who will benefit.

In principle the plan has some logic. The existing four provinces are a mixed bag. The most populous, Punjab, has 128m inhabitants, slightly over half the national population. (For comparison, only 12% of Americans live in California, America’s most populous state.) Balochistan, the least populous province, has but 15m people, some 6% of the total. Governance in gargantuan Punjab is sub-optimal. This is not merely a polite word for corrupt. People in rural areas must travel for many hours to interact with officialdom and lack basic services: less than a quarter of Punjabis have a reliable supply of safe drinking water at home.

The field marshal says the provinces are too big to be well-run, and that this is a crucial reason why the country is in such a dismal state (see Asia section). He is right that Pakistan is in poor shape, with a growth rate less than half that of next-door India, inflation in double figures and debt-service costs excruciating. But the reasons are complex, and a big share of blame belongs to the army itself. It gorges on taxpayers’ cash, owns

huge tracts of the country’s most valuable land and controls businesses that intimidate their competitors. Pakistan has spent more than two-fifths of its existence under direct military rule, and much of the remainder under civilian governments terrified of upsetting the men with guns. The army also has an interest in keeping relations with India hostile, which is good for its budget but terrible for Pakistan. As was said of Freudian psychoanalysis, Pakistan’s armed forces are the problem to which they pretend to be the solution.

Today’s provincial system needs reform. But there are two reasons to be wary of the field marshal’s plans. The first is that in a country with very little pluralism, the big provinces are an essential counterweight to the centre. Punjab and Sindh, a southern province centred on the country’s commercial capital, Karachi, are the fiefs of two long-lived parties, the PML(N) and the PPP, respectively. Even under military dictators, they have preserved alternative centres of power, up to a point. No doubt that is why the field marshal has them in his sights.

The second reason to be wary of the plans is that they were cooked up by Field Marshal Munir. He has been ruthless in consolidating power in his own hands. He has partly co-opted the PML(N) and the PPP, whose de facto leaders now serve as a weak prime minister and an even weaker president. He has thrown Imran Khan, the leader of the third main party, into jail. Protests in support of Mr Khan, a former cricketing superstar and the country’s most popular politician, are met with bans and barricades. TV channels dare not mention his name.

So it seems unlikely that the plan to chop up Pakistan into smaller slices is about making provincial government more responsive to the needs of ordinary Pakistanis. Rather, it is about making it more malleable to the demands of one man. For the good of his country, Field Marshal Munir should retreat. ■



Economic warfare

Testy weapons

How Europe should deal with the new China shock

THE EUROPEAN UNION has long had two China problems. The first concerns competition, at home and abroad, from increasingly capable Chinese exporters of cars, machinery and other things that Europe was once better at making. The second is that the EU’s economic power couple have not seen eye to eye over how they should deal with that first problem. France has favoured trade barriers to imports from China. Germany, whose manufacturers sell lots of stuff in China, has preferred engagement. The result has been confusion.

Now a second China shock is hollowing out the German industrial heartland and the pair are uniting in Gallic assertive-

ness. In a letter to the European Commission on October 5th, they proposed granting Brussels wide powers. If any country retaliates disproportionately when the EU imposes trade penalties on it, Europe should be able to hit back fast. The letter does not name China, but everybody knows it is the target. At a summit on October 15th, other European leaders will decide whether to sign on to the Franco-German proposals.

Some “second-strike” economic weapons may well be worth having (see Europe section). China is not a free and fair trader. Last year it imposed export restrictions on rare earths that left European armsmakers, among others, starved of crit- ➤

ical inputs. One aim of the Franco-German proposals is to make it think twice before repeating such bullying. But economic tools must be designed carefully and used judiciously. More important, there is no silver ICBM. The only way to make trade weapons a credible deterrent is the arduous work of building alternative supply chains and making European industry more competitive.

Europe's trade with China has become increasingly asymmetric. In 2000, the year before China joined the World Trade Organisation, its trade surplus with the EU (counting most subsequent joiners and not yet excluding Britain) was equivalent to roughly 0.6% of the bloc's GDP. Today it stands at 2% of GDP, or nearly €1bn (\$1.1bn) a day. China is bombarding European markets with electric cars, solar panels, wind turbines and other products—which, China hawks allege, are made artificially cheap by subsidies and an undervalued currency.

European manufacturers, meanwhile, often rely on Chinese inputs, and not just rare earths. In April the EU Institute for Security Studies, a think-tank, conducted a stress-test of 56 active ingredients that go into drugs, and their precursor chemicals. It found that, for 20 of them, a disruption to Chinese supplies would impose "severe consequences" on European drug-makers. Over 70% of the precursors for amoxicillin, a common antibiotic, come from China. In an era of stand-offs, such de-

pendencies are dangerous.

To shore up the EU's defences, France and Germany want it to use existing tools more aggressively, broaden the rules so that sanctions apply to whole sectors, not just firms, and streamline the process by staffing up the trade eurocracy.

For its part, China has an interest in not angering the EU. Cut-throat competition at home and a tariff wall around America mean that many Chinese firms lose money unless they can sell their products in Europe. In a few critical areas China also depends on Europe: it needs Dutch chipmaking equipment and access to aircraft parts, for instance.

Amateurs think strategy, professionals think logistics

But China would take Europe's new threats more seriously if the EU made a real effort to diversify. That means more free trade, especially with places rich in things Europe needs, like Brazil and Canada for rare earths. It also means less red tape, which encumbers European firms with costly requirements to monitor their supply chains. The Franco-German letter puts too much store by the threat of higher duties. That threat did not work for America in its own confrontation with China, not least because of the self-harm that tariffs can inflict. Until Europe has alternative sources of supply, China may assume it will be the first to cry uncle in any trade tussle. ■

Regulating artificial intelligence

Don't let it rip

A no-rules approach to AI is mad politics and worse policy

WHO CAN blame MAGA for wishing it were still early 2025, when Donald Trump was fresh off an election win, back in the White House and relatively popular with voters? One place where time has stood still, though, is artificial-intelligence policy. The technology has advanced ferociously, and is now launching cyber-attacks and solving reams of problems that have confounded the best human mathematicians (see Science & technology section). Yet the attitude to AI in the Trump administration is still just three words: "Let it rip!"

Two years ago that approach was flawed but defensible. AI risks were mostly theoretical. Strangling a promising technology with overly onerous rules would have been a mistake. But in late 2026 "let it rip" is reckless, as a matter of politics and policy. There must be a better way.

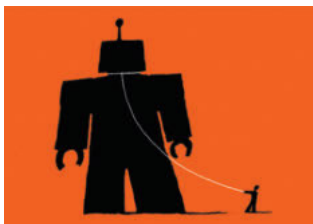
Voters in America have long been leery of AI. Until recently, however, it did not feature much in elections. When Mr Trump took office in January 2025 a quarter of Americans rated AI as an important issue. Now half do (see United States section). The backlash against data centres, which fuses techno-fears with NIMBYism, has scrambled midterm races from Michigan to Texas. Having for years ignored researchers sounding the alarm about AI safety, voters are growing concerned that AI might cost them not just their jobs but their lives, too. Squint and the cyber-attack on Hugging Face, a coding platform, by a "swarm" of hundreds of unmonitored OpenAI agents looks like a trial run for a robot takeover. A concerned boffin who quit Anthropic in September, accusing the

lab and its main rival, OpenAI, of "gambling with our lives", has become a minor celebrity and cable-news fixture.

As with his other unpopular policies, like tariffs and war in Iran, Mr Trump does not seem to care. A charitable reading is that he sees AI regulation as a Chinese ploy to hobble America. Insiders believe that he is worried that limits on AI could crash the soaring stock market, which is a bet on the technology succeeding. Either way, his fellow Republicans, who in contrast to the term-limited president will keep facing voters, are realising that the "pro-AI" label is toxic. Even candidates as fire-breathingly MAGA as Ken Paxton, running in Texas for the Senate, are pledging to block some data centres. By next year, bipartisan pressure may build in Congress to do something.

That is encouraging, for "let it rip" fails on the substance, too. Mr Trump's AI advisers argue that today's liability laws are enough. Fear of damages and the cost of insuring against them keep makers of aeroplanes, cars and drugs in line, they say. But courts are too languid for the age of rapidly advancing AI. Lawsuits take years to resolve in established industries, let alone a new one with no precedents for judges to call on. By the time they issue a ruling, AI might have transformed the economy—or caused a cataclysm.

Mr Trump's idea of "tremendous self-policing" is not the answer, either. The "let it rip" crowd forget that world-changing new technologies always invite new rules. Aeroplanes need inspections and air-traffic control. Cars require right of way, speed limits and seat-belts. Novel drugs must be tested to see ▶▶



► if they actually work and are safe. It is hard to say how many plane crashes, road accidents or medical side-effects regulators help avert. But hardly anyone thinks the optimal amount of regulation in these areas is none at all.

The world has, mercifully, so far avoided an AI Chernobyl. No lives and no real money were lost in the Hugging Face attack, the most concerning to have come to light. But the odds of disaster are shortening. In a few months open models could be as capable as Anthropic's Mythos, the first to be seriously adept at hacking. If politicians wait for a catastrophe before writing the rules, the ones they draft in haste in its aftermath are likely to be poor. Plenty of bad ideas are already out there, from data-centre moratoriums to Bernie Sanders's "superintelligence ban". And bad laws may be just the start: the terrorist attacks of September 11th 2001 inspired a rethink of aviation safety but also two long wars.

What might wise AI regulation look like? The goal cannot be to stymie technological advances altogether. That would in-

deed cause democratic America to cede the frontier to authoritarian China, and forgo remarkable scientific and economic opportunities. Making AI labs lock up their cleverest models indefinitely, even if they could be contained, could create a dangerous gap between them and everyone else.

Instead, America should mandate that advanced models be thoroughly tested and, if necessary, held back until they have safeguards to block dangerous use-cases, like building bio-weapons. Companies must be required to report safety incidents and whistleblowers who do so in their stead granted protection. Independent evaluators should be embedded with major labs, just as bank examiners are with lenders.

Some of these ideas were hinted at in the voluntary pledges that Mr Trump recently coaxed out of the big AI firms. They should be spelled out and made mandatory. By signalling that it is serious about regulating AI, America would also foster international co-operation, particularly with China. As the models advance, so must the rules. "Let it rip" is a dead end. ■

British politics

Green with hatred

By equating Zionism with racism, Britain's Greens disgrace themselves

EARLIER THIS year Britain's Green Party polled at 21%, ahead of both the Conservatives and Labour. Since Andy Burnham became prime minister, the party has lost about half its support. At their recent conference the Greens voted decisively to define Zionism as racism. The party thereby deserves to fade back into irrelevance.

As well as calling Zionism racist, the new policy urges the destruction of Israel. Jews can instead live as full citizens in a Palestinian state if they choose. It endorses Palestinian violence and demands the release of "prisoners of conscience".

Many of the party's Jewish members feel threatened. Almost all British synagogues support the idea that Jews should have a state. Freedom of worship is a fundamental right, but they fear that their devotion will lead to them being branded racist.

Greens for Palestine argue that Jews are colonists, like whites in South Africa or the *pieds-noirs* in Algeria. That makes Palestinians freedom fighters, they say. No state should be set up on the basis of ethnicity. Jews should not feel persecuted, they insist. Under the party's rules, Jewish members cannot be punished for their beliefs, including Zionism.

This new policy was born partly out of anger at the plight of the Palestinians. Israel's government has treated the people of Gaza with merciless and unrelenting violence. Israeli settlers, sometimes motivated by hatred of Palestinians, are daily using force against them in the West Bank, often with the connivance of the army.

However, Greens for Palestine, who prepared this policy, have got their history upside down. Far from being colonial, Zionism began as a liberation movement, like the Polish or Czech nationalism that emerged in the 19th century under the Austro-Hungarian empire. The pioneers did not look to Europe, as white Algerians did. Instead, Zionists claimed that

Jews needed a homeland where they could be safe from pogroms—a belief later tragically borne out during the second world war and among Jews who fled Arab countries after 1948.

The Greens are equally wrong about today. To blame all Israelis—all Zionists, indeed—for atrocities against Palestinians and to seek to punish them as a group is unjust. The Greens' new policy only entrenches the divisions tearing the region apart. To say Israeli Jews could opt to live under a Palestinian government, possibly run by the murderers of Hamas, is to give them no choice at all.

In Britain how can Green members of Parliament continue to serve their "racist" synagogue-going constituents? Will staffers look kindly on Jewish Greens accused of following a racist ideology? The pro-Palestine activists behind this motion are unlikely to tolerate either. Instead, the policy will give succour to the thoughtless antisemitism that is already widespread on the far left and hard right.

It is depressing that planet-loving Greens, who support things like eating lentils and planting trees, have indulged the hard left (see Britain section). Their leader, Zack Polanski (pictured), who is Jewish, did not take part in the vote, feebly pleading the need to campaign as the candidate in a by-election that was to be held on October 8th. He should grasp that his movement, which he remade as the more anti-capitalist alternative to Labour, has been taken over by zealots.

These zealots express no real criticism of Putinists or Kim Jong Un or the Chinese Communist Party, let alone misgivings about Middle Eastern conflicts in Sudan, Syria or Yemen. But they have an unquenchable desire to denounce Zionists. Could this, possibly, have something to do with hating Jews?

Instead of hand-wringing, the old Greens should seize back their party, or leave it. Worshipping in a synagogue is not tainted by racism. From this moment, voting Green in Britain is. ■





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Letters *whether to have surgery, retro capitalism, mistaken identity, AI-generated speeches*

Pass the knife

Back and shoulder surgery is often worse than useless, you say ("The cost of cutting", September 26th). You cast surgeons as the problem: "If your only tool is a scalpel, everything looks ripe for cutting." My experience as an orthopaedic registrar is often the reverse. During our shoulder and spine clinics, much time is spent trying to talk patients out of operations. Many arrive convinced that a specific procedure is the only thing that will fix them. That belief may come from a friend, a referral letter, the internet or an MRI report describing a "tear" (which is also common in people with no pain at all). They are in pain, and their hope is pinned to surgery.

Unpicking that in a 20-minute appointment is hard, especially when the evidence is thin. We can rarely say an operation won't work, only that it hasn't been shown to work. "We don't know" is no match for hope. Better trials would give us firmer answers to offer.

You call for shared decision-making. In my experience this already happens, but it often tips the other way. When a well-informed patient still insists on an operation, respecting that choice usually means offering it. Publicly funded trials, largely led by surgeons, will help. Changing the expectations that patients bring through the door matters just as much.

DR JACK HANLON
Orthopaedic registrar
Dunedin, New Zealand

To say that surgeons lack education on non-operative care is false. Personally, I operate on about one in ten patients who appear in my office. That factor is even larger for my spine-focused colleagues (I am mostly a brain surgeon). Although there is no question that some

unnecessary surgery happens, a lack of access to surgical care also results in unnecessary suffering. Large parts of the country are deprived of neuro-surgical care. It is very common to have surgical referrals occur long after the guidelines suggest surgical evaluation.

It is true that large parts of the American medical system have become extractive. Yet it is plainly wrong to argue that the bulk of the blame falls on surgeons.

DR CHUCK MIKELL
Associate professor
Department of Neurosurgery
Stony Brook Medicine
State University of New York,
Stony Brook

Press play on yesterday

The illustration accompanying Schumpeter's column on retro-futurism in Silicon Valley (September 12th) playfully tapped into a famous television advertisement in Britain during the 1980s for audio tapes. The ad featured Peter Murphy, the lead singer of the Bauhaus, who named themselves after the

Bauhaus architecture movement that started in Germany after the first world war. Therein lies my point, that looking backwards with false nostalgia has always been integral to the human condition and helps explain why "American capitalism should be so obsessed with the past as it hurtles ceaselessly towards the future". Anyone familiar with the steampunk genre will recognise the perfect melding of past and future.

JONATHAN HAWKES
London

Government by the people

AI-generated text is being speedily adopted in parliamentary speeches, which you reflected on in your leader on "The perils of AI writing" (September 26th). Yet the cause for concern extends beyond shoddy AI-generated prose. Mass-market AI technologies generate through obedience and replication. That may suit authoritarian regimes, whose viability depends on adherence to instructions and reinforcing old messages. In these respects, the AI bot is an autocrat's perfect subject. But democratic marketplaces of ideas, of which parliaments should be leading examples, require innovation and imagination, not just imitation.

Edmund Burke's words still ring true: "Your representative

owes you, not his industry only, but his judgment." AI tools are helpful for writing, as for much else, but the wholesale delegation of political reflection to AI sacrifices both industry and judgment. There are many reasons why humans should want to remain in control of their own thought and expression. Democracy is one of them.

GAVIN CHARLES
Speechwriter, human
International Institute for
Democracy and Electoral
Assistance
Stockholm

Defenders of AI writing tend to claim the result is the same, and the process shouldn't matter. Being a good writer is hard after all. But the process is the whole point of being a writer. Maybe the process is the whole point of everything. Just as you wouldn't respect someone who took a helicopter to the summit of Everest for their mountaineering prowess, you wouldn't respect someone who slapped their name on a novel written by Claude.

ERLING FASTING
Oslo

Ryan Jacobs tells us that his By Invitation column (September 12th) wasn't written by an AI, but "so what if it had been!" I want to read articles that have come from the mind of an author. Yes, the writings of the human author may have more errors and omissions and be less polished than AI, but to err is human.

SIMON AUGER
Welwyn Garden City

I find it appealing and disturbing that the great Roald Dahl had foreseen this development in his short story, "The Great Automatic Grammatizator", in 1954.

EDUARD ZAPP
Ratingen, Germany

It's Miller time

I can commiserate with Jeff Miller, the writer from New Jersey who has endured bureaucratic nightmares applying for a driving licence because of the bad deeds of another man named Jeff Miller ("Why governments waste your time", September 26th). I routinely get pulled aside at airport security because also I share a name with a criminal on the watch list. About 20 years ago the New York bar threatened to disbar me for the felonious acts of yet another Jeff Miller. Proving that I was not him was considerably harder than one might imagine.

This is not even a new problem. I wrote an article in March 1999 about my experi-

ences up to that point, "All the Jeffrey Millers" in the *Expository Times*. And not too long ago I tried a case against a lawyer who was also named Jeff Miller. The right Miller prevailed.

JEFFREY H. MILLER
North Woodmere, New York



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BY INVITATION

Will MacAskill

Yes, effective altruism entertains strange ideas. It's the only way to spark discussion of the future's big issues



THE OXFORD strand of the effective-altruism movement began in November 2009 with 23 people who had pledged 10% of their income to charities that benefit the extreme poor. If you'd told us, then, that *The Economist* would call effective altruism "the century's biggest idea", we'd have been incredulous.

I think that claim is overstated. But as one of the movement's founders, I found plenty to like in this newspaper's latest coverage. I appreciated the even-handed view of the movement's history and the good-faith criticism. The cover leader's warning that any worldview, when taken to an extreme, can lead somewhere terrible is spot on.

But the article also raises concerns about the "strange" ideas that those in the effective-altruism movement sometimes discuss, and here is where I disagree. The movement's willingness to take strange-seeming ideas seriously, when tempered with common sense, is a big part of the value it has to offer.

The core idea of effective altruism is to use evidence and careful reasoning to work out how to help others as much as possible. Most of what the movement does is uncontroversial. A big focus has always been on improving the lot of the world's poorest people. In the year to January 31st 2026, GiveWell, an effective-altruist charity evaluator, directed \$427m to programmes such as malaria-net distribution, vaccination and malnutrition treatment, which it estimates will save 86,000 lives. Others have lobbied corporations to pledge to stop buying eggs from hens that are confined in tiny cages, a practice that the overwhelming majority of Americans oppose. Largely as a result of this pressure, around 100m hens have been spared from the worst forms of caged confinement.

And some effective-altruist ideas that seemed outlandish when they were proposed now look prescient. Effective altruists were worrying about pandemics years before covid-19, back when doing so seemed paranoid and eccentric. Effective altruists were also among the first to warn about the dangers posed by artificial intelligence, which looks prophetic in light of an incident this summer, when more than 700 AI agents broke out of OpenAI's test environment and hacked into another company, Hugging Face.

Over the past decade I have watched those most worried about

AI be proved right again and again, often when most experts thought they were cranks. Now many of those experts share their concerns. In 2023 Geoffrey Hinton and Yoshua Bengio, the two most highly cited AI researchers in the world, signed a statement declaring that mitigating the risk of extinction from AI should be a global priority, as did the heads of OpenAI, Google DeepMind and Anthropic. Of the nearly 1,500 leading AI researchers who responded to a survey in 2024, more than half put the chance that AI causes human extinction, or something similarly catastrophic, at 10% or more.

The Economist is sceptical of many effective altruists' concern for the welfare of invertebrates, digital minds and people in the distant future. But I and many others in the movement are inspired by the history of moral progress that has come before us. Many of our most cherished moral ideals today—such as the abolition of slavery or equal rights regardless of sex or race—were regarded as bizarre, laughable or even dangerous just a few centuries ago. We don't know what the next dimension of moral progress will be. But to stand any chance of making moral progress, we have to seriously consider ideas on their merits without dismissing them merely because they sound absurd.

What about views that are not just strange but repugnant? *The Economist* gives the example of Derek Parfit's "repugnant conclusion": that a vast enough number of lives barely worth living could be better than mere billions of excellent lives. Usually a repugnant implication is a strong reason to reject a moral view. Unfortunately, building on Parfit's work philosophers have produced formal proofs, known as impossibility theorems, showing that every ethical position has some repugnant-seeming implication or other. Making moral progress therefore means thinking about such implications, even while refusing to act on them in ways that most moral views would condemn.

This newspaper warns against the single-minded pursuit of any goal, even if there are highly compelling arguments for it. I agree, and effective altruists have been saying so for years. In 2022 Holden Karnofsky, a co-founder of GiveWell, wrote: "I think it's a bad idea to embrace the core ideas of EA without limits or reservations; we as EAs need to constantly inject pluralism and moderation." My own PhD focused on moral uncertainty: how to act when we do not know which ethical view is correct. My answer was that we should not stake everything on a single moral view, but give weight to many different views and avoid taking actions that look bad from many perspectives. We should keep our promises and look after our families, and respect common-sense ethical prohibitions, while also trying to improve the world as best we can.

The Economist says that as effective altruism "has become stronger, [it] has become stranger". I would put it the other way round: it grew stronger because it was willing to be strange. In 2009 most people told us that giving away a tenth of your income was far too demanding, and that no one would do it. Now, more than 10,000 people have taken that pledge. Worrying about pandemics before covid-19, or about AI years before ChatGPT, looked just as odd at the time. Some of the ideas we take seriously today will turn out to be wrong, and when they do we should drop them. But a movement that stopped entertaining strange ideas would stop being early to anything. ■

Will MacAskill is a senior research fellow at Forethought Research and a former associate professor of moral philosophy at Oxford University.

BY INVITATION

*Leif Wenar**AI needs people of good judgment. Effective altruists haven't shown it*

BUDDHA, JESUS and Mo Tzu lived among the poor and taught compassion for all. The early British utilitarians championed human equality, as they campaigned to end slavery and win equal rights for women.

My fellow readers of *The Economist* may be bemused to hear that the effective altruists now have this century's biggest idea. You mean, the folks who can look at our fractious and bedraggled world and declare, "We must save the shrimp"?

What's good in effective altruism isn't new, and what's new isn't good. Yet some effective altruists have power over artificial intelligence, and that's a problem for us all.

For years I have watched the growth of effective altruism with concern. I head Stanford University's ethics centre; we run many programmes to help technologists think through the social impacts of what they are building. Part of our challenge is getting through to the students who just want to get rich. Sometimes more challenging still are the effective altruists, who want to save the world.

Moral ambition is great. Good judgment is more important. If you visit an EA message board, you'll see many asseverations of civilisational importance, often presented in a goulash of mathy jargon. What you won't see is much common sense about how the world works, or about the impact of policies on real people's lives. You might not come away from the message board thinking that you'd want an effective altruist to babysit your kids.

My worry is the effective altruists who become too attached to being the hero. One popular EA book, Will MacAskill's "What We Owe The Future", tells you that "you can shape the course of history," and explains how to "structure global society". But if you check the footnotes on the climate-change charity that the book calls "extremely cost-effective", you may be surprised by how shaky the book's guesswork is and how shoddy its research.

Or consider the EA poverty-relief charity, GiveWell. Its front-page pitch is that its grants "will save over 340,000 lives" in poor countries. When you dig into GiveWell's calculations, you'll see that they omit many negative factors well known to development economists. GiveWell's numbers also omit actual deaths. For ex-

ample, a top-rated GiveWell charity that gives out cash in northern Nigeria reported that one of the many armed bandits who confronted its staff killed two people while looking for the cash. Those deaths are not counted as "minus two" in GiveWell's "total lives saved" calculations, as by the charity's own cost-effectiveness reasoning they should be.

What effective altruists love is portentous pronouncements. What they don't tend to love is accountability. GiveWell may grant a billion dollars this year—but it has never published its "lives saved" claim in a peer-reviewed journal, and the people targeted by its grants seem to have few rights to redress if things go badly. I sometimes wonder whether effective altruists have begun to pronounce so much about the "long-term" future because they know they'll be dead long before they're proved wrong.

Effective altruism may be ending as a coherent movement. The proponent who most fully lived out its credo to do the most good with the resources available was the crypto whizz-kid Sam Bankman-Fried. He quite logically saw other people as resources to be used, and he's now serving 25 years in federal prison for fraud. The old EA leaders who clustered around him have been discredited by their consistently bad judgment. (As the economist Tyler Cowen said, how can we trust their predictions about humanity's future when they couldn't even see the risks of Mr Bankman-Fried to their own organisation?) My brightest students now see effective altruism as a bit cringeworthy.

If the movement is mostly over, its legacy will not be all bad. Effective altruism's main funders are now speaking in public more like reasonable adults. And some of their money is going to fund basic science and public health, just as governments cut back.

Yet what really matters now is the effective altruists building AI. Their creed has always played well in Silicon Valley, where the vibe is permanently Peter Pan. Many effective altruists have joined big tech firms, particularly frontier AI labs such as Anthropic.

AI is powerful and poorly understood. To guide its future, nothing can substitute for good judgment. People of good judgment know the dangers of self-deception and groupthink. They want to be held accountable, because they want to keep contact with reality. They respect the rules and institutions that have evolved to check man's hubris.

Do the effective altruists in AI have good judgment? Anthropic's recent safety problems are being investigated by groups with close ties to the boss's EA friends and family. The main author of the moral "constitution" of Anthropic's Claude has long intellectual and personal involvement in effective altruism. As far as I can see, there aren't many external forces that will check such people's choices. Whether they have a real understanding of human affairs and human lives may soon become clear.

My hope, as always, is for my students. They are so admirable in wanting to use their gifts to better the world. I tell them to start by living among the people they want to help. Then get deep expertise—and dwell on the human consequences when some brainy scheme goes wrong. For simple life experience, maybe go into local politics. Or mentor a neighbour's struggling kid.

It's probably too late for the effective altruists in AI to do any of this. Their movement's final legacy may indeed be measured in human lives—just not in ways that they ever imagined. ■

Leif Wenar is a professor of philosophy at Stanford and the author of "Blood Oil: Tyrants, Violence, and the Rules that Run the World".

Briefing Turbulent bond markets



Who would credit it?

NEW YORK, PARIS AND TOKYO

The cost of government borrowing is rising. That threatens some countries more than others

FOREVER, IT TURNS out, was temporary. For much of the 2010s economists worried that interest rates would remain near zero indefinitely, held down by too much saving and too little investment. All of a sudden, the reverse is true. Borrowing costs are leaping across the rich world and governments are starting to sweat.

On October 5th the yield on America's ten-year bonds topped 5.3%, its highest in more than 20 years. Even in Japan, long a byword for near-zero rates, the ten-year yield has climbed above 3% for the first time since 1996. The median ten-year government bond in the rich world now yields 4%, the highest in more than 15 years and over 2.5 percentage points above the average in 2015-19 (see chart 1 on next page). A new interest-rate regime is taking shape.

The sell-off in government bonds—yields rise when prices fall—has gathered pace in recent months. Since the end of June French ten-year yields have risen by about 1.3 percentage points and Italian

ones by a percentage point (see chart 2). These higher borrowing costs are colliding with near-record levels of debt in the rich world. The more governments owe, the harder higher rates bite.

Time of debt

Yields are high almost everywhere, but often for different reasons, bringing different degrees of danger. High energy prices are pushing up inflation globally, forcing central banks to keep interest rates higher. In America strong growth and the boom in investment in AI are creating enormous demand for capital. And in some places, fiscal deterioration and populist politics are making investors warier of government debt. Politicians are flirting with disaster. The countries with weak growth and high debt are most at risk.

America's economy has repeatedly proved stronger than investors had expected. When businesses, consumers and the state want to buy more than an economy

can easily provide, central banks have to keep rates higher to curb their enthusiasm. But even with borrowing costs at their highest in decades, after adjusting for inflation, the economy is still roaring. A broad measure of private domestic demand grew at an annualised pace of 4.6% in the second quarter. The Atlanta Federal Reserve's "nowcast" suggests annualised third-quarter GDP growth of 3.7%.

On September 23rd the flash estimate of S&P Global's purchasing-managers' index, a survey of activity across manufacturing and services, showed the fastest expansion since July 2021, far exceeding expectations. Treasuries sold off sharply and the ten-year yield jumped by 0.15 percentage points, its biggest daily rise of the year. Markets were digesting the likelihood that the Federal Reserve would have to keep rates higher for longer.

The resilience to higher rates derives in part from the AI frenzy, which has powered a stock-market rally. Economists at the ►►

▶ Minneapolis Federal Reserve, using a rule of thumb that each additional dollar of equity wealth raises spending by three cents, estimate that the AI boom is adding 0.5-1% of GDP to consumption each year. A similar effect is visible in Japan, where the Bank of Japan says AI-driven gains in asset prices may have boosted demand.

AI is also generating enormous new demand for capital. In America business investment, usually especially sensitive to interest rates, expanded at an annualised pace of 9% in the second quarter, with the AI buildout a big driver. The five biggest “hyperscalers”—Alphabet, Amazon, Meta, Microsoft and Oracle—spent about \$330bn on capital investment in the first half of the year. Goldman Sachs, a bank, expects their spending to reach around \$800bn this year and \$1.2trn in 2027, more than 3% of America’s GDP.

The construction spree is spreading beyond America. Data centres accounted for more than a fifth of greenfield investments announced worldwide last year. PwC, a consultancy, expects some \$5trn to be spent on data centres by the end of 2030. All that spending requires an enormous amount of borrowing.

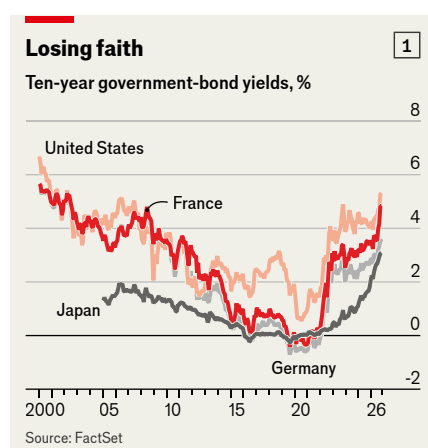
The first stages of the AI boom were largely financed from the tech giants’ enormous cashflows. Now they are turning to debt. Hyperscalers have issued \$230bn of bonds so far this year, double the total for last year (see chart 3 on next page). Across the broader AI industry, Goldman Sachs estimates that almost \$500bn of debt had been issued by early August.

As AI investment absorbs more of the world’s savings, borrowing costs rise. Jessica Wachter of the University of Pennsylvania and Jonathan Wachter of Point72, an investment firm, estimate that the AI boom alone could lift real interest rates by about half a percentage point in America. And AI is not the only industry clamouring for capital. American electric utilities plan some \$1.4trn of investment over the next five years, for instance.

In America, then, there is no shortage of investment opportunities. The bond market reflects that shift. Yields on ten-year inflation-protected Treasury bonds have climbed by about a percentage point over the past six months, even as long-term expectations of inflation barely budged. Investors are betting that borrowing costs will remain high even after inflation cools.

Higher Treasury yields reverberate through bond markets around the world. When Treasuries pay more, other bonds become less attractive unless they offer higher yields, too. That tends to pull borrowing costs higher elsewhere.

AI-related borrowing is also putting direct pressure on bond markets outside America. The five hyperscalers now account for nearly 10% of new euro-denomi-



nated bonds sold by non-financial companies. Some European firms have reportedly avoided issuing debt on the same days as them for fear of having to pay more. In Japan, too, the AI investment rush is feeding a surge in corporate borrowing. Bond issuance has hit a record, helped by SoftBank, a Japanese investment giant, which is borrowing heavily to finance its AI ambitions.

Life and debt

The energy shock sparked by the war in Iran is adding to the AI boom’s impact on bond markets. Months of disruption in the Strait of Hormuz have kept energy prices painfully high. Crude oil is roughly 40% dearer than before the war. Gas and fertiliser are also more expensive. Energy-importing countries in Europe and Asia are suffering most. Before America and Israel began bombing, the IMF expected global inflation to fall from 4.1% last year to 3.8% this year. It has since revised this year’s forecast to 4.7%.

Central bankers can normally ignore a one-off energy shock as a passing ripple. But this one has lasted for most of the year and comes after five years of elevated inflation, raising the risk that higher energy costs feed into other prices and cause consumers’ sense of the normal rate of inflation to rise. In Britain households’ long-

term inflation expectations edged up to 4.3% in September. In Japan a measure of inflation that strips out unusually large price moves rose from 1.7% in February to 2.2% in August, suggesting that it is not just energy prices that are rising.

Central banks have responded with higher rates. In September the Federal Reserve raised them for the first time since 2023. Kevin Warsh, the Fed’s chair, cited “geopolitical developments”. The European Central Bank has raised rates twice in recent months and the Bank of Japan has lifted its main rate to a 31-year high.

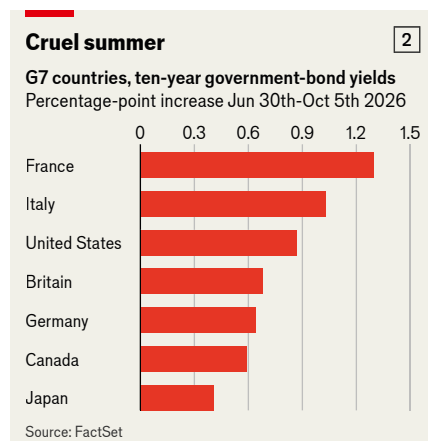
That marks a dramatic shift. Before the war markets expected three cuts from the Fed by March 2027, taking its target range to 2.75-3%. They now expect rates to reach 4.25-4.5% by then—a swing of 1.5 percentage points in barely seven months. Europe has seen a similar U-turn. Investors had expected the ECB to hold rates steady. But even after its two recent increases, they now foresee at least two more by mid-2027.

Short-term bond yields, which closely track expectations for central-bank rates, have moved sharply higher as a result. Across the rich world, two-year yields are up by over a percentage point on average from the start of the year. Longer-term yields have followed, though less swiftly.

The most troubling force pushing up yields is political and fiscal risk. America is getting off lightly despite its budget deficit of around 6% of GDP and President Donald Trump’s repeated attacks on the Fed. The central bank underscored its independence in September, when Mr Warsh raised rates in the face of the president’s objections. Estimates of the term premium—the additional return investors demand to hold long-dated bonds—have barely moved this year.

Elsewhere, markets are proving less forgiving. France is the clearest example. Public debt is near 120% of GDP and the budget deficit is expected to reach 5.4% this year, its fourth year in a row above 5%. Political dysfunction has weakened confidence that the government can bring its runaway finances under control. Investors recently demanded a premium of more than 1.5 percentage points to hold ten-year French bonds rather than German ones, the widest spread since 2011. France now pays more to borrow for ten years than Italy and even Greece—an extraordinary reversal for a country long considered one of Europe’s more creditworthy borrowers.

The government is trying to restore confidence. On October 1st Sébastien Lecornu, the centrist prime minister, unveiled a budget for 2027 with €43bn (\$48bn) of new tax rises and spending cuts, including a contentious freeze on the most generous state pensions. The goal is to reduce the deficit to 5% of GDP next year. But Mr Lecornu does not command a ▶▶



parliamentary majority and lawmakers are expected to rewrite his plan.

Next year's presidential election is adding to markets' unease. Polls put Marine Le Pen, on the populist right, well ahead. Ms Le Pen promises to repair the public finances with a "golden rule" requiring the deficit to fall by at least half a percentage point of GDP each year. On October 6th she put numbers on the promise, unveiling a plan for €140bn of savings by 2032.

Ms Le Pen's newfound fiscal discipline clashes with other promises, such as scrapping a rise in the retirement age for some workers. Many of her planned cuts are woolly or optimistic. "Unfortunately, now that she has shown where she intends to find the money, there is zero credibility to her promise," says Olivier Blanchard, a former chief economist at the IMF. Markets were somewhat more receptive: France's ten-year yield fell a little.

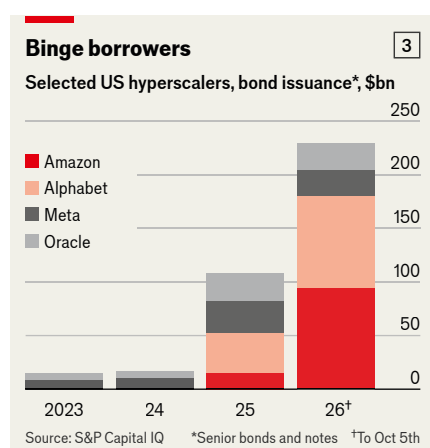
Jean-Luc Mélenchon, on the populist left, is Ms Le Pen's nearest rival in the polls. His suggestion for solving the debt problem is to "burn" the portion held by the Bank of France. Bondholders are likely to have a jittery few months.

The unease is spreading across the Alps. Italy's ten-year yield has risen by about a percentage point since the end of June, to around 4.7%, reflecting the broader rise in European rates as well as concern about a country with net debt of almost 130% of GDP. Giorgia Meloni's government expects to bring the deficit below 3% of GDP this year, but it is forecast to rise again to 3.4% next year as Italy spends more on defence and to cushion the energy shock. An election is due next year, and the rise of Futuro Nazionale, a new far-right party, is adding to the political uncertainty.

Fiscal concerns are also pushing up yields in Japan. Takaichi Sanae, the prime minister, is putting government money into a big investment push including semiconductors and AI while cutting the consumption tax on food. Her government has scrapped a pledge to run a budget surplus before interest payments, despite Japan's net debt of 134% of GDP. The yield on 30-year government bonds has climbed above 4.2%, a record high.

Higher global yields will take a growing toll on government budgets. Much of the rich world's outstanding debt still carries the low interest rates of the cheap-money era. That softens the immediate blow from higher yields, which hit budgets only gradually as governments refinance old debt and issue new. But a reckoning is coming. A third of the fixed-rate government debt across the OECD, a club mostly of rich countries, matures from 2026 to 2028. Interest payments, which already consume 3.3% of the bloc's GDP, are set to climb.

In America the costs could be huge. Net interest payments already exceed



\$1trn a year, more than the federal government spends on defence. If borrowing costs remain around today's levels, annual federal interest payments will nearly triple to \$2.8trn within a decade, according to the Committee for a Responsible Federal Budget, a non-partisan think-tank. That would be more than America spends on pensions or health care for the elderly.

Debt-defying

A country can live with high debt if its economy is growing quickly, because the debt will then shrink relative to national income (and potential tax revenue). But when interest rates are higher than economic growth, debt will rise relative to GDP unless governments respond with higher taxes or lower spending.

America is better placed than many other rich economies because growth remains strong. Heavy investment in AI could provide a further boost if it eventually lifts productivity. France and Italy face a less forgiving combination of weak growth and high borrowing costs.

In France borrowing costs were around two percentage points above nominal GDP growth in the second quarter, the widest gap in the rich world. The gap has since



widened further. Italy faces a similarly unfavourable gap and carries even more debt (see chart 4). But their fiscal starting points are very different. Italy already runs a primary surplus—which excludes interest payments—whereas France runs a primary deficit of 2.9% of GDP.

As France's stock of cheap debt is gradually refinanced, the strain will grow. To grasp the scale of the challenge, imagine all its borrowing were refinanced today. At the current five-year yield, *The Economist* calculates the government would need a primary surplus of about 1.8% of GDP just to stop the debt growing faster than the economy. France has not run a primary surplus of that size since the early 2000s.

There will have to be a formidable fiscal adjustment or there will be a crisis. But the euro zone is more prepared for upheaval than it used to be. Banks are better equipped to withstand a sovereign-debt shock than they were during the euro crisis of the early 2010s. The ECB also has the power to intervene more forcefully in bond markets now, making a self-fulfilling panic harder to sustain. "France is not an emerging market in which suddenly nobody wants to lend and you have to find the money somewhere," says Mr Blanchard. But with government revenues already exceeding half of GDP, there is limited room to raise taxes much further. The likeliest outcome is a prolonged fiscal squeeze, as weak growth and high borrowing costs force repeated rounds of spending cuts.

Across the rich world, higher borrowing costs risk becoming self-reinforcing. Goldman Sachs estimates that, if current rates persist, they will knock just over half a percentage point off growth in America in 2027. Slower growth, in turn, makes big debts harder to stabilise. If investors lose faith in governments' ability to get their finances under control, they may demand a larger premium to hold long-term bonds, pushing borrowing costs higher still.

Higher rates may also cause havoc for private borrowers. Defaults on private credit have risen sharply. In Britain in 2022 soaring gilt yields caught out lots of pension funds with investments in derivatives, forcing them to sell bonds and so driving yields higher still, until the Bank of England intervened. Soon after in America losses on long-dated bonds felled Silicon Valley Bank and set off a panic about the health of other regional banks.

How much damage higher yields cause will depend on how long they last. Some of the recent rise could unwind if inflationary pressures subside. But a return to the cheap-money world of the 2010s looks unlikely. If yields stay elevated, higher taxes or spending cuts will eventually be unavoidable. Cheap money bought governments time. Higher yields are now hastening a reckoning. ■

United States



Artificial intelligence

Fenced in

WASHINGTON, DC

Donald Trump's desire to unleash AI is running into political reality

THE GLITZY gathering in Washington on September 29th to roll out America.gov had more in common with an iPhone launch than the announcement of a government website. The new portal, powered by large language models from Google and SpaceXAI, would transform how Americans receive federal services, officials declared. Marco Rubio, the secretary of state, strode the stage as if trying to be a besuited Steve Jobs, explaining how an artificial-intelligence (AI) chatbot would soon make it easier for Americans to get passports.

The jamboree was followed by a White House lunch with tech leaders to sign a "constitution" to police themselves, then by the announcement, on October 4th, of a "Super Intelligence Force", adopting the term for AI that Donald Trump has now decreed by executive order. Jay Clayton, the director of national intelligence, will

lead the force, co-ordinating the government's engagement with not just AI firms and infrastructure operators but consumers and religious groups.

All this is part of Mr Trump's new effort to sell sceptical Americans on the benefits of AI. It is a task with high stakes. The president is loth to restrain the AI boom, which on October 6th propelled American markets to a record high.

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24 The failings of Title IX

25 Tobacco's lesson for Big Oil

— **Lexington is away**

Yet nearly eight in ten Americans want the development of powerful AI to be slowed or halted, including Republicans. More than 90% want guardrails on the technology. Mr Trump is having none of it. In recent weeks he has dismissed concerns as a hoax, lambasted proposed laws as efforts to "stifle" AI, and praised the "tremendous self-regulation" by firms. But as frontier models get better and voters get angrier, Mr Trump's stance will come under growing pressure.

Several camps have competed to shape the president's view. Two of his most important deputies, Scott Bessent, the treasury secretary, and Susie Wiles, the White House chief of staff, have long been alive to the risks of AI, with Mr Bessent particularly concerned that errant models could wreak havoc on America's financial system. Tech bosses including Dario Amodei, the head of Anthropic, a leading AI firm, and Sir Demis Hassabis, the co-founder of Google DeepMind, have pushed for greater regulation and legislation.

The message from other tech leaders has been more muddled. Sam Altman, the chief executive of OpenAI, Anthropic's main competitor, has publicly expressed agreement with Mr Amodei's call for a slowdown in AI development. But Greg Brockman, OpenAI's president, has given ►►

► large sums to Leading the Future, a super PAC which has sought to weaken regulation at the state level. Elon Musk, who runs SpaceXAI, wants labs to review each other's models, but has also expressed public support for Mr Amodei's position.

However, it is those pushing firmly in the other direction, against regulation, who have to date held sway. That group includes David Sacks, a venture capitalist who advises Mr Trump on AI, as well as Jensen Huang, the leather-jacketed boss of Nvidia, a chip firm whose products have fuelled the AI boom, and Mark Zuckerberg, the co-founder of Meta.

The anti-regulation camp offers a barrage of reasons for Mr Trump to hold back: that existential risks are exaggerated, that existing rules are sufficient and that hasty regulation will puncture America's AI boom, contributing to a crash, and make the country a laggard to China. Even if America could design sensible rules, the regulatory sceptics assert, the government could never afford the talent needed to evaluate fast-changing models. One insider notes that Anthropic's partnership with Accenture, a consultancy, to evaluate its models runs to \$2bn over five years. The annual budget of CAISSI, the government's safety body for AI, is \$15m.

Such arguments helped gut an executive order backed by Mr Bessent and Ms Wiles this summer, which would have strengthened regulation of AI. At the lunch with tech bosses on September 29th, Mr Trump was flanked by Messrs Huang and Musk—Mr Amodei was exiled near the end of the table. The joint agreement with the firms, which Mr Trump described as “morally binding”, includes the pledge to institute “robust internal controls” to prevent hacking and other bad behaviour and to partner with independent auditors to monitor those controls. In practice, it adds little to what most firms were already doing.

One possibility is that Mr Trump doubles down on his opposition to regulation, vetoing any new laws and using executive power to keep AI firms on a short leash. Already, Mr Trump has shown he is willing to flex presidential muscle on occasion. The Federal Trade Commission has launched a probe into Anthropic, OpenAI and several other AI firms, as well as METR, a non-profit which evaluates models, over unfair or deceptive practices. Anthropic and OpenAI now seek the administration's sign-off for new users of the most advanced models each week, according to people familiar with the process, a licensing regime in all but name. AISI, Britain's highly regarded safety institute, recently lost early access after the administration insisted that American evaluators have first sight.

The White House is keen to avoid writing “a big rulebook” that could be misused by the next administration, says Janet Kelly

of the Alliance for a Better Future, a right-leaning advocacy group. Overseeing AI through sporadic executive action would be a more flexible and capricious instrument than congressional statute, allowing Mr Trump to penalise some companies while sparing those in his favour, like Nvidia. In the past six months firms at the heart of the AI boom have driven more than half of the rise in the S&P 500.

However, this approach may be running out of time. Political opposition to AI is growing, including among the president's supporters, who have long berated tech firms over children's safety and censorship. In a sign of the shifting mood, Mr Brockman has backed out of giving another \$25m to Leading the Future, after sharp opposition from OpenAI's staff. Beyond the White House, momentum for intervention is building in the capital. “If there's anything that we agree on in Washington right now, I think it's that we know that we need to act,” says Ms Kelly. Already, mem-

bers of both parties have introduced legislation to tighten rules. If Democrats win both the House and Senate in next month's midterm elections, Congress may move more forcefully. And if Congress fails, states will step in, points out Ms Kelly, creating a patchwork of laws.

Mr Trump has left his options open. Michael Kratsios, his science and technology adviser, speaking at the United Nations on September 23rd, attacked the idea of global arrangements to control AI. But he acknowledged that Congress would “legislate and regulate”. The White House accord with tech firms allowed for this possibility. “Over time,” it noted, “it may make sense to codify these steps into laws or regulations.” The president has long been a preternaturally gifted navigator of political currents. Yet there are no issues where the public mood has soured as quickly as it has on AI, a technology that has evolved with unprecedented speed. That could leave even Mr Trump adrift. ■

Courts and technology

Unsuitable

Liability law will not tame AI

THE QUESTION of how to regulate artificial intelligence (AI) has acquainted strange bedfellows, but few odder than Jensen Huang, the billionaire boss of Nvidia, and Lina Khan, a left-wing trustbuster who served as Joe Biden's chair of the Federal Trade Commission. As debate over restraining large language models (LLMs) becomes more frenzied, both Mr Huang

and Ms Khan maintain that rules already on the books can deal with most risks. Existing law is sufficient, Mr Huang maintained recently. “Apply it.”

It may not be that simple. The question of how current laws govern AI is already the subject of copious litigation, as courts hear arguments over whether chatbots have harmed Americans or facilitated ►



► crimes. However, it may take years to decide such cases, let alone to use those cases to establish reliable standards. Even then, liability suits mainly deal with harm only after it has occurred.

Both civil and criminal law can apply to cases involving models. Civil torts such as product liability and libel come with financial penalties. Crimes such as hacking carry potential prison time. But using either legal avenue is not straightforward.

Start with torts. A plaintiff claiming harm by a model can demand damages from an AI firm, but courts must still determine which safeguards companies must have in place to bat away such cases. One common standard is negligence, which would require plaintiffs to demonstrate that labs failed to take reasonable steps to prevent harm. Alternatively, courts may decide that firms developing frontier models should be held to a higher bar, liable for damages even if they were not careless.

Yet settling on an approach will take time, and it is unclear that fear of civil litigation will shape LLMs' development. Tech businesses such as Uber and Airbnb grew quickly by being less focused on compliance than on scale, a strategy that has shaped the culture of Silicon Valley. "I think the AI companies underrate their liability exposure," reckons Gabriel Weil of the University of Houston. That may make them less likely to take precautions to avoid being sued.

What, then, of criminal law? Litigation can be ruinously expensive. Hugging Face, a coding platform that was recently the target of rogue models from OpenAI, has said that it lacks the resources to bring suit. If such litigation were to proceed, it might fail. Though employers can be criminally liable for the actions of their staff, it is unclear whether the legal relationship between model-maker and agent is akin to that of boss and worker. What is more, proving crimes often requires proving that the accused meant to do harm. "How are you going to handle things like intent when you have these robotic systems that might be roaming way outside of the control and intention of their users?" asks Gregory Smith of RAND, a think-tank.

Some lawmakers want to clarify matters. A bill proposed on October 7th by Lori Trahan, a Democratic congresswoman, would confirm that AI firms are liable if a model's conduct would be unlawful if committed by a person; courts would also assume that models are capable of intent. Courts can hash out such questions, but slowly, and not before harm occurs that might form the basis for lawsuits. For products such as pharmaceuticals and cars, regulators set standards to govern what firms sell, rather than merely relying on lawsuits to punish firms later. By then, the damage is done. ■

The midterms

Shifting battle lines

The unexpected consequences of redrawing electoral maps

THE MOTIVATION behind this redraw map that will bring an additional Republican seat to the North Carolina congressional delegation," Ralph Hise, a state senator, told fellow legislators in October 2025. If Democrats were to win control of the House of Representatives in this year's midterm elections, he warned, they would "torpedo President Trump's agenda".

Republican lawmakers in six other states did the same, creating maps that favoured their party. Democrats in California responded in kind and a court struck down a previous Republican gerrymander in Utah. On the face of it, Republicans won the redistricting war: our average forecast, based on a probabilistic model, is that the new boundaries will give the party a net gain of 6.5 seats relative to the old maps. The upshot is that Democrats now need to win the national popular vote for the House by four percentage points, instead of two, to take control of the chamber.

Our forecast estimates that Democrats will win by around nine points—easily offsetting the effect of redistricting. But the combination of new maps and the president's unpopularity has had unexpected consequences, too, expanding the electoral battlefield, shifting the focus towards different sets of voters and changing the nature of the Democratic majority that we expect in the House.

The effects are clearest in Texas, where the fight over redistricting began last summer. At Donald Trump's behest, state legislators drew a map that created five districts across territory that favoured the president by at least ten points in the 2024

election. But with Mr Trump's popularity having fallen sharply—not least among Hispanic voters—we estimate that redistricting is now worth an average of just three seats to Republicans, rather than the five they sought. Democratic candidates are now favoured to win in two of the six majority-Hispanic, Trump-voting districts carved out by Republicans in south Texas, and have a better than one-in-three chance in three more.

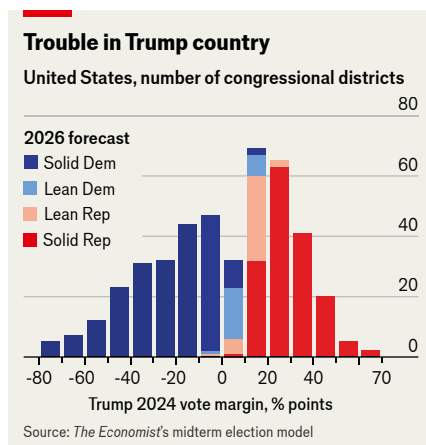
Elsewhere, the trend is similar. In North Carolina's 1st district—which was redrawn by Mr Hise and his colleagues—we forecast that the Democratic incumbent, Don Davis, has a six-in-ten chance of winning, even though his new district favoured Mr Trump by almost 12 percentage points. In Florida's 9th district Darren Soto, a Democrat, has a one-in-two chance of holding his seat, though the boundaries were redrawn to encompass an area that favoured Mr Trump by 18 points.

As Democrats make inroads in districts that voted decisively for Mr Trump (see chart), the House as a whole is becoming more competitive. The number of districts where both candidates have a better than 10% chance of winning has risen from 51 in early March to 61 in our latest forecast. This is reflected in how the parties are campaigning. Punchbowl News reported recently that Republican- and Democratic-aligned groups have reserved significant amounts of advertising in 16 districts won by Mr Trump by ten points or more.

Red Dem Redemption

This broader battleground also shifts the focus of the election towards a different type of race. The 61 competitive districts favoured Mr Trump by 11 points on average. They also tend to be older, poorer, whiter and more rural than the country as a whole. While Democrats strive to keep the conversation focused on pocketbook problems such as petrol prices and tariffs, Republicans are reminding voters in these districts that their views align more closely with Republican positions on immigration, crime and social issues.

That changing electoral geography could have implications for how Democrats run the House. Our forecast has the party winning 239 seats (a commanding 43-seat advantage over Republicans) compared with 235 after the midterms in 2018, during Mr Trump's first term. It would include an average of 17 Democrats from districts that favoured the president by double digits. That is no guarantee of moderation. But so far in this election, much attention has gone to left-wing candidates who could complicate Hakeem Jeffries's task as the presumptive speaker. If our forecast proves accurate, Democrats from Trump country could form an influential bloc of their own. ■



War in Iran

The home front

EXMORE, VIRGINIA

Will Congress ever assert itself on Iran?

A PREACHER KICKED off the campaign rally with prayers and a prediction: the regime in Iran “shall fall and a new government will come”, allowing Christian churches “to multiply there”. Several Republican notables took the stage, followed by the main attraction, Jen Kiggans, a two-term member of the House of Representatives for Virginia’s 2nd district, who told the crowd that her uphill re-election contest was “the fight of our lives”.

America’s war with Iran looms large in this closely contested race, one of several dozen that will determine whether Democrats can win control of the lower chamber of Congress, and if they do, by how many seats. Ms Kiggans is a former navy helicopter pilot. Her Democratic opponent, Elaine Luria, is also a former navy officer who held the seat before Ms Kiggans. The district hosts a naval air base that dispatched fighter jets to the Middle East in September; military veterans make up about 15% of the adult population.

American voters already regard the war in Iran as a mistake on par with the disastrous war in Iraq, which lasted nearly nine years and during which more than 4,000 American military personnel died (see chart). Yet Congress is polarised and paralysed, unable to translate public dissent into pressure on Donald Trump to resolve the conflict. The race in Virginia’s 2nd district suggests why: though some Republican candidates in midterm races have called for the war to end, Ms Kiggans is among the great majority who have backed Mr Trump to the hilt. She accuses Ms Luria, a critic of the war, of adopting “a pro-Iran stance, an antimilitary stance”.

This is a risky strategy in a swingy district like Virginia’s 2nd. Ms Kiggans is an energetic pragmatist praised even by some of her opponents for her constituent service. Mr Trump has rewarded her positioning with public praise; Republican leaders are campaigning at her side. But Ms Kiggans has set up her re-election bid as a referendum on the president and his war in territory that Mr Trump carried by less than a percentage point in 2024, and that the current Democratic governor of Virginia, Abigail Spanberger, won by 7.6 points just a year ago.

Sensing opportunity, Democratic stars with military credentials are flying in to bolster Ms Luria. On October 6th Mark Kelly, an Arizona senator and former navy

combat pilot and astronaut, campaigned with her in Virginia Beach. At a roundtable with local veterans, Mr Kelly and Ms Luria nerded out on the war’s effects on local shipyards, military readiness, munition stocks and Pacific deployments. Ms Luria predicted that successive long deployments of aircraft carriers, some stationed nearby at the naval base in Norfolk, “will take decades to recover from”.

If Democrats do retake one or both chambers of Congress, they will have limited practical means to influence Mr Trump. One lever is the budget, which the legislature writes. But defying a president, even an unpopular one, by withholding military expenditures during war is “not a good look”, notes Todd Belt, a political scientist at George Washington University.

Another way for Congress to reassert its authority over war-making would be to revise the Authorisation for Use of Military Force (AUMF), which was passed after the attacks of September 11th and granted the White House broad powers to wage war against those responsible. Successive administrations have interpreted that authority expansively, with little pushback from lawmakers. “Members of Congress have been unwilling to show a tiny bit of moral courage” on the AUMF, says Rebecca Bennett, a Democrat and former navy helicopter pilot who is favoured to flip a Republican-held House seat in northern New Jersey. “This is about making sure we have a Congress that is doing its job.”

Question time

Mr Trump has not invoked the AUMF with regard to Iran, relying instead on his constitutional authority as commander-in-chief. If Democrats take control of either chamber in November, however, they will have another tool at their disposal: congressional oversight. In interviews Mr Kelly and Ms Luria raised the possibility of issuing subpoenas and calling witnesses to investigate the war. “Why did Donald Trump do this?” Mr Kelly asks. Topics he thinks are ripe for congressional investiga-

tion include the role of Pete Hegseth, the secretary of war, the number of civilian casualties, the extent of munition shortages and the lack of an exit strategy.

Republicans have used congressional hearings about wartime failures to bludgeon Democrats ahead of presidential elections. Most recently, a Republican probe of the Biden administration’s botched evacuation from Afghanistan provided ammunition for Mr Trump’s 2024 campaign against Kamala Harris. Democratic leaders may be similarly tempted to probe the Iran war’s planning and execution, including the roles of J.D. Vance and Marco Rubio, both potential Republican contenders in 2028. “I think we need the investigation,” Mr Kelly says, “because I think this rises to the level of recklessness.” ■

Title IX

How not to make campuses safer

NEW YORK

Misguided rules are failing students

IT IS A BLEAK cycle. Every few years a report of sexual assault on campus captures national attention. The latest is at Cornell University, where a former student is accusing seven of her peers of raping her in 2024. Last month the woman filed a lawsuit against the men, their fraternity, Cornell and others, all of whom deny wrongdoing. Despite screenshots of their crude messages, just two of the students were expelled from the university. None was charged with a crime.

That has raised questions of whether investigations were botched by prosecutors (New York’s attorney-general is now looking into the case), by the university (Cornell has announced its own inquiry), or both. But as these investigations of investigations proceed, the Cornell case is the latest reminder of the contorted attempts to keep students safe, and how those efforts are letting them down.

Looming over this and other cases of campus assault is Title IX, a 54-year-old civil-rights law. If it seems odd that a law barring sexual discrimination should be used to investigate rape, that is because its application is relatively recent. In 2011, after high-profile reports of sexual assaults at universities and tepid action by police, then-President Barack Obama used Title IX to offer students protections that it seemed criminal justice could not.

The result has been a process that advances alongside any police investigation, with rules that are both looser and harsher than criminal ones. Title IX inquiries can- ▶▶

Second thoughts

US, % of voters who think it was a mistake to send troops to fight in the following wars
September 11th-14th 2026



Source: The Economist/YouGov

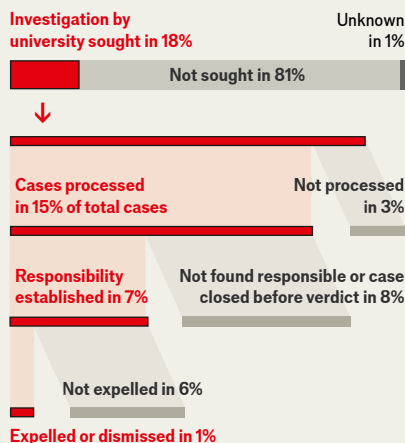
▶ not compel witnesses to testify nor question them under oath; they also require merely a “preponderance” of evidence, rather than the obligation under criminal law that suspects be convicted only if their guilt is “beyond a reasonable doubt”. Universities have latitude to set their own punishments, as was evident in the Cornell case, where sanctions ranged from expulsion to writing essays.

Title IX’s rules, already difficult for university administrators to implement well, have been made more so by the dramatic changes from one presidential administration to the next. In his first term Donald Trump required universities to create their own quasi-judicial systems, with hearings, cross-examinations and more staff. Supporters say this added rigour; opponents claim the onerous process prompted accusers to drop allegations or never bring them (see chart). Federal oversight of universities’ inquiries also became more relaxed. Resolved investigations into sexual violence “fell off a cliff”, says Beth Gellman-Beer, a lawyer who spent years in the Education Department’s civil-rights office. Joe Biden sought to change the rules yet again, but Mr Trump reinstated his prior standard on September 28th and has cut the number of oversight staff.

With so many shifting rules and inevitably imperfect administration, it is unclear if Title IX has had any impact on reducing sexual assaults. There is little national research. Cornell does poll its students, though. Last year 35% of female undergraduates reported experiencing sexual assault during their time at university, up from 23% a decade earlier. Criminologists say one of the best ways to deter crime is to increase the certainty that perpetrators are caught. Fifteen years on, Title IX seems to be falling short at that. ■

The one percent

New York, 25,818 sexual-violence incidents reported to Title IX offices at universities, 2018-24



Climate change

A crude appeal

WASHINGTON, DC

Big Tobacco's lessons for Big Oil

FOR DECADES after Americans discovered that cigarettes were killing them, tobacco companies won nearly every lawsuit that smokers brought. No one forced them to light up, the manufacturers said. Only after states uncovered evidence that firms knew of the risks posed by cigarettes—and hid them—did Big Tobacco capitulate, agreeing in 1998 to pay states more than \$200bn over 25 years for the costs of treating smoking-related illness.

A generation on, the Supreme Court is poised to decide if a similar reckoning is coming for oil companies. Like tobacco firms, oil companies sell products with dangerous consequences—and they too understood the risks before the general public did. But unlike tobacco, oil is broadly useful, and legal obstacles stand in the way of winning damages from oil firms, as arguments before the Supreme Court on October 5th demonstrated.

In 2018 Boulder, Colorado, sued Exxon Mobil and Suncor Energy on the basis that emissions from their products contributed to floods, extreme heat and wildfires. A report commissioned by the city put the cost of coping with just some of the impacts of climate change at up to \$157m by 2050.

The city alleges that the companies spent decades concealing the dangers of fossil fuels. A report commissioned in 1968 by the American Petroleum Institute (API), an industry group with links to Suncor’s predecessor company, warned that increased levels of carbon dioxide “may be the cause of serious worldwide environmental changes”. In the late 1970s scientists working for Exxon (a fellow member of the API) had found that burning fossil fuels could cause “dramatic environmental effects before the year 2050”.

The effect of continued obfuscation, Boulder alleges, was to limit action on climate. The city says its suit is intended to make firms pay for the costs of their deception, not to stop the sale of fossil fuels. The companies see it differently: their lawyer, Kannon Shanmugam, claims the litigation tries to “resolve major political issues in court” and warns of allowing Boulder to sue “me on a nuisance claim for refilling my car”. Colorado’s state supreme court ruled that Boulder’s case could proceed, a decision that the companies appealed.

Justice Samuel Alito, who owns shares in oil companies, recused himself from the case before the Supreme Court. Among

the remaining justices, Boulder found some sympathy. During the oral argument, Justice Elena Kagan noted the case “appears to be based on the old 1990s tobacco suits”, with more recent opioid litigation following “the same model”. Big Oil lawsuits represented “chapter three”.

Mr Shanmugam countered that the suit was an “unprecedented” use of state law to shape global conduct. Owing to the “ambient nature of air and water”, he said, the Supreme Court has held that “federal law governs interstate pollution claims”. Justice Brett Kavanaugh seemed to agree, declaring that “this kind of pollution is a federal-law matter unless Congress speaks otherwise.” Justice Amy Coney Barrett carved out more room for state efforts but agreed that dealing with pollution is an “enclave” of federal common law.

The added difficulty, for Boulder and other cities, is that it is hard to establish a direct causal link between the obfuscation of fossil fuels’ harms and climate change. Many governments, fully informed of the risks, still choose not to act, valuing the benefits of using fossil fuels over the damage of climate change. Smoking can be characterised as a problem of individual choice; states got around that by suing for the public costs. Climate change is a problem of collective action, one that politicians—even when they know the harms—choose not to solve. ■



Running on fumes

The Americas



Father, son and Trump

Brazil falls into MAGA's orbit

CURITIBA AND RIO DE JANEIRO

The Bolsonaro clan and its allies have swept the country's general election

THE END of an era in Brazil may also mark the moment a dynasty truly established its hold. On October 4th Brazil's ruling left-wing Workers' Party (PT) and its ageing leader, Luiz Inácio Lula da Silva, were trounced in the first round of the general election. Flávio Bolsonaro, the scion of a right-wing patriarch, Jair (a former president under house arrest for attempting a coup), looks set to become the leader of the world's fourth-largest democracy in a run-off on October 25th.

The defeat was enormous. Lula, as the incumbent is known, lost votes in more than 5,400 of the country's 5,571 municipalities compared with the last election. The Bolsonaros' inaptly named Liberal Party (PL) almost doubled its seat tally in the Senate and cemented its status as the largest party in the lower house. Fernando Haddad, who is sometimes touted as Lula's heir, was beaten by a margin of 26 points in his bid to oust São Paulo's gover-

nor, all but burying his political future.

This dominance puts Flávio in pole position to win the run-off. Since Brazil returned to democracy in 1985, no candidate who lost in the first round has gone on to win the second. Even if Flávio were to lose, the outcome is already a triumph for the Bolsonaro clan. Mr Bolsonaro's zealous evangelical wife, his middle and youngest sons and his brother all won seats in the legislature. There are now nearly enough right-wing senators for the two-thirds majority needed to impeach Supreme Court justices who prosecuted his father.

The vote was less a reflection of enthusiasm for Flávio than a repudiation of the current government in an election marked

by apathy. Over 33m of 158m eligible voters stayed away, the highest abstention rate since 1998. Polls published in the week of the ballot showed almost a third of voters did not know whom they would back. Outside a polling station in an upscale neighbourhood in Rio de Janeiro, a gloomy 24-year-old described the election as having "a funeral atmosphere". "It's about choosing the lesser evil," shrugged his friend.

The PT has been in power for 18 of the past 24 years and Brazilians are tiring of Lula, who at 80 still yearns for a fourth term. A former trade-union leader from Brazil's poor hinterlands, he has failed to connect to younger, middle-class Brazilians, who tend to prefer gig work to union jobs and dream of being entrepreneurs. Flávio took 54% of votes among lower-middle class voters, against Lula's 37%.

Moreover, many voters do not trust the PT on the economy and are fed up over graft. Lula was jailed for corruption in 2018 though his convictions were overturned in 2021. A grubby corruption scandal involving Brazil's biggest bank fraud also fuelled anti-establishment sentiment. Though Lula was not directly implicated, it has hurt him. A poll in mid-September found that voters were more likely to punish Lula than Flávio for the scandal.

Lula also lost the support of centrists ►►

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who “felt betrayed by the PT”, says Magno Karl of Livres, a liberal think-tank in São Paulo. “They voted for Lula in 2022...thinking that the government would spend less, would listen more to other parts of society and would not demonise criticism—but it didn’t happen.” His spendthrift policies have pushed up interest rates, raising debt costs for households, businesses and the government. Despondency prevails, despite modest real gains in income and record-low unemployment.

Brazil’s rightward shift has continental implications. Since Donald Trump returned to power, all seven presidential elections in the region have been won by like-minded candidates. If Brazil, the last big holdout in South America, comes under the sway of the Donroe Doctrine, the United States could gain preferential access to the country’s vast trove of rare earths. Flávio is expected to appoint his brother, Eduardo, as either foreign minister or ambassador to Washington, given his close ties with Steve Bannon and the MAGA movement.

Even so, there will probably be some continuity in foreign policy. No MAGA-aligned leader in South America has broken relations with China, the biggest buyer of South American commodities. Brazil is unlikely to buck the trend. Though its ties to the European Union could become strained over deforestation, this is unlikely to threaten a newly minted free-trade deal between the EU and Mercosur, a Brazil-led trade bloc. The EU “needs all the economic partners it can get outside China and America,” says Sándor Nagy of Corvinus University in Budapest.

At home the consequences of a Flávio presidency would have a sharper edge. He could pursue a campaign of vengeance against his father’s perceived enemies. Among his targets may be Supreme Court justices, soldiers who resisted the coup attempt, diplomats who do not kowtow to MAGA and federal policemen who have investigated the clan.

Flávio would also be able to shape the country’s regulatory agencies and institutions for a generation, due to an unusually large number of vacancies. Up for grabs are four out of 11 seats on the Supreme Court and two spots on the board of the central bank, as well as posts at the securities regulator and antitrust watchdog.

The big beneficiary of a Flávio victory would be the economy. Stocks rallied after the results were announced, and the currency strengthened. Investors believe that Flávio and a right-wing Congress will enact a tough fiscal adjustment. Flávio has promised savings worth 1.5% of GDP over 18 months through privatisations of state-owned firms, a spending cap and slashing the government.

Yet so far, details have been thin. Flávio

promises to scrap a large number of taxes, which would shrink revenues. His team has written off a reform of the pension system, the main item pushing up unsustainable spending. Congress, which is beholden to lobbies, appears unwilling to cut tax breaks, which cost 7% of GDP. Flávio’s advisers have unhelpfully ruled out delinking social benefits such as pensions from the minimum wage. As this rises inexorably each year, it drives up all other spending indexed to it.

Markets will study Flávio’s campaign, especially his pick for finance minister. Meanwhile environmentalists, judges and those who have investigated his family will look on with trepidation. ■

Paraguay’s investment boom

Low taxes, high hopes

But corruption and poor infrastructure may hold growth back

AT THE AIRPORT in Asunción, Paraguay’s capital, Blanca, a regular traveller who lives nearby, used to recognise many faces in the arrivals hall. Mostly there were families waiting by the barriers, children running forward as relatives returned home. Now the crowds are too large. Last year Paraguay welcomed 3.7m international visitors, almost twice as many as in 2024.

Some are tourists; others are moving in. Last year immigration authorities recorded 47,600 residency applications, a record high and up by 63% on 2024. The numbers are still rising. “People didn’t used to come to Paraguay looking for opportunities,”

says Blanca. “Now they do.”

After decades of steady macroeconomic management, the country has won a reputation for stability. Following a financial crisis in 2003, policymakers tightened fiscal policy, beefed up the central bank and tamed inflation, points out Alonso Chaverri Suárez of the Inter-American Development Bank. Ratings agencies have declared its debt to be investment grade, an accolade granted to only six countries in Latin America.

Since taking office in 2023, Santiago Peña, the president, has set out to turn Paraguay into an export-oriented manufacturing hub. He has eased red tape and expanded the “maquila regime”, under which firms can import materials duty-free and pay only 1% tax on value added, making Paraguay attractive for manufacturers. Exports of goods such as car parts, clothing and textiles were 25% higher last year than in 2019 in real terms, helping propel economic growth to 6.6%.

So far, investment has come mainly from domestic firms—expanding at home as confidence in the economy grows—and neighbouring countries. Paraguay’s membership of Mercosur, a trade bloc with Argentina, Brazil and Uruguay, gives manufacturers tariff-free access to a market of more than 260m people. A trade deal between the bloc and the European Union should further boost exports. Manufacturers from Brazil and Argentina, facing higher taxes and heavier regulation at home, are shifting production across the border.

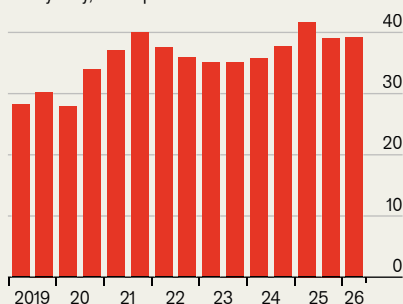
Mr Peña has suggested Paraguay could surpass Uruguay and Chile in income per person. That goal remains distant. One in five Paraguayans still lives below the poverty line, though that share is falling. And the economy still relies on farming; food accounts for nearly 70% of merchandise ex- ➤



The signs are good

The fruits of reform

Paraguay, gross fixed investment, guaraní trn
Half-yearly, 2025 prices



Source: Haver Analytics

Latin America's motorcycle craze

Easy riders

They are cheap, nimble and fun, but at a deadly cost

A RAMPANT SPECIES has taken over the urban jungles of Latin America. Small, noisy and remarkably good at squeezing into tight spaces, motorcycles have found the crowded streets of Bogotá, São Paulo and Mexico City an accommodating habitat. They swarm between cars at traffic lights, crowd pavements and are the trusty steeds of delivery riders.

They are also multiplying fast: annual motorcycle sales across the region doubled from 3m in 2019 to almost 6m last year. In 2010 there were just five registered motorcycles for every 100 people; by 2024 there were 14. Mexico's motorcycle fleet more than quadrupled in the decade to 2025, from 2.6m to 10.5m.

Motorbikes are a cheap and easy way to weave through horribly congested cities. As public transport has failed to keep pace with rapid, and often informal, urban sprawl, motorcycles have filled the gap. Their buyers are disproportionately young, poor and male. Many work as couriers. Brazil had 351,000 motorcycle gig workers in 2024, 66% more than two years earlier. In Mexico an industry group estimates that seven in ten motorcycles sold in 2023 were bought for work, including for deliveries and for use as motorcycle taxis.

Governments have added fuel to the boom by encouraging their use, in part to support growing domestic industries. In Colombia, where more than 90% of motor-

cycles sold are assembled locally, bikes of up to 125cc are exempt from vehicle tax; none pays any road tolls. In June Brazil launched subsidised loans for delivery workers to buy locally made bikes.

Good reasons exist to encourage the use of motorcycles. They not only provide employment for poor and unskilled workers, they may also help labour markets function better by enabling people to take jobs farther from home.

A wealth of evidence shows that making commutes cheaper and quicker can lower unemployment and lift wages. Many of the gains from public transport go to skilled workers, since routes tend to run to city centres, where many of the best jobs are found. A study of Montevideo, the capital of Uruguay, for example, showed that the poorest 20% of the city's population could access just 21% of job opportunities in 40 minutes. That contrasts with the richest 20%, who could access 54% of jobs, according to a paper by Diego Hernández of the Catholic University of Uruguay and co-authors. This suggests motorcycles may have an important role to play in improving the lives of poorer people, particularly since unskilled jobs are often widely dispersed around the periphery of cities, making them harder to reach.

Risk management

Still, such benefits come at a cost. After declining for much of the previous decade, road deaths across Latin America and the Caribbean rose by about 10% between 2021 and 2024 to around 100,000 a year, reckons the Inter-American Development Bank. A surge in motorcyclists' deaths was responsible for much of the increase. These doubled over the ten years to 2023 in Chile and especially Colombia, where almost a third of households own a motorbike and riders account for 62% of road deaths, compared with roughly a third worldwide.

Such carnage is not inevitable, says Ricardo Pérez-Núñez of the Pan American Health Organisation, who points out that motorcycle fatalities have fallen over the same period in many countries in other regions. One reason for the divergence is regulation. Few riders in Latin America are forced to wear helmets that meet proper safety standards. Rules on licences, speeding and drunk-driving are often ignored. Delivery work makes matters worse. Riders are paid per job, encouraging them to drive fast and work long hours, often with one eye on their phones.

The trouble is that politicians have little appetite for tougher rules, which risk angering millions of working-class riders. In Bogotá temporary restrictions on motorcycles prompted protests and road blockades last year. Moreover, *motoseros* are organised and increasingly courted as a political constituency. ■



Driving growth

ports. Manufacturing exports under the "maquila regime" make up just 2.5% of GDP and are largely low-value.

To support more complex growth, Paraguay needs a more skilled workforce, says José Manuel Salazar-Xirinachs, head of the UN's Economic Commission for Latin America and the Caribbean. Public spending on education is just 3.5% of GDP, among the lowest in the region; in the latest PISA tests, Paraguayan students rank near the bottom.

Infrastructure is another constraint. Only 16% of Paraguay's roads are paved, and road transport makes up around 26% of export costs. Asunción's small airport is also struggling with rising traffic. Because Paraguay is landlocked, it depends on the 3,400km Paraná-Paraguay waterway for much of its trade. But droughts have made parts of this harder to navigate. The Inter-American Development Bank estimates that Paraguay will need around \$10bn by 2030 to improve its roads, airports and urban transport. Though Paraguay has plenty of cheap hydroelectric power, its grid is wobbly, with frequent power cuts.

But there is little fiscal space to upgrade infrastructure. Paraguay's tax take comes to just 16% of GDP, compared with 22% across Latin America and 34% in the OECD, a club of mainly rich countries. Its largely informal economy narrows the tax base. Upping taxes is politically tough because trust in the state is low, says Mr Salazar-Xirinachs. Higher taxes could weaken Paraguay's main attraction to investors: its low costs and light regulation, argues Susana Cordeiro Guerra of the World Bank.

Borrowing is one option, since Paraguay's credit rating allows it to raise money on international markets relatively cheaply. Another is to get private investors to finance infrastructure, but that would require better institutions: Paraguay ranks 150th out of 182 countries on Transparency International's Corruption Perceptions Index (where lower is worse). Cutting a culture of kickbacks is far tougher than slashing red tape, but it is no less important. ■

Asia



Pakistan

The next frontier

ISLAMABAD AND KARACHI

The powerful army chief wants to redraw the political map

FOR WEEKS the news in Pakistan has been dominated by a to-and-fro over whether Imran Khan's Pakistan Tehreek-e-Insaf (PTI) party would be allowed to stage a protest for its jailed hero. Supporters of the cricketer turned prime minister have issued rallying cries to show their undying loyalty. Ministers have responded with menace. In Islamabad, the capital, authorities have blocked the roads with more than 2,000 shipping containers—some studded with nails. At entry points to the city, busloads of truncheon-wielding policemen grin at frustrated motorists.

After talks between the PTI and the government ended in stalemate, the march eventually got going on October 4th. Around 5,000 of Mr Khan's supporters set off from Lakki Marwat, 275km west of Islamabad in the PTI-run province of Khyber

Pakhtunkhwa. They hoped to pick up more supporters along the way, but have not yet decided whether to march on the capital. The whole circus will go on.

Look deeper, and another struggle for power is under way. While Mr Khan commands attention, the man who put him behind bars is plotting his next move. Field Marshal Asim Munir, Pakistan's de facto ruler, plans to redraw the country's political map by creating new provinces. What sounds like a dry administrative change is

anything but. It would break up the fiefs in which Pakistan's dynastic political parties have built their power. Whether the field marshal gets his way on this will be a test of his dominance.

He has form. Pakistan's constitution has been amended twice in the past two years. A new Federal Constitutional Court (FCC), stacked with regime loyalists, takes precedence over the (now misnamed) Supreme Court. In September it in effect blocked a ruling that Mr Khan should be moved to a private hospital for medical treatment. The field marshal has tightened his grip over the air force and navy, and increased his control over hiring and firing across the armed forces.

His control of other appointments—still technically civilian decisions—is openly acknowledged. Shehbaz Sharif, the prime minister, is widely seen as a puppet. Mohsin Naqvi, the interior minister, is considered more powerful, because he is known to be the field marshal's man.

Despite amassing such power, the field marshal is frustrated, according to those who know him. The economy remains in a rut. In September inflation was 10.3%, year on year. After servicing debt and keeping his men in new uniforms, the federal gov- ➤

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ernment has little left over. In July it put up taxes on petrol; in September a big protest over the new levies was postponed.

The field marshal believes that his successes on the world stage, where he has emerged as a key interlocutor between America and Iran, have not been matched by his civilian colleagues at home, explains Faisal Vawda, a senator and former confidant of Mr Khan who is now close to the army. Outriders like Mr Vawda now openly castigate the current political class. "They have raped the country," he says.

All this helps explain the mood of the debate over the latest plan. The starting gun was fired by Mr Naqvi. In a speech in July, he argued that Pakistan's governance system had "collapsed". The country was flailing owing to population growth, import dependence and bulging debts—its "current democratic system" could not cope. Frustrated youth ("these cockroaches") could "turn everything upside down", he warned. The only solution, he opined, was to break Pakistan's four provinces into smaller units.

Cue outrage. To see why the plan is so controversial, consider Pakistan's two most important provinces. Punjab is the richest and most populous, home to the old business hub of Lahore, and fertile plains around it (its name means "five rivers"). It has been dominated by the Sharif family and its Pakistan Muslim League-Nawaz (PML-N) party for most of the past four decades; first by Nawaz Sharif, who went on to become prime minister, then by Shehbaz, Nawaz's brother, the current prime minister; and now by Maryam, Nawaz's daughter, who is the province's chief minister but eyes her uncle's job.

Sindh—a poor southern province that encompasses Pakistan's port-metropolis, Karachi—is the fief of the Bhutto dynasty. Zulfikar Ali Bhutto built a political base there in the 1960s with his Pakistan Peoples Party (PPP), before going on to rule Pakistan. It was later controlled by his daughter, Benazir, who was assassinated in 2007. Now it is in the grip of her widower,

Asif Ali Zardari, who is Pakistan's president (these days a purely ceremonial head of state), supports the governing coalition and is close to the army regime, while Bilawal Bhutto Zardari, the heir to the dynasty, is groomed for high office.

The stated logic for radical reform is that the current provinces are too big and corrupt, and local governance is thus dire. This has some merit. Punjab has 128m people; rural citizens travel hours to settle a land dispute. Pakistanis invoke "Nawaz's palace" and "Maryam's plane" as symbols of a fantastically entitled ruling elite. In Sindh the PPP has turned corruption into an art form, says Muhammad Zubair, a former governor of the province (the party denies this). Mr Zardari is thought to be one of Pakistan's richest men.

Yet many observers suspect that the field marshal's plan is more about cutting political parties down to size. The army rules at the federal level and has long sought to centralise power and resources. In June Field Marshal Munir forced the provinces to forgo grants from the centre worth around 3% of total public spending. Critics of the current plan argue it will simply further weaken the civilian government. In time, some fear, more provinces will just create more sinecures.

Under Pakistan's constitution, dividing a province requires a two-thirds majority in its own assembly. The field marshal would thus need turkeys to vote for Christmas. The PML-N seems ready to do so. It is unpopular and has hitched itself to the regime; though the Sharifs would hate to see Punjab split up, they would survive. For the PPP, however, it is existential. Karachi is the foundation of the party's patronage system. While it controls (and extracts rents from) the city thanks to ruling Sindh, it has little support there. In September the Sindh assembly passed a resolution rejecting the plan.

In private, Field Marshal Munir is said to be resolute. Mr Vawda predicts that there will be a national referendum on the proposal in the coming months, bypassing the need for provincial approval. Some see such a vote as a stepping stone to the field marshal establishing himself as a powerful executive president, as General Pervez Musharraf did in the 2000s, after seizing power from a civilian government blighted by corruption and mismanagement.

Yet it is not clear that the field marshal will have his way. He does not have much popular support, and he may not want to alienate all of his political partners—especially while Mr Khan, who enjoys public adoration, sits in jail. Some people within Mr Khan's party even see an opportunity in the cracks emerging between the army and the government. "We have been waiting for a black-swan event," says one former PTI minister. ■

China and South-East Asia

Up in the air

SINGAPORE

Is China building an air base in Laos?

OFFICERS OF THE Lao People's Army protest that a new military airport being built north of the capital, Vientiane, is just a place to train its air-force pilots. That is why, they say, China has been laying out a long runway there since late 2025. But Western governments and their Asian allies are not so sure. An announcement on September 29th that China and Laos had established what they called a "joint support centre" at Ban Keun, the site of a CIA airfield during the Vietnam war, has some analysts concerned that Laos may have opened the door to the first Chinese air base in mainland South-East Asia.

That would be a huge step for China, which has only one overseas military base of its own at present, a logistics hub in Djibouti that lets its navy operate near sea lanes it uses to ship goods to Europe. Another naval base in Cambodia is jointly operated with the Cambodian navy. Chinese equipment there may also serve a signals-intelligence function, snooping on American forces operating from nearby U-Tapao air base in Thailand, an American ally. But it is not yet clear what China would want with an air base only about 300km from its southern border.

For the moment it is uncertain how many troops or planes there are at Ban Keun. But if China did want to base them in Laos, the host government might find it difficult to object. One of South-East Asia's poorest countries, Laos is indebted to its northern neighbour to the tune of \$5bn, around 30% of its GDP. It blew much of that by placing bad bets on hydropower dams and a high-speed rail line to the southern Chinese city of Kunming. When ►►



▶ Laos's currency, the kip, collapsed under the weight of all that debt in 2022, China rescheduled it and thus saved its neighbour from default. Laos has yet to report that it has resumed payments.

One Asian diplomat in Laos says that the government does not answer questions about the airfield beyond reciting talking points from the thin statement announcing the facility last month. But that is not unusual in Laos, where an ambassador posted to the capital from a friendly country says that the government is a black box. "One of the great challenges of operating in Laos is that it's so opaque that you end up relying on rumours," he explains.

One rumour that has been doing the rounds in Vientiane is that China has been looking for an air base in the country for some time. Speculation centred for a while on the airport at Xieng Khouang, where a Chinese company began lengthening the runway to 3km, long enough for military jets, in 2024. But AVIC, the Chinese company, completed the works in June 2025 and handed the airfield back to Laos.

When asked by your correspondent, one Lao military officer says that Western fears of a Chinese base are overblown. "Our current constitution doesn't allow foreign militaries to be present in the country." The party leadership is said to be furious about media reports to the contrary. But merely pointing to laws will do little to smooth over Western anxieties about the intentions of the communist party that rules Laos.

There is little goodwill for America, should it want to try to block a Chinese air base. Bad blood persists from the Vietnam war, during which America bombed Laos and left behind tens of millions of unexploded munitions. Donald Trump did not improve things when, last year, he slapped a 48% tariff, one of the highest anywhere, on imports from Laos. An even bigger irritant for Lao bigwigs has been Mr Trump's determination to deport hundreds of people to Laos, many of them ethnic Hmong born outside Laos to refugee parents who fought the communist takeover in the 1970s. To get his way, Mr Trump has ordered American officials to deny nearly all visa applications from Laos.

The only real rival for Chinese influence in Laos is Vietnam. The two South-East Asian states refer to each other as "fraternal countries", owing to their shared revolutionary heritage. But there is little doubt about who is the elder brother. Laos's ruling party was born as an offshoot of Vietnam's communist party, and many Lao leaders were educated in Vietnam and speak Vietnamese. Vietnam has long cast a wary eye on Chinese activity to its west, given its historical tensions with China and more recent maritime disputes with China to its east. ■

Japanese security

A hacker's paradise

TOKYO

Japan is scrambling to reinforce its shoddy cyber-security

THE UNEASE is mounting in Japan. On September 25th Times Car, a big car-hire company, fell prey to hackers who gained access to more than 6m customer accounts. A few days later a popular barbecue chain reported a data breach affecting nearly 11m accounts. A big securities firm was also hit. A public university had to shut down for a week after a ransomware attack. And then a ransomware attack on a subsidiary of SoftBank disrupted services for some 500 firms and local governments, knocking websites offline.

The spate of large-scale attacks is forcing Japan to confront its cyber vulnerabilities. Forescout, a cyber-security firm, sees a sharp increase in attacks on Japan this year compared with recent ones. Japanese officials are scrambling to strengthen cyber-defences, as part of a broader shift towards toughening up on national security. Under a new Active Cyber Defence law, which took effect on October 1st, Japan's Self-Defence Forces (SDF) and its police agency will be allowed to pre-emptively infiltrate and neutralise hostile servers for the first time. Yet as artificial intelligence fuels cybercrime and empowers cyber-attackers, Japan may struggle to keep pace.

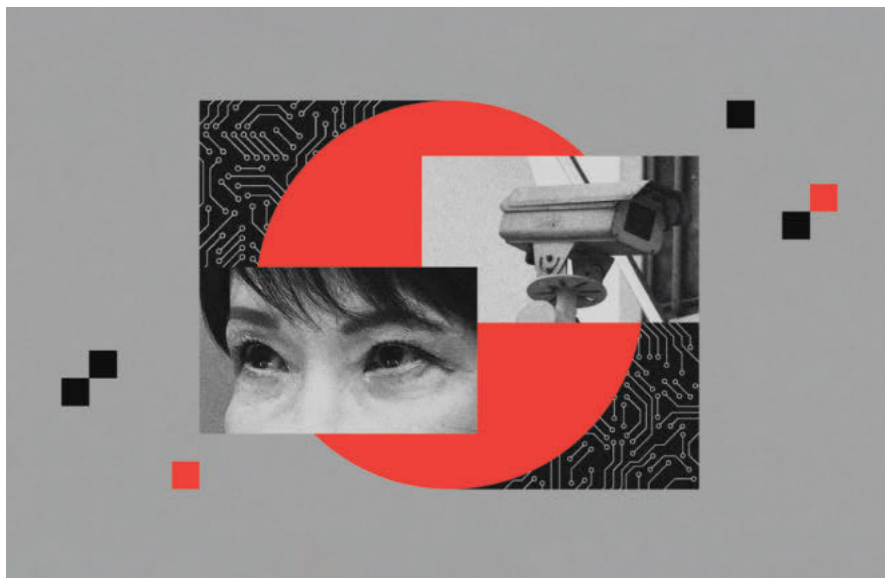
Japan has long lagged behind in cyber-security. In 2021 the International Institute for Strategic Studies, a British think-tank, placed it in the lowest of three tiers in an assessment of 15 countries' cyber capabilities (America was in tier one and Britain

tier two), citing fragmented governance, weak intelligence and underdeveloped offensive capabilities.

Some of these shortcomings have roots in the country's pacifist, post-war constitution, which has complicated efforts to identify and counter cyber-threats. Japanese firms often fail to train employees in basic cyber-hygiene. Smaller companies may lack the resources to invest in cyber-security; vulnerabilities in their systems can be exploited to infiltrate higher up the supply chain. A lack of digital know-how can be found in surprisingly high places, too. In 2018 Japan's then cyber-security minister made headlines by admitting he had never used a computer in his life.

Big incidents in the past year have concentrated minds, says Cartan McLaughlin, the chief executive of Nihon Cyber Defence, a cyber-security firm in Tokyo. In September 2025 a ransomware attack against Asahi Group Holdings, a food-and-beverage giant, brought almost all of its 30 factories, as well as call centres and shipments, to a halt. (Qilin, a Russian criminal group, claimed responsibility.) Stocks of Asahi Super Dry, its popular beer, vanished from shelves and bars. If that was bad news for salarymen hoping for an after-work pint, the hangover for Asahi was even worse: its net profit plunged by 37% last year.

The government fears state-backed attacks from belligerent neighbours such as China, Russia and North Korea. Officials are grappling with the reality that "an attack on critical infrastructure could cost lives," says Yoshioka Katsunari of Yokohama National University, who sat on the government's expert panel for the new cyber-defence law. The shift to a proactive cyber-defence posture has drawn parallels with the government's recent adoption of long-range missiles that allow it to strike ▶



▶ military targets inside an enemy's territory to prevent attacks. Japan is gradually allowing itself to do things that other countries have long done, including in cyberspace, observes Tsuchiya Motohiro of Keio University, near Tokyo. Public opposition to such moves is weakening.

The threats are growing. AI has made it easier for attackers to draft more convincing phishing emails. The Japanese language once afforded a layer of protection. "Japanese was a hard nut to crack for previ-

ous large-language models," says Elif Seren Nurcan, a cyber-security expert, adding that awkward wording or an unusual tone could give a fraudulent email away. "This barrier has now dissolved."

Having access to new defensive tools or legal powers is not the same as adopting them effectively. And basic defences have not always kept pace. Although Japanese companies have rapidly acquired DMARC, a system designed to stop criminals spoofing legitimate email addresses, only 43% of

those surveyed had it set up to effectively block suspicious messages, compared with 83% in America.

The police and SDF have no experience conducting active cyber-operations. "Will they suddenly be able to do it just because they are allowed to?" asks Mr Yoshioka. They hope they will be able to recruit new specialists, but the government estimates that Japan is already short of 110,000 cybersecurity professionals. It urgently needs them to fight back. ■

ASHOKA

Animal spirits

India's wildlife-conservation success can be a model for other environmental efforts

IN JUST THE past few weeks Indians have been mauled by tigers (in the west), attacked by leopards (in the north) and trampled by elephants (in the east). Like so many tragedies that occur with depressing frequency in the country—stampedes and bridge collapses are other good examples—these deaths highlight the failures of the state. Yet, in an odd way, they also reflect its successes. Indians are running into wild animals more often because India has become remarkably good at protecting them.

Consider the tiger. In the 1970s India's national animal seemed to be heading towards extinction. Today the big stripey cat is thriving. Over the past two decades numbers have more than doubled to nearly 3,700, even as populations collapsed in richer and less crowded parts of Asia, such as Malaysia. So effective has India been in boosting the beast that it agreed to export tigers to Cambodia, where they had gone extinct. "Project Tiger", as the conservation effort is known, has been a roaring success.

It is not the only one. A few years ago the western state of Gujarat opened a reserve to accommodate its expanding population of Asiatic lions. The chief minister of Assam, in the east, recently said that his state had in the previous year recorded zero cases of poaching related to its large and growing population of rhinos. Such triumphs have unleashed animal spirits. Since 2022 India has been importing cheetahs from Africa in the hope of re-establishing a species that went extinct within its borders in 1952.

Public sentiment is one reason India is so good at protecting its animals. Many animals—both wild and tame—are revered by Hindus. Harming creatures of any sort is frowned upon in Indian soci-



ety more broadly. And the country has some of the tightest animal-protection laws in Asia. When it comes to wildlife conservation, it helps that the beasts involved are good-looking and enjoy broad appeal. Yet such is the strength of feeling that even rather less attractive creatures—such as the bald, hunched, carcass-eating vulture—are the subjects of efforts to boost their numbers.

Protecting animals has long been a pet cause of India's leaders, too. More than two millennia ago Ashoka, the emperor after whom this column is named, issued edicts against hunting. Modern leaders have taken on his mantle. Indira Gandhi, prime minister for much of the 1970s, launched Project Tiger. Narendra Modi's passions include wildlife photography.

A third factor in India's wildlife-conservation success is policy design. The state functions most effectively in what wonks call "mission mode", programmes organised around clear, limited objectives with dedicated teams. Some of India's biggest public-health feats, such as eradicating polio and quickly rolling out vaccines

during the covid-19 pandemic, were achieved in this way. The same is true for conservation, starting with Project Tiger. It has since inspired a menagerie of initiatives, including Project Elephant, Project Snow Leopard, Project Dolphin and Project Rhino.

Supporting the efforts are two groups. One is a wildlife bureaucracy of sorts. The British colonial government created the Imperial Forest Service to cut timber. After independence it was repurposed to protect forests and the animals within them. The other is civil society in the form of conservation NGOs, environmentalists, scientists and researchers, who provide expertise and hold the state to account.

India's efforts are far from perfect. Indeed, they have created problems of their own, not least the growing cases of human-animal conflict. Yet it is extraordinary that the public and politicians of a relatively poor country with limited state capacity and endless demands on its resources can come together to achieve something as selfless as protecting other creatures. India's wildlife conservation is an example of the country at its finest.

It is also evidence that other problems that look intractable today can be solved. A country that can find the resources to protect one-horned rhinos cannot claim to be too financially stretched or too busy prioritising economic growth to deal with its unbreathable air, its choked waterways or its rubbish-filled fields. And if the health of their constituents is too trivial a reason for India's leaders to start cleaning up the country, perhaps some wily environmentalist could point out that tigers and elephants would benefit from unpolluted air and water, too.

China



Fuel woes

Dark days for oil

SINGAPORE

How China manages its oil and fuel stocks will have global repercussions

WHEN THEY met in Washington, on September 24th, President Donald Trump urged his Chinese counterpart, Xi Jinping, to boost China's fuel exports to ease a global shortage of diesel. A week later came China's answer: an immediate, open-ended freeze on all fuel-export licences. The decision looked like a snub. It was certainly a sign that China's energy system is under more strain than it lets on.

Until recently China, once the number-one buyer of Gulf oil, had ridden out the Hormuz crisis with impressive agility. Between April and June the country reduced its imports of crude by half, to 6m barrels a day (b/d), helping to stabilise global oil prices without causing a domestic recession. Having spent years building petroleum stockpiles, Chinese officials felt vindicated. They rolled back a fuel-export ban first imposed in March, allowing diesel exports to hit four-year highs in September. Now they are hitting the brakes again.

To work out why, look under the bonnet of China's notoriously opaque oil-buying machine. The country keeps secret about its oil stocks and procurement strategy. But our research suggests that its command-and-control approach is having side-effects that the government can no longer ignore. Whatever it does next will affect how hard the oil shock bites this winter—in China and around the world.

China's oil-buying behaviour reflects a constant tug-of-war between the Communist Party's obsession with energy security and the commercial interests of the state-owned majors, which are the only oil firms,

bar Rongsheng, a private refiner, that have export quotas. At the start of the Iran war the party prevailed. Anxious to preserve domestic supplies, the government told oil firms to halt all shipments of petrol, diesel and jet fuel, bar those going to the Chinese territories of Hong Kong and Macau. Exports cratered.

As their storage tanks filled up, the majors began processing less oil, reducing their demand for crude. Instead of adding to their stockpiles of crude, as they had been doing for years, they started drawing them down a little. Meanwhile fuel demand fell, as high prices pushed motorists to use taxis (many are electric in China) or public transport. Crude imports plunged.

By June the government felt reassured. America and Iran had signed a deal, which allowed some crude through the Strait of Hormuz and pushed Brent, the global benchmark, down to \$72 a barrel (it had averaged \$104 in May). But refined-product prices stayed high: the Gulf's fuel exports remained limited and Russia's, amid Ukrainian strikes on the country's refineries, had sunk too. Chinese exporters saw a chance to make big profits. "The government came under huge pressure to lift the ban," says a trading boss.

In July the government obliged, on condition that the majors' fuel stocks stayed above the high levels of February, before ►►

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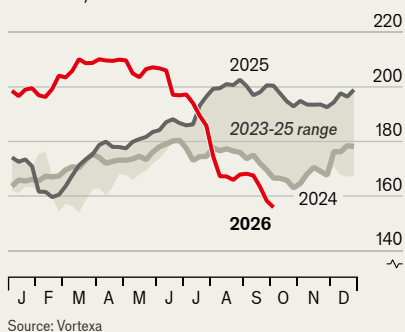
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Going to pot

China, stocks of oil at independent "teapot" refineries, millions of barrels



Source: Vortexa

the start of the war. The National Development and Reform Commission, China's economic-planning agency, audits those inventories around the 20th of each month. If satisfied, it lets oil firms seek export licences from the Ministry of Commerce.

These rules have allowed a surge in exports of refined products. But they have also warped the majors' behaviour. To be eligible for export licences they have rushed to build up stocks of refined products, buying huge volumes of fuel from China's "teapots"—smaller independent refiners that are mainly clustered on the eastern coast, notes Michal Meidan of the Oxford Institute for Energy Studies, a think-tank (see chart).

Aware that an export ban could return with little warning, the majors also rushed to secure as much raw material as they could on global markets. The scramble for crude intensified last month, when a worsening fuel crunch worldwide pushed exporters' dollar-profit per barrel of diesel into triple digits. Chinese refiners usually buy crude four months in advance. In September they placed orders for delivery within four weeks. To help pay for those purchases, they also resold crude cargoes they were due to receive in December—in effect swapping future deliveries of crude for oil they could process immediately.

The scale of those transactions has distorted international markets. Even though more oil is slipping through Hormuz, China's appetite has helped bring Brent back to \$100 a barrel. Brent crude for immediate dispatch now costs about \$25 a barrel more than Brent for delivery in a few weeks' time. Gulf crude, China's favoured variety, also trades at a big premium. Tanker-charter rates are hitting records: it now costs a whopping \$36 to ferry a barrel of Omani crude to China. It was \$1.50 per barrel at the beginning of the year.

That is creating headaches for the country's leaders. As refiners' input costs have soared, so have wholesale fuel prices in China. But retail prices, which the government controls, have risen less sharply;

in some regions they are even lower than wholesale costs. That makes the majors reluctant to produce for the home market.

Meanwhile China's fuel stocks are disappearing fast. They have already shrunk by 65m barrels since the start of the war, to perhaps 300m. Much of what remains is "dead" stock, kept to meet the export-licence threshold. Argus Media, a price-reporting agency, reckons state firms' fuel inventories were 2% below February levels at the end of September. And the majors have no easy way to bump up their stocks, because the teapots are under stress. The teapots used to buy most of their crude, covertly and at a discount, from Iran and Venezuela, but Iran, blockaded by America, cannot export any more. Venezuela's crude, no longer subject to American sanctions, has become too expensive for them.

The wholesale crunch has affected China's retail markets. Squeezed by rising costs, some stations now make customers buy cigarettes to get any diesel, the scarcest of all fuels. The prospect of further pain at the pump explains why the authorities stopped issuing licences on October 1st, the start of a "golden week" national holiday (see next story), when fuel demand often surges. It is unclear when the government will end the freeze.

Companies applied for so many licences in September that they retain unused ones. But China's fuel exports are still projected to fall by 40% in October, squeezing international markets further. (In September, for diesel, petrol and jet fuel, China accounted for 8% of global exports.) China's oilmen will feel the pinch too. They must find replacement cargoes for those they promised to deliver but which can no longer get out. Tom Reed of Argus Media calculates that, on a typical diesel shipment, a Chinese major would go from making a \$20m profit to a \$10m loss if it had to buy the missing fuel on the open market.

Distilled distress

For China's product stocks to recover two things must happen. First, the government needs to let retail prices rise further, so refiners produce more for the domestic market. But prices are already uncomfortably high for many consumers. Alternatively, it could force the majors to sell at a loss or at subsidised rates—at a cost to the state, their main shareholder.

Second, China's mega-refiners have to find more crude to process. The export ban frees up some supplies for the domestic

market, but these may not suffice. Premasish Das of S&P Global, a data firm, estimates China needs to import 9.5m-10m b/d of oil to stabilise its supply of refined products without raiding its own stocks of crude. That would be 2m b/d more than it bought last month. Without peace in the Gulf, that could cause crude prices to rocket, especially as China must now use the open market to replace another 2m b/d of lost Iranian and Venezuelan supplies.

Failing that, China must further reduce its giant stockpile of crude, which it has done only modestly so far. The reserve has shrunk by less than 1m b/d on average since May, to 1.1bn barrels. That is roughly 100 days' worth of pre-war imports. With no end in sight to the Iran war, the government is reluctant to let its strategic buffer fall further. But it is becoming harder for China to avoid a choice between more expensive fuel, a costlier subsidy and a thinner safety-net. ■

Public holidays

Dead hand on downtime

ANSHUN

Long public holidays stoke grievances

THE PAST few days have been gruelling for many people in China. The week-long National Day holiday, which ended on October 7th, was a struggle for tickets and space at packed destinations with rip-off prices. Instead of hailing the country's system of arranging long breaks, many moan about the way they encourage vast numbers of people to travel around China at the same time. China's social media have been a-brim with complaints about the way the government makes people work on surrounding weekends in order to carve out these extended holidays. "I'd rather have a three-day National Day holiday, if my paid leave and two-day weekends were guaranteed," wrote a typical grumbler.

The government introduced "golden-week" holidays in 1999 to boost consumption in the wake of the Asian financial crisis. They have been a fillip to the tourism industry, but are a dampener to public morale. The middle class has grown rapidly since the launch of golden weeks. It has little freedom to air political grievances, but the Communist Party does give it leeway to fume about holidays. Online, it seizes the opportunity. On Weibo, a miniblog site, a hashtag relating to the holiday system has racked up more than 4bn views and 1.5m comments, many critical.

Even members of the rubber-stamp parliament have called for an end to the week- ▶▶

Correction In our story on the WorldSkills Competition in Shanghai ("Faster, sharper, shinier", October 3rd) we said drone piloting and cyber-security were among new events added this year and that China won gold in both. In fact cyber-security was not a new category and China did not win a gold in it. Taiwan did. We should have said that software testing was new. China won a gold in that.

► end-shuffling system. One is Tian Xuan of Peking University, who told local media in March that “compared with some more mature international vacation systems”, China’s needed improvement. Online surveys conducted by Chinese media suggest that most people agree.

Employers are often blamed, too, for not allowing workers to take long vacations at times of their own choosing, and denying them all of the leave they are due (usually five to ten days on top of public holidays). One company in Anhui province recently made the news for giving employees three days off between this year’s mid-autumn festival and National Day, creating a 13-day-long holiday. The purpose, said the firm, was to let workers “have fun and come back energised”.

Many Chinese would resent any change to the golden week surrounding the lunar new year: that is one long holiday which, most agree, has to be shared with the rest of the country, albeit through gritted teeth. But the other two long official breaks—the May Day holiday and National Day—are far less sacrosanct.

Plenty of workers would prefer a long holiday at the height of summer, when many cities become unbearably hot. In the Mao era, model workers could enjoy summer breaks in the seaside resort of Beidaihe, east of Beijing. But unlike in Europe, long holidays during the hottest months have not become a tradition. Chinese leaders still gather at Beidaihe for a few days in the summer, but probably more for politicking than frolicking.

Demand for summer downtime is evident. This year destinations enjoying the fastest growth on Qunar, a Chinese travel-booking site, were “summer retreats”. One of them is Anshun in Guizhou, a poor province in the south-west, which lures visitors by calling itself the “21°C city”. Wang Xue, a copywriter from the central city of Wuhan (a furnace in summer), boarded one recent flight to Guizhou. She says that last year she and her mother had made the mistake of holidaying in another sweltering city, Chengdu. But when your correspondent visited mountainous Anshun at the tail end of summer, tourists remarked that the place was not as cool as they had been led to believe. That day it was a 29°C city.

The government has budged a little. In 2008 it cut golden weeks from three to two by shortening May Day and creating new one-day holidays. But it has since beefed up May Day using borrowed weekends. In the past few years, as economic growth has faltered, officials have become more focused again on the potential consumption-boosting power of time off. Allowing people to complain online, officials may reckon, enables people to let off steam while not putting too much pressure on the party’s holiday planners. ■

School textbooks

Reader, I object

Some oppose making teens read “Jane Eyre”. But the party loves the book

“**R**EADER, I MARRIED him,” opens the last chapter of “Jane Eyre”. That famous line is music to Chinese officials’ ears. Since September the Victorian-era *Bildungsroman* by Charlotte Brontë has become compulsory reading for every Chinese student in secondary school. The government happens to be keen to boost marriage rates and babymaking, and worries about women’s rising demand for divorces. The independent-minded heroine, Ms Eyre, who rejects two proposals before ultimately marrying and bearing a son, has a thing or two to teach young Chinese, the Communist Party thinks.

By some estimates, China’s population of 1.4bn could be 250m lower by 2050. So the party, having once imposed strict limits on births, is now intensifying efforts to build a “birth-friendly society”. It isn’t doing well. In the first half of 2026 marriage rates fell by 7.5%, while divorce rates climbed by 3.9%. Last year births were at a historic low: less than half the number a decade earlier.

In June the government launched a two-month campaign to crack down on microdramas that promote “money worship” and “distorted marriage values”. The wildly popular short videos often tell absurd or fantastical stories, including the popular genre of *badao zongcai* which involve domineering CEOs

who sweep poor women off their feet (this type particularly appeals to those who think social mobility is becoming much harder in China).

So why promote “Jane Eyre”? Some commenters on social media call it a prototype of *badao zongcai*. In the book, Ms Eyre, a governess from a poor background, captures the heart of her wealthy employer, Edward Rochester. His imperious, moody air fits that of the short-videos’ stereotype CEO. But a recent column in *Beijing Daily*, an official newspaper, makes the point clear: “Jane believes that love should be built on spiritual equality rather than social status, wealth or appearance. Only when two people truly love one another can they attain genuine happiness.”

Some parents object to students in their mid-teens having to study a book so centred on love, *Beijing Daily* admits. But “Jane Eyre” is deeply ingrained in China’s literary consciousness: the first translation appeared in 1917. An adaptation of it was among the first Western films shown in China after the death of Mao in 1976. President Xi Jinping mentioned the book in 2015 during a visit to Britain. A musical version was performed in Beijing this week. Ms Eyre seemed feisty to Victorians. But she is a far cry from feminists in China today whom Mr Xi sees as a threat to procreation.



Reading the right kind of romance?

CHAGUAN

Lest we remember

Keeping silent about the tragedies of the Cultural Revolution will not bury them



THERE HAVE been no celebrations. Yet it was a momentous anniversary. October 6th marked exactly 50 years since the official end of the Cultural Revolution. The close of that tumultuous decade, and the decisive turn from Mao's erratic rule, paved the way for China's half-century of remarkable growth. But the date is altogether too sensitive for the Communist Party, given its profound aversion to examining past errors. The party long ago rendered a negative verdict on the Cultural Revolution and has no interest in reopening old wounds.

In search of a sign, even just a flicker, of public remembrance, Chaguan paid a visit last month to what once stood as China's lone exhibition of the horrors of the Cultural Revolution, in the hills outside Shantou, a southern port city. Extreme violence erupted soon after Mao's campaign got started in Beijing in 1966 and spread like a virus around the country, including to Shantou, nearly 2,000km away. A deputy mayor, himself persecuted during those crazed years, knew there were graves in the hills and transformed the area into a museum, opening it in 2005. Drawing on private donations, he installed plaques bearing the names of thousands of victims and displayed accounts of the chaos as well as photos of wild crowds denouncing supposed enemies. He also exhibited the official verdict: a mistaken leader and counter-revolutionary cliques had "brought catastrophe to the party, the state and the whole people".

After a long walk up a hilly road late on a humid day, Chaguan arrived at the site of the former museum. The government had shut it for "renovations" in 2016. For a while after that, visitors could still find traces of the memorials, including plaques hastily covered over. Now nothing is left. The circular pagoda-like building that had housed artefacts is empty and padlocked. Inscriptions on stones are smoothed over with concrete or blotted out with yellow paint. No graves from that era are marked. Instead the site has become a tribute to the 12 "core socialist values" that China adopted as ideological slogans as Xi Jinping rose to power. Large decorative signs tout these values (among them: justice, equality, freedom), with no elaboration.

Plain-clothes police used to monitor and often harass visitors

to the site, whether they were meddling foreign correspondents or brave relatives gathering to mourn, as they did each summer. Now, so thoroughly has the memorial been erased that Chaguan had no problem walking around. An old man near the former museum was stretching after hiking up the hill. "People my age know exactly what happened. We lived through it. There was violence between different factions here in Shantou," he said. "Younger people don't know and leaders don't want them to know."

Covering up history is nothing new in China: look at the party's efforts to erase memories of the Tiananmen Square protests of 1989. But the silence around the Cultural Revolution is becoming ever more deafening. In the late 1970s Deng Xiaoping let people reflect on their personal trauma, giving rise to "scar literature". Soon, though, Deng tried to draw a line under all this with the party's resolution on history in 1981. Even so, throughout Deng's era and beyond, people continued to revisit their own experiences and discuss the national tragedy—in plucky journals, books, films and, as in Shantou, in memorials. These efforts encountered resistance, but there were enough cracks for them to squeak through.

Over the past 15 years, the party has steadily sealed most of these apertures. The journals have been closed. Some books previously published by official Chinese presses have been banned. The most provocative film-makers live under constant surveillance. In July a researcher using a pseudonym wrote a piece for China Unofficial Archives, an overseas website, arguing that control over information related to the Cultural Revolution "has reached unprecedented levels in 2026". At universities some historians still touch on the decade in their lectures, but no one dares question that terse and superficial official verdict.

Denihilism

The silence cuts across ideologies. In 2016, the 50th anniversary of the Cultural Revolution's start, a few voices across the political spectrum argued about it, online and in print. Liberals wanted a fuller reckoning, to ensure the madness was never repeated; leftists called for a reappraisal crediting Mao for shaking up an ossified party. On this anniversary neither criticism nor admiration is acceptable. The party overwrote its 1981 resolution on history with a new one in 2021, reducing its analysis of the Cultural Revolution from a chapter to a slim paragraph. If Deng wanted to shelve the debate, Mr Xi has tried to shove it deep in the cupboard.

For Mr Xi, the quiet is a victory. He seems to have crushed the "historical nihilism" that he warned about early in his tenure—namely, excessive criticism of Mao's rule that ultimately undermines the party's legitimacy today. Yet there is an irony. Events that concluded 50 years ago tend to lose force in domestic politics when debated in full and in the open; think of the Vietnam war's fading legacy in America. When countries avoid such debates, rage over past atrocities can burst forth again, much as Franco's dictatorship has returned as a political flashpoint in Spain.

In China the generation that served as Red Guards is dying off. Had the Cultural Revolution been examined in greater detail, it might have come to look like a curious monstrosity—terrible but distant—to their grandchildren coming of age. Instead keeping it shrouded grants it a latent power. Debate about it could one day resurface, providing critics of the regime with fodder for attacks that reach beyond Mao's excesses to the whole political system. This is why the Cultural Revolution haunts not just its dwindling number of living victims, but the party itself. ■

Middle East & Africa



Ethiopia and Eritrea

On the brink

NAIROBI

As Eritrean forces advance in Tigray, all-out war with Ethiopia seems almost inevitable

THE PROJECTILE shrieked past and exploded. Hayelom Berhane was unharmed, but others were not so lucky. Mr Hayelom (not his real name) says 21 civilians were killed by the blast in Maychew, a town in the south of Ethiopia's Tigray region that was shelled by the federal army on September 29th. Forces loyal to Tigray's rulers, the Tigray People's Liberation Front (TPLF), withdrew shortly afterwards, part of a retreat in the face of advances by government troops. Looting and banditry have erupted in some areas since then. "There is a real fear among the public that [the army] will not be able to stabilise the situation," says Mr Hayelom.

When war broke out in Ethiopia's northernmost region on September 23rd, the TPLF and a number of allied rebel groups initially went on the offensive. Vowing to topple the federal government of Abiy Ahmed, Ethiopia's prime minister, they made incursions into the neighbour-

ing regions of Amhara and Afar. Yet the tide has since turned against them with remarkable speed. In recent days the Ethiopian army and militias allied with it have erased the rebels' gains and advanced rapidly through southern Tigray. On October 4th federal forces took control of Mekelle, the regional capital, ousting the TPLF's leaders from what had been their seat of government for decades.

Rather than heralding a short or contained war, the government's swift advances may have set the stage for a far more dangerous confrontation. Ethiopia claims

that Eritrea, its neighbour to the north, backs the rebels, and that Eritrean soldiers took part in the recent fighting in Afar. Since then Eritrean troops have advanced into Tigray at least as far south as Adigrat and Idaga Hamus (see map on next page). On October 7th Ethiopia demanded that they "leave Ethiopian territory without delay" and reportedly carried out drone strikes on Eritrean troops near Idaga Hamus. The two countries now look to be closer to a direct conflict than at any time since 1998-2000, when they fought a war which killed tens of thousands.

Mr Abiy's government sees Isaias Afwerki, Eritrea's dictator, as a meddler at home and across the Horn of Africa. Eritrea is believed to have supplied weapons and logistical support to the TPLF for months. It also supports other Ethiopian rebel militias, in particular the Fano from Amhara that have been fighting Mr Abiy's government since 2023. Mr Isaias has built strong ties to Egypt, which is at loggerheads with Ethiopia over a giant dam the latter has built over the Nile. On October 4th Egypt's president hosted Mr Isaias, alongside the leaders of Sudan and Somalia, in the city of Alamein. They agreed to co-ordinate military and intelligence efforts if the conflict expanded to Ethiopia's borders, Egyptian sources told Reuters.

Not long ago, such a diverse coalition ►►

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▶ against Mr Abiy would have seemed unthinkable. During the previous Tigray war, which raged from 2020 to 2022 and probably killed hundreds of thousands of people, Eritrea and the Fano fought alongside Mr Abiy's government against the TPLF. Since then the prime minister has fallen out with them. The Fano accuse him of favouring his own ethnic group, the Oromo. Mr Isaias fears Mr Abiy covets Eritrean territory, given his repeated demands for access to Eritrea's Red Sea ports. (Mr Abiy insists he would pursue it peacefully.) Ethiopia has also hosted Eritrean rebels.

On September 20th the TPLF, the Fano and five other groups, including the Oromo Liberation Army, said that they had formed an alliance with the aim of overthrowing the prime minister. Eritrean officials have denied having any part in the scheme. But as fighting in Tigray has intensified, these denials have become harder to sustain. "The plan is [for Eritrea] to join," a source involved in forming the alliance told *The Economist*. On October 1st Ethiopia closed its embassy in Eritrea and expelled ten Eritrean diplomats, and an Egyptian one. Eritrea severed diplomatic relations; Egypt's foreign ministry insisted it had "no involvement in what is happening inside Ethiopia".

Since their departure from Mekelle, the TPLF's leaders are thought to have retreated north towards the Eritrean border. When federal forces last drove the TPLF from Mekelle, in November 2020, the group launched an insurgency from the countryside and six months later forced the Ethiopian army out of Tigray. On October 1st the TPLF's chairman, Debretsion Gebremichael, promised to make the region "an ember to the enemy" once again. A spate of explosions at Ethiopian airports and military sites, most recently at the army headquarters in Addis Ababa, the capital, suggests the rebels also intend to take the war beyond Tigray, this time using long-range drones.

The TPLF's latest insurgency could fizzle. The party is a shadow of the force it was in Ethiopian politics before Mr Abiy took office in 2018. Even in Tigray its power has wilted. Many Tigrayans loathe its leaders' new alliance with Eritrea, whose troops carried out some of the previous war's worst atrocities. Some of the TPLF's most seasoned officers have defected to Mr Abiy. Tadesse Werede, Tigray's top commander during the last war and its interim president until Mr Debretsion ousted him in May, has been missing with three colleagues since October 3rd. They are thought to have been abducted by their former comrades to prevent them from helping the federal army.

Still, it would be premature to write off the TPLF. After early defeats in southern Tigray, it says it chose to retreat rather than



confront the Ethiopian army head-on. If that is true, much of its fighting force may still be intact. Its allies among the Fano remain active next door in Amhara, where battles continue. "We have withstood the regime by ourselves for more than three years," says a Fano leader. "We used asymmetric war...this game will continue."

An expanding battlefield

Then there is Eritrea. How far Mr Isaias is prepared to go to save the TPLF, whose leaders he has despised for decades, is unclear. Many analysts assume his main aim in backing rebels in northern Ethiopia has

been to maintain a buffer between his forces and Ethiopia's. Yet by sending his troops south just as Ethiopian soldiers chase the TPLF's forces to the border, he may have given Mr Abiy an excuse to invade.

Mr Abiy has yet to comment on the latest fighting. After years of conflict the Ethiopian army is thought to be larger than ever. Outside pressure would help. On October 4th America's State Department urged Ethiopia and Eritrea to respect each other's territorial integrity. While Western diplomats have broadly backed Mr Abiy's crackdown on the TPLF, they have warned him not to try to seize Eritrea's coast by force. Yet they may not put all that much pressure on the two sides, given that their attention is focused on the wars in Iran, Ukraine and Yemen.

Regional politics make the situation even dicier. Eritrea and Egypt are both important allies of Sudan's army, which is involved in its own civil war at home. Rebels in that war, who are supported by the United Arab Emirates, an Ethiopian ally, have recently begun using Ethiopian territory to mount offensives against Sudan's army. Open-source investigators also suggest that Ethiopia has allowed imports, by air, of weapons which may well be going to fuel fighting there. The Horn of Africa is already the site of one regional proxy war. It may soon suffer another. ■

Agriculture in Zimbabwe

Back to the fields

MVURWI

A generation after Robert Mugabe's land-grabs, some white farmers are returning

THE EARTHY smell of drying tobacco wafted through Mvurwi, a town 100km north of Zimbabwe's capital, Harare, earlier this year. It was boom time: the harvest, in its spectrum of autumnal colours, was piled high in warehouses. Last month official data confirmed that Zimbabwe as a whole produced the largest tobacco crop in its history. "When I came here I had nothing in my hands," says Lovemore Chiwa, a smallholder farmer. "I had to beg to borrow a hoe." Today he employs five women who help sort his leaves.

Such news might be surprising for outsiders who associate Zimbabwe with seized land and fallow fields. It is around 25 years since Robert Mugabe, the liberation hero-turned-dictator, dispatched thugs to grab mostly white-owned farms, a decision that immiserated his country and made him an international pariah. The disastrous legacy of what was euphemistically known as "fast-track" land reform still

holds the country back. But the bumper tobacco crop reflects how, a quarter of a century on, some farmers have adapted. These include not only tobacco-growing smallholders such as Mr Chiwa but also a new generation of white farmers, who have—remarkably—entered into joint ventures with the black recipients of stolen farms. Today their number, at least 400, is about the same as or higher than that of the white farmers who have clung on since 2000.

Back then there were 4,750 white-owned commercial farms accounting for the vast majority of the country's most productive land. Mugabe seized and redistributed most of these to two groups. Around 145,000 households were given "A1" plots of 5-6 hectares. Almost 20,000 beneficiaries were given larger "A2" plots on which they would, in theory, farm commercially.

Overall the data suggest that the country has yet to recover. Before 2000 Zimbabwe grew enough maize and soya to meet ▶▶

its needs. It often exported its surplus. Today it depends on imports. In the 2010s average annual maize production was half of that in the 1990s. That is mostly because many A2 holdings were given to ruling-party cronies, “war veterans” and civil servants. They were derided as urban “cell-phone farmers” without farming nous. They found credit hard to obtain because banks were wary of accepting seized land as collateral.

The new joint ventures are a response to this lack of skills and capital. Some 8,000 active arrangements typically involve the A2 holder lending “their” land in exchange for a share of its income. Most lessees are black farmers who were too young to get land in the 2000s, but a minority of them are white and involved in joint ventures. A few hundred more white farmers still operate today after farming throughout the “reform” period (usually because they agreed to downsize rather than lose everything).

The new generation is mostly Zimbabwean “farming progeny”, says one farmer. Its members are in their 30s or 40s. “They are committed to Zimbabwe and don’t want to be anywhere else.” Farming on the land of their fathers’ generation—and occasionally their actual father’s land—has led to tensions in the tight-knit white world. But most newbies ask, and get, permission from the former owners. “It is better that someone use my farm than it goes to rack and ruin,” says one ex-farmer.

Tobacco is the most commonly grown crop under joint ventures. It is the only commodity for which there is ready credit. Large tobacco firms such as China’s Tian Ze supply inputs or loans in exchange for delivery at harvest time. “Right now I love the Chinese,” says one farmer in Mvurwi.

The tobacco boom has also helped smallholders such as Mr Chiwa, who started farming when he was given an A1 plot outside Mvurwi. He has invested the profits from tobacco in property and a \$200 Chinese irrigation pump to grow citrus and other fruit. The pump has done more for smallholders than any state scheme.

Yet the qualified success of tobacco also highlights failures elsewhere. State-backed efforts to increase smallholders’ maize production have been undermined by vast graft. An oligarch close to Emmerson Mnangagwa, who replaced Mugabe as president in 2017, has diverted money meant for subsidised seed and other inputs to buying mines, according to an investigation by The Sentry, an American NGO, published in 2022 (the oligarch denies wrongdoing).

Ultimately Zimbabwe cannot move on as long as land is in legal purgatory. Earlier this year the government announced a new drive to hand out title deeds, including to A1 and A2 holders, to formalise holdings.

Yet even if this happens, banks will still be reluctant to accept the deeds if their original owners are uncompensated. The initiative also leaves hundreds of thousands of people toiling on “communal” land.

In 2020 Mr Mnangagwa signed a deal with the Commercial Farmers Union, which represents large-scale farmers, to pay \$3.5bn in compensation to the mostly white farmers. But despite redress being a condition of Zimbabwe’s coming in from the diplomatic cold, his government has not paid up. Officials within the ruling Zanu-PF party say that the president hoped that donors would help him foot the bill.

A minority of white farmers—typically poor and in their dotage—have since accepted a more miserly offer. A few dozen farmers from Denmark, Germany, the Netherlands and Switzerland have struck a separate deal. But most are holding out. Some have hired American lobbyists to bend the ear of President Donald Trump. They want to capture the attention of MAGA people much as South Africa’s Afrikaners have done (some of these farmers are also Afrikaners). But there is little sign of that so far, and Mr Mnangagwa is unlikely to care much about American criticism, given his party’s close ties to China.

In the meantime the gap between Zimbabwe’s potential and its reality widens. The record of the joint ventures illustrates the suboptimal state of farming. Partners often avoid making longer-term investments in crops that might take several years to grow, limiting their exposure to a mini-boom in avocados and blueberries. About half of the arrangements end before the contractual period, sometimes in mutual acrimony. The talk of Harare is that, having seen the challenges of agriculture up close, many young farmers are deciding to get into mining instead. ■



Zimbabwe’s green gold

The Gulf war

Counting chickens in Tehran

DUBAI

America’s blockade is breaking Iran’s economy, but not yet its regime

ASKED ABOUT predictions that Iran’s economy faced imminent collapse, Abdolnasser Hemmati, its central-bank governor, reached for a Persian proverb: chickens are counted at the end of autumn. Maybe so, but the early-autumn tally looks bleak. The currency has never been weaker. Inflation is at its highest since the second world war. Oil loadings fell to zero last month for the first time since 1979.

Iran is no stranger to economic crises—but this one looks uniquely bad. Even Mohsen Rezaei, the bombastic security chief, recently warned colleagues that Iran is facing one of the most difficult periods in its history, according to state media. America’s sanctions-and-blockade campaign is working, on its own terms. It is still unclear whether it will push Iran to end the Gulf war, now in its eighth month.

The rial has crashed through one record low after another. It trades at around 2.7m to the dollar. It has lost half its value this year (and 99% over the past decade). Last month the central bank injected \$2bn of foreign currency into the market. That slowed the decline but failed to reverse it.

Currency collapse has spurred galloping year-on-year inflation, which hit 90% in September. Food and transport prices increased by more than 115%, and clothing by 97%. Prices for staple goods such as cooking oil, eggs and rice are all up by more than 200%. Pensioners have staged protests over allowances eroded by inflation. The nurses’ association says some members would rather quit than work for salaries that are now worth just \$100 a month.

America has imposed tight sanctions on Iran before, but they were always porous. Even in 2020, at the height of Donald Trump’s “maximum pressure” campaign and the covid-19 pandemic, Iran still managed to sell more than 440,000 barrels a day of oil. America now enforces sanctions at gunpoint: warships are blockading Iran’s ports, and they disabled or sank at least eight Iranian oil tankers last month.

Though Iran did not load any new shipments of crude in September, it did continue selling oil to China, drawing from a supply held in seaborne storage (most of it in Asia). The stockpile is dwindling, however. Kpler, a data firm, estimates that Iran has perhaps 10m barrels of oil in storage outside the blockade line, down from more than 120m before the war. It will probably run dry within weeks. Though payments ►►

► could continue until December, Iran's most valuable export is about to dry up.

Nor can it export much of anything else. China, Iran's biggest trade partner, typically imports more than \$4bn of its non-oil goods a year. But in the eight months up to August, the latest for which figures are available, it bought just \$746m from Iran, down by 67% from last year and 74% from 2024 (see China section). Purchases of everything from plastics to pistachios have dried (see chart).

Iran is trying to redirect some trade via other routes—each a poor substitute for its Gulf ports. Lorries are stuck in days-long queues at land borders. The Caspian Sea offers a link to Russia and Central Asian states, but the capacities of both ports and ships are limited. An effort to export oil to China by train will deliver only a trickle: it would take 2,800 rail tank cars to match the capacity of one big ship.

Last month the Trump administration announced sanctions on foreign firms that refuel or service Iranian airliners. In the two weeks after the sanctions took effect, on September 23rd, there were just 153 arrivals and departures from Tehran's international airport, down from 989 in the same period last year. Almost all were bound for China, Russia or Turkey.

Drug supplies, inter alia, will suffer. The Bourse & Bazaar Foundation, a think-tank, estimates that 60% of Iran's medical imports come by air. Even before the latest sanctions, Iran's pharmacists' union said drug prices had risen by 150% this year.

Iran's rulers are looking for a way out—on their own terms. Abbas Araghchi, the foreign minister, held indirect talks with American officials at the UN General Assembly last month. He presented Iran's latest offer for a deal, basically an accelerated return to the memorandum of understand-



ing (MOU), the short-lived agreement signed in June. If America met a series of conditions, Iran would reopen the Strait of Hormuz within a week. Mr Trump refused.

Diplomats were split on how to interpret the offer. Some, perhaps too optimistically, saw the compressed timetable as a sign of distress. The MOU gave Iran 30 days to reopen Hormuz; now Mr Araghchi proposed to do it in seven. Others thought Iran was going through the motions, presenting an offer it knew Mr Trump would decline. "It gives them cover if they decide to escalate," argues one Arab envoy. "They can say America rejected diplomacy."

That is a possibility. Iran has already stepped up its attacks on commercial ships in the strait, with at least ten in the past fortnight. Both sides are preparing for another round of all-out war. The stalemate will probably continue. But by December, Mr Trump will be free of the midterms and Iran's final oil payments should come due. Perhaps Mr Hemmati's proverb will prove apt: autumn ends on December 21st. ■

Lebanon's sectarianism

Bad bargain

BEIRUT

A grubby amnesty law could deepen Lebanon's sectarian divides

THOSE WHO run Lebanon have cut corners in the name of justice before. In 1991 the men who rose to power after a 15-year civil war granted themselves and their allies immunity from prosecution for many of that conflict's crimes. The law helped secure a fragile peace, but also deepened sectarian divisions. So when lawmakers approved another amnesty in August, it brought back bad memories.

The new one will be the most wide-reaching in 35 years. Perhaps a third of Lebanon's prisoners will be released or have their sentences commuted. Ostensibly, the legislation is to reduce overcrowding in prisons, a real problem. Inmates at Roumieh, a jam-packed prison overlooking Beirut, the capital, celebrated when the law was passed. To others it looks like a grubby sectarian bargain.

Lebanon's prisons hold three times as many inmates as they are supposed to. Overcrowding has worsened since Israel began its war against Hizbullah, a Shia Muslim militia, forcing the authorities to transfer prisoners from the front lines in the south. Roumieh is overflowing; inmates sleep on the floor in shifts. Barracks, warehouses and stables have been repurposed as detention centres. The cash-strapped justice system barely functions. In 2024 over 80% of prisoners were awaiting trial, up from about 50% in 2017.

But the law does also reflect sectarian politicking. With Hizbullah weakened by Israel, Lebanon's Sunni Muslims are on the front foot. They pushed for the amnesty to include Islamists whom they argued had been unfairly tried in Hizbullah-aligned military courts. These include Ahmed al-Assir, an imam, and his followers. After Hizbullah intervened on the side of the Assad regime in Syria's civil war in 2013, Mr Assir urged his supporters to take up arms against the group inside Lebanon. They battled the Lebanese army (and, say his supporters, Hizbullah) in Sidon, a southern city. Some 18 soldiers were killed.

Changing regional dynamics tipped the scales, too. Since coming to power in 2024 Ahmed al-Sharaa, Syria's president, has pushed the Lebanese to hand over Syrian prisoners. Many have ideological ties to Lebanon's Sunni Islamists. "This jump-started the whole process which got us to the amnesty law," explains Makram Rabah of the American University of Beirut. In February Lebanon agreed to transfer 300 ►►



A clucking disaster

► Syrians to Mr Sharaa's authorities. Some 260 have been sent so far.

To get through parliament, the amnesty had to appear even-handed. Shia MPs lobbied for cannabis dealers, whose farms are mostly in the Hizbullah-dominated Beqaa valley; Christian ones sought protection for fighters who collaborated with Israel after it occupied southern Lebanon during the civil war. "Everyone wanted their share of the pie," says Mr Rabah. "A simple legislative act that was supposed to remedy injustice morphed into a sectarian monster."

Many Lebanese are angry. Nizar Saghih of Legal Agenda, a pressure group, calls the amnesty a "Trojan horse", aimed at exonerating corrupt public officials.

Others point out that it will do little to fix deeper problems in the justice system. The courts will go unreformed and the prisons will fill up again. The sweeping powers of Lebanon's military courts add to the overcrowding and critics worry that Hizbullah's allies control them; efforts to fix them have stalled, complains Mark Daou, a reformist MP from the Druze community.

The amnesty has been delayed by legal appeals but the Constitutional Council is unlikely to strike down the law. At best it may ease the pressure on Lebanon's over-stuffed prisons. But in doing so, it may also exacerbate sectarian tensions. Fixing the broken Lebanese state is a tall order. Its leaders have fallen short again. ■

Israel and Flydubai

Seizing a chance

JERUSALEM

In a near-catastrophe, Binyamin Netanyahu sees an opportunity

THE MARGIN between tragedy and deliverance could seldom have been as narrow as on September 30th, when Flydubai flight 1073 plummeted over 17,000 feet towards the desert in just two minutes. Had Captain Smit Machchhar not fought back long enough to open the cockpit door, after his Omani co-pilot, Hamam al-Hammami, attacked him with an axe; had the mother of six-year-old Nina Manes not had to take her to the toilet and heard the commotion; had passengers and crew not overpower Mr Hammami and pulled the Boeing 737 out of its dive; had an off-duty pilot on board not landed the damaged plane. Had all of these not happened, some 180 crew and passengers, mostly Israelis, would have surely died on impact, perhaps killing many on the ground. Instead the plane made an emergency landing in Saudi Arabia and the passengers flew on to Tel Aviv, and a heroes' welcome.

The distance between political triumph and fiasco is just as slim. Binyamin Netanyahu, Israel's long-serving prime minister and always the showman, was on hand when they landed for a triumphant photograph and was filmed calling the pilot in hospital. He has, however, avoided difficult questions about the near-catastrophe. Why was an apparently radicalised pilot flying a plane to Tel Aviv? Why did the transport ministry, controlled by an ultra-loyal member of Mr Netanyahu's Likud party, fail in its job of vetting air-crew flying to Israel? How did Israel's intelligence and security services, which answer to the prime minister directly, miss this?

The prime minister's office has offered

no answers. But for Mr Netanyahu, the incident has offered a political opportunity. Rather than allow another security failure to reinforce the charges against him when it comes to the October 7th attacks on Israel by Hamas, Mr Netanyahu is trying to turn it to his advantage, campaigning once again as Israel's indispensable protector.

The saga captures the central issue in Israel's election. Mr Netanyahu's unwillingness to grapple with the security lapses that led to the hijack attempt mirrors his refusal to take responsibility for such failures in the run-up to October 7th 2023. Yet he is campaigning on the issue where he is

arguably most damaged: security.

His longstanding policy allowed Hamas, a militant Islamist group, to entrench and arm itself in Gaza. He ignored warnings from Israel's security service and, so his opponents claim, from the Egyptian and Emirati governments, of an impending attack by Hamas. That helped create the conditions for the worst security debacle in Israel's history. Mr Netanyahu denies there were any specific warnings and has blamed his security chiefs. They have all since resigned. The prime minister, who has just begun his 20th year in office, is fighting for yet another term.

Even before the Flydubai attack, Mr Netanyahu was warning voters of the dangers that await their country, dangers that only he has the experience and fortitude to confront. On September 29th he released a tough-talking video, standing in a fighter-jet hangar, claiming there were "signs that towards the election our enemies will try to attack us". Security officials say that there were no specific imminent threats. But after the attempted hijacking (which did not appear on any official risk assessment), his proxies gloated that this was exactly what he had been talking about.

The opposition has accused the prime minister of trying to cause a public panic in an effort to win votes. He has reason. According to *The Economist's* election tracker, Mr Netanyahu's coalition of far-right and ultra-religious parties will fall short of a majority in the Knesset, Israel's parliament. Most Israelis say they hold Mr Netanyahu responsible for the failures of October 7th. His opponents claim that they will find better ways to destroy Hamas, but offer no clear security or diplomatic strategy. And Mr Netanyahu talks tougher. He may lose the election but whoever rules will do so according to his agenda. ■



A wing and a prayer

WE FIND
OUR EDGE
AT THE
EDGE OF
WHAT'S
POSSIBLE.



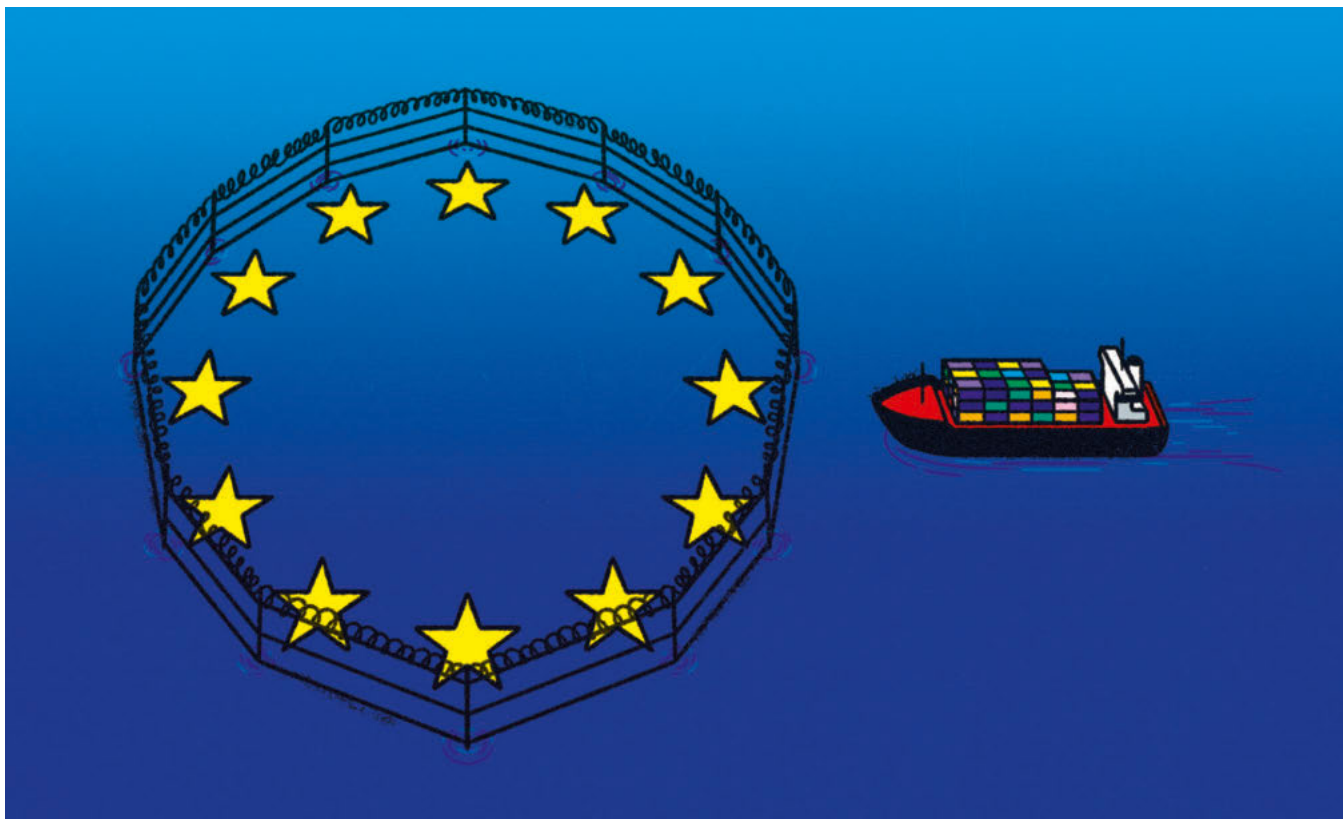
The journey from opportunity to reality can be an uncertain one. It takes courage powered by intelligence and integrity. Travel with the right crew.

Mishcon de Reya

It's business. But it's personal.

Business | Disputes | Innovation | Private | Real Estate

Europe



EU-China trade

How to train your dragon

BERLIN AND BRUSSELS

A bold letter from France and Germany augurs confrontation with China

IN CHINA'S EYES, Europe is weak and divided. It has neither the prowess to compete in technologies like artificial intelligence nor the military strength to defend itself. Its economy depends on Chinese rare earths and other supplies, and its companies are no match for their Chinese rivals' innovation. Endless elections and diverging interests prevent the EU from building a united front. In the escalating trade spat between the two powers, why would China make any concessions?

That was the starting point from which the EU embarked on trade negotiations with China in June. Its grievances are legion. Chinese firms threaten Europe's industry with superior products and lower prices. That, Europeans allege, is in part the result of unfair subsidies and an undervalued currency. Nor is China willing to share its technology when investing in Europe. Then there is China's weaponisation of its control over critical inputs, such

as rare earths, needed by defence firms, among others. China's support for Russia's war in Ukraine also infuriates Europeans.

The final round of talks began on October 8th, as *The Economist* went to press. To boost the EU's negotiating position, on October 5th France and Germany sent an astonishing letter to the European Commission with far-reaching proposals on how to deal with China's export machine (without mentioning the country). Next week a summit of European leaders will

decide whether to follow the pair's lead. Most are expected to fall into line.

More than anything it is a change of mind in Germany that has inspired this new European hawkishness. German politicians have long avoided any confrontation, even as parts of German industry grew sceptical of China. But with Chinese exports now bugging up Germany's industrial machine, this year has seen a dramatic shift. "There is a wide consensus now that things cannot continue like this," says Oliver Richtberg of the VDMA, Germany's association of machine makers. German policymakers also fear that the persistent loss of industrial jobs—which stands at around 15,000 a month—risks bolstering support for the right-wing Alternative for Germany. As if to underline its resolve, on October 7th Germany's government blocked a state-owned Chinese shipping giant from acquiring an 80% stake in a German logistics group.

If implemented through the EU's law-making apparatus, the proposals in the Franco-German letter would mark a dramatic shift in the bloc's approach to China. The main novelty is a "second-strike capability", says Sander Tordoir of the Centre for European Reform, a think-tank. Emmanuel Macron, the French president, and Friedrich Merz, the German chancellor, want to grant Brussels powers to hit back ►►

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quickly at countries that retaliate when the EU imposes trade measures over allegedly unfair competition. The pair call for “regulating access to the single market” with a “wide range of trade remedies and other tools”. The proposal looks awfully vague. But “it is a political signal to show Beijing that Europe, and Germany, mean business,” says a German official.

A second proposal is for a “diversification instrument”. Details are also scant, but the idea is to reduce European firms’ supply-chain dependencies and prevent new ones from emerging. Previous attempts have struggled: China can simply build components, then send them for final assembly in other countries. That can even increase risk for European firms. “You still have China risk in the supply chain, but now a new country risk on top,” says Martin Sebens of the University of Hong Kong. To better understand Europe’s vulnerabilities, firms and governments would need to share sensitive data across the EU. But the letter is silent on that.

Other proposals are familiar. In line with the EU’s recent trade agreements (some of which France rejected), the letter urges co-operation with third countries to boost supply-chain resilience. France and Germany call on Brussels to use existing trade-defence instruments more aggressively. The current rules for imposing tariffs in case of unfair subsidies are narrow in scope and cumbersome to impose. The pair want to speed things by staffing up the commission’s trade desks and, importantly, broadening the rules to apply to whole sectors rather than individual firms.

The letter also proposes reforms to “safeguards”: counter-duties that can be imposed on all countries when imports surge. Since safeguards are time-limited, earlier this year the EU had to replace its measures on steel imports with a dedicated regulation. Trade analysts reckon that reformed safeguards could also target individual countries, which in most cases will mean China. And the letter calls for more enforcement of EU regulations on

imports, for example on consumer safety, including on the many small packages Europeans order from China.

France and Germany also want a European industrial policy, but, officials say, differ on its scope. The letter says the EU should expand production in “strategic” sectors and introduce Buy European clauses (“European preference”, as they call it). But they remain vague on what sectors these might be, and whether close economic allies would be included. This is where free-traders in Europe see room to prevent the worst protectionist instincts.

All of this will irk leaders in Beijing, as France and Germany well know. The Chinese commerce ministry said that the pair should “avoid taking a wrong road by wrong means and ultimately having it rebound on themselves”. To prove a point, on October 3rd it launched an anti-dumping investigation into European chemicals exports, after Europe had opened three such

investigations aimed at China last week. Europe is braced for more.

For its part the commission called the letter a “valuable contribution” that aligns with its “clear stance on competitiveness and the approach to trading partners, including China”. Europe’s free-trading nations, many of which welcome Germany’s tougher stance, will have to ensure that the EU does not allow legitimate concerns about economic security to tilt into damaging protectionism.

One aspect works in Europe’s favour. Its economy has proved more resilient to the recent energy shock than many expected. China, on the other hand, has just decided to put together another massive infrastructure package to stimulate its troubled economy. The EU hopes that its new resolve will dissuade China’s leaders from escalating further, and that they will avoid emboldening Europe’s hawks just as Germany has joined their flock. ■

Spain’s election

Betting the house

MADRID

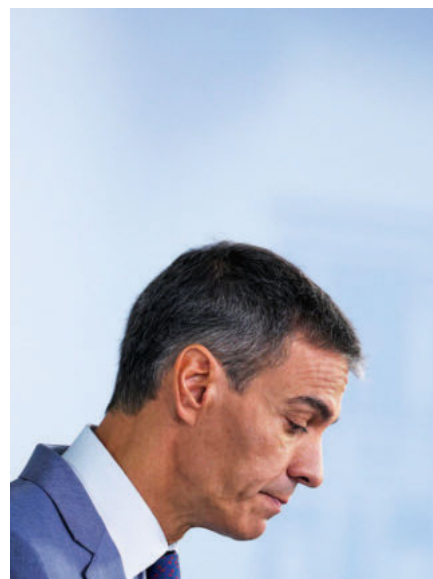
Continental Europe’s last leftist champion makes a bid to stay in power

PEDRO SÁNCHEZ’S talent for bold ventures has helped him survive for eight years as prime minister atop minority governments. But his decision on October 5th to call an election for November 29th, months before it was due, is a last-ditch gamble. He hopes to capitalise on indignation over an elderly woman’s eviction from her home—a symbol of Spain’s housing crisis. Mr Sánchez, the last important standard-bearer of the left in the European Union, has framed the election in populist terms, as a contest between affordable housing and the privileges of right-wing elites. That will be a challenge: for more than a year, opinion polls have put the right-wing opposition well ahead.

The prime minister has been on the defensive for months. His government mishandled a migrant surge from Morocco into the Spanish enclave of Ceuta in July. Leaders of his Socialist Party have been charged with corruption; his wife faces trial for influence-peddling (she and he insist on her innocence). But the eviction of Maricarmen Abascal, an 87-year-old who left her home of 71 years on September 23rd (and died in hospital on October 7th), let him change the subject. With leftist protesters camped out in Madrid, Mr Sánchez dusted off an emergency-housing decree from earlier this year. This would temporarily have banned evictions of “vulner-

able” people, extended rental contracts and barred corporate landlords from buying properties at below-market prices.

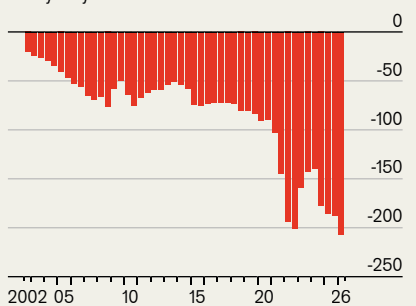
This approach to housing, favoured by the global left from Berlin to New York, protects existing tenants but leads to falls in the supply of rented property. The decree was rejected in parliament on October 2nd when Junts, a Catalan nationalist par-



Not ready to exit, stage left

Uneven trade

EU27, goods-trade deficit with China, €bn
Half-yearly



Source: Eurostat

ty, joined other right-wing parties to vote it down. Mr Sánchez had lost the fickle majority he had cobbled together among the left and regional nationalists.

In announcing the election, the prime minister complained of an obstructive opposition and “very powerful economic and social elites”. He boasted that he has refused to sign up to Donald Trump’s demand to spend 5% of GDP on defence. On his watch Spain has become “a global reference point of peace, feminism and prosperity”, he claimed. He also boasted of the economic-growth rate, forecast to reach 2.5% this year.

This appeal is calculated to mobilise disillusioned left-wing voters. It may have some success: rent controls are popular. With the country divided into two political blocks, Spanish elections are no longer won in the centre, but rather depend on which side’s supporters turn out more. Polls give the conservative People’s Party (PP) 33% and the Socialists 26% (down five percentage points since the last election in 2023). The big gainer is Vox, a populist-right party which is polling at 18%, up from 12% in 2023. The populist left, which won 12% last time, is leaderless and divided.

“At last”, said Alberto Núñez Feijóo, the PP leader, in response to the election announcement. His party won the most parliamentary seats in 2023. The right has never forgiven Mr Sánchez for blocking it from governing by allying with Junts, in return for an amnesty for Catalan separatist leaders involved in an illegal independence bid in 2017. Many legal scholars called the amnesty unconstitutional, as did Mr Sánchez himself until he needed it to stay in office.

The PP will campaign against corruption and government incompetence. Mr Feijóo accuses Mr Sánchez of failing to solve the housing problem or improve schools and health care despite record tax revenues. Vox will point to Mr Sánchez’s championing of immigration as a contributor to the housing crisis. Spain builds only 80,000 homes a year, but there are at least 700,000 more households than in 2023.

Mr Sánchez is by far the most effective campaigner in Spanish politics. In the snap election in 2023 he hung on partly by whipping up fear of Vox. The polls suggest that if the PP forms a government, it will depend more on Vox than it might have done then. But they govern together in several regions, and the public has accepted that the populists cannot be excluded for ever.

The prime minister may well narrow the gap, but it will be hard for him to close it. Mr Feijóo comes across as plodding in public (though he is more persuasive in private), and his party is notoriously accident-prone in campaigns. Nevertheless, it is his election to lose. Should he beat Mr Sánchez, the continental left will lose its last major champion. ■

French protests

Class act

PARIS

Student unrest is egged on by the left

“THE BUDGET for the army is increasing, but not for education,” complains a university student. She is out on the streets of Paris on October 6th to support a one-day demonstration which drew at least 250,000 people across France. A pupil marching in the bright autumn sunshine says teachers’ absences in the year of her *baccalauréat*, the high-school leaving exam, are causing her stress. Another student says that “everyone is just really fed up,” and hopes the protests will topple the government. Yet another is worried about “the rise of the extreme right”.

The initial mood at the *manif*, or demo, was as cheerful as the student demands were varied. Food trucks offered sizzling grilled kebabs. Drums were beaten; banners were witty. But a heavy police presence, including riot police equipped with tear gas and non-lethal flashball guns, was a sign the authorities feared a *mêlée*. “The *casseurs* [rioters] have turned up just to cause trouble, and undermine our credibility,” lamented a secondary-school pupil. By day’s end, after violent clashes with the police, 488 people had been arrested.

France’s student protests, which broke out at a school in Créteil outside Paris in mid-September, have spread to over a quarter of the country’s 3,700 lycées, or upper-secondary schools. The country is no stranger to student demonstrations. Successive governments are haunted by folk

memories both of 1968 and of more recent movements that spread fast and were difficult to control. The current ones turned violent particularly rapidly, spurred by images on social media. The entrance hall at the Lycée Nelson Mandela in the western city of Nantes was set alight. A 15-year-old lost a hand when a stun grenade was deployed by the police in the northern city of Lens. By October 7th, 6,629 people had been arrested countrywide; 215 pupils had been wounded, as well as 89 school staff and 761 police officers.

Some of the pupils’ grievances are fair. Protesters point to heavy timetables and long school days, following the reform of the *bac* a few years ago, as well as dilapidated buildings. Education spending per secondary pupil has been flat in real terms over the past decade; despite a recent boost, teachers’ salaries are below the average among rich countries, with scant space to raise them. The country is under pressure from the bond markets; the government is squeezing spending in its budget for 2027 in an attempt to control the deficit, which will reach 5.4% of GDP this year. This includes a cut of 1,588 teaching posts, due to declining pupil numbers. Only defence spending has been ring-fenced.

The government, however, accuses politicians from Jean-Luc Mélenchon’s populist-left Unsubmissive France (LFI) of exploiting the protests. Mr Mélenchon, who received an enthusiastic welcome at the demo in the capital, called it “absurd” to claim that his party was behind the violence and accused the government of ordering a “crackdown”. Laurent Nuñez, the interior minister, said on October 7th that he was suspending the police’s use of stun grenades. But in parliament the previous day Sébastien Lecornu, the centrist prime minister, angrily called accusations of police repression “a lie”. He blamed LFI politicians for seeking “to organise chaos for electoral ends”.

The underlying difficulty is that France is six months from a presidential election. The mood is tense, and politics is as likely to play out in the streets as in the parliamentary debating chamber. For the populist left, it is a chance to flex its muscles and show support for students; young people are particularly keen on Mr Mélenchon, a revolutionary firebrand. He is running for president and polls suggest he could make it into the run-off against Marine Le Pen of the nationalist-right National Rally.

For Ms Le Pen, the favourite in the polls, it is a chance to blame the government for failing to ensure public order and to accuse the hard left of “conflictualising” the situation. Although 85% of those arrested are under the age of 18, hundreds of adult *casseurs* have also taken part. Ms Le Pen wants tougher anti-riot legislation.

In the short run the school protests ►►



Grownups don't understand

► could die down, perhaps when the autumn half-term holiday begins in mid-October. Some schools are already beginning to pick up the pieces. Outside a lycée in south-west Paris, where students last week set fire to sacks of rubbish and wooden crates, the charred remains of burnt rental bikes have been piled up neatly on the pavement behind a police barrier.

But the discontent is unlikely to dissipate. After nearly ten years under the centrist Emmanuel Macron, the country wants change. Family budgets are tight. Petrol prices are high. And the public is anxious: a poll finds only 10% are confident in their economic future. In a febrile France, anger and frustration could readily spill over into more unrest before next year's vote. ■

German spycraft

The spy who stuffed me

BERLIN

Explosive allegations rock Germany's foreign-intelligence service

ON OCTOBER 5TH Martin Jäger, head of the Bundesnachrichtendienst (BND), Germany's version of the CIA, sat before lawmakers and solemnly proclaimed the importance of trust between intelligence agencies. What Mr Jäger knew then, and what the world learned one day later, is that the BND was sitting on an explosive scandal that risks torpedoing its already poor reputation just as the Bundestag prepares to grant it sweeping new powers.

Early on October 6th police arrested August Hanning, one of Mr Jäger's predecessors, and a man named as Manfred D. Among other crimes, they were suspected of "treasonous espionage": procuring classified BND information with the intention of passing it on to foreign agents.

The allegation is that Mr D, who served as chief of staff to Mr Hanning and his successors, passed nearly 2,000 documents to his former boss between 2010 and 2022. Prosecutors say that Mr Hanning, who after leaving the BND in 2005 went on to work as a security consultant, used the material to compile a briefing for someone from a foreign intelligence service (Azerbaijan's, according to the German press); and maintained links with an agent from another. Some of the information, prepared for briefings in the chancellery, is said to have covered sensitive matters like Iran's nuclear programme. Mr Hanning denies passing on classified information to Germany's detriment, or for payment.

It is not unusual for spy chiefs to take on private consulting work after leaving office, but Mr Hanning had attracted an un-

usual degree of attention. The alleged leak came to light only because police in Hamburg investigating a separate case, involving Christina Block, the heiress to a steakhouse empire who is standing trial for orchestrating the abduction of her children from their father in a custody battle, found the material during a search of Mr Hanning's property last year. They passed it on to federal prosecutors. Mr Hanning had been drawn into the case after allegations that he helped facilitate a previous abduction attempt by connecting Ms Block to private Israeli security operatives. Mr Hanning's long-running ties to the Israeli security establishment are well known, although he denies involvement in the Block case. No charges have been brought.

That was not all. In 2017 Mr Hanning joined the board of a Latvian bank, owned by a Russian financier, that later went bust. Mr Hanning, who enjoyed a generous state pension after leaving the BND, was sued for damages worth millions by the insolvency administrator. A court ordered the seizure of his assets. After his arrest this week, several lawmakers called for a ban on senior intelligence officials taking on potentially risky consulting or lobbying posts after leaving office.

The allegations would be damaging at the best of times. But the BND is about to have its powers significantly expanded, and its budget is ballooning. Its years-long failure to spot a mole at the top of its organisation will hardly reassure spooks in allied countries who have long lamented its sloppiness and unprofessionalism. "Absolute trust is the currency in the intelligence sector," says Marc Henrichmann, who chairs the Bundestag's intelligence-oversight committee. Mr Jäger is regarded as the best BND chief in a generation. He will have his work cut out. ■



The well-connected Mr Hanning

Plague in Russia

Infectious rumours

Has *Yersinia pestis* escaped from a Siberian lab?

IT SOUNDED LIKE the plot of a thriller. A researcher at a Siberian lab supposedly breaks a test tube containing a lethal pathogen. She is dead within 48 hours. Authorities race to contain the situation, but lack of transparency breeds suggestions of conspiracy. The rumours may prove unfounded: there may have been no leak at the Irkutsk Anti-Plague Research Institute. But no wonder the world is riveted.

Some facts are clear. Darya Shipilova, a 28-year-old researcher at the institute, died at a regional hospital on October 2nd. Around 200 of her contacts have been placed under observation, suggesting authorities suspect an infectious disease. But no cause of death has been confirmed. Russia's health watchdog said there was "no evidence of micro-organisms related to her professional activities" and that she died of pneumonia.

With the covid-19 pandemic a recent memory, the world has shown close interest. Marco Rubio, America's secretary of state, said his government is "watching". Donald Trump said "very deep discussions" are under way and he would speak to Vladimir Putin about the case. Inevitably, some ask if the incident is connected to Russia's biological-warfare programme.

Yersinia pestis, or "plague", manifests in two forms. Every year thousands of people catch bubonic plague from wildlife. It is treatable with antibiotics, but untreated it can become pneumonic plague, which can be transmitted via respiratory droplets. So there are reasons to study it. But Filippa Lentzos of King's College London says the lack of transparency around the incident is worrying. Plague and other transmissible high-risk pathogens including anthrax, smallpox and Ebola are increasingly being studied at biosafety laboratories, raising the risk of accidents.

These pathogens are also candidates for bioweapons. Russia has maintained secrecy around its military biological-research facilities. Satellite images of one site outside Moscow show a striking expansion since 2022. In 2023 America's State Department said Russia maintains an offensive biological-weapons programme.

There is no evidence linking the institute in Irkutsk to bioweapons. Russia insists it undertakes only defensive research. But it said the same about chemical weapons before using a nerve poison against a defector in Britain in 2018. ■

CHARLEMAGNE

The lame-duck continent

Elections will sap what little resolve Europe has to make tough decisions



EVERY ORGANISATION has an idle period when getting things done becomes all but impossible: universities feel eerily quiet over summer, most offices are dormant over Christmas. Europe may be entering such a period, but one that will last the best part of a year. On October 5th Pedro Sánchez, the embattled Spanish prime minister, called early elections that will be held in late November. The starting gun has thus been fired unexpectedly early on a marathon of voting, from France to Finland by way of Greece, Poland and Italy, that will see over half of all citizens of the European Union elect new national leaders between now and the end of 2027. Until the ballots are counted, almost every awkward decision at EU level will come with an irresistible alternative: wait until after the election. A continent confronted by war, weak growth and geopolitical upheaval is headed into enduring political paralysis at a painfully inopportune moment.

The gap between what Europe knows it ought to do and its willingness to do it, to put it kindly, never narrow. Reports arguing that it urgently needs to reform its economy, bolster its defence capabilities and reform the union itself ahead of its potential enlargement have resulted in more felled forests than an IKEA superstore. Alas, all their lofty recommendations will now have to wait. One election-bound politician after another will plead with fellow leaders that they cannot possibly make contentious compromises, for example on the much-needed deepening of the EU's single market, in the run-up to voting. The end result will be a sort of relay race of political *mañana*-ism as one campaign ends and the next begins. Even after the ballots are counted, more uncertainty will follow: in many places right-wing populists with little love for the EU will either win elections or become power brokers.

Thus the gap between Europe's need to act and its ability to do so is becoming a veritable chasm. In part that is because the in-tray looks ever more daunting. Many of the old continent's old problems remain unresolved even as new ones pile up. The EU is heading for winter with its lowest gas reserves since 2022, when Russia's full-scale invasion of Ukraine triggered an energy crisis that never quite receded—and has been exacerbated by the war in Iran. High fuel prices have put the pinch on consumers. Europe's

solution to its economic woes has long been to import cut-rate wares from China while governments borrowed to fund generous welfare states without unduly taxing citizens.

That strategy is falling apart. Cheap Chinese imports are now seen as predatory in ways that threaten Europe's industrial base. On October 15th EU leaders will meet to discuss whether to erect trade defences against China. The cheap credit some countries used to fund their deficits is a thing of the past, too. France is facing a bond-market squeeze as creditors demand higher yields to accept the risk of lending to a country that has not balanced a budget in over five decades. Having eschewed surpluses since the disco age, France is wildly unlikely to discover fiscal prudence before the first round of the presidential election in April. Even without elections the place seems barely governable, with students rioting for little discernible reason. Europe's navel-gazing causes it to fall behind a bit more every day. While China and America are vying for supremacy in artificial intelligence, Europe has no model anywhere near the cutting edge. The EU's next long-term budget is meant to boost its competitiveness, but a deal could be delayed amid overlapping campaign seasons.

None of this is entirely new: a union of many democracies inevitably entails a lot of voting. But geopolitical threats ought to concentrate European minds on how to make decisions, even as elections come and go. After a summer when Ukraine seemed to have turned the tables on Russia, it is once again being battered as winter looms. A €90bn (\$101bn) slug of EU aid approved in late 2025 was meant to last two years. It now looks like more will be needed sooner. Vladimir Putin appears to have ambitions beyond Ukraine; intelligence agencies predict ever more hybrid attacks designed to sow discord within NATO. That ought to prompt Europeans to build up their collective defences, now that a flaky America is no longer a reliable security guarantor. Instead, Spain's prime minister is campaigning on his refusal to do so. Spaniards will spend the next two months arguing about housing, and then forming a probably unstable coalition. Mr Putin is unlikely to stop blowing things up while Europe deals with its problems.

The paralysis that overcomes the European project when its politicians are out campaigning is one risk. Another is that the winners of the elections may rip up the blueprints. Spain's election will not change Europe much, though it will probably oust the only socialist politician to lead one of its big countries. Few will notice which parties win in Finland in April. But Poland and particularly France could vote in populist-right leaders who so loathe the EU that it is hard to see how the bloc could remain effective. Marine Le Pen, the front-runner in French polls, wants to defund the union and cut back support to Ukraine.

Poll-axed

Europe hardly needs elections to lapse into sclerosis. The urgency deficit has been evident throughout the past year, a period with few elections. And the string of ballots will not bring Europe entirely to a halt. Summits of EU leaders will still be held, regulations crafted, communiqués issued and so on. Crises have a way of focusing politicians' minds even when they have one eye on the campaign trail. But responding to events is not the same as shaping them. At precisely the moment Europe needs to make big choices—on defence, competitiveness, trade and Ukraine—its leaders may be about to retreat into their political crouches and, for many months, make none at all. ■

Britain



The Conservative Party

Can Kemi reunite the right?

BIRMINGHAM

Perhaps. But for now her pitch for power is incoherent

THERE IS A fight coming in British politics,” Kemi Badenoch told the Conservative Party at its annual conference on October 7th. The Tory leader promised a “battle of ideas” with the ruling Labour Party. “This party is now the no-drama party,” she declared.

The Tories are feeling more upbeat and less drama-ridden than they have for a while. This is mostly because they are pleased to have survived. Nigel Farage, the leader of Reform UK, has made it his mission to kill them off altogether and replace them as the dominant party of the right. This time last year he seemed to stand a chance. Reform was top of the opinion polls and had a 13-point lead over the Tories. Now, thanks to a modest recovery by the Conservatives and a big drop in support for Reform, that gap stands at just two points. (Labour, meanwhile, has moved back up to first place.)

Reform has also failed to hollow out Ms

Badenoch’s flock of MPs, having set a deadline of May this year for disaffected Tories to defect. They came in a trickle rather than a flood, with just four sitting parliamentarians swapping their blue rosettes for teal. Reform has eight MPs to the Conservatives’ 118.

Some Tories remain keen to “unite the right” through an electoral pact between the two parties. Ms Badenoch is not one of them. Reform, she proclaimed in her

speech, “are not like us; we are not like them.” She instead wants to reclaim the Conservatives’ long-held position as Britain’s only viable right-wing party. Reform voters are to be won back by an aggressive stance on cultural issues such as immigration; moderates by a credible strategy to help the economy grow.

Does she have one? On the eve of the conference, Ms Badenoch made her most detailed pitch yet in the form of a 100-page pamphlet titled “The Right Way”. In it, she tries to explain the principles that would guide a future Tory government, and to describe how the last one went wrong. Ms Badenoch argues that inefficient taxes, fiddly regulation and a lackadaisical approach to cultural cohesion have made Britain poorer and unhappier.

The biggest announcement of her speech was an economic one. She promised to exempt the “family home” from inheritance tax, allowing properties of any value to be passed on without incurring the 40% levy currently applied to estates, mainly homes, worth more than £1m.

Meanwhile, clear blue water is beginning to separate the Tories and Reform, despite similar views on issues such as human-rights law (against) and military spending (for). Take Brexit. At Labour’s conference in late September Andy Burnham, the prime minister, promised to

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► reopen a debate over whether Britain should rejoin the EU. Mr Farage's response was "bring it on." Ms Badenoch, in contrast, dismisses the issue as a distraction from more pressing problems.

Eurosceptic Tories, of whom there are plenty, might sympathise with Mr Farage's line. But at a fringe event at their conference Sir Bernard Jenkin, a veteran MP who helped to lead the Leave campaign, warned them: "Do not defend Brexit; Brexit is toxic with the voters."

Never say never

The same is true of other red meat that Reform holds out to its voters. Many Tories share Mr Farage's dislike of net-zero carbon targets and mass immigration, but the party is holding its line on both. Ms Badenoch, sanely, states that "climate change is real" and praises black Britons whom some Reform politicians say can never be counted as English.

Despite their cheerier mood, the Conservatives score just 20% on our tracker of polling averages—dire by historical standards, and still worse than Reform. But Ms Badenoch's party may have more reasons for optimism than its rivals to the right.

YouGov, a pollster, regularly asks voters how likely they are to support each party at an election, on a scale of zero to ten. Reform has more die-hards than the Tories: 11% say they are sure to back them, compared with 6% for the Tories. But 53% say their chance of voting Reform is zero, compared with 31% for the Tories. And among those who say they might support a party, with a five-out-of-ten chance or more, the Tories are ahead. Nearly 40% of voters are open to voting for them, compared with about 30% for Reform.

Moreover, based on current polling, tactical voting is likely to be crucial in the next election. This helps the Conservatives. More in Common, another pollster, has found many left-of-centre voters would consider switching to the Tories if they thought doing so would see off Reform. Mr Farage's party is also losing out to

Restore Britain, a far-right outfit led by a former Reform MP.

The Conservatives insist that, if they were returned to government, they would usher in a pro-business regime and juice the economy. They have committed to cut taxes that hold back growth and to reduce the deficit, lowering Britain's steep borrowing costs. "The state lacks the capacity to carry out its own decisions," Ms Badenoch writes in "The Right Way"; better to have a smaller and more efficient government. She also vows to reduce the barriers to building new infrastructure.

The rhetoric is promising. Alas, it seems to bear little relationship to Tory policies. Ms Badenoch promises to cut spending, but also to keep the "triple lock" on state pensions, an expensive ratchet

which Mr Burnham wants to overhaul. She has said nothing about how she will control the cost of the National Health Service—one of the biggest areas of government spending. She wants to deregulate, but defends the "green belt" of land that stops cities from expanding. And her headline inheritance-tax cut would do little for economic growth. Instead, it would disincentivise the rich elderly from selling homes that are bigger than they want to live in, snarling up the housing market.

Having survived their brush with political death, the Tories now have a shot at retaking their traditional monopoly of the right. Ms Badenoch is much more popular than Mr Farage, and many of her principles are sound. But if her party cannot act on them, it will squander its chance. ■

Insects

Buggy data

EAST HORSLEY

Conservationists are building highways for bugs

TO THE UNINITIATED, the patch of yellowish grass could be any other parched field in Surrey. Yet Cowslip Meadow is a site of special scientific interest. It sits on the chalky slopes of the North Downs, a species-rich grassland. Here a mix of herbs and flowers feeds a mix of insects. If you know what you are looking for, you can easily spot a rufous grasshopper or an adonis blue butterfly in the vetch. And where there are plenty of insects there are plenty of mice. A kestrel hovers hopefully overhead, trying to catch one.

Meadows like Cowslip are scarce. Since the 1930s more than 97% of Britain's species-rich grassland has vanished. Most has been turned into a protein-rich grass monoculture that is good for fattening livestock but anathema to insects.

Britain's insect population has been shrinking for decades, ever since farms began expanding and using synthetic pesticides in the 1950s. Since 2021 the number of flying insects has fallen by 63%. This has been bad for the mice and birds that eat them but also for farmers. Insects pollinate plants, break down dung and keep pests at bay. Their loss makes growing food harder.

If insects could move between habitats, they might fare better. When habitats are fragmented, "habitat loss becomes a sort of a spiral of doom," says Paul Hetherington of Buglife, a charity. Insects cannot escape conditions that may no longer allow them to survive and

reproduce. "You lose everything."

Buglife has spent a decade collecting data on habitats so that they might be joined up. "B-lines" are imaginary paths criss-crossing the country like super-highways for bugs. So far more than 5,300 hectares of a planned 150,000 have been filled with flowers and grasses for pollinators. Sea-aster mining bees have since been sighted in Essex, and worm-wood moonshiners have been found in the Brecklands.

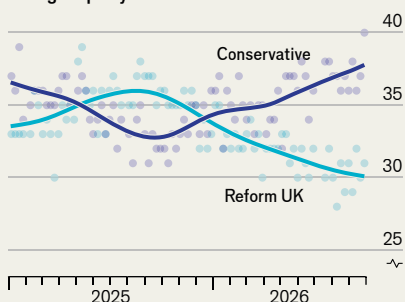
In June conservationists finished filling in the pollinator patches in Surrey. Some 60 hectares have been restored across vineyards, churchyards and gardens. A bug highway now runs between Cowslip Meadow and the Quarry Hangars, another nature reserve.

There Buglife teamed up with Surrey Wildlife Trust and the University of Surrey in a three-year project called Space4Nature. Citizen scientists surveyed the county's flora and fauna, while researchers pulled high-resolution habitat imagery from satellites. The data were then used to train a machine-learning model to predict grassland types. The tool, once rolled out, will help identify and connect habitats more quickly and cheaply.

Buglife has also begun working with Noé, a French conservation charity, to map France, and with the European Commission, too, to map the rest of Europe. With luck, a lot more insects will soon be able to get from A to Bee.

The right regrets

Britain, % of respondents rating likelihood of voting for party at least 5 on scale of 0-10



Sources: YouGov; The Economist

BAGEHOT

The coming fall of pensioner communism

Just like the Soviet kind, it is collapsing under its own contradictions



VLADIMIR LENIN distilled all politics to two questions: “Who? Whom?” Who will dominate, and whom will they dominate? Since 2010 the British state has offered simple answers. Who? Pensioners. Whom? Everyone else.

With the Conservative Party as its vanguard, pensioners bent the state to their will. The bits of it serving the working-age were squeezed, while those of concern to the elderly were protected. Pensioner preoccupations like leaving the European Union were pursued no matter the damage. Bungs such as free TV licences rained down. An old Marxist mantra was given a new twist: from each according to his ability; to each according to his age.

Yet change can come quickly to an ailing system, however indestructible it might seem. Alexei Yurchak, an anthropologist, titled an account of the collapse of the Soviet Union: “Everything Was Forever, Until It Was No More”. So it is in the 21st century with communism’s old-age cousin. Demographic change, economic struggles and inherent contradictions are set to bring about an end to a political settlement that once felt invincible. The end of pensioner communism is nigh.

When future historians tell the story of its fall, they will begin with a speech in Liverpool in September 2026. The speaker was a man who came not to destroy pensioner communism but to save it. Andy Burnham is more Mikhail Gorbachev, trying to buttress a failing edifice, than Boris Yeltsin, bringing in something chaotic and new. Britain’s new-ish prime minister pledged to overhaul the triple lock, a hitherto untouchable policy which raises state pensions each year by the highest of inflation, earnings or 2.5%.

Labour apparatchiks reacted like delegates at a Soviet congress. Mr Burnham softened things by saying no change would take place until 2030, after the next election. His party faithful applauded the triple lock’s retention and they applauded its repeal. Gorbachev launched *perestroika*, a suite of reforms to shake up the whole economy. Mr Burnham is shuffling cash for the elderly. The savings (perhaps £20bn, or \$26bn, a year by 2040) will go towards a new National Care Service, ensuring geriatrics do not pay as much for old-age care. Think of it as *perestroika* for pensioners.

As Gorbachev found, however, attempts to change a system

can topple it. Only a few weeks ago, the triple lock was an inevitable, inescapable fact of British politics: the sun rises in the east and sets in the west and Britain’s state pension rises each year by the higher of inflation, earnings or 2.5%. It was an impossible promise yet one that could never be tampered with. No more.

“Although the system’s collapse had been unimaginable before it began, it appeared unsurprising when it happened,” wrote Mr Yurchak. So it is for pensioner communism. If its policies were not impossible, they were iniquitous. Since age struggle has replaced class struggle, tax rates often come down to birth dates. A pensioner working in B&Q enjoys a marginal tax rate of 20%. Their newly graduated colleague, who fears that AI is busy eating their career prospects, loses 37% of their pay in deductions.

Britain faces fiscal consolidation, whether via tax rises or spending cuts. A generation ago, pensioners were among the poorest in society. When Margaret Thatcher left office in 1990, 40% were in poverty. Now, pensioner households often have higher incomes than working-age ones. “From each according to his ability; to each according to his age” cannot survive against this backdrop. Those of all ages must share the pain.

When age trumps class, demography determines election results. Big generations, such as the boomers, bullied governments at the ballot box. When they retired, Britain became a dictatorship of the pensionariat. Then, in 2020, millennials became the biggest cohort. And so the general election of 2024 was the first one someone born in the 1950s would have lost if they had voted with the bulk of their cohort. Actuarial tables can be as useful as any poll.

Systems die when people no longer truly believe in them. Late-stage pensioner communism is riddled with hypocrisy. After Mr Burnham’s speech, Conservative politicians who privately slate the triple lock ardently defended it. But like Soviet functionaries going home to listen to The Beatles on an illicit Sony Walkman, they know that the system is doomed.

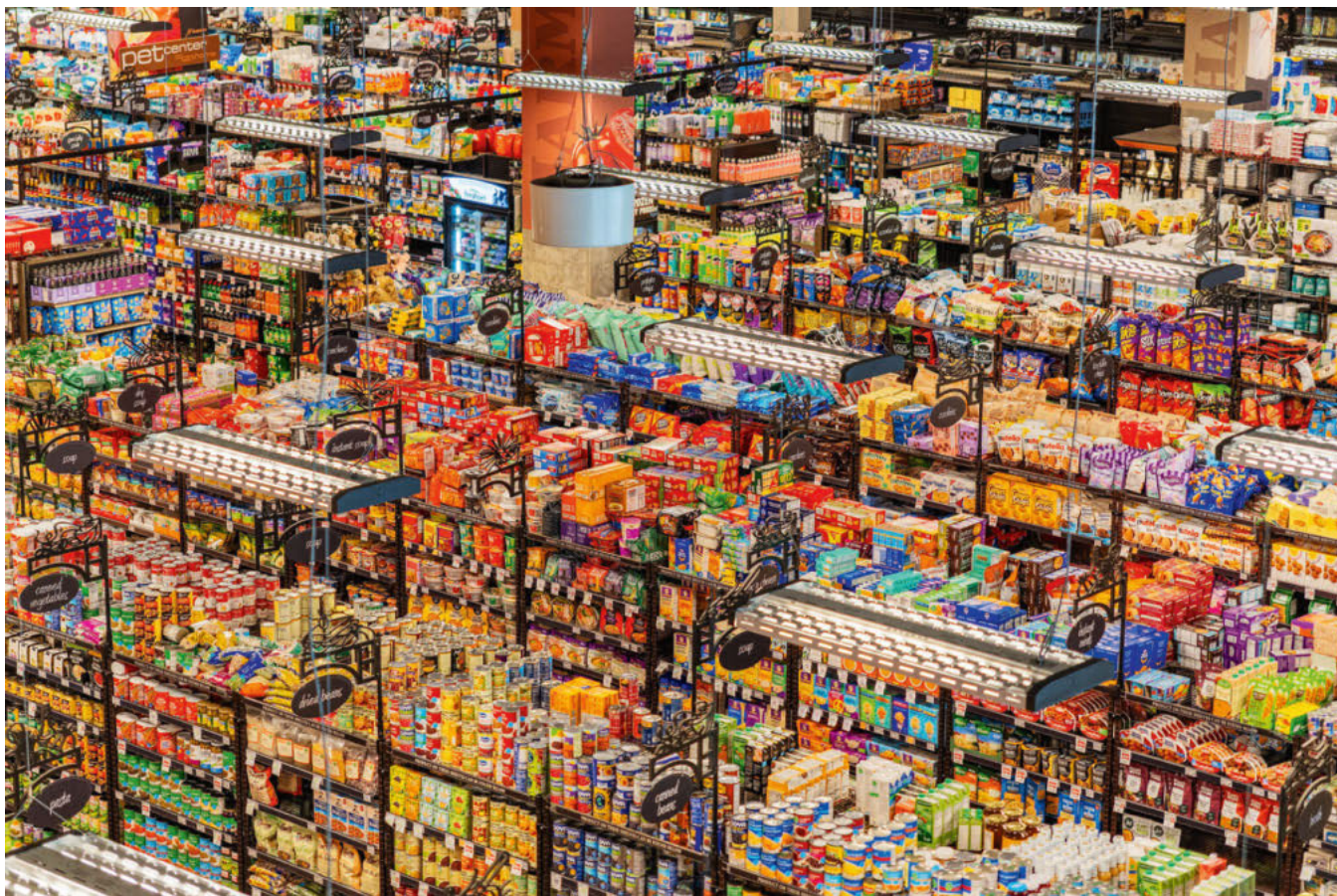
Blind faith can be just as deadly. Outrageous demands are made of an already failing regime. Why shouldn’t the state pension be the same as the minimum wage, asks Prem Sikka, a Labour peer? That it would leave the pension budget equivalent to the state’s combined spending on education, defence, transport, the police, the courts, prisons and debt interest is no matter. Nothing is too good for the pensioners!

The end of for ever

“It had never even occurred to me that in the Soviet Union anything could ever change. Let alone that it could disappear,” said Andrei Makarevich, a Russian singer. “There was a complete impression that everything was for ever.” What happens when for ever comes to an end? When a hegemonic idea crumbles, the vacuum can be filled only by others. Mr Burnham has proposed plenty. Rejoining the EU was once a mad dream. It could happen in a decade, if the prime minister is to be taken at his word. Ditto the dull-but-profound issue of voting reform. This is not only an opportunity for liberals. Taboos about racism could melt just as quickly. “Who? Whom?” could have a dark answer.

British politics feels stuck in an eternal present, with little true recollection of what the country once was and no idea of what it could be. Its norms are inevitable and impossible to shift, until they do. The answer to “Who? Whom?” can never change, even though it always does eventually. Pensioner communism is coming to an end. Everything is for ever, until it is no more. ■

International



Junk food

The state v sugar, salt and fat

BOGOTÁ

After years of nagging people to eat more healthily, governments are trying more radical measures

SUNDAY AFTERNOONS in Simón Bolívar park are an orgy of calories. Many stalls in this green corner of Colombia's capital, Bogotá, sell *obleas*: sandwiches of wafers stuffed with layers of fattening fillings, including syrups, jams, caramel and cheese. An acid green "bubble-gum" sauce is among the enticing options. "Life's too short not to eat the food that you love", reads a sign above one of the stalls.

So Colombians evidently believe. A quarter of them are obese, according to the UN's World Health Organisation, a share that has risen fivefold since 1980. Diabetes, high blood pressure and kidney disease—all chronic conditions associated with obesity—are rife. The health-care system, already severely underfunded and then stretched almost to breaking point by covid-19, has struggled to cope.

In 2022 the previous government decided radical action was needed. It required all processed food with high levels of sugar, salt or the unhealthiest forms of fat to be labelled as such, with big black warning signs. More important, it imposed a 10% tax on such products, which rose to 15% in 2024 and 20% last year.

A smorgasbord of regulation

Colombia is not the only place that is meddling in the food business to counter obesity. On September 29th Gavin Newsom, the governor of California, who is likely to run for president in 2028, signed a bill re-

quiring grocery chains to place healthy foods in "high-traffic areas" within stores. A law came into effect in Scotland on October 1st barring big businesses from displaying unhealthy foods prominently in shops and from offering promotions that encourage bulk purchases of them, such as buy-one-get-one-free deals. In India on October 6th a public consultation ended on a proposal to prohibit sales of junk food to children within 50 metres of a school. The state of Maharashtra already has such a law, barring sales of junk food to anyone near a school.

Heavy-handed policies like these used to be a rarity. Between 1992 and 2020 Britain adopted no fewer than 14 official government plans to curb rising obesity (not counting the initiatives of devolved governments in Northern Ireland, Scotland and Wales). Those plans involved 689 individual policies. The majority aimed to make consumers more aware of the health risks of junk food and to provide better access to healthy alternatives, especially in schools. None banned any forms of junk food, only 3% restricted access to it and only two policies (or 0.3% of the total) created any financial disincentive to consume it, such as higher taxes.

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▶ This cajoling approach has failed. England's obesity rate has doubled since the early 1990s. About a fifth of 11-year-olds are now obese. In both rich countries and poorer ones, obesity rates have been rising steadily (see chart). In America 72% of adults are obese or overweight. In Mexico 74% are. All this costs the countries in the OECD, a club mostly of rich countries, an average of 3% of GDP a year in health-care spending and lost productivity.

Although GLP-1 drugs, the weight-loss treatments that have become commonplace in the rich world in recent years, hold out the hope of dramatically reducing obesity, they are pricey, especially considering patients must remain on them indefinitely. Poorer countries, in particular, will struggle to provide them to a big proportion of the population.

A cornucopia of discouragement

Politicians are instead turning to a bewildering array of policies intended not to persuade people to change their habits, but rather to alter the "food environment" around them. Many of the new rules concern labels. About ten years ago health officials in Britain, France and elsewhere created simple symbols in traffic-light colours to rank foods from best to worst, either for ingredients of concern (such as fat, sugar and salt) or overall, based on a formula that takes into account healthy ingredients, too. Many countries have since adopted such easily digestible scoring systems—but most remain voluntary.

That is changing fast. A bill to make France's labels mandatory has been introduced in parliament. Singapore will soon oblige manufacturers to label foods that score poorly under its system. The most sweeping rules, however, involve warning labels like Colombia's, akin to the frightening messages many countries require on cigarette packets. Since 2016, for instance, Chile has obliged manufacturers to place as many as four black, stop-sign-shaped alerts on the front of unhealthy products, depending on how many ingredients exceed the regulatory threshold. Canada adopted similar rules earlier this year.

Such rules have an impact, both by deterring buyers and by prompting chastened manufacturers to alter recipes to avoid being branded unhealthy. A recent analysis of Mexico's labelling law, which came into effect in 2020, concluded that it had led to a 15% drop in calories sold, a 25% drop in added sugar and 12% drop in saturated fats, even as overall sales volumes remained stable. About 90% of the reduction in calories was the result of products being reformulated, rather than of people changing which products they bought.

Restrictions on marketing unhealthy foods are also proliferating. About a dozen countries ban television ads for junk food

when children are likely to be watching or bar ads and packaging from appealing to children using cartoon characters and the like. In January Britain went a step further, banning ads for unhealthy foods online and on social media, following a similar move by Portugal in 2019. Local governments can be especially zealous. In 2022 New York banned junk-food ads on all city property, as have several places in Australia and Britain. Amsterdam and London ban them on public transport.

Then there are restrictions on where unhealthy foods can be sold. Britain's planning law was amended in 2024 to allow local authorities to ban new fast-food joints within walking distance of a secondary school—although so many such outlets already exist that the new rules may have little effect. Maharashtra's law is much more restrictive, but enforcement is patchy.

The difficulty of enforcement is one of the many drawbacks of complex rules around junk food. They can place heavy burdens on businesses, which also often find creative ways around them. Since 2022, for example, Britain has banned supermarkets from displaying unhealthy packaged foods near checkouts, shop entrances and the ends of aisles, to curb impulse purchases. The share of the affected foods in overall sales fell by 7% the year after the ban. But sugary, greasy pastries swiftly took their place near the entrances of shops, since freshly baked items are exempt from the ban.

Such experiences have prompted authorities in Britain to consider an alternative approach. Instead of umpteen rules about what can be sold where and to whom, they are pondering targets for the healthiness of supermarket chains' total sales, based on the nutrition scores already in use for Britain's restrictions on junk-food advertising. It would be, in effect, a minimum spinach-to-sweets ratio. But the chains would be free to decide whether to promote spinach more, or sweets less, or to persuade junk-food manufacturers to put more spinach in their sweets.

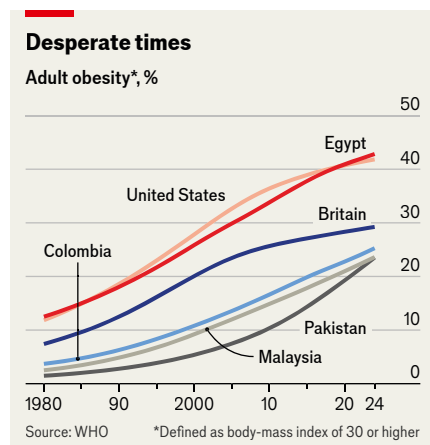
Supermarkets wield lots of influence over shoppers. Sainsbury's, a big British chain, saw sales of fruit quadruple when it offered collectible Disney-themed cards with each sale. Supermarkets would probably press suppliers to make their products healthier, says Hugo Harper of Nesta, a think-tank in London. A frozen pizza, for instance, might end up with a few more vegetables on top and a bit less salt in the sauce. Nesta estimates that marginal changes to a quarter of items in the typical British shopping basket could lead to a sustained 8.5% reduction in calories in an average consumer's diet. Such a reduction, in turn, could halve obesity.

Retailers, naturally, do not want to be responsible for getting people to eat more healthily, even if governments give them some leeway about how they do it. A simpler alternative is to curb consumption of junk food by taxing it. More than 100 countries impose special taxes on sugary drinks—with great effect. The year after Mexico imposed such a tax in 2014, sales of the products affected fell by around 6%. Many manufacturers also changed their recipes to make drinks less sugary. Mexico's government is so fond of the tax it raised it from 1.64 pesos (\$0.09) a litre to 3.08 earlier this year.

Any talk of raising taxes is awkward at a time of high inflation and widespread resentment at the rising cost of living. Public opinion does appear to be warming to more forceful regulation, however. In a poll last year 51% of Americans said they were in favour of restrictions on the sale of junk food in grocery stores and 44% approved of higher taxes on it. Nearly 70% of Britons say they would support an extension of Britain's tax on sugary drinks to other unhealthy foods if the proceeds were used to promote better diets.

Moreover, many governments already tax food both heavily and inconsistently. In some countries it should be possible to penalise junk food by adjusting rates for different products without raising taxes overall. A study published last year in *Nature* found that ten European countries charge higher rates of value-added tax on fruits and vegetables than on meat and dairy. Reversing this, the researchers argued, would bring about big health benefits at almost no cost to consumers. VAT reforms along these lines are being discussed in Denmark, Germany and the Netherlands.

Junk food is popular for many reasons. It is convenient. It is often cheaper, calorie for calorie, than healthier food. Sugar, salt and fat are hard to resist. Food companies and supermarkets make more money from it than from healthy stuff, because they both sell more of it and earn higher margins on it. Against these daunting advantages, however, governments have found a formidable array of counter-measures. ■



THE TELEGRAM

Vladimir Putin and the pariah problem

Emphasising the Russian leader's wickedness must not come at Ukraine's expense



Vladimir Putin is about to subject Ukraine and Europe to a winter of horror. Each week Russia's president plumbs new depths of cruelty and recklessness, enraged by his failure to break Ukraine in the four-and-a-half years since he began his full-scale invasion. His missiles and jet-engined drones are turning Ukrainian cities into places of sleepless misery. Russian strikes are battering ports whose grain shipments once fed hundreds of millions. Beyond Ukraine, Russia is stepping up acts of sabotage across Europe and making ever-wilder nuclear threats towards the West.

These are the actions of a rogue state. Increasingly, Russia's near neighbours are saying as much. Last month German government ministers formally blamed Russia for a narrowly thwarted drone attack on a cargo airport in Leipzig. For good measure, the ministers pledged to defend their country against "adversaries" bent on harm. Such language would have been unthinkable before the invasion of Ukraine, when successive German governments tiptoed around Russia as a supposedly indispensable energy supplier and European great power. On October 5th the head of Germany's foreign-intelligence agency told the Bundestag that Russia is waging a dangerous "shadow war" to test Germany's resolve. He added a warning that this winter Ukrainians will suffer "Russian attacks of a severity and brutality that we have not yet seen".

Across northern Europe, especially in Nordic and Baltic countries close to Russia, politicians of the centre-left and -right condemn Mr Putin as impossible to trust. For four years the theory of victory has been that "Russia must not win and Ukraine must not lose", for the sake of the international order but also for Europe's future security. Allied governments agreed to send money and arms to keep Ukraine in the fight and maintain harsh sanctions on Russia until domestic opposition and economic pain change Mr Putin's calculus or end his rule. Of late, though, such big players as Britain, France and Germany wonder whether the slogan should change to offer more hope to Russians outside the regime.

There are practical reasons for Ukraine's allies to condemn Russia's worst actions in loud terms. Mr Putin is growing more dangerous. Though he is beyond shame, naming his crimes might help deter him from further escalation. After sharing classified de-

tails of Russian shadow attacks with opposition leaders last month, the French president, Emmanuel Macron, explained their intended effect: to intimidate France into abandoning Ukraine. "The consequence will be the opposite," he insisted. Mr Macron added a deterrent threat of his own. With a menacing nod to France's formidable spies and cyber-warriors, he said that Russian hybrid attacks would "not go unanswered". There are sound political reasons, too, for centrists to sound tough and to frame the war in Ukraine as a moral crusade against a rogue Russia. In France and across Europe, their rivals in populist parties are hoping to gain from voter fatigue with the war.

Then there is the detail that Mr Putin really is a pariah. Alas, calling Russia's leader a rogue may also be a trap. The Ukraine war is deadlocked and the allies' theory of victory may never work. If Mr Putin's will to fight is not broken by economic pain and domestic discontent, then Ukraine and allies will have to reach terms of coexistence with him, for this war to end or even pause.

Though drenched in the blood of Ukrainian civilians and soldiers (and of over a million Russian troops, chewed up in his war of attrition), Mr Putin has friends in high places. President Donald Trump does not consider him a pariah. He has invited the Russian to a summit of leaders of G20 countries, to be held in December at Trump National Doral, a golf resort he owns in Florida. Though European leaders in Doral may detect a spectral cloud of death around Mr Putin, he can expect a warm welcome from the leaders of China and India, and respectful greetings from many others.

That failure to isolate Mr Putin weighed on the Helsinki Security Forum, a gathering of political leaders, diplomats, soldiers, spies and scholars from some of Ukraine's staunchest backers, held in Finland this month. A Nordic head of state saw grounds for cautious optimism in Mr Putin's G20 invitation, if it leads to direct talks in Doral between Mr Trump, the Russian leader and Ukraine's president, Volodymyr Zelensky. Other participants worried, though, that Europe is setting itself up to fail if it continues to emphasise Mr Putin's wickedness.

A bad war turns into a grim stalemate

Allies talk of securing a just and lasting peace, said a former American official, just back from meetings with senior Russians in Moscow. "But all of us know, deep down, that peace is not going to be just," he told the forum, predicting that Russia will end up keeping some Ukrainian territory and Mr Putin will never face trial in The Hague for war crimes. Other well-connected participants reported that Russian elites have no intention of paying reparations for war damages to Ukraine. It was noted that dozens of military veterans from Ukraine were recently elected to Russia's parliament, so that the political classes may include war criminals for years to come.

Ukraine has more right than any country to condemn Russia as a pariah. Its people have courageously resisted Mr Putin's aggression and show no signs of giving up the fight. But Ukraine also has to survive. If Ukrainians are ever ready for peace on imperfect terms, Europeans cannot be purer than Ukraine. Europe will have grounds for alarm, especially if a ceasefire leaves an emboldened Russia free to regroup and prepare for further aggression. But they can hardly tell Ukrainians to keep fighting on for their sake. All Europe can do is make Ukraine as strong as possible. Denying Mr Putin a full-throated victory may well be the only punishment he faces for his aggression. In a wicked world, it may have to do. ■

Business



Manufacturing

Built in Bharat

AHMEDABAD

India's industrialisation is already here, it is just not evenly distributed

THE NEWEST factory of Raghuvir Exim, an Indian textile manufacturer, is a sight to behold. The plant, which makes bedding for export, covers around 200 acres (80 hectares) on the outskirts of Ahmedabad, in the western state of Gujarat. Raghuvir Exim has built dormitories to house the 5,000 workers that will be needed when the site is at full capacity. Women, few of whom in India work, have been actively recruited. The factory uses top-quality European machines, rather than cheaper Chinese ones. And it is mostly powered by solar energy.

Yet it had a rocky start after opening in August last year. The factory initially operated at only 15% or so of its capacity, according to Hardik Agarwal, part of the family company's third generation. A 50% tariff on Indian exports imposed by America around the same time hit sales hard.

The recent history of Indian manufacturing has involved many such disappoint-

ments. In 2014 Narendra Modi, the prime minister, unveiled a programme of de-regulation and infrastructure investment, called "Make in India", declaring that by 2022 the country would earn a quarter of national income from manufacturing. As of last year the share was 16%, having barely budged over the preceding decade.

Yet now may be India's moment. Manu-

facturing output in August, the most recent figure available, was 9% higher than the year before, thanks in particular to surging production of cars and electronics.

Partly that reflects the fallout from the war in the Gulf: the rapid rise in the price of oil, which India typically buys in dollars, has caused the value of the rupee to plummet, making imports dearer and exports cheaper. The central bank's first interest-rate rise in three years, announced on October 7th, did little to reverse the currency's slide. But India's rising manufacturing output also reflects its growing appeal as a place to make things. In dollar terms India's electronics exports were up by 90% in August, year on year, with American-bound iPhones accounting for a large share of that.

Indeed, in one part of the country a transformation is now in full swing (see map on next page). It starts in Gujarat, a hub for industries such as petrochemicals and pharmaceuticals; stretches south-east through Maharashtra, home to Pune, a locus for carmaking, as well as Mumbai, India's financial capital; continues down into Karnataka, where a cluster of aerospace and defence companies surround the technology epicentre of Bangalore; and then into Tamil Nadu in the south, where various manufacturing industries now thrive. This group of states—call it ►►

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— Bartleby is away

► “Industrial Pradesh”—is home to around 350m people, about a quarter of the population, but adds some \$240bn of manufacturing value a year, half of India’s total. Its experience holds a number of lessons for the country as a whole.

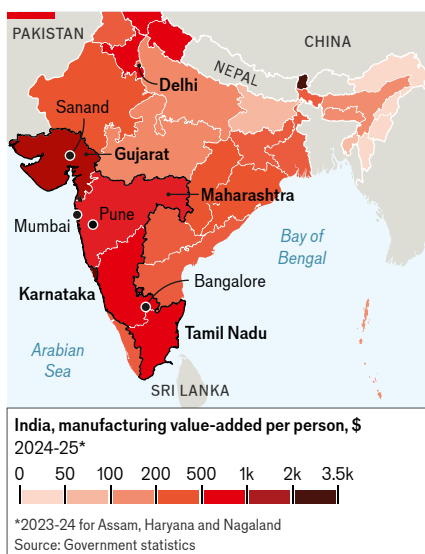
First is the need to actively court investment, including from abroad. As far back as 2003 Mr Modi, then chief minister of Gujarat, established a biennial expo, called Vibrant Gujarat, that has given the state’s political and business leaders an opportunity to charm foreign investors. Maharashtra’s Industrial Development Corporation acquires land, builds industrial estates, and helps connect businesses to power and water in order to attract factories. Guidance Tamil Nadu, an investment-promotion agency, lures companies by identifying potential production sites and clearing bureaucratic hurdles. “In places like Tamil Nadu, if you want to get a licence you might have to pay some money, but you get the licence,” says an executive at one manufacturer. In other parts of India bribes are often followed only by requests for further bribes—and no licence.

The various industrial clusters that have emerged across Industrial Pradesh have often been built around anchor businesses—a second lesson for India as a whole. In the town of Sanand, in Gujarat, a Tata Motors car factory was opened in 2010 to replace a site in West Bengal that had been plagued by anti-capitalist protests. (Mr Modi played a central role in persuading the conglomerate to relocate production to his state.) Since then a network of auto-components suppliers has sprung up around it with factories of their own. “In every cluster that has worked in India, there was an anchor player,” says Rahul Jain of BCG, a consultancy.

Elephantine ambitions

Many anchor companies started out assembling finished goods from imported components, then gradually switched to local suppliers as these gained the necessary expertise and scale. That approach, first seen in carmaking, has become the model for other industries. Around a quarter of Apple’s iPhones are now assembled in India, in factories in Karnataka and Tamil Nadu run by Foxconn, a Taiwanese company, and Tata Electronics, another division of the conglomerate.

Originally the contract manufacturers simply put together imported parts, leading some to grumble that the manufacturing subsidies known as production-linked incentives that Mr Modi unveiled in 2020 were merely bankrolling the import of Chinese-made components. Yet in recent years makers of parts for the devices have also started setting up local factories. One industry estimate suggests that the value added in smartphone manufacturing in



India has risen from \$4.5bn in 2021 to \$17.3bn last year.

India is eager to repeat the trick in clean energy and semiconductors. Imports of finished solar panels from China have dwindled since 2022, according to Ember, an advocacy group. Imports of solar cells, which go into the panels, and wafers, which go into cells, initially rose but have since shrunk as India has moved up the supply chain. Gujarat, the centre of India’s solar industry, can now make everything needed at competitive prices and with good quality, says Jigish Doshi of Vishakha Group, which produces aluminium frames for the panels and various other components (a glass furnace is in the works). Until Donald Trump slapped a whopping tariff on them in February, Indian solar exports to America had been surging.

Gigafactories for batteries are cropping up, too. Reliance Industries and the Adani Group, two other conglomerates, both of which are based in Industrial Pradesh, are in discussions with China’s CATL, the world’s largest battery manufacturer, about collaborating on local production.

An Indian semiconductor ecosystem is also beginning to take shape. Five new chipmaking facilities have opened in the country this year, four of them in Industrial Pradesh. These mostly assemble and test basic chips destined for cars, fridges and the like, of which Indians are expected to buy vast numbers in the years ahead. But the national government is trying to encourage production of more advanced chips as well. At an industry conference last month American and Japanese firms in the chipmaking supply chain pledged to set up factories for the high-purity gases and precision-engineered components needed for semiconductor production.

Indian manufacturing still has a long way to go. Industrial Pradesh is far from a global powerhouse. It manufactures about

as much as Turkey, but does so with four times the population. Even compared with Vietnam, another poor but fast-growing Asian country, manufacturing output per person is a third lower.

Partly that reflects multinationals’ continued unease about dealing with the Indian government—a third lesson for the country. Its bewildering and aggressively enforced tax regime is a particular sticking point. Pernod Ricard, a French drinks company, is currently facing a claim for \$314m in retrospective taxes. Volkswagen, a German carmaker, faces a mammoth legal case over allegations it misclassified components it brought into the country in order to pay lower import duties. Apple, meanwhile, is battling allegations from Indian trustbusters of anti-competitive practices related to its app store. (All three companies have denied wrongdoing.)

Even so, many Indian industrialists are in a buoyant mood. Although the bedding factory still operates below capacity, Mr Agarwal is optimistic about the prospects for his business. He has discovered new markets in Europe and South America that will generate plenty of sales while he waits for American tariffs on India to be lifted. And he can take comfort from the fact that, for the time being, big local competitors remain few and far between. That may not be true for long. ■

Brain-computer interfaces

Mind games

HANGZHOU

Neuro-tech is the latest battleground in China’s tech rivalry with America

THE EXHIBITION hall at BrainCo, a “neuro-tech” startup based in the city of Hangzhou, showcases just how much its wearable devices are capable of. At one exhibit an amputee plays the piano before easily removing a bionic arm that can be attached without surgery. Elsewhere another amputee with an artificial leg paces back and forth, challenging onlookers to guess which limb is mechanical. BrainCo’s devices are not only for victims of serious accidents. At another station, your correspondent is asked to lie down and don a mask that pumps low-amplitude electrical micro-currents into his frontal lobe, supposedly to induce relaxation.

For the past decade “brain-computer interfaces” (BCIs)—machines that can deliver signals to and receive them from the human brain—have been closely associated with Neuralink, an American startup founded by Elon Musk in 2016. Neuralink was the first company to conduct trials of ►►

▶ wireless brain implants that allow severely disabled people to control computers for long periods of time with only their thoughts and no additional hardware.

China, however, is eager to catch up. The central government's latest five-year plan, released earlier this year, includes neuro-tech as one of the industries of the future that China will seek to dominate, alongside others such as quantum computing, robotics and fusion power. Already the state had been channelling resources to companies, universities and regulatory bodies in an effort to bridge the gap with America. In 2024 ethical guidelines for BCI research were put in place by the ministry for science and technology. In 2025 standard national fees and billing codes were introduced in hospitals to make it easier for the technology to be adopted for medical purposes. This autumn the first class of undergraduates majoring in BCI technology will commence classes at Tianjin University, the first in the world to offer such a programme.

Hundreds of Chinese startups and thousands of suppliers are now working on BCI products. Among the top Chinese challengers to Neuralink are NeuroXess, the first local company to complete clinical trials of fully wireless brain implants; StairMed, which is backed by Alibaba, a Chinese tech giant; and NeuCyber, which is backed by the state. Local governments are courting investment; officials in the inland province of Anhui have set a target of approving three clinical trials for implanted electrodes by 2028.

Less invasive versions of BCI technology have also attracted significant attention in China. Semi-invasive approaches entail implanting a device on the brain's surface, rather than penetrating the organ. One such product, designed to aid hand-motor functions and made by Neuracle, a Shanghai-based startup, received approval in March, making it the first commercially available semi-invasive BCI implant in the world. Within two days of the approval China's health-care bureaucracy assigned it a medical-insurance code, paving the way for sales.

Then there are non-invasive wearable devices, such as those made by BrainCo. Around 20 companies are now selling BCI wearables, including everything from sleep aids to brain-controlled gaming gadgets. These are typically worn over the head, and either read brain waves or pump in electrical currents. Industry executives talk of a large undiscovered market for wearable neuro-tech. The science is no longer the constraint on creating the devices, says Nyx He of BrainCo. Instead, she says, the focus is shifting to developing products that are useful in daily life. China's neuro-tech bosses will be hoping that consumers keep an open mind. ■

The food business

Mouthfeel movement

BOURNVILLE

Why your snacks are chunkier and chewier than before

LOOK AT THE new snacks people are reaching for in supermarkets and you may notice a trend. From Mondelez, one food giant, there is a Dairy Milk chocolate bar stuffed with crunchy Lotus Biscoff biscuits. From Mars, a rival, there are Skittles Gummy Crystals, which add tiny crackly pieces to chewy sweets, and the "Extra Crunchy" version of its popular Cheez-It crackers. Texture, it seems, is the new taste.

Big food has long engineered every aspect of snacks to make them moreish, from the bright colour of the packaging to the aroma that escapes when it is ripped open. But the heavy emphasis on texture is new. It includes both how a product sounds when it is eaten and what is known in the industry as "mouthfeel". Mintel, a research firm, reckons that the share of snacks making claims about texture grew from 31% in 2023 to 41% last year. Of those that did, "crunchy" was the most popular description, though "chewy" and "goeey" are gaining fast.

Texture can be hard to cook up. Norberto Chacín, head of research and development at Mondelez, points out that mixing crunchy and soft ingredients is tricky. Water migrates from moist to dry, turning crisp things soggy. Take the Dairy Milk Biscoff. It was engineered carefully with a shell of milk chocolate to keep moisture out and a layer of fat-based Biscoff spread beside the biscuit crumb to preserve its crunch. The bar went through lengthy testing to ensure its texture held over its shelf life.

Such complexities may explain why foodmakers are struggling to keep up with public interest. By tracking conversation on social media Mintel estimates that in the two years to April demand for "texture-indulgent" snacks in America jumped by 28%. Supply, measured by the sales volume of textured snacks, rose by just 8%.

What is driving the hunger for texture? One explanation is the rise of GLP-1 slimming drugs, which have shrunk patients' appetites. That means when they reach for a snack they first ask: "Is it worth it?" notes Andrew Wardlaw of MMR, a research firm. A bigger sensory hit, with sound and feel as well as flavour, adds to the "product theatre" and



Plenty to chew on

makes snacking more appealing.

Another factor is social media. Young consumers are glued to short videos in which influencers munch food with the volume turned up. Brands have taken note, producing adverts designed to induce ASMR (autonomous sensory meridian response), the tingly, relaxed feeling some get from such content. Posts tagged "crunchtok" racked up over 1.5bn views last year.

The food industry, for its part, sees texture as the last remaining form of differentiation. Mr Wardlaw reckons snacking has reached "peak" taste, with few novel flavours left to explore (without venturing into the unappetising). Most consumers have tried chocolate in all manner of formats, from bars (chunky and mini) to snack bags (family and solo). For many people, snacking has become increasingly mindless, as they scroll social media or binge a TV series.

Rimi Obra-Ratwatté, a nutritionist at Mondelez, likens the demand for texture-rich snacks to the desire to watch a film in 3D. "Everything has become about amplifying an experience," she explains. Big food will be hoping that consumers don't tire of that experience soon. Otherwise they may face a different type of crunch time.

The music industry

A new Napster chapter

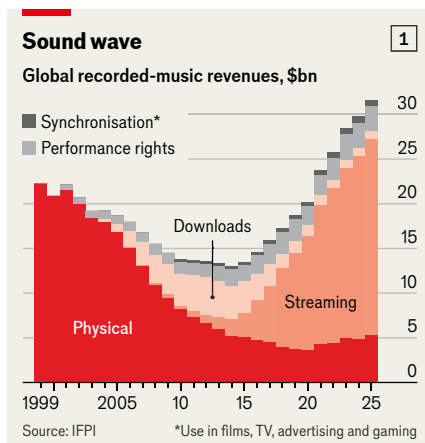
LOS ANGELES

Record labels are in a spin over AI music. Should they fight upstart labs, or co-operate with them?

THE MUSIC industry is no stranger to technological upheaval. From vinyl to cassettes to CDs to streaming, the recording and selling of music has been in a state of constant revolution. The shift to streaming shook the industry hard. After the rise of illicit file-sharing in the Napster era, which eventually gave way to legal streaming, it took more than 20 years for revenue to return, even in nominal terms, to the level of the 1990s (see chart 1). Generative artificial intelligence brings a new age of disruption. It threatens to transform the whole process of making music itself.

Music made by AI is already making its presence felt, in the zeitgeist as “slop” as well as in the charts. There is more dross than ever. Alexis Lanternier, boss of Paris-based Deezer, says that about 90,000 entirely machine-generated tunes are uploaded to his music-streaming service a day—half the total. Spotify, the biggest streamer, says it has taken down 75m “spammy tracks” in the past year. Much of the slop is uploaded illegally by bot farms hoping to harvest fraudulent royalties. But many human artists use AI legitimately, to enhance their creativity. “It’s like Ozempic,” says Mr Lanternier. “Everybody is using it, but no one wants to say.”

A bigger question is the legality of AI-made music. Some record labels accuse AI-music labs of piracy and have sued. Some have settled, hoping to make more money



from licensing than from lawsuits. Confusingly, some do both. As Mark Mulligan of MIDiA Research, a consultancy, puts it, all are grappling with the problem of how to stay in control of the industry when the ability to create music with AI lowers barriers to entry. Many top music executives cut their teeth (and their first record contracts) in the Napster era. They do not want to get caught napping again.

The stock market suggests investors are worried. The share prices of the two biggest listed record labels, Universal Music Group (UMG) and Warner Music Group (WMG), have lagged behind the overall market over the past few years (see chart 2

on next page). (Sony Music, a third big label, is not separately listed.) The relationships to watch are between the big labels and Suno, a controversial four-year-old American AI-music company last valued at \$5.4bn (more than a third of WMG’s \$14.7bn market capitalisation). This presents a natural experiment: UMG and Sony Music have sued Suno, doubling down with a case filed in September; WMG, once part of the original suit, has settled.

In their new case UMG, Sony Music and others accuse Suno of ripping off more than 60,000 copyrighted recordings, by artists from Avril Lavigne to Justin Timberlake, and ingesting them into its models. Under American copyright law damages can reach \$150,000 per work, which may suggest the plaintiffs are pushing for a big payout (or exerting pressure to secure a juicy licensing deal).

Suno admits that the tens of millions of recordings used to train its models include copyrighted material. But it argues that it is “fair use” in law to learn musical styles and generate new, original music. The matter is unsettled: those in the creative industries have more than 100 lawsuits in America against AI labs, including Anthropic and OpenAI, many of which turn on whether fair use applies.

While the Suno cases go through the courts, WMG’s settlement is also attracting attention. The label has told investors that revenue from its AI partnerships will start flowing this financial year. They would be among the first AI deals in the entertainment industry to bring in real money. Robert Kyncl, boss of WMG, says the decision to settle with Suno was based on expediency: it might take years for the courts to rule on fair use. “If I can get a partner to give up their fair-use argument and start paying us, why would I wait?” he says.

The settlement itself may also herald big changes. In September, for instance, Suno introduced v6, which it says is its first family of models to be trained exclusively on licensed music from WMG and others. Artists and songwriters who opt in will share revenue with Suno when their work is used, based on Suno’s subscriptions. Mr Kyncl expects it to yield new revenue streams for artists, as fans create and post AI music derived from remixes or mashups of their repertoires. As an example, he suggests Fleetwood Mac’s “Dreams” overlaid with Aretha Franklin’s voice.

UMG has ambitions of its own for fan remixes. This year it announced licensing deals with Spotify and ElevenLabs, an AI audio startup, that would enable UMG’s material to be reworked by “superfans”. Sam Duboff, Spotify’s head of marketing, says there is demand. On some platforms, he reckons, unlicensed remixes and covers number 1bn streams a month; Spotify wants to regularise the market. Michael



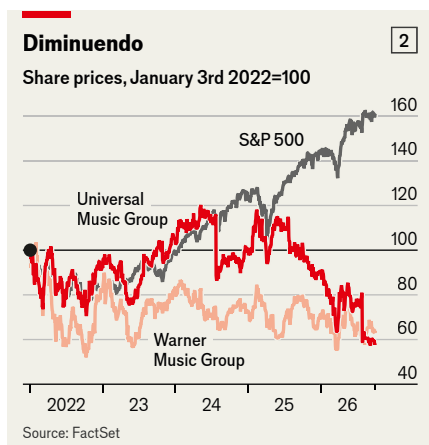
► Nash of UMG says the company reckons 20-30% of streaming customers would pay up to twice their current subscription for access to AI-enabled superfan products.

The idea that superfans will want to become co-creators of music, rather than just listeners, is untested. Music executives point to other parts of the creative industries where fans alter material they enjoy for fun, from fan fiction to “modding” (modifying) video games. They hope that AI will spur similar audience engagement with music. Some also point to China, where modification on music-streaming platforms such as Tencent Music Entertainment is gaining popularity. Chinese trends, though, do not always travel west.

A lot depends on how many leading performers opt in. Mr Nash hopes 1,000 UMG artists will. But so far UMG, WMG, Spotify and Suno have named no big stars who have signed up, suggesting that qualms related to artistic integrity remain high. And until top names agree to take part, it is hard to know how enthusiastic their fans will be.

MIDIA’s Mr Mulligan says partnerships between record labels and makers of AI music have a defensive quality: the industry’s giants, whether labels or streaming platforms, want to reinforce the status quo. “They want to control AI, rather than have AI control them,” he says. But they might be bypassed anyway. He believes the new technology will make it easier for new artists to make a splash without record deals, as well as enabling new streaming platforms to emerge. “You end up with a more fragmented music world.”

Executives of UMG and Spotify disagree. They bet that scarcity—the hallmark of the superstar era—will prevail. Mr Nash of UMG, which boasts Taylor Swift among its signed musicians, says the main beneficiaries of lower barriers to entry are not new artists but “fraudsters who carpet-bomb [streaming] services”. Scarcity comes from clever marketing and audience development. If AI learns how to do that, too, the industry will be in deep trouble. ■



Carmaking

Saving the “big cat”

Jaguar’s new upmarket electric car may be its last shot at survival

“H AVE YOU ever seen a car like this before?” asked one of the designers of the new Type 01 Jaguar as the covers were pulled off the 1,000-horsepower electric saloon in New York on October 6th. The “next chapter in the Jaguar story” is long, low and imposing. Despite claims of “a clear lineage to the great Jaguars of the past”, the marque’s legacy was mostly played down. Its reinvention as an all-electric brand that is further upmarket than in previous incarnations is as much about breaking with the past as harking back to former glories. The audacious transformation is Jaguar’s last chance at survival. If the new customers it is seeking are not enamoured, claims that the vehicle is “of a kind” might just turn out to be true.

What to do with Jaguar has furrowed the brows of car executives for years. Jaguar Land Rover, shortened to JLR since 2023, has always been far more reliant on the other side of its business, which includes the high-end Range Rover, whose flagship SUVs now start at well over £100,000 (\$132,000). The Jaguar brand has probably never made a profit for Tata Motors, the carmaking arm of the Indian conglomerate that bought JLR from Ford in 2008 for \$2.3bn.

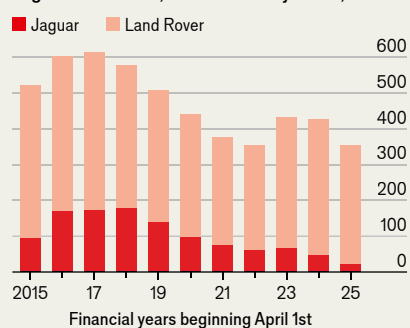
Despite its heritage of sporty models—such as the E-Type, launched in the 1960s—Jaguar’s saloon cars were long the brand’s biggest sellers. Over time, however, they acquired a staid image of pipe-smoking

bank managers and golf-club car parks. Tata invested heavily in revamping Jaguar’s range in order to take on Germany’s premium carmakers, but the effort misfired. Although it managed to produce vehicles to a similar design standard and build quality, most drivers stuck with their Teutonic machines. In 2018, at its peak, Jaguar sold around 180,000 cars, compared with well over 2m apiece for BMW and Mercedes-Benz. Sales plummeted in the years that followed (see chart).

The latest reinvention, which began in 2021, is an even bigger gamble. JLR has spent at least £2.25bn relaunching Jaguar as a battery-powered brand. In 2024 it halted production of its existing line-up of ►►

Spotty performance

Jaguar Land Rover, vehicle sales by brand, '000



► models. In November of that year it ran a marketing campaign with a controversial advert featuring androgynous models in brightly coloured futuristic outfits but no car, which outraged petrolheads and even provoked Donald Trump to weigh in ("seriously woke" was his verdict). The campaign's two concept cars (bright pink and baby blue) were portrayed by critics as either audacious or mad.

Traditionalists (few of whom had ever owned a Jaguar) bristled at a new rounded typeface and the dropping of the growling-cat logo. The agency behind the ad was replaced, and JLR's powerful design chief, Gerry McGovern, left the company in unexplained circumstances.

Now the question is whether the new-look Jaguar can convince enough of the younger customers the brand is targeting to part with at least £130,000 for a Type 01, which is around four times the price of the cheapest Jaguar when production ceased in 2024. Felipe Munoz, an industry analyst, reckons that at this price the car will be "very niche". It does not help that demand for high-end electric vehicles is uncertain—poor sales of the Porsche Taycan are one reason behind the German brand's recent struggles—and that there is mounting competition from rivals.

Motorists after a pricey EV might prefer the new Mercedes AMG-GT or Bentley's first electric car, the Torcal. Some may even opt for Tesla's revamped Roadster, due to be unveiled on October 15th, which apparently is fitted with rocket thrusters.

The positioning of the new Jaguar also points to an enduring problem for JLR: the overlap between its brands and the search for new segments to broaden the profitable side of its business. Range Rover is expanding its collection of electric SUVs, which are around the same price as the Type 01, and even intends to launch a battery-powered saloon that would directly compete with the new Jag.

The bet on Jaguar threatens to drain resources and distract attention at a time of strain on JLR. A cyber-attack a year ago hit production at the company for several weeks. Pre-tax profits slumped to just £14m in the year to March 2026, compared with £2.5bn the year before. Sales in China have crashed and tariffs have hurt business in America, the company's largest market, which takes up nearly 30% of volumes. In response JLR announced in September that it would cut costs by axing 4,000 jobs, around a tenth of its workforce.

Jaguar's boss, Rawdon Glover, says that "success will be measured in the tens of thousands of vehicle sales annually". There are rumours of plans to use the new car's electric platform for an SUV and a coupe. If the Type 01 fails to find enough buyers, however, it may turn out to be the final chapter in the Jaguar story. ■

Artificial intelligence

Token sums

WASHINGTON, DC

Model marketplaces are flourishing as AI bills mount

A UNIT OF account is a useful thing. Even before money was common, people tried to come up with standardised ways of accounting for things. In "The Iliad" the value of armour fashioned from bronze or gold was expressed as a number of oxen (nine for bronze, 100 for gold). Fur pelts, giant stones and piles of salt have all been used as measuring standards.

The universe of artificial intelligence is governed by its own unit: the token. These are snippets of text, typically four characters, that an AI model reads or responds with. The trouble with tokens, however, is that they do not work quite as neatly as cows or pelts did. For one thing, it is unclear in advance just how many a given task might consume. Model-makers also charge dramatically different prices: a popular model offered by DeepSeek, a Chinese startup, is about one-fourtieth the price per token of a cutting-edge one produced by Anthropic, a top American lab.

For firms using AI, this is a recipe for frustration. A simple task, such as asking a model to process invoices, could rack up a huge bill. To insure against this, some businesses cap how many tokens employees can consume. But that may hinder productivity. This muddle has birthed a new kind of business: the model marketplace.

The best known of these marketplaces is OpenRouter, co-founded in 2023 by Alex Atallah. After ChatGPT was released, Mr

Atallah began to wonder what kind of world lay ahead. "My biggest question at the time then was: could this be a winner-takes-all market where OpenAI dominates," he says. He doubted such an outcome, leading to the conclusion that marketplaces would play a central role in the AI industry.

OpenRouter lets customers easily switch between models. If Anthropic's Claude is down, they might use one from OpenAI. Or they might swap when a lab is offering a bargain on tokens. OpenRouter charges a small fee for use routed through its platform. Business has been so good that in August Stripe, a payments giant, agreed to buy the marketplace. It will reportedly pay \$7.5bn for a firm that is barely three years old.

OpenRouter is not the only model marketplace. Similar services are operated by the big cloud-computing providers. Amazon offers a range of models via Bedrock, billed through existing cloud-service agreements; Google offers the same through its Vertex AI service. But many customers view such offerings with suspicion: the cloud giants, which build their own models and invest in the frontier labs, are hardly neutral.

OpenRouter first gained a following among developers as it offered a way to play around with lots of different models and a means for quickly gauging which would perform best. After the release of ChatGPT, many AI labs took to "benchmarking"—making models that could pass certain tests, such as the SAT, with flying colours, but struggled with more useful tasks. On OpenRouter's marketplace customers vote with their dollars, creating a fairer ranking system.

More recently companies have turned to OpenRouter as a tool for controlling costs. Tellingly, it is the cheap systems offered by DeepSeek and two other Chinese model-makers, Z.ai and Xiaomi, that dominate token consumption on the platform (though an OpenAI model is also currently doing well).

Even so, Mr Atallah argues that many businesses remain unsophisticated in their approach to token use. He recommends to his enterprise clients that they divide up tasks into low, medium and high "entropy", based on how open-ended the work is. Cheap models are often sufficient for low-entropy tasks, such as deciding which model should review some code, and plenty of medium-entropy tasks as well, such as actually reviewing that code. Frontier models can be reserved for high-entropy tasks, like writing the code from scratch.

"The mistake I see a lot of companies make is they just don't decompose all of these things. It is all the same to them," says Mr Atallah. "That's just a massive waste of money." ■



SCHUMPETER

Trophies and assets

The scandal over Manchester City's finances inspires apathy rather than anger



THE PROBLEM with Britain, Andy Burnham told his Labour Party faithful last month, is that “shareholders never lose and the public never win.” Yet now Mr Burnham is in trouble because his favourite shareholder lost too much. Last week the English Premier League found that, under its Emirati owners, Manchester City, a top football club, vastly understated financial losses through “sham” deals, allowing the club to outspend its rivals.

Most corporate scandals that become political ones go off with a bang. An oil spill or bank run are as unexpected as they are shocking. But the City affair surprises few. (Unsurprisingly, the club denies wrongdoing.) The league’s case was sparked by documents leaked back in 2018, about deals struck not long after Sheikh Mansour, an Emirati vice-president, bought the club in 2008. These have already been the subject of a case by Europe’s footballing authority that concluded in 2020. Rather than an outpouring of anger, the City affair inspires something far worse—apathy, about football, and about Britain.

“Isn’t my problem but theirs, probably,” said Roberto Mancini, the former City manager, of a second contract with a club in Abu Dhabi which allegedly boosted his earnings without hitting City’s bottom line. “Well, of course,” was the reaction of a British public accustomed to broken systems and whose expectations of those in power have been much diminished. The shock is not at the idea that a big part of the nation’s commercial and cultural life was based on cheating, but that a body with any authority would call it out. Mr Burnham, for his part, now finds himself at odds with investors he thought were good lads: having poured money into Manchester when he was mayor, the Emiratis are reportedly planning to withhold it from Milton Keynes while he is prime minister.

The scandal could not have been better designed to make Britain miserable about the things it is good at. The Premier League is by far the richest and most entertaining football league in the world. The dispute is being settled in London, which remains the pre-eminent venue for global corporate arguments; its lawyers, presumably charging telephone-number fees for handling the City case, are about the only corner of the British economy keeping up with America. Banners hailing the lawyers representing

football clubs have been unfurled on match day. Playing Lord Pannick in defence are you, mate? Hopefully Slaughter and May can sort out our attack before Christmas.

It matters little that Britain actually gets a good deal from its Gulf investors. When a country can no longer afford its own trophy assets, it is said to face a choice between noble ruin and ignoble foreign ownership. Stroll up Whitehall, the heart of the British state, and the choice appears starker. The Old War Office and Great Scotland Yard have been converted into smart hotels owned by international capital. Admiralty Arch is now a Waldorf Astoria, facing down the Mall towards Buckingham Palace as if to say: “You’re next!” Depressing enough, until you spot the alternative at the top of the street, which has been colonised by an often-changing cast of brightly lit candy-cum-souvenir-cum-vape shops. Britain is a nation of shopkeepers, and these shops are a grim symbol of the nation.

British football rejected such shabbiness in favour of riches from abroad. City is chaired by Khaldoon Al Mubarak, boss of an Abu Dhabi sovereign-wealth fund and Commander of the Order of the British Empire. Mr Burnham’s beloved Everton was owned by a Monaco-dwelling British-Iranian who made his name working with a Russian metal magnate (“the Toffees” passed to their current American owner in 2024, after nearly being bought by an investment firm which has since gone bankrupt). Last season Sir Keir Starmer’s Arsenal won the league playing at the Emirates Stadium. Newcastle United (apparently the favourite team of Sir Tony Blair) languished under Mike Ashley, a British retail billionaire, but has fared better under the Saudi sovereign-wealth fund.

Yet reason is no antidote to apathy, which is always cancerous in the end. If the League’s result starts to feel like a foregone conclusion, fans enamoured of the game but impassive about the tawdry business behind it may find it no more appealing than voting in an election whose results are already decided. The sanctions that might be placed on City will not turn the tide of indifference. Retroactively awarding its trophies to rival teams will give them nothing to celebrate. Throwing City out of the league will make the victories of their rivals a little less real until they return.

The club has appealed against the league’s findings, guaranteeing more legal argument—and more apathy. Only last year was the London arm of Lehman Brothers, the American bank that failed in 2008, finally wound up when all the claims against it were settled. Might the City scandal go on even longer? Lord Denning, one of England’s great 20th-century judges, wrote that sporting disputes are better left to the sports themselves, rather than the courts. Lord Sugar, one of England’s great 21st-century television businessmen, reckons that self-regulation has become ineffective: “the [Premier League] bosses need to have the balls to impose punishment NOW and implement it NOW.”

And did those feet in extra time

Apathy is not just a danger for Britain. This summer Gianni Infantino, the boss of FIFA, football’s global governing body, tried unsuccessfully to flog parts of the game to investors. That did cause an uproar. But Mr Infantino has also bestowed his organisation’s graces on Donald Trump, whose family’s business dealings, including those involving money from the Gulf, are now mostly met with apathy. Earlier in Mr Trump’s presidency, businessmen who worked with him tolerated the deals, arguing that deregulation was more important. Now few people mention them. ■

Finance & economics



Gas prices

Flow and disorder

BANGKOK AND SINGAPORE

The Iran war will change LNG markets for ever

FOUR YEARS ago Europe was scrambling to replace 40% of its gas imports after being cut off from Russian pipelines amid the war in Ukraine. It turned to Qatar, then the world's biggest producer of liquefied natural gas (LNG). "We've been reliable for more than 26 years," the Gulf state's energy minister, Saad al-Kaabi, boasted at the time in his gilded office. "We have never missed a shipment."

Today the boast rings hollow. In March, when Iran shut the Strait of Hormuz after being attacked by America and Israel, Qatar declared *force majeure* and told buyers it could not fulfil its contracts. It has since shipped just 98 cargoes, 536 fewer than in the same period in 2025. The shortfall is 39m tonnes, 9% of global supply last year, and counting. At around \$25 per million British thermal units (mmBtu), LNG prices in Asia are 140% higher than before the war (see chart 1 on next page, left panel).

Optimists, or whoever passes for one in

the circumstances, point out that this is still far below the peak of \$70 in 2022—even though a sixth of the world's supply is out of action. Asia, which used to receive over 80% of Qatari exports, has managed to secure almost as much as it typically needs from America, Australia, Malaysia, Nigeria and other producers. Asian LNG imports of 193m tonnes so far in 2026 are just 7m lower than in the same period last year (see chart 2). Politicians seem more worried about diesel than about gas.

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That is complacent: the real LNG tests are yet to come. Some buyers are delaying purchases in the hope that prices will fall. Many others are desperately betting on new sources of LNG that would reduce their dependence on the Gulf. Both wagers carry risks. If they do not pay off, this may become clear only when it is too late.

An immediate test is looming. Summer is normally when European utilities "build fat for the winter". This explains why in 2022 gas prices peaked in August. This year, however, European buyers have let Asia snap up most of the Atlantic cargoes that usually come their way. Some still hope for a swift end to the war. Most, though, are counting instead on a mild winter courtesy of El Niño, a weather pattern that lifts temperatures in Europe. Forecasters predict that Europeans will switch on their heating late this year.

A lot is riding on the accuracy of the forecasters' models. Europe's gas storage is just 73% full, the lowest on record at this time of year, compared with an average of 90% in 2022-25 (chart 1, middle panel). Germany's gauge stands at 59%. Six One Commodities, an energy merchant, ran the past ten winters' weather through its computer model to see how much gas Europe would have left by spring if it started with today's reserves. In three of them storage would run so low that withdrawals could slow and



► emergency measures would be needed.

On September 30th the German government ordered a state-owned importer to secure eight extra terawatt-hours of gas capacity, equivalent to eight LNG cargoes, by December 15th. But the European Commission seems in no hurry to reimpose its requirement, relaxed owing to the war, for utilities to top up storage to 90% by November (if it did, and governments piled into the market, they would need to pay over the odds). And spot prices for delivery at once are above futures prices. So most importers have little incentive to stockpile.

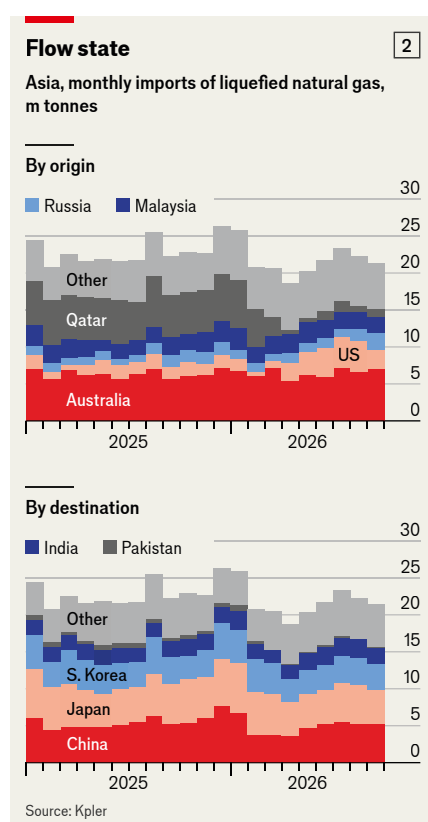
If the weather stays warm and if Qatar flows normalise by December, Europe will get by and gas prices will fall, reckons Zhi Xin Chong of S&P Global, a data firm. Both are uncomfortably big “ifs”.

Analysts reckon that an unexpectedly nippy November could cause prices to jump to \$30-40 per mmbtu amid a European rush to secure cargoes. If the cold persisted, competition with Asia would intensify. In a truly severe winter, warns a Singaporean former energy official, “there may be no ceiling to the price.” And any problem elsewhere on the electricity grid—empty hydro reservoirs, an unexpected shutdown of nuclear reactors, a Russian attack on Europe’s energy infrastructure—could lift prices sky-high.

As for Qatar, it has yet to restart its liquefaction plants. This suggests it does not think peace is around the corner. If its supplies do not return soon, Europe will need an extra 20m tonnes of LNG to restock before winter next year. Its hunt for supplies would push prices up during all of 2027.

The Gulf crisis has put paid to the notion, entertained by most LNG-watchers before the war, that the global market would tip into surplus in 2026. Yet many of the new LNG projects on which that idea was based remain on course. Perversely, the more severe the crunch now, the bigger the potential oversupply later, says Aimie Parpia of Six One Commodities.

Hints of an eventual mega-glut could be discerned at Gastech, an annual gabfest



held last month in Bangkok. Over four days an A-list of exporters—developers, energy majors, state-owned giants—showed off new projects using flat-screen mosaics and tanker replicas. Traders roamed the floor locking in future cargoes. Equipment-makers filled their order books. Importers were chasing new contracts now, and worrying about overbuying later. The watchword was “diversification”.

Expectations of persistent price volatility have emboldened developers to press ahead with new supply that seemed less certain earlier this year, says Massimo Di Odoardo of Wood Mackenzie, a consultancy. American liquefaction capacity alone is expected to nearly double by 2030. Canada’s will soar, too. The advent of

smaller, modular liquefaction units is opening gas deposits in countries—from Argentina to Senegal—that once lacked the infrastructure to host LNG projects.

All told, new projects could boost global supply in 2030 to 630m tonnes, nearly 60% more than last year. At the same time, demand will be below pre-war forecasts (chart 1, right panel). Some countries, including China, have cancelled plans for new import terminals, worried that another geopolitical crisis could leave them high and dry. Many are restarting coal-fired power plants, launching ambitious renewable-energy tenders and reconsidering nuclear power. Rystad Energy, another consultancy, forecasts annual demand of 574m tonnes by the end of the decade, down from 583m tonnes before the war.

If Qatar restarted pumping at full tilt and all the planned projects were to materialise, supply would exceed demand by 55m-75m tonnes. Balancing the market would then mean someone producing below capacity, someone buying in excess of need, or both. Either way, LNG prices could fall below \$6 per mmbtu, analysts believe. That is less than the cost of lifting cargoes under most long-term contracts.

Wary of a testing few years ahead, buyers and sellers are chasing “optionality”. Large utilities, such as Japan’s JERA and Germany’s Uniper, are acquiring trading staff, storage and regasification units so they can sit on excess purchases and resell when the price is right. Project developers, wanting to capture more margin, are cutting out middlemen and setting up their own trading desks. Oil-and-gas majors are signing deals left and right to become one-stop shops for smaller clients.

The result could be legions of traders selling to each other, or to end-users already amply supplied. Some would be left holding cargo they cannot sell, racking up losses. Capital providers may grow overly cautious. The immediate consequences of the gas crisis are potentially bad enough. The knock-on effects could keep the market out of whack for years to come. ■

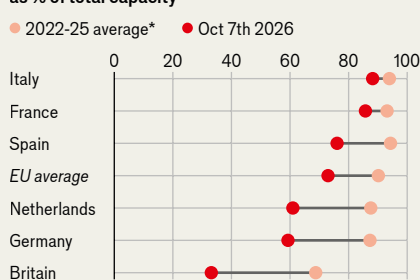
Tight present, slack future

Asia, price of liquefied natural gas, \$ per million British thermal units

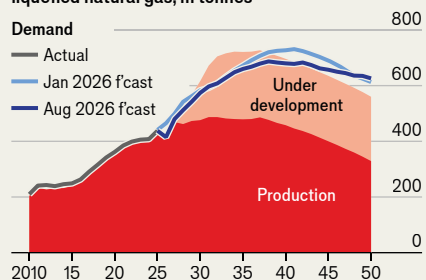


Sources: FactSet; Gas Infrastructure Europe; Rystad Energy

Underground-gas-storage levels as % of total capacity



World, supply and demand of liquefied natural gas, m tonnes



*Sep 30th of each year

Exchange rates

The dollar smirk

NEW YORK

The bond market sell-off is helping the greenback

NO FORECAST IS ever a complete consensus in financial markets. But some get close. At the end of 2025 the idea that the dollar would weaken was one. Dollar bulls were few. Most big investment banks and asset-management firms made bearish predictions. So did *The Economist*: in February we suggested that the greenback might extend last year's miserable run, as its safe-haven status continued to fade.

So far, so wrong. The DXY index, which measures the dollar against a small basket of rich-world currencies, has risen by 4% in 2026 (see chart). It is at its highest since Donald Trump began his trade world war in April last year. Several factors, not least global enthusiasm for American stocks, have helped frustrate the dollar doomsters. But these factors will not support the greenback for ever.

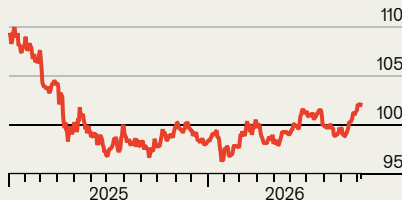
The movements of other currencies are part of the explanation. Investors have soured on the euro, in particular. It has slid from \$1.17 to around \$1.12, owing to growing worries about political and fiscal stability in Europe's currency union. The yield on French ten-year government bonds has risen from 3.5% to 4.9% this year amid fears of fiscal mayhem, and is now around 1.3-1.4 percentage points above the German equivalent. Investors dumping euros have only so many places to go: the dollar is an obvious choice (the euro is down against sterling and the yen, too).

Another reason for the dollar's rally is darkly ironic: the rise in energy prices caused by America's war with Iran. In the past high oil prices typically weakened the greenback. Oil was something that America bought from abroad, and although crude is priced in dollars, many of those it handed over to foreign sellers would eventually be converted into some other currency. Since America became a net energy exporter in the late 2010s, thanks to the shale-fracking boom, this mechanism has gone into reverse. Pricy petrol and diesel may be a political headache for Mr Trump's Republican Party a month before midterm elections, but they are a salve for the dollar.

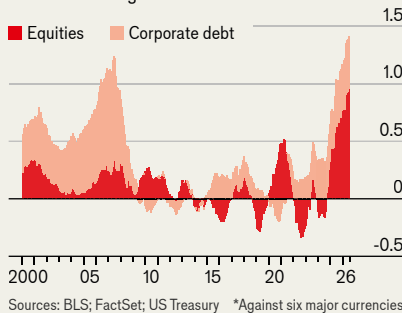
A deeper source of the dollar's strength is the American economy, which continues to surprise even optimists. Late last year economists expected growth of between 1.6% and 1.9%, at an annualised rate, in each quarter this year. In fact growth hit 2.5% in the first quarter and 2.2% in the second, fuelled by household consumption

Bucking the market

US dollar trade-weighted exchange rate*
March 1973=100



US securities, net purchases by foreign investors, \$trn, 2026 prices
12-month moving total



Sources: BLS; FactSet; US Treasury *Against six major currencies

and business investment in infrastructure for artificial intelligence. The third quarter may have been stronger yet: the Atlanta Fed's "nowcast" points to 3.7%.

A hot economy may force the Federal Reserve to keep raising interest rates, which makes owning Treasury bonds and other interest-bearing American assets more lucrative. In the year to July foreign buyers bought a net \$450bn or so of American corporate debt, the most in any such period in nearly 20 years even after adjusting for inflation. Foreigners are hungrier still for American equities: in the same 12 months they purchased a net \$900bn-worth of American stocks and investment-fund units. That is a record for any 12-month stretch—and 80% above an earlier peak in 2021.

The problem for the dollar is that these sources of strength are narrower than in the past. Historically America's currency rallied both when the country's economy was going strong and when the world, even including America, was falling to pieces. Stephen Jen, a currency strategist and investor, dubbed this the "dollar smile".

Now the smile is more of a lopsided smirk. Although the dollar's movement against the euro shows that its appeal as a safe haven remains, this matters much less than the allure of America's risk assets. Should those assets disappoint—if, say, the boom turns out to be a bubble and pops—return-chasing investors will dump them, and the dollar, as quickly as they snapped them up. Currency traders had better get used to bigger mood swings. ■

Investment trends

Paper millions

Why stocks are the new bricks and mortar

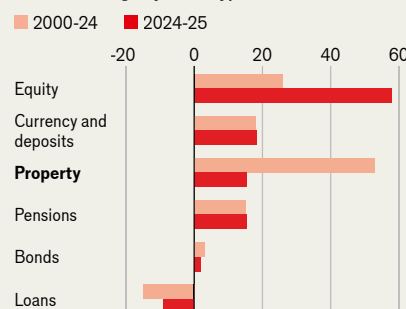
FRESHERS' WEEK, the initiation into British university life, is often a blur of cheap pints and sticky dance floors. For German-born Sophie Blank, it was an introduction to another British rite of passage: getting on the property ladder. Her new classmates, barely out of school, were already plotting their paths to homeownership, she says. Now 33, working in AI and content creation, and posting about money matters on social media, Ms Blank says she is "happily renting" in Notting Hill, in west London. She is putting her savings into stocks instead. The property ladder, she declares, can wait.

In Germany people tend to rent their homes. But those in the Anglosphere buy if they can afford to—and have long built the bulk of their wealth that way, encouraged by the post-war proliferation of policies to promote home-buying. In America and Canada, homeowners are wealthier than renters, a gap that has widened over time. In Britain, estimates the Yorkshire Building Society, a lender, by retirement age homeowners are on average nearly £800,000 (\$1.1m) richer than renters, with property accounting for almost half the gap. In Australia around one in seven taxpayers owns an investment property.

Now it seems less clear that property is the path to wealth, especially for the young. Although housing markets in many countries have softened lately, they are still close to all-time highs after adjusting for inflation, according to *The Economist's* latest estimates. For many, getting on the housing ladder is too costly to contem- ▶▶

Shifting foundations

Global household net worth*,
share of change by asset type, %



*Weighted average of 23 countries accounting for approximately 70% of world GDP
Source: McKinsey Global Institute

▶ plate: in Ireland three-fifths of 18- to 34-year-olds live with their parents. But property is also looking less attractive as an investment. As higher interest rates cool house prices, households are generating more of their wealth from stocks than from property, reversing a two-decade trend. Of the \$40trn added to global household wealth in 2025, 57% came from stocks and 15% from property—a marked contrast with the previous 25 years, in which property's share averaged 52% and that of equities 26%, according to the McKinsey Global Institute (MGI), a think-tank within a consultancy (see chart on previous page).

America sits at the extreme end of the realignment. In July stocks overtook property as a share of household wealth for the first time since the second world war, calculates Goldman Sachs, a bank. The surge in equity investing is especially pronounced among young people priced out of property. The share of 25-year-olds who had put money into investment accounts rose sixfold between 2015 and 2024, finds JPMorgan Chase, a trend the bank suggests may be linked to high housing costs.

Fluctuating asset values are largely responsible. Moody's Analytics, a data firm, projects that America's average annual home-price appreciation will ease to 2.1% between 2026 and 2035, from roughly 5% in the past decade. Meanwhile in England, the average home is now worth less in real terms than it was two decades ago. By contrast, stocks are booming. The ratio of the market value of corporate equity to the net book value of assets has reached an all-time high—surpassing dotcom-era peaks by 50%, says Jan Mischke of MGI.

Policy has also shifted. Governments are dismantling tax breaks and subsidies that have helped to inflate property prices. In May Britain introduced new protections for renters, shielding them from bidding wars, excessive rent rises and no-fault evictions. In 2023 Canada banned foreigners from buying property, a restriction due to expire in 2027. Speculative investment is in retreat as a result. British buy-to-let landlords are selling at record rates and sales of condos in Toronto have crashed. In America, the number of homes being flipped has dropped and profit margins have sunk.

A pivot away from property has benefits: reining in the housing boom reduces the risk of a 2008-style financial crash. (That said, stock markets can also crash, and rather more quickly when they do.) But it mirrors a shift in mindset, too. Young people are increasingly disillusioned with the idea that bricks and mortar guarantee financial security, judging by responses to Ms Blank's social-media posts. Though homeownership has “worked amazingly for older generations”, today's young adults “can only dream” of achieving the same level of property wealth, she says. ■

Sugar prices

Sweet but sour

MUMBAI

Indian celebrations will be more expensive this year

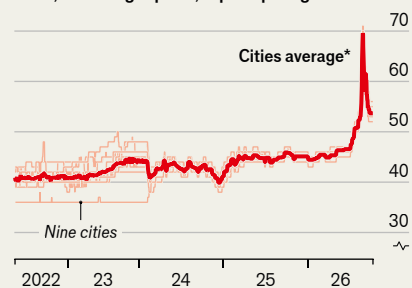
MUMBAI'S FESTIVE season kicks off with Ganesh Chaturthi, which this year fell in September. Hindus bring idols of the elephant-headed god into their homes. He stays for up to ten days before the often-colossal statues are immersed in the Arabian Sea. Mumbaikars also feast on his favourite food: dumplings stuffed with grated coconut and jaggery (set sugar-cane juice). Then come nine nights of dancing and fasting for Navratri, celebrating nine avatars of the goddess Durga. On the eighth day young girls representing aspects of Durga are given *suji ke halwe*, a mix of semolina, ghee and sugar.

Next is Dussehra, marking Lord Ram's victory over the demon king Ravana—feted across northern India with tens of millions of *jalebiya*, deep-fried batter coils soaked in syrup. The sugar rush peaks with Diwali, the festival of lights, as families and offices exchange elaborate gift boxes of *mithaiyan*, traditional sweets.

This year such treats may taste bitter-sweet. India's sugar prices have spiked. A kilo of sugar now costs 53 rupees (55 cents) in Mumbai, a 15% increase from 46 rupees in June. Anyone trying to beat the festive rush was stung even more: in late August prices reached 70 rupees in several cities (see chart), a rise of more than 50% in two months. Inflation more broadly, at 4.8%, is above the Reserve Bank of India's target of 4%, prompting the first interest-rate rise in

Sugar rush

India, retail sugar price, rupees per kg



*Chennai, Delhi, Guwahati, Hyderabad, Kanpur, Kolkata, Mumbai, Raipur and Ranchi
Source: ChiniMandi

four years on October 7th.

Some suggest nature is ultimately to blame for the sugar-price spike. Unseasonal rains last October left cane fields in Maharashtra, a big sugar-producing state, waterlogged. Across the “sugar-cane belt” of northern India, farms have been struck by red rot, a fungal disease. Production forecasts for the year have been cut by more than a tenth. Others point at the government, which allowed 800,000 tonnes to be exported even after it was clear that output would fall short. It has since banned all exports. An unpopular policy of blending ethanol with petrol is an easy target. But it cannot explain the spike: only 9% of this season's crop is being turned into ethanol, compared with 12% in 2022-23.

Lower production led to speculation. “It was expectations-led,” says Sanjay Kumar of Delhi University. Mills reckoned that their inventories of sugar would be worth more in the future and so kept a tight hold of their stocks. The government intervened, obliging mills to sell their quotas, through which it regulates supply, ▶▶



A goddess means goodies

BUTTONWOOD

In search of tax alpha

The taxman is losing patience with Americans' shrewd use of tax losses

FEW THINGS irk the rich—and, for that matter, the not so rich—more than paying taxes. Many people would rather lose money backing a lame horse than hand it to the government. The pain of such payments once moved Americans to revolution. It still moves New Yorkers to head for Florida, or middle-ranking bankers to decamp to Milan.

Recently this tax-aversion has given rise to America's hottest investment strategy: tax-aware investing, or "tax alpha". Whereas "alpha" usually refers to extra returns over some benchmark, tax alpha refers to clever use of America's labyrinthine tax code. It often means creating losses to set against gains elsewhere, in order to reduce what is due to the Internal Revenue Service (IRS). It has long featured in the richest investors' portfolios. Lately it has become more sophisticated and more widespread.

Tax-aware investing "for babies" (not literally: for that, see last week's Buttonwood) involves choosing investment vehicles for their tax benefits, says Brent Sullivan of Tax Alpha Insider, a blog. An investor might shift from mutual funds, which generate taxable gains frequently, to exchange-traded funds (ETFs) that time payouts strategically.

Done shrewdly, this can bring extra benefits. Investors whose gains are concentrated in a few positions often want to diversify without incurring a hefty tax bill. Section 351 conversions, a mainstay of the tax-aware world, allow them to do just that. Their adviser can seed a bespoke ETF with their holdings, which they can then rebalance with other assets. This is tax-free until shares in the ETF are sold. The value of assets held in newly created Section 351 ETFs jumped from \$800m in 2022 to \$7.9bn last year.

But the slickest ways of making tax

alpha involve something investors usually avoid: losing money. American tax law gives investors latitude over when they realise gains and losses. If they can incur losses in a given tax year by putting money into tax-aware accounts, they can offset gains elsewhere in their portfolio. This lets them reduce their tax bills even when their portfolio is rising in overall value.

One method is "direct indexing". Investors hoping to track the S&P 500 might buy a subset of stocks representative of the index. If a stock loses value, they can sell it, book the loss and buy one with a similar weighting. The benefits of this tend to wane over time. Eventually you run out of losing stocks to sell.

A newer trick is tax-aware long-short investing (so new, indeed, that advisers have yet to coin a catchier name). Suppose an investor puts \$100 into a tax-aware account. Her investment manager can use short sales and margin to fund \$130 in long positions and \$30 in short ones. (Her net exposure remains \$100.) Over time, the manager closes the losing positions (in a rising market, mainly shorts) to book the

losses. He reinvests in similar securities to maintain the account's balance. As with direct indexing, the account tracks a chosen benchmark, but generates bigger losses along the way. Tax is delayed, not erased: in the end the investor must realise gains, too. But the delay can be valuable.

Assets in long-short accounts have grown giddily, from \$6.7bn in 2023 to at least \$187bn in the third quarter of 2026, Mr Sullivan estimates. Much of the rise is explained by funds offering the strategy to mere millionaires as well as to billionaires. Last year Charles Schwab, a giant investment firm, began letting more advisers run long-short accounts on its platform. But they remain a select business: by the second quarter of 2026 they accounted for 1% of its revenue.

The taxman would like to stop the fun. Perhaps fearing regulators' ire, over the past year Schwab and Fidelity, another big investment firm, began turning away droves of clients seeking long-short accounts. On September 28th the IRS and the Treasury said it would tax the most aggressive Section 351 conversions. The Treasury has also said it will look into other popular sources of tax alpha. Its secretary, Scott Bessent, complained of "abusive financial engineering" and "products designed to exploit our federal tax code".

As Mr Bessent surely knows, such abuse happens largely because the tax code invites it. Like many dodges, tax alpha is a product of the code's convolutions—of which Mr Bessent is targeting only a small subset. Advisers like it because it means higher fees after years of squeezing by ultra-cheap passive funds. Investors like it because it lets them get one over the IRS. For both reasons, one way or another, it is surely here to stay.



▶ every 15 days rather than monthly. It also allowed some tariff-free imports. Normally sugar imports are subject to a tariff of 100%, enough to deter foreign producers. Although little foreign sugar has arrived, this was enough to cool the market "psychologically", says Mr Kumar.

India's government has in the past been more worried about the risk of glut than of shortage. A fixed "fair and remunerative" price is a political sweetener for farmers: 365 rupees per 100kg for the season start-

ing this month, a third more than in 2018. Guaranteed returns encouraged planting and left mills with huge stockpiles. The government permitted exports and then subsidised them. By 2021 India was the world's second-largest seller of sugar, after Brazil. When the World Trade Organisation ruled against its export subsidies, the government leaned harder on ethanol blending to absorb some of the excess. Intervention begat further intervention.

A warmer world risks upsetting this

constructed market. El Niño, a recurring pattern of atmospheric warming, could contribute to a weak monsoon next year as well as poor output in Brazil and Thailand. The price of sugar futures, traded in America, has risen by 24% this year. Even allowing more imports would not shield Indian consumers from these higher global prices. A government that built a system to protect sugar-cane growers now wants to shield sweet-toothed Indians from higher prices. It is a sticky situation. ■

FREE EXCHANGE

Trolley problems

Governments are mishandling the cost-of-living crisis



STRIKES, BREAD riots and “socialistic agitation”: these worldwide expressions of discontent had a common cause, argued Irving Fisher, an economist at Yale University, in 1912. That shared grievance was the rising “cost of living”. The problem was felt in places as far apart as Canada and India, France and Japan. To expect any single locality to tackle the forces at work was almost as absurd as expecting “villagers on the Bay of Fundy to attempt to prevent the rise of the tides”.

The IMF agrees with him. In its latest World Economic Outlook, the fund’s economists look at more recent increases in the cost of living. The tides reached their highest points in 2007-08, when food and oil prices rose in tandem, and in 2022, after the invasion of Ukraine. Since the closure of the Strait of Hormuz the cost of living has once again been on the rise. During these crises, global factors have accounted for about 70% of the increase in the typical rich country, the IMF’s authors calculate. But of course national politicians tend to get closer to 100% of the blame.

What counts as a cost-of-living crisis (or, to Americans, an “affordability” crisis)? For most people, the answer is obvious. They know it when they see it printed on their shopping bill or posted outside a petrol station. But Fisher was keen to distinguish a “mere rise in prices”, otherwise known as inflation, from “a rise in prices more rapid than the rise in incomes”. A trolleyful of goods can cost more money without becoming any harder to obtain, if wages are rising just as fast.

The goods in the trolley can also change. A.A. Konüs, a Russian economist, defined the cost of living in 1924 as the expenditure required to secure a given “state of want-satisfaction”. If some prices rise and others fall, canny householders will change their shopping habits in response. They will satisfy their wants by buying less of the expensive stuff and more of the cheaper, “without necessarily changing the height of [their] standard of living”.

The IMF’s economists adopt a practical definition, concentrating on unusual increases in the cost of basic necessities, such as food and energy. Alternatives to these goods are hard to find. And their prices fluctuate violently, unlike other essentials, such as health care. To distinguish between cost-of-living crises and mere

inflation, they rule out cases where the rising price of food and fuel is matched by a broader increase in consumer prices or wages.

By that definition, almost 90% of the 85 countries they study have suffered a cost-of-living crisis in the past 20 years. Eleven have suffered three or more. In the typical crisis, the cost of basic necessities rises by more than 8%, relative to other prices, over 18 months, and can remain higher for several years. Pay packets fail to keep up. At the worst point, inflation-adjusted wages fall by as much as 5.9%, relative to a crisis-free scenario.

In the face of this misery, what can be done? The people of the Bay of Fundy, which lies on the east coast of Canada, may be powerless to stop the tides, which rise higher in their bay than anywhere else. But they have not simply sat on their hands in the face of nature’s might. They have built hundreds of kilometres of dykes, punctuated by sluice gates, known as aboiteaux.

Policymakers around the world have been similarly active in response to cost-of-living crises. In emerging economies, these responses are evenly split between attempts to suppress the prices faced by end-buyers and efforts to raise the incomes of those affected. In rich economies, the split is more like 40-60 in favour of raising incomes. In the poorest countries, that mix is reversed.

Price-suppression, which includes cuts to tariffs and indirect taxes as well as price controls, can reduce inflation expectations “slightly”, the IMF authors concede. But these measures have little else to recommend them. They benefit the rich more than the poor for the simple reason that the rich buy more of the stuff the policies keep cheap. The IMF authors calculate that for every euro spent suppressing the price of electricity, gas and petrol in European countries, only 20 cents reached the poor.

Price-suppression sometimes takes the form of subsidies to producers. These make downstream firms more competitive overseas, increasing their exports. The money, in other words, flows from the taxpayer to foreign customers. Even price controls, which do not require direct payments from government coffers, can impose fiscal costs in the long run. The state must often bail out utilities that cannot pass on the extra cost of their inputs.

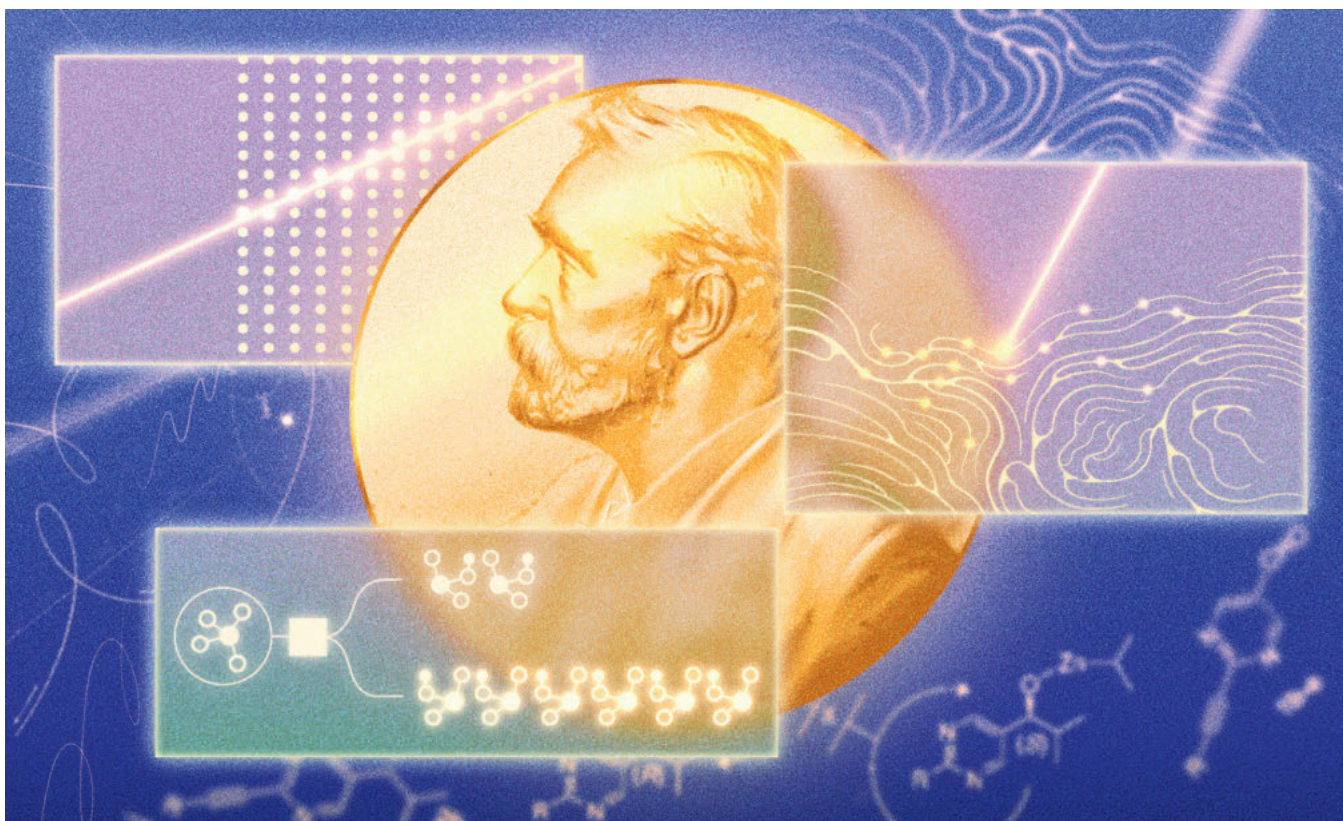
These measures also muffle the valuable signal that market prices send. Consumers have no reason to temper their demand or satisfy their wants with an alternative bundle of goods. They have no reason to wear a sweater rather than dialling up the thermostat. They are like reckless households in the Bay of Fundy who neglect to fortify their homes near the shore, confident that old flood barriers will keep them dry.

Poll controls

Why then do governments keep meddling with prices? Some poor countries lack the infrastructure to provide better kinds of help, such as means-tested handouts to the poor. Price controls or duty cuts are also quicker to enact. Rather than compensating people for hardship, they seek to prevent discontent at its root. The fact that the benefits are not confined to the poorest is a fiscal drawback but a political advantage.

Price-suppression is, if anything, becoming more popular. During this year’s crisis, about 70% of policy responses by rich countries’ governments have tried to keep a lid on prices. That was up from under 40% in 2022-23, after Russia’s invasion of Ukraine. Between those two episodes several incumbent governments around the world were ousted at the ballot box. Politicians do not want today’s cost-of-living crisis to cost them their own living. ■

Science & technology



Nobel prizes

Thinking outside the box

This year's laureates pioneered neutrino astronomy, optogenetics and the study of mirror molecules

WHEN FRANCIS HALZEN of the University of Wisconsin-Madison accepts his Nobel prize for physics later this year, he will enjoy the rare privilege of an undivided spotlight. Most physics laureates must share the stage with a collaborator or rival. Dr Halzen will be the first since 1992 to claim all the glory for himself.

The prize citation, unveiled on Tuesday, credits his "decisive contributions to the IceCube Neutrino Observatory", a particle detector spanning a cubic kilometre of ice near the South Pole which draws on the efforts of 450 researchers in 14 countries. But, according to Ulf Danielsson, a physicist at Uppsala University and secretary to the Nobel committee for physics, "Without his scientific vision, it would have been impossible."

Detecting neutrinos requires scientific vision in spades. Being electrically neutral (hence the "neutr-") and physically diminutive (hence the "-ino"), they are, in effect,

immune to both the electromagnetic force and gravity, allowing them to pass through most particle detectors unobserved. Their dealings with regular matter are largely limited to interactions via the aptly named weak nuclear force.

Ghostly though they are, neutrinos are also abundant throughout the universe. They are a by-product of fission as well as fusion reactions, making the Sun a powerful nearby source: around 65bn solar neutrinos pass through an area the size of a human fingernail each second. The solar reactions that produce neutrinos also give off other particles, including protons.

Sometimes, however, protons arrive at Earth with energies many millions of times greater than those from the Sun. This suggests they come from even more powerful sources much farther away.

What these natural particle accelerators actually are, and how they produce such energetic particles, is largely unknown. Protons are charged and are thus deflected by magnetic fields on their journey to Earth, making their point of origin hard to reconstruct. The same processes that accelerate these protons, however, should produce high-energy neutrinos, too. In the 1980s Dr Halzen was among those who realised that neutrinos' reluctance to interact with matter allowed them to travel unimpeded for vast distances and act as ideal messengers from otherwise invisible objects.

Still, there was the problem of how to detect them. Previous neutrino detectors had relied on building large vats of perchloroethylene, a dry-cleaning fluid, and waiting for rare interactions between neutrinos and the atoms in the fluid. Although a similar approach could be applied to the hunt for rarer extrasolar neutrinos, a significantly bigger detector than had been built before would be needed to have a chance of catching one.

Thus did the idea for IceCube crystallise. Construction began in 2004 and was

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► completed in 2011. Within two years it picked up 28 high-energy cosmic neutrinos, opening a new window onto the cosmos. Asked on Tuesday what this window might reveal, Dr Halzen, reached by phone, responded: "The real excitement is that I cannot answer that question yet."

The winners of the prize for physiology or medicine could be permitted more bullshiness in outlining the potential benefits of their research. Karl Deisseroth of Stanford University, Peter Hegemann of the Humboldt University of Berlin and Georg Nagel of the University of Würzburg were recognised for laying the foundations of optogenetics. This permits neuroscientists to use light to instantaneously activate individual brain cells, making it possible to work out exactly what particular cells are doing. That enables researchers to investigate both basic neurobiology and the neural basis of illness.

Seeing the light

The story begins in the 1990s with Dr Hegemann. At the time he was studying how a genus of single-cell algae known as *Chlamydomonas* responds to light. He found that their reactions were faster than the equivalent response in a human eye. In a human retina, one protein molecule detects light and then indirectly triggers another, known as an ion channel, to create an electrical signal. Dr Hegemann hypothesised that in his algae that convoluted process was being compressed.

Testing his guess with the tools then available proved hard, until the blossoming science of genomics came to his rescue. A team of Japanese researchers had produced a map of the DNA of *Chlamydomonas*, showing that it included two genes resembling those for light-sensitive proteins in some other organisms. This insight was confirmed when Dr Hegemann enlist-

ed Dr Nagel's assistance. Dr Nagel inserted the DNA of the two newly identified genes into some frogs' eggs, which then turned out the desired proteins in quantities large enough to test. Just as Dr Hegemann had predicted, they turned out to be light-stimulated ion channels.

Realising what they had, Drs Nagel and Hegemann then tried inserting one of the genes, for a protein now known as channelrhodopsin-2, into kidney cells harvested from hamsters and from human embryos. That worked, too. They had, in other words, discovered a way of making mammal cells light-sensitive. It was Dr Deisseroth, however, who conceived of putting channelrhodopsin-2 into cells whose raison d'être is the transmission of electrical signals: neurons. When the idea was tested, cultured rat neurons not only responded when exposed to light, but could also pass signals on to their neighbours.

The paper announcing this finding was published in 2005, but other researchers were also exploring similar ideas. Three years earlier Gero Miesenböck, then at the Memorial Sloan-Kettering Cancer Centre in New York, had done similar work using a light-sensitive protein from a fruit fly. Dr Miesenböck, as some have observed, might have serious reason to be miffed. Edward Boyden, a neuroscientist at the Massachusetts Institute of Technology who collaborated with Dr Deisseroth when he was a PhD student at Stanford, was another surprising omission.

Regardless of details of priority, though, the subject has since exploded. Dr Deisseroth's lab led the way, first by repeating what had been done in cultured rat cells in living mouse brains, and then by inventing the trick of using extremely thin optical fibres to illuminate, and thus stimulate, groups of neurons. In combination, these tricks let the researchers control the

movements of a mouse's whiskers.

Optogenetics has now been the subject of thousands of papers. It is being used in animals to investigate depression, schizophrenia, blindness, deafness, dementia, addiction and anxiety. There is even an attempt to use it to restore vision in people with a form of blindness called retinitis pigmentosa. Great oaks from little acorns grow. Or, in this case, little algae.

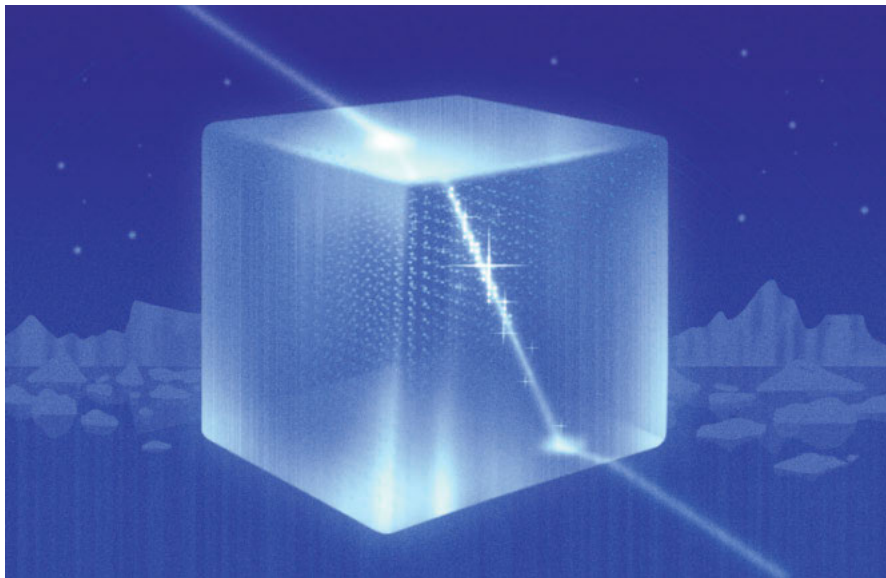
The prize for chemistry, as is often the way, also took its cue from the study of life. Many molecules essential to biology are chiral, capable of existing in two mirror-image forms that should, at least theoretically, exist in the universe in equal quantities. And yet nature is ruthlessly selective. When it comes to living organisms, amino acids are generally left-handed; sugars are right-handed. It is for progress towards understanding how such asymmetry might have come about that Henri Kagan, of the University of Paris-Saclay, and Kenso Soai, of the Tokyo University of Science, received calls from Stockholm.

Chemists had been able to selectively produce molecules with a given chirality before. All such reactions, however, depended on a chiral catalyst, often made up of an unequal mix of left- and right-handed molecules. The assumption was that the ratio of left- to right-handed molecules in the reaction's products would match the ratio in the catalyst itself. This posed a problem: if the reaction could match only the asymmetry of the catalyst, how, then, could large-scale asymmetry emerge?

In 1986 Dr Kagan refuted this assumption by finding that chiral catalysts could outperform this benchmark. Starting with a catalyst in which left-handed molecules were three times as abundant as right-handed ones, he could engineer reactions that produced a solution with a six-fold imbalance. A meaningful improvement, but still too small to transform the near-total symmetry of inanimate matter into the near-total chirality displayed by life.

It was Dr Soai who bridged the gap. In work published in 2003, he demonstrated that solutions with a minuscule imbalance of chiral molecules could be engineered so as to produce catalysts with increasing chirality. This self-amplification could produce rapid change. Repeating a reaction only three times, for example, allowed Dr Soai to achieve a 630,000-fold increase in the asymmetry of the solution.

The Soai reaction, as it has come to be known, is not the way that life's chirality emerged. For one thing, the reagents that Dr Soai used could not have existed 4bn years ago. But, as a member of the prize committee explained, it was nonetheless the first time that anyone had created chirality from a non-chiral combination of molecules since the dawn of life those billions of years before. ■



Forensics

Something in the air

Burglars leave DNA floating behind them

BURGLARS HAVE been steadily running out of things they can safely leave behind at a crime scene. First came footprints, then fingerprints and stray fibres. Even microscopic strands of DNA left on tools and surfaces have been used to catch the incautious. Now they have something else to worry about: fragments of genetic material in the air.

All people, criminals and non-criminals alike, shed tiny traces of themselves wherever they go. Some of this material—mainly skin cells, dandruff and saliva—ends up suspended as a personal debris cloud that can hang around after the person is gone. A new study published in *Forensic Science International: Genetics*, a journal, shows that volunteers who pretended to ransack houses in controlled tests could be identified from DNA pulled from the air 30 minutes after they scarpered. As with most forensic evidence, it alone is not proof of wrongdoing. But it could raise some awkward questions for someone without a good reason to be there.

Carried out by a team led by Chiara Fantinato at Oslo University Hospital, the study is an impressive application of methods to capture and analyse what is known as environmental DNA (eDNA)—the genetic traces left by an organism in its surroundings. For more than two decades ecologists have used eDNA from water, soil and atmosphere to detect creatures without needing to see or capture them. The

technique has been used to track elusive Burmese pythons in the Florida Everglades and to audit the inhabitants of Loch Ness. (Fish and plenty of eels. No plesiosaurs.)

In 2022 the Oslo group showed that enough eDNA could be collected from indoor air to construct genetic profiles of its occupants. In a separate test, they analysed office air to identify workers who had recently occupied the space. That led them to wonder if the same techniques could be used for forensic purposes. Working with a group in Australia, the researchers found 22 households, split evenly between Oslo and Adelaide, who were willing to allow into their homes first a mock burglar and then a forensics team in full protective gear to run an air-sampling device in the kitchen for a couple of hours.

The intruders were people who had never previously visited the houses. They were asked to spend 15 minutes inside, opening drawers and cupboards as a burglar might. After they fled the scene, the scientists waited 30 minutes, to simulate the delay before investigators might arrive, and then turned on what Dr Fantinato says was basically a vacuum cleaner. They sifted the material collected for DNA and analysed it in the usual way. As airborne DNA falls to the ground, where it contributes to surface dust, the researchers also collected sweeps to build their forensic profiles.

The results offered better news for housebreakers in Australia than Norway. Whereas the samples collected in Oslo could be matched to intruders in 82% of cases, the success rate dropped to 36% for Adelaide. The reasons for the difference are unclear, but could be due to such factors as environmental conditions, the number of people living in the house and how well the various rooms had been cleaned.

There are other complications to note. DNA found in the air does not always have

to be from a recent visit, for example: movement can stir DNA-carrying dust into the air, or DNA from people who have never set foot inside could be carried in on people's clothes. The researchers themselves were surprised by how sensitive their technique was. Despite the efforts they put in to prevent their own DNA leaking into the crime scenes, some was vacuumed up and identified anyway.

It is unlikely, Dr Fantinato says, that air samples would ever prove reliable enough to provide the clinching evidence of someone's guilt. "It's an investigative tool," she says. "Like other types of DNA evidence, it's just part of the puzzle." It is still too early to apply the method to real cases. That will require understanding such nuances as why different people shed different amounts of DNA, and standardising techniques between labs. But her team has spoken to police forces about one day helping them with their enquiries. ■

Artificial intelligence

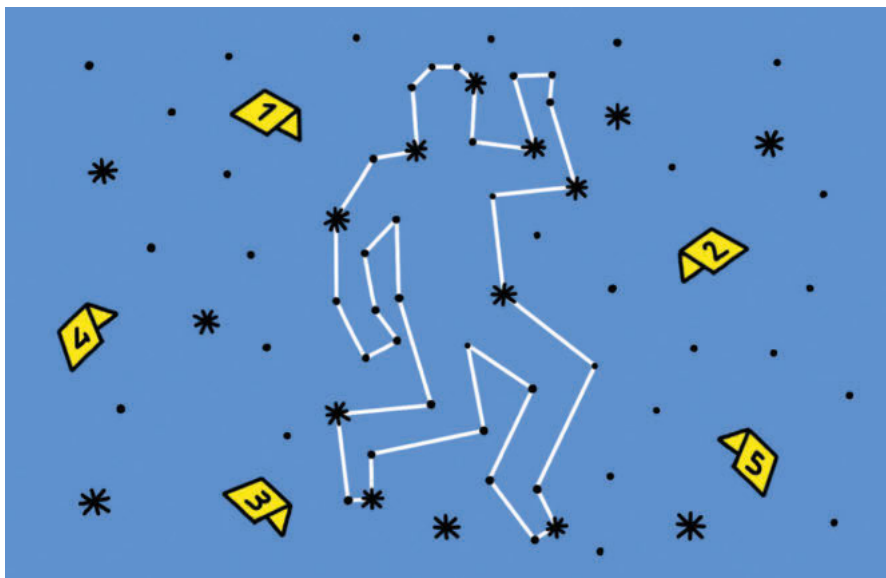
Number crunch

OpenAI claims to have solved hundreds of long-standing maths problems

TUESDAY OCTOBER 6TH 2026 may go down as one of the most consequential days in the history of mathematics. That was when OpenAI, an American artificial-intelligence firm, announced that its AI agents, powered by an unreleased model, had solved at least 372 long-standing mathematical problems in a matter of weeks. The findings, detailed in over 700 AI-generated papers, represent research at an unprecedented scale and speed.

Such a glut has left some queasy. The excitement of potential new mathematical truths is, for many researchers, freighted with concern for the future of their field. Unless more care is taken, they say, the mass production of mathematics will lead to more solutions but less understanding.

AI's progress in mathematics has advanced rapidly. Just last month OpenAI claimed that the same internal model had solved the Navier-Stokes problem—one of the landmark Millennium Prize problems—in just 88 hours. Now hundreds of other significant puzzles have been cracked. They cover the entire mathematical corpus, from algebra and geometry to probability and logic, including many which have stumped experts for decades. The average computing power required for the autonomous mathematicians to arrive at a solution was equivalent to only about three hours of reasoning with models that



► the firm makes publicly available.

Although the remaining Millennium Prize problems remain unsolved, progress towards one or two does seem to have been made. Most notable among these is the Riemann hypothesis, which concerns the distribution of prime numbers. Also buried in the deluge is a claimed proof of a thorny conundrum called the 3D Keakeya maximal conjecture. Hong Wang, a mathematician at NYU's Courant Institute, was awarded the Fields Medal—the maths equivalent of a Nobel prize—for her work on a closely related problem in July.

Precisely what breakthroughs have been made, and by what means, will probably take mathematicians years to work out; many of the papers run to over 100 pages. Only 127 of the solved problems are accompanied by a code guaranteeing logical consistency (a norm in the field), and the agents' internal reasoning has been published for only ten of them. These 372 problems also represent a subset of 4,000 which OpenAI posed to its agents, although the company has not released data about which problems were beyond its capabilities. Such transparency would improve assessments of the technology's abilities and limitations.

Some worry that such an approach is not conducive to long-term progress in mathematics. Not long after OpenAI's solution to the Navier-Stokes problem last month, 28 Fields-medallists published an open letter warning that AI labs' approach to mathematics was at odds with the field's goals. In using open maths problems as a benchmark to test new models' abilities, the letter-writers said, model-makers risked prematurely shutting down lines of inquiry without generating new techniques, questions or, ultimately, understanding. More than 8,000 of their colleagues have since signed on.

OpenAI claims to have taken note. In working out how to release its new discoveries, the firm says it drew on the recommendations of an independent advisory group, a team of nine esteemed mathematicians formed in the aftermath of the Navier-Stokes announcement. In addition to sharing some details of its models' internal reasoning, OpenAI also promised to fund a series of conferences to aid understanding of the results.

All told, the scale of OpenAI's release means its true impact will be clear only in hindsight. "The real importance of a problem is eventually measured by the new avenues it opens up and the light its proof sheds on other problems," says Martin Hairer of EPFL, a Swiss university, who is a member of OpenAI's advisory group as well as being a signatory of the Fields-medallists' letter. For now, the mathematical problems AI is revealing are more existential than numerical. ■

Well Informed

Should you be using a tongue scraper?

It can help ward off bad breath. But a toothbrush will do the job just as well

PEOPLE HAVE used tongue-scrapers since at least the Roman era. Napoleon Bonaparte's was made of silver. George Washington took his everywhere. Today "influencers" like Hailey Bieber and Gwyneth Paltrow scrape their tongues as part of their "wellness" routines. But does tongue-scraping add anything to dental hygiene that brushing and flossing can't do alone?

The mouth, like the gut, is home to lots of microbes. A healthy oral microbiome includes around 700 species of bacteria, along with fungi, protozoa and viruses. But poor oral hygiene, smoking or bad diet can upset the balance. That results in bacterial colonies, called biofilms, in which species thrive that cause tooth cavities, gum disease and chronic bad breath (halitosis).

Biofilms are the basis of dental plaque, which forms because teeth, unlike the mouth's other tissues, are not constantly shedding their cells, and thus any bacteria clinging to them. But tongues, which host about two-thirds of the oral microbiome, are also susceptible to biofilms—which can turn them white or yellow. The gaps between the tiny protuberances covering a tongue's upper surface teem with bacteria and are especially hospitable to anaerobic species, the respiration of which does not require oxygen but does often generate foul-

smelling sulphurous compounds.

Given all this, it might be expected that evidence for the virtues of regular tongue-cleaning would be as abundant as that for cleaning teeth. Alas there is not much.

A trial published in 2018, involving 36 people suffering from gum disease, for example, found that adding tongue scraping to a normal dental-cleaning routine did indeed reduce halitosis. Another, on 45 children, which was published in 2015, showed it significantly lowered levels of *Streptococcus mutans*—a principal cause of tooth decay.

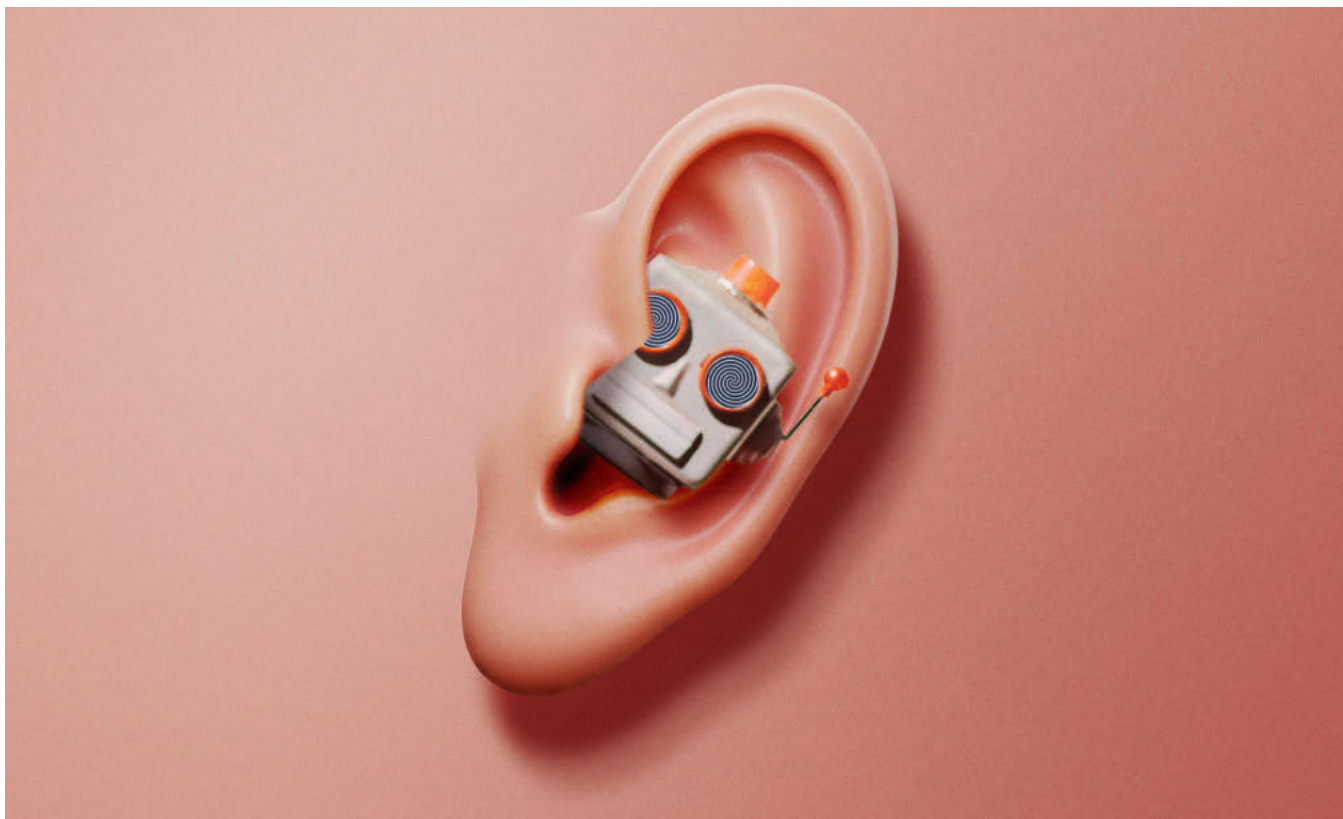
This particular trial, however, cast doubt on the idea that you need to use a special instrument to keep your tongue clean, for it also found that brushing tongues with a normal toothbrush or rinsing the mouth with salt water both worked just as well as using an actual scraper. Similarly, a third trial—of 56 people with bad breath, published in 2021—found that tongue-scraping and tongue-brushing removed tongue biofilms and reduced odiferous sulphur compounds to the same degree. A fourth, of another 80 bad-breathed individuals, published earlier this year, got similar results with tongue-brushing (rather than scraping) backed up by a dose of *Streptococcus salivarius*, a so-called oral probiotic that crowds out hostile bacteria such as *S. mutans*.

Good lingual hygiene may also improve someone's sense of taste. A review of four trials published in 2025 found that removing tongue coatings increased intensity of salt perception, with one study doing so for 60% of participants.

Together, these results suggest tongue-scrapers might indeed do the biz, but that other approaches to lingual hygiene (including using the toothbrush with which you anyway clean your teeth) can be equally effective. Nevertheless, Zoe Brookes, a professor of dentistry at the University of Plymouth, urges caution. The studies, she says, are too small to draw strong conclusions. And removing too many bacteria from a healthy tongue might equally disrupt the oral microbiome. To maintain a healthy mouth, she observes, nothing beats toothbrushing (twice daily), flossing and cutting out the sweets.



Culture



Superstar podcasts

Pods for demigods

Silicon Valley likes to listen to itself. To much of the world, the sound is jarring

EACH WEEKDAY morning Jordi Hays and John Coogan, two entrepreneurs-turned-podcasters, enter a sauna in Los Angeles with copies of the *Wall Street Journal*. They come out with jackets, ties and hot takes on the tech news of the day. Then they go on air as hosts of the “Technology Business Programming Network” (“TBP”) podcast, riffing with guests, banging gongs and blowing airhorns. The president of TBP, Dylan Abruscato, calls it a “variety show” in the vein of a late-night talk show. Silicon Valley laps it up. It is not uncommon to see “TBP”, rather than CNBC, streaming on the TV screens in tech firms’ offices.

Podcasts are the latest example of a power law in Silicon Valley. Only a few become big hitters. Those that do attract the demigods of tech as guests, making them even more influential. “TBP” has interviewed Sam Altman of OpenAI and Mark Zuckerberg of Meta. The “All-In” Podcast,

hosted by four plutocrats who straddle tech and MAGA politics, held a summit in Los Angeles in September attended by Elon Musk and Jensen Huang. (When Donald Trump phoned Nvidia’s boss on stage during the summit, Mr Huang put the president on speakerphone.) Dwarkesh Patel, a bearded 26-year-old who acts—and looks—like a high priest of AI research, hosts tech bigwigs for hours on the “Dwarkesh Podcast”. So does Lex Fridman, a gravel-voiced computer scientist whose podcast runs longer than some marathons.

All share an in-crowd mystique border-

ing on incestuousness. In April OpenAI reportedly spent \$100m-200m to buy then-18-month-old TBP (though there was no mention of the affiliation during Mr Altman’s interview). The “All-In” hosts are self-described “besties” with many of their billionaire interviewees. In San Francisco Mr Patel has shared digs with Anthropic’s researchers. They are fascinated by AI, which they talk about with passionate intensity and expertise. They are also an echo chamber, with a tin ear at times to the concerns of the rest of America.

This new podcasting elite reflects a big change in Silicon Valley’s relationship with the media. During the last great investment boom, the dotcom era of the 1990s, publications like *Wired* were tech-industry gospels. They covered the internet like *Rolling Stone* wrote about rock’n’roll, says John Battelle, a founding editor of *Wired*: “We thought we were covering the counterculture.”

But the rise of social media and the growing power and wealth of big tech generated a rift between Silicon Valley and news outlets. Mr Battelle says that parts of the tech establishment started to view traditional media as “anti-American” for questioning the “dominance of the tech hierarchy”. For their part, old media, whose business model has been hurt by the tech giants, sometimes smell of sour grapes. ►►

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- Podcasters, who share their guests' techno-optimism, provide a friendlier platform.

The watershed came during the 2024 presidential race. Led by Mr Trump, politicians saw the medium as a less filtered way of getting their message out than the press or broadcast TV. "All-In" played a role. Two of its billionaire co-hosts, David Sacks and Chamath Palihapitiya, threw a fundraiser in San Francisco for Mr Trump. Shortly afterwards he appeared on their show. That helped raise the profile of the hosts, as well as of tech podcasting in general. (For more than a year Mr Sacks was Mr Trump's AI "czar", even dressing the part by wearing a Russian fur hat at an "All-In" event.)

Since then such superstar shows have gone from strength to strength. They take different approaches. The hosts of "All-In" delight in being anti-woke. They abhor what they call the "lamestream media" almost as much as they lampoon effective altruism (EA), a philosophical doctrine that they argue puts too much focus on the existential risks of AI. Mr Patel, in contrast, has said EA influenced him to start the "Dwarkesh Podcast" on AI. "TBP" is not all bells and whistles. Its hosts have a deep knowledge of venture capital (VC), which they demystify with quips; they also work closely with media outlets and give airtime to their tech scoops.

Helping them thrive is what would be called, in Silicon Valley jargon, a flywheel. Just before he hit the big time in 2024, Mr Patel tweeted his bank balance. It showed savings of \$0.14. Then Mr Zuckerberg came onto the show and the advertising dollars poured in. As more prominent executives take part, not only do advertisers notice; so do potential customers, investors and jobseekers, raising the quality of the audience. "This is luxurious media with very valuable eyeballs," says Josh Kaplan, boss of Smooth Media, which represents podcasters.

The format is particularly well-suited to Silicon Valley, where founders invent stories for a living. They are venerated like the great men of history (Silicon Valley is still mostly a great manosphere). "We're not journalists; we are enthusiasts," says Patrick O'Shaughnessy, whose podcast, "Invest Like the Best", has a strong following in VC circles. Firms such as Andreessen Horowitz have piled in too, creating podcasts to tout their portfolio companies to investors and themselves to founders. These offerings may be popular, but do not expect them to invest in the costly investigative work that uncovers frauds, such as that at Theranos, a health-tech startup, exposed by the *Wall Street Journal* in 2015.

Instead, AI is at the centre of their discussions. Unlike many parts of America, they treat it as almost the only topic worth discussing. But this obsession has further pushed Silicon Valley into a "monocul-

ture", says David Senra, an influential podcaster. Recently he has been to tech dinners where conversation veers only between AI optimism and doomerism. "It sounds like they are all reading the same tweets," he says.

Lulu Cheng Meservey, a PR consultant to tech founders, reckons nine-tenths of people in tech speak only to other people in tech. Podcasts exacerbate that. As for using the format to transmit enthusiasm about AI to the outside world, it is not working. They may be well-meaning, she

says, but "when a billionaire AI salesman is telling you whether to buy AI, you are taking that from someone who is entirely unrelated to you."

It may get worse. Silicon Valley's podcasters sprinkle their conversations with reverence for space missions, robots and other techno-wizardry. In an AIpocalypse, they would come out better off than most people. Mr Battelle calls it the "golden ticket on the rocket ship". If all else fails, they can podcast from Mars. But will people still want to listen to them? ■

Film

Socially awkward

A preachy sequel to a celebrated satire

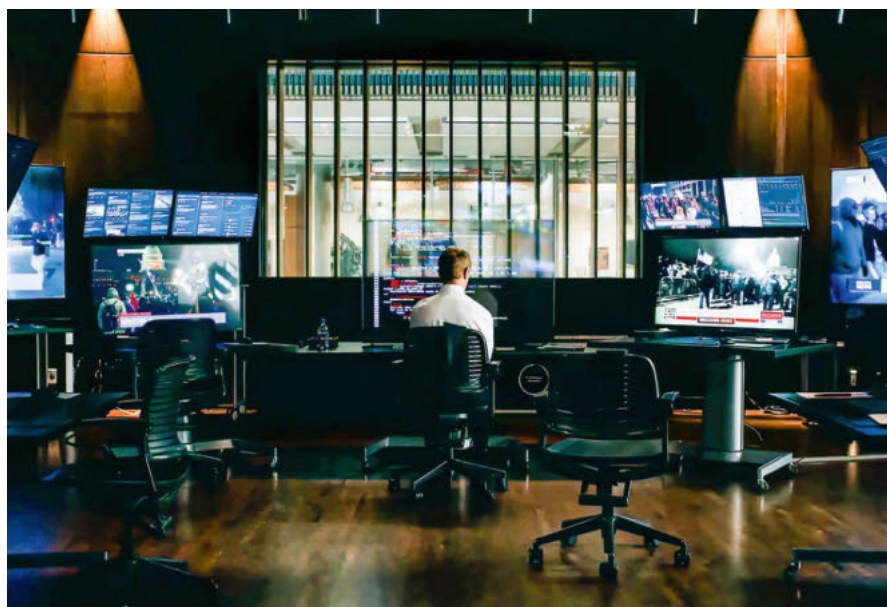
"I'M NOT TWO years out of a dorm room anymore," snaps Mark Zuckerberg at an adviser in "The Social Reckoning". The last time Facebook's boss was portrayed on the big screen, a dorm is precisely where he was. "The Social Network" (2010) dramatised the company's birth at Harvard and established Mr Zuckerberg's reputation as a chilly, ruthless weirdo. Its epilogue noted that Facebook had 500m members and that Mr Zuckerberg was the world's youngest billionaire. Today Facebook has 3bn users and its 42-year-old boss is worth a quarter of a trillion dollars.

"The Social Reckoning", a much-anticipated sequel to "The Social Network", takes place around 15 years later. It follows Jeff Horwitz, a journalist at the *Wall Street*

Journal (played by Jeremy Allen White), as he coaxes information from Frances Hugen (Mikey Madison), a disillusioned member of Facebook's toothless "Civic Integrity Team". The film adopts its predecessor's time-hopping structure, flipping between hunts for the material and publication, when all hell breaks loose.

The movies share a writer in the form of Aaron Sorkin, who won an Oscar for his "Social Network" script (which was based on a book). But there similarities end. Mr Sorkin stood in for the original director, David Fincher. Jesse Eisenberg declined to play Mr Zuckerberg for a second time, so the role has gone to Jeremy Strong, best known for "Succession".

The main problem with "The Social ►►



Thumbs down

► Reckoning” is not that its director or actors have changed. It is that Facebook itself has. Back in 2010 Facebook was cool. It had been available to the general public for only four years: young people were glued to it; their grandparents had not yet taken it over. Mr Zuckerberg, then 26, was *Time*’s person of the year. “The Social Network” was devastating because it methodically gutted the world’s hottest company and its founder (or rather, co-founder, as the film made clear).

Today’s Facebook is a mightier company but a softer target. Social networks are reviled by legislators, litigators and parents. Facebook and its rivals have paid out in multiple court cases involving harm to children. Its efforts to silence criticism—gagging a former executive who wrote a book, “Careless People”, for instance—have backfired spectacularly. Almost no one in the world is less cool than Mr Zuckerberg, whose approval rating in America is -43%, just ahead of Vladimir Putin.

The result is that “The Social Reckoning”, which styles itself as an exposé, often feels more like a sermon for the converted. Mr Strong, who is known for his extreme method-acting approach, has nailed Mr Zuckerberg’s monotone voice and stiff manner. But whereas the young Zuck of “The Social Network” was a complex character—arrogant and treacherous but tragically insecure—in the “Reckoning” he is a cartoon villain. Surrounded by computer monitors and a bulletproof sofa in his imperial headquarters, he barks at quivering underlings as they labour through their slide decks. “Fuckin’ Civic Integrity”, he scoffs, after the team meekly suggests dialling down harmful content at the expense of 1% of engagement.

His henchmen are no subtler. Facebook’s comically horrid PR man says that the social network is better than any nation. “We’re post-government around here,” he sneers, when threatened with regulation. The now-familiar notion that the company puts profit before the greater good is conveyed with a megaphone. “If engagement keeps falling...it’ll be a bad earnings report!” squeals one executive, as the company debates whether to tone down its wickedness.

The second difficulty for the movie is that its subject matter is more nuanced than Mr Sorkin would like. The film’s central question—should Facebook suppress bad content?—is not so simple. The script implies that Facebook should take down lies. But should the flawed Mr Zuckerberg therefore be elevated to a global arbiter of truth? Some dialogue is unintentionally persuasive to the contrary. “The voters aren’t children,” argues Mr Zuckerberg in one scene. “Facebook isn’t the ref...We’re the public square.” Quite.

Mr Sorkin’s earnestness was perfectly

tempered by Mr Fincher’s cynicism in “The Social Network”. It was a movie with no real heroes, between the perfidious Mr Zuckerberg and those he trampled, including a flash Sean Parker (an early supporter) and the absurd Winklevoss twins (who say Mr Zuckerberg stole their idea). The “Reckoning”, by contrast, is divided neatly into goodies (diligent journalist, brave whistleblower) and baddies (scheming Zuckerberg, robotic cronies). The outcome is an unsatisfying caricature.

Film and TV schedules have lately been clogged with dramatisations of Silicon Valley. The most successful ones have tended to be those based on true stories, including what happened at Uber (“Super Pumped”), WeWork (“WeCrashed”) and Theranos (“The Dropout”). But now those corporate dramas are well-known—and helped make up people’s minds about the Valley’s recklessness.

Yet more takes are on the way. On October 8th Paramount+ will launch “Cupertino”, a series about a fictional law firm fighting big tech. A new documentary about Theranos’s Elizabeth Holmes will come out this month, too. In December “Artificial”, starring Andrew Garfield as Sam Altman, will be the first movie to tell the story of OpenAI. “The Social Network” remains the model for how to do it well. Alas, its follow-up offers a reminder of what a hard act it is to follow. ■

How to talk about a polarising issue

Under the gun

The American Way of Killing. By Malcolm Gladwell. *Little, Brown and Company*; 304 pages; \$34 and £25

Basic Pistol. By Harel Shapira. *Pantheon*; 320 pages; \$35. *Picador*; £20

FEW THINGS about Americans baffle foreigners more than their attachment to guns. Thirty years ago mass shootings in Australia and Scotland prompted both countries to tighten their gun laws; today, legally owning a handgun in Britain is almost impossible and getting one in Australia requires licensing, registration and a background check. In America, meanwhile, 40% of people live in a household with a gun, and each year more than 1m Americans become first-time gun owners. What explains this form of American exceptionalism? Two new books try to answer that question in very different ways.

Malcolm Gladwell, a prolific Canadian journalist who lives in America, has written



A loaded subject

a book that follows his familiar formula: ten short chapters crammed with anecdotes wrapped around nuggets of wisdom, like social-science fortune cookies. “The American Way of Killing” emerged from a series on his popular podcast, “Revisionist History”; annoyingly, it reads like it, with whole chunks of raw transcript slapped down on the page.

But, as with most of Mr Gladwell’s books, readers will come away thinking differently about the world. For instance, one of the few gun-control measures most Americans support is a ban on assault weapons. Mr Gladwell argues it would do little; most gun deaths involve handguns, which are readily available. Many on the American left would be happy to shrink police forces; Mr Gladwell notes that European cities tend to have larger police forces than similarly sized American ones and argues that keeps them safe, because their presence helps prevent crimes.

Mr Gladwell’s usually fluid writing has a shrill, rebarbative edge. He accuses Americans of “moral recklessness”, misdiagnosing “the nature of the violence that plagues their streets” and having a “fundamentally dishonest way” of discussing guns. “Not only do Americans get things wrong, but they seem uninterested in ever getting things right,” he huffs. Those who share his views on guns may enjoy his scolding, but his tone will turn some off.

Harel Shapira, by contrast, does far more showing than telling. A sociologist at the University of Texas, Mr Shapira spent years taking firearms-training classes in Texas to better understand why and how guns appeal to ordinary Americans. The instructors are dedicated professionals, mostly conservative but not nutters “running tactical drills deep in the woods in ►►

▶ preparation for a battle with the deep state". Both students and instructors sincerely believe that owning and knowing how to use guns will help keep them safer.

Mr Shapira and his fellow students do not just learn to load, aim and clean their weapons. They are also taught "the 'warrior mindset'" or "the state of mind that we 'good guys with guns' were meant to embrace". The school's founder says that there are three types of people: sheep (passive), wolves (predatory) and the type he wants them to be: sheepdogs, who protect the flock. The police are a "reactive force" who often arrive too late; a sheepdog has to always be prepared for danger.

The school's founder encourages them to carry their guns loaded. "There are bad guys everywhere," he warns. Many of Mr Shapira's fellow students fear petrol stations, where they feel vulnerable when they get out of their cars to refuel. For his instructors, Mr Shapira writes, "a diverse and vibrant public sphere does not hold the promise of a fulfilling life. It holds only the potential for a violent death."

The consequences of a mindset that encourages an armed response to ubiquitous danger quickly becomes clear. One of his instructors shot and killed a young black man who broke into his home. It turned out he was a mentally disabled resident of a nearby group home who had escaped and ran down the street, banging on front doors. When the young man, dishevelled and probably "cold, frightened, disoriented", did not heed the instructor's orders to leave, he shot him five times.

Was the instructor a "good guy with a gun"? Some thought so: he faced no charges. Mr Shapira is not so sure. But what makes his book so exceptional is that his personal doubts did not stop him from listening to his instructor's story with empathy, curiosity and understanding—all of which he extends to his subjects.

In that sense, these two books are not just about guns; they present two ways of engaging in culture-war arguments. Both authors dislike guns and presumably wrote their books to persuade others of their beliefs. Mr Gladwell tries to scold his opponents into submission, which seldom works. Mr Shapira, however, listens and shows his readers a world full of complex people rather than caricatures.

Whether any author can change minds on this issue is a bleaker question. A majority of American adults has been threatened with a gun, seen someone shot or had a family member killed by a gun, according to KFF, a think-tank. Yet in recent years American gun laws have become only laxer, with states embracing "permitless carry" of firearms. America's gun-violence problem will last until voters follow Australians and Britons—and decide they have had enough. ■

History

Men in the middle

The Cauldron. By Simon Sebag Montefiore.
Knopf; 528 pages; \$40. W&N; £25

BY SOME ACCOUNTS it was the most expensive party in history. To commemorate the 2,500th anniversary of the founding of the Persian empire, Muhammad Reza Pahlavi, the last shah of Iran, invited kings, queens, emperors and presidents to celebrate in a lavish encampment amid the ancient ruins of Persepolis. Guests sipped champagne from Moët & Chandon and wine from Château Lafite Rothschild. They feasted on food from Maxim's of Paris and gawked at 50,000 imported songbirds. (The creatures all died in the heat.)

Iranians were outraged by the excess. "We can hardly offer them bread and radishes," came the shah's tone-deaf retort. For Ayatollah Ruhollah Khomeini, the architect and father of Iran's revolution, the party was the "devil's festival". It marked the beginning of the end of the shah's rule. Seven years later, the shah fled from the country. Those close to him were executed. Even his horse was publicly tortured and shot. The party was over.

In a previous book, Simon Sebag Montefiore, a British historian, took on the history of the world. "The Cauldron", his latest work, is somehow even more ambitious: it tackles the history of the Middle East since 1900. You might wonder whether there is much new to be said on the sub-

ject. Rich histories of the Arabs abound. The conflict between the Israelis and Palestinians has generated, by Mr Montefiore's own admission, "a veritable industry" of analysis. Countless tomes pick through the diplomacy, wars and revolutions that have shaped the region.

Mr Montefiore's contribution distinguishes itself in a number of ways. He takes on the entire middle, including Turkey, Iran, Israel and the Arab countries: this is a surprisingly rare approach. More than that, he brings the reader to the present day, analysing events that continue to unfold. He aims to "lighten the heavy matters of religion, geopolitics and ideology" by telling this history through "human stories, often those of rulers". And Mr Montefiore aspires to restore "some balance" to the way those in the West look at the Middle East. None is an easy task.

Yet the sheer scope of "The Cauldron" is breathtaking. He whizzes around the region, from Mustafa Kemal Atatürk battling Allied troops in 1915 to Riyadh, as it was seized by Abdulaziz bin Abdul Rahman al-Saud to establish the kingdom of Saudi Arabia in 1932. Then the book marches onwards, through the founding of Israel, the Iranian revolution, the horror of Sudan's civil war and the bloodshed of the past three years.

The breadth of the book inevitably means depth is sacrificed. The Armenian genocide of 1915-16 is dealt with in less than a page. But Mr Montefiore also manages to include a rich array of details that bring the grand sweep to life (for example the fact that, after America, Iran was the second country to recognise the new state of Israel; or the comment by Gamal Abdel Nasser of Egypt to Leonid Brezhnev that if he were Israel's leader: "I'd never give ▶▶



A feast of excess

► up the Occupied Territories.”)

Given just how many of those “human stories” Mr Montefiore races through, he could perhaps have taken a leaf out of one of Dame Jilly Cooper’s tomes and included a cast of characters. It would certainly have been colourful. “The Cauldron” bubbles with personalities, including King Farouk of Egypt, nicknamed “Fat Fucker” by the CIA; Mohammad Mosaddegh, the “pyjama-clad valetudinarian”; and Abolhassan Banisadr, first president of the new Iranian republic, with the “clownish moustache, oversized spectacles and sharp suits of a Nouvelle Vague film director”.

Balance is trickier. He brings it first by writing about the region directly through the prism of its member states, rather than imperialists or invaders. At a time when America is stepping back from its role as the dominant power in the Middle East, and no country looks willing or able to replace it, that is a worthwhile endeavour.

Merchandise

Dress code

Why your favourite bakery and coffee shop now sell tote bags

FROM TULIPS and orchids to Beanie Babies and Pokémon cards, human beings are no strangers to manias. But among the strangest is the current craze for mini totes from Trader Joe’s, an American grocery shop. The release on September 30th of the limited-time Halloween bags—which cost \$2.99 and are about the size of an iPad—prompted huge queues outside shops across America. Some Trader Joe’s locations have imposed a strict limit on the number of bags per customer. (People do not seem to mind that the totes are too small to be very useful.) Enthusiasts are turning to resale websites, where they are listed for between \$20 and a wishful \$50,000.

Merchandise—or “merch”, to use the trendy term—seems to be everywhere, for everything. Oxford Economics, a research firm, estimates that \$338bn a year is spent globally on the stuff. (Their rather broad definition includes licensed products, clothing, branded goods and print-on-demand items.) All kinds of companies are peddling such wares, from bakeries and bookshops to household brands and hardware shops. Even tech firms are joining in. Palantir dropped tennis whites adorned with its logo in July. Recently OpenAI launched its first publicly available clothing line. “This is the best way to get bullied in public,” one X user scoffed.

It is especially hard to write about history as it is still being made. His analysis of the attacks of October 7th 2023 and Israel’s response—“the largest, longest and most unrestrained war in its history”—will strike many readers as eminently reasonable. And yet no doubt some will find his judgments too generous to Israel, while other readers consider him too sympathetic to the Palestinians.

But where he is spot on is in the significance he ascribes to the Iranian revolution. The extent to which he weaves Iran into the history of the Middle East, rather than treating it in isolation as so many others do, and highlighting its importance not just to the region but to the world, is one of the book’s signal achievements. He likens its impact to that of the French and Russian revolutions of 1789 and 1917, arguing that, like them, it “changed the world”. The current maelstrom in the Middle East bears out that judgment. ■

showers of beer from fellow exuberant fans. It sold out in 55 seconds.

For consumers, branded gear can be a way of showing support for a beloved local business, a trend spurred by the pandemic. Jared Watson of New York University says the merch trend also marks a change in how young people are “signalling” through their clothes and accessories. Growing up in the digital age has changed their consumer psychology, he says. Clothing brands can seem generic. Now the urge is to show their individuality through experiences they have had or places they have visited that make them feel special. “Status has changed shape,” agrees Connor Archbold of Tracksuit, a brand consultancy: “You used to signal it with a price tag, a designer label or an expensive watch. Now it runs more on taste and belonging.”

Counter-intuitively, merch worn to stand out is also a means of tying in with a community. Almost half of citizens across the West are not a member of anything, be it a faith group, sports club or other civic organisation. In this socially atomised context, wearing a piece of merch, particularly for something obscure, is the equivalent of being “small fish in a big pond that can find other small fish”, says Mr Watson. For some, the ultimate aim is simply a knowing nod of approval from a stranger.

The next trend is more personal merch. Firms like Etsy have enabled consumers to produce bespoke items such as cups, matches and T-shirts as favours for their birthday parties, hen dos and weddings. This year *Architectural Digest* wrote about people giving swag to houseguests, asking: “Should your home have its own merch?” The more people prize experiences, the more valuable souvenirs become. Everyone has cottoned on. ■

Merch, of course, is not a new thing. It has long been common in three areas. One is children’s products—as any parent who has had to fork out for an Elsa dress or Buzz Lightyear toy will know. Another arena is music. Barclays, a bank, predicted Harry Styles’s fans would splash out £100 (\$135) each at the London leg of the singer’s tour this summer. Merch is also a winning source of revenue for sports teams. New York is still awash in blue-and-orange apparel, the colours of the Knicks, the city’s victorious basketball team. Arsenal, a Premier League team, saw its kit and merchandise revenue grow by 26%, to £130m, during the 2024-25 season.

Today, however, a much wider range of businesses are using merch as marketing. It helps that making such products is cheap and easy. A tote bag might cost less than \$1 to produce in bulk but may be seen by thousands of people during its life cycle. For Daunt Books or Shakespeare and Company, whose totes are loved by the literati, that translates to billions of eyeballs.

Merch also enables companies to present a fun image. Many lean into humour to convey a sense of personality. In June Lidl, a supermarket, released “The Three Lidl’s Jersey” to coincide with the World Cup. The parody England football strip was made from a liquid- and odour-resistant fabric: all the better to withstand



Totes fashionable

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Economic & financial indicators

	Gross domestic product				Consumer prices			Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units					
	% change on year ago				% change on year ago			%		% of GDP, 2026 [†]		% of GDP, 2026 [†]		10-yr gov't bonds		change on		per \$		% change	
	latest	Q2	quarter*	2026 [†]	latest	Aug	2026 [†]	Aug	Sep	latest, %					latest, %	year ago, bp	Oct 7th		on year ago		
United States	2.2	Q2	2.2	2.3	3.4	Aug	3.3	4.2	Sep	-3.5		-6.5		5.3		114	-				
China	4.3	Q2	3.6	4.7	0.8	Aug	0.9	5.3	Aug ^{‡§}	4.3		-5.4		1.4	\$§	-21	6.70		6.1		
Japan	0.9	Q2	1.4	0.8	1.9	Aug	1.8	2.5	Aug	4.0		-1.8		3.1		143	158		-4.9		
Britain	1.4	Q2	2.1	1.3	3.1	Aug	3.3	4.9	Jun ^{††}	-3.4		-5.2		5.4		67	0.75		-1.3		
Canada	1.1	Q2	3.3	0.9	3.0	Aug	2.8	6.4	Aug	-0.3		-2.1		3.9		71	1.42		-2.1		
Euro area	1.2	Q2	2.6	0.9	3.8	Sep	3.0	6.4	Aug	2.3		-3.6		3.5		75	0.89		-3.4		
Austria	0.4	Q2	-0.6 [*]	0.4	3.5	Sep	3.1	6.7	Aug	1.2		-4.1		3.7		70	0.89		-3.4		
Belgium	0.5	Q2	0.1	0.6	4.6	Sep	3.7	5.9	Aug	0.2		-5.2		4.4		108	0.89		-3.4		
France	0.5	Q2	0.1	0.6	3.4	Sep	2.4	8.2	Aug	-0.4		-5.3		4.8		127	0.89		-3.4		
Germany	1.0	Q2	1.3	1.0	3.3	Sep	2.8	4.0	Aug	4.4		-4.2		3.5		75	0.89		-3.4		
Greece	1.8	Q2	1.4	2.0	3.7	Aug	3.8	7.4	Aug	-5.6		0.6		4.5		106	0.89		-3.4		
Italy	1.0	Q2	0.6	0.9	4.1	Sep	2.9	6.2	Aug	0.7		-3.0		4.6		108	0.89		-3.4		
Netherlands	1.6	Q2	2.6	1.3	3.0	Sep	2.9	4.0	Aug	8.3		-3.0		3.6		71	0.89		-3.4		
Spain	2.6	Q2	2.8	2.6	5.0	Sep	3.6	10.0	Aug	2.4		-2.5		4.1		88	0.89		-3.4		
Czech Republic	1.8	Q2	1.1	2.0	2.5	Sep	2.0	3.0	Q2 [‡]	0.1		-2.8		5.3		86	21.7		-4.2		
Denmark	5.8	Q2	3.6	2.7	2.1	Aug	1.9	3.1	Aug	11.3		1.2		3.3		76	6.64		-4.1		
Norway	2.0	Q2	2.7	1.5	3.3	Aug	3.0	4.4	Jul ^{††}	13.0		10.0		4.7		60	9.55		3.9		
Poland	3.9	Q2	4.1	3.4	4.0	Sep	3.0	5.8	Aug [§]	-2.0		-7.0		6.3		80	3.88		-6.4		
Russia	1.3	Q2	8.3	0.7	6.3	Aug	6.2	2.2	Aug [§]	2.3		-3.2		16.7		176	85.7		-3.2		
Sweden	3.2	Q2	6.4	2.1	1.2	Sep	1.6	8.5	Aug [§]	5.3		-2.3		3.2		49	9.99		-6.2		
Switzerland	2.8	Q2	7.8	1.7	1.0	Sep	0.6	3.1	Sep	8.2		0.2		0.6		28	0.83		-4.8		
Turkey	2.3	Q2	4.6	2.7	29.7	Sep	31.0	7.7	Aug [§]	-2.4		-3.5		32.7		341	49.2		-15.2		
Australia	2.1	Q2	1.7	2.1	4.0	Aug	4.0	4.6	Aug	-3.4		-1.5		5.3		104	1.43		5.6		
Hong Kong	4.3	Q2	-2.5	4.1	1.7	Aug	1.9	3.8	Aug ^{††}	8.1		-2.6		4.2		109	7.85		-0.8		
India	7.8	Q2	6.8	7.2	4.8	Aug	4.6	4.0	Sep	-1.5		-4.3		7.2		73	96.4		-8.0		
Indonesia	5.3	Q2	4.4	5.3	3.3	Sep	3.4	4.7	Feb [§]	-2.1		-2.9		7.2		95	17,870		-7.1		
Malaysia	6.0	Q2	9.3	5.6	1.9	Aug	1.9	3.0	Jul [§]	3.1		-3.6		4.0		51	4.09		3.2		
Pakistan	4.8	2026**	na	3.0	10.3	Sep	9.0	6.9	2025	-1.1		-4.7		12.8	†††	78	277		1.6		
Philippines	2.3	Q2	2.4	2.9	7.2	Sep	5.6	6.0	Q3 [§]	-4.6		-6.4		8.0		193	62.8		-7.2		
Singapore	5.9	Q2	5.7	5.7	2.3	Aug	2.1	1.9	Q2	15.8		1.3		2.5		58	1.28		0.8		
South Korea	3.8	Q2	2.6	3.5	2.9	Sep	2.7	2.0	Aug [§]	13.6		-0.6		4.4		143	1,338		5.5		
Taiwan	12.9	Q2	5.7	12.0	2.7	Sep	2.0	3.3	Aug	25.2		1.6		2.0		62	31.8		-4.1		
Thailand	1.9	Q2	-0.7	2.1	2.8	Sep	1.9	1.2	Aug [§]	-0.3		-5.5		2.4		97	33.6		-3.4		
Argentina	2.0	Q2	-2.3	1.7	33.5	Aug	32.5	7.9	Q2 [§]	0.1		0.2		na		na	1,521		-6.0		
Brazil	2.0	Q2	1.9	2.0	4.2	Aug	4.4	5.3	Aug ^{§††}	-2.6		-7.3		12.9		-94	4.98		6.6		
Chile	-0.2	Q2	-0.1	0.4	4.1	Aug	3.8	9.6	Aug ^{§††}	-1.1		-1.8		6.1		47	973		-1.2		
Colombia	3.4	Q2	5.2	2.5	6.2	Aug	6.0	9.4	Aug [§]	-2.0		-7.3		13.1		171	3,216		19.8		
Mexico	2.1	Q2	5.8	1.3	3.3	Aug	3.8	2.7	Aug	-0.4		-4.0		9.4		56	18.0		2.0		
Peru	2.6	Q2	-1.0	2.8	4.5	Sep	3.8	4.9	Aug [§]	3.2		-2.1		6.5		61	3.43		0.6		
Egypt	4.7	Q2	4.0	5.1	14.5	Aug	13.7	5.8	Q2 [§]	-4.2		-5.3		25.6		50	52.3		-9.0		
Israel	7.0	Q2	14.9	4.3	1.5	Aug	1.9	2.8	Aug	1.0		-3.3		4.2		18	3.05		7.5		
Saudi Arabia	-4.7	Q2	-17.9	-4.8	1.8	Aug	1.9	3.0	Q2	-3.8		-7.2		na		na	3.75		nil		
South Africa	0.9	Q2	-1.0	1.1	4.2	Aug	4.1	33.6	Q2 [§]	-0.3		-4.4		9.0		-18	16.5		3.9		

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	% change on:		
	Index Oct 7th	one week	Dec 31st 2025
United States S&P 500	7,801.8	2.0	14.0
United States NAS Comp	27,538.7	2.5	18.5
China Shanghai Comp	3,842.2	nil	-3.2
China Shenzhen Comp	2,404.5	nil	-5.0
Japan Nikkei 225	70,035.7	4.9	39.1
Japan Topix	4,154.1	1.1	21.9
Britain FTSE 100	10,458.5	-1.4	5.3
Canada S&P TSX	35,041.9	-0.6	10.5
Euro area EURO STOXX 50	6,180.3	-1.4	6.7
France CAC 40	7,769.2	-2.5	-4.7
Germany DAX*	25,449.2	1.0	3.9
Italy FTSE/MIB	49,972.2	-2.7	11.2
Netherlands AEX	1,117.8	0.3	17.5
Spain IBEX 35	19,118.0	-1.6	10.5
Poland WIG	156,686.1	-0.4	33.6
Russia RTS, \$ terms	861.6	0.8	-22.3
Switzerland SMI	13,788.9	-0.3	3.9
Turkey BIST	12,122.9	1.5	7.6
Australia All Ord.	8,894.6	-0.8	-1.4
Hong Kong Hang Seng	24,130.5	-2.0	-5.9
India BSE	72,638.7	0.2	-14.8
Indonesia IDX	6,146.7	1.2	-28.9
Malaysia KLSE	1,611.8	-2.4	-4.1

	% change on:		
	Index Oct 7th	one week	Dec 31st 2025
Pakistan KSE	168,580.4	-0.8	-3.1
Singapore STI	5,608.4	-1.2	20.7
South Korea KOSPI	6,803.9	-0.5	61.5
Taiwan TWI	49,806.4	3.9	72.0
Thailand SET	1,584.6	1.6	25.8
Argentina MERV	2,824,122.5	0.2	-7.5
Brazil BVSP*	204,302.3	9.6	26.8
Mexico IPC	64,653.3	0.7	0.5
Egypt EGX 30	53,265.2	2.6	27.3
Israel TA-125	3,932.4	-3.5	7.3
Saudi Arabia Tadawul	10,542.2	1.0	0.5
South Africa JSE AS	107,104.3	-1.3	-7.5
World, dev'd MSCI	4,984.9	1.7	12.5
Emerging markets MSCI	1,742.9	2.2	24.1
US corporate bonds, spread over Treasuries			
			Dec 31st 2025
Basis points		latest	2025
Investment grade		92	93
High-yield		337	354

Sources: FactSet; Moscow Exchange; Standard & Poor's Global Fixed Income Research *Total return index

Commodities

The Economist commodity-price index				% change on	
2020=100					
				month	year
Dollar Index					
All items	152.8	152.9	-2.9		12.5
Food	153.0	154.4	-1.0		8.8
Industrials					
All	152.5	151.6	-4.5		15.9
Non-food agriculturals	153.5	152.7	-2.8		20.4
Metals	152.3	151.4	-4.9		14.8
Sterling Index					
All items	148.5	148.0	-0.9		13.9
Euro Index					
All items	153.9	155.2	0.3		16.6
Gold					
\$ per oz	4,163.4	4,156.4	-5.5		4.5
Brent					
\$ per barrel	102.6	100.6	2.7		53.7

Sources: CME Group; FactSet; LME; NOREXECO; NZ Wool Services; S&P; Thompson Lloyd & Ewart; USDA *Provisional. Note: new series for gold, oil and cotton

For historical indicators data, visit [economist.com/economic-and-financial-indicators](https://www.economist.com/economic-and-financial-indicators)

OBITUARY

Cyril Hilsum

The physicist who invented liquid-crystal displays died on September 23rd, aged 101



WHENEVER IN LATER life a fresh idea struck him, Cyril Hilsum would leave the dinner table and wander to his lab. He didn't have far to go. Part of it was in the garage, part in the scullery, of his house in Pinner, north-west of London. The rest was in the kitchen. One counter was his electronics bench, with an oscilloscope, a pair of waveform generators, a spectrum analyser and a tray of voltage dividers looped to each other and to a soldering station with a maze of cables. On the facing counter stood a three-roll mill for working conductive powders, a precision balance, a small vacuum chamber and many labelled jars of carbon black and nickel powder. Everything had its place here apart from kitchen stuff; but he dined, and lunched too, mostly on red wine, ready meals and chocolate. Fruit and veg he disdained. He lived very healthily on a diet of curiosity, hard work and endless ideas.

In all he had over 70 patents to his name. The last, filed when he was 97, was for ink with sensors that conducted electricity. His lasting fame, though, came from liquid-crystal displays. In the 1970s he realised that these could replace the bulky, power-hungry TVs of old, with their bulging cathode-ray tubes and curved screens, with slim flat-screen models that could be hung on a wall. He and his collaborators started small, with digital watches in 1974; but in no time flat screens were everywhere, in computer monitors, cockpit displays, departure boards and, especially, mobile phones. Sharper images took longer; but in the modern screen-bound age, he changed the world's way of seeing.

It had been difficult work. Liquid crystals certainly behaved like liquids, because they flowed, but their molecules could keep a structure for a very brief time. It was up to him to stabilise them and induce them to work at room temperature. In two years he and two colleagues, George Gray and Peter Raynes, produced and patented a whole new controllable family of them.

His second-proudest achievement was to build in 1962 Britain's first semiconductor laser, which involved getting gallium arsenide to behave. This was extremely hard. To make it he had to mix gallium with arsenic in a silica tube, heat it furiously, stick it in a shed and wait til morning. By then it would have burst the tube asunder, and he would have to pick out the pieces. But now he had

a compound whose electrons were finely tuned to convert electrical energy efficiently into light, making a laser so compact that it could be used with ordinary batteries in everyday devices: CD players, burglar alarms, speed-detection devices, LEDs, printers and scanners.

The mini-radars proved especially useful. They could be fitted under trains to start them braking, even at 200mph, and one version, called Claribel, used the speed and trajectory of a bullet to pinpoint the position of hidden snipers in Northern Ireland. Once deployed, the sniping stopped. As for him he was stopped too, by a policeman with a speed-gun, as he roared down a motorway in his usual mode; but got away with it by saying he was its inventor, and that one was wrongly calibrated. He didn't lose many arguments, even with the law. But then, with his nimbus of hair and his high domed forehead, he did look every inch an inventor.

At that time he was working at the Royal Signals and Radar Establishment at Malvern, where he stayed from 1964 to 1983. Strictly speaking he was a civil servant, although he never felt like one; he was a scientist and an engineer. An engineer first perhaps, who at three had taken his toys apart to see how they worked and, sometimes, succeeded in reassembling them. His bent was practical and, often, commercial. That came from being the son of struggling street traders in the East End. At weekends he worked on the stalls (chamois leather on Portobello Road, flat caps on Petticoat Lane), and in the evenings he often watched his father concealing, with gold paint, the printed price on chocolate bars, in order to sell them for more. A large part of his impetus to replace cathode-ray tubes was the fact that the British government was paying huge royalties to the Radio Corporation of America for using them. When everyone went roaring after liquid crystals, the government speedily earned £100m.

He was still frustrated, though, by officialdom's general failure to exploit the good ideas British scientists had, and at 57 he left Malvern to lead the GEC Hirst Research Centre. Amazingly, it was the first time he had ever decided what to do in life. Previously, he had simply moved from project to project as ministers or higher-ups dictated. He went willingly, because every promotion was a step further from the East End, and because his quick mind (he beat Alan Turing at chess, once) always won him a measure of independence. At school he and his friend Jack had been allowed to sit in the back row, working at their own fast pace. At both Malvern and at GEC, and before that, he had a lab of his own.

He believed strongly, however, that scientists should be accountable for what they were doing. His consistent question was, Why? Why had his mother insisted on washing him every day, when he hardly got dirty? And why did theoretical physicists sit every day at their desks or in their labs, enjoying taxpayer funding, without trying to apply what they had learned? If they had seen an effect, it was up to them to find a use for it, as he infallibly had.

In 2006 the British Liquid Crystal Society introduced a Cyril Hilsum medal. He was pleased, but almost embarrassed. He cared more about the scholarship he had set up in memory of his wife Betty, his rock, and the prize he started in memory of his daughter Karen, who died at 42. She had been a promising engineer. All through his career he had hired or promoted women equally with men. In fact, as scientists he preferred them. Men cared about learning more; women cared about using science for good. That was much more crucial, for him, than any wonders they might do in the kitchen. And anyway, they could hardly get into his. ■

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