The Economist

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Asia's new tech war

Escaping from China to America

AI wins big at the Nobels

OCTOBER 12TH–18TH 2024

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Volume 453 Number 9418
Published since September 1843
to take part in *"a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."*

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The world this week Politics

More than 5.5m people in Florida were told to evacuate ahead of **Hurricane Milton**, the state's second giant storm in two weeks. Milton was recorded as the strongest hurricane to cross the Gulf of Mexico since 2005. It lost some of its punch by the time it hit Florida's west coast but still packed winds of 120mph (193kph). The biggest threat to coastal towns came from storm surges, predicted to reach 12 feet (3.7 metres) in some places.

The iron lady

Claudia Sheinbaum, **Mexico's** new president, unveiled her strategy to tackle violent crime. She plans to focus on improving intelligence and investigation capabilities, as well as co-ordination between security forces, much as she did as mayor of Mexico City. But tackling well-armed criminal gangs across the country will be a far harder task.

Near-starvation conditions in **Haiti** are forcing more young boys to join the criminal gangs that in effect control the country, according to Human Rights Watch. Its report came a few days after the UN said that an attack by the notorious Gran Grif gang on the town of Pont Sondé had killed 70 people.

Meanwhile, the Haitian government roundly criticised the decision by the neighbouring **Dominican Republic** to send Haitians who live there illegally back across the border. The Dominicans plan to deport 10,000 migrants a week. Haiti's foreign minister described scenes of Haitians being rounded up as "brutal" and "an affront to human dignity".

Brazilians elected over 5,500 mayors and tens of thousands of city councillors in local elections. Centre-right and right-wing parties were the winners, with incumbents being re-elected in most municipalities. Though local concerns dominated the elections, the results are considered a bellwether for national sentiment. The party of the left-wing president, Luiz Inácio Lula da Silva, did poorly.

The first legislative election in a decade in the **Indian** area of Jammu & Kashmir was won by the National Conference, a regional party aligned with Congress, the main opposition party at federal level. An election in the state of Haryana was won by the governing Bharatiya Janata Party, a much-needed boost for the prime minister, Narendra Modi. Its victory was a surprise; polling had put Congress well ahead.

Two Chinese engineers were killed in a suicide-attack in Karachi. The Balochistan Liberation Army, which wants to separate the province from **Pakistan**, claimed responsibility. In the past it has attacked Chinese nationals who work on development projects, claiming locals are not being fairly compensated.

Russia attacked Ukraine's Black Sea port of **Odessa** again, damaging two ships in separate strikes. Ukraine said Russia was trying to "disrupt the successful work" of its grain-exports corridor. Russia also targeted Kyiv with a barrage of drones, most of which were shot down. Meanwhile, Russian forces closed in on Toretsk, another front-line town in east Ukraine, a week after the fall of Vuhledar.

Russian-intelligence agents have been trying to cause "mayhem" across Britain and Europe, according to Ken McCallum, the director-general of Britain's MI5. Around 750 Russian diplomats have been expelled from Europe since the start of Russia's invasion of Ukraine in February 2022, most of them spies. Mr McCallum said Iran had also stepped up its attempts to cause disruption. As well as terrorism, MI5 now contends with "state-backed assassination and sabotage plots".

In a video address directed at the Lebanese people Binyamin Netanyahu, Israel's prime minister, said they should free their country from **Hizbullah** to avoid "destruction and suffering like we see in Gaza". Meanwhile, fighting between Israel and the Iranian-backed militia intensified, and Israeli air strikes on Beirut and southern Lebanon continued. Lebanon says more than 1.2m people have been displaced.

Israel marked the first anniversary of the Hamas attacks of October 7th 2023. The government produced a pre-recorded broadcast. Families of the victims of the attacks and the hostages in Gaza, many of whom had refused to take part in the government event, held their own memorial.

Kais Saied, the president of **Tunisia**, won re-election in a landslide with more than 90% of the vote. Only two candidates were allowed to stand against him and only 29% of the electorate turned out. Mr Saied's nearest challenger was sentenced to 12 years in prison for falsifying documents just five days before the poll.

Taye Atske Selassie was appointed **Ethiopia's** president after Sahle-Work Zewde, Ethiopia's first female head of state, resigned. She had reportedly fallen out with the prime minister, Abiy Ahmed. It is the latest sign of disquiet within the government. Ms Sahle-Work's appointment in 2018 was seen as evidence of the prime minister's liberal instincts. However, creeping authoritarianism has since stained his record.

Counting began in **Mozambique's** election to choose a successor for President Filipe Nyusi, who is stepping down after two terms. The most likely winner is Daniel Chapo, Mr Nyusi's hand-picked successor, of the Frelimo party, which has ruled Mozambique since independence from Portugal in 1975.

Britain's prime minister, Sir Keir Starmer, lost his chief of staff just three months after taking office. Sue Gray was a senior long-serving civil servant before joining Sir Keir's team. Her resignation came after weeks of headlines about controversial donations from a Labour peer, the level of her salary and briefings that her management style was delaying government decisions.

The British government was criticised by opposition politicians for its decision to hand sovereignty of the **Chagos Islands** to Mauritius. Under the agreement Britain retains a lease of the military base on Diego Garcia, a vital hub in the Indian Ocean for far-flung American operations. But critics question how secure that arrangement will be once Mauritius takes over.

Ayes to the right

The race to become the **Conservative Party's** new leader was whittled down to Kemi Badenoch, an outspoken anti-wokeist, and Robert Jenrick, who takes a hard line on immigration. Tory MPs discarded other, more centrist candidates. Conservative rank-and-file members get to choose between the final two, with a result on November 2nd.

The world this week Business

America's Department of Justice laid out its proposals for how to deal with **Google**, after a court in August found that the company had acted illegally to maintain a monopoly in internet search. In a filing to the court the government said the options it is considering include "behavioural and structural remedies" that would stop Google from using products such as Chrome, Play and Android to give it an advantage in search over rivals—in effect, a break-up of Google. Another option is forcing Google to share users' search data with rivals. Google said the proposals were a threat to American competitiveness. The judge in the case won't issue his recommendation until August.

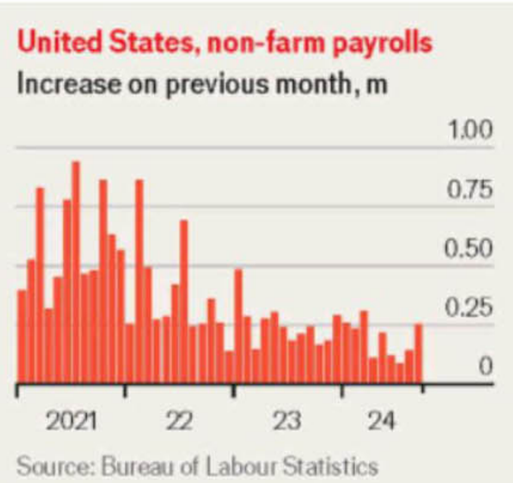
What goes up...

Chinese stockmarkets fell back to earth with a bang, when a meeting of economic officials produced no additional stimulus on top of the measures that were recently rolled out. The blue-chip CSI 300 and Shanghai Composite fell by roughly 7% in a day, their biggest daily declines since the start of the pandemic. Investors are hoping that a briefing from the ministry of finance on October 12th will provide clues about any further stimulus.

X was restored in **Brazil**, after Elon Musk relented in his fight with the country's Supreme Court and agreed to remove content that the court has deemed to be extremist from his social-media platform. X is paying millions of dollars in fines, while the court is unfreezing assets belonging to X and Starlink, Mr Musk's satellite-based internet provider.

Rio Tinto agreed to buy **Arcadium Lithium** for $6.7bn, the biggest takeover to date of a lithium miner. The deal will make Rio Tinto one of the world's largest producers of the metal, which is an important element in the manufacture of electric cars. Arcadium's customers include Tesla and General Motors.

Chevron said it was selling its assets in **Canada's tar sands** to Canadian Natural Resources for $6.5bn. Deal-making has been rife in Canada's oil-rich western regions since operations in the expanded Trans Mountain pipeline began in May, boosting shipments of Albertan oil along the west coast and to Asia.



American employers added 254,000 **jobs** to the payrolls in September, a higher number than markets were expecting. That caused investors to bet that the next interest-rate cut from the Federal Reserve will be smaller than September's half a percentage point reduction, as it glides the economy towards a "soft landing".

New Zealand's central bank cut its main interest rate by half a percentage point, to 4.75%, following a quarter-point reduction in August. The economy contracted in the second quarter. An even bigger rate cut is expected next month.

Oil prices remained volatile amid speculation that Israel may strike at Iran's energy infrastructure and worries about hurricanes in America's oil-producing Gulf region. Brent crude surged above $80 a barrel, its highest price since August, before pulling back.

Germany's economy is now expected to shrink by 0.2% in 2024, according to the government, which would be the second consecutive year of contraction. It is forecast to grow by 1.1% in 2025.

Talks between **Boeing** and striking workers at its west-coast factories turned sour, as the company withdrew its pay offer and accused the union of not taking the negotiations seriously. The month-long strike is hampering Boeing's recovery from a series of production setbacks. It delivered 33 aircraft in September, down from 40 in August.

Ports on America's east and Gulf coasts opened for business again, after dockworkers ended their strike. Employers reportedly increased their pay-rise offer from 50% to 62% to get the workers to return.

China imposed anti-dumping measures on imports of **brandy** from the European Union, a tit-for-tat move in reaction to the EU's planned tariffs on Chinese electric vehicles. The share prices of LVMH, which owns Hennessy cognac, and other brandy-makers fell sharply. The EU's member states have voted to move ahead with the tariffs, despite the objections of Germany. China has described the duties as "unfair, non-compliant and unreasonable protectionist practices".

Dear valued investors

Samsung Electronics issued a public apology for not meeting expectations on performance and for the sense of crisis gripping the company. The South Korean firm has fallen behind the likes of Micron and SK Hynix in supplying chips for artificial intelligence. Its estimate of profit for the third quarter has come in well below forecasts. "Respected customers, investors, and employees," Samsung said in an open letter, "these are testing times."

The Economist

The Trumpification of American policy

As Kamala Harris has moved closer to Donald Trump's old policies, Mr Trump has grown more extreme

THE CHOICE facing America in less than a month will not be made by voters weighing rival sets of policies. Kamala Harris's plans lack detail; Donald Trump's are sometimes untethered from reality—and in any case divisions over culture motivate voters more than tax policy. Yet the choice matters hugely in policy terms, for America and the rest of the world. This aspect of the election has been under-covered relative to fantasies about what Haitian migrants in Ohio have for lunch. Our current issue, which contains eight concise policy briefs on the areas where we think the election will make the most difference, is intended as an antidote to that.

Our list is selective: we have left out subjects where the contrast between the two candidates is stark, but which have no direct bearing on public policy. These include the candidates' characters, what the election would mean for institutions and even for American democracy. Nor have we included abortion, where the candidates' different views are unlikely to translate into markedly different policies thanks to a Congress that neither party is likely to dominate (see Briefing). Strip those things out, important as they are, focus on policies that are in the president's gift instead, and the result is surprising. Whoever gets to 270 electoral-college votes on November 5th, Mr Trump's ideas will win. He, not Ms Harris, has set the terms of this contest. American policy has become thoroughly Trumpified.

Take Ms Harris's domestic platform. Her immigration policy is to endorse the most conservative bipartisan reform proposal this century. Its provisions include shutting down asylum applications when the flow of irregular migrants is high. Her trade policy involves keeping, in modified form, most of the tariffs Mr Trump imposed in his first term. On tax, Ms Harris would keep most of the cuts Mr Trump signed in 2017 (raising rates only for those who earn over $400,000). On energy, she has become a convert to fracking and has been part of an administration that has seen America pump more oil and gas than ever before. Because America is so partisan, and Mr Trump is such a polarising figure, Ms Harris has been able to borrow parts of Mr Trump's first-term agenda without most people noticing.

This policy-poaching makes political sense. Mr Trump moved onto Democrats' turf first, love-bombing trade unions and scrapping Republican plans to trim public spending on pensions and health care. Because the election will be fought in six or seven swing states, all of which were a couple of percentage points more Republican than the national average in 2020, Ms Harris's quiet adoption of Trumpier positions could help her win. Yet the result is that a candidate who lost the last election, whose party was trounced in the 2018 midterms—a candidate who has never won the popular vote and probably never will—has remade American policy in his image.

The same is true in foreign policy. The two candidates have different approaches: one is built on values and alliances; the other on asking what the world can do for America. If Mr Trump wins, nervous speculation over America's commitment to NATO will come back; with Ms Harris it is not in doubt. Yet there is surprising overlap. Mr Trump adopted a more confrontational approach to China than any recent president, even if his policies were in practice less scary than they sounded. The administration Ms Harris has been part of has been less verbally antagonistic but tougher in practice, banning technology exports to China and placing huge tariffs on imports of Chinese electric vehicles. On the Middle East, Ms Harris has not let Mr Trump outflank her on the right, despite pressure from within her own party to cut arms supplies to Israel. Nor does she seem in a hurry to revive the deal with Iran that Mr Trump tore up; this week she called the Islamist regime America's greatest adversary. Here too, Mr Trump has set the terms.

Support for Ukraine is where the gap seems widest. Ms Harris has been part of an administration that has led the Western effort to help Ukraine defend itself against Russia's unprovoked invasion. She would continue to supply Ukraine with arms and cash, as long as Congress let her do so. Mr Trump's policy is extraordinarily vague: he says only that the war would not have broken out on his watch and that he would end it swiftly. He does not say how, and his refusal to say which side he would like to win adds to fears that he would urge Ukraine to settle on Russia's terms. Such a catastrophic betrayal is not certain, however. Even Mr Trump may worry that letting Russian tanks roll over more of Ukraine would make him look weak.

A choice and an echo

The second thing that is clear from our policy briefs is that while Ms Harris has moved towards the Donald Trump of the first term, Mr Trump has become more extreme, even compared with his prior self. On trade he said earlier this year he favoured a 10% universal tariff on imports and has now upped that to 20%. He wants a tariff of 60% on all Chinese imports. On tax he now wants to cut everything in sight, making all the 2017 cuts permanent and reducing corporate taxes further. The Committee for a Responsible Federal Budget reckons that his plans would add twice the amount to the national debt that Ms Harris's would (and hers are hardly restrained). On immigration, 2024 Trump is more extreme than 2016 Trump. He always needs a new big promise, and this time it is not merely a wall but mass deportation. Some of his policies are extreme by omission: he has no discernible plan for reducing CO_2 emissions, or for helping the country adapt to climate change.

Next week we will look more closely at how the two candidates' policies might affect the economy. For all Mr Trump's claims that President Joe Biden has "destroyed" it, America's economy is currently the envy of the world. Yet it is striking how little faith either candidate places in the things that made it great, such as openness to trade, talent and competition (see Finance & economics section). Clearly, Ms Harris would not seek to shut America off as vigorously as Mr Trump would. But whoever wins in November, the Trumpification of American policy seems likely to continue. ■

Hurricane Milton

Paradise lashed

Storms like Milton raise uncomfortable questions about Florida's future

THE NUMBER of deaths caused by Hurricane Milton, which struck the west coast of Florida on October 9th, will not be tallied until days after the storm has swept over the peninsula and headed out into the Atlantic. The amount of damage done will not be clear until well after the waters subside from the areas it flooded. How Florida and other storm-prone places will adapt to climate change is also unclear. But adapt they must.

Global warming is not making hurricanes more frequent. It is, however, adding to what makes them destructive. Experts see evidence of human influence in the fact that their winds are more often exceeding 208 kilometres per hour (112 knots), the speed at which a storm graduates to the fourth of the five levels on the Saffir-Simpson scale, which is used to give a sense of the damage in store. And the speeds often pick up at a breathtaking rate. On October 7th Milton went from not being a hurricane at all to having wind speeds of over 250kph in under 25 hours.

The physics behind the dangers posed is simple. A warmer world has warmer seas; more heat stored in those seas means there is more energy available to drive hurricanes. A warmer world also has warmer air; warmer air can absorb more water vapour, which means heavier rains on the land over which hurricanes pass. And a warmer world has less ice, and thus higher sea levels; higher sea levels worsen the storm surges pushed inland by a hurricane's winds.

There are differences of opinion over the degree to which these trends are already discernible. But the waters of the western Gulf of Mexico, over which Milton formed, are at a remarkable 31°C (88°F). Helene, which hit the Florida panhandle as a category 4 hurricane on September 26th before going on to cause deadly floods in Georgia, the Carolinas and southern Appalachia, underwent a striking intensification as it passed over very hot water in the Gulf shortly before landfall. The damage its torrential rains did inland was not unprecedented; the floods which wrecked Asheville, North Carolina, in 1916 were also due to a hurricane (in fact, to a pair of them). But the sheer amount of water that fell from the sky this time was biblical: something like 100 billion tonnes.

Most Americans are not insured against such hammer blows. Private companies do not offer flood insurance, and few homeowners buy the coverage on offer from the federal government unless they are required to by dint of living on a flood plain. That is why, though the damage done by Helene has been estimated at $250bn, insurers are on the hook for less than 6% of that amount.

More people are insured against flooding in Florida; Milton will cost the government scheme a lot. The damage done by winds can be insured against privately. Premiums, as you might expect, are pricey; that said, the number of insurers that go out of business suggests they are not pricey enough. The result is that the state government both offers its own subsidised insurance and ends up bailing out those affected when other insurers go broke.

Proper insurance coverage, coupled with a firm adherence to the relevant hurricane-aware building codes (descended from those laid down when Herbert Saffir of Saffir-Simpson-scale fame was a county engineer in South Florida) could help make Florida more resilient. They would cost a lot. But if those costs are not borne by Floridians through a mixture of premiums, taxes and mandatory renovations to bring buildings up to code, they will either be passed to the federal government or they will not be paid, and the situation will deteriorate. It would be fairer if those who enjoy the delights of living in Florida shoulder the bulk of the costs. Those who do not want to may opt to live somewhere else. Hard choices like this will proliferate as the world keeps warming. ■

Oil prices

Shock horror

Geopolitical risk is rising. But so is the supply of oil

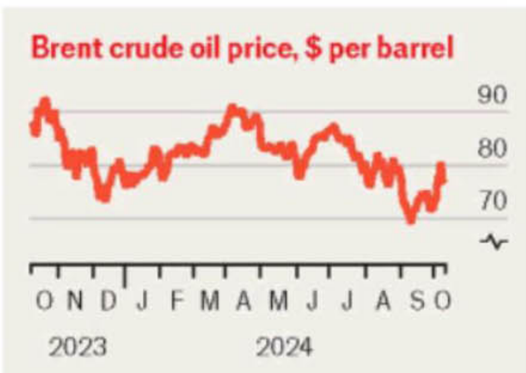
ALL AROUND the world consumers, motorists and politicians are nervously eyeing the oil price. The conflict between Israel and Hamas that began a year ago is spreading. If all-out war erupts between Israel and Iran, the threat to the Middle East, a region that produces a third of the world's crude, is as obvious as it is scary. Few commodities affect the global economy as much as oil does. And, as America's presidential candidates are keenly aware, few are as likely to sway an election. The past two years of inflation have shown just how much voters hate sticker shock.

The price of oil rose by 10% in a week, as Israel attacked Hizbullah, a Lebanese militia backed by Iran, and Iran retaliated with around 200 missiles fired directly at Israel. On October 7th it reached $81 a barrel, before falling. Two and a half years ago Russia's invasion of Ukraine sent oil prices surging beyond $120, as the West imposed sanctions on Russia and fears intensified of disruptions to the supply from the world's second-biggest exporter. What could happen this time? If the fighting gets worse (see Middle East & Africa section), a serious oil shock is possible. But a glut of supply means the oil market is less vulnerable to such a shock than it was in 2022.

As we published this, Israel had yet to retaliate against Iran. ▸▸

On October 3rd Joe Biden, America's president, jolted the market when he hinted that Iran's oil infrastructure might be in Israel's cross-hairs. However, that is only one of many possible targets. And even if Iran's oil output were disrupted, it is not as big a producer as Russia. It exports nearly 2m barrels per day (bpd), about 2% of the global supply (see Finance & economics section). By comparison, Russia exports nearly 5m bpd.

The global picture, too, is markedly different from 2022. When Russia invaded Ukraine oil was in short supply and demand was roaring back, as the world's economies came out of covid lockdowns. The market was ripe for an upset. Today the world is swimming in oil. The Organisation of the Petroleum Exporting Countries (OPEC) and its allies, spearheaded by Saudi Arabia, had sought to keep prices high by pumping less. But that plan has failed, fuelling indiscipline and cheating by other members. Now it is being abandoned, with the cartel promising to increase output in December.



Even Saudi Arabia, which is desperate for higher prices to finance its gaudy spending plans at home, is throwing in the towel. It has reportedly dropped its price "target" of $100 a barrel, so that it can at least shore up its market share. OPEC and its allies have spare capacity of more than 5m bpd; Saudi Arabia alone could ramp up production by 3m.

OPEC's squabbles mask a more fundamental shift. Nearly 60% of the world's oil now comes from countries other than the cartel and its allies, up from 44% in 2019. America's shalemen have become the biggest producers in the world by far (see United States section). Brazil, Canada and Guyana have all increased their output in recent years. According to the International Energy Agency, production by non-OPEC countries will grow by 1.5m bpd next year.

At the same time, demand for oil has been tepid. After their post-pandemic bounce-back, the economies of America and Europe are slowing down as past interest-rate increases start to bite. China's economy is struggling under the weight of its property slump. On October 8th America's Energy Information Administration revised down its forecast for global oil demand in 2025 as a result of weakening manufacturing activity around the world. Before the latest escalation in the Middle East, oil traders had expected a glut in 2025 as a consequence of weakening demand growth and expanding supply, pushing prices below $70 a barrel.

Today's ample supply provides a shield against geopolitical shocks, but not an impregnable one. If Israel were to hit Iran's own oil infrastructure, Iran could attack oil producers that have signed economic accords with Israel, such as Bahrain or the United Arab Emirates. Or it could block the Strait of Hormuz, through which much of the Gulf's oil travels. That might push the oil price close to its highs of 2022.

Iran's theocratic rulers would be foolish to take such actions, which could draw America into the conflict and infuriate Iran's few remaining friends, such as China, the world's biggest oil importer. But in the Middle East, nightmare scenarios can never quite be ruled out. Because oil production is still concentrated in a handful of countries, the supply remains vulnerable to the reckless decisions of a few autocrats. Thanks to rising global production and weakening demand, however, the market is better cushioned than it has been before. ■

Digital infrastructure

A sting in the tail

In Asia's new tech war, America is not doomed to lose to China

A TECHNOLOGY tussle between the two superpowers is never far away. This week the *Wall Street Journal* reported a breach of American telecoms networks by a Chinese hacking group known as "Salt Typhoon", which was seemingly intended to glean knowledge about American wiretapping activities. In both countries, deep mistrust has led to a policy of shunning the other's digital infrastructure. Uncle Sam bars Huawei, a Chinese firm, from installing its telecoms kit in America; China discourages the sale of Silicon Valley's servers and cloud-computing products within its borders.

Yet in much of the world American and Chinese infrastructure—the data centres, undersea cables and wires that underpin the internet—sit side by side, as the two countries compete for market share, profits and geopolitical clout. The fiercest contest is in Asia. There the presence of Chinese digital-infrastructure firms is already substantial. Some 18% of all new subsea cables worldwide in the past four years have been built by a single mainland firm, many criss-crossing Asia. Alibaba's cloud operation is active in nine Asian countries and Huawei has built many mobile networks (see Asia section).

China's success partly reflects a government plan. Its Digital Silk Road strategy, a branch of President Xi Jinping's Belt and Road initiative, aims to dominate the region's internet plumbing. It helps, too, that Chinese firms are innovative and cheaper than American ones, though some are aided by hidden subsidies from the government. By one estimate Chinese cloud services cost 40% less than American-run ones.

If China came to dominate Asia's digital infrastructure, the consequences would be profound. Its ruling Communist Party wants to set the norms that govern data and the internet. China's pull within the world's technical standard-setting bodies has grown (see Business section) and it has promoted a vision of "data sovereignty", under which governments control information and make sure it is stored locally, so nothing can escape the state's grasp.

Digital dilemma

Worse, Chinese-run digital infrastructure could expose Asian countries to the risks of snooping and sabotage. Some governments are complacent about this. They should not be. Chinese hackers have stolen intelligence on the South China Sea from the Philippines, and have targeted Malaysia's Kasawari gasfield, which is in waters that China claims.

When mobile-telecoms networks were being built in the ▸▸

2000s, two Chinese firms, Huawei and ZTE, soundly defeated their American and European rivals in Asia. But that does not mean Chinese firms will necessarily win the battle to supply the next generation of digital infrastructure. The investment cycle has barely started. Tech firms will be investing tens of billions of dollars annually in data centres in Asia for years to come. And the picture is far from uniform. One study finds that China dominates cloud-computing hubs in five of 12 Asian countries, America leads in five and they are neck and neck in two. Some countries, including India, have recently grown warier of the security risk posed by Chinese firms.

To prevail, America should focus on three priorities. The first is to get tougher with its treaty allies which have become wholly reliant on China, in particular Thailand and the Philippines. The latter is intensifying its military links with America even as its digital infrastructure is vulnerable, which makes little sense. Some countries, such as Pakistan and Cambodia, have ceded digital sovereignty to China and are lost causes.

Second, America should aim to develop an Asian alliance for cyber-security and artificial intelligence. In 2017 Donald Trump abandoned an ambitious regional trade deal, the Trans-Pacific Partnership, that would have governed digital commerce among many other things. Reviving that will be impossible, due to America's protectionist turn, but a narrower agreement could plausibly be struck with some countries, giving them access to American technology in return for assurances of heightened caution over Chinese security risks.

Last, America's intelligence agencies could shed more light on Chinese cyber-shenanigans. Public knowledge about the scale of Chinese snooping and hacking is limited. It is time to raise awareness that cheap Chinese digital infrastructure has a sting in its tail. ■

Sovereignty and security

Chagos theory

Britain should not hand the Chagos Islands to Mauritius

THE CHAGOS ISLANDS are the site of one of the shabbier episodes from the period when Britain gave up its empire. Their 1,500 or so inhabitants, the Chagossians, were forcibly expelled in the 1960s and 1970s to make way for an American military base on the atoll of Diego Garcia. British authorities blocked families returning from trips, cut off the supply of teachers and doctors, gassed the islanders' dogs and eventually deported anyone still left.

The British government unsurprisingly wants to draw a line under that sorry history. On October 3rd it announced plans to cede sovereignty over the islands to Mauritius (see Britain section). But the deal is a mistake. It mishandles Britain's historical obligations and the West's future military needs in favour of a debatable territorial claim.

A proper reckoning would start with the Chagossians themselves. Initially they were deported to Mauritius and the Seychelles, where they faced poverty and racism. Britain eventually offered them citizenship. Today many live in Crawley, near Gatwick airport. Little attempt has been made to formally canvass Chagossian opinion, but Peter Lamb, the local MP, says he has not heard a single voice in favour of Mauritian sovereignty.

Mauritius itself has suggested that only Chagossians with Mauritian passports will be able to resettle, locking out those now in Britain or the Seychelles. Some Chagossians in Mauritius may well support the deal, but knowing for sure is impossible: Mauritius has criminalised questioning its claim to sovereignty over the islands. This saga began by disregarding the wishes of Chagossians; it looks set to end that way, too.

Mauritius's case is hardly watertight. The crux of its claim is a non-binding opinion by the International Court of Justice (ICJ) saying that Britain violated international law in separating the Chagos Islands from Mauritius before its own independence. That principle may be sound in general but it is weak in this instance. Britain administered the territories together between 1903 and 1965, but they share no other history.

Backers of the deal in Britain say the status of the Chagos Islands was becoming a diplomatic headache. America was worried that the ICJ could one day issue a binding ruling, throwing the future of the base on Diego Garcia into doubt. But a binding decision would require Britain to agree to ICJ adjudication (Britain's blanket ICJ consent does not apply to current or former Commonwealth members like Mauritius). As for the argument that ceding the islands will help win over the global south to worthy causes such as backing Ukraine, that requires a heroically naive belief in soft power (see Bagehot).

Giving away sovereignty over Diego Garcia is a bigger risk. The base will remain in British hands and under American control for the term of a 99-year lease struck with Mauritius; America would not have signed off on the agreement without safeguards against immediate threats of espionage. But Diego Garcia will be hostage to the whims of future Mauritian governments. Though far from a Chinese proxy, Mauritius has substantial trade links with China. It also is an ally of India, whose foreign policy could diverge materially from the West's in the coming decades. Britain's experience with Hong Kong, where China has flagrantly disregarded its post-handover treaty commitments, should give some pause.

At a minimum, Britain should use its remaining leverage—like the payments it has agreed to make to Mauritius—to guarantee resettlement rights on the islands for non-Mauritian Chagossians and to firm up guardrails against interference with Diego Garcia. Better still would be for members of Britain's Parliament to vote against this deal and push instead for a settlement that would maintain sovereignty over Diego Garcia and lay the ground for a referendum among the Chagossians on the future of the other islands. This agreement manages to worsen the West's military position while compounding a colonial-era wrong. Britain should think again. ■

Letters

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More support for Ukraine

Regarding Ukraine's "declining fortunes" in the war with Russia, ("Crunch time", September 28th), Europe and America could do much more to support the country's military objectives. Ukraine's offensive in 2023 was a disappointment, but we should remember that it was delayed by the West's failure to supply weapons and ammunition to Ukraine in a timely manner, giving Russia time to dig in.

Ever since Russia's initial invasion in 2014, the West has been half-hearted in supporting Ukraine. For eight years we demonstrated our spinelessness. Russia may have been surprised by the extent of the West's sanctions in 2022, but was vindicated by the weakness of our military response.

By failing to ensure total Ukrainian victory we are abetting Russian imperialism.

KENNETH AFFLECK
New Westminster, Canada

When I was in NATO's headquarters in Kabul, a belief emerged that negotiations with the Taliban would inevitably produce a lasting peace deal. It never emerged. The very hope that a deal was possible and just required a bit more pressure on the Taliban's leadership distracted us from recognising that the militants had completely undermined the state apparatus in rural Afghanistan. The Taliban knew they had the momentum and negotiations just served as a tool for their final victory.

Hoping for negotiations is not a strategy. We are long past the age of limited, cabinet wars. For over a century, large wars have ended either with a return to the status quo or a decisive victory. Unless Mr Putin clearly faces defeat he will not be pressed into a reasonable peace. Any deal he would accept would serve only as a means for the eventual subjugation of Ukraine. He needs to see that continuing the conflict with Ukraine will exhaust Russia and risk the collapse of his regime. Attempting half-measures will just give him succour, prolong the conflict and enable his dreams of imperial conquest.

There is no substitute for victory.

MAJOR ROBERT ROSE
Adviser Team Leader
United States Army
Karlovo, Bulgaria

The police can matter

Concerning the decline of murder in Boston ("Wicked safe", September 14th), the close relationship between the police and "violence-interruption" groups that work with young men and women, leading to successful crime reduction, is no fluke peculiar to the city. Five decades of rigorous policing research confirms that approaches that are proactive and preventive, place-based, bespoke and problem-oriented, and that engage the community, can significantly reduce crime without damaging community-police relations. This is especially so when laser-focused on crime hot spots and high-risk individuals. The devil is in the detail.

How police implement and institutionalise high-quality, evidence-based approaches into everyday patrol and investigative activities matters to achieving both public safety and police legitimacy. As with medical science, policing research does have some solid specifics about how to achieve these goals. More attention should be paid to this than unproven best guesses about police reform.

PROFESSOR CYNTHIA LUM
Director
Centre for Evidence-Based Crime Policy
George Mason University
Fairfax, Virginia

Taking control of our food

Bill Gates is entirely correct in saying that "feeding children properly" is crucial for our future (By Invitation, September 17th). Human time, energy, talents and capacity are a scarce resource that we need to nurture to tackle the multiple crises our societies face. But the solution does not lie with supplements or "fortifying bouillon cubes". Rather it demands fixing our broken food system, ending the dominance of a handful of giant companies across the food chain, restoring local food systems and crop diversity, and ending the food waste and environmental disaster that is factory farming.

You could call it food sovereignty, or food democracy.

NATALIE BENNETT
Green Party
House of Lords
London

Pushing for European reform

Since the publication of Mario Draghi's report on Europe's future competitiveness much of the analysis has focused on his call for an additional €800bn ($878bn) annual investment to drive the strategy ("Mario's mixed message", September 14th). But it would do the author a disservice and jeopardise Europe's economic revival if policymakers were to concentrate solely on this aspect. The reality is even grimmer.

Europe is in its worst position relative to other regions of the world since the late 1960s. To facilitate investment the elusive capital-markets union project must become a priority in order to boost the large-scale ventures that Europe needs. Enabling the easy flow of private capital across the European Union will help enormously.

The European Commission should also tackle the cumulative stockpile of overlapping regulatory requirements, many of which originate from ill-conceived or poorly implemented EU legislation. Environmental, social and governance goals are laudable, but the additional regulatory burden is unacceptable to smaller-sized companies. Making a start on minimising this burden would offer swift relief.

Political commitment is a crucial factor if the Draghi report is to evolve into the competitiveness strategy that it purports to be, rather than just a wish-list of ideas that is dispatched to the same dusty archive as many other well-intentioned EU reports. The stakes have never been higher for Europe. The very foundations of post-war integration are under threat.

VLADIMÍR DLOUHÝ
President
Eurochambres
Brussels

Considerate colleagues

As a student of human behaviour, I appreciated Bartleby (mostly) promoting the benefits of kindness in the workplace (September 21st). As Dr Johnson noted, "Getting money is not all a man's business: to cultivate kindness is a valuable part of the business of life."

KURT ELA
Clinical associate professor of psychiatry
Georgetown University Medical Centre
Washington, DC

"Don't You Want Me"?

I have never seen a new government make such a series of public-relations gaffes so quickly as Sir Keir Starmer and his Labour ministers ("That sinking feeling", September 28th). The Tony Blair era played out to the song "Things Can Only Get Better". The Starmer era has started with "Anarchy in the UK". Though I think it is unlikely that this government will ever move from punk to New Wave.

DAVID DOE
Oxted, Surrey

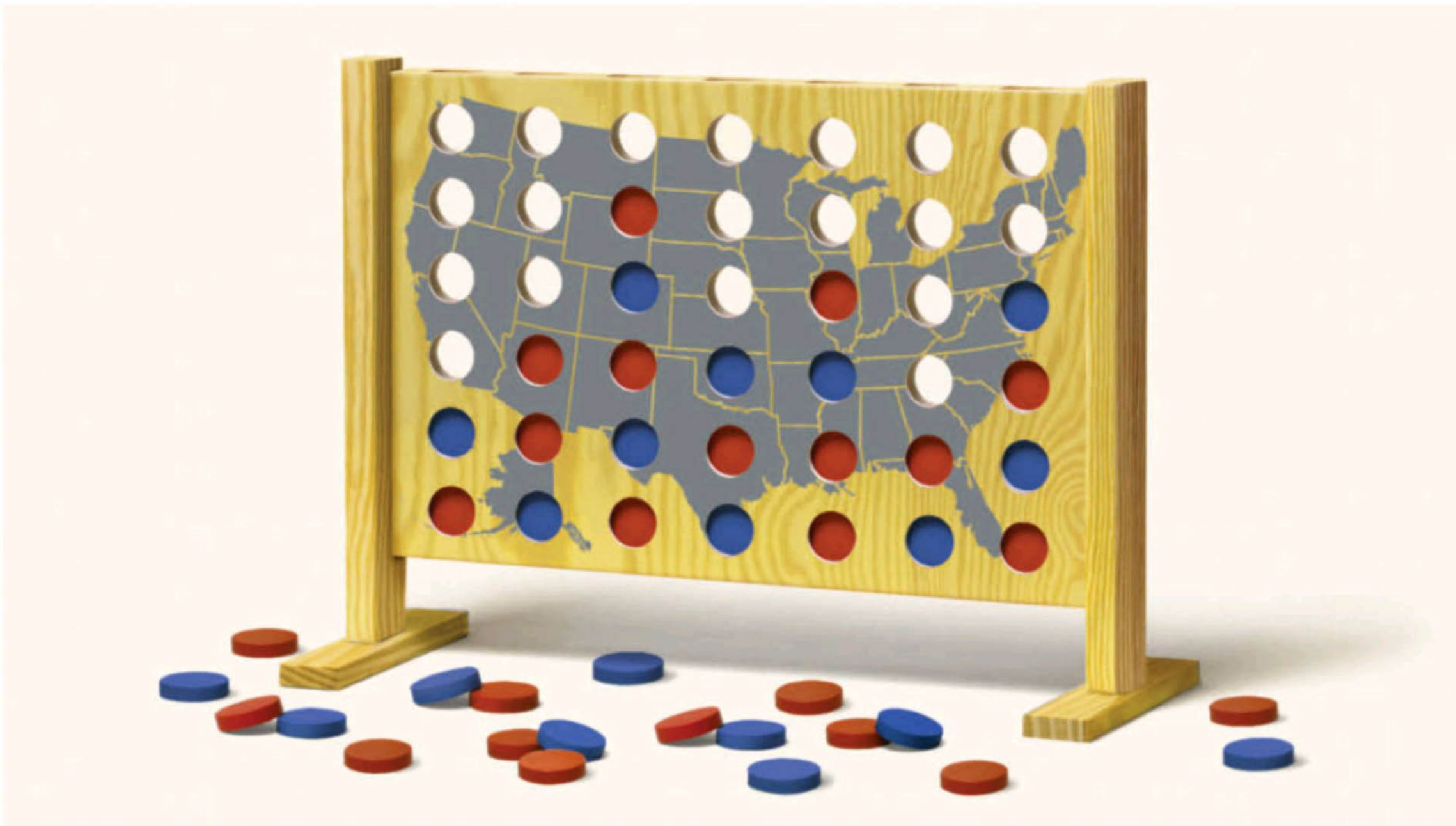
The cocktail hour

You cited James Thurber on the thorny topic of what is the optimal number of martinis (World in a Dish, September 21st). I have always held this quote, often mistakenly attributed to Dorothy Parker, to be authoritative on the matter:

> I like to have a martini,
> Two at the very most.
> After three I'm under the table,
> After four I'm under my host.

COLIN HUGH BUCKLEY
London

Briefing America's congressional elections



Connect three

The new president is much less likely than usual to have allies in charge on Capitol Hill

AMERICANS ARE fixated on whether Kamala Harris or Donald Trump will win the presidency on November 5th. But what the victor will actually be able to achieve depends in large part on which party controls Congress. Most new presidents have long coattails: not since George H.W. Bush was inaugurated in 1989 has one taken office without his party also controlling both chambers of Congress. But this year the race for congressional control looks as close as the presidential one, putting the normal outcome in doubt. If the election of 2024 is as much of a nail-biter as expected, the prospect of divided government—and with it the shelving of much of the new president's agenda—looms large.

This week we launched *The Economist*'s forecast of the congressional elections, to complement our presidential-election model, which we first published in June and currently gives Ms Harris a 51% chance of victory. It finds that, taken individually, each chamber is more likely than not to see a change in partisan control. The Republicans' chance of flipping the Senate is 66% and the Democrats' of winning the House of Representatives is 61%.

However, this does not mean that the two parties are likely simply to trade places on Capitol Hill. If Republicans do manage to win the Senate, their House candidates will probably exceed expectations as well, and vice versa. After accounting for these correlations, our model finds that the two most probable outcomes remain the typical presidency-House-Senate "trifecta" for either Republicans or Democrats, with both parties having around a one-in-four shot of securing one. The next-likeliest scenarios are those with a Republican Senate and a Democratic House, either during a Harris presidency (a 16% chance) or a Trump one (15%) (see chart on next page).

Chamber musing

The model's most eye-catching result is probably the relatively high chance it gives the Democrats of hanging on to the Senate, given the difficult races several of their incumbents face. The party holds 51 of the 100 seats (counting four supportive independents), but is guaranteed to lose one owing to the looming retirement of Joe Manchin, a Democrat-turned-independent from heavily Republican West Virginia. As a result, it cannot afford to lose any more seats—or the presidency, since the vice-president is the tie-breaker if the chamber is evenly divided. Of the 34 Senate seats up for grabs this year, 23 are held by Democrats.

Three factors account for the model's insistence that Democrats have a plausible path to victory in the upper chamber. One is that the party's candidates in many races expected to be competitive—including those in places where Mr Trump and Ms Harris are neck-and-neck, such as Arizona, Michigan, Nevada, Pennsylvania and Wisconsin—enjoy surprisingly large leads in polls. If Democrats do well enough overall that Ms Harris and the two Democratic incumbents seeking re-election in red states (Jon Tester of Montana and Sherrod Brown of Ohio) all win, the party holds on in the Senate 89% of the time.

The second reason the Democrats may ▸▸

hold the Senate is that the model is not yet ready to write off Mr Tester. Although recent polls have put him down by 6-8 percentage points, relatively few non-partisan surveys of the race have been published. Historically, incumbents have enjoyed unusually large advantages in states with small populations, like Montana. Moreover, Mr Tester's fundraising within the state—a good predictor of electoral performance—far exceeds that of his opponent, Tim Sheehy, an entrepreneur and political novice. If fresh polls confirm that Mr Tester is trailing badly, the model will probably lower his chance of victory from 38% to somewhere in the 20s—and possibly drag his party's probability of winning the Senate down into that range as well.

The final reason for hope for Democrats in the Senate is that a loss in Montana or Ohio is not necessarily the end of the story. Recent surveys put the party's challengers to Republican incumbents in the pale-red states of Florida and Texas just a few points behind. And in a scenario that seems less outlandish with every poll, Deb Fischer, a Republican incumbent in Nebraska, appears to be in a remarkably tight race against Dan Osborn, a former union leader running as an independent.

The Democrats have not fielded a candidate in the contest, and Mr Osborn has rejected their endorsement—probably a wise move in a staunchly Republican state. But he is a fan of Bernie Sanders, a left-wing senator, and our model assumes that he would support a Democrat for majority leader. The past six polls of the race have all shown results between a slim two-point lead for Ms Fischer and a stunning five-point edge for Mr Osborn. Five of them were sponsored by Mr Osborn or groups supporting him, but an independent survey also showed him trailing by a single point. Our model gives Mr Osborn a 29% chance of victory—which is 29 percentage points more than Democrats would have expected earlier this year. That, in turn, gives Democrats a large boost in our forecast. If the model ignores partisan polling from Nebraska, the Republicans' chance of controlling the Senate rises to 70%.

Nonetheless, our model's most confident prediction is that some Senate race, somewhere, will deliver a surprise. Large polling errors are common in Senate races. In 2020, for instance, Susan Collins of Maine, a Republican who trailed by around three points in polling averages, won re-election by ten points. There is a good chance, therefore, that a single surprising result could determine control of the chamber. Although Democrats' probabilities of victory in Florida, Missouri, Nebraska and Texas are fairly low, ranging from 11% to 29%, the party pulls off an upset in at least one of these states in just over half of our simulations. Moreover, they do so in 47% of the scenarios in which either Mr Tester or Mr Brown loses, compensating for what would otherwise be a fatal defeat.

The contest for the House, where Republicans currently outnumber Democrats by just 220 to 212 (with three seats vacant), is even tighter. Democrats have a narrow lead of around two percentage points in "generic-ballot" surveys, which ask respondents which party they plan to support. They have also performed extremely well in special elections to replace departing House members, a strong indicator for normal elections that is not affected by polling biases. That gives them a slight edge, but one so slender that control of the lower chamber will probably come down to the specifics of particular districts.

Gerrymandering, which used to give Republicans a big advantage in the House, is becoming more of a tie. On average, our model concludes that Democrats need to win the national popular vote only by a single point to secure a majority in the House. Although Republicans recently redrew districts to thwart three Democrats in North Carolina, they are expected to lose a seat in both Alabama and Louisiana, after the Supreme Court ordered redistricting to prevent the "packing" of black voters into a single district. Moreover, Democrats are on the offensive in New York. Even though the Democratic-controlled state legislature chose to enact only a mild redistricting following the party's disastrous showing in the midterm elections of 2022, four Republican incumbents, all running in districts that voted Democratic in the presidential election of 2020, face tough races. On average, our model expects Democrats to win 19 of the state's 26 seats, up from 15 two years ago.

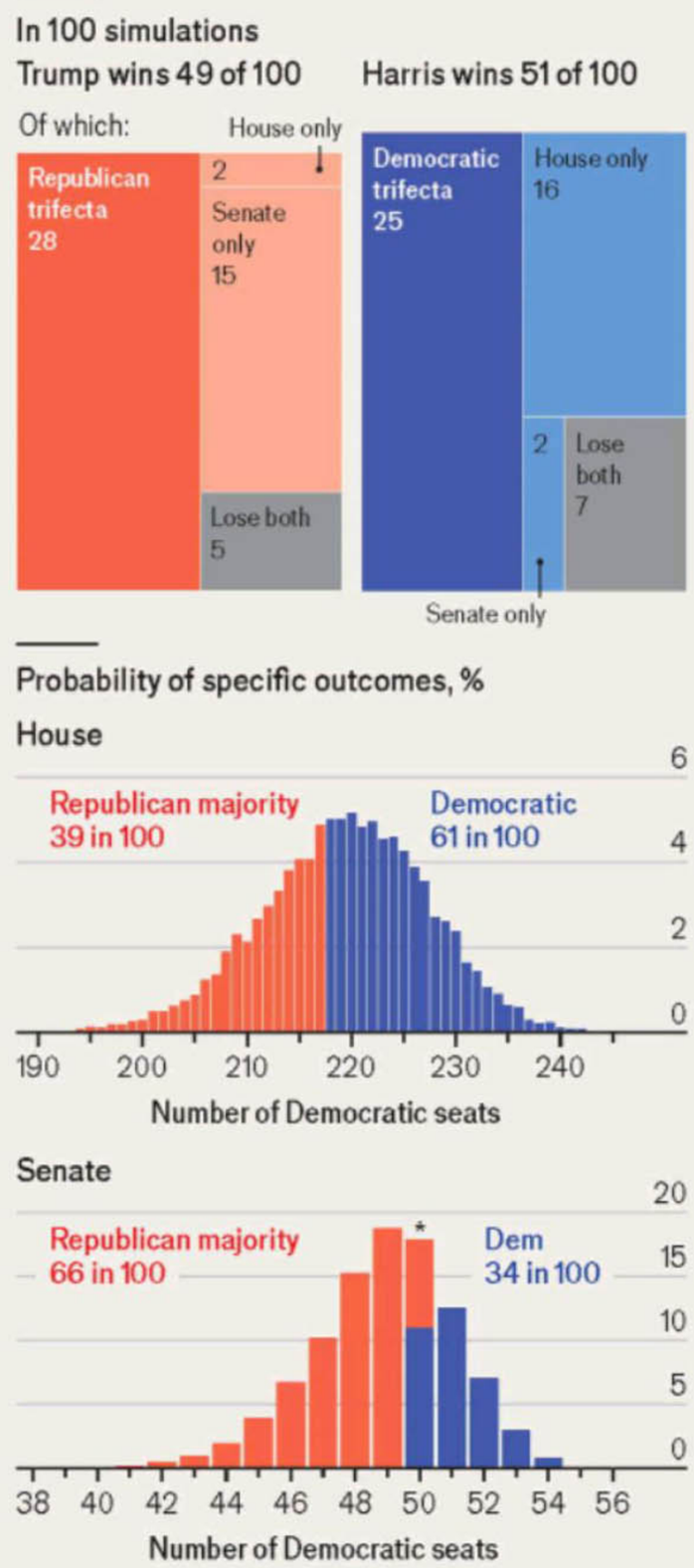
In the past, centrist House candidates have tended to fare better than other factors would suggest and ideologically extreme ones worse. But since the start of Mr Trump's presidency, this pattern appears to have faded. At any rate, several prominent moderates are trailing in local polls, including Jared Golden, a Democrat in a rural seat in Maine that Mr Trump carried in 2020, and Don Bacon, a Republican who represents a seat in Omaha, Nebraska, that plumped for Joe Biden. Our model is sceptical that enough voters will split their tickets for either to survive this time. In contrast, the model is more sanguine about Mary Peltola of Alaska and Marie Gluesenkamp Perez of Washington, both down-to-earth Democrats in red districts who enjoy comfortable fundraising advantages.

The battle for the House is most likely to be determined in California. Although America's most populous state is reliably Democratic overall, a non-partisan commission draws its districts, ensuring that Republicans get a fair shake. Six of the nine House races that our model calculates are most likely to deliver the decisive 218th seat for the victorious party are in California: four in the urban sprawl surrounding Los Angeles and two in the Central Valley. Of these, five are majority-minority with large Hispanic or Asian populations, and are held by Republicans. If the gains Mr Trump has made in polls with non-white voters translate into support for Republicans lower down the ballot, House Democrats will probably meet their Waterloo in deep-blue California. But if Ms Harris, who is herself a Californian of both Jamaican and South Asian descent, can claw back some of these voters en route to the presidency, Republicans will probably lose the House, too.

A president can do a lot by fiat, without Congress's approval. And if the president's party controls the Senate it can push through judicial nominations, even if the House is more hostile territory. Even so, the congressional toss-up compounds the uncertainty of this year's dead-heat presidential election. ■

Knife edges

United States election 2024, at October 10th



*The vice-president breaks ties in the Senate. Democrats win the presidency in 61% of simulations with a 50-50 seat split

Source: *The Economist*'s election model

United States

Policy briefs This election will not be fought on policy. But it will have huge consequences for policy. Here are the eight areas we think are most important

Trade

Tariffic

WASHINGTON, DC

First up, the consequences of this election for world trade

IN THE 1990s presidential hopefuls fought over how much America should open itself up to commerce with other countries. Nowadays, the trade debate revolves around how much America should close itself off. Donald Trump is the more radical of the two candidates, with a vision for tariffs that would turn the clock back nearly a century on economic strategy. Kamala Harris is less extreme but still sees a world in which America is best served by soft protectionism, featuring subsidies for favoured industries.

For Mr Trump the direction of travel is absolutely clear. In his first term in the White House he called himself a "tariff man", arguing that levies on foreign countries were a way to maximise American economic power. He started with tariffs on washing machines and solar panels, then turned to steel and aluminium, before finally getting into a trade war with China. And that may have been a mere prelude for what he would do in a second term.

He has vowed to slap a tariff on all imports into America. Earlier in the campaign he said this universal tariff might be 10%; recently he has upped the ante to 20%. But his fiercest statements are focused on China, threatening tariffs of up to 60% on made-in-China goods. He has also mooted stripping China of its most-favoured-nation status, a decision that would strike at the foundations of the already weakened World Trade Organisation.

From a legal perspective, Mr Trump ought to have a fairly easy path to putting higher tariffs on China. He could deem China to be in violation of the trade deal signed during his first term (China's imports from America have fallen far short of unrealistic targets) and then increase tariffs as punishment. The path to a universal tariff is more fraught, however. Some experts think that Mr Trump might declare America's trade deficit to be a national emergency, allowing him to invoke the International Emergency Economic Powers Act, which would give him the authority to implement his desired across-the-board levy. Companies would be likely to challenge that in court, and may well end up successfully overturning the tariff. But the legal process would take months, giving Mr Trump plenty of time to throw the global trading system into chaos.

Many Republicans remain sceptical—rightly—about the economic effects of tariffs. Yet Mr Trump will have one argument that will appeal to them: tariffs would help to pay for the tax cuts they want. America imports about $3trn-worth of goods a year, so a 10% tariff would, in theory, generate roughly $300bn of federal revenue. The trouble is that tariffs would weigh on American growth, especially as other countries retaliate. Mr Trump's trade policies would take the economy on a contentious and risky path.

Ms Harris's views on trade, as on many ▸▸

→ ALSO IN THIS SECTION

15 Tax
16 Immigration
17 Energy and environment
17 Defence spending
18 Ukraine
19 The Middle East
20 China
21 Lexington: Shirley Chisholm

other topics, are cloudier. She is certainly not a champion of free trade. When Mr Trump renegotiated America's trade deal with Mexico and Canada in 2020, she was one of only ten senators to vote against it, arguing that it was especially weak in its environmental protections. And like Mr Biden, Ms Harris displays no enthusiasm for traditional trade negotiations. At the same time she is most definitely not a "tariff woman". She regularly describes Mr Trump's universal-tariff idea as a national sales tax, and has made it the focal point of her criticism of Mr Trump's economic plans, citing estimates that it would raise prices for the typical family by about $4,000 per year.

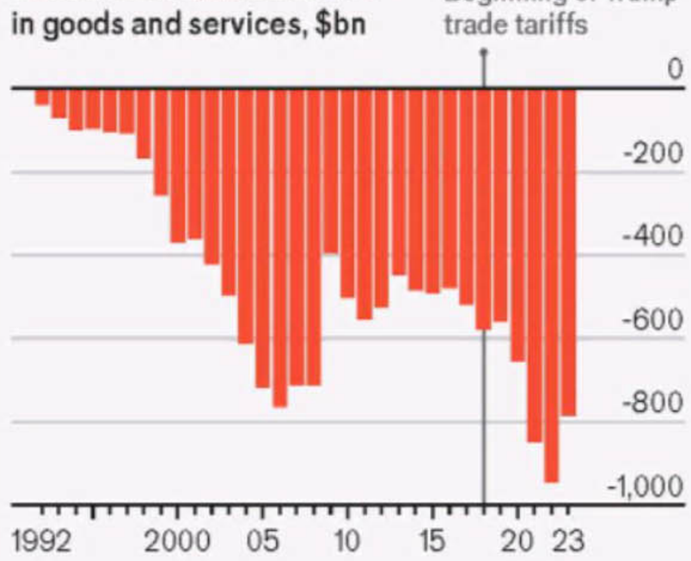
As for what she would do, Ms Harris's positions appear to largely build on President Joe Biden's approach to trade on two fronts. First, she is calling for subsidies to build up the country's manufacturing muscle. In her platform she has called it the "America Forward" tax credit, saying it would direct tens of billions of dollars to help America succeed in the industries of the future, including clean energy—potentially similar to the industrial subsidies in Mr Biden's Inflation Reduction Act that have worried other countries.

The second front is a willingness to take punitive trade actions against China "when it breaks the rules", as she puts it. The implication is that she would continue to support tariffs on China, similar to the increases recently implemented by the White House against Chinese electric vehicles and semiconductors, among other things. To her mind, the distinction is that her tariffs are strategic, whereas Mr Trump's reflect a blunderbuss approach. Many economists are less sanguine: a little protectionism is better than a lot but it still is harmful to growth.

All this should leave the world with a rather discouraging view of where America is headed on trade. Under Mr Trump America would build up its tariff walls. Ms Harris is less keen on walls but she is not about to build bridges. ■

Trading down

United States, trade deficit in goods and services, $bn



Source: Bureau of Economic Analysis

Tax

Battle of the slashers

WASHINGTON, DC

Donald Trump and Kamala Harris both promise cuts, and more deficits

NOT ONLY are taxes one of the only certainties in life, they are also one of the only certainties in this presidential election. That is because of the looming expiration of tax provisions passed in 2017, the main legislative accomplishment of Donald Trump's term in the White House. This presents a fiscal cliff. By the end of 2025 whoever is president must sign new rules into law, or most Americans will see sharply higher income taxes.

Tax negotiations are thus guaranteed to occupy much of Kamala Harris's or Donald Trump's first year in office, giving them a chance to put their stamp on America's tax code. Mr Trump favours broad, sweeping cuts that he believes would energise investment and innovation, whereas Ms Harris hopes to use tax changes to reduce inequality.

Mr Trump, unsurprisingly, hopes to keep many of his original cuts in place. These include: reductions to most individual income-tax rates; a doubling of the exemption on estate taxes, paid after death; and rules that make it easier for businesses to expense more investments. Simply enacting these extensions would cost the federal government about $4.6trn in lost revenue over the next decade, according to the Congressional Budget Office, a nonpartisan scorekeeper.

This would just be the starting point for Mr Trump. As the election has turned more competitive, the former president has pledged more tax cuts. In 2017 he slashed the corporate tax rate from 35% to 21%. Now he wants to take it even lower, perhaps to 15%. Another promise is to exempt employees such as waiters from taxes on tips. Mr Trump has also said that he would make Social Security benefits tax-free in order to help retirees. And he has promised to reverse one measure from his 2017 law: he would let residents of high-tax states resume deducting more of their local taxes from their federal tax bills.

Added together Mr Trump's tax platform is eye-wateringly expensive, running to as high as $10trn over the next decade, according to Andrew Lautz of the Bipartisan Policy Centre, a think-tank based in Washington, DC. Mr Trump has proposed some offsets, including higher tariffs (see trade-policy brief) and scrapping the Biden administration's green-energy tax credits. These would be insufficient to plug the fiscal holes, however, which means the federal deficit—already expected to reach 6% of GDP—may expand to 8% or so under Mr Trump. His plans could add $7.5trn to America's debts over a decade, says the Committee for a Responsible Federal Budget (CRFB), a non-profit group.

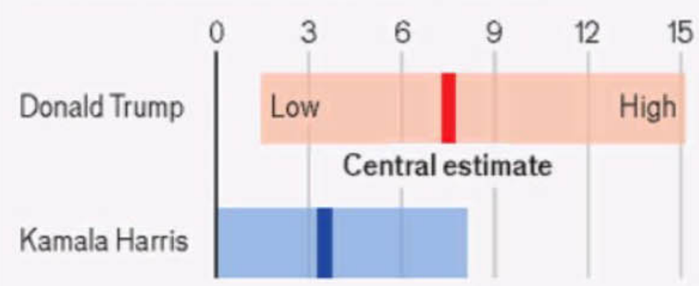
Ms Harris's tax plans draw heavily on Joe Biden's budgets. She has vowed to extend Mr Trump's expiring tax cuts for individuals earning less than $400,000 per year. For those above that line, the tax rate would revert to its pre-2018 level of 39.6%. She also wants to partially undo Mr Trump's corporate-tax cuts, taking the rate on companies up to 28%. Most controversially, she wants to tax unrealised capital gains for the wealthiest Americans—a useful revenue source but hard to administer and possibly detrimental to growth.

At the same time Ms Harris has proposed a range of tax cuts, largely in the form of targeted credits. She wants to nearly double the tax credit for families with children to $3,600 per year, in addition to giving a $6,000 tax credit to families with newborns. For lower-income Americans, she would like to expand the earned-income tax credit (EITC), a kind of reverse income tax. She has proposed downpayment assistance of $25,000 for first-time homebuyers and a deduction of up to $50,000 for business startups. And like Mr Trump, she has pledged to exempt taxes on tips (indeed, Mr Trump has mocked her for copying this idea).

Totted up, Ms Harris's proposals would generate nearly $2trn in federal revenue ▸▸

Debtor nation

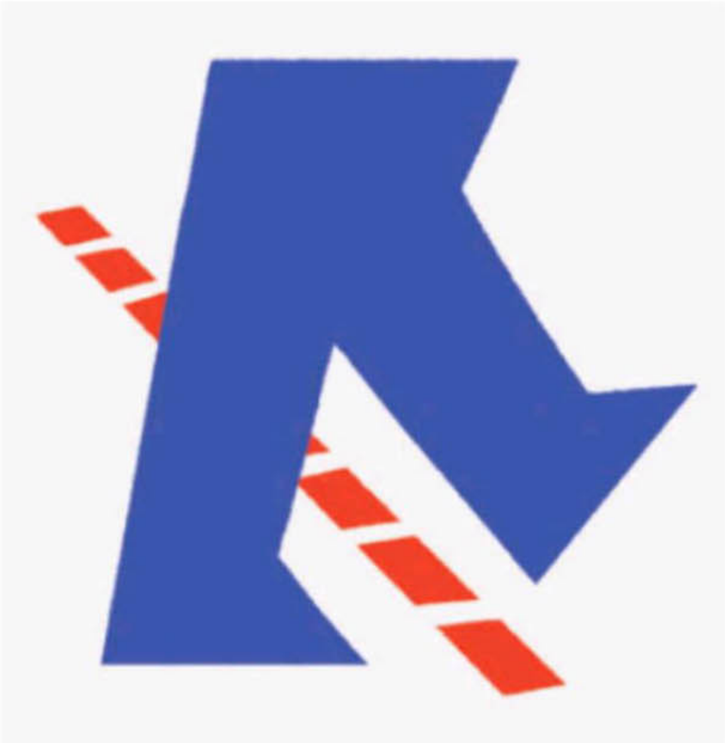
United States, fiscal impact of proposed policies, increase in national debt, 2026-35, $trn



Source: Committee for a Responsible Federal Budget

over the next decade. But the higher taxes—especially the increased corporate levy—would weigh on growth. The Tax Foundation, another Washington think-tank, estimates that her plans would reduce GDP by about 2% over the next decade. The result would be a continued increase in the deficit, but probably not as great as under Mr Trump. Her plans may add $3.5trn to the national debt, according to the CRFB. Ms Harris would at least succeed in her aim of making the tax system a little better at redistributing income from the wealthy to the poor.

So long as Congress is divided, neither Mr Trump nor Ms Harris will be able to deliver on their full plans. But this is why the expiration of the 2017 tax provisions is so important. Both the House and the Senate will be highly motivated to find a way to extend the cuts, at least in part. That will give the president leverage to push for a new bill along the lines of what he or she pledged while campaigning. Voters therefore have a real choice between different visions of who should pay taxes, and how much they should pay. ■



Immigration

Border lines

LOS ANGELES

The divide between the two candidates is stark, but it has narrowed

PART OF BEING Donald Trump is saying outrageous things. Yet what was outrageous in 2011 (suggesting that Barack Obama was born in Kenya) seems almost quaint in 2024. His rhetoric has turned darker. Immigrants are no longer just criminals and rapists, they are "poisoning the blood of our country". Chants of "Build the wall!" have been replaced by "Send them back!" In MAGA world, legal immigrants from Haiti are threatening to eat the pets of the good people of Springfield, Ohio.

Mr Trump's obsession with immigration has shaped this presidential campaign—and American politics for the past nine years. A chasm yawns between Mr Trump's and Kamala Harris's immigration policies, but his dominant focus on the issue has forced her to tack to the right to avoid looking weak on border security. Voters' concerns (61% of registered voters say immigration is a priority for them in this election, according to the Pew Research Centre) mean that action on immigration will be at the top of the next president's to-do list, no matter who wins.

Both Mr Trump and Ms Harris would be constrained by Congress, which has not meaningfully reformed immigration law since 1990. The result is a creaking, inflexible system ill-equipped to find the workers America needs. That is unlikely to change, no matter which party wins control of the Senate and the House. But, as Mr Trump and Joe Biden have shown in recent years, presidents can find ways to exercise immense power to affect policy.

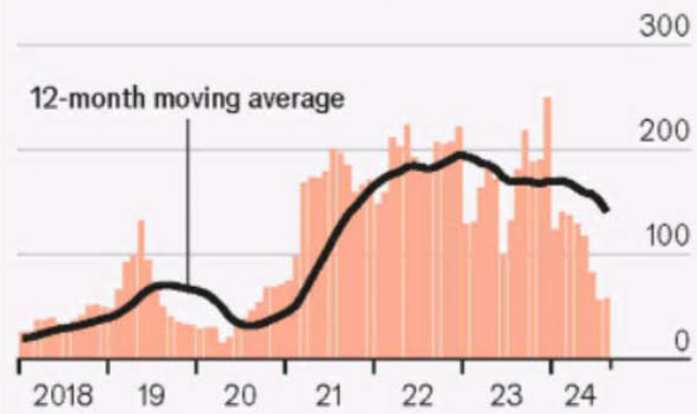
J.D. Vance, Mr Trump's running-mate, claims that 25m "illegal aliens" are living in America, and has said that a mass-deportation scheme could begin by removing 1m people, implying that more could follow. Yet his numbers seem plucked out of thin air. The Department of Homeland Security (DHS) suggests that 11m unauthorised immigrants lived in the country in 2022, most of whom arrived before 2010. A second Trump administration will not get the funding from Congress it needs to carry out that many removals, but even rumours of raids or botched attempts to round up immigrants can do harm. Studies suggest that children of migrants get more anxious and depressed during periods of increased immigration enforcement. Police departments have noticed that immigrants become more hesitant to report crimes against them.

Mr Vance has not ruled out bringing back the family-separation policy of Mr Trump's first administration, which tried to use the possibility of removing children from their parents to deter illegal border crossings. (In March, the DHS reckoned that roughly 1,400 children had yet to be reunited with their families.) He wants to restart the "migrant-protection protocols", a policy which would force some asylum-seekers to wait in Mexico while their claims are adjudicated. Whether that happened would depend on how well Mr Trump gets along with Mexico's new president, Claudia Sheinbaum.

Under Mr Trump, increased vetting requirements and fees for visa applications could slow them down. Presidents have the power to decide how many refugees the country will accept each year; that number would plummet. Mr Trump may again try to end DACA—a programme that protects

Cross about crossings

United States, monthly migrant encounters at the south-west border*, '000



*Since March 2020 monthly totals include apprehensions and expulsions. Prior totals include apprehensions only. Encounters between ports of entry only
Source: US Customs and Border Protection

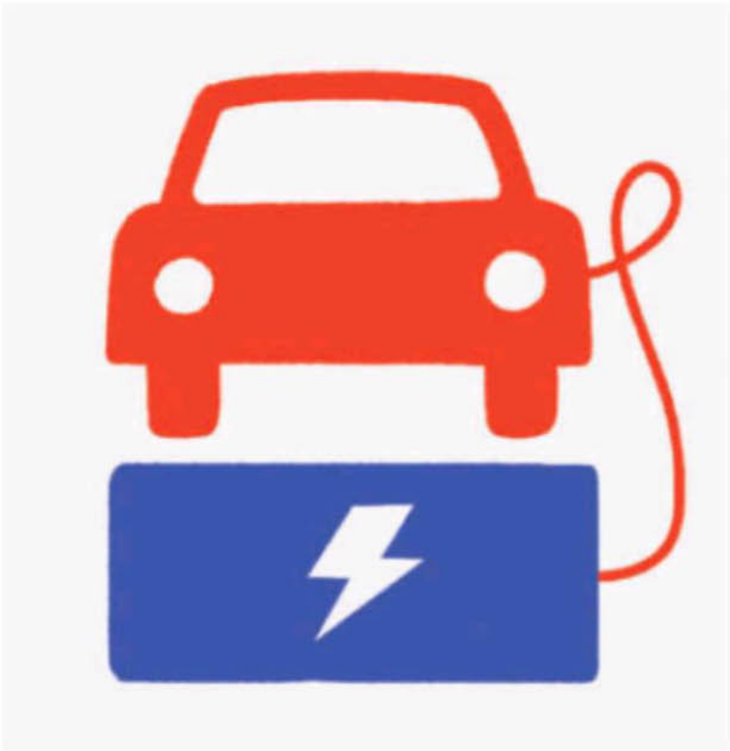
from deportation immigrants brought to the country as children—if the courts do not decide it is illegal first. Court challenges are likely, but a second Trump administration will have learned from the first. Regulations will be more rigorously written, and a friendlier bench may be more deferential to presidential authority.

Ms Harris's immigration policy would largely be one of continuity. Mr Biden adopted a carrot-and-stick approach: opening up new legal pathways for migrants where possible while restricting asylum at the southern border. This combination has proved successful in recent months. In 2023, monthly migrant encounters at the border reached record heights. They have since fallen to the lowest level since 2020, when Mr Trump was in charge.

Ms Harris wants to revive a bipartisan border-security bill that Mr Trump kiboshed so he could campaign on chaos. But Republicans would have little incentive to work with a President Harris on immigration. A daughter of immigrants, she alludes to finding ways to protect from removal unauthorised migrants who have lived in America for years. This could resemble the visa programme Mr Biden proposed for undocumented spouses of citizens, which is tied up in the courts.

Yet some daylight has emerged between Ms Harris and her boss. She has not only endorsed the limits placed on asylum at the border, but suggests she would make them harder to lift. Her rightward lurch is an admission that Mr Trump has been winning on the issue. It is also a calibrated response to the fact that Americans increasingly favour tougher border security. A YouGov poll from January suggests that 32% of Democrats support building a border wall, up from 20% in 2022.

Events could change either candidate's agenda. If the economy weakens, fewer migrants will try to come. Unrest or economic collapse in Haiti or Venezuela, say, could push more people towards the border. Immigration is at the very centre of American politics. That is not about to change. ■



Climate change

Different by degrees

NEW YORK

America's green subsidies will probably survive the election—as will Big Oil

THE NEXT president will inherit the most ambitious climate policies in American history. Under Joe Biden a trio of laws—the CHIPS and Science Act, the Bipartisan Infrastructure Law and especially the Inflation Reduction Act (IRA)—have put in place a sweeping industrial policy that seeks to subsidise an ambitious decarbonisation of the economy. Left-wingers, who think the investments are not ambitious enough, hope that a President Kamala Harris will go further. Conservatives are confident a re-elected President Donald Trump will tear it all down.

It is worth setting aside campaign rhetoric to ask: would a President Harris go much greener than Mr Biden? And could a re-elected President Trump really kill Mr Biden's clean-energy policies?

Consider first the Biden energy legacy. Goldman Sachs, a bank, reckons that, if kept in place, the IRA alone will generate over $3trn in public and private investment in clean technologies by 2030. But Mr Biden has also presided over a fossil-fuel boom. His administration encouraged hydrocarbon production to offset the impacts on energy markets of war in Ukraine and the Middle East, so America is now the world's biggest oil-and-gas exporter.

Ms Harris cast the deciding vote for the IRA and has raised hopes on the left because of her past greenery. As California's attorney-general she sued energy companies over pipeline leaks and offshore oil development. During her failed presidential bid in 2019 she supported a ban on shale fracking and the Green New Deal. Some environmentalists dream that, if elected, she might declare a national "climate emergency" to promote even more ambitious action than Mr Biden did.

Yet there are clear indications that Ms Harris will embrace both clean energy and fossil fuels. She now explicitly supports domestic oil-and-gas production and fracking, and she openly endorses such green bugbears as nuclear power and reform of the permit process (which would allow all types of new energy infrastructure to be built more quickly).

If a Harris presidency is likely to offer continuity, could a Trump presidency represent a radical reversal? When he was in the White House Mr Trump embraced fossil fuels and tried to roll back environmental regulations. He might again launch an assault on the Environmental Protection Agency and its regulation of exhaust-pipe and power-plant emissions, but his record in the courts last time was poor, and a recent Supreme Court ruling curtailing the interpretive powers of agencies like EPA will complicate matters. During this year's campaign Mr Trump's energy mantra has been "Drill, baby, drill!" and he has mocked climate science and electric vehicles (EVs). Big Oil bosses have openly endorsed him. Thanks to Mr Trump's earlier success in appointing conservative judges, courts may look more favourably on his agenda. Yet experts agree that the wholesale scrapping of the IRA is highly unlikely.

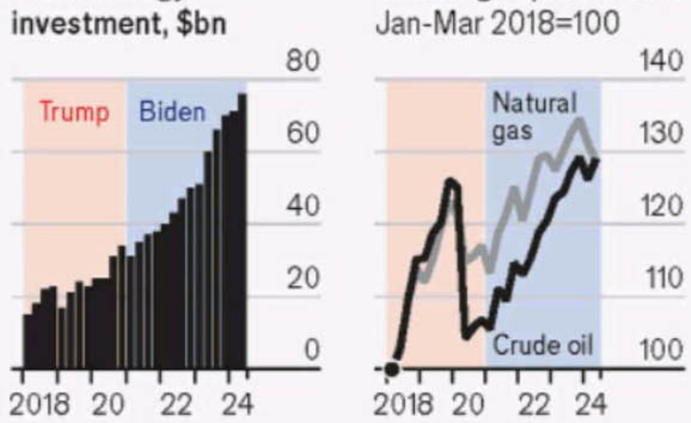
The most likely impact, says Jeff Navin of Boundary Stone, an energy consultancy, would be on IRA tax breaks. But except for credits for buying EVs, most of these look secure. Nearly four-fifths of credits are flowing to Republican districts, which explains why 18 Republican congressmen declared in August that they opposed IRA repeal. Big Oil loves its subsidies for hydrogen and carbon capture. A former Trump energy secretary now running the top utilities lobby has said his priority is defending credits for his industry.

The picture is less clear on spending. If money has not yet been disbursed, Mr Trump could make it harder for agencies to do so. However, officials are rushing to get remaining funds out of the door. The third category, discretionary money, is easier to gum up. The Department of Energy has not spent much of a $300bn-plus kitty meant to help scale up novel climate technologies. Mr Trump could in theory quash this lending, though in practice energy-industry lobbies would oppose this, too.

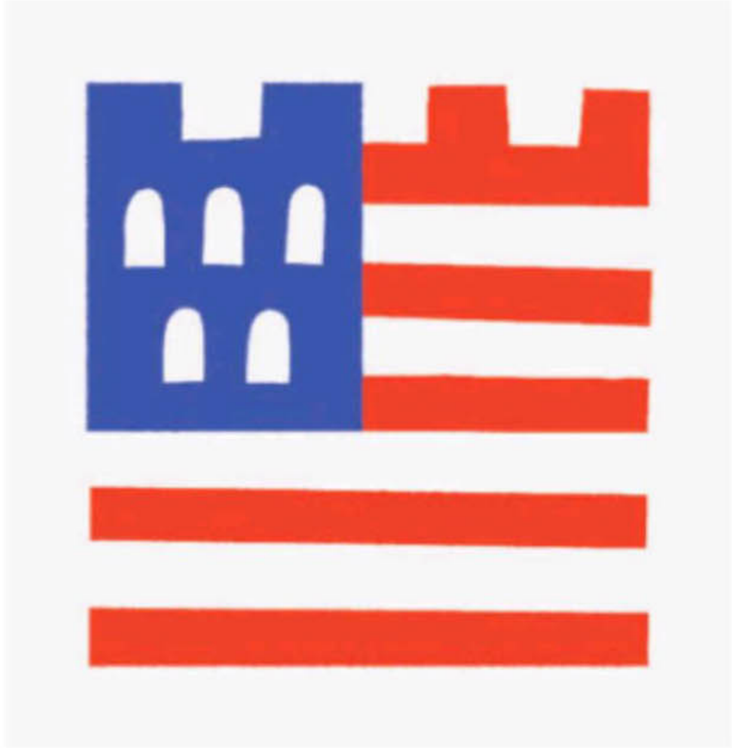
The Trump administration's withdrawal from the Paris Agreement on climate change did not notably retard international efforts. Mr Trump might undermine pledges by the Biden administration to reduce methane emissions, but such acts of self-isolation would hardly come as a shock abroad. At home, a Trump victory would not mean a collapse in climate efforts either, but it would still give Wall Street pause. Wood Mackenzie, a consultancy, reckons a Trump presidency would reduce investment in America's energy transition by $1trn by 2050, to roughly $6trn. So the choice voters will make in November will either hold steady America's current pace of decarbonisation or slow it. Either way, the direction of travel will remain largely unchanged. ■

All rise

United States



Sources: Rhodium Group/MIT-CEEPR Clean Investment Monitor; EIA



Defence spending

Arming up

WASHINGTON, DC

Hawks want to raise military spending. How big will the next president go?

PRESIDENTIAL ELECTIONS don't often turn on debates about defence spending, in part because funding the armed forces is one of the few bipartisan traditions left in American politics. Donald Trump and Kamala Harris have both issued vague commitments to strengthen the army, yet neither has offered much detail. The terms of debate are already being set on Capitol Hill, however, and the next president could negotiate with Congress to reshape the Pentagon's future. ▸▸

The vehicle for such decisions is typically the National Defence Authorisation Act (NDAA), which sets an annual baseline for military expenditures. Haggling usually drags on for months before a bill passes with strong majorities in both houses of Congress. The most recently approved NDAA authorised $874bn, and Congress is currently wrangling over Joe Biden's $884bn request for fiscal year 2025.

The main question facing the next president will be how much to increase spending. Roger Wicker, the senior Republican on the Senate Armed Services Committee, has called for the country to spend 5% of GDP on defence, up from around 3% today. Republican hawks in Congress and the broader national-security establishment have coalesced around a similarly massive increase, and some have even called for the outright doubling of military outlays. Many Democrats oppose such measures, but still agree that Mr Biden has not been aggressive enough. This year, despite Democrats holding the Senate and the White House, Mr Wicker pushed his committee to authorise $25bn more than Mr Biden requested.

A handful of lawmakers seek cuts in defence spending, but they lack influence. The real debate is between spending maximalists and those who want higher funding but don't believe that 5% of GDP is politically or fiscally feasible. Jack Reed, the Democratic chairman of the Senate Armed Services Committee, opposed the bill that came out of his own committee because it would violate spending caps agreed in separate fiscal negotiations. Mike Rogers, Mr Reed's Republican counterpart in the House, called the Biden request inadequate to restore deterrence but acquiesced to "the hand that was dealt to us".

Once this year's fight is resolved, the next president will be able to offer a new opening bid. The question facing a Trump presidency would be whether to embrace the generational investment Mr Wicker advocates or replicate the more modest increases of Mr Trump's first term. Ms Harris would have to decide whether to maintain Mr Biden's policy of after-inflation spending reductions. Her preferences, as on much else, are hard to predict.

America's post-cold-war military forces—built for short, sharp conflicts—do not appear ready for the challenges of today's disordered world: maintaining deterrence in the Middle East, supporting Ukraine in an attritional conflict, adapting to new forms of warfare, and keeping pace with China's rapid military build-up and its growing belligerence.

Russia's invasion of Ukraine exposed America's inability to speed up production of munitions and other equipment. The country's defence industrial base has made progress, but there is more work to be done. The next president must decide not only how much to spend but what to prioritise. How much should America dedicate to procurement of weapons rather than research and development? Should it shift focus to producing greater volumes of simple weapons over more exquisite kit? Which supply chains need to be diversified to avoid dependence on adversaries?

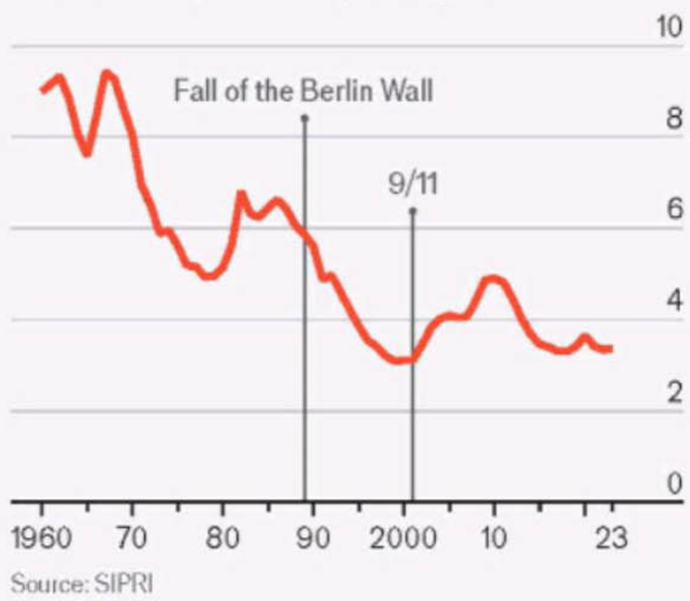
Consider one fiscal fight. Mr Biden requested $166bn for procurement this year, a cut of nearly $3bn. He also wants America to buy just one attack submarine costing nearly $5bn, a critical platform in a conflict over Taiwan, instead of two. The House and the Senate have moved money around to fund two attack submarines—and the White House has countered that this would mean slower progress on developing the next generation of fighter jets. More money in theory might mean fewer trade-offs, but the Pentagon's demand for weapons is limitless. What is needed is strategic coherence.

Refitting America's conventional forces is not the only task. China has been energetically modernising its nuclear forces with the goal of eventually becoming a peer to America and Russia. Nearly every existing arms-control agreement between Washington and Moscow has collapsed, and there is no plausible chance for trilateral arms-control agreements in the near future. The next president will face difficult and expensive questions about how to prepare for the new nuclear race. The Congressional Budget Office estimated in 2023 that modernising America's nuclear forces would cost $756bn over the next decade.

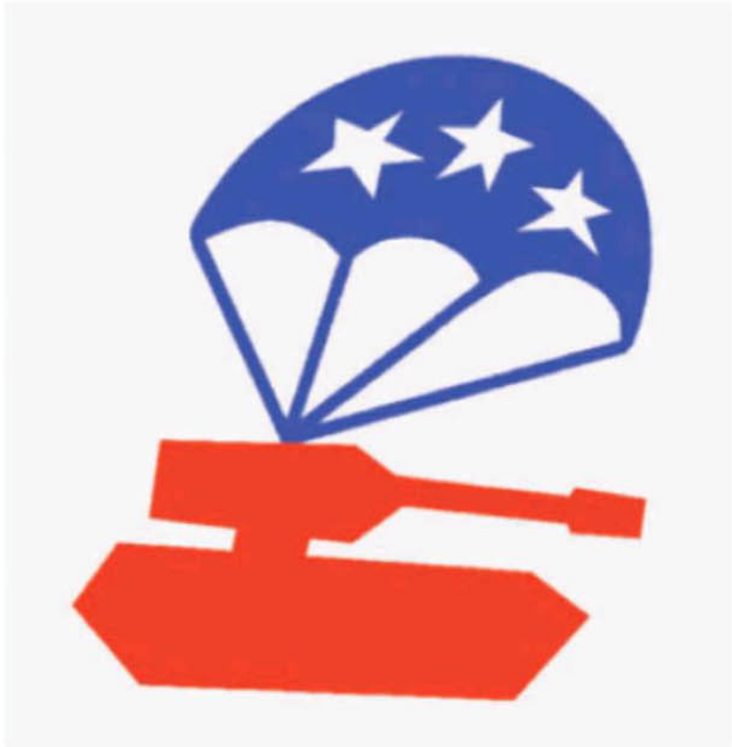
Throughout his presidency Mr Biden has spoken about defending Taiwan, staying the course with Ukraine and remaining a steadfast ally to Israel. Across four years in office his rhetoric was not accompanied by ambitious investments. This election will probably be decided on issues such as the economy, abortion and immigration, but the choices voters make could also have lasting consequences for America's hard power and fiscal health. ■

Guns and butter

United States, defence spending as % of GDP



Source: SIPRI



Ukraine

A clear divide

WASHINGTON, DC

If Republicans take power, Kyiv will feel a chill

VOLODYMYR ZELENSKY, the president of Ukraine, visited America in September to speak at the United Nations and present a "victory plan" to his American patrons. The trip did not go well. Mr Zelensky criticised Donald Trump and enraged Republicans by appearing alongside Democrats at a munitions factory. And Biden administration officials were underwhelmed by his proposal to end the war.

Mr Zelensky did hold seemingly positive meetings with both Kamala Harris and Mr Trump. The outcome of their race is likely to have a big impact on Ukraine's future. Talk of an endgame is gathering, including thorny questions about whether America's next president might be willing to invite Ukraine to join NATO. Yet neither candidate has offered clarity about strategy or presented a credible plan to change the dynamic on the ground.

That dynamic is grim. As Ukraine slogs to the end of its third year of war, its army has made virtually no progress since retaking the capital of the Kherson region in 2022. Russia has been making slow, grinding gains, at high cost. More than half a million Russians have been killed or wounded, America estimates.

The prospects for peace seem remote. Mr Zelensky insists that his goal remains re-establishing Ukraine's 1991 borders—including Crimea, which has been in Russian hands for more than a decade. Vladimir Putin's strategy is to wait out the West, and he has shown no interest in ending the war on anything other than his terms. Yet neither the Russians nor the Ukrainians have demonstrated the military strength to achieve the outcomes they seek. ▸▸

Ms Harris has mostly echoed Joe Biden's rhetoric on Ukraine, saying she will stand with the country and seek continued military aid. She has said little about whether or how she might depart from Mr Biden's policy, which has been tempered by his fear of an escalating conflict between NATO and Russia. Mr Trump has been inconsistent but also vague—promising to end the war immediately and urging both Russia and Ukraine to come to the negotiating table.

Tough choices will be unavoidable after the next president takes office. America has provided Ukraine with about $174bn in support, most recently through a $61bn assistance bill in April. The Pentagon can stretch aid packages, and Mr Biden may cajole Congress to pass more legislation between the election and his successor's inauguration. But the next president will have to decide whether to provide more aid—and what caveats to attach to it.

Republicans, particularly in the House of Representatives, where they are in the majority, have become notably cooler towards Ukraine. If Democrats win back the House and the presidency, aid to Ukraine is likely to keep flowing, even if control of the Senate shifts to Republicans, as is probable, according to *The Economist*'s forecast model. Full Republican control in Washington would prove more difficult for Mr Zelensky. If Mr Trump is elected, another uncertainty is whether he will empower internationalists like Mike Pompeo, the former CIA director and secretary of state, or ideological isolationists like J.D. Vance, his vice-presidential running-mate.

No one in Mr Biden's White House believes that Ukraine could retake Crimea by military means. That implies that some endgame negotiation with Russia would be required, eventually. Mr Trump's promise to end the war quickly is implausible. Yet there is wide recognition that talks may be necessary sooner rather than later and that Ukraine's beleaguered population may be open to certain trade-offs. Polling shows that more than half of the country would accept losing the Donbas and Crimea in exchange for regaining sovereignty over the occupied parts of Zaporizhia and Kherson. Some 38% of Ukrainians say they would be willing to accept current territorial boundaries if the country was admitted into the European Union and received funding to rebuild. That figure rises to 47% if Ukraine is welcomed into NATO—which is perhaps the most sensitive question for the next president.

In a joint statement, NATO's 32 members said in July that Ukraine was on an "irreversible" path to joining the alliance. So far Mr Biden has been sceptical of offering a formal invitation of membership, which Kyiv desperately seeks. Doing so would come with a host of problems, given that the country is at war. But creative thinking on how to use the possibility of NATO membership as leverage against Mr Putin and as backing for Ukraine's recovery could help stabilise the conflict and perhaps end or reduce its intense violence.

The reality is that Mr Zelensky and his allies in Europe and Washington have yet to articulate a realistic plan for how to win the war. Mr Putin's Russia, on the other hand, is weaker than Ukraine and the West together, but hopes to outlast his enemies. Mr Zelensky remains a stalwart figure of Ukrainian resilience, but his popularity at home is ebbing. He can only hope that the next American president is devoted to developing a plausible vision of success. ■

Israel and Iran

Return of the forever wars

WASHINGTON, DC

Will the next president follow Israel into a war with Iran?

MANY AMERICAN presidents have dreamt of bringing peace to the Middle East. Some could claim successes: Jimmy Carter oversaw the Camp David accords between Israel and Egypt in 1978; Bill Clinton the Oslo accords with the Palestinians in 1993 and a peace treaty with Jordan the next year; Donald Trump the Abraham accords with Bahrain, the United Arab Emirates and Morocco in 2020.

The next president will almost certainly be grappling with war, inheriting the multi-front conflict between Israel and Iran's "axis of resistance" that has raged for the past year. How to prevent a regional cataclysm, and how to avoid being dragged into another "forever war"?

Kamala Harris would probably hew to President Joe Biden's awkward policy: support Israel's right to defend itself, try to restrain its most dangerous actions, mitigate the humanitarian impact, seek ceasefires and keep alive the idea of Palestinian statehood. Mr Trump suggests that Israel should be given *carte blanche*. After Iran rained more than 180 ballistic missiles on Israel on October 1st, Mr Biden urged the Jewish state not to strike at Iran's oil facilities or its nuclear sites. Mr Trump mocked such caution: "Hit the nuclear first and worry about the rest later."

American presidents of all stripes have said Iran will not be allowed to acquire nuclear weapons. Yet none has bombed Iran's sites; nor has any given Israel the green light to do so. That is because the costs of further inflaming the region are easy to imagine, and the rewards in terms of setting back Iran's nuclear programme would be temporary and hard to reckon (see Middle East and Africa section).

Neither Ms Harris nor Mr Trump has shown a desire to use US forces to bomb Iran. In office Mr Trump abandoned a nuclear deal with Iran, imposed "maximum pressure" through sanctions and in 2020 ordered the killing in Iraq of Qassem Suleimani, Iran's supremo for foreign military operations. Then as now, hawks urged him to seize a rare opportunity to defeat Tehran's regime. But Mr Trump hoped for a deal with Iran's clerics. Notably, he held back from striking Iran even when it shot down an American drone and helped to bomb Saudi oil facilities sites in 2019.

A subtler question is whether or how an American president might enable an Israeli attack. Israel acting alone can probably inflict only limited damage. The greater America's involvement, the greater the military blow. Help could range from sharing intelligence on targets to rescuing downed Israeli pilots, providing air-to-air refuelling, or actually taking part in bombing raids. In one of these scenarios, President Trump or President Harris might give Israel the nod for military action and, in the ensuing mêlée, feel compelled to finish the job or at least help its ally.

However the conflict with Iran evolves between now and January, the next president will almost certainly have to grapple with the aggravating Israeli prime minister. According to a forthcoming book by the journalist Bob Woodward, Joe Biden has privately referred to Binyamin Netanyahu as "a fucking liar". To judge by her interview this week with CBS News, Ms Harris shares similar feelings. Mr Trump has at times been critical of Mr Netanyahu, not least because the Israeli prime minister recognised Mr Biden's victory in 2020, but has also lined up with Republicans who think Israel can do no wrong.

Sympathy for Israel runs deep in American politics, as does antipathy for Iran. Asked which foreign country was America's greatest adversary, Ms Harris unexpectedly replied: "Iran has American blood on their hands." Nevertheless, Mr Biden

has struggled to restrain Mr Netanyahu, who has played hardball in negotiations to secure a ceasefire in Gaza and shrugged off entreaties not to open another front in Lebanon. America has armed Israel and helped to shoot down missiles fired at it.

With his initial success against Hizbullah—killing its leader, Hassan Nasrallah, and much of its military command—Mr Netanyahu feels vindicated. He now speaks of the "opportunity to change reality" in Lebanon and the region. He has urged the Lebanese people to cast off Hizbullah and even hinted at regime change in Iran, saying freedom "will come a lot sooner than people think".

What about peace? Assuming the wars somehow die down, Ms Harris has expressed concern for Palestinians' suffering but has set out no plans to achieve statehood. Mr Trump cares little for their cause; his officials have been supporters of Israeli settlement in the occupied West Bank. Both will doubtless pursue an elusive Israel-Saudi normalisation deal. But the longer the wars go on, the higher the price the Saudis will demand. ■

Degrees of pressure

Choose your China hawk

WASHINGTON, DC

The next president will have to manage an adversarial relationship

ALTHOUGH BRITAIN still claims to have a "special relationship" with the United States, no country could contest China's claim to have the most important one. America's next president will have to take stewardship of the bilateral relationship at a time when mutual animosity and distrust are high. He or she will have to steer carefully to avoid fracturing the global economy or, much worse, plunging two of the world's military superpowers into an armed conflict.

Raja Krishnamoorthi, a Democratic congressman who is the party's highest-ranking member on the influential House Select Committee on the Chinese Communist Party, identifies three top issues in the next president's China portfolio. First, how to deter conflict, "especially in the South China Sea and Taiwan area". Second, China's "use of technology to surveil, to hack and to pre-position malware in our critical infrastructure". And third, China's "economic aggression", particularly "overcapacity in the green-goods sector", such as in the country's export-driven solar and electric-vehicle industries.

A hardline stance towards China is firmly bipartisan. No matter what the election result is, that will not change. Mr Krishnamoorthi says Xi Jinping, China's president, does not grasp "the depths of people's anger" towards the Chinese Communist Party "for any number of reasons". Inside America, the anger flows not just from the loss of jobs to unbalanced trade but also from fentanyl deaths—"the fact that the vast majority of fentanyl precursors come from China, and they're not doing anything about it."

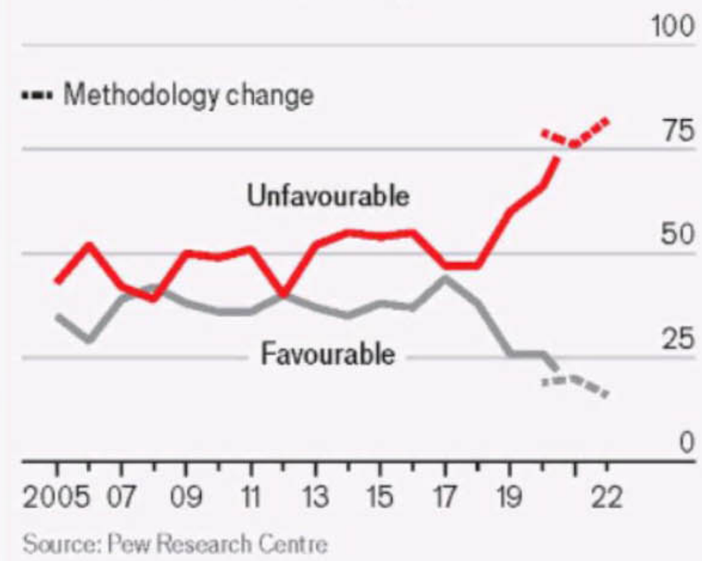
As a result of a law championed by congressional China hawks, ByteDance, a China-based company, will be forced to sell TikTok, the social-media company it owns, to an approved owner by January 19th 2025 or else it will be banned in America. The company is contesting the legality of the forced sale in court.

Eyck Freymann, a China scholar at the Hoover Institution, a think-tank, also puts the next president's China problems into three groupings. Handily, these are alliterative: "trade, tech and Taiwan". On trade, "China's overcapacity problem is getting worse," Mr Freymann says, but the government cannot abide mass unemployment in its outward-facing economy. Donald Trump's solution is broad-based tariffs of 60% on Chinese goods. Kamala Harris opposes these, but she would still have to manage frictions with Mexico, Europe and countries in South-East Asia if they become even larger conduits of Chinese goods into America than they already are.

On technology, neither candidate would ease President Joe Biden's expansive export controls for sensitive goods such as advanced semiconductors. Ms Harris would perhaps make technocratic adjustments to the "small yard, high fence" approach that Jake Sullivan, Mr Biden's national security adviser, has touted. The policy is supposed to ensure not just American military supremacy but also command of the technologies of the future, including artificial intelligence and quantum computing. Ms Harris would probably remain an adherent of the other China-policy slogan of the Biden administration, "derisking, not decoupling".

Growing apart

United States, favourable/unfavourable views of China, % responding



Source: Pew Research Centre

A Trump administration could be quite different. Robert O'Brien, a former (and perhaps future) national security adviser under Mr Trump, wrote in an article in *Foreign Affairs* published this summer that "Washington should, in fact, seek to decouple its economy from China's," which he said Mr Trump had actually begun to do "without describing it as such". Mr O'Brien is one of several "superhawks" in Republican circles—including Matt Pottinger and Mike Pompeo, other former senior Trump-administration figures—who are likely to rile Chinese officials more than the Democrats. Whether Mr Trump will actually listen to them, or will instead choose a more transactional approach with Mr Xi, of whom he has spoken admiringly, is a very different matter.

Such nuances involving Washington's China factions will matter hugely when it comes to the most vexing challenge of all: continuing to deter China from a military invasion of Taiwan. Arms sales to Taipei have increased considerably, even as the formal policy remains "strategic ambiguity"—deliberate uncertainty over how extensively America would intervene if China attacked. A military conflict in the Taiwan Strait between two nuclear-armed superpowers would be harrowing. It would also be an economic calamity and would probably trigger a global recession.

And these are not the only tensions that need managing. Elsewhere in the South China Sea, Chinese coastguard vessels, often backed by navy ships, have repeatedly rammed and harassed coastguard ships from the Philippines, with which America has a treaty alliance. Japan and South Korea are willing to shade themselves under America's nuclear umbrella for now. If in doubt, they have the industrial and scientific ability to construct their own.

It is no wonder then that America's allies, especially those in Asia, are waiting for the election results with gritted teeth. If the next president mishandles relations with China, it will have dire consequences for them all. ■

LEXINGTON
The challenger

Shirley Chisholm, the first black woman to run for president, taught a lesson in making political change

A CYNIC MIGHT gaze at the photograph and sigh that nothing changes in American life: a black woman, a candidate for president, stands before a crowd with a determined look on her face, above a poster extolling a woman's right to choose abortion. "Defend the Right," it reads in part. The photograph, in black and white, is from 1972. It hangs in an exhibition at the Museum of the City of New York about Shirley Chisholm, the first black woman to seek the nomination of a major party.

An idealist, however beleaguered, might instead see an image that captures what it takes to make change in American life. Unlike this year, when Kamala Harris, as the Democratic nominee, is running neck-and-neck with former President Donald Trump, no one had any hope then that Chisholm, the first black woman to serve in Congress, had a chance of winning the Democratic nomination, let alone the presidency. Even she didn't. Instead, she saw herself, as she put it, as "a catalyst", pushing against sexism and racism to expand Americans' idea of what was just and what should be possible. "I ran", Chisholm wrote in "The Good Fight", her account of the campaign, "because someone had to do it first."

She lost that race, but more than half a century on is still gaining ground in the one she really cared about. "She opened up a portal for many to follow," says Yvette Clarke, a congresswoman whose district in Brooklyn, New York, contains part of Chisholm's old one, and who can remember, back when she was seven, the excitement in her home about Chisholm's candidacy. "If she didn't have the courage to take on the battle", Clarke adds, "who knows when we would have come to this day." A documentary about Chisholm from 2004 captures her philosophy and her fierceness. "Don't forget to study hard," she instructs a group of black children. "I'm paving the way for you. So don't disappoint me." In 2019 Ms Harris told the *Grio*, a news site, that she stood on Chisholm's shoulders, and that her example taught that "you claim that podium as yours. And you don't ask anybody permission."

Ms Harris has not stressed the precedent-setting nature of her candidacy, emphasising Americans' needs rather than her (and their) chance to make history. Chisholm, who died in 2005, did not have the option. "A new hat—rather, a bonnet—was tossed into the Democratic presidential race today," Walter Cronkite said on CBS when she declared that she was running. For her part Chisholm said she was "the candidate of the people of America".

Like Ms Harris, whose father is from Jamaica, Chisholm, born in Brooklyn 100 years ago next month, had Caribbean roots. Her mother was a native of Barbados and her father of British Guiana. He worked as an unskilled labourer and she as a seamstress, and to save enough to house and educate their growing family they sent young Shirley and her two sisters off to Barbados in 1928 to live with family for seven years. Chisholm ascribed her success partly to the strict British education she received there. It also accustomed her to the idea of black people in authority, and probably accounted for her rat-a-tat elocution, her habit of speaking of herself in the third person and, though she never weighed much more than a hundred pounds, her intimidating, regal bearing. Gloria Steinem, an ally, once said her decision to wear a dress rather than blue jeans to the first press conference of the National Women's Political Caucus (NWPC), which Chisholm co-founded, was "entirely due to Shirley Chisholm", of whom she was always afraid.

Chisholm graduated from Brooklyn College and became a nursery-school teacher, then director of a nursery school. She involved herself in Democratic politics, dominated in Brooklyn by white, Irish-American men, and eventually helped found an insurgent group to elect black candidates. In 1964 she became the second black woman elected to the New York State Assembly, and then, in 1968, the first elected to Congress. Her legislative experience turned Chisholm into "a militant" who saw American politics as "a beautiful fraud". Political organisations protected the powerful, she concluded, and, white or black, male or male (alternatives were scant), politicians put their party first.

Don't call me "surely"

"Of my two 'handicaps', being female put many more obstacles in my path than being black," she wrote in her memoir, titled after her slogan, "Unbought and Unbossed". She saw America as "racist all the way through", a place where a mere "accident of pigmentation" carried terrible weight. "I can feel in myself sometimes an anger that wants only to destroy everything in its path," she wrote. Yet she believed the American system was so flexible there was almost no limit to its possibility for reform: "I love America not for what she is," she wrote in "The Good Fight", "but for what she can become." In her era, whose echoes seem to be growing louder even as it recedes in living memory, young Americans—newly conscious of racial inequities, anxious about economic dislocation brought on by new technology, radicalised by war abroad, disappointed in their elders—seemed certain to demand profound change, even as they aged. That's what she thought, anyway.

The Democratic field was crowded with white men, ranging from stalwart liberals such as Hubert Humphrey to the segregationist George Wallace. Chisholm ran a shoestring campaign that relied almost entirely on volunteers. Shut out of a debate, she got a court order for equal time on television. She beat several serious contenders, and though she accumulated 152 delegates that was not enough to extract the policy commitments she hoped for from the nominee, George McGovern. Most of the otherwise male Congressional Black Caucus chose not to support her, and even the NWPC deserted her for McGovern, though in the end he did not deliver the abortion-rights plank they wanted in the party platform. That struggle would continue into the future, too. ■

The Americas

Women in Latin America

Stubborn brutality

LIMA, MEXICO CITY AND SÃO PAULO

Sexism and impunity make it hard to curb violence against women in Latin America

ON OCTOBER 1ST Mexico's first female president, Claudia Sheinbaum, was sworn into office. Flanked by female soldiers, she declared that it was "time for transformation" and "time for women", before sending a raft of bills to Congress designed to improve their lot. Meanwhile, at the other end of the continent, Argentina's former president, Alberto Fernández, has been accused of domestic abuse in a case which has shocked the region. Photos found on his secretary's phone showed his former partner, Fabiola Yañez, with bruises on her face and body. Leaked audio files appear to capture Mr Fernández telling the former first lady to "go to hell, you and all your offspring, you dumb bitch". Mr Fernández denies all charges.

This pair of events illustrates the gap between rhetoric and reality in Latin America when it comes to the treatment of women. Countries across the region have passed laws against domestic violence in recent decades. Shelters for abuse victims have popped up; hotlines to report crimes have become more common. Yet the outcome is disheartening. While the killing of women has decreased somewhat, the murder of women in their homes rose by 9% in the decade to 2020. Domestic abuse in some Latin American countries remains unusually common for their level of development. The region has more laws on the books that specifically criminalise femicide—the killing of women—than anywhere else in the world. But this rebranding has helped little, if at all. In Mexico, where nine women are killed on an average day, just 1% of femicides end in a conviction (the rate is similar for all murders).

According to the World Bank, almost one-third of women around the world have been physically, psychologically or sexually assaulted at least once during their lifetime (the share is around a fifth in rich countries). The vast majority of assaults are committed by current or former intimate partners. The regions with the highest levels of gender violence are sub-Saharan Africa, South Asia and Oceania, but some countries in Latin America stand out. Some 60% of women in Bolivia say they have been physically abused by their partner at least once. In Ecuador, 40% say the same. In Mexico and Honduras nearly six women per 100,000 are murdered every year. The global average hovers around two per 100,000.

The impunity enjoyed by abusers is one of the main factors behind continued violence. In some cases perpetrators get away with it thanks to connections with politicians, lawyers or drug gangs. Wendy Figueroa Morales, the director of Mexico's network of shelters for women, reckons that more than a third of those who have sought refuge in her havens have been abused by men with links either to organised crime or politicians. In one case which reached Mexico's Supreme Court in 2015, the murderer, who worked at the office of a state attorney-general, was initially able to pass his wife's death off as a suicide. Bolivia's former president, Evo Morales, who wants to run for office again next year, is being investigated for allegedly raping a 15- ▸▸

→ ALSO IN THIS SECTION

23 Access to abortion

24 Plunder in the jungle

year-old girl, who subsequently gave birth to his child. Mr Morales calls the allegations "political persecution".

Sexism is rampant. In a study of almost 5,000 young men and women in Latin America conducted in 2017 by Oxfam, almost two-thirds of boys aged 15-19 said that when a woman says no to sex, she really means yes. In a poll last year, nearly 40% of Peruvians agreed that a woman should obtain her partner's permission before leaving the house to see family or friends. In another survey, almost a third said that a woman is somewhat to blame if she goes to a party alone and is raped.

These attitudes appear to cause foot-dragging and indifference from the authorities when responding to crimes against women, granting further protection to abusers. Disdain reaches the top level of power. When Eyvi Agreda, a 22-year-old Peruvian woman, was killed in 2018 by her stalker, Carlos Hualpa—he doused her in petrol and set her on fire on a bus—the then president, Martín Vizcarra, initially responding by saying, "We feel very sad but sometimes that's the destiny of life and we have to accept it."

Measuring machismo

The violence is not evenly distributed, either geographically or socioeconomically. Poverty, alcohol consumption and lower levels of education are all associated with higher levels of violence against women. Women moving along migration routes are particularly vulnerable. Diego Battistessa of Carlos III University in Madrid has documented the death, killing or disappearance of at least 500 Venezuelan women along migration routes since September 2019. The real number is probably much higher. Many others are raped.

Charities operating near the Darién Gap, a treacherous stretch of jungle between Colombia and Panama which many Venezuelan migrants cross to reach the United States, say that the level of sexual violence they have seen in recent years is comparable to that observed in war zones (see China section).

Murky data, and the reality that many women do not report abuse, mean that it is difficult to discern which interventions are working to reduce violence. Government investment in reporting hotlines and awareness campaigns at least lead to more abuse being reported. In Brazil, after President Luiz Inácio Lula da Silva came to power in January 2023, he boosted funds for the women's ministry by 400m reais ($70m) over four years. Among other things, the money is being used to employ more people on a domestic-abuse hotline and to spread awareness about its existence. Calls increased from 82,000 in 2022 to 114,000 so far in 2024, according to Denise Motta Dau, Brazil's national secretary for combating violence against women.

But these reports rarely inform investigations into murder or abuse. Just three out of 19 countries in Latin America use data from previous complaints of violence when investigating femicides. Those that do show that complaints often precede more serious violence. In Uruguay in 2022 some 37% of women who were murdered had made formal complaints before their partner killed them.

What would do most to reduce violence against women would be a combination of better-trained prosecutors who can achieve even moderate conviction rates, and education that deters machismo. Unfortunately, that transformation is likely to be a long time coming. ■

Abortion in Latin America

Not the end of it

MEXICO CITY

Abortion is more readily available than in the past, but no less controversial

MEXICO HAS long been a popular destination for Americans seeking nose jobs or dental work. But since 2022, when the United States' Supreme Court overturned *Roe v Wade*, thereby removing the constitutional right to abortion, American women have started heading south to terminate unwanted pregnancies. That they can do so is testament to a recent expansion of the right to an abortion in Mexico, a trend that is mirrored across Latin America.

The number of Latinas who are able to obtain an abortion legally has grown dramatically in recent years. In December 2020 Argentina, the region's fourth-most populous country, made abortion legal. In 2023, after several Mexican states had removed their prohibitions, the country's Supreme Court ordered the rest to follow suit. (Mexico City, the trailblazer, has allowed abortion since 2007.) In 2022 Colombia's constitutional court made abortion legal up to the 24th week of pregnancy, just as it is in Britain.

But the trend is not universal. Latin America still has notably strict rules. The Centre for Reproductive Rights, an NGO in New York, notes that two of the four countries in the world that have rolled back abortion rights recently are in Latin America: Nicaragua and El Salvador (Poland and the United States are the other two). Both of those Central American countries impose harsh penalties on women who get abortions and the doctors who assist them.

In Brazil, the right-wing opposition is proposing a law that would equate abortion—which is already allowed only with very heavy restrictions—to murder. Argentine women could see their newfound freedoms removed too. Their firebrand president, Javier Milei, has said that he would hold a referendum on the right to abortion.

Where abortion is allowed, it is often permitted only in extremely limited circumstances. Some countries restrict it to the first trimester, or to those pregnancies which are the result of rape. Nor does mere legality necessarily mean abortion is available in practice. For example, many Mexican states have yet to reform their state constitutions or to ensure that services are available.

Criminalising abortion makes no sense: it still happens, but in more dangerous conditions. What's more, legalising abortion doesn't necessarily increase its use. As access to abortion in Latin America has expanded over the past 30 years, the share of women who get an abortion in a given year has declined from 35 per 1,000 to 32, according to estimates by the Guttmacher Institute, a research outfit in New York. (Central America is an exception; there it has risen despite harsh prohibitions.) One reason is that Latin America has done well at reducing unplanned pregnancies. They fell by 27% over the same period. Better reproductive services are a win-win proposition.

Choice, in principle

Estimated annual abortions per 1,000 women*
2015-19

*Aged 15-49
Source: "Country-specific estimates of unintended pregnancy and abortion incidence", by J.M. Bearak et al., *BMJ Global Health*, 2022

Conservation in Latin America

A sideline in bodies

MEXICO CITY

Wildlife-trafficking offers criminal groups high profits with little risk

HYACINTH MACAWS, blue and vast, a metre long from tail to beak; the jaguar, stocky and muscular, whose ancestors crossed the Bering Strait a million years ago; sloths, the slow, weird-looking tree-dwellers. Latin America is home to a dazzling array of creatures. Some 40% of the world's species are found between Mexico's deserts, the Amazon rainforest and the mountains of Patagonia.

But as the United Nations Biodiversity Conference assembles in Cali, Colombia, in late October, the trafficking of the region's biological riches has become a big business for Latin America's sprawling organised-crime groups. The US Department of Homeland Security (DHS) ranks wildlife-trafficking (including fisheries and timber) as the fourth-largest source of criminal earnings after drugs, counterfeiting and human-trafficking. This booming trade is burning through Latin America's biological resources. One study found the average size of wildlife populations had shrunk by 95% since 1970 in Latin America and the Caribbean—more than in any other region of the world.

Demand for creatures takes many forms. They can be sold as pets, status symbols, delicacies and the components of traditional remedies. At ports customs officials find birds in bottles and jaguar fangs in jacket linings. There is a lively local market, too. Mexican mafia bosses keep big cats. In Peru, giant frogs from Lake Titicaca are blitzed into "frog juice", an allegedly aphrodisiac smoothie. China is the biggest market for many species. The Wildlife Conservation Society, an NGO in New York, estimates that wildlife trade between South America and Asia has doubled over the past decade.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has proved no match for gangsters with machine guns. Signed by almost every country, it requires a licence to trade some 40,000 species across borders. But it is up to member countries to enforce CITES rules. Many do not.

Criminal groups tend to handle the work of moving creatures across borders. People from local communities do the poaching. The traffickers make the real money, with mark-ups of 20-fold or more. Sentences are light, but such crimes are rarely prosecuted at all. This makes wildlife-trafficking a tempting additional business for groups that already run supply chains from jungles to ports.

The growing involvement of criminal groups has pushed law-enforcement agencies to take wildlife-trafficking more seriously. Some countries have set up specialised enforcement units, aiming to nab gunrunners and drug-smugglers who get sloppy with their wildlife-trafficking sideline. Keith McKinney, who heads one such unit of the DHS, calls wildlife trafficking "the soft underbelly of organised crime".

Earth League International, an NGO, hopes the organised-crime connections lead to harsher and more consistent penalties for the wildlife-traffickers it tracks. It has infiltrated gangs moving jaguar fangs in Bolivia and totoaba fish in Mexico. In both cases Chinese traffickers were arrested. The group has identified hundreds of "persons of interest" across Latin America, the vast majority of whom are also involved in crimes such as money-laundering and human-trafficking, which keeps officials in the United States keenly interested.

Colombia has taken the strongest stand of any Latin American country against wildlife-trafficking. Culprits face prison sentences of up to 12 years, and fines of up to $12m. The country has a specialised police unit, the *Carabineros,* partly devoted to combating wildlife crime.

But the idea that such supply-side interventions could halt the trade is a pipe-dream. Police forces in Latin America often lack the resources needed to curb the most disruptive gang activities, let alone the niche of wildlife-trafficking. Police officers may not know which species are illegal to trade. Corruption is widespread, and convictions for trafficking are even rarer than prosecutions. Some governments are either disengaged or complicit.

That means traffickers will always find a way to meet the strong and growing demand for wildlife. Curbing demand is not much easier. In Brazil, NGOs run educational campaigns in an attempt to change cultural habits of consuming wild animals as a culinary delicacy or keeping them in cages. A Chinese commuter might be met with clips of Jackie Chan warning them off shark fin and big-cat bones. But such campaigns probably work better for iconic species than for orchids or sea horses. And there always will be a hard core of consumers who are unmoved.

Squawking supply chains

A more radical idea is the creation of a regulated supply of wildlife. Licensing the limited and managed capture of wild creatures, or captive-breeding programmes, could reduce the pressure on wild populations. Various breeding farms already sell exotic birds across the region. But illegally caught wildlife often ends up being laundered through the legal supply. And it also muddles the message to consumers, when a black-and-white ban might work better.

Ideally, investigators could evaluate interventions to figure out what works. But the most critically endangered species, like the vaquita porpoise, of which there are only ten known individuals remaining, have little time left. Conservationists and law enforcement need to hit both supply and demand, hard and fast. ■

Beauty of the beast

Asia

Digital Asia

From cables to chips

JOHOR

America and China are battling over Asia's digital infrastructure

NUSAJAYA TECH PARK looks like any other construction project. Cranes and building materials sit scattered around this industrial site in Johor, Malaysia, just 15km from the border with Singapore. But appearances are deceptive. Nusajaya is at the heart of an enormous data-centre boom that is taking place in one of the world's fastest-growing regions. From here you can see the digital war between America and China unfold before your eyes. For America the view isn't pretty. Even as it builds up its military presence in Asia, it risks falling behind in the digital contest.

The competition is being fought over the control and ownership of the data centres, undersea cables and wiring that form the physical underpinnings of the internet. America has dominated communications infrastructure since the second world war. But its grip has slipped. China has become far more technologically autonomous in the past decade, according to a composite index of "digital dependence" that assesses hardware, software and intellectual property, put together by two analysts, Maximilian Mayer and Yen-Chi Lu.

In Johor the two superpowers' infrastructure sits side by side, in open competition. Down the street from Equinix, an American data-centre host, are the facilities of GDS, a Chinese rival and the "preferred vendor" of Alibaba and Tencent, two Chinese tech giants. Across Asia, superpower affiliation and the degree of overlap vary by country. Among big cloud firms, China controls all of the cloud-computing clusters in Thailand and the Philippines, despite the fact that America views both as "major non-NATO allies" (see chart on the next page). Of a selection of 12 Asian countries, seven have most of their cloud clusters run by Chinese firms. At the other end of the spectrum Australia, India and South Korea have largely American-run systems, according to a study in 2023 by Vili Lehdonvirta and colleagues at the Oxford Internet Institute.

China's firms already have big footprints. Alibaba has data centres in nine Asian countries, for example. And the contest is set to intensify. Over 500 mid-sized to large data centres have been launched in Asia since 2021, and another 270 could come online next year. Spending on the servers that populate them will rise by 39% this year, forecasts Gartner, a consultancy. Mobile-data traffic in Asia is expected to quadruple by 2030, according to GSMA, a trade body. New computational needs for AI applications have further stoked data-centre demand.

Commercial imperatives cannot be easily divorced from security. China's planning ministry views data as a "factor of production" alongside land, labour and capital. Early internet evangelists thought data would flow freely through a decentralised network. Instead there are four choke points: "internet exchange points" (IXPs), which let internet firms cut costs by routing traffic down the hallway rather than across the world; data centres; undersea fibre-optic cables; and telecoms firms. All ▸▸

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are vulnerable to espionage. Tapping undersea cables has been a trick of spooks since the cold war. Landing stations are hubs for data interception. Back doors can be installed in infrastructure. America's government has warned that Chinese presence at IXPs creates "the capability to misroute traffic and, in so doing, access and/or manipulate that traffic". Even if the data flowing through IXPs are encrypted, some experts think metadata could be exposed.

Doubts over supposedly secure data centres in Asia are swirling. In 2019 Papua New Guinea found that a Chinese-subsidised data centre in Port Moresby used "openly broken" encryption methods that exposed government data to interception. Governments can compel their tech firms to fork over data. As Abraham Newman and Henry Farrell show in their book "Underground Empire", American intelligence has forced cloud firms and companies such as AT&T to surveil allies and enemies. China does the same. No sharp distinction exists between Chinese tech firms, the state and the Chinese Communist Party. Chinese law gives the state broad authority to make companies turn over data. This power is not absolute: Alibaba and Tencent have refused government requests for customer data before. But where there are data of interest, China expects to be told.

Live wire

American and some regional officials worry that in a crisis China might shut off data centres or telecom services. Short of that, China could combine cyber-espionage with its legions of state-linked hackers to harass countries that anger it. According to a former American cyber-security official, this is easier to do if networks do not have to be reverse-engineered from afar.

Chinese firms' high market share partly reflects an overt Chinese government plan. Its Digital Silk Road strategy, an offshoot of the Belt and Road Initiative, combines infrastructure rollout with an attempt to reshape data governance. But Chinese companies are also good value, offering cut-price cloud services that compete at the technological frontier. Since 2023 Alibaba Cloud has slashed its prices three times. Huawei, a telecoms-equipment firm, has become known for its aggressive tactics to poach customers.

As well as wires and servers, China's values are being built into Asia's digital boom. China has promoted "data sovereignty" at home and abroad, while increasing its heft at global technical standard-setting bodies (see Business section). Control-obsessed governments like Vietnam's have taken inspiration from China's stringent data-localisation laws, which require data created in China to physically reside there while curtailing outbound transfers. These laws have wrenched Chinese data out of the hands of American companies such as Apple and Tesla. Put together, argue Emily De La Bruyère and Nathan Picarsic, two researchers, China's strategy amounts to a drive for "asymmetric dominance", seeding its data infrastructure in other countries while guarding against outside interference.

American efforts to curb Chinese digital influence have notched up some successes. American restrictions on high-tech chips are probably holding back China's AI data-centre ambitions. Authorities have blocked several transpacific cable projects from landing in Hong Kong, re-routing them through friendlier places like the Philippines. In 2022, brandishing grants and sanctions threats, America ousted HMN Tech, a Huawei spin-off, from running a cable network linking South-East Asia to Europe. Direct American-Chinese cable links have fallen away; only one has been built in the past 15 years, notes Richard Sun of OMS Group, a cable-builder.

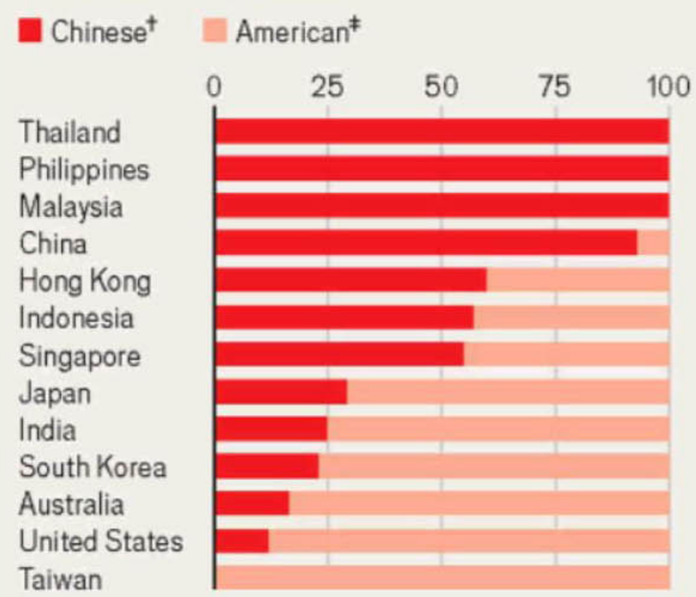
Some American allies have pivoted against China's digital build-out. Japan and Australia have cracked down on Chinese firms, citing risks to their sovereignty. They have banned Huawei and ZTE 5G infrastructure. In September, Japan and Australia launched a joint programme to build digital infrastructure in Pacific Island nations; the prime minister of Tuvalu, Taiwan's strongest supporter in the Pacific, told *Nikkei Asia*, a newspaper, that he was worried about Chinese cyber pressure.

India has gone further, banning hundreds of Chinese apps and probing several Chinese firms, including Alibaba and Xiaomi, a phonemaker. Alibaba Cloud closed down its data centres in India and Australia this year. Some American officials want to create a new kind of digital trade pact in Asia that offers access to AI and cyber-security technologies and standards, in return for assurances on keeping some Chinese technologies out.

Until then many countries are hedging their bets. Warnings about the risks of Chinese digital infrastructure fall on deaf ears: China may spy, but so does everyone else—America most of all. "Everything is a risk," replies a Malaysian official, asked about using Huawei's kit. That attitude may prove a mistake. Weaker countries look particularly exposed. Chinese hackers have penetrated governments from Vietnam to Indonesia, and broken into telecoms to spy on Uyghur travellers in Malaysia and Thailand. In the Philippines, where at least one big telecom network runs on Huawei 5G, the cyber-defence bureau is woefully underfunded. As Asia's digital build-out accelerates, countries' allegiance is being baked into their cables and data centres whether they realise it or not. ■

Cloudbusting

Share of cloud-computing availability zones* controlled by largest Chinese or American cloud providers, October 2023, %



*Independent clusters of one or more data centres †Huawei, Alibaba & Tencent ‡Google, Microsoft & Amazon
Source: "Cloud empires' physical footprint", by V. Lehdonvirta et al., Oxford Internet Institute working paper, December 2023

Data centres

A glitch in the matrix

JOHOR

Asia is weighing data-centre ambitions against sustainability

THE JUNGLES of Johor, a Malaysian state, were cleared to grow pepper in the 1800s. After that came rubber and oil-palm plantations, followed by factories making electronics. Today data centres are thriving there, and are embroiled in a geopolitical tussle between America and China (see previous story). But in Johor, other concerns are on people's minds: how to make the data-centre boom sustainable.

Johor's boom stems from a decision made by its neighbour. Singapore has long been South-East Asia's data-centre hub, meeting the region's surging demand for digital services. But it began to fret about how much water, land and energy the sites use. So in 2019 it became the first Asian country to pause new construction. Firms then built more in Johor, which is well connected to Singapore. Now Malaysia is grappling with similar problems.

The neighbours illustrate how considerations can differ. Tiny Singapore has little appropriate land free for new data centres. They already guzzle 7% of its electricity, most of which is generated from natural gas. Officials worry unfettered growth will threaten net-zero goals. Though the government began approving some new data centres last year, it did so at a much slower pace. It has also introduced new water and energy-efficiency guidelines.

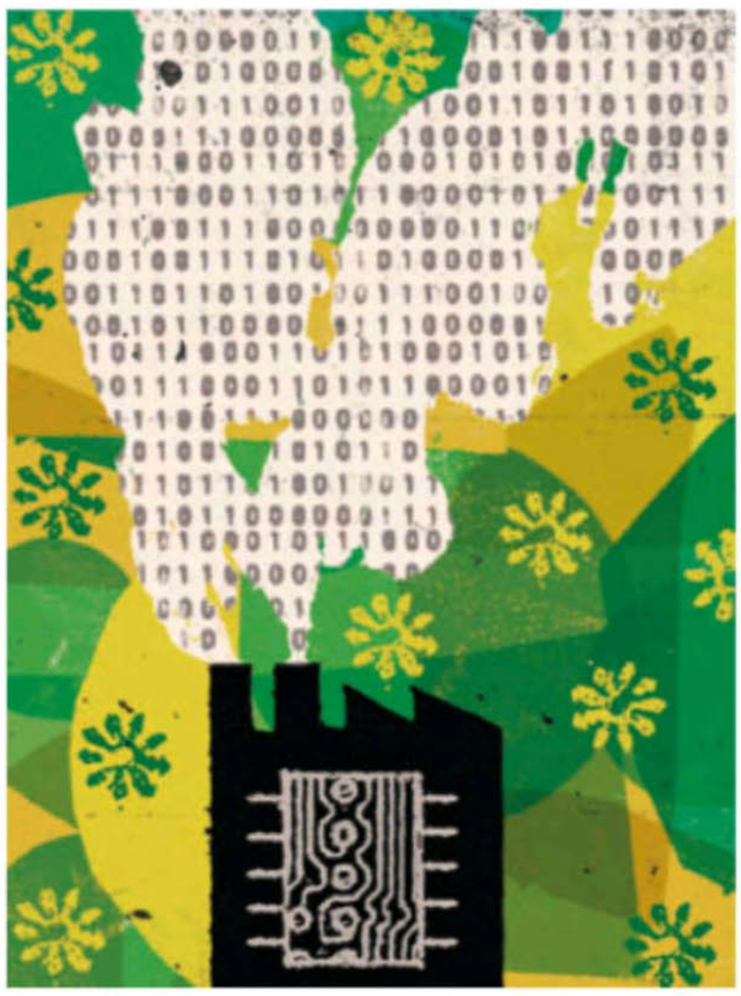
Johor, by contrast, has lots of cheap land and power. Malaysia's government, keen to attract foreign investment, has in- ▸▸

troduced tax incentives for data-centre developers. It hopes the new digital infrastructure boosts its existing tech industry and attracts AI startups.

Malaysia still has some constraints. Johor has long faced episodic water shortages. If these worsen, data centres "could become the villain", says Francis Hutchinson of ISEAS-Yusof Ishak Institute, a Singaporean think-tank. Lee Ting Han, a local politician who chairs a new state committee monitoring data centres, thinks their growth is "just too fast" for existing infrastructure. Some also worry the boom will create few jobs. Once operational, data centres usually require few staff on-site. High-tech parts, like chips, are often imported. Mr Lee says Johor "understands the potential" of data centres but is not yet seeing "tangible benefits". The carbon cost is also a downside. Most of Malaysia's electricity, like Singapore's, is generated by burning fossil fuels. Extra demand from data centres will probably increase emissions. In South-East Asia's tropical climates, more water and power are needed to cool servers.

Two things could help. One is if the digital boom speeds up Asia's energy transition. Google, for instance, is investing in solar power in Taiwan. The second is to learn from Singapore. Malaysia is already doing so. Chang Lih Kang, Malaysia's minister of technology, says the government is referring to Singapore's efficiency guidelines while writing its own.

Though this will help, data centres' demands will grow. Excluding China, they will consume 8% of Asia's power by 2030, up from 4% today, predicts Morgan Stanley, a bank. The sites have become critical infrastructure, like ports or airports, and no government wants to be left behind. Policymakers will continue to balance digital ambitions with resources. ■



Kazakhstan

Going nuclear

ALMATY

A referendum on nuclear energy could benefit Russia

"VOTE FOR A nuclear power station!" So said the slogan plastered on billboards as Kazakhstan voted on October 6th in a referendum on whether to embrace atomic energy. The government went all out to win a "yes" vote, despite the country having a devastating history as a Soviet testing ground for nuclear bombs. Officials argued that building an atomic power station is vital to ensure Kazakhstan's energy security and reduce reliance on fossil fuels to meet net-zero targets in 2060. Nuclear energy, they pointed out, is cleaner than the coal-fired plants that currently generate 70% of power in Kazakhstan, which is the world's largest uranium producer.

Opponents countered that it would be safer and greener to expand renewables. Nuclear sceptics aired concerns about the environmental impact around the planned site at Lake Balkhash in the south-east, where water levels are already falling. Critics also questioned whether the government of a country where corruption often dogs big-ticket projects could be trusted to build a nuclear plant safely without money going missing. And looming large over the debate was Kazakhstan's history as a nuclear testing ground. Between 1949 and 1989, the Kremlin exploded 456 nukes at the Semipalatinsk range in north-eastern Kazakhstan, where locals are still suffering the consequences.

But the naysayers' voices were drowned out by the officially backed "yes" campaign, which monopolised public hearings. In Semipalatinsk, one vocal anti-nuclear activist was arrested during an event. The pro-nuclear lobby swamped the media and dominated the streets with billboards.

Almassadam Satkaliyev, the energy minister, framed the referendum as a "patriotism" test, neatly turning opponents into traitors. Officials prevented "no" campaigners from holding anti-nuclear rallies. A dozen activists were arrested, accused of plotting to foment unrest (six have been released on bail). The referendum was "political theatre" to lend the government's nuclear ambitions a veneer of legitimacy, thinks Dosym Satpayev, an analyst.

Unsurprisingly, Kassym-Jomart Tokayev, the president, comfortably won. Official results show that 71% of voters cast their ballots in favour of building a nuclear power station. Companies from at least four countries are now in the running to construct it, including Russia's state-owned Rosatom.

The inclusion of Kazakhstan's bellicose neighbour and ally on that list has raised hackles with many Kazakhs. Russia already controls the export routes for 95% of Kazakh oil. Many fret that granting it even more leverage over Kazakhstan's energy sector would be foolhardy.

Modi 3.0

A quieter tiger

DELHI

Is India's economy slowing down?

SPEAKING AT A conference on India's economy this week, Narendra Modi, the prime minister, was typically bullish about his country's prospects. The world, he suggested, is living through an "Indian era". Rapid growth, favourable demography and an emerging tech industry have put the country at a "sweet spot", he said.

Recent data, though, suggest that some sourness is creeping in. After roaring growth in recent years, the economy seems to be losing momentum. According to the latest official figures, the annual GDP growth rate eased to 6.7% between April and June, down from 7.8% in the previous quarter. That is the slowest expansion in more than a year.

Data released in the past fortnight suggest that the slowdown has continued. An index tracking output in eight core industries, such as coal, oil and electricity, fell in August for the first time in more than three years. In September car sales, a proxy for consumption, fell by 19% year on year. Growth in collections from the goods-and-services tax, another indicator of economic health, also fell to its lowest level in more than three years. Even India's stockmarkets, which have been on a tear recently, suffered losses for six consecutive days.

Things could get worse if the conflict in the Middle East escalates and oil prices keep rising. More than 85% of India's oil consumption is sourced from abroad, making it vulnerable to oil-price shocks. Estimates suggest that a $10 increase in the price of an oil barrel could shave up to 0.4% off India's GDP. The inevitable rise in fuel subsidies would also crowd out other government spending.

The finance ministry has acknowledged these developments, describing them as "incipient signs of strains". Nevertheless, few policymakers believe that the new data are more than temporary blips in India's trajectory. At its latest meeting on October 9th, the Reserve Bank of India chose to leave interest rates unchanged and retain its growth forecast of 7.2% for the current fiscal year. The central bank governor insisted that "India's growth story remains intact."

As Mr Modi routinely reminds Indians, their country is the fastest-growing big economy in the world. And even if growth were to fall, it is in no danger of losing that title (see chart). The Congress party, the main opposition group, is sceptical of the government's "bombastic" talk. Jairam Ramesh of Congress warned that "three dark clouds" loom over the economy: weak private investment, stagnant manufacturing and falling real wages.

These criticisms have some merit. Most concerning for Mr Modi will be the state of manufacturing. Boosting the sector is the centrepiece of his economic agenda for his third term. But growth in factory output is slowing. In September an index tracking manufacturing activity expanded at its slowest rate in eight months. In Tamil Nadu a strike by workers at a Samsung plant, which has now entered its second month, has cast a cloud over Mr Modi's ambitions to make India an electronics hub.

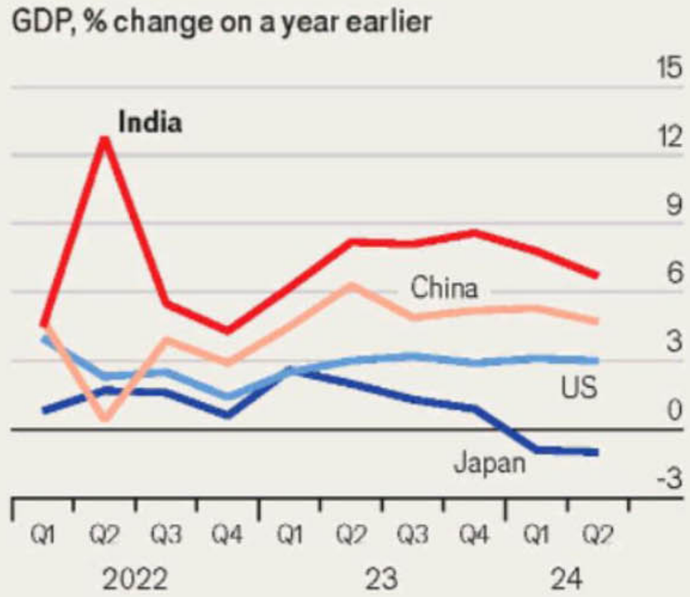
The country's labour issues, however, extend beyond pay disputes. Too many people still work on farms. Official data released last month revealed that 46% of the country's labour force worked in agriculture in 2023-24, up from 43% in 2018-19—an influx of 68m workers. During the same period, the share in manufacturing fell from 12% to 11%. Unemployment is also a big issue. According to the Centre for Monitoring Indian Economy, the jobless rate was 7.8% in September, and has remained around that level for over two years, even as the economy has grown.

A slumbering beast

Mr Modi's government wants to fix this. In its budget earlier this year it splurged on new schemes, such as an apprenticeship programme, and extended existing ones. But more is needed. Too much of the government's subsidy pot is directed towards capital-intensive sectors rather than labour-intensive ones, says Abhishek Anand, an economist at the Madras Institute of Development Studies in Chennai. And policymakers should make it easier for firms to scale up operations. In a new study, Mr Anand and colleagues document the growing trend of firms operating multiple small factories within a state to diversify risk and comply with regulations—but these firms tend to be less productive. ■

Stumbling?

GDP, % change on a year earlier



Source: Haver Analytics

Cross-border trains

Doing the locomotion

New railways could transform South-East Asia

FEW BETTER ways exist to see Vietnam than to travel on its north-south railway. It was originally built by French colonialists, and its trains pass rice paddies, verdant mountains and spectacular coastlines as they go from Hanoi, the capital, to Ho Chi Minh City. However, the trains move at a leisurely 30 miles (50km) per hour. Rather than spend 36 hours on the train, most people take a two-hour flight.

All across South-East Asia railways are old and slow, and tend not to connect with one another. The region has only 24,000km of railway lines—roughly the same as Mexico, which has a land mass half its size. For decades bigwigs at the Association of South-East Asian Nations, an intergovernmental forum that aspires to increase trade, have talked up the goodies that might flow from laying a lot more track. Wheels are slowly starting to turn.

One accelerant has been the completion, in 2021, of a semi-high-speed line from Kunming in southern China to Vientiane in Laos. The idea for a long time has been that this could become the first stretch of a line that would run all the way to Singapore. Its inauguration has generated momentum elsewhere, says David Lampton of Johns Hopkins University. Thailand has said it is speeding up construction of a high-speed railway into Laos; Malaysia is reviving long-stalled plans to build a $25bn line south to Singapore; Vietnam has just announced plans for two railways that will run from Hanoi to the Chinese border. Last year Indonesia launched its first high-speed service between the cities of Jakarta and Bandung.

To expand their networks, South-East Asian countries need expertise and money. China is offering both. Though it now talks much less than it did about its Belt and Road investment initiative, China remains by far the biggest foreign provider of finance for South-East Asian infrastructure. As of 2022 it was involved in two dozen of the region's 34 biggest projects (those costing more than $1bn), reckons the Lowy Institute, an Australian think-tank. Six of them, equivalent to 60% of total commitments, were railways.

Foreign fields are attractive to Chinese rail companies, which have mostly finished rigging up their own country's high-speed network. And South-East Asia is a particular priority for the government. Improving freight there would benefit Chinese com- ▸▸

panies that are moving factories to the region. Last year Chinese firms coughed up a third of all the foreign investment that went into South-East Asia's manufacturing sector, up from 18.5% in 2019.

Delays doubtless lie ahead. Infrastructure projects that are backed by China tend to fall through a lot more often than others, notes the Lowy Institute. It reckons that between 2015 and 2021 only a third of the funds China said it was committing to infrastructure in South-East Asia actually ended up flowing into something that got finished. This is in part because China likes to get involved in the most ambitious projects, which are most vulnerable to slippage or downsizing. But it is also because big Chinese investments are controversial, and tend to get re-examined when governments change.

A Chinese-backed rail line that is due to connect Malaysia's east and west coasts has caused no end of rows since it was announced in 2016. Its plans have been reconfigured several times. Last year the Philippines, which has only a few hundred kilometres of railway, said it would no longer seek Chinese help to construct three new rail lines (fear of getting in hock to China, and anger over disputes in the South China Sea, may have played a role). Yet it insists it has other options: officials said they would instead seek funding from India, Japan or South Korea. Perhaps one day South-East Asia's stunning vistas will whizz past travellers—in the blink of an eye. ■

BANYAN

Modi's mojo

Does India's ruling party still need the prime minister to win elections?

PITY INDIA'S pollsters. They have never been much good at predicting election results. In June, they suffered a humiliating setback when India's ruling Bharatiya Janata Party (BJP) unexpectedly lost its majority in a general election. Pradeep Gupta, the head of Axis My India agency, was so upset that he burst into tears on live television.

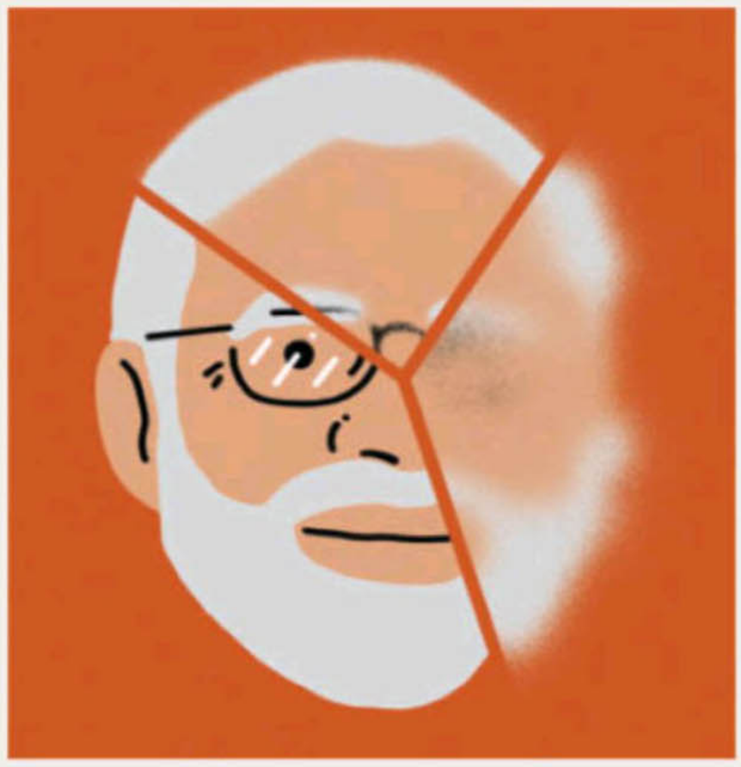
Promising to do better, pollsters soon turned their attention to the first two regional elections of Narendra Modi's third term. (India's prime minister pulled together a coalition government.) Their exit polls mostly predicted a crushing defeat for the BJP in the northern state of Haryana and a hung parliament in the union territory of Jammu & Kashmir. When results were announced on October 8th, the pollsters were confounded again: the BJP won easily in Haryana and an opposition alliance gained a majority in Jammu & Kashmir.

There are three conclusions to be drawn—apart from the fact that Indian elections are hard to predict. First, the BJP electoral machine appears to have found its feet again, despite Mr Modi's weakened mandate. His new government has struggled to adapt to unfamiliar pressure from allies, opposition parties, courts and activists. It has also faced a rift with the Rashtriya Swayamsevak Sangh (RSS), the Hindu nationalist movement from which it grew.

The BJP faced additional challenges in Haryana, a largely agricultural state where it has been in power since 2014. Many farmers there worried that Mr Modi might reintroduce agricultural reform laws that he was forced to repeal in 2021 after massive protests. The party's reputation also took a hit in 2023 when several female wrestlers from the state accused a BJP legislator of sexual harassment. In the general election, the BJP won only five out of ten seats in Haryana, half its tally in 2019.

Yet, in the state poll, the BJP took 48 of 90 local assembly seats. A decisive factor was the RSS. It took a back-seat role in the general election because of disagreements with BJP leaders. But the group launched a farmers' outreach scheme in Haryana in September, deploying 150 volunteers to each district. It also helped that the BJP decided to appoint a new chief minister from a mid-tier caste in March and to choose dozens of new candidates.

A second conclusion is that the Congress party, the BJP's main national rival, has much work to do. Congress won half the seats in Haryana in the general election, but only 37 of 90 in the state poll. Party insiders blamed complacency in its leadership, a dearth of fresh blood among candidates and over-reliance on a local party chieftain from the upper-caste Jat community. That alienated many lower-caste voters. Congress also failed to negotiate a seat-sharing pact with one of its own partners in an opposition alliance.



The BJP may be heartened, too, by its performance relative to Congress in Jammu & Kashmir. Opposition leaders portrayed the result as an indictment of Mr Modi's move to strip the mostly Muslim region of its semi-autonomy in 2019. The result will no doubt increase pressure on Mr Modi to restore its statehood. Yet the BJP still won 29 of 90 seats (all in mostly Hindu Jammu). Congress won just six; its partner, the National Conference, took 42. BJP leaders cite that as further evidence that, in a straight fight, they easily outgun Congress. They also argue that the election's peaceful conduct proves that Mr Modi has brought stability to the region.

Yet, cheery as this might all seem for the BJP, it is less so for Mr Modi. A third conclusion is that his party appears to be growing less dependent on him to win votes. In Haryana, he held just four rallies during the election campaign, compared with ten in 2014 and six in 2019. In Jammu & Kashmir, he held four. And BJP candidates in both polls focused more on local issues than on his image as a muscular, infallible leader. That could spell trouble for him if rivals in the BJP launch a leadership bid in the future.

The big question now is how the results will affect the next state elections, especially one in Maharashtra due by November 26th. Regional factors will probably dominate there, too, but the results from Haryana and Jammu & Kashmir could strengthen the BJP's hand in seat-sharing talks with coalition partners while weakening Congress's bargaining power. The outcome in Maharashtra will determine whether the BJP can consolidate its apparent comeback from the general-election upset. The race will be tight, according to polls. But don't bet on it.

China

Immigration

How to escape from China to America

ALONG THE ZOUXIAN ROUTE

We travel with Chinese migrants on the deadly journey to America's border

THEY COME for different reasons. Some are seeking economic opportunity. Others are disillusioned with Xi Jinping's rule. Many have seen videos of other Chinese migrants trekking across the jungle between Colombia and Panama on their way to a better life. Tens of thousands of Chinese citizens have travelled to South America, the first step on a perilous journey to the United States. The route is so popular that it has earned a Chinese nickname: *zouxian*, or walking the line.

For the past two years Chinese migrants have been the fastest-growing group crossing the southern border of the United States. More than 37,000 of them were encountered by the US Border Patrol in 2023, up from 3,813 in 2022 and 689 in 2021. Another 21,000 came in the first eight months of this year. They remain a fraction of the 2m migrants who tried to cross the frontier in 2023. But because America and China are locked in economic, ideological and geostrategic competition, the Chinese migrants are a political lightning rod.

To hear Donald Trump tell it, the newcomers from China are mostly men of military age. "Are they trying to build a little army in our country?" he has asked. Other Republicans have called the migrants potential spies. Kamala Harris and the Democrats are less alarmist, but they worry about the border, too. Amid a presidential campaign where immigration is a top concern and China a convenient villain, there has been little effort to understand what is driving this movement of people and what it says about each country.

The Economist spent three months reporting in Colombia, Mexico and the United States. We interviewed dozens of migrants, as well as smugglers and border guards. Several people allowed us to track their *zouxian* journeys. Some reached the United States after weeks of travelling by boat, bus, foot and plane. Others lost everything along the way. Most were drawn by the promise of a better future and hoped to exploit America's broken immigration system. Their journeys also shine a light on China, where the stifling rule of Mr Xi and a worsening economic malaise are pushing people away.

For many Chinese migrants, the first stop in the Americas is Ecuador, which until recently offered them visa-free entry. But they quickly move to Colombia. That is where we met Ms Huang, a woman in her 40s who wore a bright pink dress. She had already defied the conservative norms of her birthplace, a poor village in the south-western Chinese province of Guizhou. Most women from the village spend their lives farming and raising children. Ms Huang, though, had left for bigger towns, raised two children and divorced a husband who gambled too much.

She had come to Necoclí, a town on the edge of the Caribbean, and was about to enter the treacherous jungles of the Darién Gap between Colombia and Panama. Her younger sisters, both in their 20s, had come too. Neither of them had been outside China before. They knew little about the dangers ahead but dreamed of reaching America, said Ms Huang. Since the pandemic her employer, a grocery-delivery service, had cut her wages and increased her hours. She had seen the videos of other Chinese migrants successfully making the journey. "You only live once, right?"

Many of the migrants we met in Necoclí were motivated by economics. Back home they felt like the ladders to a better life were disappearing. A years-long crisis ▸▸

in China's property sector has left consumers depressed and threatened deflation. The government's recent stimulus measures have led to a stockmarket rally, but pessimism over the economy lingers. Ordinary Chinese once felt that with enough hard work they could get ahead. But according to new research, they now believe that being well-connected and growing up rich are the keys to success. "In China, for people in the lower-income class...there's just no way out," said Ms Huang.

Amid this malaise Mr Xi and the Communist Party have tightened their control over society, ramping up censorship and cracking down on critics. Some of the migrants we talked to in Necoclí were desperate to escape this oppression. Ah Gan and Ah Zhen, a couple in their 40s from southern China, had brought their 12-year-old son and ten-year-old daughter to the town. They were sick of living in an "information cocoon" and wanted their children to have more freedom, said Ah Gan.

Similar thoughts propel Sam Lu, a 36-year-old from Wuhan who said he had been threatened by the police in China after criticising the government's handling of covid-19 in 2020. Mr Lu caught the virus early on, while the authorities were denying its severity, then infected his grandmother, who died. Standing at the ferry station in Necoclí, where migrants were wrapping their belongings in garbage bags before boarding boats for the Darién Gap, Mr Lu said he had sold his apartment to pay for the trip. China's government was no longer allowing its citizens to speak—he would rather die on the road to America than continue living that way, he said.

Death is a real risk in the Darién Gap, one of the most dangerous stretches of wilderness in the world. Migrants pay smugglers managed by the Gulf Clan, a drug-trafficking cartel, for passage through part of the jungle. They face steep mountains, roiling rivers and the threat of armed bandits. More than 300 migrants have died or gone missing in the gap since 2022, according to the International Organisation for Migration, a UN body. Médecins Sans Frontières, a humanitarian group, treated nearly 700 victims of sexual violence there, many of them children, in 2023.

More coverage online

In a four-part podcast series our correspondent follows Chinese migrants from the jungles of the Darién Gap to Fatty Ding Plaza in California. To listen to the first episode, go to **economist.com/climbers**. For an interactive version of this story, go to **economist.com/chinesemigrants**

Despite the dangers, more than half a million migrants crossed the Darién Gap in 2023, double the number in 2022, according to the authorities in Panama. Another 238,185 have crossed so far this year. Chinese migrants are the fourth-largest group making the trek (behind those from Venezuela, Colombia and Ecuador). Their numbers jumped from only 2,000 in 2022 to more than 25,000 in 2023.

Chinese migrants have an easier time than others because they can afford "VIP packages" that shorten their time in the jungle. In Necoclí migrants and smugglers described three options: a $300 package that is all on foot and takes at least a week; one for $700 that is two days on foot and two days by boat; and a $1,500 trip by horse that is meant to take just a day. Smugglers take photos of the migrants at various stations and post them on WeChat, a social-media platform, to prove that they are delivered safely. Most of the Chinese migrants we spoke to chose the $700 package. After exiting the jungle they took buses through Panama, Costa Rica, Nicaragua, Honduras and Guatemala, all the way to Mexico.

Many Chinese migrants said the hardest part of their journey was in Mexico. Under pressure from the United States to reduce the numbers of migrants, Mexico has implemented a policy that aims to exhaust them. They are rounded up by the authorities and dumped in the cities of Tapachula and Villahermosa in southern Mexico, far away from the United States. Some migrants have been picked up and moved several times. That strategy, along with new restrictions in the United States, led to a 77% decline in the US Border Patrol's encounters with migrants trying to cross the southern border in August compared with last December, when they peaked.

Migrants stranded in Mexico have become targets for smugglers and organised crime. The Chinese, in particular, are preyed on because they tend to have more money. While trying to cross Mexico, Ah Gan and Ah Zhen were abandoned by a group of fellow migrants, then forced by a smuggler to pay the group's debts. Later they were locked in a motel room and swindled out of more money by smugglers who claimed it would pay for bribes at checkpoints. The couple escaped by telling their captors that they needed to go to a nearby town to buy shoes for their children. Then they ran away to Mexico City.

The Chinese government has said that it is working with other countries to crack down on human-smuggling. But potential migrants seem more interested in other policy changes along the *zouxian* route. On July 1st, for example, Ecuador suspended visa-free entry for Chinese citizens. As a result, the number of Chinese crossing the Darién Gap dropped from more than 1,000 in June to 53 in August. In online discussion groups in China, those thinking about making the journey have begun looking for other entry points, such as Bolivia (where Chinese travellers can get a visa on arrival) or Suriname (where they don't need a visa).

In Tapachula a Chinese migrant named Chen was anxious about the path ahead. In June the administration of Joe Biden made it more difficult for those who enter the United States without permission to seek asylum and remain in the country, a common approach. In July, two months after the United States and China agreed to resume co-operation on migration issues, ▸▸

America sent 116 Chinese citizens home on the first large deportation flight since 2018. "The policies are all changing," said Ms Chen. "All I care about is hurrying up, moving forward, going faster."

Chinese migrants who make it to Mexico's northern frontier must navigate America's border wall. Here they have options, too. Some climb over with the help of smugglers' ladders. Others find areas where the wall turns into a fence and cut a hole in it. In more rugged areas, the wall becomes nothing more than a wire which can be walked under or around with a bit of athletic skill, usually at night. As the sun comes up, successful migrants walk through the sand in the direction of Jacumba Hot Springs, a town with fewer than 1,000 residents in southern California.

Once in the United States, migrants look for the Border Patrol in order to turn themselves in and apply for asylum. They are then taken for processing at a detention centre. America's asylum law allows anyone who is present in the country to apply for protection if they are at risk of persecution. The first step is often a "credible-fear" screening that is meant to assess whether they are afraid of returning to their home country. Migrants who fail are put on a deportation list and detained for up to six months. But many are then released until the government can convince China to take them back, something it has been reluctant to do until recently.

Those who pass the initial screening are given a date for a hearing and released. Chinese applicants were granted asylum 55% of the time in the 12 months to October 2023, according to the Justice Department. But the department is thought to have a backlog of more than a million cases, including more than 32,000 involving Chinese migrants. On average, asylum-seekers wait more than three and a half years for their hearings. In the meantime, they can stay in the United States. After six months, they can obtain a work permit.

Some residents of Jacumba Hot Springs are not happy about the situation. Kali Kai Braun, the caretaker of a shooting club near the border, said he had seen smugglers' trucks drop off migrants almost every day since mid-2023. *The Economist* witnessed dozens of them running across the club's grounds. Mr Braun is convinced that many of the Chinese migrants are not legitimate asylum-seekers. He had painted "Fuck you, Chinese Communist Party" in Mandarin on a stone lion. It was a message, he said, to Chinese soldiers or spies.

There is no evidence that China is sending an army to America, as Mr Trump claims. A more valid complaint is that many Chinese asylum-seekers are actually economic migrants. Mei Zhou, an immigration lawyer in Los Angeles, says she has met plenty of Chinese who fabricate stories of persecution. That hurts genuine asylum-seekers. Immigration judges who encounter too many "fake storytellers" become more cynical and reject those who really do need protection, she says.

No regrets

Many Chinese migrants settle in Monterey Park, a suburb of Los Angeles. Its Fatty Ding Plaza is famous on social media as a one-stop-shop for all of a new arrival's needs. The run-down strip mall has restaurants, places to buy SIM cards and hotels offering rooms for as little as $15 a night. Most importantly, it has job agencies offering work in warehouses and on construction sites. There is no need for a work permit. But migrants can expect to earn below the minimum wage.

One calling himself Tom (after his favourite actor, Tom Cruise) says he has tried three jobs in the 40 days since he arrived in the United States. His latest gig, as an assistant mechanic, pays $100 a day for 12 hours of labour with no breaks. Still, Tom does not regret coming to America. "As long as you work hard, you will have opportunities," he says. "In China, you won't have opportunities even if you work hard."

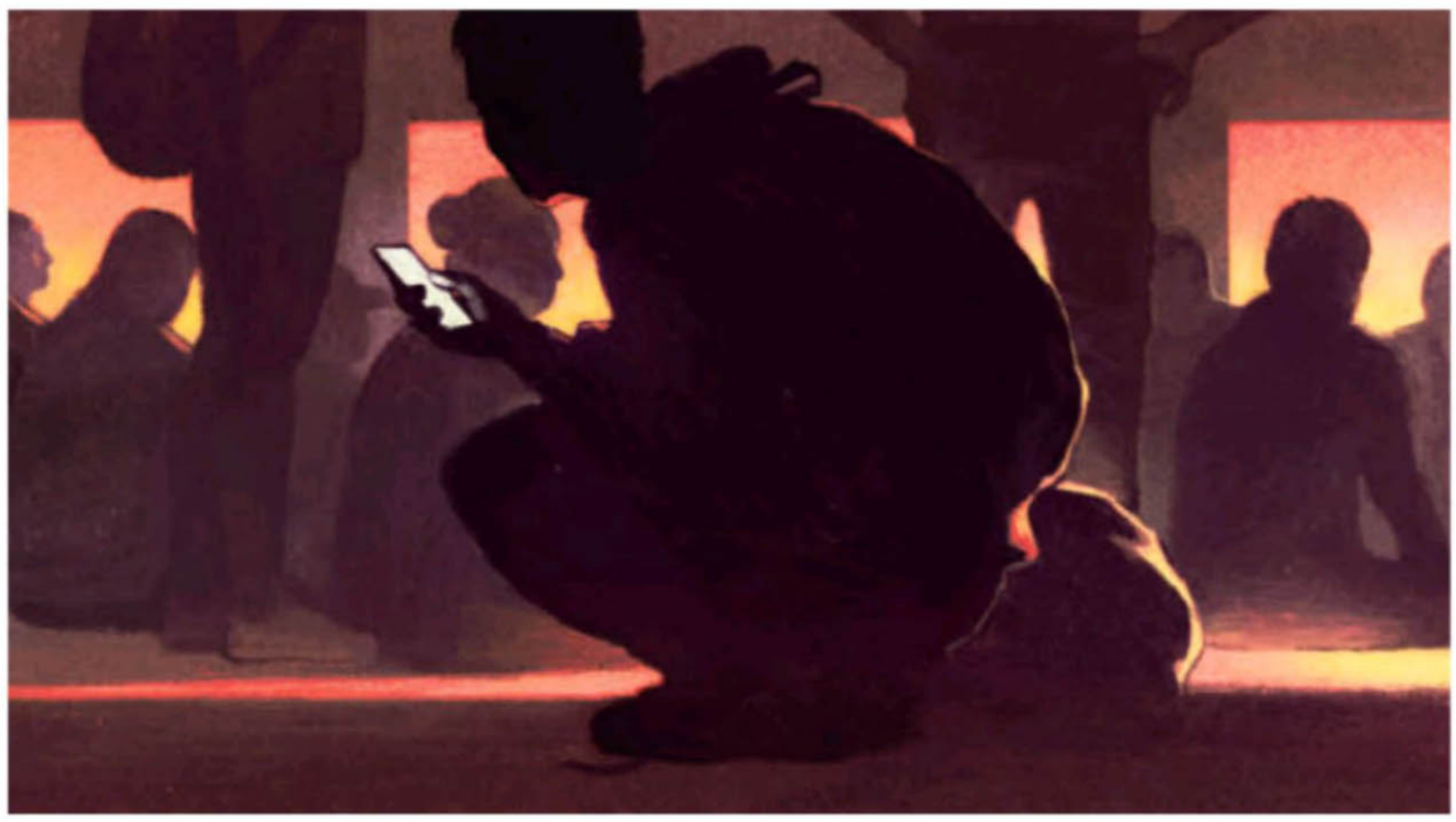
Ah Gan and Ah Zhen feel similarly. They made it from Mexico City to Tijuana, where they hired a smuggler to get them and their two children across the border. In August they arrived in California, three months after they had left China—and much poorer than when they began. When we met them in September they were renting a small home in San Jose. As they waited for their asylum hearing, Ah Zhen delivered parcels, an informal job she found through a Chinese app. They were trying to place their children in a local school. All four said the trip was "worth it".

Of all the migrants *The Economist* met on the road, only a handful made it to the United States. The three Huang sisters stayed in touch from June until mid-July, when they said they were heading to Tijuana. Then they stopped responding. Mr Lu, the young man from Wuhan, crossed the border, according to a friend who said they were detained together on the American side. But Mr Lu has yet to be released.

In some ways what is happening resembles the situation a little over a century ago, when the forerunner of America's Border Patrol was founded. Early on, its inspectors mainly pursued migrants from China who were seeking to circumvent the Chinese Exclusion Act, the first significant restriction on immigration into the United States. Back then, too, the journey from China to America was dangerous and expensive. But the migrants believed they would find a better life on the other side.

The big difference is that China is no longer a poor, unstable country, as it was back then. Today it boasts cutting-edge research labs, powerful armed forces and the second-largest economy in the world. China's rise to superpower status has filled its leaders with confidence. For years Mr Xi has declared that the East is rising and the West is declining. He claims that China's economic and political systems are superior to those of America and its allies.

What, then, to make of the thousands of Chinese leaving the country for America? Their decisions reflect a calculation about the *zouxian* route: that, while dangerous, it is manageable, owing to the accumulated knowledge of previous migrants, the industry that has sprung up around it and the porousness of America's southern border. But in plenty of cases their choice to leave is also an indictment of Mr Xi's rule. Along the path to America, many Chinese migrants spoke of unfulfilled ambition. They had given up on the Chinese dream. Now they wanted to see what America had to offer. ■



Chaguan, our China column, has been suspended. Our goal is to reinstate it when we have a new columnist resident in Beijing.

Middle East & Africa

Israel and Iran

Where, what and when?

JERUSALEM

Why has Israel not yet attacked Iran?

AT LEAST TWICE in the past, in 2010 and 2011, Israel's generals have been ordered by the prime minister, Binyamin Netanyahu, to prepare for imminent strikes on Iran. In both cases the security chiefs questioned the legality of the order, given without the necessary cabinet authorisation. In neither instance did Israel go to war with the Islamic Republic.

Today Israel is once again on the verge of thumping Iran. This time Mr Netanyahu will have no problem getting approval from a cabinet which if anything is even more gung-ho than he is. Nor are the leaders of Israel's armed forces as opposed to such action as before. And this time Israel believes the odds are in its favour.

Israel's leaders reckon that the 181 ballistic missiles fired by Iran at Israel on October 1st leave them with little alternative but to hit back. What form the retaliation takes could have wide-ranging implications for the Middle East and beyond.

Four types of targets are being considered. Mr Netanyahu has long favoured bombing the sites where Iran enriches uranium and carries out research for its nuclear programme. But these are dispersed around the country (see map on next page) in heavily fortified locations deep underground. Doing significant damage would require large numbers of bunker-busting missiles launched from dozens of aircraft operating at least 1,200km (750 miles) away from Israel. Israel's air force is the most powerful in the region but it may be difficult for it to set back Iran's nuclear programme by more than a few months.

A more vulnerable strategic target would be Iran's main ports, specifically the oil terminals which provide most of Iran's foreign-currency income. Israeli strategists believe that destroying them would deal a severe blow to Iran's already shaky economy. This, they hope, might provoke further unrest within Iran. Some dream that it could even lead to the regime's downfall.

A third choice would be to target the country's leaders directly, just as Israel has attacked the leaders of Iran's proxies and allies, Hizbullah in Lebanon and Hamas in Gaza. This would be tricky, as Iran's most senior figures would almost certainly retreat to secret protected locations if an Israeli strike looked imminent. And the impact of such attacks is always uncertain. The question of who will replace Iran's ageing supreme leader, Ali Khamenei, is already a subject of much deliberation there.

Israel's most obvious military response would be a tit-for-tat strike on Iran's missile bases. This option would arguably be the least likely to provoke yet another missile salvo from Iran. But Mr Netanyahu believes that Israel has a historic chance to reshape the region. And this time some of his generals, though not all, agree. They think that the fact that Israel has withstood two major salvoes of Iranian missiles (the first in April) with barely any casualties or serious damage proves that Israel can ▸▸

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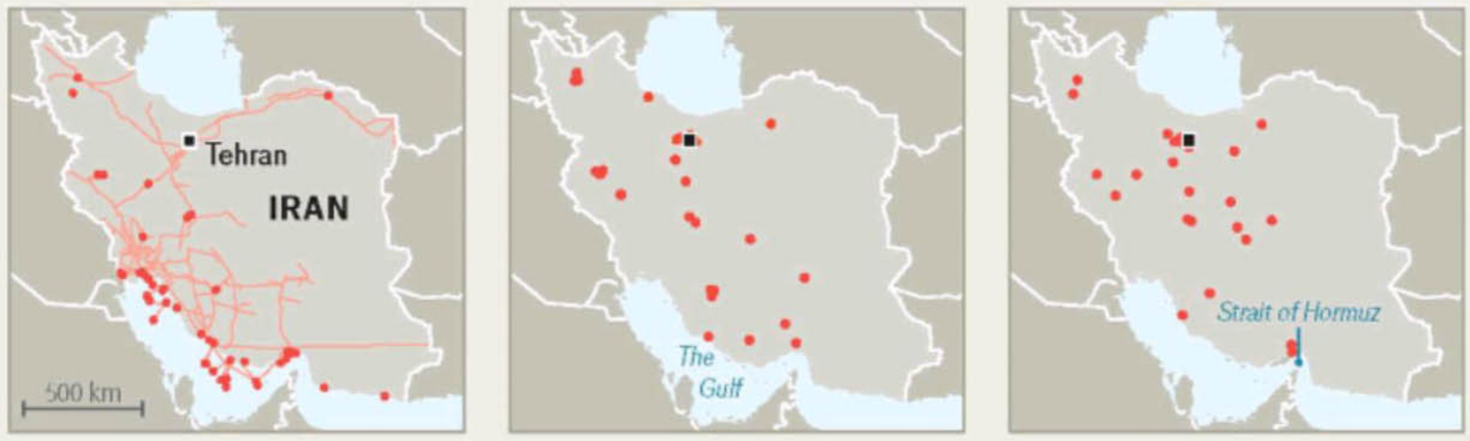
35 Hizbullah's prospects

36 A startup for Ghana's expats

37 Good vibes in South Africa

Where next?

Oil and gas facilities* | Missile development/launch sites† | Nuclear facilities



Sources: Global Oil and Gas Features Database; IISS; NTI *Pipelines, ports, processing plants, refineries and storage †Suspected

withstand whatever Iran throws at it.

Those in favour of hitting Iran's nuclear programme and economic infrastructure also believe that Israel has a rare momentum behind it, having in the space of weeks decapitated the main leaders of Hizbullah, Iran's most powerful client militia in the region, and having destroyed a large proportion of its missile arsenal, too. Those missiles were supplied to Hizbullah by Iran to act as a deterrent against Israel attacking the Islamic Republic. Much of that deterrent has gone up in smoke.

So why, more than a week after Iran's missile attack, has Israel not yet struck back? Not everyone in Israel's security circles is in a rush to change the Middle East. Several of the country's generals are counselling caution. For a start, they believe that Israel cannot afford to launch a campaign of this magnitude without co-ordinating with its main ally, the United States. But President Joe Biden has publicly spoken out against an Israeli attack on Iran's oil infrastructure, since that risks causing global energy prices to soar on the eve of America's elections. So far the president has also been against an Israeli attack on Iran's nuclear facilities.

Despite the support worth nearly $18bn that America has given Israel in the past year, and although American planes and warships played a big part in intercepting Iran's missiles, Israel has yet to share its plans with its closest ally. Mr Netanyahu even vetoed a proposed trip by Yoav Gallant, the defence minister, to Washington to discuss the options. Meanwhile, in televised statements Mr Netanyahu has promised the Iranians they will be free of their regime "a lot sooner than people think" and has exhorted the Lebanese to "free your country from Hizbullah".

On October 9th Mr Netanyahu spoke by phone with Mr Biden for almost an hour. They spent most of the call discussing the possible strikes but did not seem to reach any kind of agreement.

There are Israeli defence officials who worry that provoking an all-out war with Iran, while Israel is still fighting Hamas in Gaza and has launched a ground invasion against Hizbullah in southern Lebanon, would stretch resources dangerously thin. Some generals warn of squandering the gains already made.

But since the disaster of October 7th 2023, the credibility of Israel's military and intelligence chiefs in standing up to the prime minister has diminished. Like Mr Netanyahu, they seem ready to risk a devastating conflagration in order to transform their legacy from having overseen Israel's greatest debacle to becoming the victors of a regional war. Like him, they may yet fall victim to their own hubris. ■

Iran

The calculus

DUBAI

Iran's leader must choose how to fight his war with Israel

SAFE TO say it is not how he pictured his dotage. Ali Khamenei, Iran's supreme leader, wanted to spend his final years shoring up his creaky dictatorship. Instead he has spent 2024 burying his hand-picked president and approving risky strikes on Israel: hardly a recipe for stability.

Mr Khamenei, 85, is a reluctant wartime leader. Critics also charge he is an inept one. Now he must decide whether the biggest threats to Iran—and, perhaps, to his own rule—come from within or without.

To one side are hardliners in the clergy and the Islamic Revolutionary Guard Corps (IRGC) who think Mr Khamenei has been dangerously passive amid months of Israeli attacks on Iranian interests. He did approve a barrage of drones and missiles in April as retaliation for an Israeli air strike on the Iranian embassy compound in Damascus. But it was telegraphed so far in advance that it was widely seen as an embarrassment, more likely to embolden Iran's enemies than deter them.

Sure enough, Israel kept up an audacious campaign of assassinations and air strikes. By the end of September it had decapitated Hizbullah, Iran's most valuable proxy militia. Hardliners began to insist that Binyamin Netanyahu, the Israeli prime minister, would come next for the Islamic Republic too, unless Iran showed Israel that it could fight back.

When Mr Khamenei approved a ballistic-missile attack on October 1st, it was not only meant to deter Israel. It was also meant to reassure the hardliners seething about his inaction. It does not seem to have worked. People close to the IRGC still grumble about how the doddering old man has destroyed Iranian deterrence.

Hawks are already pushing for an even harsher response, if Israel retaliates. *Kayhan*, a newspaper whose boss is appointed by Mr Khamenei, called for strikes on Israeli gasfields and oil refineries. Some have also called for Iran to build and test a nuclear weapon (Mr Khamenei has long preferred to stay just below the nuclear threshold). To that end, dozens of MPs have urged the national-security council to review Iran's defence doctrine.

Yet these are not the only voices in Mr Khamenei's ear, even if they are the loudest. Masoud Pezeshkian, elected as president in July, still seems keen on pragmatism. He has called for new talks with the West over Iran's nuclear programme. That will be impossible if Iran keeps exchanging missile barrages with Israel.

Iran's neighbours are also urging restraint. On October 3rd Abbas Araghchi, Iran's foreign minister, met his counterparts from the Gulf Co-operation Council, a club of six Arab monarchies. It was the first time an Iranian foreign minister has been invited to meet a body that is usually suspicious of Iran, if not downright hostile.

Today, though, Gulf states are keen to avoid a bigger war that could see them caught in the crossfire. They promised Mr Araghchi that they would remain neutral, urged his government to lower tensions with Israel and dangled the prospect of trade and investment as an incentive.

Mr Khamenei fears a public that has risen up repeatedly. Many Iranians are furious that the regime has spent billions of dollars arming proxies that were meant to deter Israeli attacks on Iran but have instead invited them. Some might well cheer if Israel struck the IRGC. Yet others might rally around the regime (see next article).

Some analysts in Iran argue that Mr Khamenei still wants to avoid war with Israel. That is a fallacy: he has been at war with Israel for decades. Until this year, though, he chose to fight that war indirectly. That may still be his preference, and with good reason—but it may not be acceptable to the hardliners who increasingly hold sway. ■

Iran

Waiting for war

The threat of an Israeli attack is reviving Iranian nationalism

IN A TEAHOUSE in southern Tehran, the poorer half of Iran's capital, a female storyteller regales a roomful of shisha-puffing men with tales from Persia's ancient epic, Shahnameh. "He didn't want war," she tells them of its warrior hero, Rostam. "He did everything to avoid it, but they kept provoking, and then they forced him to fight."

For years the ayatollahs' critics in Iran called on America and Israel to rescue them from their oppressor, the Islamic Republic's clerics and guards, only half in jest. Their anger has not subsided. But the looming threat from Israel has turned the mockery to foreboding. For the first time in over three decades, Iranians worry that their country, like Rostam, is being dragged into war.

The regime is trying to quell such fears. There has been no mass call-up or testing of air-raid sirens. But state radio and TV are playing martial music. Nationalist symbols are replacing religious ones. Iranian flags and the slogan "For Iran's honour" are on the streets.

Many had recently hoped a shift in the regime's tone might ease tension with the West and perhaps mollify Israel. But Israel's attacks on Iran's proxies have cast doubt on that. More Iranians seem convinced that war is inevitable. "Just a few months ago, we were worried about the economic crisis," says a female university graduate in Khorasan, an eastern province. "Now we're asking whether we'll even survive tomorrow."

Some are looking for salvation from outside the country. Satellite channels led by Iran International in London hail news of Israel's victories and mock Iran's supreme leader, Ayatollah Ali Khamenei. "Netanyahu is the one who can save Iranians from the regime," says the same university graduate.

But they are probably a minority. Many take pride in the regime's riposte to Israel. And Iranian nationalism may revive in the face of foreign intervention. "There was an arrogance I didn't like," says a university lecturer and erstwhile critic of the regime, referring to Binyamin Netanyahu's address to Iran. "I think he must learn a lesson so he won't speak like that ever again." Faced with the prospect of humiliation by the Jewish state, an Islamist tinge colours the nationalism of poor Iranians. Days after Iran's attack on Israel, a vast crowd heard Mr Khamenei deliver his first public Friday sermon in four years.

The shisha-smokers take comfort from the reluctant Rostam's victory over his enemies. Iran's leaders must not only defend their regime from foreign attack but must also hold their fort from within.

Rallying round the flag

Hizbullah

Unintended consequences

SAIDA

Israel's invasion of Lebanon may bolster support for Hizbullah

THE BRIGHT yellow flags of Hizbullah, the Shia militia, that line the main road leading south out of Saida, a port city in southern Lebanon, seem like the standards of a floundering kingdom. Head farther south, where Hizbullah holds sway, and the streets grow ever emptier. The only fighters visible are the dead ones staring down from posters. The decapitation, almost overnight, of Hizbullah's military leadership, and the assassination of its charismatic leader, Hassan Nassrallah, have shocked everyone, not least the Shia group's own supporters.

As a fighting force, Hizbullah has been bloodied. The obvious damage to its military strength is prompting questions about its self-declared ability to defend the Lebanese and its legitimacy as a political force. But the group's domination of Lebanon is based on more than its military strength. It has spent decades embedding itself within Lebanon's corrupt and gridlocked political system which is run on sectarian lines, while simultaneously building a parallel state. The roots of that will not be destroyed by Israel's military campaign.

Hizbullah's stated aim in its early years was to declare a Shia Muslim state throughout Lebanon, like the one in Iran. But it soon abandoned that goal, implausible in a country where only 32% of the population is Shia. Instead it chose to play the political system. It now has the legitimacy of a state, even with non-Shias, without the accountability, writes Lina Khatib of Chatham House, a think-tank in London.

Hizbullah cemented its influence by winning seats in parliament, inserting its supporters into key positions in ministries, fostering pacts with the country's corrupt elites and extracting vast sums of money from the trade in captagon, an amphetamine produced mainly in Syria. Shia recruits were given the answers for exams that propelled them into sensitive army posts. Hizbullah's people dominated elections to local councils which oversaw much of the distribution of international-development funds. When the group's demands were not met, it turned to violence and intimidation. It is believed to have been behind the assassination of a former prime minister, Rafik Hariri, in 2005.

At the same time it built a parallel social-welfare system, using money from Iran and from the group's drug trade in Syria. A party membership card was more ▸▸

useful than a social-security number for getting access to the best doctors. Scholarships sponsored by Hizbullah made education at Lebanon's American universities affordable for bright children from impoverished Shia communities. Grants provided startup funds for Shia businesses.

Support for Hizbullah, however, was based on more than just the benefits it provided. Its armed resistance against Israel was particularly popular among Lebanon's Shias, long regarded as the country's underclass. It claimed its first major victory in 2000, when Israel withdrew its troops from southern Lebanon after facing almost two decades of guerrilla warfare. In the 34-day war in 2006 Hizbullah was battered but survived. That, said Nasrallah, was in itself a victory. Many saw Hizbullah as a force at last strong enough to stand up to Israel.

Its clout grew stronger after it took the lead in rebuilding much of the south after the 2006 war. Because it wielded so much power in local government, it could channel huge sums of money from foreign donors into rebuilding its communities. "We knew it was all going through Hizbullah, but we did it anyway," says a Gulf diplomat involved in the effort. "If we hadn't, the south would never have been rebuilt." The world paid and Hizbullah took the credit.

The group succeeded in establishing an effective social contract with many of Lebanon's Shias: absolute loyalty to Hizbullah in exchange for a kind of security and stability. Hizbullah offered Shias a different vision of themselves. "They wanted to transform the victimhood into a steadfast and proud community," says Mona Harb, a professor of politics at the American University of Beirut.

Yet over the past month Hizbullah has been unable to protect Lebanon or its Shia constituents. Of the 1.2m people that have been displaced, many come from areas where sympathy for Hizbullah is strong. Lebanon's weak government and its other parties are now looking after those affected by the war, not the Party of God. Beyond the Shias, anger is growing that Hizbullah has pulled Lebanon into war over an issue that does not directly affect it—Gaza. There are also growing questions about its links to Iran and whether this has benefitted Lebanon, criticisms that were rarely heard several months ago.

Still, Israel's ground invasion has given the movement a lifeline. By fighting Israeli troops, it can reclaim the mantle of resistance. The need for post-war reconstruction will present new chances to regain its legitimacy. "Don't underestimate Hizbullah's ability to claim victory," says Ali al-Amine, a Lebanese journalist. "If the war is over and they can lift the flag, that's enough." The beginning of this conflict was a disaster for Hizbullah. But its escalation may offer it a reprieve. ■

Africa's diaspora

Cake for the patriarch

ACCRA

A Ghanaian app helps expats run errands back home

SOME YEARS ago Christian Kofi Adu Vanlare wanted to buy a "really big birthday cake" for his uncle, the family patriarch, who was turning 88. But there was a problem. Mr Vanlare lives in New Jersey on America's east coast. His uncle lives in Accra, Ghana's capital. Icing and sponge do not travel well, and simple things like organising a cake can be onerous in a bustling African city. Various cousins said they were too busy to procure a gateau.

Eventually he had a slice of luck when a friend relented and went to the shops. The big uncle got his big cake. But making a meal out of buying a dessert was a reminder of the challenges of being abroad while having commitments back home. "For those of us who live in the diaspora this is our daily problem," says Mr Vanlare.

So he came up with a solution. Somafour ("One who is sent" in Akan, a language spoken by most Ghanaians) is an app that connects Ghanaians in the diaspora with those in Ghana who can run errands on their behalf. Mr Vanlare's startup is unlikely to attract the attention of venture capitalists in the near future. But its very existence reflects the growing number of Africans living overseas and their economic importance to the continent. It also offers a lesson in the role of trust in getting things done.

Africans account for a fraction of immigrants in most rich countries but their numbers are rising. More than 2m immigrants from sub-Saharan Africa lived in America as of 2019, a 16-fold increase since 1980, according to the Migration Policy Institute, a think tank. By one estimate in 2022, there were roughly 500,000 Ghanaians living in OECD countries.

That is a fraction of the 34m in Ghana itself, but their money matters. In 2023 the $4.6bn in remittances to Ghana was more than the country received in aid and FDI combined. In addition, hard currency goes a lot further these days. The Ghanaian cedi has lost about two-thirds of its value against the US dollar in the past five years. This has encouraged some in the diaspora to buy land while their dollars are worth more. One Somafour agent says he was asked to visit the land a customer had bought to check the quality of the plot. Dealing with bureaucrats at the land register office can also be part of the job.

Other errands can be more personal, such as taking elderly relatives to the doctor or delivering drinking water to clients' parents. Another agent recalls the funerals she has attended on behalf of friends of the deceased. She delivers donations to the bereaved families. (These may help with the cost of custom coffins that are popular in the west African country. Ghanaians have been known to be buried in coffins shaped as cars, cocoa pods and fish.)

Mr Vanlare admits, however, that business has been slow so far. Many Ghanaians are wary of using an app rather than asking family for help, even if their kin are unreliable. In a global survey of values, albeit from a decade ago, just 5% of Ghanaians agreed with the statement "most people can be trusted", a standard result for a poor country. "In the African context it is very difficult to break into family networks," says Mr Vanlare. It is not a piece of cake. ■

A long way from New Jersey

South Africa

Off to a good start

CAPE TOWN

The coalition government has boosted confidence. Now for the hard part

FOR MOST of its modern history South Africa has been governed by a single dominant party. The National Party, architects of apartheid, was in charge from 1948 to 1994. After white rule ended the African National Congress (ANC) became the hegemon. Following years of corruption and economic stagnation its pre-eminence was finally checked at general elections in May. The ANC lost its parliamentary majority for the first time, forcing it to form a coalition government to stay in power.

That arrangement, known as the Government of National Unity (GNU), is a seismic shift for the fledgling democracy. Some 100 days on—the cabinet was sworn in on July 3rd—it has boosted confidence. Nearly three times as many South Africans think the GNU is doing well (58%) as think it is doing poorly (21%), according to a poll conducted in September by the Social Research Foundation (SRF), a think-tank. The rand has risen against the dollar; the Johannesburg stock exchange has recorded record highs. There are palpably *lekker* (nice) vibes for the first time since Cyril Ramaphosa replaced Jacob Zuma as president in 2018. Yet if the fillip from the GNU is to last longer than the fleeting "Ramaphoria" did, the government must fix the chronic problems holding back sub-Saharan Africa's largest economy.

On paper the GNU is made up of ten parties. In practice only two matter: the ANC and the erstwhile official opposition, a liberal party known as the Democratic Alliance (DA). They have 20 and six ministers respectively of the 32 in cabinet, and 41% and 22% of the seats in parliament. The government's success and survival depends on the big two, not the myriad minor parties mostly brought in by Mr Ramaphosa in an effort to placate those in the ANC who are angry that the party of black liberation has teamed up with the DA, seen by many of them as a "white party".

The GNU is not cohesive. It has no systematic way of taking decisions. Ad hoc is its modus operandi. One senior figure describes working in government as a bit like fighting with a jellyfish. The civil service, hollowed out by the ANC, lacks effective bureaucrats. Yet the vacuum that is the South African state creates a chance for those with the vim to fill it. For the most part this has meant DA ministers. Leon Schreiber, the home-affairs minister, has reduced the backlog of visa applications from around 300,000 to about 100,000. He has announced a new visa for remote workers and a simpler system for skilled migrants that has delighted firms, some of which had stopped bringing in staff because of the Kafkaesque hassle. Other DA ministers are working on sweeping reforms that will expand internet access in poor rural areas and sell off unused state-owned land, among other things.

South Africans have noticed these early successes. In the SRF poll 62% of black voters say the DA is doing well in the GNU, an impressive tally given that the party probably won less than 5% of the black vote at the recent elections. Some ANC bigwigs seem affronted by such good governance, complaining in internal party meetings that they are being made to look bad by the DA.

Mr Ramaphosa is unlikely to be too bothered. His own legacy depends on the GNU. He generally backs the reforms the DA ministers are pushing; Operation Vulindlela, an initiative run by the presidency and the finance ministry, had identified visa reform as a priority, for instance. The president's allies in the cabinet, such as Ksogientsho Ramokgopa, the electricity minister, and Enoch Godongwana, the finance minister, share some of these reformist instincts.

Crucially—and perhaps naively—ANC strategists do not see the DA as a threat to their base. "They're fishing in different ponds," says Frans Cronje of the SRF. He describes the GNU as an arrangement between the established middle class and the aspirational middle class: between the mostly DA-voting white suburbs and the mostly ANC-voting black areas on the urban outskirts. By this logic both parties have strong electoral incentives to make the arrangement work.

Two big challenges loom, however. The first is that there are those in each party who remain sceptical of the GNU. The DA will need to show it is a brake on the ANC's worst ideas, like the proposal for catastrophically expensive state-run health insurance. Some in the ANC want the GNU to fail because they do not agree with its reforms and fear that it will make it harder to make money from public office—or both. If an anti-GNU candidate replaces Mr Ramaphosa as party leader at the ANC's elections in 2027, the coalition could crumble.

A mountain to climb

The second is the sheer scale of South Africa's problems. At a meeting between Mr Ramaphosa and business leaders last week there was talk of a "stretch goal" of GDP growth of more than 3% per year (it has averaged less than 1% since 2012). But that will require more than small-bore reforms by the odd minister. It needs urgent efforts to overcome the main barriers to growth, including pervasive corruption and crime, unreliable electricity, irregular and frequently contaminated water supplies, and clogged railways and ports that make it hard for exporters.

The stakes could barely be higher. The GNU has given South Africa another chance to become the prosperous, liberal and united giant that the continent desperately needs. If it fails to seize the opportunity, populist alternatives stand waiting to take advantage of another false dawn. ■

Europe

French public finances

Fix or perish

PARIS

Dire public finances imperil France's Europe agenda

WHEN A FRESH-FACED Emmanuel Macron swept into presidential office for the first time, in 2017, he hoped for a grand European bargain. France, which had not balanced a government budget since 1974, would fix its public finances and restore its credibility with its thrifty neighbour. In return, Germany, the euro zone's biggest economy, would cede ground on French ideas for European integration, such as joint borrowing. Initially the bargain worked. In 2018 and 2019 France cut its annual deficit to below the EU's limit of 3% of GDP. In 2020, nudged by the need to respond to the pandemic, the EU issued its first big joint bond.

Now, however, that bargain is falling apart. After snap legislative elections in July returned a hung parliament, a new minority government is trying to keep a coalition together that, awkwardly, relies for its survival on the tacit support of Marine Le Pen's hard right. Michel Barnier, the new conservative prime minister, is confronting a fiscal crisis. France's "colossal" deficit and debt, he declared on October 1st, is a "sword of Damocles" hanging over the country. In 2024, he said, the deficit will exceed 6% of GDP (next to 5.1% forecast earlier this year) and remain at 5% in 2025. It will fall back to 3% only by 2029, two years after Mr Macron's previous government had promised. Government debt could reach 115% of GDP by the end of 2025.

France needs a squeeze. In the budget for 2025, which Mr Barnier was due to present to cabinet on October 10th, he was expected to unveil a massive €60bn ($66bn) in savings, or 2% of GDP: two-thirds in spending cuts, a third in tax increases.

On spending, Mr Barnier wants to delay raising public pensions in line with inflation for six months (saving €3bn) and impose widespread cuts on government departments (saving some €20bn). Other savings will come from local government, business subsidies and other measures. On the revenue side, proposals will include a temporary super-tax on firms with more than €1bn in turnover (raising €8bn) and on households earning over €500,000 (raising €2bn-3bn from some 65,000 households). Without these efforts, says Laurent Saint-Martin, the new budget minister, the deficit could reach 7% next year.

France's neighbours are watching with a mix of weary familiarity and sharpening dismay. When asked this week about France's deficit, Christian Lindner, Germany's finance minister, replied drily: "We should all realise that the credibility of public finances vis-à-vis the capital markets is not to be trifled with." On September 26th, for the first time since 2008, the yield on France's ten-year government bonds exceeded Spain's, usually considered riskier by investors. Mr Barnier knows he cannot get this moment wrong.

This year's swollen deficit is partly the result of economic weakness, which depresses tax revenues and increases benefit ▸▸

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costs. The underlying cause, though, is the overhang of generous state spending linked to covid-19 and the inflation surge prompted by Russia's invasion of Ukraine. When the pandemic broke, Mr Macron vowed to protect the French "whatever it costs". This became a guiding principle. Small firms were kept afloat after lockdowns ended. Untargeted caps on energy-price rises are still being phased out.

France spent a bigger share of GDP on such measures than Germany or Spain. The French did benefit. When Germany went into recession in 2023 the French economy kept growing, albeit by only 0.9%. But the fiscal cost of support just for households came to €69bn in 2022 and 2023 combined, says the Bank of France. And at 59% of GDP in 2021, the state already claimed a greater share of spending in France than any other OECD country.

Mr Barnier now needs to make his eye-watering budget savings while running a precarious minority government. The left will reject almost anything it tries. This puts the government's ability to manoeuvre in Ms Le Pen's hands. Parliament must approve the budget by December.

Paradoxically for a conservative, Mr Barnier will have less trouble getting new taxes through. Despite France's unhappy record as the OECD country with the highest tax take as a share of GDP, tax increases on profits and the rich always go down well. "He's doing a Hollande," says a Macronist figure, referring to the previous Socialist president, François Hollande. Mr Macron used tax stability to make France more investor-friendly; many of his centrist deputies are now worried.

Nobody, however, will relish spending cuts, even if in reality some of the "savings" are in fact slower increases in spending. IFRAP, a think-tank, calculates that the €40bn of savings will actually result in year-on-year cuts to budgets of closer to €15bn. Already Ms Le Pen has called the planned delay to raising pensions "stealing" from the elderly. Mr Barnier's plans also rely, flimsily, on some classic but largely empty fallbacks, such as a clampdown on fraud. If he cannot secure parliamentary approval, he may have to resort to forcing the budget through using emergency measures, which would put his government's survival on the line.

France is under close scrutiny. The European Commission has already put the country on formal watch, and will want evidence that it is not only serious about fixing public finances but intends to continue with reforms. France needs the commission's permission to delay obeying EU rules until 2029. Three ratings agencies are also each due to report on France's credit rating this month and in November.

The more Mr Barnier takes over domestic policy, the more Mr Macron will turn to European and foreign affairs. The president has lost none of his ambition to reinforce European "strategic autonomy". Yet this agenda, and his hopes of fresh joint borrowing and a bigger EU budget, depends on his credibility. As Mujtaba Rahman, European head of Eurasia Group, a consultancy, puts it: "If your own house is in disrepair, it is difficult to ask your neighbours to raise more debt." Mr Macron is still one of Europe's main thinkers about how to face up to the continent's fragile future. But France's perilous finances undermine his ability to do much about it. ■

Expensive habits

General government spending, % of GDP

Source: Eurostat

Turkey

Struggling back

ISTANBUL

Grappling with Turkey's high inflation is a gruelling business

SETTING INTEREST rates in Turkey is like skiing in pre-lift days. Going down is the easy part. Climbing back up is gruelling, and takes ages. The country's central bankers have been doing so since the summer of 2023, and they still need more time.

They do have something to show for their pains. Interest-rate increases that have totalled a whopping 41.5 percentage points have started to unwind Turkey's inflation spiral, the result of earlier, reckless cuts. Annual consumer-price growth has dipped from 71.6% in June to 49.4% in September. For the first time in three years, the benchmark interest rate, now 50%, exceeds the inflation rate.

Only recently, this had invited speculation that Turkey's tightening cycle was nearing its end, and that the bank would begin to cut rates as soon as November. But easing may have to wait. Monthly price growth, which reached 3% in September, continues to be too fast for comfort. "We will stay tight until the underlying trend of monthly inflation comes down on a sustainable basis," the bank's deputy governor, Cevdet Akcay, says over coffee in Istanbul. "There's no other way."

Such patience is in short supply among Turks. Over a year has passed since Turkey's president, Recep Tayyip Erdogan, gave the central bank a mandate to undo the damage his earlier policies had wrought on the economy. But ordinary consumers complain they have the worst of both worlds. Prices continue to rocket and credit has become unbearably expensive. The longer this continues, the weaker the country's growth prospects become.

The state of the economy already cost Mr Erdogan dearly, when his Justice and Development (AK) party was bested by the opposition in local elections this spring, the party's first overall defeat since it took power in 2002. Turkey's next big election is due in 2028, which suggests the government has enough time to set the economy right. But a snap vote, even as early as next year, is not out of the question. That could spell big trouble for the new economic programme. To avoid losing power, Turkey's leader, or an anointed successor, would probably revert to handouts and deep interest-rate cuts: inflation be damned.

One reason why inflation in Turkey has proved exceptionally sticky is the imbalance between monetary discipline and government largesse. The budget deficit is expected to reach 4.9% of GDP this year, according to the government's own figures, before dipping to 3.1% next year. "The central bank is pressing the brakes," says Hakan Kara, the bank's former chief economist, "but the government does not want to take its foot off the gas pedal." Mr Erdogan's belated conversion to economic orthodoxy has played a role too. Tightening in Turkey began only after inflation had neared triple digits, and only once Turkey's leader had secured his re-election.

The economic team he appointed has won back the trust of foreign investors, who have bought some $14bn in Turkish bonds since the start of the year. Ordinary Turks, sobered by the experience of the past five years, which saw the national currency plunge, prices soar and Mr Erdogan replace four different finance ministers and five heads of the central bank, are less optimistic. The central bank expects annual inflation to dip to 38% by the end of the year; households see it at around 70%. This too is putting pressure on prices. Turks who expect the value of their money to erode over time will continue to spend rather than save, making inflation that much harder to bring down.

But the bank has at last offered them an incentive to save, and to do so in local currency. Sky-high deposit rates have lured Turks back to their own lira, reversing years of dollarisation. The share of lira de- ▸▸

posits, which stood at 31% of the total in August last year, has reached 53%. The currency is still losing value against the dollar, but much more slowly. This has helped defuse a ticking time-bomb, in the form of a programme that insured deposits against currency shocks that Mr Erdogan's previous cabinet had placed under the budget. In just over a year, depositors have withdrawn some $100bn from the scheme.

Not everyone is a fan of a relatively strong lira. Turkish exporters are pleading with the bank to devalue the currency. Mr Akcay says this would put new upward pressure on prices, and that using a weak currency to seek a competitive edge has proved to be a dead end. "We keep policy tight to tame inflation, and that may lead to further real appreciation," he says, "not by design, but as a consequence." ■

Ukraine

Holding on in the east

Russia is advancing, but slowly

NOW THAT the excitement of Ukraine's incursion into Kursk two months ago has faded, the prevailing narrative has reasserted its grip. Ukrainian forces are retreating in the face of steady, if costly, Russian advances across the front line in the Donbas, thanks to Russia's vast superiority in troop numbers and firepower.

The Ukrainian decision last week to pull its forces out of Vuhledar, a staunchly defended bastion that lies on the hinge of the eastern and southern fronts, has added to the gloom about the country's prospects. The retreat was ordered to prevent their encirclement by the Russians. President Volodymyr Zelensky praised the decision, saying that protecting the lives of the soldiers who had given "heroic service" was "more important than any buildings". Not that there were many buildings left. Vuhledar, like other towns Russia has taken, is a sprawling, shattered ruin.

A similar situation appears to be developing to the north in Toretsk, a front-line city that Russian forces have been advancing towards, village by village, since August, pulverising everything in their path with glide bombs. On October 8th, a spokeswoman for the Ukrainian forces in the city reported that "The fighting is taking place in Toretsk itself, the situation is unstable, literally every entrance is being fought for." Though Vuhledar was not of great strategic significance, Toretsk, which is on a hilltop, could be used to obstruct Ukrainian supply routes behind the lines.

On the other hand Russia has not made much progress in taking Chasiv Yar, some 40km to the north of Toretsk, and appears to be stuck by the canal on the eastern side of the city. It is also making heavy weather of its bid to take control of Pokrovsk, a key logistics hub that sits on a triangle of road and rail links and which is the main focus of its offensive efforts. In August there was much talk of the imminent fall of Pokrovsk. But the pace of the Russian advance has noticeably slowed, with few territorial gains in the past three weeks.

Nico Lange, a former chief of staff in Germany's ministry of defence who has close links to the Ukrainians, says that although Russian troops are now in artillery range of the city, they lack the force numbers to make a concerted attack. While taking Pokrovsk would give Russia a launch-pad for attacks deeper into central Ukraine and would worsen Ukraine's logistical position in southern Donbas, Mr Lange believes the operation, even if successful, will take many months and inflict extremely heavy losses on the Russians.

Despite fears expressed in some quarters of a Ukrainian collapse, there is no sign of one. Ukraine's approach is to concede some ground while inflicting maximum casualties and equipment losses on Russia and preserving its own forces to fight from newly fortified lines. It is also questionable how much longer Russia can continue to lose more than a thousand men a day, despite huge signing-on bonuses for new recruits. The seemingly inexhaustible stocks of mainly Soviet-era armoured vehicles and tanks it has been able to draw on could be running low by next year. The Institute for the Study of War in Washington reckons that in the Pokrovsk ▸▸

Italy's railways

A tale of a nail

MILAN

Delays on Italy's spruced-up trains have got worse

BRITAIN'S FORMER railway monopoly, British Rail, never truly recovered from the explanation one of its executives gave for disruption to its services in early 1991. He blamed it on a "different kind of snow", which repetition transformed into a trope: the "wrong kind of snow". British Rail was broken up and fully privatised six years later.

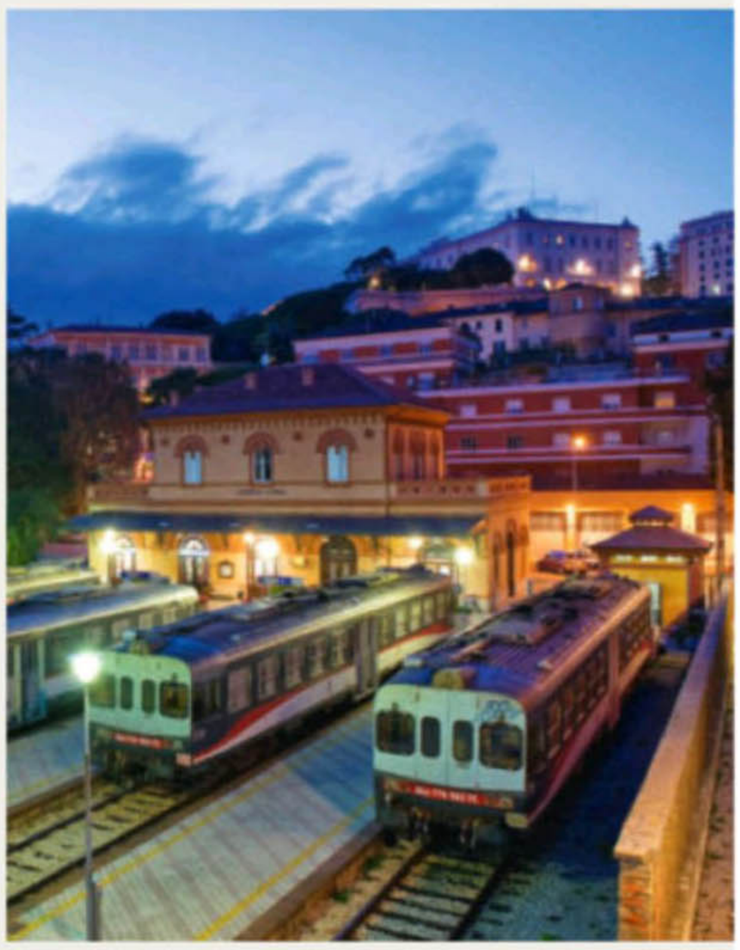
On October 2nd similar ridicule was heaped on Italy's hard-right infrastructure minister, Matteo Salvini, after a day in which more than 100 trains were cancelled or delayed. Mr Salvini attributed the chaos to a badly placed nail. A maintenance worker, he said, had hammered it through an electric cable.

Something like that did happen. Power was cut off to the control room in Rome on which the network depends. But a carelessly inserted nail did not explain why a back-up system failed to engage. Bouts of widespread disruption have become frustratingly common in recent months, and it seems unlikely that skilful hammering can avert more.

In part, railway transport in Italy suffers from its own recent popularity. The plush new high-speed services run by publicly owned Trenitalia and a private concern, NTV, have poached much of the domestic air traffic. A surge in tourism has made a difficult situation even more so.

The geography of Italy—long and thin with mountains in the middle—makes it vulnerable to failures of any kind along the main route from Milan to Salerno. But a long-term solution would involve building a second high-speed route from Milan to Rome, and the physical challenges of that are immense.

In 1936 an American journalist inspired another railway trope when he noted that Italians often credited their dictator, Benito Mussolini, with making the trains run on time. But, he observed, Mussolini did not. And 88 years later, there is still a way to go.



Too popular for their own good

Ukraine, October 9th 2024
Russian-controlled
Russian operations*
Claimed as Russian-controlled
Ukrainian advances†
*Russia operated in/attacked, but does not control †Since May 2023
Sources: Institute for the Study of War; AEI's Critical Threats Project

region alone Russia has lost at least five divisions' worth of tanks and armoured vehicles in the past year. Without sufficient armour, dismounted Russian soldiers are easy prey for increasingly capable Ukrainian FPV drones.

There are also signs that Russia's advantage in artillery has been declining, even as it increasingly depends on unreliable North Korean munitions. Earlier this year Russia was firing ten times as many shells as the Ukrainians. But according to Ukrainian sources, the gap has now closed to 2.5:1. Ukraine is receiving more shells from its allies; its own production has speeded up; and strikes on Russian ammunition storage depots have been both effective and spectacular. However, Ukraine, still forbidden to use long-range Western missiles against targets in Russia, has no answer to the deadly glide bombs launched by aircraft from Russian airspace that have become its adversary's most potent battlefield weapon.

For all the current despondency about Ukraine's prospects, Russia is far from achieving its main aim: of gaining control over Donetsk and Luhansk provinces, which make up the Donbas region, by the end of this year. And despite setting the goal of driving Ukrainian forces from Kursk by the start of this month, it now looks as if that will take much longer and require substantially greater forces than Moscow has so far been able to commit.

The battle where Russia is unambiguously succeeding, says Mr Lange, is in the "information space". The notion that Ukraine cannot win, he argues, is becoming a self-fulfilling prophecy and an excuse for Western leaders to withhold from Ukraine what it needs to prevail. A pattern has emerged in which promised military support arrives late or not at all. As Phillips O'Brien, an American commentator, has noted, American aid actually disbursed to Ukraine so far this year is sharply down on the amount sent in 2023. ■

Ukraine's missing soldiers and sailors

Where are they?

KYIV

The families of missing loved ones are trying to find them, alive or dead

IN A NONDESCRIPT office in a nondescript building in Kyiv, with no sign on its door, four middle-aged men are trawling through gruesome films and photos on the internet. Often they are looking at Russian Telegram channels that specialise in parading captured Ukrainian soldiers. In pictures taken in the past few days one man's face is running with blood; another has his hands tied but a cigarette is in his mouth. A third, seemingly wounded, is being pushed in a wheelbarrow. These Ukrainian policemen are cyber-hunters searching for Ukraine's missing soldiers, of whom there are tens of thousands.

Oleh zooms in on a face in a video, takes a screenshot, then drops it into facial-recognition software which scours the internet for a match. Within seconds he has seven possibles. Oleh quickly discards most of them and rapidly finds photos of a happy young man with his wife, his friends and his child. With another click he has matched his name against a list of missing soldiers. "Aha! It's Vytali," he says, before dispatching his find to the security services, who in turn can inform the family. In one year, says Oleh, his team have found some 600 missing Ukrainians in this way.

As of September 20th Artur Dobroserdov, Ukraine's commissioner for missing persons under the Ministry of the Interior, had a list of 48,138 people who were still missing. Since Russia's full-scale invasion in February 2022, some 7,548 people who had earlier been on the missing list have been accounted for. They comprise 3,632 living Ukrainian POWs and civilian prisoners who have been exchanged with the Russians; and 3,916 identified bodies, some of which were also returned. Mr Dobroserdov also has custody of 2,552 bodies that have not yet been identified.

Thanks to evidence from exchanged POWs and from the Red Cross, the Ukrainians know of another 6,000 or so Ukrainians who are being held as prisoners. But that still leaves more than 40,000 unaccounted for. Some are reckoned to be dead but cannot be recorded as such, because no body has been recovered. Mr Dobroserdov says that about 20% of the living POWs whom Russia has returned were not on any list and had often been assumed to be dead. He thinks that more than half of those whose fate is unknown are still alive.

The Russians are not sending full lists of the men they have captured to the Red Cross. Mr Dobroserdov believes the main Telegram channels which his colleagues are following are run by Russia's security services. They are trying to lure desperate families to get in touch. If they do, they demand money or intelligence in exchange for some contact with the prisoner. Some of the sites are simply run by scammers.

Anastasiia Savova runs Always Faithful, an organisation helping the families of missing Ukrainian sailors. Her father was captured when Azovstal, a steel plant that was the last Ukrainian redoubt in the city of Mariupol, fell in May 2022. She had no clue whether he was dead or alive until January this year when he showed up on a Red Cross list. Through the organisation she has sent messages but does not know if he got them. She says she has just had "discouraging news about his health" from newly exchanged prisoners. There have been cases of POWs believed to be still alive who have been returned dead.

Solomiya Khoma, a founder of the Ukrainian Security and Co-operation Centre, a think-tank, says the issue of missing persons is "a really sensitive topic" in Ukraine. The Russians deliberately leave families in the dark about whether their loved ones are alive or dead. It is done, she says, to "create social tension". A Ukrainian Facebook group for people appealing for any information about missing soldiers has almost half a million followers.

Close to parliament in Kyiv a dozen people stand with banners and pictures of their missing ones, all of them sailors who went missing after Mariupol fell. No one knows if they are still alive. Some regiments and units have strong lobbies that work hard to get their missing onto lists for possible exchange; but others, such as Ukraine's tiny navy, do not. All they can do is stand there in the hope that nobody forgets about them. ■

Never forget

CHARLEMAGNE
Coming for EU

Europeans are facing the prospect of Donald Trump like a deer caught in headlights

EUROPEANS NEVER really took to George W. Bush, whose conservative views, folksy Texan shtick and penchant for ill-advised wars most of them found unappealing. They somewhat warmed to him in January 2017 when, eight years after leaving office, a stray microphone relayed his unfiltered insights into the inauguration speech of a presidential successor. "That was some weird shit," is roughly how Europeans came to remember not just the rambling address by Donald Trump that January day (huge crowd!), but the four years of bluster and contradiction that ensued. When the mogul-turned-president failed to get re-elected in 2020, relief among Europeans at having survived Trumpism in one piece was palpable. Come 2024 the fear they may yet endure another bout of it is even more so. Vague and belated attempts at "Trump-proofing" Europe have fallen short, as they were bound to. Like a deer caught in a lorry's headlights, European leaders are left hoping the MAGA juggernaut coming their way swerves, lest they become geopolitical roadkill.

A Trump victory is no sure thing; polls suggest that the vote on November 5th is a coin toss. Whatever its outcome, the election will matter first and foremost to Americans. But Europeans may feel they come a close second. Through NATO, America is the guarantor of the continent's security. America and Europe share the world's largest trade relationship, with over $1trn-worth of goods and services zipping between them every year. Together, they make up the bulk of "the West", a fuzzy notion of global norms of which the European Union is the epitome. To have in the White House an isolationist president who exudes protectionism and thinks of security alliances as protection rackets is never ideal. To have one in office while Ukraine is still at war, the European economy is fragile and its leaders are embroiled in domestic politicking makes it all the more unwelcome.

Would a second dose of Mr Trump really be that bad? A contrarian take, sometimes heard in EU circles, is that his first bout in office jolted Europe to a better place. On the economic front, the selective tariffs Mr Trump imposed on imports were an irritant—but by running the American economy hot, he helped European firms sell even more stuff across the Atlantic. Vague threats that America would withdraw from NATO (France's president, Emmanuel Macron, went so far as to declare it brain-dead) resulted in a much-needed rise in defence spending, which turned out to be useful in view of later events. Mr Trump's repeated warnings that Germany was dangerously dependent on Russian gas for its energy and on cosying up to China for its prosperity were studiously ignored in Berlin, yet are now conventional wisdom.

Perhaps, some hope, a fresh dose of Trump would also nudge Europe to an even better place. Not likely. The first concern is Ukraine. Unlike eight years ago, America is not merely upholding historical security commitments, it is actively helping Ukraine in a war many Europeans view as a precursor to further Russian expansionism. Yet Mr Trump promises to end the war "within 24 hours", presumably on terms that would favour the Kremlin. Would he accept extending NATO membership to Ukraine as part of a putative peace agreement, which many think will be necessary? Would such a guarantee mean anything, given Mr Trump's habit of denouncing the alliance as a bad deal for America? In Mr Trump's first term he relied on a cabal of experienced advisers who tempered his wilder ideas. Not so, this time round.

The second stumbling block is the economic relationship. Europe has a large trade surplus with America, known in Trumpspeak as "stealing our jobs". The roaring American economy has hoovered up even more European-made stuff, not least as tepid growth depressed European consumption. That accentuates the downside if Mr Trump constrains imports (he has said he wants across-the-board tariffs of up to 20%). Trade frictions, notably with China, which were sparked by Mr Trump and then fanned by his successor, Joe Biden, have put Europe in an even worse spot. As Chinese exports to America have been throttled, some have found their way to the still-open EU instead. A trade war on that front is now brewing; on October 4th the EU ratified tariffs of up to 45% on Chinese electric vehicles. Should Mr Trump win, expect much more of the same: MAGAnomics in America could lop 1% off Europe's GDP, according to Goldman Sachs, a bank.

Dr Strangelove and Mr Trump

Could Europe have done anything differently? Under the banner of "strategic autonomy" Mr Macron has pushed for Europe to become less reliant on outsiders, whether economically or militarily. But plenty of fellow EU leaders (who will be meeting in Brussels from October 17th) are sceptical of his agenda, which they see as serving French interests, for example by replacing American-made weapons with French kit. To central Europeans even a temporarily unreliable America is still a better security bet than a permanently unreliable "old Europe" led by France and Germany.

A final dollop of dread hangs over Europe, should Mr Trump win: that it will end up being divided. Viktor Orban, Hungary's autocratic prime minister, has announced he will pop the champagne if his old chum Mr Trump returns. Whatever unity Europe mustered in dealing with Mr Trump from 2017 was thanks notably to the leadership of Angela Merkel, the seasoned German chancellor. She is gone now; her successor Olaf Scholz commands no such respect and will in all likelihood be gone in a year or so. Mr Macron has lost authority after being forced to share power at home. EU institutions are still in transition mode following elections in June, and will be until at least December. Even if Mr Trump fancied calling Europe to hurl abuse, it is not clear who would be on hand to pick up the phone. ■

Britain

Public-service productivity

Scalpel, please

HUDDERSFIELD

How to make the NHS better, as told through one operation

"WHAT WOULD you like to see?" asks the scrub nurse as a surgeon beside her feeds a wire through a patient's urethra. It is a Friday afternoon in Theatre 2 at Huddersfield Royal Infirmary in West Yorkshire, and the surgical team is showing your correspondent their equipment. There are tweezers "to take out the specimen"; sponge rollers to soak up the blood. There is the resectoscope, an electrified half-moon wire to burn through bad bladder tissue. "But obviously you can't see it because it's in the patient," she says.

That patient—call him Mr Jones—can count himself comparatively lucky to live where he does. Calderdale and Huddersfield Trust has climbed the ladder for hospital waiting lists in recent years: 72% of patients are seen within the target time of 18 weeks compared with 59% in England overall. Mr Jones's path through the system shows how the National Health Service (NHS) could use its resources better.

Wonks and politicians alike agree that productivity—the ratio of treatment the NHS provides to its inputs, such as labour, equipment and drugs—is a pressing problem. Hospitals have more staff than ever (see chart on next page), yet they are doing less than they were before the pandemic. Between 2019 and 2023, the amount of surgery carried out by each surgeon decreased by 12%; the numbers are almost as bad for outpatient appointments and significantly worse for emergency care.

A paper published for an NHS England board meeting in May identified some reasons for this. Chief among them was industrial action, which since late 2022 has led to the cancellation of more than 1.4m appointments and operations. Other factors included an increased use of agency staff, longer hospital stays, maintenance backlogs and rising prices of new branded medicines and technology. That still left a mysterious productivity gap whose likely cause, the authors concluded, was a lack of "discretionary effort" from staff. Some of this may be temporary: the new Labour government has settled pay disputes with some NHS workers, for example. But many problems pre-date the pandemic.

To understand more, rewind to before Mr Jones reaches the operating table. His first interaction with a doctor would have been when he went to his general practitioner (GP), complaining of weight loss and bleeding from his rectum. It may well have taken Mr Jones a while to get an appointment: Britain has almost 16% fewer fully qualified GPs per person than other rich countries. But those symptoms were enough for his GP to refer him to hospital.

In the NHS in England only 57% of patients start urology treatment within the target time of 18 weeks (it is 69% for Huddersfield's trust). One problem is a lack of diagnostic capacity. Britain's number of CT scanners is among the lowest in the OECD, a club of mostly rich countries. The NHS also has a measly number of radiologists. And trusts need to be able to track and triage thousands of patients. This should ▸▸

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be "100% automated", says Tim Ferris, who until recently oversaw digital transformation in the NHS. But some trusts still rely on "lots of people filling out spreadsheets". In the year to March an estimated 20,000 operations were cancelled on the day because of administrative errors.

Mr Jones is, on both counts, relatively lucky. A timely CT scan showed a thickening of the lining of his bladder; a separate test, a colonoscopy, also found polyps in his rectum. Huddersfield's analytics are some of the most advanced in Europe: clinicians use speech-to-text software to dictate their notes, freeing more time to spend with patients. After consultation it was determined that both procedures could be done together—"front and back", as Jonathan Cowley, a colorectal surgeon, puts it. That means a quicker recovery, too.

Around three to four weeks before the operation comes a pre-assessment with a nurse. This appointment should help reduce the risk of complications, which happen in 10-15% of operations. If a patient has diabetes, for instance, a surgeon cannot operate until it is properly controlled. Yet an estimated 1m adults in England who live with the condition have not been diagnosed. The Calderdale and Huddersfield trust works with local GPs to identify and control cases of diabetes; across the NHS, such collaboration remains rare.

Non-clinical reasons cause the last-minute cancellation of 80,000 NHS operations each year. One problem is a shortage of beds, particularly in winter. Huddersfield has got round this by ring-fencing beds for elective procedures, says Tom Strickland, the trust's director of operations. Equipment failures are another constant headache. In a corridor a man wearing scrubs and a badge reading "theatre co-ordinator" explains that there is a slight delay in Theatre 2, caused by a problem with the ventilation system. On average, issues caused by the crumbling NHS estate disrupted services in 13 hospitals a day in the year to March 2023. Clearing the NHS's overall maintenance backlog would cost £11.6bn ($15.2bn), about 6% of the NHS's annual budget.

A lot of the time "you're sitting in tea rooms, not operating", says one former NHS surgeon who now works in the private sector. This is particularly wasteful since, with outpatient clinics, on-call duties and administrative tasks, most surgeons are actually in theatre for only one day a week. More capital investment would help, but so would better management. There are 24% fewer managers per NHS employee than 15 years ago; doctors are often not predisposed to listen to those that remain. Huddersfield's answer is for a clinician to focus solely on theatre productivity.

Back in Theatre 2 the ventilation system has been fixed, and Mr Jones is unconscious. The lights darken. Someone runs through a final checklist on a touchscreen: "Antibiotics given? Hair removal? Is he diabetic?..." Once it is complete, the procedure can finally begin. Next door, in Theatre 1, the surgical team is using a Cambridge-made robot; its upfront costs are a cool £1.2m, but urologists already do twice as many nephrectomies as before.

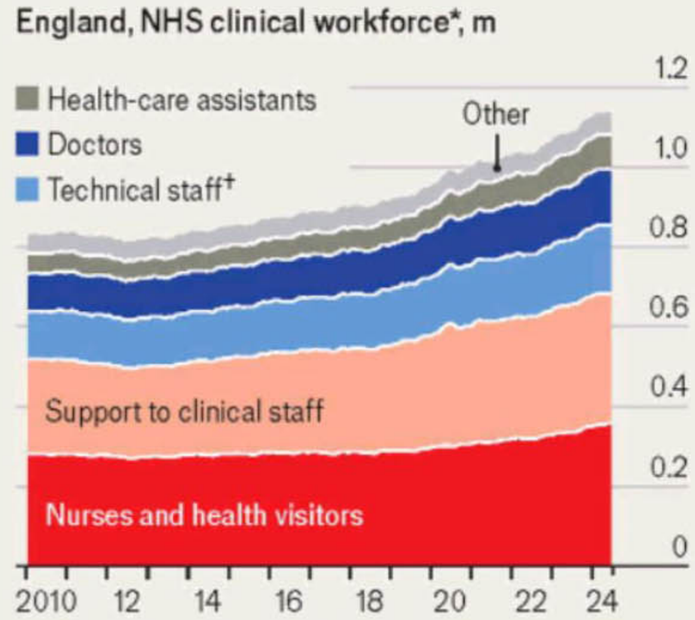
After his surgery Mr Jones will be wheeled into the post-op recovery room. During the covid-19 pandemic, all elective procedures were stopped so this bay could be converted to a spillover intensive-care unit. In Huddersfield, as elsewhere, this was when the trust's productivity plummeted. A lot of the staff redeployed to covid wards ended up taking sick leave for issues such as burnout, says Saran Ahmed, the theatre's day-to-day manager. To get through the resulting backlogs, Huddersfield now runs theatre lists on Saturdays, paying staff a fixed cost per case to incentivise them. But "it's a marginal gain, not a silver bullet", says Mr Strickland.

It does not help that patients are staying longer in hospitals than they used to. That may be because less experienced managers are still learning the ropes of discharge planning. But it is also because of problems in social care. In Huddersfield 120 beds are filled by people with no one to look after them when they leave. A shortage of district nurses and physiotherapists makes it more likely that patients like Mr Jones will be readmitted.

With investments in tech, a focus on efficiency and partnerships in community care, Huddersfield has done well since the pandemic. Between March 2021 and July 2024 it leapt from the bottom quartile of trusts for patients waiting more than a year for treatment into the top. But there is still room for improvement. Getting a patient through all the steps in a surgical pathway is "like a relay", says Mr Strickland. "There are so many hand-offs...it's all about making sure they come together." ■

More bodies

England, NHS clinical workforce*, m



*Full-time equivalent, excludes infrastructure support staff
†Includes scientific and therapeutic
Source: NHS England

Wobbles in Whitehall

Grayday! Grayday!

Faith in the prime minister's technocratic credentials has been tested

THE CASE for Sir Keir Starmer as prime minister ran something like this. He may not be a great orator and he might not have a grand vision for how to remake Britain, but he does know how to run a public-sector bureaucracy. Before the election in July he traded on his record as a one-time director of public prosecutions who focused on "getting the boring stuff right"—digitising old documents, say, or listening to the junior staff who knew where efficiencies could be made. After the showboating and internal warfare of successive Conservative governments, in a country with creaking public services, a super-administrator in Downing Street would be worth having.

Faith in this story of Starmerism has been sorely tested. On October 6th, just 93 days after becoming prime minister, Sir Keir parted ways with Sue Gray, whom he had appointed as his chief of staff. Ms Gray was a hire in his own image: a former senior official in the Cabinet Office recruited in 2023 to ready the party's embryonic plans for government.

Those plans turned out to be extremely patchy. To take one notable example, having campaigned for office on a promise to clean up Westminster, the new government's own ethics reforms have been conspicuously absent (even as Sir Keir and his colleagues have been accused of accepting inappropriate gifts of concert tickets and clothes from party donors). Labour's thinking on education policy, health-care reform and taxation appears undernourished. Perhaps the most elementary day-one task—fixing the contracts and pay of the dozens of special advisers who serve as ministers' eyes and ears in Whitehall—was mired in infighting between Ms Gray and Sir Keir's other aides.

Sir Keir has now acted. Ms Gray has been replaced as chief of staff by Morgan McSweeney, a long-time aide who orchestrated first his campaign for the Labour leadership and then the party's landslide election victory in July. Two deputies, Vidhya Alakeson and Jill Cuthbertson, will report to Mr McSweeney.

The decision to change a faltering team is right. But the churn in personnel raises doubts about Sir Keir's managerial competence. Successful premierships are characterised by stability at the top: Jonathan Powell, Sir Tony Blair's chief of staff, served him continually in opposition and ▸▸

government from 1995 to 2007; Edward Llewellyn, David Cameron's bagman, served for a similar 11-year tenure. In contrast, Mr McSweeney is returning to a job he performed in 2020-21, before being succeeded by Sam White and then Ms Gray.

Other positions in Downing Street are in limbo or unfilled. On September 30th Simon Case, the cabinet secretary—the country's most senior civil servant—said that he would be stepping down for health reasons. The replacements for the outgoing national security adviser and ambassador to America have yet to be found; a promised minister for inward investment has still not been announced.

The government's shaky beginning also invites questions about its ability to improve the wider machinery of government. Sir Keir's theory of management held that a calmer, less conflictual approach to the civil service would work wonders. Since coming into office, ministers have reset relations. Controversial headcount caps were publicly ditched. Mandates to work in the office 60% of the time were relaxed: new job adverts from several departments now suggest 40% attendance is acceptable. Pay deals awarded above-inflation rises of an average of 5%.

Improving relationships was necessary in order to get more out of civil servants, thinks Alex Thomas of the Institute for Government (IfG), a think-tank. But if winning over Whitehall hearts was a good priority for the new government, it is not sufficient. There are plenty of signs that the civil service is struggling.

One is the damaging level of churn. Over one in ten civil servants quit or swapped departments in 2022-23, higher than at any point since 2011 apart from immediately after the covid-19 pandemic. The resulting loss of institutional knowledge and confidence shows up in rising dependence on outsiders: the government spent £3.4bn ($4.2bn) on management consultants in the last financial year, 57% higher than five years earlier, according to Tussell, a data company. Central-government departments used more than the rest of the public sector combined.

There is an awful lot of low-hanging fruit in Whitehall for the government to pick. The IfG has listed 20 "essential" civil-service reforms it would like Labour to undertake—things as jaw-droppingly simple as giving hiring managers access to performance reviews of internal candidates or ensuring new starters don't wait months for security clearances and laptops. Efficiencies of this sort once seemed tailor-made for a technocrat like Sir Keir. Perhaps they still are. But the government has had a very wobbly start. How the new Downing Street team does will show how much the blame for that lay with Ms Gray or with the prime minister himself. ■

Foreign policy

Oceans apart

Britain has agreed to cede the Chagos Islands to Mauritius

FEW PLACES in the world are quite so remote as the 60 or so islands that make up the Chagos Archipelago. Africa sits 3,000km to the west, Indonesia 3,000km to the east; the nearest large land mass is Sri Lanka, 1,700km to the north-east. More than 50 types of shark live in its pristine reefs. But the archipelago's main resident is much more lethal: a military base on Diego Garcia, the largest island, leased to America by Britain since the 1970s.

The case of Diego Garcia pulls together Britain's troubling colonial legacy, modern concerns about human rights and international law, and the hard realities of geopolitics. Its location—midway between the Middle East and Asia—is strategically important; American planes flew sorties from it during both Gulf wars and the war in Afghanistan. Britain set up the base for America in the late 1960s and early 1970s, forcibly expelling the archipelago's inhabitants—the Chagossians—and holding on to the islands as the British Indian Ocean Territory after Mauritius, another colonial possession in the ocean, had gained independence. America granted Britain a discount on a nuclear-weapons deal in return.

On October 3rd the British government announced a preliminary deal to cede sovereignty of the islands to Mauritius. Under the agreement the Diego Garcia base will remain in British hands and under American control for the term of a (renewable) 99-year lease. Britain will also pay Mauritius to build infrastructure and, eventually, resettle some of the smaller Chagos islands. The deal is clearly good for Mauritius, and soothes a diplomatic irritant for Britain. But it doesn't much help the Chagossians. The real beneficiary may well be the government in Beijing.

The Mauritian government has argued that the deal marks the return of Britain's last African colony and the righting of a historic injustice. The reality is much messier. The link between Mauritius and the Chagos islands is fairly flimsy; the two territories are 2,000km apart and share no pre-colonial history.

In 2019 the International Court of Justice issued a non-binding opinion determining that Britain's separation of Mauritius and the Chagos Islands was unlawful, on the basis that international law forbade a colonial power from dividing a territory before independence. Although unenforceable, that decision galvanised international outrage and became an increasing diplomatic headache for Britain.

Mostly left out of the negotiations have been the Chagossians themselves. Initially taken to the Seychelles and Mauritius, where many faced racial discrimination, they were eventually offered British citizenship. A sizeable community now lives in Crawley, near Gatwick airport. "The majority of us feel stabbed [in the back] by the UK government: unhappy, disappointed, frustrated," says Pascalina Nellan, one British-based Chagossian. "We don't want a change in sovereignty without consulting us. We were never consulted." Peter Lamb, the MP for Crawley, said he has not heard a single local Chagossian voice in favour of ceding the islands to Mauritius. The Mauritian prime minister has suggested that only Chagossians with Mauritian citizenship would be eligible to resettle, leaving out many in Britain or the Seychelles.

Publicly, the American government has supported the deal. "The Americans can live with this deal enough to sign off on it, because it's happened," says David Blagden of Exeter University. But "they may well retain some significant security concerns that they've voiced privately to the British and will have sought to get the Mauritians to mitigate." One worry is that China may have an easier time snooping if the archipelago is in Mauritian hands.

Further out, the loss of sovereignty means future Mauritian governments could call the lease into question. Backers of the deal argue that ending legal ambiguity puts the base on a firmer footing. But "Mauritius can always renege. When you have sovereignty you can get away with almost anything," says Yuan Yi Zhu of Policy Exchange, a think-tank. "Sovereignty is very powerful; a lease isn't."

For Britain the upside is a diplomatic boost and the end to an embarrassing imperial hangover. But just how much cachet Britain has bought remains uncertain (see Bagehot). One former foreign secretary is sceptical. "You won't get the global south on board. This won't do it. There will be another demand," he says. "You cannot reverse it. You've lost it for ever." ■

BAGEHOT
The last imperialists

The core of the British state still believes it can lead by example

IN THE 1950s the Campaign for Nuclear Disarmament (CND) became a fashionable cause among the who's who of Britain. Public intellectuals from Bertrand Russell to J.B. Priestley argued forcefully that the country should unilaterally lay down the bomb. "Our bargaining power is slight," wrote Priestley. "The force of our example might be great." A.J.P. Taylor, the first celebrity historian and a fellow initials lover, was another supporter of this cause. It was, he later realised, a futile endeavour: "We thought that Great Britain was still a great power whose example would affect the rest of the world. Ironically, we were the last Imperialists."

Taylor was right about CND's failure but wrong on another score: the imperialists are still going. Like Taylor's band of peaceniks, today's imperialists know that Britain can no longer rely on the force of arms. Instead, it must rely on the force of its example. Such thinking pervades British foreign policy, whether it be its approach to aid, climate change or what to do with the remaining few fragments of its empire. In a world where, increasingly, might is right, Britain, increasingly, relies on a strategy of right is might.

Take the case of the Chagos Islands, an archipelago in the Indian Ocean, almost empty but for a remarkably important Anglo-American airbase. A grubby deal in the 1960s separated the Chagos Islands from Mauritius, which, owing to colonial bureaucracy rather than any shared history, would have expected to control the islands upon gaining its own independence. On October 3rd Britain agreed to hand over the islands to Mauritius while retaining rights over the base on a 99-year lease.

The main reason for surrendering the islands was realist. Without a deal, Britain faced years of legal wrangling over the status of the base; that threatened mundane day-to-day operations such as flying in the Filipino contractors who keep things ticking over there. But a secondary benefit was progressive. It staved off accusations of hypocrisy when Britain invokes international law elsewhere, whether over China's "gimme, gimme" attitude in the South China Sea or Russia's invasion of Ukraine. Seen from this perspective, giving up the Chagos Islands was ultimately for the greater good of British influence.

Leading by the force of example has its limits, however. Not all countries share Britain's willingness to help turn Russian conscripts in eastern Ukraine into dust. If the status of a British atoll in the Indian Ocean stops providing other countries with a pretext to deny even diplomatic support to Ukraine, you can be sure that another excuse will take its place. And although double standards are bad, is it really better to equate a peaceful disagreement over sovereignty of an uninhabited archipelago with the invasion of an entire country? Maybe single standards are no better.

Britain has nonetheless been forging a new role for itself as a geopolitical goody-two-shoes. This is a far-from-universal strategy among the ranks of the world's middle powers. Some are sticklers for international law (think Canada) but others have a much more casual relationship with it (think Turkey or Saudi Arabia). The new Labour government is determined to uphold the international system, even if its Tory predecessor had some doubts about it. "It is hugely important that we are a country that plays by the rules," says David Lammy, the foreign secretary. Call it unilateral multilateralism: following the rule book even if few others do.

What price this belief in "soft power"? About £15bn ($20bn) in 2023, which was the size of Britain's foreign-aid bill. Helping the world's destitute is a noble cause. Yet British aid is justified almost entirely through the prism of British influence. Lord Cameron, a former prime minister, declared that Britain must remain an "aid superpower", protecting the development budget—set at 0.7% of gross national income—while slicing other departments. It took the pandemic for the budget to be snipped, temporarily, to 0.5%. That triggered outrage among elite opinion, not because of the increase in suffering in developing countries but because of the dip in British prestige. Sir Keir Starmer, the prime minister, has said he aspires to undo this cut, at which point Britain "will lead again". The country would regain its place at the top table of those in the 0.7% club, among the likes of Luxembourg, Norway and Sweden.

Tackling climate change has become another monument to British role-modelling. Ed Miliband, the energy secretary who oversees Britain's green transition, has pledged nothing less than "global leadership". Where Britain leads others will follow, runs the innately imperial logic. Even climate scepticism is justified by the force of example. Claire Coutinho, Mr Miliband's Conservative predecessor, has argued Labour is going too far, too fast when it comes to net zero. Since Britain is such an influential player when it comes to climate, it must not be seen to screw it up. Where Britain leads others follow, even if it is into a ditch.

Campaign for New-found Delusions

A shibboleth of the Brexit years was that Leavers suffered from delusions of imperial grandeur. Proponents of quitting the EU were dismissed as trying to forge "Empire 2.0", with Britain telling others what to do. But Remainers are just as prone to a progressive version of similar bombast. Turn up to a panel titled something like "Global Britain?" and it will be filled with Remainers lamenting Britain's loss of clout. In an era without gunboats, staying in the EU was a means of projecting British power.

The last imperialists want an empire built not on hard power but on persuasion, with British ideas about aid, climate and international law spreading around the world just as common law and cricket did in the 19th century. Instead, they risk the fate of Taylor and his accidental imperialists. "If you believe that Britain must lead, march with us," read one CND leaflet in 1958. "Let Britain lead the world!" What was delusional then is delusional now. ■

International

Elections everywhere

Over a billion have voted in 2024: has democracy won?

Half the world has had elections so far this year

IN LITTLE LESS than a month, when Americans go to the polls to choose their next president, democracy will face its most important test in a year in which it is being put through its paces like never before. What happens in America—a superpower that embodies liberty for many people—could sway perceptions of the health of democracies around the world. A messy or violent outcome would inspire autocrats everywhere and undermine faith in the ideal of rule by the people. Conversely, a well-run election in which the loser gracefully concedes would strengthen the green shoots of a democratic recovery evident in some countries amid the biggest year of elections in history.

No fewer than 67 countries with a total population of about 3.4bn people have already held national elections this year. Those with another 440m people will let their citizens have their say before the end of 2024. At the start of the year *The Economist* suggested this "vote-a-rama" would be a "a giant test of nerves". After all, when looking at areas such as voting, the press and repression of minorities, the number of countries where freedom has declined has been greater than the number where it has improved in each of the past 18 years, according to Freedom House, an American think-tank. One in three people voting in 2024 lives in a country where the quality of elections has measurably deteriorated in the past five years.

So what is evident so far, given that almost 90% of votes around the world have been cast and tallied? Democracy has proved to be reasonably resilient in some 42 countries whose elections were free, with solid voter turnout, limited election manipulation and violence, and evidence of incumbent governments being tamed. Yet there are signs of fresh dangers, including the rise of a new generation of innovative tech-savvy autocrats, voter fragmentation and departing leaders trying to rule from beyond the political grave.

Start with the good news. Voter turnout has risen for the first time in two decades, based on the average for all countries that have held elections, signalling engagement by citizens in the political process (see charts 1 and 2 on next page). Among those categorised as "full democracies" by our sister company, the Economist Intelligence Unit (EIU), turnout held steady; in "flawed democracies" it rose sharply, by three percentage points. Turnout rose in many countries, including France, Indonesia, South Korea and Mexico, and even in the world's dreariest poll, the European Parliamentary election, which had the highest participation rate since 2004.

A second reason for optimism is that efforts to undermine elections often failed. Going into 2024, many observers worried that disinformation campaigns fuelled by social media and artificial intelligence might dupe voters. "I don't see a lot of evidence for that," says Kevin Casas-Zamora, of the International Institute for Democracy and Electoral Assistance, an intergovernmental organisation. Subversion by hostile states seems to have a limited effect. In Taiwan voters chose William Lai Ching-te to be president, despite Chinese intimidation. Moldova has been busy countering Russian subversion ahead of its ▸▸

presidential election and a referendum on whether to include the goal of EU membership in its constitution, both scheduled for October 20th. It recently exposed a $15m Russian vote-buying scam.

Independent institutions often stood up for liberal values. In Senegal a strongman's ambition to rule indefinitely was rebuffed by the country's top court, its sinews stiffened by pro-democracy protesters. After a poll eventually took place, voters made Bassirou Diomaye Faye Africa's youngest democratically elected leader, aged 44. In most places elections became more peaceful. Demonstrations and violence have fallen on average, compared with the previous election, across a sample of 27 countries for which data exist, according to an analysis by *The Economist*.

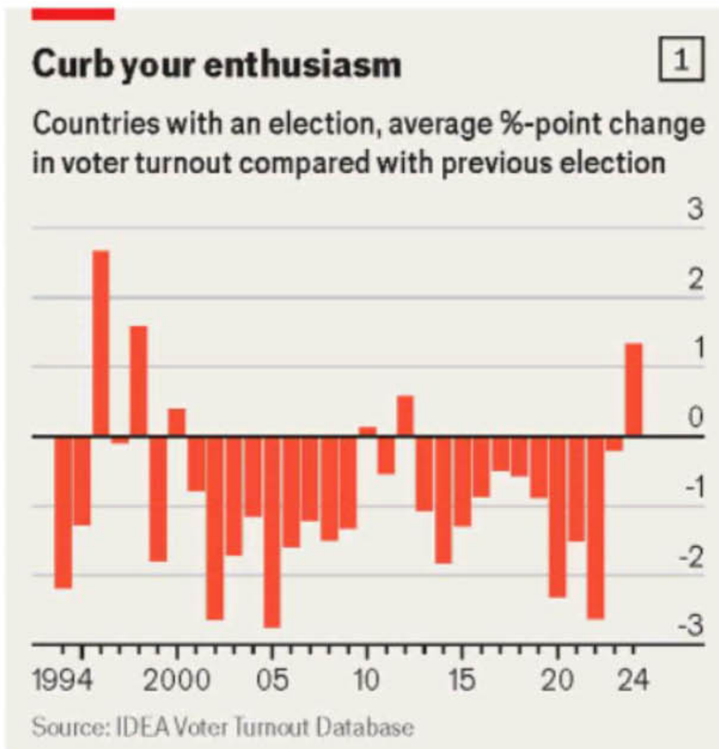
The third reason for optimism is that voters held leaders accountable, either by removing them from office or by eliminating their parliamentary majority. There was a swing against incumbents in well over half of the democratic elections held so far this year (excluding those for the European Parliament). In Britain the opposition Labour Party won the largest majority of parliamentary seats since 1997. In South Korea the incumbent People Power Party was given a drubbing in April amid corruption allegations.

Moscow rules

In several huge emerging economies where the health of democracy had been in question, incumbents were emphatically rebuked by the electorate. South African voters, fed up with corruption and incompetence, stripped the ruling African National Congress (ANC) of its parliamentary majority for the first time since the end of apartheid in 1994, forcing the once dominant party to form a coalition to remain in government. Narendra Modi, India's strongman prime minister, lost his parliamentary majority in June, despite stoking Hindu nationalism and enjoying the support of a pliant media outlets. He, too, must now rule through a coalition. Even Turkey's autocratic president, Recep Tayyip Erdogan, who won re-election last year in a poll marred by intimidation and rule-bending, was humbled this March when his party was defeated in local elections in the major cities.

Even as democracy has triumphed in some respects, both familiar and new dangers loom. Old-school dictators prevented or rigged polls in some countries. Juntas in Burkina Faso and Mali indefinitely postponed the elections—and transitions back to civilian rule—that had been scheduled for this year.

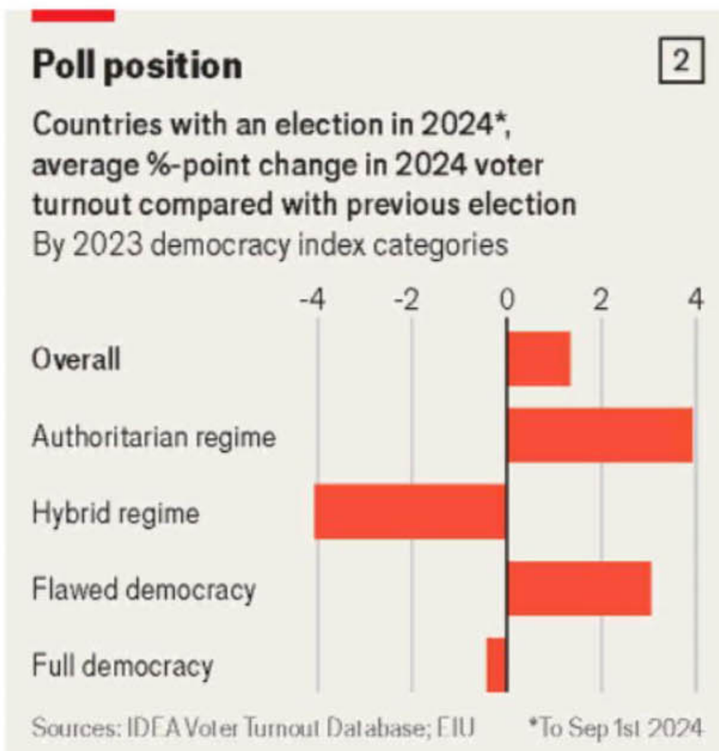
Other regimes held sham elections. Amid a war that has killed or injured 500,000 Russians, Vladimir Putin won a mere 88% of votes in elections in March,



the biggest victory in post-Soviet Russia. The death of his most credible political opponent, Alexei Navalny, in prison before the vote, was an "unfortunate incident", Mr Putin said. Paul Kagame, who has called the shots in Rwanda since 1994, walked away with 99% of votes in a rigged presidential election in July.

The charade was so brazen in Algeria that even Abdelmadjid Tebboune, the incumbent president, was surprised to have won 95% of the votes. He issued a statement with his opponents accusing the election authority of "inaccuracies, contradictions, ambiguities and inconsistencies". In Venezuela Nicolás Maduro, the ruling dictator, fabricated election results and later forced his opponent to flee.

Ballot-stuffing in rigged elections means that in some autocracies, the official turnout rose. Intriguingly, in regimes that the EIU classifies as "hybrid" (those that sit somewhere between flawed democracies and outright dictatorships) turnout fell sharply, by an average of four percentage points. This suggests that voters are disillusioned. In Bangladesh, for example, the paltry turnout rate of 42% amounted, in effect, to a vote of no confidence in Sheikh Hasina, the longtime ruler who was later forced to flee the country in August after massive protests.



Alongside old-school autocrats arresting opponents and Putin-style vote-rigging, there are signs of novel threats to democracy. One is that even where incumbents leave office, they still seek to control their successors. Indonesia had a free election in February and Joko Widodo, the president, is set to leave office in October (despite speculation that he wanted to govern beyond his term limit). But there are signs that he wants to hold sway over the next administration through his son, who was elected as vice-president, and through his influence over Indonesia's dominant parties. In Mexico a free election was won by Claudia Sheinbaum, a protégée of the outgoing strongman president, Andrés Manuel López Obrador. Yet many Mexicans suspect he may try to exert power from behind the throne because he crushed judicial independence just weeks before he is due to leave office in October and he still has huge influence over his party's congressional caucus.

Authoritarian innovators are also on the rise: populists who command vast fanbases. El Salvador's ruler Nayib Bukele has come up with a new formula for Latin American electoral success: social-media savvy plus the mass incarceration of suspected gangsters. He has subverted the constitution, bypassing presidential term-limits, stacking the high court and appointing his secretary as the interim president. Yet he is also genuinely popular, with his draconian-but-effective crackdown winning him 85% of the vote in February.

Old continent, new problems

A final, growing, concern is the splintering of parties and voting patterns in Europe, which has become the dominant pattern on the continent. Although a free and fair expression of democratic intent, it is making the job of governing harder. Germany's unwieldy ruling coalition is racked by internal conflicts. In France, it has taken more than two months to form a functional government after a polarised parliamentary election in July that saw hard-right and hard-left parties gain support at the expense of the centre. In the Netherlands a technocrat had to be sworn in as prime minister in July because the ruling parties were unable to agree on who would lead them. The poor performance of coalition governments may in turn fuel voter cynicism and boost support for disruptive outsider parties. In Germany support for the hard right and hard left surged in three state elections in September.

So far democracy has—just about—passed the giant test of nerves it has faced in 2024. A lawful, peaceful transfer of power in America would further boost confidence around the world in the enduring resilience of political freedom. Sadly, that is not guaranteed. ■

Business

AI and energy

Power couple

NEW YORK

Big tech is bringing the nuclear industry back to life

"NUCLEAR NIGHTMARE", screamed the headline in *Time* magazine on April 9th 1979. One of the two reactors at a nuclear-power plant at Three Mile Island in Pennsylvania had suffered an accident. The governor ordered an evacuation of all vulnerable people within five miles of the plant as radioactive gas escaped.

In the end, the accident resulted in no injuries or loss of life. Two decades later *The Economist* visited the Pennsylvania hinterlands and found the second, unproblematic reactor still running well and enjoying strong local support. It cranked out power until it was mothballed in 2019 owing not to safety concerns but to competition from cheap shale gas.

Now Three Mile Island is coming back from the dead. On September 20th Microsoft, a tech giant, and Constellation Energy, the utility that decommissioned the trouble-free reactor, signed a deal to return it to service. The utility will spend about $1.6bn to restore the plant by 2028. Microsoft will then buy its carbon-free power for the next 20 years.

Having plunged through the 1990s and 2000s, the share of global nuclear power generated by new plants is now rising again (see chart on next page). Although America is home to 94 conventional nuclear reactors, about a fifth of the world's total, it has built few in recent decades. There are, however, over five dozen nuclear reactors under construction worldwide, mostly in China and Russia but increasingly in other places, too. In July, for instance, the Czech Republic finalised plans for a $17bn nuclear project. And interest in small modular reactors (SMRs), which are cheaper and quicker to build, is surging everywhere. Is a new age for nuclear power dawning at last?

Demand from tech giants such as Microsoft, Amazon and Google, all of which are racing to find sufficient clean power to feed the data centres underpinning the artificial-intelligence (AI) boom, is turbocharging the nuclear revival. Brad Smith, president of Microsoft, explains that even before AI came along, his firm's promise to remove more greenhouse gases from the atmosphere than it has contributed during its entire history was ambitious. Now, thanks to AI, he reckons Microsoft will consume five to six times as much electricity by 2030 as it anticipated when it set the goal in 2020.

Nuclear power is well suited to data centres because it provides a reliable source of clean energy around the clock, unlike wind and solar, notes David Victor of the University of California at San Diego. The vast scale of nuclear-power plants also makes them attractive: running an AI data centre can require as much as a gigawatt (GW) of power. That could be provid- ▸▸

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ed by millions of solar panels—or just a single nuclear plant.

Unfortunately, there are relatively few decommissioned nuclear reactors across America, Europe and Japan that would be suitable for big tech to resurrect. New plants will therefore need to be built. These projects absorb enormous amounts of capital and are sensitive to interest-rate fluctuations and long delays. What is more, the risk of overruns is higher today because the supply chains and expertise needed to build nuclear power have atrophied, at least outside China and Russia. A case in point is the recently opened Vogtle nuclear plant in Georgia, America's first in decades. It cost $35bn, more than double the initial estimate, and was completed seven years late.

One way for tech giants to mitigate the risk of these projects is to bring in outside investors. Last month Microsoft teamed up with BlackRock, an asset manager, and other investors to launch a $30bn infrastructure fund devoted to AI. Mr Smith, who says the fund's firepower could rise to $100bn once debt is added, expects it to finance nuclear projects, among other things. He also expects three or four such funds led by other tech firms to emerge, and suggests that Microsoft "may participate in all of them".

At the same time, tech titans have taken a growing interest in SMRs. Currently there are only two in operation, in China and Russia. But Western manufacturers of power equipment such as GE Vernova and Rolls Royce have been busily developing models of them, as have numerous startups. TerraPower, an SMR startup backed by Bill Gates, broke ground on its first plant in Wyoming in August. Oklo, another startup which counts Sam Altman, the chief executive of OpenAI, among its backers, intends to deploy several small nuclear plants by 2030. Earlier this year it signed an agreement to provide Equinix, a data-centre operator, with 500 megawatts of nuclear power that includes a prepayment which should help it fund construction.

There are more SMRs planned or under construction in America than anywhere else in the world, thanks in large part to enthusiasm from the tech industry. Last month Oracle, a software giant, unveiled plans for a GW-scale data centre to be powered by three SMRs for which the firm has already secured permits. On October 3rd Sundar Pichai, the boss of Google, confirmed that his company is also looking into SMRs to power its data centres.

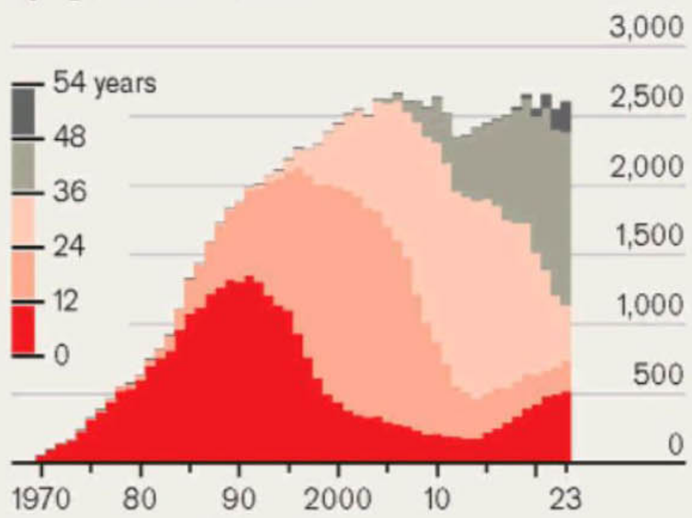
Chain reaction

Still, the technology behind SMRs remains unproven at scale. Meanwhile, the hefty and uncertain price tag of building conventional nuclear-power plants will continue to weigh on the industry's growth—and on big tech's hopes of powering the AI revolution without spewing vast amounts of carbon into the atmosphere. Chris Womack, the chief executive of the Southern Company, which owns the nuclear plant in Georgia, reckons that public support would help. "The government must provide some cost-overrun insurance," he argues. Streamlining lengthy permitting processes would be even better.

Governments certainly seem to be warming towards nuclear power, after decades of frostiness. At an event held during UN Climate Week in New York last month, officials lined up to reaffirm a commitment made by over 20 countries at the COP climate summit in Dubai last year to triple the global output of nuclear power by 2050. Fourteen big banks also said they are ready to finance new nuclear projects. Pointing to the surge in demand from AI, Mohamed Al Hammadi, head of the Emirates Nuclear Energy Corporation, declared: "We have witnessed a step change in momentum across the nuclear sector." For it to continue, a mix of technical ingenuity, financial wizardry and supportive policy will be needed. ■

The nuclear option

Global nuclear-electricity generation by age of reactor, TWh



Sources: World Nuclear Association; IAEA

Luxury

A digital makeover

Can Mytheresa make luxury e-commerce a success?

NOT LONG ago, as consumers emerged from pandemic lockdowns, it seemed the moment for luxury e-commerce had arrived. Cashed-up shoppers, now accustomed to buying almost anything online, were hunting for new outfits to parade in. Online purchases of luxury goods hit €73bn ($80bn) globally in 2022, up from €33bn in 2019, outpacing the already rapid growth of in-store luxury sales, according to Bain, a consultancy (see chart).

Since then the sparkle has dimmed. Last year growth in luxury e-commerce stalled, and its share of total luxury sales fell. Farfetch, a pricey e-emporium, was rescued from the edge of bankruptcy by Coupang, a South Korean e-commerce firm, which swooped in to acquire it for $500m—far from the $23bn valuation it reached in 2021. Matches, another luxury site, was also snapped up from the bargain bin but soon went bankrupt anyway. Richemont, a luxury conglomerate, wrote off vast sums from Yoox Net-a-Porter (YNAP), the e-commerce unit it assembled through acquisitions, which includes Net-a-Porter and Mr Porter, two high-end sites, as well as Yoox and the Outnet, two online luxury discounters. An earlier proposal to sell it to Farfetch fell through amid the would-be acquirer's own troubles last year.

On October 7th Richemont announced it would instead offload the division to Mytheresa, a German luxury e-commerce firm, in return for a third of its shares. The consolidated business will have €3bn in annual sales plus YNAP's €555m cash pile and a €100m revolving credit facility courtesy of Richemont. By keeping a stake in the combined venture, the Swiss giant is betting that the new owner will succeed where it and others have failed.

Mytheresa has lately outperformed other multi-brand luxury sites. Last month it was the only big one to have more visitors than it did the year before, according to figures from SimilarWeb, a data provider. As rivals rack up losses, it is forecasting ▸▸

Flash sales

Global personal-luxury-goods sales, €bn

Source: Bain & Company *Estimate

Time to deliver

gross-profit growth of 8-13% this year.

Mytheresa differentiates itself from its rivals in various ways. To appeal to rich shoppers tired of sifting through countless products, it offers a carefully curated selection of 250 brands; Net-a-Porter has over 1,000. Although it cannot offer customers the champagne treatment they enjoy in a physical store, it pampers loyal ones with picnics in Italy and boat trips on the French Riviera. And its operations are slick. Last year it opened a 55,000-square-metre distribution centre at Leipzig-Halle airport, allowing it to get late-night orders on to planes that depart first thing, so as to arrive earlier at customers' doorsteps.

Michael Kliger, Mytheresa's boss, says the company aims to expand sales to €4bn in the next four to five years while improving profit margins. That is ambitious. McKinsey, a consultancy, reckons growth in global luxury fashion will slow to 3-5% this year, down from 5-7% last year. Shoppers do not seem inclined to shift more of their pricey purchases online. And luxury brands, fed up with swallowing discounts from online retailers, have been investing heavily in their own digital offerings, says Claudia D'Arpizio of Bain.

Mr Kliger remains confident. He reckons costs can be cut by combining operations including logistics, payments and customer service for Mytheresa, Net-a-Porter and Mr Porter. He also plans to run the two discount sites, Yoox and the Outnet, separately, arguing that Richemont was mistaken in mixing businesses with different customers and order sizes. "They created a fridge that does heating and washing too," he says. "And in the end the fridge was not even good." Germany is known for making top-notch household appliances. It might just excel at selling fancy shoes and handbags, too. ■

Israeli business

Under fire

DUBAI

A mighty tech industry is being tested

SOON AFTER Hamas attacked on October 7th last year, around a third of workers at Elsight, an Israeli maker of drone communications systems, were called up to fight in Gaza. A similar exodus took place across Israel's tech sector, which accounts for over half of the country's exports, a fifth of GDP—and a fifth of the reservists in the Israel Defence Forces (IDF).

In the circumstances, Israel's tech sector has been remarkably resilient. Venture-capital (VC) funding slumped when the war began, falling to $2.1bn in the last three months of 2023, the worst quarter in five years (see chart on next page). But it has since surged, reaching $4.4bn in the second quarter of this year, according to Startup Nation Central, an Israeli non-profit organisation. Israel's tech industry is accustomed to conflict—it emerged relatively unscathed from shorter bouts of fighting in 2006 and 2014—and many firms have benefited from a boom in defence spending both at home and abroad over the past year. Nonetheless, Israel's widest and longest war in years may leave lasting scars if it is not resolved soon.

Israel's tech prowess dates back decades. The government has long sought to boost industrial research and development (R&D) through grants, fund-matching arrangements and schemes such as the Magnet Program, which brings together companies and universities to develop technologies. That government policy has drawn private capital into the high-tech industry, says Avi Hasson, the chief executive of Startup Nation Central and a former chief scientist of the country. The upshot is that Israel spends more on R&D, relative to GDP, than any other country in the world, and more than double the average among members of the OECD.

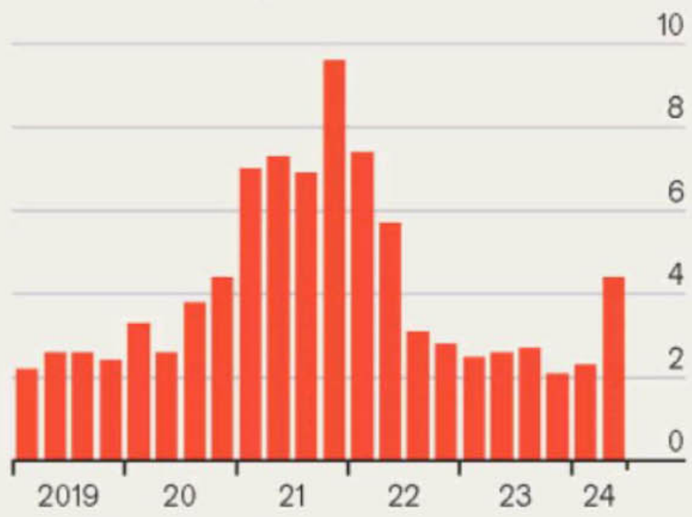
Israeli tech has also been helped by its close ties to the country's armed forces, which have not only been buyers of its whizzy products but also suppliers of entrepreneurs. For instance, former members of Unit 8200, the IDF's renowned signals-intelligence group, have gone on to set up many prominent cybersecurity firms, including Wiz, which Google unsuccessfully tried to buy for $23bn in July, and Palo Alto Networks. These ties help explain why Israeli tech firms tend to focus less on things like mobile apps and more on cutting-edge innovations that may come out of, or be useful for, the armed forces.

Increased defence spending over the past year, both at home and abroad, thus offers one explanation for the resilience of many Israeli tech firms. Elsight has morphed into a defence-focused firm: it now makes more than half its revenue from military contracts, up from less than 5% before October 7th, according to Yoav Amitai, its boss. XTEND, an Israeli firm that makes software for drones and robots that ▸▸

Can it keep flying?

Weathering the storm

Estimated venture-capital investment in Israeli tech companies, $bn



Source: Startup Nation Central

inspect buildings and other infrastructure, has been signing contracts with the IDF. It raised $40m in funding in May.

Israeli tech firms in other buzzy areas of tech have also continued to do well. The country's 460 or so cybersecurity firms are in high demand from companies wanting to boost their defences against hackers. Earlier this year Nvidia, a chip behemoth, is said to have spent $1bn on two Israeli artificial-intelligence startups, Deci and Run:ai. Medical technology is another bright spot. In August Johnson & Johnson, an American pharmaceutical giant, said it would purchase V-WAVE, an Israeli maker of heart implants, for up to $1.7bn. In July Alcon, a Swiss eye-care company, bought Belkin Vision, an Israeli startup that has developed laser-based technologies for treating glaucoma.

Yet other tech firms are increasingly showing signs of strain. Those dealing directly with customers have been hit harder by the conflict. Last month One Zero, an Israeli fintech firm, announced it would fire 6% of its workers after a deal with Generali, an Italian financial-services group, to establish a digital bank in Italy was put on hold. In a letter to employees, Gal Bar Dea, One Zero's boss, blamed "uncertainty around the war situation". Aleph Farms, a startup developing lab-grown meat, laid off a third of its staff in June.

Even in areas of tech that have done better, bosses note that the war is undermining morale and productivity. What is more, foreign tech firms such as Dropbox, a cloud-storage company, and Verily, a biotech firm owned by Google, have been shutting their operations in Israel.

That is a problem for the wider economy. About a quarter of the government's tax take comes from tech companies and their employees. At the end of September Moody's, a rating agency, downgraded Israel's government bonds by two notches, pointing to "high uncertainty around the high-tech sector's capacity to keep growing". The longer the conflict continues, the worse the damage. ■

Ratan Tata

A titan departs

MUMBAI

One of the most consequential figures in Indian business has died

TWO THINGS are often said of Ratan Tata, former head of the Tata Group, one of India's mightiest conglomerates: he was a giant of Indian business, and among its most virtuous figures. For a society as fractious as India, the esteem in which he was held was remarkably wide.

That admiration was clear from India's response to Mr Tata's death in a Mumbai hospital on October 9th, at the age of 86. Police soon blocked traffic to the southern tip of the city and queues were established to allow a final viewing of Mr Tata at the National Centre of Performing Arts, an institution co-founded by JRD Tata, his predecessor as Tata's chairman. Some 60,000 people were expected to attend. Narendra Modi, the country's prime minister, issued a gushing statement calling Mr Tata "a visionary business leader, a compassionate soul and an extraordinary human being". The opposition Congress party praised Mr Tata as "a titan of Indian industry and a philanthropist who shaped India's corporate landscape".

Despite his family name, Mr Tata's successful business career was not pre-ordained. His father had been adopted into the Tata family and became an executive at the company. Although Ratan began his education in Bombay (as Mumbai was then called), he finished high school in New York and went to college at Cornell University, where he studied architecture. For a time he considered staying in America.

Ratan Tata, 1937-2024

When he eventually returned to India, he worked at a succession of Tata entities including a steel mill, a locomotive operation and an IT outsourcing operation that went on to become the group's most valuable business, Tata Consultancy Services.

JRD Tata retired in 1991, just as India was opening up to the world, leaving behind a decentralised company whose businesses were run by powerful, independent leaders. Intense rivalry between them contributed to Ratan Tata's subsequent elevation to the top of Tata Sons, the group's umbrella entity. The succession was acrimonious; the heads of Tata's chemicals, steel and power units soon left.

In the years that followed Mr Tata reshaped the conglomerate. Many businesses were sold, including its cement, textiles, cosmetics and pharmaceutical operations. A new strategy was put in place to bring in half of all revenues from overseas. That resulted in a string of acquisitions, particularly of British firms, including Tetley Tea in 2000, Corus (then British Steel) in 2007 and Jaguar Land Rover in 2008. At home, Mr Tata's effort to manufacture an affordable car for Indians resulted in 2009 in the Nano, which cost just 100,000 rupees ($1,350) at the time.

By 2012, when Mr Tata stepped down, the conglomerate's revenue had soared to over $100bn, up from around $4bn when he took over. Yet his tenure was not an unmitigated triumph. The Nano failed owing to production problems and marketing failures. One of the big acquisitions, that of Corus, was a financial disaster. An effort to build a mobile-telecoms business was abandoned following vast losses. And the succession to Mr Tata himself, to Cyrus Mistry, was troubled. Mr Tata ousted Mr Mistry in 2016 following years of acrimony between the two, and briefly returned to lead the conglomerate before handing over to Natarajan Chandrasekaran, its current boss, in 2017.

Nonetheless, Mr Tata's record is widely celebrated in India. Even in difficult times, the Tata Group under his leadership was seen as a uniquely benign employer. It did not swindle, it paid its debts, it stood behind its products—and it was largely, if not entirely, free from scandal. It also placed a tremendous effort on philanthropic activities. It established several cancer hospitals with subsidised treatment, a research institute and veterinary clinics, among various other charitable endeavours. Mr Tata, a polite man, rarely spoke publicly but had an active Instagram account that often sought help for abandoned or injured dogs. The *Economic Times*, an Indian newspaper, wrote that in retirement he was seen as "an adorable old uncle". That is an unusual encomium for a business titan—but an especially affectionate one. ■

Superpower contest

The standards war

SHANGHAI

China wants to write the world's technology rules

A SMARTPHONE IS a testimony to the power of standardisation. Comprising components from hundreds of suppliers, it can find a signal almost anywhere in the world and connect to a wide array of ancillary devices all because countless companies have subjected themselves to a common set of technical specifications.

How such rules are set is a mystery to most people. Global bodies such as the International Organisation for Standardisation (ISO) and the International Telecommunication Union (ITU) periodically convene companies and technology wonks to thrash out agreements. For decades that process has been dominated by America, Germany and Japan, whose companies have benefited handsomely from the system. IBM, an American computing firm that holds over 100,000 patents, earned a handy $366m last year from licensing its intellectual property. Qualcomm, an American semiconductor firm whose technology is ubiquitous in wireless devices, makes around a quarter of its gross profit from licensing.

Governments have long recognised the value in setting standards. Britain and Germany once tussled over the specifications for telegrams. Today the battle over standards is between China and the West. At stake is the future of technologies ranging from wireless communication to quantum computing and artificial intelligence (AI).

In recent years China has been growing more assertive in the standard-setting process. Last month the ITU approved three new technical standards that will be embedded in sixth-generation (6G) mobile technology. The rules relate to how networks integrate AI and produce immersive experiences in areas such as virtual reality. They were developed by the Chinese Academy of Sciences (CAS), which is controlled by the central government, and China Telecom, a state-owned firm.

Despite the efforts of America's government to keep Chinese equipment out of mobile networks in as many countries as possible, wireless technology has continued to become steadily more Chinese. Thanks in part to the uptake of its standards abroad, Huawei, a Chinese maker of telecom gear, has made more money since 2021 licensing its technology to companies than it has paid them for theirs.

China's growing role in standard-setting extends well beyond mobile networks. Chinese companies such as Xiaomi, a maker of smartphones, and BOE Technology, the world's biggest producer of LED screens, also appear to be benefiting from royalties linked to technical standards. Hikvision, a Chinese maker of surveillance technology backed by China's government (and blacklisted in America), has been increasingly involved in standard-setting. China has even been playing a leading role in shaping early global standards for quantum technology.

Unlike the West, which has tended to defer to private companies and industry associations in the standard-setting process, China's approach is led by its government. In 2018 it set out a plan for the country to be at the forefront of technical standards in areas ranging from telecoms to drones and AI by 2035. Chinese standards are developed within institutes established under government ministries. Efforts are co-ordinated by the Standards Administration of China (SAC), which organises most of the country's interactions with global standards bodies.

Standards officials from the West are envious of such lavish attention. On visiting China, one was amazed to discover that there were tens of thousands of people focused on standards development across the country, and that senior members of China's bureaucracy had a strong grasp of complicated technical rules. The Chinese government has also made a concerted push to have its officials appointed to international standards bodies. They have held senior positions at a number of top organisations and have filled the technical committees where decisions are made. Many meetings on global standards now take place in China.

China's government has sought to alter how standards are set as well. It has tried to shift attention away from company-led confabs towards the ITU, a UN body where it has greater influence. It has also arranged more than 100 bilateral standards agreements, mostly with countries in the global south. During a conference with African leaders last month it added new deals with Benin and Niger.

Double standards

Such agreements give China greater backing for its preferred technical specifications at bodies such as the ITU, notes Alex He of the Centre for International Governance Innovation, a Canadian think-tank. Even if that fails, China could still benefit from the adoption of its standards in countries with which it has established bilateral agreements. Western firms that refuse to adopt Chinese standards may find themselves locked out of those markets.

For China's government, more than company profits is at stake. Standards can encode social values deep within a technology. Many features of the Western-designed internet, for example, have tended to promote individual privacy over centralised control, thereby irking China's authoritarian government.

In recent years it has thus been campaigning to rewrite the standards that underpin the internet. In 2019 and 2022 Huawei proposed alternative internet protocols at the ITU that would have enabled a far greater level of government control. Neither was successful, but they did receive support from member states such as Iran, Russia and Saudi Arabia. In April the ▸▸

Trade and Technology Council, a forum for co-operation between America and Europe on economic issues, released a statement saying that democracies must remain the vanguard of emerging technologies, including by setting the standards that underpin them.

China's growing clout in the global standard-setting process has not been missed by policymakers in America and Europe. Like China, they are beginning to interfere more in the standard-setting process, says Tim Rühlig of the European Union Institute for Security Studies, another think-tank. America's CHIPS and Science Act, signed into law in 2022, gave the National Institute of Standards and Technology, a government body, the job of developing standards for AI and cybersecurity, and expanded its role in co-ordinating America's engagement with international standards bodies. Across the Atlantic, some policymakers want the European Telecommunications Standards Institute (ETSI) to play a bigger role in countering China's growing influence at the ITU and other global bodies.

In the process, the West has been abandoning its commitment to a bottom-up, market-based approach to setting technical standards. "We are being forced to undermine a system that has been very effective and that we have profited from for a long time," laments Mr Rühlig. In more ways than one, China is making the West play by its rules. ■

BARTLEBY

The gelignite of incentives

When workplace bonuses backfire

"IF YOU HAVE a dumb incentive system, you get dumb outcomes." The late Charlie Munger was endlessly quotable, but this pearl of pith from the famed investor is one that every manager should remember.

There are plenty of dumb examples to choose from. Some are apocryphal: the Soviet nail factory that produced a single, uselessly gigantic nail to meet its tonnage quota. Others are not. Wells Fargo, a previously well-regarded American retail bank, was notoriously embroiled in scandal after blunt cross-selling targets pushed its employees to open unauthorised deposit accounts and issue unwanted debit cards. Silly financial incentives in health-care systems can help explain everything from once-elevated rates of Caesarean-section births in Iran to woefully inadequate dental treatment in Britain.

The trouble is that it is not always easy to work out what dumb looks like. A study published in 2017 by David Atkin of the Massachusetts Institute for Technology and his co-authors found that many football manufacturers in Sialkot, Pakistan were oddly slow to adopt a new technology that reduced the amount of synthetic leather wasted during their production. The reason? Workers who were paid by the ball were not keen to spend time that could otherwise have been used to earn money on learning new techniques. In theory, a piece-work incentive scheme makes perfect sense for this kind of repetitive activity; in practice, it was the firm that paid their workers by the hour which quickly embraced the new technology.

A couple of recent studies underline the risk that incentives will have unintended consequences. One, from Jakob Altifian and Dirk Sliwka of the University of Cologne and Timo Vogelsang of the Frankfurt School of Finance and Management, tested the effect of paying an attendance bonus on levels of absenteeism. They did so by randomly assigning apprentice workers at a German retailer to two groups which offered a financial reward or some extra holiday, respectively, for a perfect attendance record. Neither reward reduced absenteeism, and the monetary bonus had precisely the opposite effect: it actually increased rates of absenteeism by 50% on average.

To work out what was going on the researchers surveyed employees after the experiment had ended. They found that the introduction of a bonus shifted workers' perceptions of what counted as acceptable behaviour. The message that attendance warranted a reward made people feel less obliged to come in and less guilty if they threw a sickie. The effect was particularly pronounced for the most recently hired employees, and higher rates of absenteeism persisted even after the bonus had been removed. The power of incentives to change social norms can be helpful: an attendance bonus has been shown to work in circumstances where widespread absenteeism is a real problem. But the starting-point matters.

A second study, by Luan Yingyue and Kim Yeun Joon of the Cambridge Judge Business School, tested the effects of making co-operativeness a formal job requirement. Expectations of being helpful to colleagues were added to the job descriptions and performance appraisals of engineers working in a research-and-development (R&D) centre at a chemicals company in East Asia. (A second R&D centre in the company acted as a control.)

Surveys of affected employees found that the motivation to help changed once it was part of the job, from an intrinsic drive to be co-operative to a desire to show off to the higher-ups. The type of help that people offered their colleagues changed as a result: there were more frequent instances of helpful behaviour but the quality of assistance that people actually gave each other went down. "How can I help as long as it doesn't involve too much effort?" is a very watery form of collaboration.

These examples confirm both the wisdom of Munger's aphorism and the difficulty of anticipating how incentives will play out. Dumbness may become apparent only over time, so pilot schemes and rigorous review processes are essential. As Stephan Meier, an academic at Columbia Business School, argues persuasively in "The Employee Advantage", a new book, people are motivated by many more things than moolah. Rewarding people for doing things they would anyway can easily backfire. As Munger might have said, incentives should be approached like gelignite—with enormous care.

SCHUMPETER

Stuck in the future

Masa is back in Silicon Valley—and late to the AI race

MASAYOSHI SON is a man of contrasting superlatives. At the height of the dotcom bubble in early 2000 the Japanese technology mogul was briefly the world's richest person, before losing $77bn in paper wealth, more than anyone before. In 2021 SoftBank Group, his telecoms-and-software conglomerate turned investment powerhouse, reported the biggest annual net profit in the history of Japan Inc, followed a year later by the second-biggest loss. His $20m wager in 2000 on Alibaba, a tatty online marketplace that grew into China's mightiest e-emporium, counts as one of the best in the annals of venture capital (VC); his later $16bn punt on WeWork, an office-rental startup with tech pretensions, is an all-time dud. He has been called a "genius" and "dumb money".

Such wild swings of fortune would wear anyone out. And in November 2022 they exhausted even the indefatigable Masa, as the billionaire is known. On an earnings call the then 65-year-old announced that though he would remain in charge, future updates on SoftBank's finances and strategy would be presented by his chief financial officer. This was out of character for a hyperactive bundle of vanity who has unironically likened himself to Napoleon. And, like the Corsican's periodic retreats, it did not last. In June a re-energised Mr Son told an audience of SoftBank's shareholders that all his past wagers were "a warm-up for my great dream to realise artificial superintelligence".

To get the main act going, on October 2nd SoftBank splurged $500m on a tiny stake in OpenAI, in a $6.6bn funding round that valued the world's leading generative-AI model-maker at $157bn. Earlier Mr Son put a similar sum in Wayve, a self-driving car startup, a smaller one in Perplexity, a gen-AI search engine, and talked of raising much larger amounts—perhaps $100bn—to build a rival to Nvidia, the champion of AI chips. After mentioning AI more than 500 times in earnings presentations between 2017 and 2020, Mr Son is getting down to business. He looks hopelessly late.

That seems odd for someone who tends to gaze far into the future. Aged 19 he drew up a 50-year plan to build a corporate empire; in his 50s he stretched the horizon out to 300 years. Throughout his life, chronicled in "Gambling Man", an engaging new biography by Lionel Barber, former editor of the *Financial Times*, looking ahead was often preferable to contemplating the there and then. His earliest memories are suffused with the stench of pigs his family reared to make ends meet. Disdain from native Japanese, in whose eyes ethnic Koreans like him were second-class citizens, lingered long after his father turned pork profits into a thriving gambling business, which bankrolled young Masa's desire to complete high school and university in California. Even a brush with death, from hepatitis in the mid-1980s, and two with bankruptcy—in the dotcom crash and the financial crisis of 2007-09—did little to elevate the here and now in Mr Son's estimation.

At times inveterate futurism paid off. It alerted him early to the promise of software, the internet and smartphones, each of which made him a fortune and, more deliciously given the discrimination his family endured, shook up Japan's stolid corporate establishment. On these big things he has been "spectacularly right", says Alok Sama, a former Morgan Stanley banker who worked for Mr Son between 2014 and 2019. Yet a fixation on the future can obscure aspects of the present, over which he keeps tripping up.

One blind spot is politics. His $22bn takeover in 2013 of Sprint was predicated on a merger with T-Mobile, another wireless provider, which the Obama administration blocked. Though the deal went ahead under Donald Trump, Mr Son called his misreading of the regulators "one of the biggest mistakes of my life".

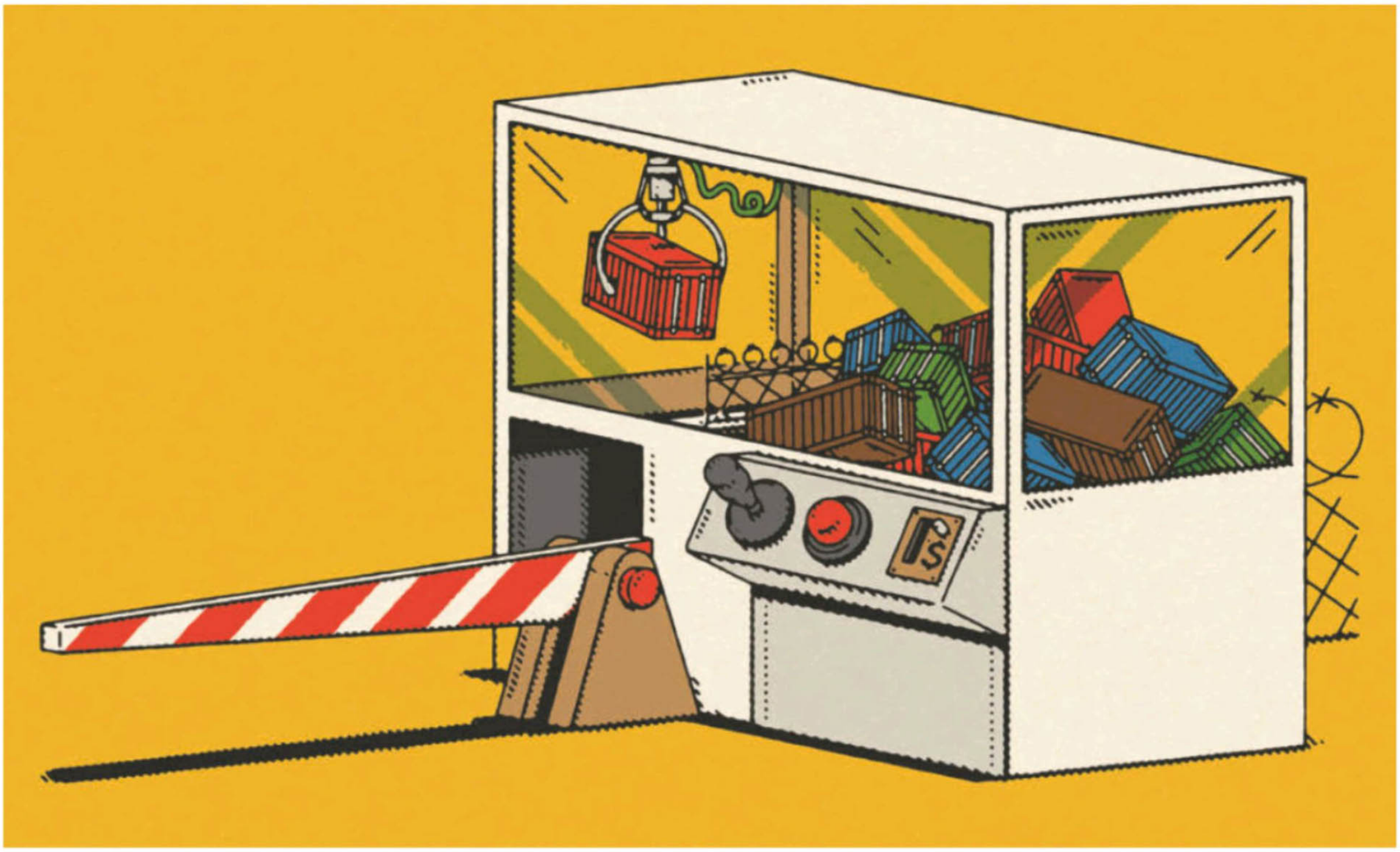
If so, he did not learn from it. In 2020-21 he was caught out by a crackdown on tech in China, where SoftBank is the biggest foreign venture investor. Bets on firms like Didi, a ride-hailing giant, soured. Its stake in Alibaba lost two-thirds of its value. In 2022 trustbusters blocked the $40bn sale of Arm, a chip-designer SoftBank bought in 2016 for $32bn, to Nvidia. The rift between China and the West is engulfing TikTok and could hurt the $230bn valuation of its Chinese parent, ByteDance, in which SoftBank is a shareholder. America, where SoftBank makes a lot of its investments, may look askance at a firm that is teaming up with Alat, a Saudi industrial-automation venture that also has ties to a blacklisted Chinese maker of surveillance gear.

Mr Son is likewise inattentive to profitability. Growth, his *idée fixe*, is all well and good. But a business needs steady returns if it is to be a going concern, let alone last three centuries. In their absence SoftBank relies on borrowed money. Despite paying down a chunk of this lately with proceeds from the sale of Alibaba shares and the flotation of Arm, it still ranks as the world's 11th-most-indebted non-financial firm—and has stakes in two of the top ten, Deutsche Telecom and T-Mobile. The gyrating price of SoftBank stock, against which some debt is secured, could mean margin calls whenever markets wobble. This ties Mr Son's hands precisely when he could be buying up stocks and startups on the cheap.

The curse of long-sightedness

Instead, he often mistimes bets and overpays. SoftBank's $100bn Vision Fund, the biggest in VC history and stuffed with money from the Gulf, went shopping in the late 2010s when valuations of startups like WeWork were especially frothy. In 2019 the vehicle sold its entire 5% stake in Nvidia for $3.6bn; today it would fetch $160bn. SoftBank backed OpenAI in the same round as Fidelity, a lumbering asset manager. "Tells you everything," sneers a VC veteran. Investors in SoftBank are scathing in their own way. Its shares trade at more than a 50% discount to the net value of its assets, implying a lack of faith in Mr Son's futurology. Minding your feet can be as important as admiring the horizon. ■

Finance & economics



Trade policy

How America learned to love tariffs

WASHINGTON, DC

They supposedly boost growth, provide security and replace taxes

ALTHOUGH HIS bill has no chance of becoming law, Jared Golden, a congressman from Maine, delivered an important message last month when he introduced legislation to impose a 10% tariff on all imports into America. It is not just that Mr Golden is the author of the first formal attempt to act on Donald Trump's proposal for a universal tariff. It is that Mr Golden is a Democrat. His bill is an indication of how tariffs, long seen as an obsolete tool of economic policy, have gained respectability across much of the political spectrum in America.

Mr Golden is, to be sure, an outlier within the Democratic Party. A rather more consequential Democrat, Kamala Harris, has derided Mr Trump's universal tariff as a "national sales tax". But the inconvenient truth for Ms Harris is that she, too, has endorsed tariffs, albeit of a more limited sort. In fact, the day after Mr Golden published his bill, higher tariffs on a number of Chinese imports, drawn up months earlier by the Biden-Harris administration, went into effect. A levy of 100% will, for instance, now apply to any Chinese electric vehicle (EV) entering America.

As American politicians resort ever more readily to tariffs, the range of rationales they offer has grown. To make sense of their thinking, it is useful to examine their justifications in turn. There are five in all—and each of them is flawed.

Start with the most aggressive defence of tariffs: that they encourage more manufacturing at home and thereby strengthen the economy. "America must once again become a nation of producers, not just consumers," says Mr Golden. Or as Mr Trump puts it: "Under my leadership, we're going to take other countries' jobs."

But there is scant evidence of general tariffs providing such a lift to manufacturing. The share of factory jobs in the American economy has actually fallen since Mr Trump first introduced tariffs as president in 2018. One explanation is that although tariffs may have discouraged some imports, they have probably also weighed on American production. To the extent that domestic firms replace foreign counterparts, tariffs draw scarce resources—both capital and labour—away from competitive firms and push them towards more protected ones. These downsides would be more extreme in the case of universal tariffs, especially if Mr Trump opts for one as high as 20%, as he has suggested, taking America back to Depression-era tariff levels (see chart on next page).

A second justification for tariffs is that they can serve as a big revenue stream for the government. As Mr Trump is fond of saying, tariffs "will bring in billions of dol- ▸▸

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lars", which can be used both to pay down the federal deficit and lower income taxes. Strictly speaking, that is true: customs duties do generate revenue. America imported about $3trn-worth of goods last year. A simplistic conclusion would thus be that Mr Trump's 20% tariff can raise about $600bn per year—enough to pay for many of the tax cuts that he wishes to make.

The trouble is that this is a static picture. When tariffs are increased, imports fall, lowering potential government revenue. Besides, retaliation from foreign governments would add to the headwinds for domestic producers now facing higher input prices. An analysis by the Penn Wharton Budget Model, a non-partisan research group, found that an all-out trade war would lead to a 5% decline in American GDP within a couple of decades—a recipe for lower government revenue.

A third rationale is that tariffs bolster America's clout in trade negotiations. This is an argument that Robert Lighthizer, United States Trade Representative (USTR) under Mr Trump, made when hammering out a deal with China in 2020. It is also one that Katherine Tai, USTR under Joe Biden, has cited as a reason for keeping the tariffs on China in place.

But the leverage from tariffs is not what it is cracked up to be. Consider the results from six years of tariffs on Chinese products: China has only become a more formidable exporting power during that time. More philosophically, the tariffs-as-leverage claim is contradicted by the arguments that they boost both manufacturing and government revenues. If tariffs are just used as negotiating leverage, the implication is that America ought to reduce them when trade deals are reached. But if tariffs are in place because American officials truly believe they are good, why would they ever lower them?

Another justification, which has more credibility among policy types in Washington, DC, is that, if well targeted, tariffs can meet national-security needs. When it recently increased levies on Chinese EVs, semiconductors and solar modules, the Biden administration said that China's clout in such industries created unacceptable risks for America's economic security.

America and other countries do have reason to fret about Chinese dominance of critical technologies, not least because of China's willingness to block exports during international spats. But using tariffs for national-security goals poses problems. Invoking security becomes a convenient excuse for protectionism, as when the Trump administration placed tariffs on steel and aluminium imports from the EU and Japan. Moreover, a tariff is not exactly a robust defence against a true security threat. "If something is really dangerous, you should probably ban it rather than tax it," says Ed Gresser of the Progressive Policy Institute, a think-tank.

A final defence of tariffs is a more limited version of the first supposed rationale. Rather than saying that tariffs benefit the economy as a whole, advocates say they are needed to support the growth of specific sectors. The Biden administration has, for instance, argued that its new China tariffs are protecting the very sectors that the government has been trying to cultivate through its big investments.

That may sound sensible, but at its core this is an empirical question. A recent paper by two economists at the Federal Reserve found that Mr Trump's targeted tariffs did not work as intended. Looking at manufacturing industries such as household appliances and car parts, they found a small jobs boost from the import protection conferred by tariffs. But this was more than offset by drags from both retaliatory tariffs and higher input costs.

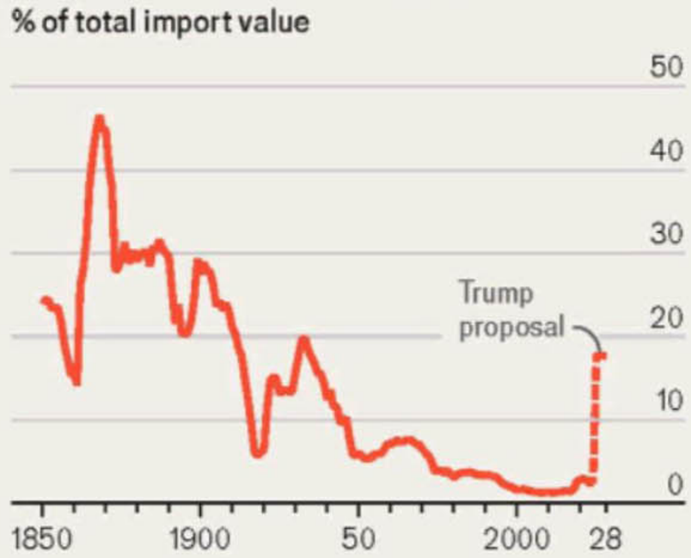
An expensive fling

It would be a mistake to assume that all American politicians are seduced by the fallacious logic behind tariffs. Jared Polis, the Democratic governor of Colorado, has criticised the tariffs on China as a regressive tax on consumers, though that is a rare view nowadays given widespread concerns about China. More common is opposition to Mr Trump's universal-tariff proposal, even within his own party. Several prominent Republicans have signalled their disagreement with the idea.

Ultimately, though, Congress has ceded tariff authority to the White House. A victorious Mr Trump ought to be able to crank up tariffs by executive fiat, with only courts to stand in his way. Republicans in Congress would instead focus on delivering tax cuts. "As long as they're getting wins in other places, that's where they'll put all of their attention," says Paul Winfree of the Economic Policy Innovation Centre, a think-tank. America's love affair with tariffs may end up being as much about convenience as conviction. ■

Old way forward

United States, duties collected as % of total import value



Sources: US International Trade Commission; Tax Foundation

Oil

Worst-keg scenario

Could war in the Gulf push oil to $100 a barrel?

EVER SINCE Hamas's attacks on Israel a year ago, the biggest fear in oil markets has been that tensions would escalate into a full-blown regional war pitting Israel against Iran, the world's seventh-largest producer of crude. Until recently both countries seemed keen to avoid it. That explains why initial jitters on oil markets after October 7th last year soon gave way to the low and stable prices that have prevailed for much of this year.

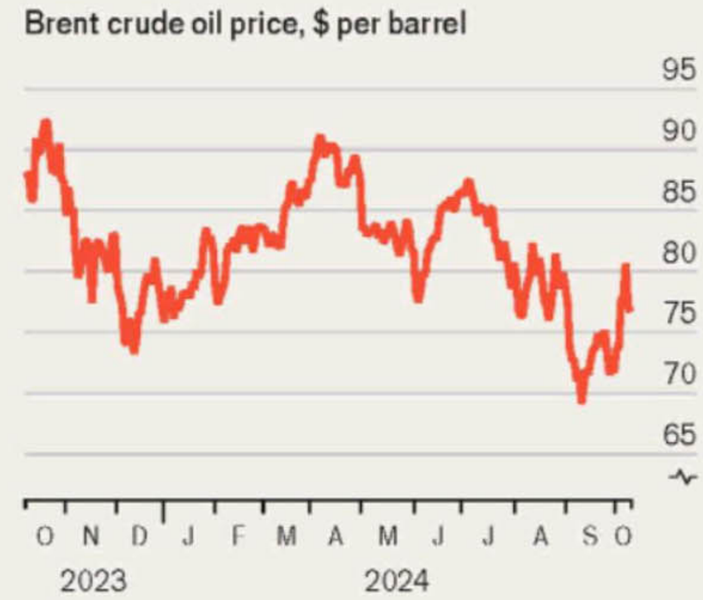
But on October 1st Iran fired missiles at Israel in response to Israel's pounding of Hizbullah and other Iranian proxies. Now the world is anxiously waiting for Israel's response. Oil markets are nervous. Last week crude prices rose by 10%, to $78 a barrel, their biggest weekly gain in almost two years (see chart). As we published this, they were bobbing around $77. When the last war involving a major petrostate broke out, in Ukraine in 2022, crude surged past $100 a barrel. Could that happen again?

To understand how high prices might go, look first at Israel's options for retaliation. If it struck only military targets, such as missile-launch sites—and Iran responded moderately—then some of the geopolitical premium boosting oil prices would evaporate. But Israel could choose to escalate by bombing Iran's civilian infrastructure, oil and gas facilities or nuclear-enrichment sites. Whichever Israel chooses, Iran may feel forced into a robust response, triggering a cycle that ends up turning Iran's petro-industrial complex, the regime's lifeline, into a target. So oil assets need not come under fire first for global markets to fret.

If Israel attacks Iran's oil facilities, it ▸▸

Upside risk

Brent crude oil price, $ per barrel



Source: LSEG Workspace

In Israeli sights?

may target assets that transform Iran's crude into petroleum products. One possible choice is the Abadan refinery, which provides the domestic market with 13% of its supply of petrol. The pain would remain local; such strikes may even boost the global crude supply as they could free up more of Iran's unrefined oil for export.

If Israel wanted to deal a severe blow to Iran's energy exports, it could go after the oil terminals on Kharg Island in the Persian Gulf—from which nine-tenths of all barrels of Iranian crude are shipped—or even the oilfields themselves. That would come at a diplomatic cost. The Biden administration would be annoyed that it might cause petrol prices to jump less than a month before America's presidential election. China, the destination for nearly all Iran's oil exports, would also be cross.

Israel might still deem the cost worth bearing, and opt for hitting the terminals. A successful strike would instantly take a decent pool of oil off international markets: last month Iran exported a record 2m barrels per day (bpd), equivalent to nearly 2% of world supply.

Even then, the global fallout would probably be contained. Unlike the situation after Russia's invasion of Ukraine, when the world was pumping oil at full tilt and demand was rebounding after the pandemic, supply today is plentiful and demand sluggish. After a series of production cuts, the Organisation of the Petroleum Exporting Countries and its allies, collectively known as OPEC+, have more than 5m bpd in spare capacity—more than enough to make up for the loss of Iranian crude.

They probably wouldn't wait long before raising output. OPEC+ members, angered to see their market share sliding in recent months, have been waiting for just such an opportunity to unwind their cuts. Last week they confirmed plans to lift output by 180,000 bpd every month for a year, starting in December. The Saudis are so determined not to cede further ground that they are said to have dropped their target of returning oil to $100 a barrel, the level required to balance the kingdom's books as it launches several megaprojects.

Production is rising in America, Canada, Guyana, Brazil and elsewhere. The International Energy Agency expects non-OPEC output to grow by 1.5m bpd next year, more than enough to cover any rise in global demand. And demand is slowing on account of tepid economic growth in America, China and Europe and a race to ditch petrol cars for electric ones. Before the latest escalation in tensions in the Middle East, traders expected an oil glut in 2025, pushing prices below $70 a barrel. Today crude inventories in the OECD are below their five-year average. So a strike on Kharg Island would no doubt jolt markets. But prices would probably settle only $5-10 above their current levels.

Things could get much wilder if Iran lashed out at other Gulf states it sees as supporting Israel. In recent years relationships between Iran and its neighbours have been stabilising, and in recent days officials from Gulf Arab states have met Iranian counterparts in Qatar to try to reassure them of their neutrality. Still, with few options available, Iran may seek to target the oilfields of its neighbours—starting perhaps with smaller states such as Bahrain or Kuwait.

The other tool Iran could use to create global chaos would be to close the Hormuz Strait, through which 30% of the world's seaborne crude and 20% of its liquid natural gas must pass. That, however, would amount to economic suicide, since it would leave Iran unable not just to ship out any oil or other exports but also to bring in many imports. And it would greatly annoy China, which gets about half its crude from Gulf countries.

It is hard to guess how the market would respond to such scenarios, if only because Iran's actions would trigger further reactions from Israel, America and others. America and China, for example, would probably send their navies to reopen the Hormuz Strait. Still, assuming disruptions are big enough to cause shortages of crude that last for a while, then oil prices would probably climb to the point where they curbed appetite for oil, after which they would start falling. Analysts believe such "demand destruction" would occur once crude hit $130 a barrel—roughly the level it peaked at in 2022.

If oil markets believed such a scenario even remotely likely, their fears would start to be reflected in the current price. Traders who had bet on oil prices falling in the near future would be rushing to unwind their positions. Zoom out a little, however, and the recent rise in prices does not look striking, even by the relatively sedate standards of the past 18 months. Last year oil averaged $82 a barrel; in 2022, $100. The one-year-old conflict in the Middle East has confounded many expectations. But for oil prices to reach triple digits again, a lot of things still have to go very, very wrong. ■

Carbon levies

C-BAM!

Green trade restrictions will clobber developing countries

WHEN AID donors helped fund the Mozal aluminium smelter in Mozambique, the goal was to help that southern African country build up its economy after a civil war. In a country with income per head of just over $600, the Mozal smelter is the largest industrial employer. Yet now the lofty aim to help poor countries grow risks falling foul of rich countries' urge to decarbonise their economies and protect domestic manufacturing.

More than half of Mozambique's aluminium exports head to the EU. From 2026 the bloc's importers of the metal will have to pay a levy under its carbon border adjustment mechanism (CBAM), a scheme designed to ensure that certain energy-intensive imports to the EU pay the same carbon price as industry within it. At present CBAM is at a pilot stage in which importers have to submit reports on the embedded carbon in their imports, but do not yet have to buy permits. Eventually they will ▸▸

have to pay the difference between any carbon price paid at home and the cost of a permit in the EU's own emissions-trading system (ETS), currently priced at €62 ($68) per tonne of carbon-dioxide equivalent.

The levy pits the development of poorer countries' industrial capacity against the EU's decarbonisation goals. The scheme is linked to the removal of free emissions allowances for heavy industry in the ETS. CBAM seeks to prevent "carbon leakage": businesses will no longer gain a competitive advantage from importing goods from outside the bloc that do not pay a carbon price, or from moving production elsewhere. Poorer economies object that such measures are unfair trade barriers that put the onus of decarbonisation on countries that have contributed little to the problem. South Africa and India, among others, are considering complaints to the World Trade Organisation about CBAM.

CBAM is just one way in which European environmentalism is extending its reach. Exporters will eventually have to contend with a deforestation directive, under which firms must prove their products were not produced on land that was forest before 2021, and a corporate-sustainability directive, forcing businesses to disclose emissions through their supply chains.

In aggregate, the hit to poorer countries from CBAM is small. A study by the African Climate Foundation and the LSE Firoz Lalji Institute estimates that the scheme would lower African GDP by just 0.91%, as most of the affected goods would find their way to other markets.

Yet some countries would be hit hard. Around 90% of Zimbabwe's iron and steel exports, for instance, go to the EU. A World Bank study suggests that India, Russia and Ukraine are likely to have the greatest exposure, based on a combination of the carbon-intensity of their exports and their dependence on trade with the EU. Ukraine may be exempt from the charges under force-majeure clauses because of the Russian invasion.

Carbon border taxes are not limited to the EU. Britain and Australia are among those considering something similar. Several proposals for such taxes are making their way through America's Congress. A proposed Foreign Pollution Fee Act would make importers pay a fee based on the difference between the average carbon intensity of a product made in the exporting country and in America. Another, known as the Clean Competition Act, would combine a carbon border adjustment with a domestic price.

Poorer countries argue that CBAM and the like fail to account for the requirement under the Paris climate-change agreement for rich countries to do more to decarbonise than poor ones. The logic for this is that carbon is a production input that should be priced differently in different contexts. An aluminium smelter in Sweden ought to pay a higher price than one in Mozambique, as Swedes have already used up more of the world's carbon budget.

The EU is still wondering how to respond to poorer countries' criticisms. Pascal Lamy, a former EU trade commissioner, has suggested a bespoke aid package for Mozambique. The country relies heavily on low-carbon hydroelectric power, but the Mozal smelter must import electricity through South Africa's coal-heavy grid. European development assistance could be used to ensure that Mozal is CBAM-compliant. Another option may be to recycle a portion of the revenues into international climate finance.

Middle-income countries may just have to cope. Any repatriated revenue will be far smaller than the funding needed to offset the lost trade. Some are launching their own emissions-trading systems—such as Turkey, which exports electricity to the EU. China recently added steel, aluminium and cement to its own carbon market, mirroring CBAM. India, meanwhile, is considering taxing high-carbon exports destined for the EU, keeping for itself revenue that the bloc would otherwise collect. Many Europeans will cheer that outcome, even if they have to pay higher prices. Workers in the developing world will not. ■

Emissions trading

When the smoke clears

Can markets reduce pollution in India?

INDIA'S BATTLE with pollution has gone literal. To clean up Delhi's filthy air, officials now routinely deploy "anti-smog" guns across the capital. The band-aid solution reflects desperation: air pollution, India's public-health enemy number one, kills around 2m people a year. Recent research, however, suggests that it may be vulnerable to a more abstract weapon: market forces.

For five years the Gujarat Pollution Control Board (GPCB), a regulator in the western state of Gujarat, has run an emissions-trading scheme in the city of Surat. The programme is modelled on environmental cap-and-trade markets in the West, but instead of carbon, pollution permits are traded. A company that wants to exceed the regulator's threshold for particulate-matter emissions needs to purchase a permit from one that hasn't yet reached it. The mutually beneficial trade is meant to cut overall pollution.

You've sprayed. Now trade

A new study suggests the strategy is working. Nicholas Ryan of Yale University and his collaborators have used a randomised controlled trial to measure whether the mechanism reduces pollution. They find that plants that have taken part in the trading scheme have emitted 20-30% less than those that have not. The programme, which is proving popular, has given firms clarity and flexibility, says Mr Ryan.

The study also exposes the failures of the previous "command and control" regulations, which remain in place in most of the country. Under these, plants are required to install equipment that abates pollution. They are then inspected periodically by officials who check if their emissions fall below the limit.

But the system is ineffective. Before the launch of the emissions-trading market in Surat, around 30% of the city's firms were breaching the pollution threshold. Monitoring was sporadic and enforcement weak. Regulators across India are understaffed and find it difficult to track factories, especially smaller ones. Many companies struggle to meet the cost of technology needed to limit their emissions.

The market is more efficient. Bigger firms have found it cheaper to buy permits than to invest in reducing emissions. All told, the researchers estimate that the decrease in pollution yielded longevity benefits worth at least 25 times the costs. The findings are especially encouraging for policymakers grappling with the Indian economy's fundamental dilemma: it needs more factories for growth and job creation, but much less pollution.

Can Surat's success be replicated? Unlike carbon, particulate matter is a localised emission and so trading can only happen in industrial clusters, of which there are hundreds across India. But there is no ▸▸

BUTTONWOOD
Arithmomania

Why have markets grown more captivated by data releases?

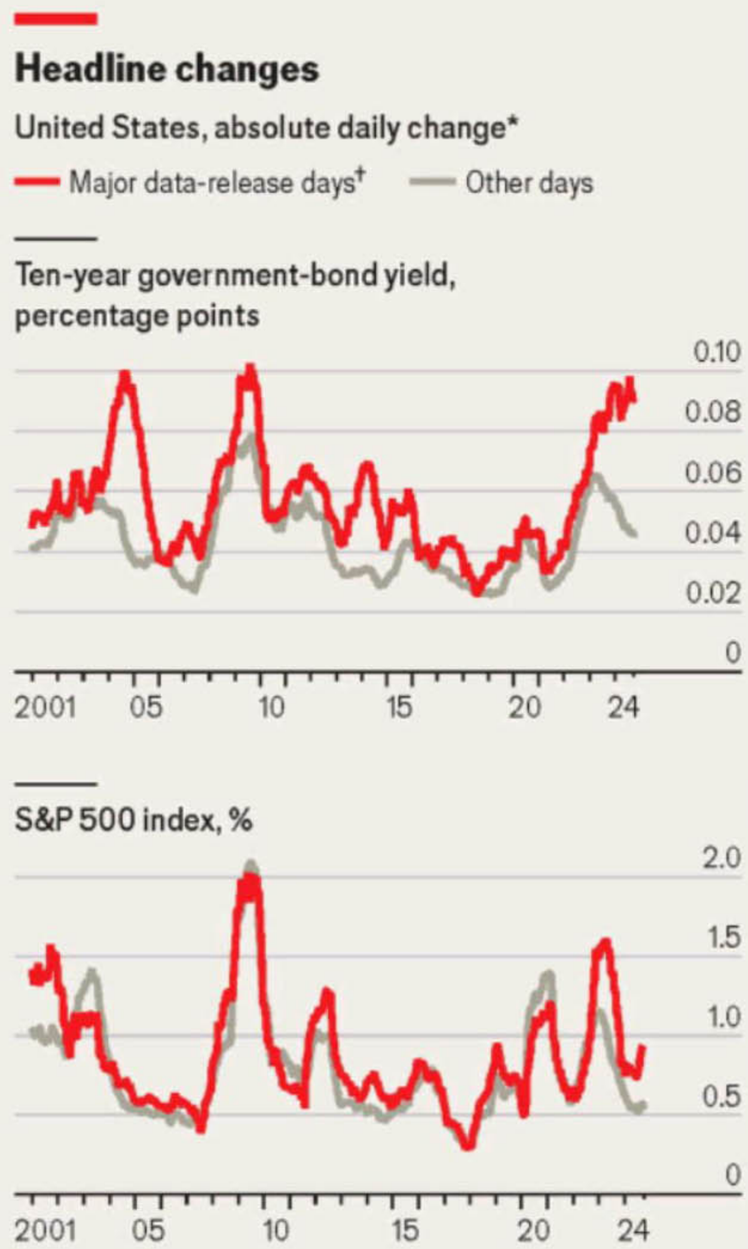
EIGHT-THIRTY in the morning on the first Friday of every month is a special time for bond traders: it's when America's Bureau of Labour Statistics usually releases its monthly jobs data. Despite the vast sums that some hedge funds spend on alternative data, landmark releases like the employment report or the consumer-price index (CPI) can still convulse markets. When the September payrolls numbers, released on October 4th, blew past expectations, bond yields jumped by eight basis points (0.08 percentage points). Stocks spiked, too, though the move was short-lived.

News has always driven markets, but curiously the importance of big data releases has grown substantially in recent years. Analysis by *The Economist* finds that, over the past year, bond-market moves in America have been twice as large on days with major data releases or Federal Reserve decisions as on other days, while equity-market moves have been two-thirds larger (see chart). In both cases, these were substantially above the historical norm.

Why, then, have markets decided to take hard facts much more seriously? Part of the story is probably that the global economy has been so bizarre in recent years: a pandemic, vast fiscal stimulus, a war-fuelled spike in commodity prices. When events are so far outside the historical norm, the impulse to latch on to the certainty of new data is understandable.

Another spur has been higher inflation. Inflation is easy to ignore when it is bouncing around 2% or so, as it was for most of the 2010s. Doing so is harder when it has only just come down from a 40-year high. That puts more attention on data directly related to inflation, such as CPI releases or wage numbers, but also changes how all other data is interpreted. Over the past few years markets have see-sawed between seeing strong jobs and growth numbers as reassuring indicators of a strengthening economy, or as troubling signs of an overheating and inflation-prone one.

Another, more recent shift has been growing recession angst. Over the summer America triggered two well-known indicators of recession: the Sahm Rule (a sharp rise in unemployment) and the un-inversion of the yield curve (when the interest rate on short-term bonds falls back below the rate on long-term bonds). The differences between decent and underwhelming economic news, often fine, start to matter a lot more to those looking closely for early signs of a crash. Those fears have abated slightly as some firmer growth numbers in America have come through more recently.



*12-month moving average
†Federal Reserve decisions, payrolls, inflation
Sources: Bloomberg; *The Economist*

One irony is that markets have decided to lean harder on economic data just as the quality of statistics has started to fall. Response rates to many government surveys have been plummeting since the pandemic. In America, high and disputed rates of illegal migration have messed with the quality of some jobs numbers. Britain's data problems may be even worse. Some of its central bankers, in more candid moments, admit to largely ignoring the unemployment data; it's now simply too choppy to be helpful.

If Buttonwood had to guess, markets' current obsession with totemic data releases probably won't last. The most plausible route for the American economy over the next year or so is a gradual normalisation to a dull, slow but still-growing baseline. That's the sort of environment in which fine gradations in economic news tend to matter less.

There are other reasons to expect interest in big data drops to fade. Third-party data is often already nearly as good as the official stuff, and released much faster. There are a few exceptions—the jobs numbers from ADP, a payrolls manager, have tended to be a pretty poor guide to the real thing—but the quality of alternative data is generally getting better. For the moment, though, traders are stuck waiting at their Bloomberg terminals for the 8.30am news. Late risers in America can at least take solace that they don't live in Britain, which puts out economic data at 7am.

reason why similar markets cannot be established in them, says Chirag Bhimani, who helped launch Surat's market. Last year a pollution market was launched in Ahmedabad. The researchers are also working with the regulator in Maharashtra, a neighbouring state, to introduce a market for sulphur dioxide, another pollutant.

In order to take off, those markets will require reliable data. In the years leading to the launch of Surat's scheme, the regulator helped install what are dubbed Continuous Emissions Monitoring Systems (CEMS) in the city's factories. These devices, placed in ducts and chimneys, can track emissions concentrations in real time. The national pollution regulator has now said that highly polluting firms must install similar systems.

The sensors and improved data address a weakness in existing regimes by making it easier to monitor emissions. But setting up a market and enforcing its conditions also requires more bureaucratic capacity. In Surat the process took years, as GPCB officials and plant managers were trained up. The same will be needed wherever new markets are launched, requiring investment and legislation, says Karthik Ganesan of the Council on Energy, Environment and Water, a think-tank. Nor can markets alone defeat air pollution, of which industry emissions account for only 30%. For Indian taxpayers, however, they seem to deliver rather more bang for their buck than those anti-smog cannons. ■

Chinese property

Hammered

SHANGHAI

The commercial pain in residential property

THE FORECLOSURE and court auction of 87 flats in the southern city of Changsha last month underlines many of the problems with China's property sector. The homes were owned by one woman, flouting the controls that Changsha and other cities have on the number of housing units urban dwellers can buy. The fact that one person was able to acquire so many highlights the backroom dealings that occur frequently. In the past, such speculative activity helped drive up prices and make China's big cities some of the world's most unaffordable. The situation, which is under investigation, also shows how rich Chinese often have had few investment options other than apartments. And even these investments now seem shoddy: most of the homes being auctioned in Changsha have gone unsold.

China's leaders face seemingly endless property-related problems. But foreclosures have drawn little attention in recent years. This is surprising, given their importance as a gauge of the geography and severity of property busts. Evictions of those who couldn't pay their mortgage became the central focus of the real-estate crisis that erupted in America in 2007.

In China, foreclosures have been rising rapidly. Courts foreclosed on nearly 800,000 properties in 2023, according to an estimate from Enhance International, a consultancy. That is an increase of more than 50% on 2020, when new rules were brought in to cool the overheating market. The government does not publish official data but another estimate shows a year-on-year increase of 12% in the first half of 2024, with rises of over 40% in several large cities. Fuzhou, in China's south-east, notched up a 63% increase in foreclosures in the first half of the year.

As courts put these properties under the hammer, fewer and fewer are selling. Enhance reports that just 15% of foreclosed and auctioned homes found buyers last year, down from around 25% in 2019. This is despite an average discount of around 33%, according to state media.

If each foreclosure meant another family getting booted out of a home, China's property crisis would be causing dramatic social instability, as America's did after 2007. But the foreclosure wave in China is different. Household foreclosures have been kept to a minimum. Many banks are giving buyers extensions on mortgage payments or lowering interest rates. City officials worry about foreclosures causing homelessness. Whereas local courts once took less than three months to rule on foreclosure cases, this year many have chosen to delay filing cases for at least six months to give buyers time to catch up.

So whose homes are being repossessed? In China the main holders of properties subject to foreclosure are not households but companies. Just like average punters, firms in China often struggle to find good investments and therefore plough cash into commercial and residential property. They also frequently mortgage properties they own for bank loans, as the analysts at Enhance note. Local media reports suggest that the cluster of homes owned by the woman in Changsha were connected to a company she controls.

Rising foreclosures are evidence that China's companies face a "balance-sheet recession"—debt so high that their spending is reserved for paying down debts instead of making investments. Net bank lending turned negative in July for the first time since 2005 as corporate borrowing cooled and households repaid loans early.

Chinese officials may have avoided a wave of household evictions similar to that experienced in America more than a decade ago. But they should also fear the rising distress among companies. ■

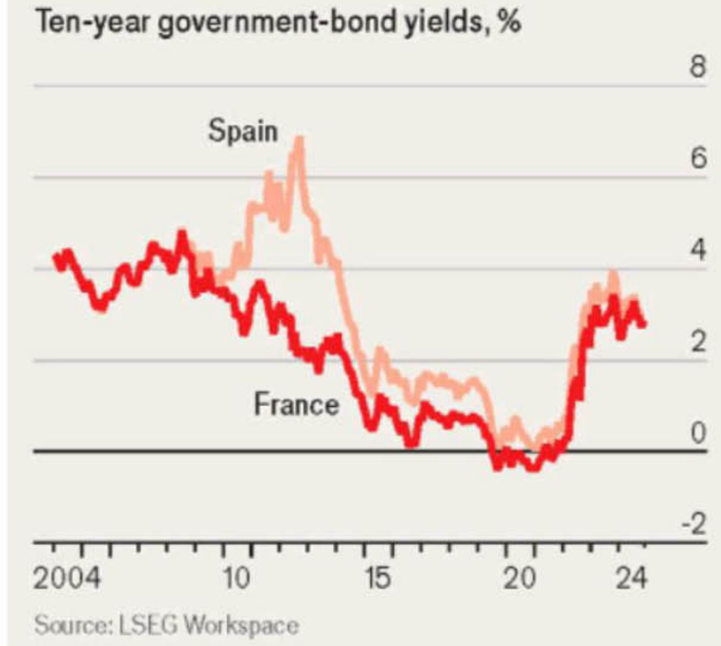
European bond markets

Trading places

Bond investors now regard France as riskier than Spain

SOMETHING UNUSUAL is going on in European bond markets. A fortnight ago the yield on French ten-year government debt surpassed that of Spain, suggesting investors see the euro zone's second-largest economy as riskier than its southern neighbour's (see chart). That is quite the turnaround. In January Spanish yields were 0.4 percentage points higher than their French equivalents; at the worst of the euro-zone crisis, the gap was nearer five full percentage points. French borrowing costs are now well above the levels of Portugal and closer to those of Greece and Italy than they are to Germany's.

Investors were once willing to give France the benefit of the doubt, even as it racked up debt. What has spooked them is the political turmoil following President Emmanuel Macron's decision to hold snap elections in July and the precarious minority government that has resulted. Government debt stood at 111% of GDP at the end of March, well above the European Commission's recommendation of under 60%. On October 10th, after we published this, Michel Barnier, the new prime minister, was due to unveil a budget that included tax rises and spending cuts. But his government faces an uphill task getting the budget passed (see Europe section).



The reversal in French and Spanish yields also reflects developments south of the Pyrenees. Spain's economy grew by 2.7% in 2023, boosted by a strong job market and a booming tourism industry, well above France's sluggish 0.7% expansion.

Spain also lacks a majority government. Oddly, though, European bond managers have in recent years seen this as a fiscal strength. Rather than haggling over budget-setting, Pedro Sánchez's minority left-of-centre government has taken to rolling forward previously passed fiscal plans. This has helped keep a lid on spending.

Despite the diverging fiscal and economic outlook, France retains a higher credit rating than its southern neighbour. That makes French bonds look cheap relative to their current rating. But some investors believe the gap probably reflects expectations of a downgrade. Fitch and Moody's, two rating agencies, are due to review their ratings for France on October 11th and 25th, respectively. S&P, another agency, will follow suit on November 29th.

For the past 15 years France has benefited enormously from the fact that the euro zone's southern members were in a bad way. International investors wanted exposure to euro-denominated public debt. But the fiscally prudent northern member states, such as Germany and the Netherlands, issued too few bonds to satisfy them, and Greek, Portuguese and Spanish debt was deemed too risky. French bonds became attractive by comparison.

Since then, however, Greece, Portugal and Spain have undertaken painful fiscal adjustments. France's weak growth, high debt levels and volatile politics are not an attractive offer for investors now that other options are available. ■

FREE EXCHANGE
Ranked up

Two cheers for the World Bank's new global business survey

EVERYBODY LOVES a league table. Across areas as varied as sports, education and consumer goods, competitive rankings have a magnetic appeal. The question of what or who rose, fell or clinched the top spot can lend a sense of drama to even the most strait-laced subjects.

The World Bank's "Doing Business" reports, published each year from 2003 to 2020, are a case in point. The annual check-ups gave countries a single score based on various measures, including the ease of registering property, access to credit and enforcing contracts, to determine which were most business-friendly. The index became a gold standard for policymakers and analysts all over the world. Higher spots were fiercely protected by those who had them, and coveted by those who did not.

The project was engulfed in scandal and put on ice in 2021. World Bank staff had come under pressure to fiddle with some countries' data. An internal probe eventually determined that scores given to China, Saudi Arabia, the United Arab Emirates and Azerbaijan had been manipulated improperly, and judged that the work culture of the team assembling the reports was toxic.

The replacement for the index, Business Ready (B-Ready), was revealed on October 3rd. Gone is the single beguiling table. In its place are three lists, covering regulation, public services and operational efficiency. The report this year covers just 50 economies, owing to the increased burden of assessment, including surveys of almost 30,000 businesses around the world. The number of economies covered is set to rise to around 180 in two years' time. The report now covers big businesses as well as small and middling ones. And it goes beyond the more focused measurement of how easy it is to operate a business: the assessment now includes a range of "social benefits", from collective-bargaining rights for workers to various measures of environmental sustainability.

Is the new effort an improvement? Beyond the scandal which killed it, Doing Business faced three main areas of criticism. The first was the ability of governments to game it. Countries made small and cosmetic changes to climb up the table. Some even had government units responsible for improving their position. The ranking became a powerful example of Goodhart's law: once a measure becomes a target, it ceases to be a good measure.

The second problem was the survey's methodological pitfalls. Doing Business scores were sometimes wildly out of step with other evidence. A study by Mary Hallward-Driemeier and Lant Pritchett of Georgetown University and the London School of Economics, respectively, noted that scores in Doing Business often bore no relation even to the bank's own surveys of enterprises. Doing Business, for example, suggested that the median time to receive a building permit around the world was 177 days, whereas the bank's own survey suggested it was 30 days.

The third flaw, and the most difficult to resolve, was the ranking's inherent subjectivity. In creating any index, decisions must be made on what matters, and why. How important is the uninterrupted supply of electricity, or the enforcement of intellectual-property rights? Other issues are even thornier: how should an international institution like the World Bank approach questions of minimum wages, labour rights or the taxation of capital? These things matter when it comes to running a company, but are subject to fierce political debate, too.

The scorecard in resolving the first two challenges is clearly positive. The data available from the new surveys will be far richer. Whereas many of the Doing Business indicators were based on rules and regulations, B-Ready scores will be more informed by survey data indicating the reality on the ground. Previously, data collection in each country focused on one or two large cities; India's score was based on results from Delhi and Mumbai. B-Ready will cast a wider net. The change not only makes the evidence collected more likely to reflect reality, but makes it more difficult to game the rankings.

When it comes to subjectivity, the World Bank has opted for a fudge that some will find unsatisfying. In creating three separate indices, it has removed the monomaniacal attention on the single ranking that undermined the former reports. But by combining various social goals (worthy or otherwise) with the bread-and-butter questions about the ease of establishing and running a business, the question of what the aggregates actually seek to measure has become muddier.

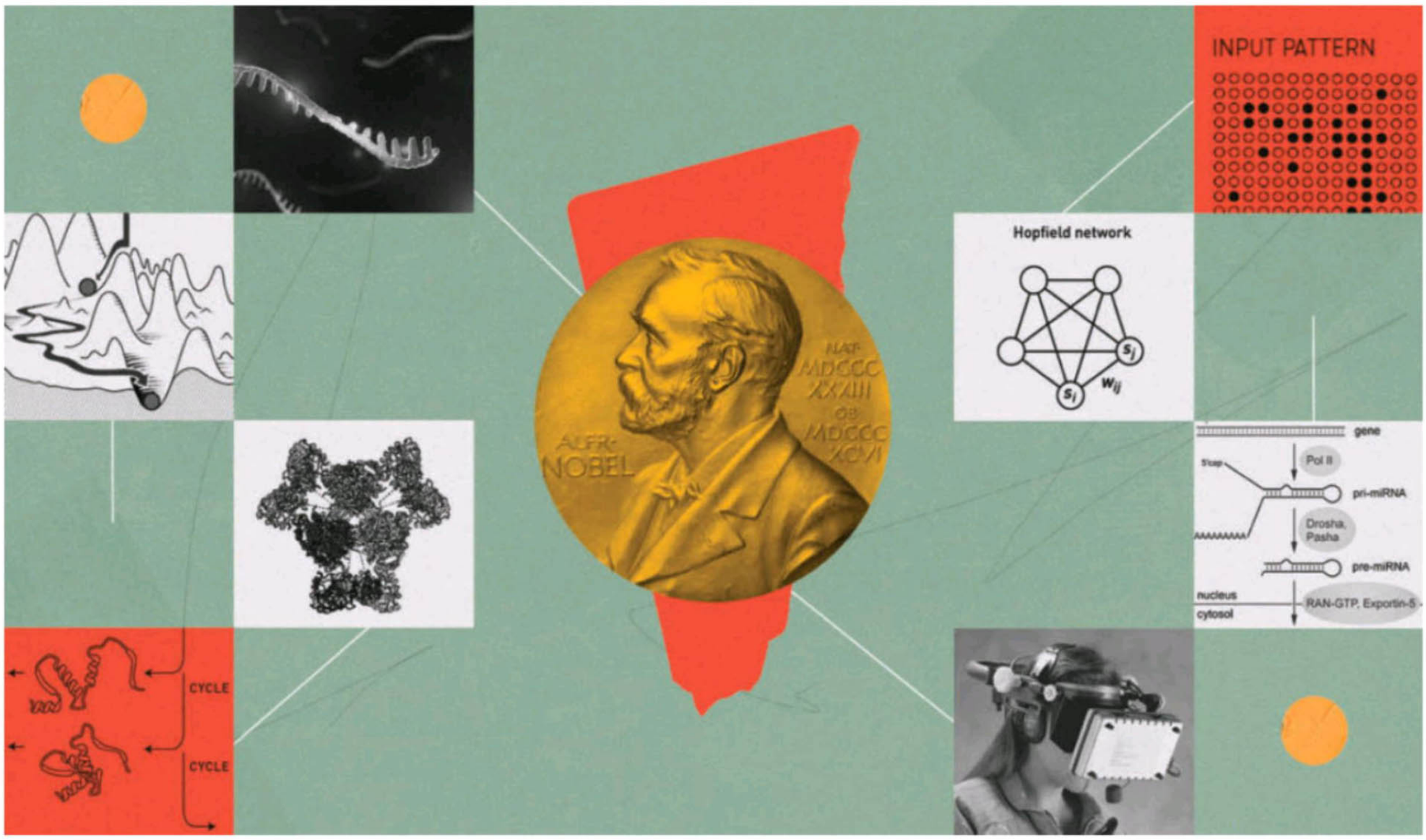
Nevertheless, the benefits of the new approach outweigh its flaws. The stronger evidence offered by B-Ready's extensive surveys is of more value than the World Bank's own judgment as to which elements are most important. The bank contributes more by collecting and publishing its ample supply of data for free than by deciding how it should be interpreted.

Doing the business

The higher-quality information now available will also be used by all manner of index-builders, from think-tanks to charities, that do not face the same political constraints as a multilateral institution. External indices of everything from economic freedom and tax competitiveness to corporate social responsibility and corruption will be improved by the better evidence the survey provides.

There is another reason to welcome the new approach. Under the old one, the relentless focus on fiddling index rankings may have reduced the appetite for real reforms. Indeed, research by Tamanna Adhikari of the Central Bank of Ireland and Karl Whelan of University College Dublin suggests that an increase in a country's Doing Business score actually seemed to have at least a short-term negative impact on GDP growth. Eliminating such pernicious incentives alone would make for a substantial upgrade. ■

Science & technology



The 2024 Nobel science prizes

Honouring intelligence

Awards went to the discoverers of micro-RNA, pioneers of artificial-intelligence models and those using AI for protein-structure prediction

THE SCIENTIFIC Nobel prizes have always, in their way, honoured human intelligence. This year, for the first time, the transformative potential of artificial intelligence (AI) has been recognised as well. That recognition began on Tuesday October 8th, when Sweden's Royal Academy of Science awarded the physics prize to John Hopfield of Princeton University and Geoffrey Hinton of the University of Toronto for computer-science breakthroughs integral to the development of many of today's most powerful AI models.

The next day, the developers of one such model also received the coveted call from Stockholm. Demis Hassabis and John Jumper from DeepMind, Google's AI company, received one half of the chemistry prize for their development of AlphaFold, a program capable of predicting three-dimensional protein structure, a long-standing grand challenge in biochemistry. The prize's other half went to David Baker, a biochemist at the University of Washington, for his computer-aided work designing new proteins.

The AI focus was not the only thing the announcements had in common. In both cases, the research being awarded would be seen by a stickler as being outside the remit of the prize-giving committees (AI research is computer science; protein research arguably counts as biology).

Boundary-pushing

Such flexibility is not unprecedented. In 1973, for example, three pioneering students of animal behaviour, who worked on honeybees, geese and sticklebacks, were shoehorned into the physiology category. The award to Drs Hinton and Hopfield, however, recognises achievements with more profound consequences.

Both researchers did their crucial work in the early 1980s, at a time when computer hardware was unable to take full advantage of it. Dr Hopfield was responsible for what has become known as the Hopfield network—a type of artificial neural network that behaves like a physical structure called a spin glass, which gave the academy a tenuous reason to call the field "physics". Dr Hinton's contribution was to use an algorithm known as backpropagation to train neural networks.

Artificial neural networks are computer programs based loosely on the way in which real, biological networks of nerve cells or neurons are believed to work. In particular, the strengths of the connections (known as weights) between "nodes" (the equivalent of neurons) in such networks are plastic. This plasticity grants a network the ability to process information differently in response to past performance; or, in other words, to learn. Hopfield networks, in which each node is connected to every other except itself, are particularly good at learning to extract patterns from sparse or noisy data.

Dr Hinton's algorithm turbocharged neural networks' learning ability by letting them work in three dimensions. Hopfield networks and their ilk are, in essence, two-dimensional. Though they actually exist only as simulations in software, they can ▸▸

→ ALSO IN THIS SECTION
65 Hitchhiking fish
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be thought of as physical layers of nodes. Stack such layers on top of one another, though, and train them by tweaking the weights as signals move both backward and forward between the layers (ie, back-propagated as well as forward-propagated) and you have a much more sophisticated learning system.

Dr Hinton also, for good measure, tweaked Dr Hopfield's networks using a branch of maths called statistical mechanics to create what are known as Boltzmann machines. (Statistical mechanics, which underlies modern understanding of the second law of thermodynamics, was invented by Ludwig Boltzmann, a near contemporary of Alfred Nobel.) Boltzmann machines can be used to create systems that learn in an unsupervised manner, spotting patterns in data without having to be explicitly taught.

It is, then, the activities of these two researchers which have made machine learning really sing. AI models can now not only learn, but create (or, for sceptics, reorganise and regurgitate in a most sophisticated manner). Such tools have thus gone from being able to perform highly specific tasks, such as recognising cancerous cells in pictures of tissue samples or streamlining mountains of particle-physics data, to anything from writing essays for lazy undergraduates to running robots.

Dr Hinton, whom the academy's detectives tracked down to a hotel in California to deliver the glad tidings, and who gamely agreed to answer questions from the press, despite the time difference, seemed both worried and proud about his achievements. He fretted, as many in the field do, about how machine intelligence that outstripped the human variety would then go on to treat its creators. But he also mused that by assisting mental labour, AI might have as big an effect on society as the Industrial Revolution's assistance of physical labour has had.

Such musings were timely. Not 24 hours later, the academy would recognise research conducted, with the help of AI models, on the structure of proteins.

Return to the fold

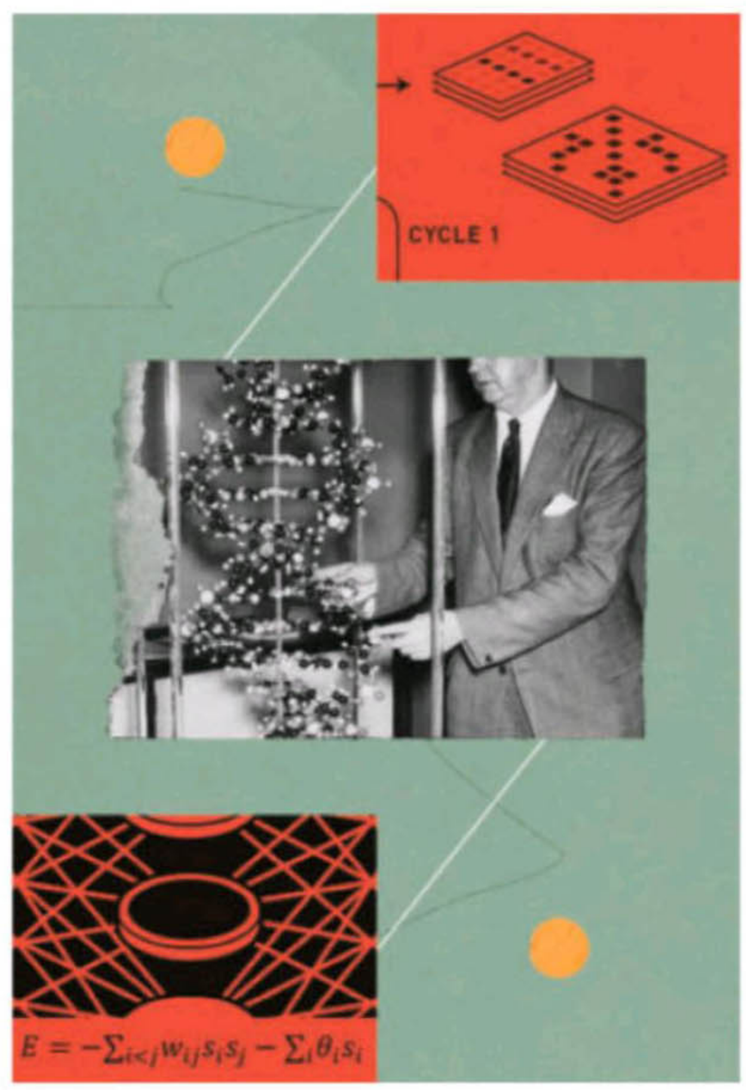
Proteins are the main chemical building blocks of life. They are made up of smaller molecules called amino acids, arranged in long chains which fold in highly complex and specific ways. A protein's final folded form determines its biological function. In other words, to understand proteins—and, by extension, biology—one must understand their structure.

Dr Baker achieved such understanding through doing. In a landmark paper from 2003, he succeeded in designing a completely new protein. Using a computer program he had named Rosetta, he found an amino-acid sequence capable of folding in ways not seen in nature. Once the sequence was recreated in the lab and the protein formed, he determined its final structure using a technique called X-ray crystallography: it was a close match to what he had set out to make. Rosetta, now called Rosetta Commons, has subsequently become a software package used by protein chemists around the world, and computational protein design has assisted in everything from vaccine development to the detection of toxic chemicals.

Going the other way, and predicting a protein's structure from its amino-acid sequence, is a problem that took even longer to crack. Given the near-limitless number of configurations into which a protein can fold—by some estimates, as many as 10^{300} for a single complex protein—even computers had limited success. DeepMind's AlphaFold 1 and 2 (both artificial neural networks), made public in 2018 and 2020 respectively, were the first to even get close. AlphaFold 2 now has a database of more than 200m protein structure predictions, with a prediction accuracy approaching 90%.

Though Sir Demis and Dr Jumper have featured on various contender lists this year, many wondered if it was too soon for AlphaFold to be recognised. Yet it has already had real impact: DeepMind says that some 2m scientists already use it in their research. AlphaFold 3, released in May, goes beyond proteins to predict the structure of a host of other biomolecules, such as DNA, as well as small molecules that might function as drugs. It can also predict how different molecules with different structures fit together, such as how a virus's spike protein might interact with antibodies and sugars found in the body.

By choosing, for the first time, to honour work performed with an AI model, the committee has opened the door for more such prizes in the future. That is just as well; AI has been seeping into all areas of science for some time now, as Dr Baker illustrated when he was phoned up during the committee's press conference. He said that AlphaFold has inspired him to make generative-AI models that can design new proteins. "Our new AI methods are much more powerful," he said.



Mega-important

The prize for physiology or medicine, for its part, eschewed any mention of AI. It was also immune to charges of genre-bending, continuing the academy's trend of increasingly recognising the smallest advances at the molecular and cellular level—rather than work on physiology or organs—because it is on these microscopic scales that the most exciting scientific frontiers are to be found.

The joint winners were Victor Ambros at the University of Massachusetts Medical School and Gary Ruvkun at Massachusetts General Hospital for their discovery of micro-RNA (miRNA) and its role in "post-transcriptional gene regulation". These are a class of small molecules composed of only 20 to 24 nucleotides (the A, C, G, U letters of the genome), and they play a key role in how cells work.

Inside the nucleus of every human cell is a full set of instructions—the genome—for creating a person. A key question in biology is how the same set of genes and instructions can lead to such different types of cells in the body, from muscle to liver cells by way of the neurons found in the brain. The answer is that not all the genes within a nucleus are translated into protein. Different types of cells follow their own developmental pathways by using only those genetic instructions relevant to their growth and development. The selection necessary for each cell type is controlled in part by the miRNA molecules discovered by Drs Ambros and Ruvkun.

They work primarily by binding to target parts of another molecule within cells, known as messenger RNA (mRNA)—which carries information from the DNA of the genome to the protein-making factories within cells. By interfering with mRNA molecules, miRNA can alter or prevent the production of proteins. Underscoring the growing importance of this area of molecular biology, mRNA was itself the subject of the Nobel prize last year.

Finding miRNAs, in 1993, paved the way to the understanding, today, that there are over a thousand of these small molecules within our cells. The discovery has had far-reaching implications in biology. Abnormal regulation by miRNA molecules can contribute to cancer and epilepsy. Mutations in genes that code for miRNA mole- ▸▸

cules have been found to cause conditions such as congenital hearing loss and are thought to be involved in the pathology of many eye disorders, such as cataracts, glaucoma and macular degeneration. The miRNA molecules are also thought to be important in numerous bone diseases, such as osteoporosis, osteosarcoma and bone metastasis.

Drs Ambros and Ruvkun—who worked at the same lab in the late 1980s at the Massachusetts Institute of Technology—discovered miRNA molecules using a key tool of biological inquiry: the roundworm *Caenorhabditis elegans*. They were studying two mutant strains of worms that had defects in the genes that dictated how the animals developed and worked. In doing so, the researchers showed that a gene called lin-4 produced an unusually short RNA molecule that did not code for any proteins and which seemed to inhibit the activity of another gene.

In awarding the prize, the Karolinska Institute's Nobel committee noted that when the scientists published their results, they met an "almost deafening silence from the scientific community". The unusual mechanism of gene regulation in *C. elegans* was assumed to be a peculiarity of that organism, not relevant to humans or other more complex organisms. That view eventually shifted, as it became clear that genes that encode for miRNAs were found throughout the animal kingdom.

Novo Nordisk, a Danish pharmaceutical giant, is one of the firms trying to make medicines using miRNAs. This year it acquired Cardior, a German firm, whose lead drug candidate, CDR132L, works by blocking a particular miRNA in the hope of helping patients with chronic heart failure and cardiac hypertrophy (thickening and stiffening of the walls of the heart).

This year's prize highlights the continuing trend of recognising discoveries at the molecular level. Recently, several Nobel prizes have been awarded to technologies that have had obvious clinical applications, such as cancer immunotherapy (in 2018) and gene editing (in 2020). It is perhaps no surprise that, as the technology for molecular and genetic research has improved, scientists are gaining ever more insight into cellular function, and are therefore able to make more profound and useful discoveries with them.

Nobel pursuits

For the growing number of researchers around the world who rely on AI in their work, the lasting message of this year's awards may be a different one: that they, too, could one day nab science's most prestigious gongs. For his part, said Dr Jumper, "I hope...that we have opened the door to many incredible scientific breakthroughs with computation and AI to come." ■

Ecology

Flying fish

Japanese medaka hitch rides on birds

THE JAPANESE picture book "Soratobu medaka" tells the extraordinary tale of tiny stream-dwelling fish called medaka hitching a ride on an obliging bird to a far-off freshwater pool. The story has delighted children in the country since 1999, when it was first published, but now comes an even more delightful twist: it is true.

Researchers have long been baffled by fish that turn up in isolated ponds and lakes far from other bodies of water. Even Charles Darwin was puzzled by the problem. In "On the Origin of Species", published in 1859, he postulated that the larvae of aquatic creatures might stick to the feet of unwitting waterbirds. But his bright idea remained little more than a theory.

In 2019 Yao Akifumi, then a biology student at the University of Tsukuba, wondered if he might have been right. Mr Yao had observed that many fish-hunting birds commonly walked around in shallow waters dense with plants. As a number of fish species laid eggs on these aquatic plants, he further wondered if some egg-bearing plants might stick to the birds' feet as they fly off for puddles new.

Eager to test his theory, Mr Yao and his colleagues set up two ponds one metre apart, placing 36 artificial aquatic plants in one and none in the other. Both were stocked with baitfish to attract birds and had camera traps set to trigger when birds landed. By the time the experiment ended, six months later, some of the plants had switched ponds. The researchers were able to catch a bird in the act. One of their camera traps showed a heron flying off with plants snagged on one of its feet.

The next step was to determine whether fish eggs could survive being carried out of the water. Mr Yao focused on medaka, paper-clip-size fish that live in shallow water and attach their eggs to aquatic plants. When the lab-reared medaka laid their eggs on strips of vegetation, the researchers took the plants out of the water for between zero and 24 hours—at conditions favourable to the unhatched eggs—before returning them.

In a new paper in *Science of Nature*, Mr Yao and his colleagues report that the medaka eggs can successfully hatch after enduring up to 18 hours out of the water attached to a plant leaf. (Eggs without a plant leaf to cling to rarely survived for more than a few hours.) The big drop in survival was at 16 hours and 20 minutes, when half the eggs became unviable.

Given that a heron's average flight-speed is around 39kph (with top speeds of 96kph), the hardiest medaka eggs could travel quite a distance. Whether any could actually survive the full 16.3 hours of travel at 39kph is doubtful, says Mr Yao, since wind exposure during such a long journey would dry them out.

Shorter journeys, however, are certainly possible. And since there are dozens of other medaka-like fish species found throughout Asia, the chances are high that hitchhiking explains how so many species have ended up in ponds and lakes with seemingly no connection to other water bodies. Yet again, it would seem, Darwin's theories turn out to be correct. ■

Any chance of a lift?

Acoustics

The sound of silence

Noise-dampening technologies could make ships less disruptive to marine life

MORE THAN 1,000 metres below the surface of the oceans, darkness reigns. For animals living in this perpetual twilight, vision is irrelevant; acoustic signals, instead, are how they navigate, communicate and search for food.

That way of life has come under threat from decades of increasing human noise. A leading culprit is shipping, contributing to a rise in underwater volume of approximately 3.3 decibels per decade. The trend shows little sign of levelling off. By one estimate, shipping-noise emissions double every 11.5 years.

With roughly 90% of traded goods travelling by sea, quieting the ocean through reductions in shipping itself is untenable. Efforts to make ships more efficient, and therefore less polluting, are also likely to reduce noise. But experts say those measures will not do enough to restore quiet. That is why a range of technologies are being developed—from modified propeller designs to noise-dampening metamaterials—that could allow humans and other animals to co-exist in the ocean.

Much of the underwater noise a ship produces comes from its propeller. As the blades spin, areas of low pressure are formed in their wake which cause the water to boil and produce bubbles, a process known as cavitation. When those vapour cavities collapse, a low-frequency noise is produced. Such noise can travel thousands of metres underwater without losing strength, disrupting the movements of blue and humpback whales which use these frequencies to communicate.

One solution, being developed by researchers at the University of British Columbia (UBC), incorporates flexible polymers into the metal propeller blades, allowing their tips—one of the main sites of cavitation—to bend and twist. This movement prevents bubbles from forming and thereby reduces the noise the blades produce, says Rajeev Jaiman of UBC.

Based on simulations, the design could reduce cavitation noise by 20 decibels. In air, this reduction would make a sound seem one-quarter as loud (since the decibel scale is logarithmic, every ten decibels lost roughly equates to a reduction by half in volume). Dr Jaiman says researchers are working closely with marine biologists to understand how deep-sea life would perceive the difference. The researchers intend to start testing a prototype in tugboats next year.

Cavitation can also be mitigated by increasing the number of bubbles, rather than reducing them. Researchers at MARIN, a Dutch research institute, have blown bubbles onto a propeller's blades, filling the vapour cavities left behind, cushioning their collapse and dampening the resulting noise. Model-scale tests of this system in a wave basin showed a 12-decibel decrease in low-frequency noise at average container-ship speed.

But shipping noise does not come only from the propeller. Roughly 20% comes from the vessel itself, as engines and generators chug and the ship's components vibrate. At low speeds, this percentage rises. To mitigate this, MARIN researchers have experimented with a bubble screen generated from ducts positioned in belts around the outside of the hull. These deploy a skirt of air bubbles around the rear of the ship, where most machinery sits, preventing noise from spreading.

Such bubble screens have been used before, says Johan Bosschers of MARIN, but only for secret military ships—which meant there were few data available about how well they worked. Now that others want quiet travel too, researchers need to validate their effectiveness. Model tests have shown that frequencies around 1 kilohertz (the preferred bandwidth of seals and toothed whales) can be reduced by up to 22 decibels, at slow speeds.

More avant-garde ideas are also on the table. Some use acoustic metamaterials—a class of materials engineered to have surprising effects not commonly found in nature. Giovanni Rognoni, a marine-engineering researcher at the University of Trieste, is investigating whether a so-called acoustic black hole can help.

Such an object, which aims to trap sound the way cosmological black holes trap light, can be built by welding steel beams that taper to a thin point to the inside of the ship's hull. As the vibrational waves travel towards the point, they slow down. Once slowed, those waves can then be transferred from the vibrating tip to a rubber cushion, where the wave—and the noise—dissipate. Laboratory tests show this can reduce vibrations by as much as the best currently available alternatives, without any of the added weight, fire risk or toxic fumes these often involve.

Tom Smith, a researcher in naval architecture at University College London, says that technological solutions for reducing ocean noise abound. What is missing, however, is funding to test them at sea, and a willingness on the part of shipbuilders and owners to commit to using them. Refitting ships to be quieter is complex and costly, and not seen as a priority at present.

That may change. Some seaports, such as the Vancouver Fraser Port Authority, now offer discounts equivalent to thousands of dollars for ships that meet the highest level of noise reduction. And, says Dr Bosschers, quieter ships may also turn out to be more efficient. Now that the International Maritime Organisation has pledged to reduce carbon emissions from international shipping by 70%, relative to 2008 levels, by 2040, this may prove too good a deal to resist. ■

Culture

From witchcraft to woke

How humans invented good and evil

And may reinvent both

TRIAL BY BOILING water was not as bad as it sounded. In medieval Europe, those accused of grave crimes might be ordered to plunge an arm into a bubbling cauldron to retrieve an object. If they were scalded, that was God's way of revealing their guilt. The chance of acquittal would seem to be zero, but 60% of those who underwent this ordeal got off. How come?

The answer is that defendants believed in divine judgment. The guilty, convinced that God knew all, confessed to avoid the extra punishment of scalding. The innocent assumed they would be acquitted, so they refused to confess. The priests who prepared the cauldron knew this, and did not want to undermine their own authority by condemning someone who might later prove innocent. So they did not heat the water as much as they pretended to.

Hanno Sauer of Utrecht University has made a heroic effort to chart how morality has changed since the first humanlike animals began to populate Africa 5m years ago, and to predict how it might change in the future. It is a rich, complex narrative, full of unexpected twists like the inquisitors' tale. His book is as sweeping as Steven Pinker's "The Better Angels of Our Nature" or Yuval Noah Harari's "Sapiens". He is less optimistic than Mr Pinker, who describes a dramatic reduction in violence over millennia, and more tightly focused on ethics than Mr Harari. He blends insights from evolutionary biology, cognitive science and anthropology to ask what makes people good, evil, or a bit of both?

The Invention of Good and Evil. By Hanno Sauer. Translated by Jo Heinrich. *Oxford University Press; 416 pages; $29.99. Profile; £25*

Much of his argument hinges on a trait that sets humans apart from other animals: the extraordinary complexity of their social relations. People's early ancestors lived in an unstable environment, the African savannah, and developed "an unusually spontaneous and surprisingly flexible capacity for co-operation".

Since a hunting party might be successful one week but return empty-handed the next, rules emerged about sharing meat with the wider group, to maximise every member's chance of survival. Competition with other bands of hunter-gatherers over territory swiftly turned violent, however. "Inwardly, our ancestors were family-centric pacifists, but outwardly, they were gangs of murderers and plunderers," the author writes.

Wars ravaged hunter-gatherer societies yet involved great individual altruism. When each person's survival depends to a large degree on the clan's, people have an incentive to co-operate selflessly to defend it. From an evolutionary perspective, such self-sacrifice made sense only if the beneficiaries were closely related.

Early hunter-gatherer bands probably included no more than 150 or so people. To collaborate in larger groups, people needed new rules, vigorously enforced. This is perhaps why all human societies have ▸▸

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devised ostentatiously nasty punishments. Cave paintings from 20,000 years ago depict ritual garrotting; in ancient Greece torturers roasted victims in a hollow bronze bull, their screams being amplified by the bull's horns.

"A species that kills its most [aggressive] members over hundreds of generations creates a strong selection pressure in favour of peacefulness, tolerance and impulse control," reckons Mr Sauer. In effect, "We domesticated ourselves." When it is socially required, humans can show enormous restraint and consideration; unlike, say, chimpanzees, which if crammed together on an aeroplane for a long flight would undoubtedly kill each other. Humans "are to chimpanzees as golden retrievers are to wolves", argues Mr Sauer.

Back to the future

Rules against killing strangers allowed people to co-exist in much larger societies. This, in turn, fostered the development of sophisticated cultures. Just as science depends on the steady accumulation of thousands of small innovations, so culture evolves over time, with ideas accumulating and being refined from one generation to the next. This process yields plenty of rotten customs, such as female genital mutilation, but also the benefits of everything from reading and music to cities and double-entry book-keeping.

For millennia, the kinship group was the most important social unit, and morality was understood largely as the duties owed to one's relatives. But in Europe the Roman Catholic church blew this system apart with a series of reforms that ended around 500 years ago. It banned cousin marriage and changed inheritance rules, encouraging people to choose their own spouses and bequeath assets as they pleased. This weakened kinship groups (which relied on cousin marriage to keep property within the clan) and fostered a more individualistic morality. People became more likely to feel guilt (at having done something wrong) than shame (because their aunts disapproved). The effects of these reforms can still be measured in Italy: people in the provinces that were under stronger papal control 500 years ago are more likely to donate blood even today.

The rise of individualism paved the way for modernity, with contract-based business, participatory politics, impersonal bureaucracies and the pursuit of science unconstrained by religious dogma. This has made the world richer, and richer countries are happier than those that remain poor.

The idea that rules can govern a society has spread far beyond Europe, albeit unevenly. Fully 70% of Norwegians say they trust strangers, whereas only 5% of people from Trinidad and Tobago agree. Mr Sauer thinks universal norms will probably keep spreading but is unsure. As the Holocaust proved, humankind's ancient suspicion of out-groups has not vanished, and skilful demagogues can harness it in catastrophic ways. Examples are too numerous to list.

Looking at the past five years, the author finds much to worry about. "Morality seems to be boiling over" in the West, he writes. People's moral vocabulary has become "mangled". Woke activists describe words as "violence" and use this claim to try to justify restrictions on free speech. They also divide the world simplistically into "oppressors" and "oppressed", sometimes ascribing original sin by skin colour. And political tribes of left and right have come to see the other lot not merely as misguided, but evil.

Yet despite the fury of the culture wars, Mr Sauer sees "an enormous...unrealised potential for reconciliation". After hundreds of thousands of years of evolution, people share more moral values than they think, and this could help them cast off the identity politics that tells them they are enemies. "Between the extremes of 'being on time is white supremacy' and 'we must revitalise Western Christianity's cultural hegemony,' there is a silent majority of reasonable people," he concludes. He is surely right. ■

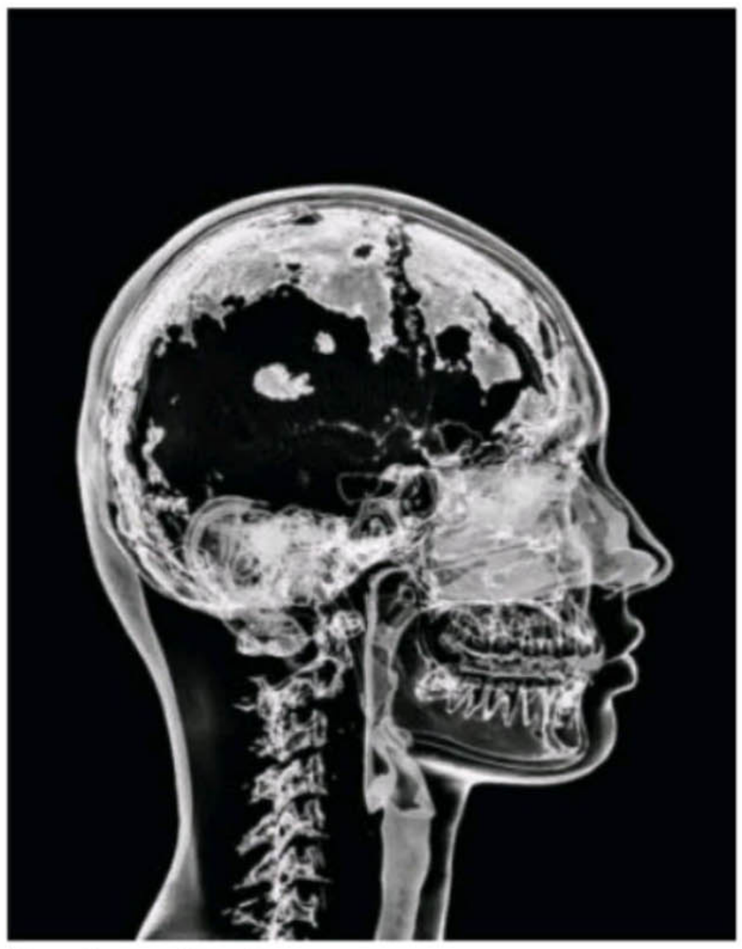
Missives from a neurosurgeon

What a big brain you've got

Gray Matters. By Theodore Schwartz. *Dutton; 512 pages; $32. Oneworld; £25*

NEUROSURGEONS ARE typically portrayed in one of two ways in popular culture. One is as a brilliant, if arrogant, boffin. These doctors are intellectuals (it is brain surgery, after all) who have very little social life. Think of Dr Jack Shephard, the protagonist of "Lost", a television series, or Doctor Strange, a Marvel character. The other common depiction is as a mad scientist. At best, these characters perform unethical surgeries and, at worst, become cannibalistic serial killers, such as Hannibal Lecter.

But these portrayals miss much of what modern neurosurgery really is, argues Theodore Schwartz, a neurosurgeon and professor at Weill Cornell Medicine in New York. "Gray Matters", an engrossing new book, goes on a tour through different types of brain surgery, from seemingly crude emergency treatments for traumatic injuries to high-precision surgeries to implant electrodes that provide relief from



Head over heels

obsessive compulsive disorder. For each, Dr Schwartz skilfully weaves explanations of procedures together with personal and historical anecdotes and real-life case studies. These include his own patients, as well as notable people, such as John F. Kennedy and Joe Biden, who found themselves on neurosurgeons' operating tables.

The result is a satisfying and varied insight into an intriguing profession. There are points when the book reads like a page-turner—in discussing Kennedy's assassination, for example—with occasional detours through a medical textbook ("To better understand...whether this supports a second-shooter hypothesis, we'll first need to review some basic anatomy of the brain and the skull.")

To the uninitiated, the details of surgeries are gory. Prepare to imagine the sound of drilling through skulls and picture the sight of macerated brain tissue. But in Dr Schwartz's telling, the impact of these grisly procedures on patients and their families is also dramatic and touching.

Most of the book documents the history and practicalities of brain surgery, starting with the work of Harvey Cushing, an American pioneer, in the early 20th century. At that time every procedure was a journey into the unknown. Now, a century later, surgeons have precise maps of patients' brains thanks to MRI and CAT scans, and are equipped with high-tech kit to make their work ever more accurate and less invasive.

Dr Schwartz is most interesting when he muses on issues where his field intersects with society. What does a neurosurgeon think should be done about head injury in sports? Not that much, it turns out. As long as athletes are aware of the risks and are appropriately compensated, then they should be allowed to smack their heads together if they wish. Are certain ▸▸

brain injuries a sure sign that a baby has been abused? In Dr Schwartz's opinion, yes, until proved otherwise.

He also ponders how a career spent rooting around in brains changes how you think about the mind. "Gray Matters" argues against the notion of free will, using evidence from scientific studies and stories of patients whose surgery has changed how they consciously perceive their surroundings. Instead of people having a unified self that controls their actions and thoughts, Dr Schwartz believes that most of these feelings arise spontaneously or in response to triggers from the outside world. The brain then generates a plausible rationale *post hoc* for why a movement was made or a thought conjured.

The brain is increasingly lodged in the centre of the tech world. One of Elon Musk's companies, Neuralink, is trying to develop a sophisticated brain implant that can record and transmit neural signals, allowing paralysed patients to control a computer cursor. Meanwhile, a desire to improve the artificial "brains" that power artificial-intelligence software is driving many techies to look for inspiration in real ones. Even society's brainiest are still intent on better understanding the mysteries of the human brain. ■

Francophone fiction

Song of myself

The Silence of the Choir. By Mohamed Mbougar Sarr. Translated by Alison Anderson. *Europa Editions; 372 pages; $18 and £14.99*

WHAT IS IN a name? Quite a lot, actually, for Mohamed Mbougar Sarr. The writer's first name is a nod to the majority faith in Senegal, where he was born. His last name reveals that he comes from its third-biggest ethnic group, the Serer. His middle name means "unloved". By Serer tradition, children often get tagged with ugly names as a trick to fool evil spirits.

Perhaps that precaution, along with Mr Sarr's talent, worked. In his teens he won a full scholarship to study in France. He published a first novel at the age of 24 and three more by the time he was 31, scooping a stack of awards on the way. In 2021 he became the first sub-Saharan African to win France's top literary prize, the Goncourt. That was for "The Most Secret Memory of Men", his most ambitious and playful book so far, about a young Senegalese writer living in Paris. It was also the most successful: readers in France bought over half a million copies in its first year in print.

"If the folks in Stockholm are alert, Sarr has got to be on their minds," says Adam Shatz, a critic and writer on post-colonial France. It may be premature to speak of a Nobel prize, but Mr Sarr, now 34 years old, is celebrated far beyond the Francophone world. (The Nobel prize in literature was due to be announced on October 10th, after *The Economist* went to press.)

Such praise is noteworthy since his books are not easy. "The Silence of the Choir", newly translated into English, tells the story of 72 refugees from Africa in Sicily. As the characters push forward with their asylum claims, the timely tale unspools with multiple voices and a touch of magical realism. In "Brotherhood" and "De Purs Hommes" ("Of Pure Men"), which has yet to be published in English, Mr Sarr digs into such testy issues as Islamist extremism and homophobia in west Africa.

His writing is bold, but his characters' motives are subtle. In "Brotherhood", a deftly drawn internal monologue reveals how the Islamist police chief of a west African city justifies his cruelty with a disturbingly convincing process of logic. In a fictional Sicilian town, by contrast, hostility to African migrants spreads insidiously through what Mr Sarr calls "intellectual laziness...the mother of all deadly sins".

Mr Sarr is, like his complex creations, both lightly ironic and dead serious. His own convictions come through powerfully in his books. Many of his female characters are strong, faithful and principled. His men are often absent as fathers, fickle as lovers and wobbly in their opinions. Power corrupts, for sure, but "the people" do not hold the answers, either. European acceptance of others, such as Africans, remains largely contingent and ultimately self-serving. But the West's power is real, and its conventions, such as language, are necessary tools in the modern world.

Including English, Mr Sarr speaks four languages well. But though he writes in crystalline literary French, the voices in his work use a stunning array of registers. There is intimate pillow talk, plenty of frank sex and angry lovers' quarrels. There are letters, diaries, philosophical discourses, curt text messages and news bulletins. There are rival narrators in a single paragraph, and sometimes page-long sentences. Yet it all somehow makes sense.

Mr Sarr admits that fame has been distracting. Solitude, he has said, is the beginning of creation, and it has been a couple of years since his muses have spoken. He finds writing difficult, painful and even sometimes a catalyst for despair. But at the same time it can be "a form of liberation". Even his simplest descriptions, like this of dawn, soar: "A few stars lingered in the firmament, as if they'd lost their way during some cosmic pilgrimage." ■

Boris Johnson's new memoir

"Unleashed"—and mildly unhinged

Unleashed. By Boris Johnson. *Harper; 784 pages; $40. William Collins; £30*

IT WAS 2008, during the global financial crisis. Boris Johnson was mayor of London. The political situation was tense; scrutiny was intensifying. Or, as Mr Johnson puts it in his memoir, "POW POW POW!"—first some people criticised his team. Then "BIFF!" the press were mean. Then "SOCKO!" a civil servant left him. Then "DOOOF!" a deputy mayor did. Then "THUDDEROO..." You get the idea.

What makes a good political memoir? Alan Clark, a great political diarist, swore by the four "I"s: a good memoir must be indiscreet, intimate, immediate and (while in note form, to discourage prying eyes) indecipherable. "Phooey!" as Mr Johnson might say. "Unleashed", the former prime minister's autobiography, dispenses with such effortful artistry. Instead its pages offer only one "I": the great overweening ego of one Alexander Boris de Pfeffel Johnson.

"Unleashed" is less an autobiography than a nearly 800-page staircase argument. It is a testy and frequently tedious defence in which Mr Johnson rambles on about the many and varied villains who have ever dared to doubt, slight or fight him—ranging from journalists to socialists, Remainers, Vladimir Putin and a rather laudable-sounding girl called Tracy who punched him in primary school. After a few hundred pages, however, the book starts to feel less "Unleashed" than un-

A wild bore?

hinged and, even worse, uninteresting.

This is a surprise: "Boring Boris" feels like an oxymoron. For the past 30 years, first as a journalist, then as editor (of the *Spectator*), then mayor (of London), then prime minister (of Britain), Mr Johnson had a ringside seat at some of the world's most notable events, from the late queen's final months, to Brexit, covid-19 and the war in Ukraine.

Moreover, at his best, Mr Johnson—a man who called Sir Keir Starmer "Captain Crasheroonie Snoozefest" and said that his policy on cake was "pro having it and pro eating it"—is a gifted rhetorician. This book should have been excellent.

"Unleashed" does have good moments: readers learn that the queen served him a picnic from Tupperware boxes and that covid left him afraid to go to sleep "in case they decided to perform some stealthy tracheotomy without letting me know".

But most of it is not good at all. Part of the problem is the writing. Mr Johnson's style has often been parodied, but here he seems to be pastiching himself. It's not just the absurd "POW"s and "BIFF"s and "SOCKO"s and CAPITAL LETTERS with which this text is LITTERED. Far too much of this reads like the work of a schoolboy. This is worse than unamusing. It feels, for a former prime minister, embarrassing and inappropriate. David Cameron is a "girly swot"; a tricky moment is the "stickiest wicket". He likens himself to Evel Knievel, a daredevil motorbiker, while a chapter on international relations is titled "Gøing Gløbal". Gød help us.

His style is also oddly uneven. At times he is the spiffing, biffing, Billy-Bunter Boris; at others the prose is more pulp fiction than prime ministerial. He writes about having "planes and helicopters and a trillion-pound budget" and drinking "Crémant d'Alsace" on a terrace with Angela Merkel. In places, this sounds less like Boris than like Barbara Cartland, a famous romance writer. Then suddenly he switches and you find yourself reading sentences such as, "We went to the JCB factory at Uttoxeter", which is a bit of a comedown.

However, the worst parts are not the bad ones but the good ones: when self-justifying Boris fades and funny, clever Boris appears instead. Because he can be wonderful, for example, when he (surprisingly lyrically) describes his policies for fighting regional inequality or talks about how knife crime—about which he clearly cares—is one of those oddly intimate assaults in which your assailant is close enough for you to smell their body and feel their breath. Yet that, too, is also awful: because you realise that this book—by a man whose hot breath was on the body politic of Britain for a decade—might have been brilliant, too. But, much like the man himself, it is not. ■

British v American English

What's your cup of tea?

JOHNSON ON LANGUAGE

Gobsmacked! By Ben Yagoda. *Princeton University Press; 288 pages; $24.95 and £20*

BRITISH INTELLECTUALS enjoy bewailing the influx of Americanisms into the language of the mother country. The BBC once asked British readers to send in the Americanisms that annoyed them most and was flooded with thousands of entries, including "24/7", "deplane" and "touch base". Matthew Engel, a writer who had kicked off the conversation with an article on unwanted Americanisms, even turned the idea into a book, "That's the Way It Crumbles", in 2017.

The furore—which Americans would call a furor—seemed to die down. But in September Simon Heffer of the *Daily Telegraph* revived it with a column and book exploring Americanisms, a trend he situates "in the past 15 years". His language evokes violence, bemoaning American words' "poisoning", "linguistic assault", "conquest" and "penetration". In the end, though, even the hyperbolic Mr Heffer concedes that Brits are, in fact, "willingly adopting" these words, especially via two channels associated with America: digital technology and "corporatespeak". He just wishes his countrymen would stop.

But linguistic exchange can also be seen in a more upbeat way. This is the approach of Ben Yagoda, emeritus professor of English at the University of Delaware, in "Gobsmacked!" The trend is older and more extensive than many think. Mr Yagoda describes Britishisms like "it's early days" and "gone missing" taking hold in America almost entirely below the radar in the 1980s and 2000s, respectively.

Mr Yagoda identifies the intensifier "awfully" (as in "awfully tired") as the first Britishism, having been noticed (disapprovingly) by an American commentator in the 19th century. The early 20th century saw many more Britishisms take hold, especially via military contact: "gadget", "cushy", "scrounge", "bonkers", "dicey" and "shambolic" all made their way from the British Tommy to G.I. Joe, and thence to the wider American public.

The internet has spread English in both directions. Being able to read the *Guardian* and to binge "The Crown" on Netflix has probably speeded up the passage of British terms into American speech. Mr Yagoda has compiled a "top 40", including "brilliant" (merely "OK, good"), "chat up" and "ginger". Each term gets a rating on a five-notch adoption scale, from "outpacing" (signifying Americans now use the term more than its coiners in Britain do) to merely "on the radar", meaning only a few newspaper columnists are using it.

American Anglophiles tend to be part of a media elite who holiday in Europe (and might even use "holiday" as a verb), whereas American slang is seen as passing to Britain through less rarefied channels. Lynne Murphy, a linguist at the University of Sussex, notes that "Friends", an American comedy show, is often blamed wrongly for the rise of "Can I get...?" at coffee shops in Britain. In her study of online lists explaining British terms to Americans and vice versa, she found the ones about Brit- ▸▸

ishisms for Americans were often framed positively (for example, "a guide to the best Britishisms"), whereas for Brits Americanisms were more often negative ("41 things the Americans say wrong").

Which Britishisms tickle American fancies? A few sounds recur, such as adjectives ending in "y", from "cushy" and "smarmy"—Britishisms but no longer seen as such in America—to more recent ones like "cheeky" and "dodgy". B- and p-sounds also feature, including in made-up words ("bumbershoot" is not, as some Americans believe, a British word for an umbrella). The Oatmeal, a web comic, summed up how British English sounds to Americans: "I remember my days at Oxford, we'd often dabble in a little rumpy-pumpy before dingbangling a fresh todger, haha!" That hints at another source of Britishisms making their way west: insults and "naughty bits" like "shag" and "wanker". A spirit of playfulness pervades Americans' use of these British words; they may even tend to overuse them and underestimate their rudeness, because the sounds are so silly.

It is possible that the British need "Gobsmacked!" more than their American cousins. The Americanisation of British English is well known; the Britishisation of American English, not so much (as a Californian teen might say). A country not sure what influence it still has in the world might like to know that the superpower across the ocean still fancies the mother country and its culture. ■

BACK STORY

Is "Disclaimer" a must-watch or a dud?

A glitzy new TV thriller is a case study in good-bad art

READ THE early reviews of "Disclaimer" and you may be confused. Write-ups of the seven-part thriller, which debuts on Apple TV+ on October 11th, lurch between two stars and five. Is the lavish series, directed by Alfonso Cuarón and starring Cate Blanchett (pictured), a must-watch or dud? Whom should you trust, the boosters or carpers? The answer is both. The show is an example of what might be called good-bad art, and a lesson in evaluating it.

Ms Blanchett is Catherine Ravenscroft, a British documentary-maker. She and her husband Robert (Sacha Baron Cohen) have a sumptuous pad in London and a troubled adult son. The title alludes to a note in a novel that arrives in the post: in this case, any resemblance to real people is not, in fact, a coincidence. The people in question are Catherine herself and a young man, Jonathan (Louis Partridge), whom she met long ago on the Italian coast.

Jonathan drowned. But how? The *roman à clef* is part of a spiralling vendetta by his father, Stephen (Kevin Kline), which also relies on intimate photos taken in Italy and a social-media account that resurrects the dead. In a two-way pursuit, Catherine must track Stephen down as he methodically destroys her.

To say a work of art is flawed or uneven is tautologous. None is perfect, not even "Hamlet" or "Some Like it Hot". But the flaws in "Disclaimer" are not the glitches inevitable in all mortal endeavours. They are glaring.

The plot crumbles under scrutiny: characters know things they couldn't and behave inexplicably. You might expect some synergy between Catherine's job (unearthing the truth) and her urgent personal mission (ditto). Nope. "You are so cancelled, Catherine!" yells a colleague in one of many clunky lines.

Then there is the voice-over. Meant to relay inner thoughts, it sounds distractingly like Alexa. The graphic sex scenes seem gratuitous as they unfold; they seem more so after a twist drastically recasts the story's gender politics. That twist feels like a hustle—less a *coup de théâtre* than an adult version of "And then they woke up."

Mr Cuarón, who adapted the script from Renée Knight's novel, has won five Oscars, including a clutch for "Roma". At the Venice Film Festival, where "Disclaimer" had a warmly received premiere, he said he thought of it not as television but as "seven films". In an age of prestige TV, this is as grand as it gets. On some measures, it is a let-down. On others, it is very good: not in a "so bad, it's good" sort of way, nor merely good enough to be diverting, but hauntingly excellent.

The acting, like the dialogue, is mixed, but Ms Blanchett shines and, as Jonathan's bereaved mother, Lesley Manville is heartbreaking. In a flashback, she wades into the fatal sea like a figure in ancient myth. Sequences and tableaux live up to the show's pedigree. As the police inform Jonathan's parents of his death, the living-room telly stays on, a relic of normality. Visiting his own son (Kodi Smit-McPhee) in his squalid digs, Robert Ravenscroft focuses, as a father might, on a hole in his sock. Foxes, cats and a cockroach have memorable cameos.

Above all, "Disclaimer" reaches boldly for big themes, such as grief, erotic jealousy, marriage and its secrets, what parents do to children and vice versa. It dramatises the fragility of even the cushiest lives, and asks whether, in revisiting old traumas, you salve the wound or prod it. In the end, this tricksy narrative makes viewers ponder the stories people tell about the past and each other. Some characters deludedly believe the best of loved ones. Others too readily think the worst, particularly of women.

For all the differences in genre, era and setting, the artist whom this melange of pulp and profundity most recalls is Dostoyevsky. His good-bad yarns can seem histrionic and unkempt; but they offer immortal moments of drama and stare, unblinkingly, into the darkest recesses of the heart. "Disclaimer" has a seam of Dostoyevsky's reckless honesty and shares his interest in the calibration of guilt. If, for powerful reasons, you wish a dreadful thing to happen, how guilty are you when it does?

All of which raises another set of questions, about art rather than morals. Which is a better measure of an artwork, its quality on average or its peaks? How should ambition be weighed against execution, jolting insight against missteps, the good against the bad? In Back Story's book, good-bad art that lingers in the memory is worth more than the blandly palatable kind, read or watched serenely and instantly forgotten.

Economic & financial indicators

	Gross domestic product, % change on year ago: latest		quarter*	2024†	Consumer prices, % change on year ago: latest		2024†	Unemployment rate, %		Current-account balance, % of GDP, 2024†	Budget balance, % of GDP, 2024†	Interest rates: 10-yr gov't bonds, latest, %		change on year ago, bp	Currency units: per $, Oct 9th	% change on year ago
United States	3.0	Q2	3.0	2.4	2.5	Aug	3.0	4.1	Sep	-3.3	-6.9	4.0		-74.0	-	
China	4.7	Q2	2.8	4.7	0.6	Aug	0.4	5.3	Aug‡§	1.2	-4.4	1.9	§§	-66.0	7.07	3.1
Japan	-1.0	Q2	2.9	0.6	3.0	Aug	2.5	2.5	Aug	3.8	-4.7	0.9		13.0	149	-0.4
Britain	0.7	Q2	1.8	1.1	2.2	Aug	2.9	4.1	Jun††	-3.0	-4.0	4.2		-41.0	0.76	7.9
Canada	0.9	Q2	2.1	1.3	2.0	Aug	2.4	6.6	Aug	-1.2	-1.3	3.2		-92.0	1.37	-0.7
Euro area	0.6	Q2	0.8	1.0	1.8	Sep	2.5	6.4	Aug	3.1	-3.1	2.2		-67.0	0.91	4.4
Austria	-0.6	Q2	-1.7‡	-0.3	1.8	Sep	2.9	5.3	Aug	2.4	-2.4	2.8		-80.0	0.91	4.4
Belgium	1.1	Q2	0.8	1.2	4.5	Sep	3.8	5.4	Aug	-0.6	-4.6	2.9		-72.0	0.91	4.4
France	1.0	Q2	0.7	1.2	1.5	Sep	2.6	7.5	Aug	-0.4	-5.2	3.3		45.0	0.91	4.4
Germany	nil	Q2	-0.3	0.1	1.8	Sep	2.4	3.5	Aug	6.2	-1.6	2.2		-67.0	0.91	4.4
Greece	2.7	Q2	4.4	2.4	3.2	Aug	2.6	9.5	Aug	-5.8	-1.3	3.2		-138	0.91	4.4
Italy	0.6	Q2	0.7	0.9	0.8	Sep	1.2	6.2	Aug	1.5	-5.2	3.5		-141	0.91	4.4
Netherlands	0.8	Q2	4.1	0.7	3.3	Sep	3.4	3.7	Aug	8.2	-1.9	2.5		-73.0	0.91	4.4
Spain	3.1	Q2	3.2	2.7	1.7	Sep	3.0	11.3	Aug	2.5	-3.2	3.0		-101	0.91	4.4
Czech Republic	0.9	Q2	1.5	1.1	2.2	Aug	2.2	2.7	Aug‡	0.3	-2.5	3.9		-93.0	23.2	0.2
Denmark	4.4	Q2	4.6	1.6	1.4	Aug	1.6	2.9	Aug	10.5	1.8	2.1		-104	6.81	3.8
Norway	4.2	Q2	5.7	1.0	2.6	Aug	2.2	4.0	Jul‡‡	17.0	12.3	3.5		-60.0	10.8	0.4
Poland	3.2	Q2	6.1	3.2	4.9	Sep	3.8	5.0	Sep§	1.0	-5.7	5.4		-57.0	3.93	10.2
Russia	4.1	Q2	na	3.6	9.0	Aug	7.5	2.4	Aug§	2.9	-1.2	16.4		430	97.5	2.8
Sweden	0.6	Q2	-1.0	0.7	1.9	Aug	2.0	7.9	Aug§	6.3	-0.8	2.1		-97.0	10.4	5.8
Switzerland	1.8	Q2	2.8	1.1	0.8	Sep	1.2	2.6	Sep	6.7	0.6	0.5		-65.0	0.86	5.8
Turkey	2.5	Q2	0.3	2.9	49.4	Sep	57.7	9.3	Jul§	-2.0	-4.8	27.3		189	34.2	-19.1
Australia	1.0	Q2	0.9	1.3	3.8	Q2	3.5	4.2	Aug	-0.6	-1.5	3.9		-54.0	1.49	5.4
Hong Kong	3.3	Q2	1.4	3.0	2.5	Aug	1.9	3.0	Aug‡‡	12.0	-2.9	3.0		-128	7.77	0.8
India	6.7	Q2	4.5	6.9	3.7	Aug	4.7	7.8	Sep	-0.5	-4.9	6.8		-62.0	84.0	-0.8
Indonesia	5.0	Q2	na	5.1	1.8	Sep	2.6	4.8	Q1§	-0.1	-2.4	6.7		-37.0	15,620	0.5
Malaysia	5.9	Q2	na	5.1	1.9	Aug	2.0	3.3	Jul§	2.7	-4.5	3.8		-29.0	4.28	10.5
Pakistan	2.8	2024**	na	2.8	6.9	Sep	15.5	6.3	2021	-1.7	-7.4	12.0	†††	-420	278	1.4
Philippines	6.3	Q2	2.0	5.4	1.9	Sep	3.3	4.7	Q3§	-2.8	-5.9	5.8		-90.0	57.0	-0.1
Singapore	2.9	Q2	1.6	2.7	2.2	Aug	2.6	2.0	Q2	19.9	0.2	2.9		-54.0	1.31	4.6
South Korea	2.3	Q2	-0.9	2.5	1.6	Sep	2.5	1.9	Aug§	3.4	-1.8	3.1		-116	1,350	nil
Taiwan	5.1	Q2	1.2	4.2	1.8	Sep	2.1	3.4	Aug	13.9	0.5	1.5		23.0	32.2	0.2
Thailand	2.3	Q2	3.1	2.5	0.6	Sep	0.7	1.1	Aug§	2.2	-3.7	2.6		-81.0	33.4	11.0
Argentina	-1.7	Q2	-6.8	-3.1	237	Aug	221.0	7.6	Q2§	0.3	-0.5	na		na	975	-64.1
Brazil	3.3	Q2	5.9	3.0	4.4	Sep	4.2	6.6	Aug§‡‡	-1.6	-7.5	12.2		-7.0	5.58	-7.3
Chile	1.6	Q2	-2.5	2.3	4.0	Sep	3.9	8.9	Aug§‡‡	-2.8	-2.4	5.5		-102	935	-1.2
Colombia	1.8	Q2	0.4	4.1	5.8	Sep	6.7	9.7	Aug§	-2.4	-5.7	9.9		-215	4,226	2.3
Mexico	2.1	Q2	0.6	1.6	4.6	Sep	4.9	2.8	Aug	-0.3	-5.0	9.6		-33.0	19.4	-5.7
Peru	3.6	Q2	9.8	2.8	1.8	Sep	2.5	6.5	Aug§	0.2	-4.1	6.4		-101	3.73	2.7
Egypt	2.4	Q2	na	2.4	26.4	Sep	28.4	6.5	Q2§	-4.7	-5.2	na		na	48.5	-36.3
Israel	-2.1	Q2	0.7	0.3	3.6	Aug	3.3	2.6	Aug	5.3	-7.3	4.9		68.0	3.77	4.8
Saudi Arabia	-0.8	2023	na	1.5	1.6	Aug	1.7	3.3	Q2	-0.9	-2.4	na		na	3.75	nil
South Africa	0.3	Q2	1.8	1.1	4.4	Aug	4.8	33.5	Q2§	-2.0	-5.3	9.2		-165	17.7	10.0

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. †††Dollar-denominated bonds. Note: Euro area consumer prices are harmonised.

Markets

In local currency	Index Oct 9th	% change on: one week	Dec 29th 2023
United States S&P 500	5,792.0	1.4	21.4
United States NAS Comp	18,291.6	2.0	21.9
China Shanghai Comp	3,258.9	-2.3	9.5
China Shenzhen Comp	1,917.3	-0.5	4.3
Japan Nikkei 225	39,278.0	3.9	17.4
Japan Topix	2,707.2	2.1	14.4
Britain FTSE 100	8,243.7	-0.6	6.6
Canada S&P TSX	24,224.9	0.9	15.6
Euro area EURO STOXX 50	4,949.0	-0.3	9.5
France CAC 40	7,560.1	-0.2	0.2
Germany DAX*	19,066.5	-0.5	13.8
Italy FTSE/MIB	33,933.0	0.8	11.8
Netherlands AEX	915.7	-0.1	16.4
Spain IBEX 35	11,741.5	1.1	16.2
Poland WIG	82,841.8	nil	5.6
Russia RTS, $ terms	1,137.5	nil	5.0
Switzerland SMI	12,011.0	-0.9	7.8
Turkey BIST	9,132.3	1.3	22.3
Australia All Ord.	8,456.8	-0.2	8.0
Hong Kong Hang Seng	20,637.2	-8.0	21.1
India BSE	81,467.1	-3.3	12.8
Indonesia IDX	7,501.3	-0.8	3.1
Malaysia KLSE	1,634.9	-0.3	12.4

	Index Oct 9th	% change on: one week	Dec 29th 2023
Pakistan KSE	85,669.3	4.5	37.2
Singapore STI	3,595.7	0.3	11.0
South Korea KOSPI	2,594.4	1.3	-2.3
Taiwan TWI	22,659.1	1.2	26.4
Thailand SET	1,457.0	0.4	2.9
Argentina MERV	1,771,932.8	3.3	90.6
Brazil BVSP*	129,962.1	-2.7	-3.1
Mexico IPC	51,869.1	-0.6	-9.6
Egypt EGX 30	31,175.4	-0.5	25.2
Israel TA-125	2,107.2	0.7	11.7
Saudi Arabia Tadawul	11,927.3	-1.0	-0.3
South Africa JSE AS	85,491.3	-1.9	11.2
World, dev'd MSCI	3,694.3	0.2	16.6
Emerging markets MSCI	1,156.2	-2.7	12.9

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 29th 2023
Investment grade	102	154
High-yield	338	502

Sources: LSEG Workspace; Standard & Poor's Global Fixed Income Research. *Total return index.

Commodities

The Economist commodity-price index, 2020=100	Oct 1st	Oct 8th*	% change on: month	year
Dollar Index				
All Items	133.8	131.5	6.7	8.5
Food	140.8	137.5	2.0	8.0
Industrials				
All	127.9	126.6	11.2	9.0
Non-food agriculturals	135.2	132.1	4.3	11.1
Metals	126.1	125.2	13.3	8.4
Sterling Index				
All items	129.3	129.1	6.3	1.6
Euro Index				
All items	138.0	137.0	7.1	4.8
Gold				
$ per oz	2,660.6	2,612.4	4.1	40.6
Brent				
$ per barrel	74.6	77.2	10.9	-12.1

Sources: Bloomberg; CME Group; FT; LSEG Workspace; NZ Wool Services; S&P Global Commodity Insights; Thompson Lloyd & Ewart; USDA; WSJ. *Provisional.

For historical indicators data, visit economist.com/economic-and-financial-indicators

OBITUARY
Yoshioka Masamitsu

The last-surviving attacker at Pearl Harbor died on August 28th, aged 106

AS HE SLID into his bunk in the aircraft-carrier *Soryu*, on the night of December 6th 1941, Bombardier Yoshioka Masamitsu was struck by a thought. He didn't have much time left, because tomorrow he was likely to die. He would die in Hawaii, because that was where Japan had decided to hit America. Such an attack would unleash a gigantic war. Of course it was an honour to be chosen for this mission, and his parents would be proud of him if he died that way. But he was 23, and the thought made all the blood drain from his head. Other crewmen and bombardiers might stoically turn on themselves the pistols they had been issued with, in case they were captured by the enemy. He had a pistol himself. But death did not appeal to him at all.

For weeks the Imperial Japanese Navy had been building up to attack. Besides the *Soryu*, five other aircraft-carriers had gathered in the Kuril Islands with more than 300 warplanes. Emperor Hirohito had ordered on November 5th that if talks with the Americans broke down, America should be attacked by the end of the month. The talks concerned an oil embargo by the Americans on Japan, to deter it from military adventures in Asia. Two years before Yoshioka had been deployed on the *Soryu* against the Chinese Nationalists, who were resisting Japanese conquest. But that was a regional war. What threatened now was something even bigger.

Before dawn, having slept at least a little, he went out on deck to watch the torpedo being loaded onto his plane. It was still dark, but the missile gleamed silver. That made him realise it was the real thing. In training, because torpedoes were scarce and expensive, they had used wooden canisters with a warhead filled with water, not explosives. After every drop, they fished them from the sea again. The torpedoes themselves were much less important than learning how to fly fast, flat and low above the sea, sometimes as low as 12 metres, getting the angle just right, before releasing them.

Now they would be dropped on America: specifically on the Pacific Fleet moored at Shinjuwan, or Pearl Harbor. That information had filtered to him and his comrades extremely slowly. Just before they sailed from the Kuril Islands, on November 26th, they were told to pack shorts. That seemed to mean they were going south. But then the pipes were lagged with asbestos, which suggested somewhere colder. In the bar and at deck smoking-breaks he and his comrades speculated constantly. He himself had been switched quite suddenly, that year, from navigation to torpedo training. So deployment was imminent, somewhere. But it couldn't be America, because America, up until recently, still supplied the petrol for their planes.

Just after dawn, with a stiff east wind and choppy seas, he climbed into his craft. It was a Nakajima B5N2, much better than the rickety old biplanes he had spent his time repairing when, at 18, he first joined up. Day after day he would enviously watch as the airmen flew off in newer models. The Nakajima, though, was no more airtight than most of the planes of the time. Gaps all over the body let in the disgusting firework-smell of gunpowder or anti-aircraft fire. Roaring engine noise and the echoing wind drowned out almost all other sound—except the worst of all, the bang! of his plane being hit. Added to all this, the 800kg weight of a real torpedo made his plane tip to the rear. He was so burdened on take-off that he sank at first two metres below deck-level, before he could get the nose up and away.

He, his pilot and his rear-gunner flew steadily to the east. They were in radio silence, with him as navigator calculating the route by the flight time (110 minutes), distance (220 nautical miles) and the position of the *Soryu* as they left. Otherwise, they flew into the glare of the sun. That glare changed to towering white cumulus clouds; then to billowing black smoke from American ships that had already been hit. He sent his torpedo down and, looking back, saw two slim columns of spray shoot 30 metres from the water. A direct hit! Right on target!

Then he saw something else. The battleship, which was already listing, had no barrels on the gun-turrets. It was the *USS Utah*, a training ship which had been stripped of its weapons a decade before. During torpedo training he and his comrades had been told to memorise the silhouette of the *Utah*, so that they could avoid it. Somehow—sun-dazzle, perhaps—he had not. His elation turned in an instant to horror at his mistake.

He got back safely that day. War had now started between Japan and America, and would last for four years, but he had a lucky one. When the *Soryu* was sunk at the Battle of Midway in 1942, he was on shore leave. When fighting became intense round the Palau Islands, he was recovering from malaria. His plane was grounded, short of parts, when kamikaze tactics came in. Enemy bullets streamed towards his plane once, heading for his face, but passed by on either side. His plane was pierced by cannon-fire, but it hit none of the crew, and the fuel tank it struck was empty. He never took such luck for granted, nor stopped being scared.

He increasingly felt shame, though, that he had survived. And not merely survived, but to a great age, still straight-backed, lucid, mobile and dapper. For decades he worked in the Maritime Self-Defence Force, the post-war version of the emperor's proud navy. And he remained unceasingly, though silently, aware of all who had died around him. His brothers in arms, of course. But also the sailors they had killed, young men like him, faithfully carrying out their orders. Fifty-eight crew had died when he torpedoed the *Utah*. If he ever visited Pearl Harbor—which he doubted he would, as he wouldn't know what to say—he wanted to visit their graves to pay his respects. As it was he added them to his prayers at the Yasukuni shrine, with the fervent hope that there would be no more wars. ■