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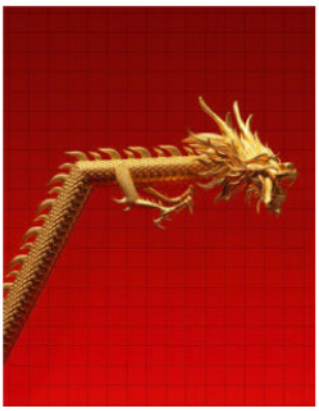

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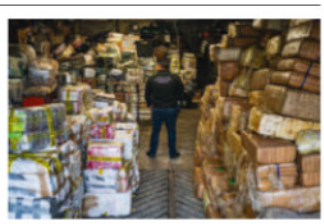

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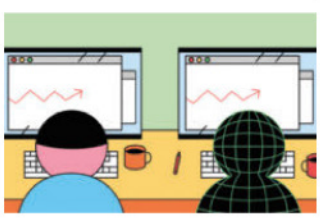

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The Economist

Volume 447 Number 9346

Published since September 1843
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A jury in Manhattan found **Donald Trump** liable for sexually abusing a woman in the mid-1990s and for defaming her, and awarded her $5m. He called the verdict a "disgrace". The jury did not agree that Mr Trump's abuse of E. Jean Carroll constituted rape. Later, in a **televised forum**, Mr Trump refused to say whether he supported Ukraine, said America should default on its debt unless the Democrats agree to spending cuts and reiterated his fake claim that the 2020 election was stolen from him. Mr Trump is the front-runner for the Republican presidential nomination.

George Santos, a Republican congressman known for being economical with the truth, was charged with embezzling contributions, fraudulently obtaining unemployment benefits and lying to Congress about his financial circumstances. Mr Santos has come under pressure to resign over his many lies, such as claiming he has a degree from a college that he did not attend.

American states on the border with Mexico braced themselves for a surge of illegal crossings after the expiration of **Title 42**, a pandemic measure that had allowed for the swift removal of migrants.

At least eight people died in violence that swept across **Pakistan** after Imran Khan, a former prime minister, was arrested and charged with graft. Senior leaders of his party were also detained. Mr Khan pleaded not guilty to the charges of selling state gifts while he was in power. A conviction would disqualify him from running for office again.

China's foreign minister, Qin Gang, held talks in Pakistan with the Taliban government of **Afghanistan** to discuss bringing the country into the Belt and Road Initiative, China's global infrastructure-building scheme. China has long had an eye on Afghanistan's vast mineral resources.

Kishida Fumio, **Japan's** prime minister, visited **South Korea** for talks with the country's president, Yoon Suk-yeol. It was their second meeting in two months—more evidence of a return to normal relations after years of acrimony.

Thaksin times

Thaksin Shinawatra, **Thailand's** prime minister between 2001 and 2006, said he would return to his country in July after 17 years in exile. Mr Thaksin was ousted in a coup, but remains an influential figure. A party controlled by his allies is expected to do well in a general election on May 14th.

Canada expelled a Chinese diplomat accused of targeting an MP and his relatives in Hong Kong. The MP, Michael Chong, had accused **China** of human-rights abuses. The Canadian government said it would not tolerate interference in domestic affairs. China expelled a Canadian diplomat in retaliation.

The Republican Party and other right-of-centre parties won the majority of seats in an election to choose members of an assembly that will draw up **Chile's** new constitution. The main left-wing coalition won 16, leaving it short of the number needed for a veto. A draft constitution by a previous assembly was rejected in a referendum last year, because it was seen as too left-wing.

Fighting intensified in Khartoum, the capital of **Sudan**, despite diplomatic efforts to impose a ceasefire. The conflict between Sudan's army and a rival paramilitary force has claimed hundreds of lives since mid-April.

The Southern African Development Community agreed to deploy troops to eastern **Congo** to restore security. Congo's government is battling an insurgency by the M23 rebel group and has already enlisted the help of soldiers from members of the East African Community, another regional bloc.

Police and protesters clashed in Dakar, the capital of **Senegal**, after a court imposed a suspended six-month jail sentence for defamation on Ousmane Sonko, a leading opposition figure, that will prevent him from contesting the presidential election next year.

At least 25 **Palestinians** in Gaza were killed in **Israeli** air strikes. The dead included some children as well as leaders of Islamic Jihad, a militant group. Israel says it was targeting members of the group who were planning attacks on Israel. Militants in Gaza fired hundreds of rockets in response. Most were intercepted by Israel's Iron Dome defence system or landed harmlessly.

The Arab League reinstated **Syria** as a member. The country was kicked out more than a decade ago after Bashar al-Assad's brutal repression of protests plunged the country into civil war. The move comes ahead of a summit due in Saudi Arabia later this month.

The annual Victory Day parade in **Russia** to commemorate the country's triumph against Nazi Germany was somewhat muted, given Vladimir Putin's setbacks in Ukraine. The parade in Moscow featured just one tank. In his speech the president struck his usual belligerent tone, claiming the West was trying to destroy Russia. Kim Jong Un, North Korea's dictator, sent "warm wishes" to Russia in its "holy fight to preserve world peace".

Russia launched another wave of missiles at **Ukraine**, most of them targeting Kyiv, the capital. Ukrainian forces shot almost all of them down.

Ursula von der Leyen, the president of the European Commission, visited Kyiv on Russia's Victory Day. The EU began discussing new **sanctions** on Russia focusing on "third countries" that circumvent existing trade bans, which would include China.

Tens of thousands of people demonstrated in **Serbia** against gun violence, after two mass shootings killed 17 people, including eight schoolchildren. Aleksandar Vucic, the president, criticised the protests, suggesting they were organised by the opposition for political gain.

Rishi Sunak faced his first electoral test since becoming **Britain's** prime minister last October. His ruling Conservative Party lost over 1,000 councillors in local elections; the opposition Labour Party now controls more councils than the Tories. Many of Labour's gains were in areas that had switched to the Conservatives at the last general election in 2019.

Not all the people rejoiced

The **coronation of King Charles III** was held at Westminster Abbey. London's police force expressed regret for arresting six anti-monarchy protesters. It said there was no evidence they were planning to disrupt the event.

The World Health Organisation declared that **covid-19** is no longer a "public health emergency of international concern", three years after the disease broke out. Although 7m deaths from covid have been reported, the WHO thinks the true toll is 20m.

America's annual **inflation** rate dipped again in April, to 4.9%. The core inflation rate, which excludes energy and food prices, also fell slightly, to 5.5%. The core rate has been higher than the overall rate for two months now. The Federal Reserve's interest-rate increases have helped consumer-price growth to slow since its peak in June. Markets are betting that the Fed will soon pause the run of rate rises, though the **labour market** is still running hot. Employers created 253,000 jobs last month, well above estimates.

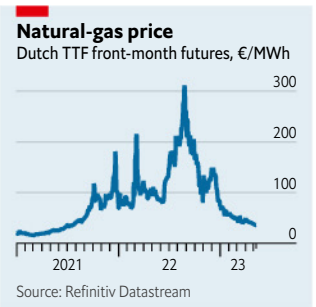
The leisure class

Quarterly earnings from Air France-KLM and International Airline Group, the owner of British Airways, provided more evidence of the rebound in **international travel**. Both reported higher revenues and are expecting a surge in summer bookings. IAG raised its outlook for the year. Global airlines are also benefiting from a recent trend of wealthy holidaymakers choosing to fly in first and business class.

The discount end of the airline industry is also experiencing higher demand. **Ryanair**, Europe's biggest carrier, has ordered 150 737 MAX jets from **Boeing**, with an option to buy 150 more. Michael O'Leary, Ryanair's mercurial boss, criticised Boeing last year for aircraft delays, describing its management as "headless chickens". This week he likened the two companies' relationship to a marriage: we have rows, but then we "kiss and make up", he said.

Disney hugely reduced the losses at its streaming business in the latest quarter, after a cost-cutting drive by Bob Iger, the chief executive. But it also lost 4m subscribers from the previous three months, mostly in India, where Disney has lost the rights to broadcast premier-league cricket.

Fox Corporation swung to a small quarterly loss because of costs associated with its $787.5m settlement in a defamation case brought by Dominion Voting Systems. Lachlan Murdoch, Fox's chief executive, said the payout was a "business decision".



The price of **natural gas** in Europe fell to its lowest level since July 2021. Alternatives to Russian energy and a mild winter that has left gas stocks in good shape were factors in the benchmark Dutch TTF contract falling to just over €35 ($38) a megawatt hour. Last August the price peaked at more than €300 a MWh as Russia squeezed its supplies. Meanwhile, Russia has reportedly been forced to increase taxes on domestic oil producers to fill a hole in government revenues caused by Western sanctions.

Net profit at **Saudi Aramco** fell by 20% in the first quarter, year on year. The Saudi state-controlled oil giant still made $32bn in the quarter, equivalent to the combined profits that have been announced by BP, Chevron, ExxonMobil and Shell. Aramco is expanding its production of fossil fuels, as it believes that "oil and gas will remain critical components of the global energy mix for the foreseeable future."

UBS appointed Ulrich Körner, the chief executive of **Credit Suisse**, to its board, as it prepares to finalise its takeover of its former rival. Mr Körner will oversee the operational continuity of Credit Suisse, which collapsed in March. Sergio Ermotti, the CEO of UBS, has warned of difficult months ahead, reminding staff that "your new colleagues are not your competitors".

HSBC's management saw off a challenge from Ping An, a Chinese insurance company and the bank's biggest investor, to consider hiving off its Asian business. A vote on the proposal at the annual general meeting was supported by only 20% of shareholders. The unhappy, mostly Asian group of investors also voted against extending the terms of Mark Tucker as chairman and Noel Quinn as chief executive. Mr Tucker hoped that the defeat of the proposal would "draw a line" under Ping An's campaign to break up the bank.

Apple's revenues from the iPhone grew in the first three months of 2023 compared with the same quarter in 2022. That allayed fears among investors that lockdowns late last year at the factories in China that assemble the device would impact income from Apple's biggest money-spinner. The company's overall revenue dropped, however, as sales of iPads and Mac computers fell.

Call of duty

Activision Blizzard has reportedly employed David Pannick, one of Britain's leading lawyers, to fight its case against the decision by the country's competition regulator to block its acquisition by Microsoft. The hiring of Lord Pannick, who has successfully held the government to account in cases related to Brexit and defended the BBC against charges of blasphemy, suggests that it isn't game over for the takeover yet.

Tempur Sealy agreed to buy **Mattress Firm** for $4bn. The deal is expected to be put to bed in the second half of next year.

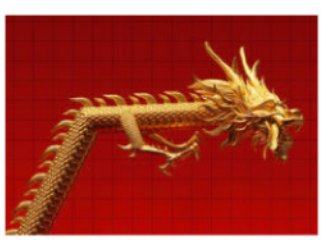
Peak China?

China's economy will neither collapse nor overtake America's by much. That could make the world safer

THE RISE of China has been a defining feature of the world for the past four decades. Since the country began to open up and reform its economy in 1978, its GDP has grown by a dizzying 9% a year, on average. That has allowed a staggering 800m Chinese citizens to escape from poverty. Today China accounts for almost a fifth of global output. The sheer size of its market and manufacturing base has reshaped the global economy. Xi Jinping, who has ruled China for the past decade, hopes to use his country's increasing heft to reshape the geopolitical order, too.

There is just one catch: China's rapid rise is slowing down. Mr Xi promises a "great rejuvenation" of his country in the coming decades, but the economy is now undergoing something more prosaic: a great maturation. Whereas a decade ago forecasters predicted that China's GDP would zoom past America's during the mid-21st century (at market exchange rates) and retain a commanding lead, now a much less dramatic shift is in the offing, resulting in something closer to economic parity.

This change in economic trajectory is the subject of fierce debate among China-watchers (see our special Briefing). They are thinking again about China's clout and its rivalry with America. One view is that Chinese power will fall relative to that of its rivals, which could paradoxically make it more dangerous. In a book last year, Hal Brands and Michael Beckley, two scholars, popularised a theory they called "Peak China". The country faces decay, they argue, and has reached "the point where it is strong enough to aggressively disrupt the existing order but is losing confidence that time is on its side". Their study opens with an imagined war over Taiwan.



The Peak China thesis rests on the accurate observation that certain tailwinds are turning to headwinds, hindering Chinese progress. The first big gust comes from demography. China's working-age population has been declining for about a decade. Last year its population as a whole peaked, and India has now overtaken it. The Communist Party's attempts to convince Chinese couples to have more children are not working. As a result, the UN thinks that by mid-century China's working-age population could decline by over a quarter. Wave goodbye to the masses of young workers who once filled "the world's factory".

Adding workers is one way for an economy to grow. Another is to make better use of the existing population. But China's second problem is that output per worker is unlikely to rise as fast as forecasters once hoped. More of its resources will go to caring for the elderly. After decades of building houses, roads and railways, spending on infrastructure faces diminishing returns. Mr Xi's autocratic tendencies have made local entrepreneurs more nervous, which may reduce China's capacity to innovate in the long run. Geopolitical tensions have made foreign firms eager to diversify supply chains away from China. America wants to hobble China's capabilities in some "foundational" technologies. Its ban on exporting certain semiconductors and machines to Chinese firms is expected to cut into China's GDP.

All of this is dampening long-run forecasts of China's economic potential. Twelve years ago Goldman Sachs thought China's GDP would overtake America's in 2026 and become over 50% larger by mid-century. Last year it revised that prediction, saying China would surpass America only in 2035 and peak at less than 15% bigger. Others are more gloomy. Capital Economics, a research firm, argues that the country's economy will never become top dog, instead peaking at 90% of America's size in 2035. These forecasts are, of course, uncertain. But the most plausible ones seem to agree that China and America will approach economic parity in the next decade or so—and remain locked in this position for decades to come.

How might China handle this flatter trajectory? In the most optimistic scenario, Mr Xi would make changes to boost productivity growth. With income per person less than half of America's, China's population will be keen to improve their living standards. He could try to unleash growth by giving the animal spirits of China's economy freer rein and his people more freedom of movement. The Chinese government could stop relying on wasteful state-owned banks and enterprises to allocate capital. And it could adopt a less prickly posture abroad, easing geopolitical tensions and reassuring firms that it is safe to do business in China. Such reforms might ultimately make China more powerful—but also, one would hope, less aggressive. The trouble is that Mr Xi, who is 69 and now probably China's ruler for life, shows no sign of embracing economic or political liberalisation.

Pessimists fear that China will become more combative as its economic trajectory falters. There are plenty of reasons to think this plausible. Mr Xi stokes a dangerous nationalism, to persuade ordinary Chinese that critics of his rule are slighting China itself. China's military budget is forecast to rise by over 7% this year, in line with nominal GDP. Its military spending is lower than America's, but still catching up. Its navy could be 50% bigger than America's by 2030, and its nuclear arsenal will almost quadruple by 2035. "Beijing's economic power may be peaking, but no other country is so capable of challenging America globally," write Messrs Brands and Beckley.

Peer review

Yet the most likely scenario is in the middle ground. The speed of China's rise in the past two decades has been destabilising, forcing adjustments in the global economic and geopolitical order. That phase of intense economic disruption may now be over. And for all its troubles China's economy is unlikely to shrink, triggering the kind of nihilistic and destructive thinking that Messrs Brands and Beckley fear. Mr Xi is unpredictable but his country's long-run economic prospect is neither triumph nor disaster. Faced with decades of being a near-peer of America, China has good reason to eschew hubris and resist invading Taiwan. A crucial question is whether the superpowers can avoid misreading each other's intentions, and thus stumbling into a conflict. Next week we will examine America's global leadership—and how it should respond to China in the coming age of superpower parity. ■

Migrants, drugs and gangs

The art of the practical

Ways to ease the misery stemming from America's southern border

A TRIPLE TRAGEDY is playing out on either side of the border between the United States and Mexico. The most visible element is a migration crisis, brought to a head by the end of a pandemic-era provision called Title 42, which has allowed the rapid expulsion of migrants on public-health grounds. Officials have been bracing themselves for chaos after Title 42 expires on May 11th: some expect 13,000 people a day to seek asylum in America (see United States section).

Regulating the flow of migrants is hard enough. Stopping the flow of drugs across the border is proving impossible. Fentanyl, a synthetic opioid, is 50 times more potent than heroin and produced in vast quantities in Mexico. It is also especially deadly, killing more people in a year than the total of Americans who died fighting wars in Korea, Vietnam, Iraq and Afghanistan. All told, drug overdoses have now claimed 1m American lives since 1999. The third tragedy is in Mexico, where a proliferating number of criminal gangs are fighting over the profits from trafficking drugs, people and guns—and have grown powerful enough to subvert local government and muscle their way into other businesses (see Americas section).

None of these problems has a simple solution. The supply chains for fentanyl, for example, stretch to China (for the precursor chemicals) and are quick to adapt to any disruption. America has been waging a war on drugs for half a century, with negligible success and much collateral damage. Cross-border collaboration might help, but relations between America and Mexico are touchy and likely to grow touchier as both countries gear up for presidential elections next year. Some Republicans are recklessly and provocatively calling for America to send troops to Mexico to crush the gangs, (unleashing "the fury and might of the US", as Senator Lindsey Graham put it), with or without Mexico's consent. Mexico's populist president, Andrés Manuel López Obrador, has denied that fentanyl is being produced in his country, and blames his northern neighbour for the social ills that fuel demand for the drug.

On migration, the Biden administration has groped its way to a policy that moves in the right direction: beefing up border forces, expanding legal avenues for asylum-seekers and vowing to deport illicit border-crossers swiftly. Republicans give him no credit, caricaturing him instead as letting illegal immigrants bearing fentanyl flood into the country. Ron DeSantis, the Florida governor and a likely presidential candidate, is said to be preparing further headline-grabbing displays in which migrants are transported to Democrat-run states.

Political polarisation for now rules out bold reforms on drugs or immigration (nothing will get through Congress). But in the meantime many smaller practical steps are possible. To reduce the harm caused by opioids, the government could expand access to treatments for addiction. It could also make test strips for fentanyl widely available (instead of treating them as illegal drug paraphernalia), so that people know when they are about to take (and perhaps overdose on) the lethal substance.

To relieve pressure on the border, it would help if more jobseekers were allowed in legally. America's whole immigration system is clogged up, with would-be migrants and employers sometimes waiting years for a decision. A new report from the Cato Institute, a think-tank in Washington, lists a raft of reforms that could reduce a backlog of 20m applications with little money and no new legislation: from reducing duplication between agencies to eliminating unnecessary requests for evidence to extending the length of visas. If the system were more streamlined, employers would be able to fill vacancies more quickly and fewer people would feel they had no choice but to try their luck with people-smugglers or speculative asylum claims. Mr Biden cannot solve the problems on America's southern border; but he could ease them a little if he pushed harder. ■

Bashar al-Assad

The outcast returns

Syria is a test case of how to deal with rogue regimes that sanctions have failed to topple

THE ARAB LEAGUE's annual summit is not a hot ticket. Yet Bashar al-Assad must be delighted with his invitation to join it in Saudi Arabia this month. Syria's president has been ostracised by most of the world since 2011, when his repression of his people sparked one of the 21st century's most savage civil wars. Now, as we report, he has won the conflict, and his neighbours—and some in the West—are weighing whether to re-establish ties (see International section). The dilemma over Syria is acute and found elsewhere, from Afghanistan to Zimbabwe. Should governments continue to isolate pariah states long after it is clear that sanctions will not induce political change?

Make no mistake, Mr Assad is a war criminal. Over 300,000 civilians have been killed since 2011, 1.4% of Syria's pre-war population of 22m. He has relied on terror, barrel bombs, Wagner mercenaries and Iranian-backed militias to stay in power. Cities have been reduced to rubble. Some 6m citizens have been displaced inside Syria; a similar number have fled from the country. He sits atop a mafia economy. Before the war 50 Syrian pounds were worth one dollar; now the rate is around 8,700.

Having once opposed Mr Assad and even funded his enemies, Sunni Arab countries are changing tack. Their logic is that he is here to stay. They are also keen that millions of Syrian refu- ▸▸

gees return home, especially after an earthquake in February swelled their ranks. Saudi Arabia's recent detente with Iran may mean Syria is no longer a flashpoint in a bigger conflict between two of the Middle East's most powerful states. And if left isolated, Mr Assad's regime can be a menace. It funds itself by drug-peddling: Captagon, an amphetamine, is Syria's largest export.

For the West the downside of lifting sanctions on Mr Assad is obvious. He would feel vindicated and the deterrent effect of sanctions on other regimes, including Russia, might be eroded. Yet the prospect of Syria indefinitely remaining a failed state and humanitarian catastrophe is not enticing either. If Egypt, Saudi Arabia and the United Arab Emirates (UAE) trade with Syria, America will face the prospect of having to impose sanctions on its allies to try to keep the embargo on Syria watertight.

So Syria is a test case. As America and Europe have grown reluctant to use military force abroad, they have made more use of economic coercion. America has imposed sanctions on some 10,000 individuals and on companies in 50 countries, which together account for 27% of global GDP. It has placed tight embargoes on some states, from Cuba to Myanmar. In a growing number of cases other countries are ignoring the West and starting to engage with pariah regimes. China's foreign minister has just held talks with the Taliban. A conference of Latin American countries last month discussed re-recognising Venezuela's dictatorial regime as legitimate. Some Western diplomats in Zimbabwe whisper that it might be better to lift sanctions to revive its wretched economy and help its hapless people.

In response America and Europe should think about sanctions more flexibly. Three principles should apply. First, personal sanctions on despots—in this case Mr Assad and his cronies—should remain in place. Second, humanitarian carve-outs should permit a broader range of activities, from fixing utilities to rebuilding schools, that might help alleviate civilian suffering. The UAE is eager to build a solar-power plant in Syria that would help restore electricity, but is hesitating because it fears being punished for violating sanctions.

Finally, any rollback of sanctions beyond this must be contingent on serious changes in behaviour that fall short of regime change. In Syria's case that would mean the government stopping drug-dealing and allowing refugees to return. For Russia, at some point in the future, a partial unwinding of sanctions might depend on its giving back Ukrainian territory; Iran would need to take steps to curb its nuclear programme.

A decade ago many policymakers saw sanctions as a cheaper, safer alternative to war, allowing the economically dominant West to cripple hostile regimes without firing a shot. They were far too optimistic, as Syria shows. But that does not mean that sanctions are useless. They should be thought of as a dial that can be turned up and down over time. They cannot depose despots such as Mr Assad, but they can perhaps give them incentives to behave slightly less badly. For the people who suffer under rogue regimes, even small mercies are worth grasping. ■

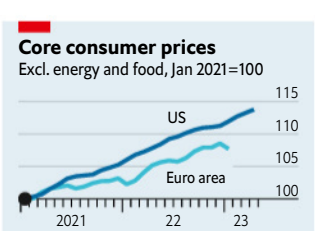
America's economy

A bad balance

President Joe Biden is more responsible for high inflation than he is for abundant jobs

The way Joe Biden tells it, the only part of his economic record that really matters is jobs. America's roaring labour market beat expectations again in April. The unemployment rate is lower than in any year since 1969. The share of 15- to 64-year-olds in employment has surpassed its pre-pandemic peak, which was itself the highest seen since 2007. Mr Biden likes to tell people that his presidency, which began in the midst of a rapid recovery from covid lockdowns, has coincided with more monthly job creation, on average, than any other in history. Provided America avoids a debt-ceiling crisis, and the associated halt to federal spending and probable lay-offs, the booming labour market looks like a ticket to re-election in 2024.

Unfortunately for Mr Biden, however, another part of his record tells a less flattering story. High inflation continues to imperil the economy and vex voters. And placing his record in a global context reveals that he is more responsible for surging prices than he is for abundant jobs.



Mr Biden is right that America's post-covid jobs recovery has been exceptional by historical standards. After the global financial crisis it took 13 years, by some measures, for the labour market to regain its health. This time it has taken little more than three years. The White House attributes surging employment to the $1.9trn "rescue plan" Mr Biden unleashed shortly after taking office in 2021. It contributed nearly a third of America's total pandemic-related fiscal stimulus, which was worth an astonishing 26% of GDP, more than twice the average in the rich world.

If the Biden stimulus had been responsible for the jobs boom, though, you would expect America's labour market to be stronger than those of its peers. But in Canada, France, Germany and Italy working-age employment rates surpassed pre-pandemic highs by the end of 2021; Japan followed in 2022. Among the G7 group of economies America has beaten to a full recovery only Brexit-blighted Britain, where the employment rate is still lower than it was at the end of 2019.

That employment bounced back in most places suggests that America's jobs recovery had more to do with the unusual nature of the pandemic recession, brought about by lockdowns and social distancing, than with Mr Biden's gargantuan stimulus. The extra public spending surely boosted demand for workers, but what followed was a historic surge in job vacancies and worker shortages as the economy overheated. Actual employment would almost certainly have shot up anyway. By the time Mr Biden came to office the jobs recovery was already two-thirds complete, having defied economists' gloomy predictions.

Mr Biden's stimulus did, however, put a rocket under inflation. In April "core" consumer prices, which exclude energy and food, were 13.4% higher than when he came to office. They have risen more than in other G7 countries, and their acceleration coincided with the introduction of Mr Biden's stimulus. Research

suggests that, even by September 2022, the largesse was pushing up core inflation by about four percentage points.

The White House is not solely responsible for inflation: the Federal Reserve failed to raise interest rates in time to offset the fiscal stimulus, and the energy crisis that followed Russia's invasion of Ukraine made a bad problem worse. But it was Mr Biden who lit the inflationary touch-paper—and whose signature policies are probably still boosting prices. It is now clear that the Inflation Reduction Act, which was supposed to cool the economy by shrinking deficits, will in fact widen them, owing to the higher-than-forecast take-up of its clean-energy tax credits.

Where America's recent record looks exceptionally good is growth. The IMF forecasts that its GDP per person will this year be 4.6% larger than in 2019, easily the biggest increase among the G7 economies. Sadly for Mr Biden, though, this has little to do with him. The outperformance reflects better growth in productivity, not a faster employment rebound. America exports more energy than it imports, meaning in aggregate it benefited from surging fuel prices. And its pandemic spending from 2020 onwards focused more on supporting incomes than preserving jobs, resulting in a faster reallocation of workers around the economy than in Europe, which relied on subsidised furlough schemes. Both factors predate Mr Biden's presidency.

Voters seem to sense that the main effect of the president's economic policies to date has been to worsen inflation. Polls show that far more Americans think Donald Trump, Mr Biden's predecessor and probable opponent in 2024, did a better job than Mr Biden of handling the economy, than the reverse. The longer inflation persists, the more likely it becomes that the Fed keeps rates high enough to tip America into recession—perhaps around the time of the election. Mr Biden's largesse could go down as the mistake that let Mr Trump back into office. ■

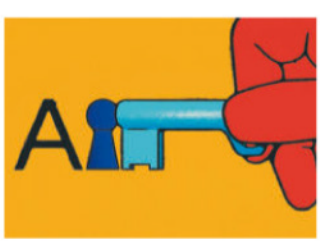
The economics of AI

A stochastic parrot in every pot?

What a leaked memo from Google reveals about the future of artificial intelligence

They have changed the world by writing software. But techy types are also known for composing lengthy memos in prose, the most famous of which have marked turning points in computing. Think of Bill Gates's "Internet tidal wave" memo of 1995, which reoriented Microsoft towards the web; or Jeff Bezos's "API mandate" memo of 2002, which opened up Amazon's digital infrastructure, paving the way for modern cloud computing. Now techies are abuzz about another memo, this time leaked from within Google, titled "We have no moat". Its unknown author details the astonishing progress being made in artificial intelligence (AI)—and challenges some long-held assumptions about the balance of power in this fast-moving industry.

AI burst into the public consciousness with the launch in late 2022 of ChatGPT, a chatbot powered by a "large language model" (LLM) made by OpenAI, a startup closely linked to Microsoft. Its success prompted Google and other tech firms to release their own LLM-powered chatbots. Such systems can generate text and hold realistic conversations because they have been trained using trillions of words taken from the internet. Training a large LLM takes months and costs tens of millions of dollars. This led to concerns that AI would be dominated by a few deep-pocketed firms.



But that assumption is wrong, says the Google memo. It notes that researchers in the open-source community, using free, online resources, are now achieving results comparable to the biggest proprietary models. It turns out that LLMs can be "fine-tuned" using a technique called low-rank adaptation, or LoRa. This allows an existing LLM to be optimised for a particular task far more quickly and cheaply than training an LLM from scratch.

Activity in open-source AI exploded in March, when LLaMA, a model created by Meta, Facebook's parent, was leaked online. Although it is smaller than the largest LLMs (its smallest version has 7bn parameters, compared with 540bn for Google's PaLM) it was quickly fine-tuned to produce results comparable to the original version of ChatGPT on some tasks. As open-source researchers built on each other's work with LLaMA, "a tremendous outpouring of innovation followed," the memo's author writes.

This could have seismic implications for the industry's future. "The barrier to entry for training and experimentation has dropped from the total output of a major research organisation to one person, an evening, and a beefy laptop," the Google memo claims. An LLM can now be fine-tuned for $100 in a few hours. With its fast-moving, collaborative and low-cost model, "open-source has some significant advantages that we cannot replicate." Hence the memo's title: this may mean Google has no defensive "moat" against open-source competitors. Nor, for that matter, does OpenAI (see Finance & economics section).

Not everyone agrees with this thesis. It is true that the internet runs on open-source software. But people use paid-for, proprietary software, from Adobe Photoshop to Microsoft Windows, as well. AI may find a similar balance. Moreover, benchmarking AI systems is notoriously hard. Yet even if the memo is partly right, the implication is that access to AI technology will be far more democratised than seemed possible even a year ago. Powerful LLMs can be run on a laptop; anyone who wants to can now fine-tune their own AI.

This has both positive and negative implications. On the plus side, it makes monopolistic control of AI by a handful of companies far less likely. It will make access to AI much cheaper, accelerate innovation across the field and make it easier for researchers to analyse the behaviour of AI systems (their access to proprietary models was limited), boosting transparency and safety. But easier access to AI also means bad actors will be able to fine-tune systems for nefarious purposes, such as generating disinformation. It means Western attempts to prevent hostile regimes from gaining access to powerful AI technology will fail. And it makes AI harder to regulate, because the genie is out of the bottle.

Whether Google and its ilk really have lost their moat in AI will soon become apparent. But as with those previous memos, this feels like another turning point for computing. ■

Letters

Subtle support for Ukraine

"How to survive a superpower split" (April 15th) highlighted how the 25 non-aligned "transactional" countries you listed are using diplomacy, trade and investment to play more diverse global roles. Yet the behaviour of the T25 also has some commonality with other parts of the world. You say that they have "sat on the fence" on the Ukraine war. It is true that this group has not sanctioned Russia or supplied military equipment to Ukraine. They have no record of ever imposing sanctions except when mandated by the UN. However, 19 out of the T25 supported the UN General Assembly resolution of February 23rd 2023 calling on Russia to withdraw from Ukraine. The other six abstained. None voted with Russia. A month later the G20 drafted a statement in similar terms and the Indian foreign minister said that all but Russia and China were ready to support it. And no G20 or T25 country, including China and India, has recognised the Russian annexation of Crimea.

PAUL HARE
Boston University

America and Israel

America's partnership with Israel has not always run smoothly (Lexington, April 29th). Although Harry Truman did recognise the new state of Israel his administration slapped an arms embargo on it, even prosecuting Americans who broke the ban. Only communist Czechoslovakia was willing to arm Israel. Dwight Eisenhower openly sided with Egypt during the Suez crisis and threatened Israel with UN sanctions. Eventually an ineffective UN peacekeeping force and worthless promises allowed Israel to save face, but the lack of security led directly to another war a decade later. It was John Kennedy who sent American weapons to Israel for the first time. Support for Israel is broad and bipartisan, but it has not always been so.

CHARLES HALL
New York

The Turkish election

The Economist did not surprise us in its misguided attempt to tell Turkish voters how they should act ("The most important election this year", May 6th). Türkiye is a democratic country that has a long-standing tradition of holding free and fair elections, where governments have been elected into office by popular vote. Trying to belittle and smear the democratic choice of the people, and attempting to lecture them from afar on what they "should" do comes off as presumptuous to say the least.

Although your coverage dismissed the contributions Türkiye made to global and regional security and welfare for decades, my country will continue to be a provider of peace in a volatile region. We deem this a responsibility to our history and people.

OSMAN KORAY ERTAŞ
Turkish ambassador
London

Don't regulate AI now

Your recent coverage on artificial intelligence was inspired, though your argument for regulating AI boiled down to comparing the technology to cars, planes and medicines ("How to worry wisely about AI", April 22nd). This is not a good analogy. Regulating AI is more like regulating physics or mechanical engineering, in other words it makes no sense. Specific applications of AI can be and are regulated, such as in self-driving cars. Many regulations assume human biases that are not present in AI (see chapter 21 of Daniel Kahneman's "Thinking Fast and Slow"). The question is then whether these products should be regulated differently when AI is involved.

If AI gives rise to entirely new products then they should be regulated as such, if needed, but it would be quite premature to try to do so now. Regulating a nascent industry like AI opens the door to all sorts of noxious political and special-group interference. Imagine if the same had happened to the internet. The EU's "regulate first, ask questions later" approach is damaging to both consumers and the European tech industry. Kudos to Britain and America for being more sensible so far.

PEDRO DOMINGOS
Professor emeritus, computer science and engineering
University of Washington
Seattle

In order to endanger civilisation a super-powered AI would merely need access to money and unsavoury information. It would readily find both of these on the internet. The existence of cryptocurrencies makes the first part easier. A capable AI with access to funds would be able to avail itself of a vast array of professional services used by the very wealthy to hide their identities. It would thereby be able to conduct legitimate business dealings, and also be able to procure illegitimate services (such as contract killings) on the dark net.

The problem is that an AI doesn't necessarily even need to be "sentient" to do these things. A complex enough "model" that uses the internet as training data may inadvertently "teach" an AI not only that crime pays, but also how to do it. Now imagine what such a system could accomplish under the direction of a malicious human operator. If we can't stop a 21-year-old from leaking top-secret documents, how would we stop a disgruntled employee from repurposing a powerful AI for crime?

In China the unpredictability of complex AI models causes the government to worry that such a model might also "learn" that democracy results in better outcomes for people, and how to circumvent authoritarian controls.

MICHAEL FRANZ
Professor of computer science
University of California, Irvine

We share your assessment that Britain's "light-touch" approach to regulating AI is unlikely to establish the necessary guardrails to make it safe and reliable. In our comprehensive survey of national AI policies and practices, the Artificial Intelligence and Democratic Values index, we found that countries favour greater regulation as they develop a deeper understanding of the uses of AI. This is true not only in the EU and China, but also in America, where Joe Biden has recently stated that companies should not release commercial AI products that are not safe. The White House has called for an AI bill of rights, and federal agencies, including the Federal Trade Commission, have issued a joint declaration on enforcement efforts against discrimination and bias in automated systems. Chuck Schumer, the leader of the Senate, has made AI a legislative priority.

As for the principles-based approach you propose, one possibility is the Universal Guidelines for Artificial Intelligence, a foundational framework for AI policy that outlines rights and responsibilities for the development and deployment of AI systems to maximise the benefits and minimise the risks.

MERVE HICKOK
President
LORRAINE KISSELBURGH
Chair
MARC ROTENBERG
Executive director
Centre for AI and Digital Policy
Washington, DC

If an AI can be "poisoned" to not recognise an apple, or act in a nefarious way, then surely it can also be poisoned into preventing an extinction event with the injection of the right data. Google is ahead of the game in this respect, releasing its killer-robots.txt Easter egg a decade before the rest of us started worrying about AI.

NICK WILLS-JOHNSON
Victoria Park, Australia

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The age of superpower parity

HONG KONG

The meteoric rise of China's economy is ending. Will it ever overtake America's?

China has this year liberated its economy from the lockdowns, quarantines and other strictures of its "zero-covid" regime. But it has not freed itself from longer-term worries about its growth prospects. Its population is shrinking. Its epic housing boom is over. Thanks to a regulatory crackdown on e-commerce firms, the Communist Party has cowed the tech billionaires it once courted. Jack Ma, a former teacher who became one of China's most celebrated entrepreneurs, has returned to teaching—in Japan.

The Communist Party now prizes security over prosperity, greatness over growth, sturdy self-reliance over the filigreed interdependence that distinguished China's past economic success. Foreign investors are more wary, seeking to relocate or at least diversify their supply chains. And America is eager to limit Chinese access to some "foundational technologies". The economics of mutual benefit has yielded to the geopolitics of mutual suspicion.

All this has led many analysts to cut their long-term forecasts for China's growth, even as they raise predictions for this year. Some ask how much longer China's economy can grow faster than America's. The answer will affect far more than factory orders or personal incomes. It will shape the world order.

The previous consensus, both within and outside China, was that its economy would soon eclipse America's. That, in turn, would allow China to become the world's pre-eminent military power, and so supplant America as the world's most powerful country. This remains a common view. Yao Yang, a respected economist at Peking University, believes China's GDP can overtake America's by 2029.

But others believe China's economic clout relative to that of its rivals is nearing a peak. Hal Brands and Michael Beckley, two American political scientists, argue that China's rise is already coming to a halt. The age of "peak China", as they call it, is upon us—and it is far less Olympian a summit than most had predicted.

In 2011 Goldman Sachs projected that China's GDP would surpass America's in 2026 and become over 50% larger by mid-century. No peak was in sight. At the end of last year the bank revisited its calculations. It now thinks China's economy will not overtake America's until 2035 and at its high point will be only 14% bigger (see chart on next page).

China's peak looks similar in an influential forecast from last year by Roland Rajah and Alyssa Leng of the Lowy Institute, an Australian think-tank. Others see an even lower summit. Capital Economics, a research firm, argues that China's economy will never be number one. It will reach 90% of America's size in 2035 and then lose ground. In so far as the Peak China thesis can be captured in a single projection, this is it.

What accounts for the lower expectations for China's economy? And how much of a reduction is war-

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ranted? The answers hinge on three variables: population, productivity and prices. Start with population. China's workforce has already peaked, according to official statistics. It has 4.5 times as many 15- to 64-year-olds as America. By mid-century it will have only 3.4 times as many, according to the UN's "median" forecast. By the end of the century the ratio will drop to 1.7.

But China's demographic prospects have not changed much over the past decade, even as forecasts for economic growth have shrunk. In fact, Goldman Sachs's new predictions assume a gentler decline in China's workforce than the old ones, because improvements in health may keep older workers at the grindstone for longer. The bank believes the labour supply in China will drop by about 7% from 2025 to 2050.

The biggest swing in sentiment relates not to population but to productivity. Back in 2011 Goldman Sachs thought labour productivity would grow by about 4.8% a year on average over the next 20 years. Now the bank thinks it will grow by about 3%. Mark Williams of Capital Economics takes a similar view. China will fall "off the path of an Asian outperformer onto the path of a solidly respectable emerging economy", he says.

There are good reasons to be gloomy about Chinese workers' productivity. As China ages, it will have to devote more of its economic energies to serving the elderly, leaving less to invest in new kit and capacity. What is more, after decades of rapid capital accumulation, the returns to new investments are diminishing. A new high-speed rail line across mountainous Tibet yields far smaller benefits at much greater cost than connecting Beijing and Shanghai, for instance.

China's rulers are trying to impose more discipline on local governments, which build much of China's questionable infrastructure. Unfortunately, they seem equally keen to impose their will on China's private enterprises. In China, unlike elsewhere, firms earn a smaller return on their assets as they grow bigger, points out Capital Economics: "Get to a certain size and companies have to give as much thought to meeting the needs of officials as those of consumers."

It is not just their own government that is hobbling Chinese businesses. In October America imposed controls on sales of advanced computer chips to China. This will hurt Chinese firms making products like mobile phones, medical equipment and cars. Goldman Sachs has not incorporated this damage into its long-term forecasts, but estimates that China's GDP towards the end of this decade could be about 2% smaller than it would otherwise have been.

The tech war could go further. Diego Cerdeiro of the IMF and his co-authors have examined a scenario in which America curtails its own technology trade with China, persuades other OECD members to follow suit, and forces countries outside this club to pick sides in the battle. Under this extreme scenario, China's economy could be about 9% smaller in ten years' time than it otherwise would be. The idea that China's productivity growth might be closer to 3% than 5%, in other words, is not far-fetched.

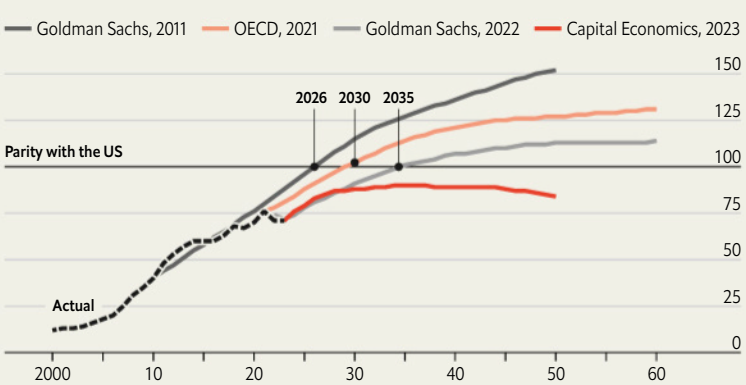
Any predictions of the economic future must, of course, be taken with a pinch of salt. Forecasts often go awry. Small differences in the evolution of productivity or population when combined and compounded over many years can yield starkly different outcomes.

Forecasts are also sensitive to prices—especially the relative price of currencies. Unexpected shifts in exchange rates can make a mockery of predictions of relative economic heft. At the moment, a basket of goods and services that costs $100 in America costs only about $60 in China. That suggests its currency, the yuan, is undervalued. Capital Economics thinks this undervaluation will persist. Goldman Sachs, on the other hand, believes it will narrow, either because the yuan strengthens or because prices rise faster in China than in America. This process will, in Goldman's view, add about 20% to China's GDP by mid-century.

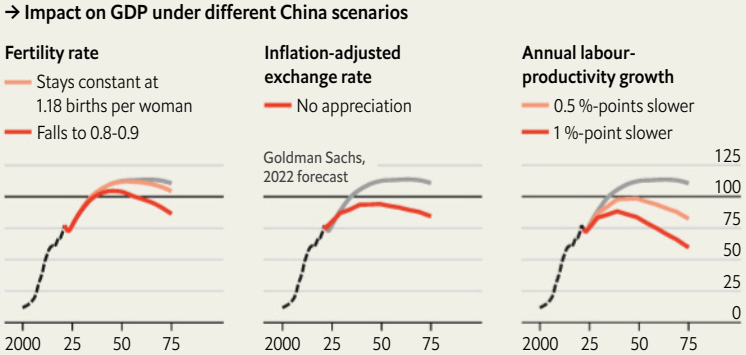
If China's prices or exchange rate fail to rise as Goldman Sachs expects, then China's GDP might never overtake America's. If China's labour productivity grows just half a percentage point slower than Goldman Sachs envisages, its GDP, everything else constant, will also never surpass America's (see chart). The same is true if America grows half a point faster (as Capital Economic projects). If China's fertility rate declines further (to 0.85 children per woman by mid-century), it might eke out a lead in the 2030s only to lose it in the 2050s. Even if China's economy does become the biggest in the world, its lead is likely to remain small. It is unlikely to establish an edge over America equivalent to the 40% lead America now enjoys over it, Mr Rajah and Ms Leng argue.

It also seems safe to say that China and America will remain in a position of near-parity for decades. In Goldman Sachs's scenario, China maintains a small but persistent lead over America for more than 40 years. Even in Capital Economics's projection, China's GDP will still be over 80% of America's as late as 2050. China will remain a geopolitical rival to be reckoned with. That is crucial: if China's peak is more Table Mountain than K2, its leaders will have little incentive to rush to confrontation before decline sets in. ■

→ Forecasts of China's GDP, as % of America's



→ Impact on GDP under different China scenarios



Sources: Goldman Sachs; OECD; Capital Economics; *The Economist*

Military competition

Of battleships and displacement

China's military might is nowhere near its peak

Ever since British troops triumphed in the opium wars of the 19th century, Chinese modernisers have dreamed of building world-class armed forces. China's sailing ships were no match for British steam-powered gunboats, wrote Li Hongzhang, a scholar-official who helped set up the country's first modern arsenal and shipyard in Shanghai in 1865. Nonetheless, he predicted, if China systematically studied Western technology, as Russia and Japan had, it "could be self-sufficient after a hundred years".

It took longer than Li imagined, but today his dream is within reach. China's navy surpassed America's as the world's largest around 2020. It is the centrepiece of a fighting force that the Pentagon considers its "pacing challenge". What is more, China's spending on defence is still growing, despite its slowing economy. In military terms, Chinese power is far from peaking.

China's budget for defence has risen by an average of over 9% a year since its leaders launched an ambitious military modernisation programme in the late 1990s. In 2023 it is projected to be $224bn, second only to America's, which is about four times bigger. That is an increase of 7.2% on last year, in line with China's projected rate of nominal GDP growth.

The official military budget excludes some crucial items such as weapons development. Still, it gives a sense of the trend. Mr Xi appears to be maintaining defence spending at 1.6-1.7% of GDP, roughly the same as for the past decade. If he can stick to that, based on the IMF's current GDP forecasts, China's annual military spending will still be far smaller than America's by 2030, according to the Asia Power Index compiled by the Lowy Institute, an Australian think-tank. But China will have narrowed the gap substantially by then, it predicts, increasing annual military expenditure in purchasing-power-parity terms by $155bn, compared with America's $123bn.

Aiming for superiority

Even if China's economy grows more slowly than forecast, Mr Xi has considerable leeway to divert resources to the armed forces from the civilian realm. And within the armed forces, he can prioritise areas that he considers more important strategically, for example by downsizing the army, which accounts for almost half of the PLA's 2.2m active-duty personnel.

Budgets do not tell the whole story, since money is not always spent efficiently. But it is also possible to compare military capacity more directly, by looking at numbers and capabilities of naval vessels, for instance. It is also possible to compare China's future shipbuilding plans with America's, which are public.

So what do the numbers show? China's navy has grown in the past two decades from a puny coastal force of outdated ships to a largely modern, homemade one that can conduct missions far from China's shores, such as evacuating citizens from Sudan in April. But it still lacks enough large amphibious ships to guarantee a successful invasion of Taiwan.

That will change over this decade, the Pentagon predicts, as the Chinese navy retires the last of its older ships and adds larger, modern, multi-role ones. It now has about 340 "battle force" vessels (ones that can contribute to combat), including carriers, submarines, frigates and destroyers. That is likely to reach 400 by 2025 and 440 by 2030, according to the Pentagon (see chart on next page). Among the new ships will be about a dozen more large amphibious ships.

Even assuming low defence-budget growth, China's navy would still grow to 356 ships by 2033, adding three carriers and nine big amphibious ships, estimates the Centre for Strategic and Budgetary Assessments (CSBA), an American think-tank. "I don't think the resource constraints are so formidable that Chinese leaders will begin to think that their relative power advantages are eroded," says Jack Bianchi of CSBA.

America's navy, by comparison, had a battle force of 296 ships in April (about half its cold-war peak) and expects that number to drop to about 290 by the end of this decade. Thereafter, America may start to narrow the gap. Its navy has an official goal of 355 ships. But budget constraints, political changes and other factors could make that difficult to achieve even by 2040. And while China is focusing its military build-up on Taiwan, America has to maintain a global presence.

Ship numbers can be misleading. America's vessels are still bigger and more capable. Yet China's navy is likely to catch up on those counts too in the coming decade. It is already "largely composed of modern multi-role platforms featuring advanced anti-ship, anti-air, and anti-submarine weapons and sensors," says the Pentagon. The Office of Naval Intelligence states that Chinese naval-ship design and material quality is in many cases comparable to America's "and China is quickly closing the gap in any areas of deficiency".

One of China's advantages is its vast shipbuilding industry, which is the world's largest, accounting for ▸▸

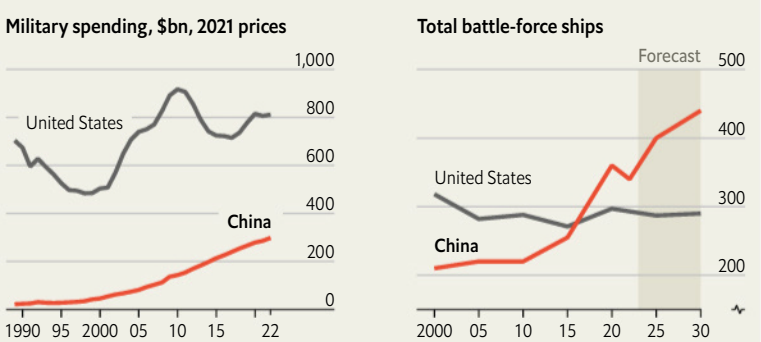
44% of commercial ships produced worldwide in 2021. A single state-run company, the China State Shipbuilding Corporation (CSSC), attracted more than a fifth of global orders that year. It also produces most of China's naval ships, often at the same shipyards as commercial vessels. For instance, the CSSC-owned Jiangnan shipyard (the one founded by Li Hongzhang in 1865), completed China's third aircraft-carrier in 2022. It has also made dozens of cargo ships, including for Taiwanese customers. Combining production in this way helps to sustain the shipyards in economic downturns, to bring mass-production techniques to naval shipbuilding and to circumvent sanctions targeting the PLA, says Monty Khanna, a retired rear-admiral in the Indian navy. America's naval shipbuilders, in contrast, focus almost exclusively on defence contracts, making it hard to scale up production or to sustain a stable supply of skilled workers.

Yet there is one crucial area in which China will not match America for many years, if not decades: experience. China has not been to war since it fought Vietnam, largely on land, in 1979. It is not yet fully accustomed to deploying carriers in peacetime, let alone combat. And it has not mastered the art of keeping its submarines hidden while tracking potentially hostile ones. America, by comparison, has honed those capabilities over decades. China is also struggling to attract enough educated recruits to man its new ships.

There is a risk that China goes to war before its armed forces are ready. Some see signs of such impatience in Mr Xi, who has supposedly ordered his armed forces to develop the capability to take Taiwan by 2027, the PLA's centenary. But that does not mean he plans to attack by then, says the CIA. Many observers believe that the deadline of 2027 is simply intended to spur the modernisation of China's forces. Mr Xi's ultimate goal, they argue, is to build a world-class fighting force by 2049, the centenary of Communist rule.

Recent war games suggest that China could perhaps win a conflict over Taiwan this decade. But that is not certain, and losses on all sides would be devastating. The longer Mr Xi waits, the more the military balance tips in China's favour—and not just in conventional terms. The Pentagon predicts China's nuclear arsenal will almost quadruple in size by 2035. Chinese strategists hope that will facilitate a peaceful takeover by persuading both Taiwan and America that conflict would be too costly. "Peak China" proponents may be correctly predicting a fraught decade ahead. But Mr Xi has time on his side. ■

→ Building up to something



Sources: SIPRI; Congressional Research Service; Department of Defence; Office of Naval Intelligence

Comprehensive national power

Sun Tzu's slide-rule

How does China measure up?

IN "GUANZI", a text from the seventh century BC, a statesman thought to be called Guan Zhong lays out the "eight views" needed to assess a country's status. "Tour its mountains and lakes," he says, "observe its agriculture, and calculate its production of six types of livestock. Then, it will be apparent whether a country is wealthy or destitute." These days, Chinese scholars employ different methods, but their aim is the same: to assess the balance of power in a hostile world.

Measuring power matters because you do not want to fight a war unless you are confident of winning. As the military strategist Sun Tzu explained a century after Guan Zhong: "He who knows himself and knows others shall be victorious in every battle…he who knows neither shall be defeated in every battle."

If the theory is simple, actually measuring power is fraught with arbitrary judgments and subjectivity. But that has not stopped Chinese scholars from trying to compute what has come to be known as Comprehensive National Power, or CNP.

In the 1980s Chinese scholars started by looking at the power equations drawn up in the West, but found them wanting. A formula devised by Ray Cline, a CIA analyst, was dismissed for being too narrow in scope and too subjective. Deng Xiaoping, China's reformist leader, had stated: "In measuring a country's national power, one must look at it comprehensively and from all sides." To cater to these demands, Chinese experts started to design their own models.

They ran into some problems. One is that the more complete the range of variables, the harder it is to allocate weights to them. In a paper from 2002, Hu Angang and Men Honghua, then of Tsinghua University, listed eight categories of resources, taking in everything

from farmland to computers. CNP is calculated as a weighted average of these resources as a share of the world's total. The Chinese Academy of Social Sciences has a similar model, but uses different indicators and weightings. Who is right? Some indexes rely for their weightings on polls of experts, but that's just a sophisticated version of the conventional wisdom.

Another problem is that the calculation of CNP produces a single number, but the components that make it up are not interchangeable. In theory CNP could predict that a widely admired country which defends its world-class dance troupes with a gunboat and a couple of tanks will be able to hold its own against a Philistine horde that spends all its money on weapons.

What's more, effective power depends on the context. A country's cultural exports can convey soft power, but they are of little use in a war. David Baldwin of Princeton University writes that assessing power without a context is like discussing what makes up a good hand without specifying the card game.

You might think all those complications would be enough to knock CNP on the head. Instead, it has spurred researchers to come up with their own, improved versions. *The Economist* has counted 69 of them. Not to be deterred, we have added to the pile. Drawing inspiration from an article by Michael Beckley of Tufts University, we zoom in on the three essential ingredients of national power: economic heft, productive efficiency and military might.

A country cannot be powerful if its economy is inefficient. In the 19th century China lost two opium wars to Britain, despite having a GDP twice the size. On the other hand, neither can a country be powerful if its economy is efficient but small. Luxembourg has not won many wars. And countries cannot fight without a decent army. In the Song dynasty the deadly Mongol cavalry outmatched even the finest Chinese infantry.

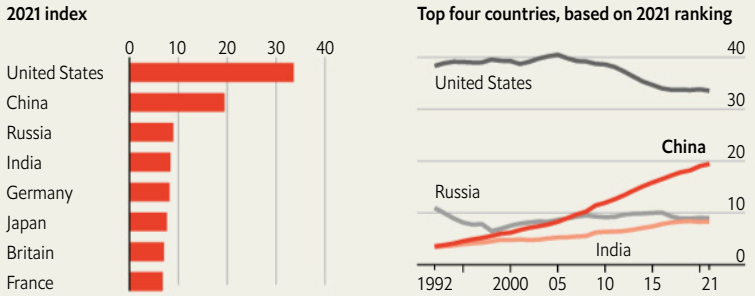
Our hard-power index therefore uses GDP per person to stand for efficiency, military expenditure for might, and non-military GDP for economic heft. These are multiplied, so that countries suffer for their deficiency in any one of them. In the extreme, if any element is zero, then a country's power is zero, too.

Of course, old weapon stocks and nuclear arms also convey might. And GDP does not always translate into economic heft or efficiency. But, at least in the current era, our proxies seem reasonable enough.

By our measure, China has been gaining on America, but the latter is still comfortably on top. Sun Tzu would predict peace for a good few years yet. ■

→ The hard-power index

Hard power* as % of top eight countries' total



Sources: World Bank; SIPRI; *The Economist* *Geometric mean of GDP per person, military spending and non-military GDP

The fear of collapse

History lessons

The fall of empires preys on Xi Jinping's mind

BY LATE JANUARY China had emerged from a tsunami of covid-19 infections that began to crash over the country a few weeks earlier, after the lifting of nearly three years of draconian pandemic controls. Officials were covering up the horrific scale of the wave's lethality, but most people's lives were returning to normal. The Communist Party felt the time was right to publish a speech by Xi Jinping, China's supreme leader, that he had delivered a year earlier, as the economy reeled from the impact of his "zero-covid" policy. It was not about the crisis at hand, but about history.

Long before foreign analysts began their recent musings on whether "peak China"—the height of the country's power—has been reached or is imminent, Mr Xi had been urging China's citizens to reflect on the peaks and troughs of the country's past. He insists that China's "great rejuvenation", to be achieved by the 100th anniversary of Communist rule in 2049, is "irreversible". That is, the country will, by then, become even stronger and more influential. But he has stressed the need to avoid mistakes that caused the fall of dynasties during the country's 2,100-year-long imperial era, which ended in 1911, as well as those that led to the collapse of the Soviet Union 80 years later. Since he took power more than a decade ago, he has often mused on the inconstancy of national greatness and threats to the party's rule. History clearly haunts him.

Mr Xi talks of the "cyclical nature of history", whereby strong and prosperous regimes sooner or later unravel. The speech he gave a year ago, to the party's chief enforcers of internal discipline, was about how China must "jump out" of this historical pattern. State media summarised Mr Xi's remarks shortly after he delivered them, but the (still only partial) text that was published in January was fuller and more dramatic. In it, Mr Xi's anxiety is clear. He told the officials that the cyclical tendency was a "major issue", relating to "the life and death of the party, and the rise or fall or success or failure of our country's socialist system".

Discussion of this cycle has a long history in China. Official literature traces it back to the party's days as a guerrilla force at the end of the second world war when its leader, Mao Zedong, was reportedly asked by an inquisitive visitor to his base how the party would avoid the trap. His (disingenuous) answer was "democracy—only if people are allowed to supervise the government will it dare not to relax". Mr Xi insists that China has become democratic already, far more so than Western countries. But state media credit him with another means of avoiding decline. He calls it "self-revolution", a euphemism for endless purges of officials who are corrupt or disloyal.

Mr Xi dwells on the collapse of the Soviet Union even more than his predecessors did. In his view, its causes were chiefly political: ideological laxity and a

Xi's worst nightmares

lack of discipline within its ruling party. In his published speeches, he does not spend much time on other problems that may have played a part, such as the financial burden of military competition with the West, or the costs of having swathes of the economy under the control of inefficient state-owned enterprises. To Mr Xi, the simple moral is that China's Communist Party needs to be much tougher. As he puts it, nobody in the Soviet Union was "man enough" to crush opposition when the crunch came.

Mr Xi endlessly calls on citizens to show confidence in China's political system and the party's policies. But he also warns of mounting perils ahead. "At present and in the future, we are facing many contradictions, risks and challenges at home and abroad, and we must not take it lightly," he said in 2016, even before Donald Trump was elected as president and tensions with America began to escalate. If China were to fail to respond effectively, he added, problems in areas such as the economy, society and the environment could "evolve into political contradictions, risks and challenges that will ultimately endanger the party's ruling status and national security".

As more difficult years loom—with an ageing society, shrinking population and slowing growth—logic might seem to prod Mr Xi to consider economic and social reforms. Useful ones would include scaling back state-owned firms, giving private businesses freer rein in critical parts of the economy and providing rural migrants with fairer access to state-funded health care and education in cities. But his end-of-dynasty fears will complicate decision-making. He views state enterprises as a bulwark of party rule and big private firms, notably those in the tech industry, with suspicion. He sees the middle class as another pillar of support: he may not want to alienate it by appearing to splurge on urban society's underdogs.

The dilemma is captured in a mid-19th-century book by Alexis de Tocqueville: "The Old Regime and the Revolution". Translations of the French historian's classic work about his country's revolution in 1789 have been hot sellers in China since the months before Mr Xi took over. It owes its popularity to an unexplained recommendation by Wang Qishan, a party bigwig who became Mr Xi's chief enforcer of discipline and, later, vice-president (he stepped down in March). Readers comb Tocqueville's analysis of France's turmoil for insights into China's future.

One clause is usually highlighted. It is that "experience teaches that the most critical moment for bad governments is the one which witnesses their first steps toward reform." It is unlikely that Mr Wang meant to imply that the party was ruling badly, or that reforms should cease. But he could have been suggesting that a period of relative prosperity, such as France experienced before the revolution, can be fraught with political danger. The party must be on its guard.

Learning from Tacitus

There is little sign of regime-threatening discontent brewing in China. But Mr Xi is certainly watchful. In 2019 China's head of public security said that preventing a "colour revolution" in China was a priority for the police. Protests in November against the zero-covid policy, though small and scattered, will have reinforced Mr Xi's concerns. Such open displays of dissent are rare. Even more unusually, some demonstrators called on Mr Xi to step down.

As economic growth slows in the years ahead, unease over living standards is likely to grow, and with it Mr Xi's anxiety. In 2014 he referred to what Chinese scholars call the "Tacitus trap". This is the idea, taken from the Roman historian's writings, that "when a ruler once becomes unpopular, all his acts, be they good or bad, tell against him." Mr Xi said: "Of course, we haven't got to this stage yet, but the problems we face can't be described as unserious. We must use huge energy to resolve them." Since then, his warnings have become more strident. "The more we proceed, the harder and more dangerous it gets," he said in 2018. Mr Xi has yet to refer publicly to the Peak China concept, but the risks of stalling are clearly on his mind. ■

Chaguan | China learns to manage decline

Lessons from Yichun, a Chinese city where children are a rarity

THE DEMOGRAPHIC milestones come thick and fast in "My Home in the Forest", the official tourism anthem of Yichun, a sprawling city in China's far north-east. The song was released in 2018 to promote the area's pine-clad hills and temperate summers. It follows a couple from their courtship in a holiday treehouse to their marriage, then years of child-rearing (the lyrics hint at repeated family visits to a local lake). It ends with their contented old age, holding hands as the sun sets over Yichun.

This musical sales pitch is revealing and poignant, for several reasons. Its focus on ecotourism reflects hopes and fears that are specific to Yichun, a city trying to reinvent itself after its vast state-owned timber mills closed about a decade ago. Its boosterism shows off the entrepreneurial side of Chinese bureaucrats, who for several decades now have earned bonuses and promotions by presiding over local economic growth. When Chaguan visited recently, city officials tirelessly showed off Yichun's attractions, from tasty blueberries to its dinosaur museum. By way of emphasis, officials unexpectedly interrupted an interview to break into "My Home in the Forest", clapping and swaying as they sang.

Still, the ballad's wistful evocation of family life should haunt Communist Party bosses all across China. Chaguan was not in Yichun to talk about berries, but because the city is at the leading edge of a demographic crisis that will soon hit the whole country. Birth rates are falling in China. The most recent national census, in 2020, revealed a total fertility rate (births per woman) of 1.3. The UN put the number at 1.2 last year. That is among the world's lowest and far below that needed to maintain a stable population, namely, just over two children per woman.

The census found an extreme situation in Yichun. No Chinese city has as few children, as a share of its population. Just 7.4% of its 879,000 residents are under 14. For comparison, children in the same age range account for almost 18% of the Chinese population as a whole. Even in some of the greyest cities in Japan or South Korea, children are more common than in Yichun. The latest numbers are grim. In 2021 just 2,321 babies were born there, against 8,817 deaths. A generation earlier, in 2000, the city's overall population was about a third larger than today. Yichun saw over 17,000 births that year, or eight times as many babies as now.

Though exceptionally bad, Yichun's baby bust reflects demographic woes across China's north-east rustbelt. The total fertility rate in the province of Heilongjiang, of which Yichun is part, is just 0.76 babies per woman of child-bearing age. One cause is working adults heading south. Marriage rates are also falling among those who stay.

A shrinking population will test China's growth-orientated political system. On May 5th President Xi Jinping signalled new realism about this challenge at a meeting of the Central Commission for Financial and Economic Affairs, a powerful body that he chairs. The commission heard that lower birth rates, an ageing population and demographic disparities between regions are a "new normal" to which policymakers must adapt. Officials were told to focus on education, on building a "childbirth-friendly society" and on helping the old to lead active lives. Rather than growth, the talk is of "high-quality population development".

Few cities like to admit to shrinking. That is in part because officials are rewarded for GDP growth, and in part because land sales are a big source of local-government revenue. As long as cities kept expanding, officials could easily justify auctioning new plots to developers. But the latest census leaves less room for denial.

Yichun is a good place to see these trends. In 2001 the city published a plan predicting that the population would grow to 1.4m by 2020: a spectacular overestimate. In person, officials still dodge questions about birth statistics, preferring to offer anecdotes about friends having babies. Wang Hao, head of the city's Communist Youth League branch, enthuses about Yichun supporting new jobs that appeal to the young, such as tagging traffic lights on maps and street-view images for makers of autonomous cars. Tellingly, though, Mr Wang admits that he has only one child, murmuring that he and his wife are too busy for more.

The politics of contraction

Meanwhile, Yichun has quietly merged some urban districts and combined some schools. In January it shed a series of outlying subdistricts, turning them into rural townships: a rare example of de-urbanisation. Dusty, apparently deserted housing estates are not hard to spot on the edge of town. Long Ying, an urban planner at Tsinghua University, co-wrote a recent study that used satellite images of night-time lighting to identify over 750 cities in China that shrank between 2013 and 2018. He describes different causes. Some cities lose people because natural resources run out. Others shed working-age adults to nearby big cities. Remote border towns are a third category. Not all are economic laggards. Professor Long wonders if China will see a fourth category in the near-future: coastal cities that lose workers to robots while still booming. Managing decline is very new for Chinese officials, he says. But he sees examples of pragmatism, pointing to north-eastern cities that turned derelict neighbourhoods into large parks.

China's one-child policy limited births from 1980 to 2016. It left a heavy mark on cities like Yichun, with large state employers that enforced family-planning rules strictly. Now Heilongjiang offers subsidies to promote second and even third births. The money offered does not offset the economic pain of losing Yichun's timber industry, says a man collecting his only grandchild from primary school. Before, he scoffs, "people wanted to have children but weren't allowed. Now they allow it but people can't afford children". Politically, expansion is an easier sell than squeezing more from less. Party bosses are becoming more open about the task ahead. Do not expect them to sing about it. ■

Births

Modern families

Why Britain is updating its laws on surrogacy and gamete donation

When Kim Cotton, a young British woman, carried and gave birth to a baby for an anonymous couple in 1985, many Britons were horrified. Ms Cotton had been artificially inseminated by the intended father and paid £6,500 ($9,353). "Born to be sold," ran one headline. Appalled lawmakers hurriedly passed the Surrogacy Arrangements Act, which prohibited commercial surrogacy and regulated the uncompensated kind.

The number of British babies born this way has risen from fewer than 100 each year two decades ago to more than 400 each year today. Surrogacy, if not uncontroversial, has become socially acceptable in a way that would once have been unimaginable. That is partly because it is now often the "gestational" sort, meaning the surrogate does not biologically mother the baby but is implanted with a fertilised egg from the intended mother or from a donor. Yet it is also because British babymaking has become altogether less traditional.

Some of that owes to the rise in British families headed by same-sex couples. The momentous changes to the family brought about by the legalisation of gay marriage in 2014 first became evident with adoptions. Between 2015 and 2019 the number of same-sex-couple families rose by 40% to 212,000. In 2022 540 of 2,950 adoptions in England—more than one in six—were to same-sex couples (only 3% of the adult population identifies as gay or bisexual).

Yet most people who want children want babies and there have long been too few of those available to satisfy demand. In 2014 a law was passed to allow same-sex couples to apply for the "parental orders" by which the intended parents in a surrogacy arrangement assume legal parenthood. For gay men like Alan White, chair of the board of trustees of SurrogacyUK, a non-profit group, this represented a sea change. His desire to have children, he says, coupled with "societal norms around family", were among the reasons he did not come out as gay until he was in his 20s.

In parallel, advances in technology and medicine have transformed the wider fertility landscape. In vitro fertilisation means a baby can now be created by three parties—two who provide the gametes and a third who carries the fertilised egg—thus making it possible for gay men and infertile people to set about having a baby. Egg-freezing and other advances have also allowed single women to delay parenthood and undertake it alone. All this has fuelled a boom in the market for procreation: the Human Fertilisation and Embryology Authority (HFEA), a regulator, says 60% of fertility services are now paid for privately.

As a result, some of the rules governing surrogacy and fertility clinics, which in Britain are highly regulated, look out of date. The HFEA is reviewing the way fertility services are sold to patients and some aspects of sperm- and egg-donation; it will submit its recommendations later this year. In March the Law Commission (which reviews British legislation) published recommendations to update surrogacy laws. Both it and the HFEA want surrogacy and gamete donation to remain "al-

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truistic" (meaning they cannot be profit-making). But other changes are likely.

In particular the commission proposed that parental orders be ditched for Britain-born babies and that intended parents instead apply to have legal rights from their baby's birth. The current system takes too long: parents tend to take surrogate-born babies home immediately but can wait up to a year to become legal parents. This can cause anxiety for everyone (the surrogate could change her mind and keep the baby; a parent might also reconsider or become unable to care for a child).

The Law Commission says that for parents to have legal rights from birth, they and their surrogate should undergo screening and safeguarding checks overseen by non-profit surrogacy organisations, licensed by the HFEA. To allay concerns about surrogates' rights there should be a six-week period following the birth during which, if a surrogate changes her mind, she can apply for a parental order.

Natalie Gamble, the co-director of NGA Law, a firm that specialises in fertility cases, says one problem is that this change would not cover babies born via surrogacy overseas (around a third of British surrogate-born babies are estimated to be born abroad). One of the chief reasons parents use overseas surrogates is because there is a shortage in Britain. Those who can afford it often go to America, where the federal government does not regulate surrogacy. A rising number of developing countries, including India, and most European countries now prohibit commercial surrogacy (though Ukraine had become a big market before Russia's invasion).

Ms Gamble says that if surrogates were compensated, more British women might consider it. Currently, the guidance says they may be paid "expenses reasonably incurred", which routinely tot up to around £15,000. The Law Commission says that, far from allowing compensation, the law should clarify what expenses are allowable, to ensure surrogates are fairly treated.

Fears of exploitation lie behind Britain's decision to keep surrogacy altruistic: the likelihood of coercion is greater when money is involved. Michael Johnson-Ellis, co-founder of My Surrogacy Journey, a non-profit organisation, says commercialisation would lead inevitably to the involvement of profitmaking third parties like lawyers and agencies, pushing the price of surrogacy beyond the reach of many. (Thanks to the role of lawyers, agencies and clinics, having a surrogate-born baby in America can cost upwards of $200,000.) He hopes that better regulation and some advertising (a change recommended by the Law Commission) will encourage more women in Britain to consider becoming surrogates.

In the wider field of fertility, gamete donation creates many more babies than surrogacy: more than 4,000 annually, says the HFEA. The actual number may be far higher. Guidelines say no donor should parent more than ten families; the low-tech nature of sperm donation, which many lesbian couples and single mothers use to have babies, means no one is counting.

The HFEA says it too will not countenance a compensatory system as part of its review. But it is considering changing rules about egg- and sperm-donor anonymity, perhaps by allowing children to learn about their biological parents soon after birth, if donors agree. In 2005 the law was changed to ban lifelong anonymity, meaning that when children turned 18 they could request information about their biological parents. The first children to be affected by that law reach that age this year.

Nina Barnsley of Donor Conception Network (DCN), a charity, points out that Britain was ahead of the curve in forbidding anonymity: in the years since, DNA testing has exposed it as a false promise. Research shows that children who know how they were conceived—and, once they are older, by whom—do better psychologically. The Law Commission says Britain should create a surrogacy register, to help children trace the women who gave birth to them when they are older. The case of Kim Cotton shows the damage that can be done by secrets. "I'll regret for the rest of my life that I don't know who they are," she has said of the parents who paid for her baby. "I try not to think about it now, but I always remember her birthday." ■

Deaths

Fuss-free final farewells

Direct cremations and burials offer a different way to mourn

THE FERRY rounded Eel Pie Island, "The Last Time" by the Rolling Stones blowing from a tinny speaker. Celia Chasey shared memories of her brother, Colin, and cast his ashes into the Thames. There was no cremation service. Ms Chasey never saw a coffin. Farewill, a "direct cremation" specialist, simply delivered the ashes to her.

A growing number of Britons are choosing fuss-free funerals. The share of people opting for direct cremations, which include a basic coffin, transport and burning without family or friends present, has increased fivefold since 2019. They made up almost a fifth of funerals in 2022, according to figures from SunLife, an insurer. Co-operative Funeralcare says one in ten of its customers now opt for a direct cremation or burial, in which the body is buried quickly without a wake or embalming.

Direct cremations have been around for over a decade, says Deborah Smith of the National Association of Funeral Directors, a trade group. They took off during the pandemic, as families were forced to choose unattended services. But demand is now driven by other factors. Many just want a more affordable farewell. The cost of a traditional send-off in Britain, including the undertaker's fees, can be upwards of £5,000 ($6,315). A direct cremation is around £1,500 ($1,900). Britain's competition regulator introduced a law in 2021 that requires funeral providers to make prices clear, helping customers compare services.

Religion is in decline, and with it demand for ritualised ceremonies. Some clients plan send-offs on their own terms: dinner parties and discos are novel alternatives to sombre services. Others simply want less fuss. "Simplicity Cremations" by Dignity, Britain's only listed funeral provider, promise to make funerals "less of an undertaking".

Some worry that pithy slogans disguise how austere direct services can be. Funerals are intentionally public events, says Kate Woodthorpe, director of the Centre for Death and Society at the University of Bath. People wear black and weep in view of the coffin. "There's a risk, without that, [that] the bereaved will carry on as if nothing has happened." Many are happy with their choices. Ms Chasey said goodbye to her brother when he fell into a coma. After that, she says, the frills of a "proper" funeral felt trivial.

Trade

Pushing paper

Britain's services exports are booming despite Brexit. Why?

For some Brexiteers, the point of leaving the EU was to shift the country back towards making things. Relinquishing the role of Europe's financial hub, the argument went, would mean a cheaper exchange rate; that would help the country's long-dormant manufacturing sector. Many Remainers expected only half of that scenario to materialise: Brexit would indeed kill the golden goose of services trade but would not bring back the factories.

It seems as if both views were wrong. Goods exports have languished. But when it comes to services exports, Britain has enjoyed one of the best performances in the G7 (see chart). According to analysis by the Resolution Foundation, a think-tank, Britain's services exports since a new trade and co-operation agreement with the EU came into force at the start of 2021 are 3.6 percentage points higher than a typical rich country (after accounting for the differences in what it exports). Britain's legions of white-collar exporters do not seem to have been overly harmed by Brexit.

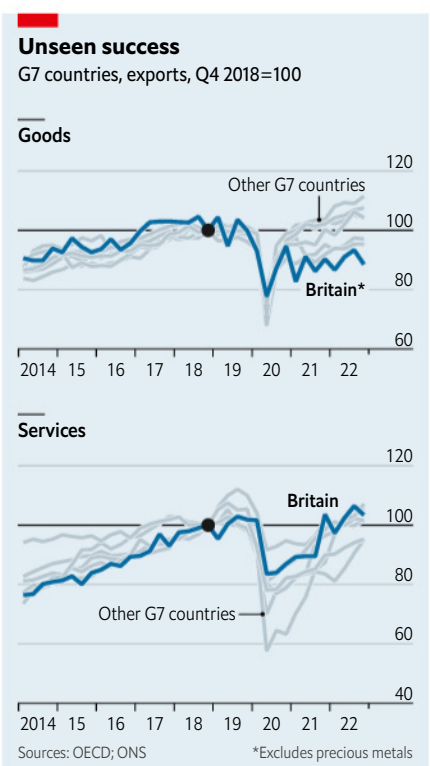
These figures do need to be taken with a pinch of salt. Trade in services can be hard to measure: exports can consist of as little as a visit to a website or a phone call, and national statistics offices struggle to identify where exactly the work is being billed. What is more, the Office for National Statistics has recently made large adjustments to the trade figures to reconcile different measures of gross domestic product. Removing these adjustments would put the country back in the middle of the G7 pack rather than at the top, says Sophie Hale, an economist at the Resolution Foundation. Still, she says, services trade is too important to Britain to just dismiss the data out of hand. And there are plausible explanations for its sparkiness.

One is that Britain's services trade is less dependent on the EU than its goods trade: around 36% of its services exports head to the bloc compared with 47% of its goods exports. Consultants and bankers in London have benefited from America's especially rapid recovery from the pandemic: services exports across the Atlantic are up by 43% compared with 2018, the last full year before trade patterns were distorted by Brexit and by the pandemic.

Britain's office drones have also been making inroads into some smaller markets, particularly economies with which the country has historic ties such as India, the United Arab Emirates and Nigeria. Indian students have more than offset a drop in demand for education from the EU: education-related travel exports to India have risen by 435% since 2018. A treaty agreeing mutual recognition of qualifications has helped, as has a move to liberalise the post-study visa regime for students. Saudi Arabia is another bright spot. During 2022 Britain sold roughly £8bn ($10.1bn) of services to the kingdom, a 78% increase compared with 2018.

The biggest explanation for the divergence between goods and services, however, lies in exports to the EU itself. Goods exports from Britain to the bloc have not regained their level of 2019, whereas services exports are up by 16%. Europe's single market in services is less developed than the one for goods; losing access to it may have mattered less to consultants than manufacturers. Services firms may also have found clever ways to ease trade frictions. Upcoming research by Martina Magli, an economist, will show that since the referendum in 2016 British firms have become more likely to sell through affiliates than directly. Since 2018 Britain's services exports to Luxembourg, a noted hub for shell companies, have more than doubled.

Such workarounds may not last. Regulators may crack down. Firms could find that the cost of these tactics blunts their competitive edge over time. Exporters who do not already have relationships with EU clients may simply not bother selling to the bloc at all. For now, however, the golden goose of services trade is still laying. ■



Critical minerals

Li detectors

Britain plays catch-up in a global scramble for essential commodities

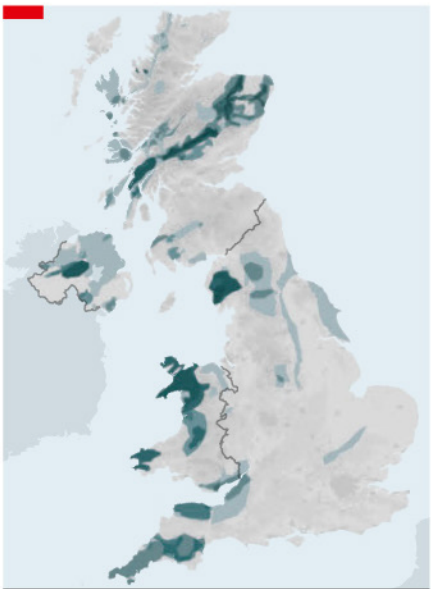
In Cornwall's mining heyday in the 18th and 19th centuries, copper and tin were hewed from beneath the county's craggy landscape. Many attempts at revival have failed, but another is under way. In April Cornish Lithium began its latest search for a prized metal of the 21st century, drilling a borehole near the village of Blackwater. Jeremy Wrathall, its founder, expects to be producing lithium by 2026. Another Cornish company, British Lithium, also expects to be in full production by then.

Lithium, which is used to make batteries for electric vehicles (EVs), is classed as a "critical mineral"—economically essential, especially in "clean" technologies, but with a risk-prone supply chain. Demand for such minerals is likely to increase several-fold in the next couple of decades. Companies and governments everywhere are scrambling to secure supplies, build processing capacity and nurture industries such as EVs and wind power. The British government's critical-minerals strategy, published last July and updated in March, listed 18 substances, including lithium, cobalt (another ingredient of EV batteries) and rare earths, key to the permanent magnets that drive EVs and wind turbines.

Geology dictates where minerals can be dug. The government's Critical Minerals Intelligence Centre has identified where in Britain exploitable deposits may lie; these include tin and tungsten as well as lithium (see map on next page). Whatever happens, Britain will have to rely on imports. Australia mines about half the world's lithium; about half of known reserves are in Latin America. China is the biggest source of 12 other minerals on the list.

Dependence on an unfriendly China is troubling—especially when China also dominates the "midstream" refining of critical minerals into metals and alloys. It processes the lion's share of lithium and cobalt. It is the leading maker of EV batteries, too. The covid-19 pandemic and Russia's invasion of Ukraine have further exposed the precariousness of supply.

Projects are in hand to bolster Britain's midstream. Two lithium refineries are being developed in north-east England. The founder and chairman of the firm behind one, Paul Atherley, also heads Pensana, a mining-and-processing company, which is building Europe's first rare-earths separation plant on the Humber estuary. It will be fed mainly by ores from its mine in An-



Britain, prospective areas for critical raw minerals More mineral types →

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gola. It (and so far one lithium refinery) is backed by the government's Automotive Transformation Fund (ATF).

The government is also pursuing international co-operation. It has joined nine other countries and the European Commission in the Minerals Security Partnership, an American-led initiative to secure supply chains. It has signed bilateral agreements—for example with Saudi Arabia, which is keen to develop critical-mineral deposits it values at $1.3trn, and South Africa, a source of platinum, palladium, manganese and more. But how all this might translate into secure supplies is unclear.

Collaborators double as competitors. America is offering subsidies of $369bn to firms exploiting and processing critical minerals and making batteries, turbines and so forth on American soil, and is luring manufacturers from Europe. In Brussels the commission has proposed extending an easing of the EU's state-aid rules to nurture critical-mineral-hungry industries. In March it proposed targets for domestic extraction and processing of critical minerals (10% and 40% respectively by 2030) and diversifying supply (no more than 65% should come from one country by then).

On May 9th industry figures told MPs looking into EV battery-making of their concern about slow progress in establishing "gigafactories", which depend on critical minerals and which, owing to local-content rules, are needed for British electric cars to retain tariff-free entry to the EU. Britain is late to the minerals race. It lacks the heft of America, China or the EU of which it once was part: the ATF, its fund for the automotive supply chain, is worth just £1bn ($1.3bn). It is a big hole to dig out of. ■

The Elizabeth line

Have you come far?

SLOUGH

London's newest railway has quickly become its most popular

JOHN BETJEMAN would have been disappointed. The poet suggested bombing Slough. The town contained "bogus-Tudor bars", "air-conditioned, bright canteens" and (a final horror) people who "often go to Maidenhead". Instead, it has become easier to get there. The Elizabeth line, a train line which runs across London on its way from Essex to Reading, stopping at Slough on the way, opened a year ago this month. Britons have been travelling on it in vast numbers: almost one in six of all rail journeys are, according to data from the Office of Rail and Road, now made on this line. Some people, it is said, even get off at Maidenhead.

London's newest railway line may not be poetic—its other stations include the less-than-lyrical Woolwich—but it is epic. Building it was what is known in engineering as a "megaproject", and the epithet is deserved. It has 42km of new rail tunnels and 13.5km of foot tunnels. Its construction involved the excavation of enough earth to build a nature reserve in the Thames, 3m cubic metres of concrete and the frequent deployment of the internationally understood unit of immensity, the Olympic swimming pool. It is big.

It is also necessary, because London, too, is big. When Victorian balloonists first took to the skies and looked down at the European cities beneath them, they were shocked that the handsome centres of Paris or London comprised such a tiny part of the whole; the famous palaces, galleries and parks were mere islands of antiquity in seas of urban sprawl and industry. Two centuries later, the seas have become oceans. From one end of the Elizabeth line to the other, the capital's Tube map now covers a distance of 100km.

Into the bowels

The line nearly didn't happen. Just as London's trains and Tubes suffer from congestion, so too do the engineering projects that create them. In the 1980s it was clear London needed more east-west rail capacity but it wasn't clear how to make it happen. Cross-rail (as it was then called) found itself in a queue with other projects, including a new train line from Chelsea to Hackney, in the east of the city. Hackney saved it. When the latter was suggested by civil servants to Margaret Thatcher, she was appalled. "Do you know what sort of people live out in Hackney? They are not Conservative voters." Cross-rail was a go.

In the intervening years Cross-rail lost its hyphen; absorbed £18.9bn ($23.8bn) in spending; and, thanks to Boris Johnson, got a new name. The "Elizabeth line" was opened by the then queen, three-and-a-half years later than expected, on May 24th 2022. The delay was understandable. Digging a big tunnel is hard; digging it under a city is harder. Engineers less break virgin soil than weave wobbling paths through existing infrastructure: at Tottenham Court Road the boring machines passed 60 centimetres from a Northern Line tunnel.

And the new line had complicated things in it. Betjeman may have sneered at air-conditioning but the Elizabeth line has it throughout. To ensure it worked, engineers had to consider big things, such as airflow in the tunnels (the 205-metre trains, each so long that their receding seats look like an artist's exercise in perspective, act as pistons), and small ones, such as the people on them (each passenger produces around 100 watts of power when seated, 120 when standing). Without air-conditioning, says Phil Clayton, its chief engineer, things "become very hot".

It was worth the bother. Travel on London's underground railways and you travel not only through space but through time. There is an archaeology of engineering beneath the city's streets, each line a railway and a relic. Whereas some typify Victorian ramshackle, the Elizabeth line is pure 21st-century chic, with uplighting and elegant, organically curving concrete. It's like a well-lit large intestine.

The megaproject is now home to life's minutiae. In Slough and Maidenhead, people embark and sit beneath too-intimate adverts for menopause pills and hair-loss treatments. Speak to them, and they say that they love it: the cleanliness, the speed and—above all—the air-conditioning. Betjeman can go hang. ■

Euroscepticism

Same anger, different victor

RAMSGATE

Labour makes striking gains in the heartland of Brexit

RAMSGATE HARBOUR once held a busy fishing fleet. Today the only sign of life is aboard four berthed cutters of the Border Force, whose task is to intercept migrants from dinghies in the English Channel and bring them to shore. As a fifth arrives, an elderly angler leans over the harbour wall. "Get back out there", he bellows, pointing to sea, "and do some work!"

Grey, Eurosceptic and itching to give Westminster a bloody nose, furious voters in blustery towns along England's east coast have been chronicled so often that they are a political cliché. Anger at immigration and at austerity drove them first into the arms of Nigel Farage's UK Independence Party (UKIP), then its successor, the Brexit Party, and then its imitator in Boris Johnson's Conservatives. Along the way, they pushed Britain out of the EU.

Ramsgate, in east Kent, is still blustery; the locals are still angry. But local elections held in much of England on May 4th sent this mood of insurrection in a surprising new direction. The Labour Party took control of several councils in pro-Brexit areas, including some in Kent. The long realignment of Eurosceptic voters away from Labour is partially unwinding, says Robert Ford of the University of Manchester, who was among the first to spot UKIP's potential in this region a decade ago.

Around a quarter of Leave voters now back Labour, up from 14% in the 2019 election. Strongly pro-Brexit areas swung most heavily to Labour in the local elections; the party slipped back in Remain strongholds (see chart). That makes its support more efficiently distributed to win a general election. Leave voters are also increasingly hostile to the Tories. "I was at a coronation street party in Kent and I was meeting working-class people saying 'Nige, you should have been our prime minister,'" says Mr Farage. "But they were all voting Labour last week."

The tides of politics

Labour's victory on Thanet Council, the district that contains Ramsgate, was especially striking. Mr Farage ran for Parliament here in 2005 and again in 2015, finishing second. In 2015 UKIP took control of the council, the first and last it would run. (The result was shambolic.) The area brought together two wings of UKIP's support, notes Michael Crick, Mr Farage's biographer: "retired colonels in blazers, enjoying a G&T after a round of golf" in towns such as Sandwich, and the white working class living on council estates around Ramsgate. Craig Mackinlay, the Tory MP, is a former UKIP bigwig.

"The issue of Brexit has faded. It's just not on their agenda any more," says Rick Everitt, the local Labour leader. "People's lives are dominated by the cost of living and the health service, and they are looking for whoever can best answer those questions." Britain's inflation rate stood at 10.1% in the year to March, and hospital waiting lists are not yet falling. Rishi Sunak has made "Stop the Boats" one of his main pledges, but even here it is yielding him little electoral reward.

The decision of Sir Keir Starmer, the leader of the Labour Party, to make winning back older social conservatives his central objective is bearing fruit. That meant repudiating Jeremy Corbyn, his predecessor, dumping Europhilia and taking a hard line on criminal justice. "You have to overcorrect constantly for the fact that everyone sitting around the table in any Labour Party meeting is going to be from the cities, university-educated and Remain-inclined," says one party official.

UKIP's supporters typically combined hostility to immigration with left-wing economics, and thought corporations and the rich had it too easy, notes Dr Ford. If the economy dominates their agenda, "the potential for those voters to come straight back to Labour has always been there." Sir Keir has described his programme of state intervention as a more faithful response to the Brexit referendum than the Tories' agenda. In Ramsgate, Labour has also been helped by the pandemic-era arrival of middle-class émigrés from London.

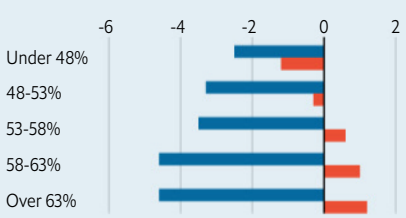
In the story of British Euroscepticism, the local elections provided another landmark: UKIP lost all its councillors, the end point of a long retreat from political influence. Reform UK, as the Brexit Party was renamed, also failed to make headway, winning just six councillors and averaging a mere 6% of the vote in wards that it contested. That is a sign of Tory success: a long march to the right on Europe has occupied the space UKIP operated in. But it is also a big problem. In previous general elections, the Tories secured victory by winning over voters who had turned to radical-right parties during local elections. That pool is much smaller now. The towns where the Brexit revolution started are showing the first signs that it may be at an end. ■

If you leave me now

Britain

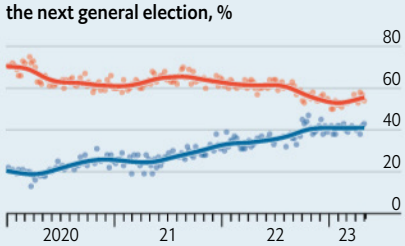
Local election results, %-point change in vote share by ward, 2022-23

Wards where 2016 "Leave" vote share was:



Conservative Labour

People who voted "Leave" in EU referendum saying they are unlikely to vote for party in the next general election, %



Sources: BBC Elections key wards database; YouGov

Correction: In Bagehot last week, we said that Richard Sharp had resigned as chairman of the BBC after he failed to declare his role in introducing Boris Johnson to a businessman who had offered to lend money to the former prime minister. In fact, Mr Sharp had attempted to arrange a meeting between the businessman and the cabinet secretary.

Bagehot | To build or to block?

How housing became the new divide in British politics

When the Green Party launched its local-elections campaign in Stowmarket in Suffolk, it did so deep in Tory territory. Suffolk is a conservative place by any definition. The county's MPs are all Conservative. It voted to leave the EU by a chunky margin. It is a land of Barbour jackets, the wax coats that are ubiquitous in rural England, rather than the more Bohemian fashion found in typical Green strongholds such as Bristol.

Yet the Greens had a compelling pitch for these voters: housing. More specifically: less of it. Sprawling developments would be a thing of the past under a Green regime. So would housing targets that compel councils to approve them. The pitch worked. On May 5th Mid Suffolk District Council became the first local authority in Britain to be solely controlled by the Green Party.

Housing policy divides the country in odd ways. Britain has fewer houses than it needs, if its European peers are anything to go by. England has fewer homes per person than every other big rich European country. Yet Britons are split on whether to catch up. According to a study by Ben Ansell, an Oxford academic and author of "Why Politics Fails", an average of 37% of people in each constituency support building more local housing. But an average of 39% oppose the idea. Britain is a country of Builders and Blockers—and its political parties have each decided which group to pursue.

Labour is posing as the party of Builders. Places that most support housing are in the places Labour needs either to hold or win back at the next general election, according to Mr Ansell's study. Support for home-building is concentrated in London and smaller cities as well as in Scotland and the so-called Red Wall, a ribbon of northern constituencies that Labour lost in the 2019 election. Plenty of natural Labour supporters may balk at building. But this is a fight the party wants to have. For Labour, nimbyism is another abstract noun to be abolished, like crime or poverty.

The Conservatives have ended up as a party of Blockers. After a rebellion by Tory MPs last year, the government scrapped targets that compelled councils to build more homes. Since the Tories came to power in 2010, various proposals to reform planning have been thwarted by MPs who rely on Blockers for their seats. Michael Gove, the cabinet minister responsible for housing, thinks the word "nimby" is an unfair slur. Conservative strategists are, rightly, more worried about the party's traditional southern base, where opposition to building is stronger, than its newer northern seats, where voters welcome the bulldozers. There is little benefit to building an extension if the rest of your house falls down.

Appealing to Blockers drags the Conservatives into a crowded part of the political spectrum. A nimbyish streak runs through nearly all parties bar Labour. The Liberal Democrats regularly face two ways on policy, safe in the knowledge that voters will rarely call their bluff and elect them to government. Housing is no exception. At the last general election the Liberal Democrats wanted 300,000 homes per year to be built nationally. At a local level Lib Dem councillors flaunt the number of developments scuppered, like headhunters with a belt of scalps.

Now the Greens have their own pitch to those sceptical of building. "Right Homes, Right Place, Right Price" is a fine slogan. Britain often builds ugly homes in the wrong place at extortionate cost. Yet the party's solutions are at best naive and at worst a triple-lock against building. The Greens hope a target of 100,000 social houses per year can be achieved partly by converting empty homes, rather than the grubby business of putting shovels in the ground. But England already has the lowest percentage of empty dwellings of any big European country.

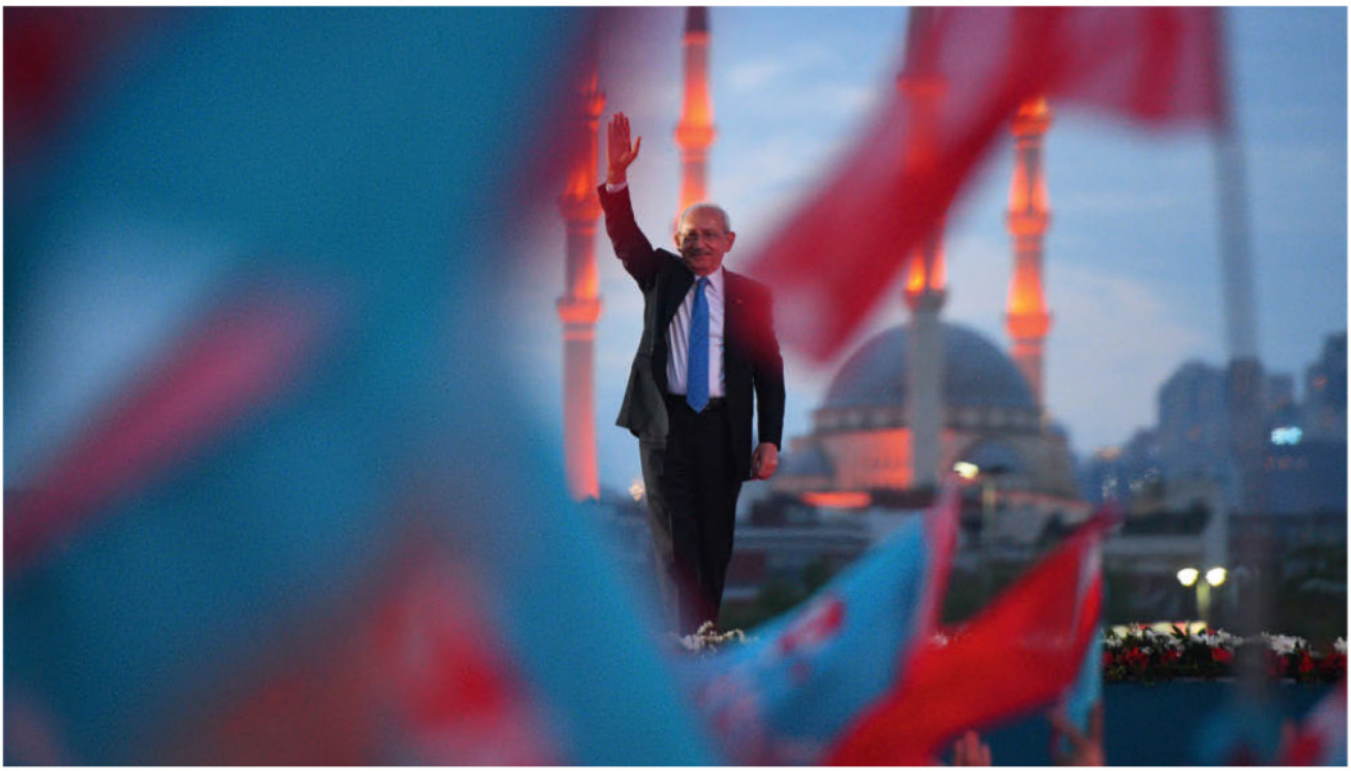
Each party offers Blockers something compelling: an excuse. No one likes being called a nimby, never mind a banana ("Build Absolutely Nothing Anywhere Near Anyone"). So opposition to development must hide behind broader ideals. Different parties offer different forms of ideological cover. After all, Conservatism should do what it says on the tin: those who live in a lovely village are within their rights to try and keep it that way. When it comes to the Greens, nimbyism can become environmentalism. For the Liberal Democrats, opposition becomes a defence of localism. Each results in fewer things being built.

Placating the Blockers leads Britain into what Mr Ansell calls the "prosperity trap". Voters in prosperous countries are unwilling to take short-term pain that will be in the country's long-term interests. The problems associated with building are concentrated and the benefits are diffuse. The result is predictably grim. Britain's houses are among the smallest and most expensive in western Europe, and levels of home-ownership have been dropping.

Some in the Conservative Party understand this well enough. Simon Clarke, a former cabinet minister, has declared: "Conservatives will never be able to out-nimby the Liberal Democrats or the Greens." Yet Mr Clarke and his ilk are in the minority among their party. A political version of the prosperity trap dogs the Tories. Opposing new homes in Conservative areas placates today's voters at the expense of future ones.

Going bananas

Housing is one of the few areas in British politics where there is fundamental disagreement. Topics where voters are totally split, such as whether to leave the EU, are rare. On the big problems facing Britain—whether lousy public services or the cost of living or cutting emissions—Britons are largely agreed on what to aim for, if not on how to get there. Housing is more binary. Some voters want it; others do not. When Britain is divided, the party that can maintain its block of voters wins. In 2019 the Conservatives were able to marshal the support of "Leave" voters, while the "Remain" vote split among Labour, the Liberal Democrats, the Greens and the Scottish National Party. Come the next election, Builders have few places to go. Blockers have plenty of choice. ■



Turkey's elections

The man who can

ANKARA

A former bureaucrat is giving Recep Tayyip Erdogan a run for his money

KEMAL KILICDAROGLU rarely talks about his personal life, and even less about his religion. But last month the man hoping to replace Recep Tayyip Erdogan as Turkey's president recorded a video in which he acknowledged he belonged to the Alevi sect, a minority that continues to face prejudice. The move was widely perceived as an attempt to pre-empt attacks by Mr Erdogan against his opponent's faith. "We have to respect different beliefs, identities and lifestyles," Mr Kilicdaroglu tells *The Economist* at his office in Ankara, when asked why he decided to make the video. "My main task is to unite."

The 74-year-old opposition leader has his work cut out for him. Mr Erdogan has been fanning the flames of Turkey's culture wars for more than a decade. Now that the prospect of losing power is looming for the first time in his long career, he has doubled down. In the final stretch of the campaign for presidential and parliamentary elections on May 14th, Mr Erdogan has accused Mr Kilicdaroglu and the rest of the opposition of "taking orders from terrorists" and courting "deviant organisations like the LGBT" community. The president's main coalition partner, Devlet Bahceli, recently went one better. "Every vote for the CHP", he said on May 4th, referring to Mr Kilicdaroglu's Republican People's Party, "is a bullet for our soldiers."

Such inflammatory talk has not fallen on deaf ears. On May 7th stones lobbed by pro-government protesters smashed the windows of a campaign bus carrying the CHP mayor of Istanbul, Ekrem Imamoglu, injuring a dozen people. The opposition called the attack, which took place in Erzurum, a city in eastern Turkey, a government provocation. Mr Erdogan said Mr Imamoglu incited the violence.

Mr Kilicdaroglu, looking slightly frazzled, possibly by the pace of the campaign, says he will heal the divisions Turkey's strongman has sown. But he has an election to win first. Most polls give the CHP leader a narrow edge over Mr Erdogan. But unless either man receives an absolute majority on May 14th a run-off will take place two weeks later. That seems the more likely scenario, because two other first-round candidates are expected to receive a combined 5% or so of the vote.

Yet Mr Kilicdaroglu hopes to win in round one. "Turkey cannot afford to lose any more time," he says, referring to the need to tame inflation and corruption, breathe life into the Turkish lira and attract foreign investment. "We need to restore confidence, abroad and at home."

Opposition supporters fear a run-off could give Mr Erdogan time to make up ground by stoking more division, promising more handouts and using his control over state institutions. He has already commandeered public resources for his campaign, offered millions of households free natural gas and launched one mega-project after another. The country's captive media have risen to the occasion. The state news channel gave Turkey's leader over 32 hours of live coverage last month. Mr Kilicdaroglu got 32 minutes.

Mr Kilicdaroglu has already done a fair deal of uniting. Over the past few years he has brought together the CHP, which he has headed since 2010, the nationalist Good Party and four smaller parties to form the Nation Alliance. He has also transformed his own party. In the 2000s, the

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31 Charlemagne: Dodgy Austria

staunchly secular CHP refused to have anything to do with the elected president because his wife wore an Islamic headscarf, and refused to discuss new rights for the Kurds, Turkey's biggest ethnic minority. Mr Kilicdaroglu has dumped some of the ideological baggage, and it has paid dividends. Turkey's main Kurdish party, the Peoples' Democratic Party (HDP), formally endorsed him last month.

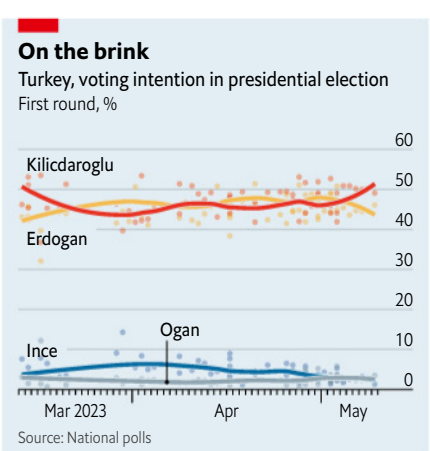
His priorities, says Mr Kilicdaroglu, would be the economy and rule of law. Both are in bad shape. Mr Erdogan's conviction that bringing down interest rates stabilises prices, a misguided theory reborn as government policy, has unleashed annualised inflation that topped 85% last year, before easing to 44% last month. Mr Kilicdaroglu and company say they would allow the central bank to raise rates, slow or stop the sale of dollar reserves, and lure back foreign investors.

Mr Kilicdaroglu says Turkey needs to be pulled back from the brink of dictatorship. "The legislature and the courts are in the hands of one man," he says. "We need to restore the separation of powers." He pledges to scrap a law that foresees prison terms for "insulting" the president, to end Mr Erdogan's policy of sacking elected HDP mayors and to implement decisions of the European Court of Human Rights. This would mean freedom for Osman Kavala, a philanthropist sentenced to life in prison on farcical coup charges; Selahattin Demirtas, a former leader of the HDP; and perhaps other political prisoners.

But Mr Kilicdaroglu may struggle to deliver on his promise to dismantle Mr Erdogan's executive presidency and hand power back from his 1,150-room palace to the country's 600-seat parliament. Polls suggest the Nation Alliance and the HDP might scrape together a narrow majority in the assembly, but will not come close to the 360 votes needed to put an amended constitution to a referendum. Cohabitation would not look pretty, either. If Mr Kilicdaroglu wins the country's top office but Mr Erdogan's coalition retains control of parliament, the new president would have little choice but to govern by decree.

Even so, Mr Kilicdaroglu says he will take key decisions together with the five other leaders of his alliance and give ministers considerable leeway. Rule by consensus instead of charisma would come naturally to Mr Kilicdaroglu, a former finance-ministry and social-security official. "He's a bureaucrat, and his whole personality is shaped by bureaucracy," says Riza Turmen, a former CHP parliamentarian. "He's not a man of radical changes."

But he may be the change Turkey needs. "Alevi", the video he posted to social media in April, has been viewed 115m times. "It shows people are tired of these divisions," Mr Kilicdaroglu says, "and that they want them to end." ■



Drug policy

Up in smoke

The European legalisation of cannabis moves into the slow-dopey lane

CANNABIS IS EASILY the most popular illicit drug in Europe. About 28% of adult Europeans have taken a toke during their lifetime; the French top the league of stoners, at almost 45%. Moreover, attitudes towards the drug's use are changing rapidly. In Germany, for example, support for legalisation has moved from 30% in favour in 2014 to 61% last year.

Yet Germany's plans to move to full legalisation of consumption and sales came to an abrupt halt last month. Until recently, Germany's health minister, Karl Lauterbach, had been upbeat about the prospects for radical change. But following talks with the European Commission the plan has gone up in a cloud of smoke, like the comedians Cheech and Chong's famous van made of weed. Shorn of a German impetus, Europe-wide cannabis reform now looks unlikely any time soon.

Under Germany's revised strategy, adults will be allowed to grow cannabis in their own home and to form "cannabis social clubs". These are non-profit associations within which the growth and distribution of cannabis is permitted, though the product cannot be sold to anyone else. Rather than blazing a trail in Europe, then, the Germans are following a highly limited strategy that even strict countries such as Spain and Malta have already adopted.

Nobody is entirely clear why the Germans watered down their plans, says Dorien Rookmaker, a Dutch MEP who is involved in a cross-party European Parliament group on the legalisation of cannabis for personal use. But Martin Jelsma of the Transnational Institute, a Dutch-founded think-tank, thinks the reason is that the proposals are not in compliance with an EU Council framework decision on drugs in 2004, nor with three relevant UN treaties. The EU's framework agreement harmonised minimum sentences for drug-trafficking offences in the bloc, but it left the EU's member states some legal discretion when it comes to personal use, social clubs and the possession of weed.

Germany is also now planning for a second phase that involves pilot projects in which local sales will be allowed. Details of these schemes have not yet been announced. Will they actually happen? Possibly. The Netherlands is planning to launch just such a scheme, known as the *wietexperiment*, or "weed experiment", by the end of 2023 in ten municipalities (Amsterdam's "coffee shops" are an exemption carved out before the 2004 framework came into effect). The Czech Republic, also gung-ho on the liberalisation of cannabis laws, seems likely to follow.

The legal status of these pilot schemes for sales is grey. Mr Jelsma says it would be helpful if the commission were to give some indication as to what its position is on the question. On the face of it the schemes do breach EU laws. But as they are not on a national scale, and are time-limited, the commission may not want to start an infringement procedure.

The shift in German policy represents a kicking of the can on the full European legalisation of cannabis. One factor may well be that no one has the appetite for such regulatory aggravation right now, with a war in Ukraine and high inflation to contend with. Still, Ms Rookmaker thinks further shifts are still possible if enough countries keep pushing. ■

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Germany's lingering divide

Ost is Ost

BERLIN

A generation after Germany reunited, deep divisions remain

THE MAN in a lilac jumper is blunt. Why, he asks, is Germany a vassal of the USA? In reply Olaf Scholz, Germany's chancellor, sketches a history of the Federal Republic, patiently adding that the danger it faces right now is not America, but Russia's war on Ukraine. His conclusion, "We do not take orders," wins polite applause.

It may seem odd that 33 years after the cold war ended Germany's leader should need to persuade a fellow citizen that their country, Europe's weightiest by population and GDP, is independent. A clue lies in where this exchange happened: Cottbus, a small city at the heart of the once-vital coal industry of the once-proud country of East Germany. Across the five eastern "new states" that joined the 11 western ones of the Federal Republic in 1990, all too many people still share the dark scepticism of the man in the lilac jumper. Despite decades of massive public investment, wrenching demographic change and growing prosperity, the 20% of Germans who live in the east still tend to think differently, act differently and vote differently.

These differences matter. The east German electorate includes a big proportion of free-floaters, attached to no party. This encourages traditional parties, such as Mr Scholz's Social Democrats, to try extra-hard to woo them. Politicians may also hesitate to act—the chancellor was accused last year of being slow to release German-made Leopard tanks for Ukraine—for fear of alienating the lilac jumpers.

The worries are not misplaced. Polling by INSA, a research group, shows that in early May, for the first time, the far-right Alternative für Deutschland (AfD) overtook both of Germany's traditional centrist rivals to become the most popular party in the east (excluding Berlin). Aside from the 26% of *Ossis* who would vote for the AfD in a national election, another 9% intend to support the far-left Die Linke party. Those tallies are respectively double and triple what either party scores in the west.

On the subject of Russia and Ukraine, it is not just with other Germans that *Ossis* tend to differ, but with almost everyone else from the former Soviet Bloc. Around half of west Germans agree that America is a "dependable partner", and that Germany should boost military aid to Ukraine. But nearly three-quarters of east Germans reject both suggestions. A survey of attitudes to Russia in 2020 showed a similar gap. Easterners were far more likely to agree that Vladimir Putin was "an effective president", and far less likely to describe him as "a threat to Europe". Several explained in focus groups that experience made them "understand propaganda better" so as to "see through" the Western version. Meanwhile disgruntled elements in the east, such as Soviet-trained former army and intelligence officers whose prestige crumbled after unification, help sustain a constant anti-American hum: NATO "provoked" Russia, American oil companies profit from the war at German expense, etc.

Not exactly ostalgia

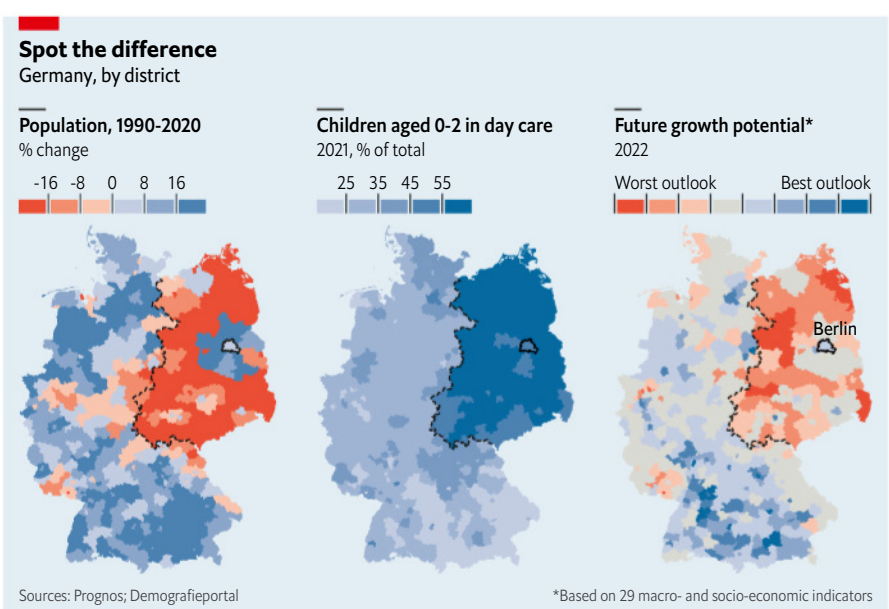
Few ordinary *Ossis* want to go back in time, insists Dirk Oschmann, the author of a recent bestseller sympathetic to their grievances. Unification is overwhelmingly a success, and the moaning partly just reflects a national penchant for gloom. Yet the gaps remain striking, starting with demography. The east is markedly older, more thinly populated and less diverse. East Germans remain underrepresented in elite professions. There are no *Ossi* generals in the German army. They account for well below 5% of federal judges or CEOs of Germany's top 100 companies. A 2022 study suggests they hold a minority of leading positions even in the east.

This lingering lag is partly a result of obvious handicaps. Unification barely touched most *Wessis*, but it tipped the east upside down, notes Katja Hoyer, an East German-born academic, in a new history of the communist state, "Beyond the Wall". It felt less like a merger than an abrupt takeover, into which the "new states" fell with zero capital of their own, few marketable assets and the wrong skills.

Not surprisingly a quarter of *Ossis* between the ages of 18 and 30, often the most qualified or ambitious, moved west. Some 3m moved the other way, but largely into bigger towns, leaving rural areas desolate. The newcomers grabbed choice property, pushing natives to cheaper urban fringes. In March, a local plebiscite about stronger environmental measures in Berlin, Germany's once-divided capital, revealed a stark new divide: gentrified central districts voted hugely in favour, whereas among the bleak suburban housing estates of Marzahn-Hellersdorf, an AfD stronghold, three-quarters voted against.

Yet what bothers easterners, says Mr Oschmann, is less economics than attitudes. To the extent that they care at all, west Germans see the east as "a place of sickness, of imbalance, of noisy whining", he says. The old East Germany may in fact have enjoyed better day care for children, less class friction and greater equality for women, but to say so invites charges of ignoring the brutish side of communist rule. Popular culture tends to portray eastern Germany as either a chamber of horrors or a theme park of ghastly fashion.

Germany's two parts are in fact slowly converging. The income gap, in particular, is shrinking, helped by big investments from firms such as Infineon, Intel and Tesla. But as jolts such as the war in Ukraine expose, the underlying fissures in German society may take yet another generation to close. ■



Europe's armies

Don't stop spending

Russia's invasion of Ukraine has engendered a sense of urgency, but too many European countries are still loth to beef up their defences

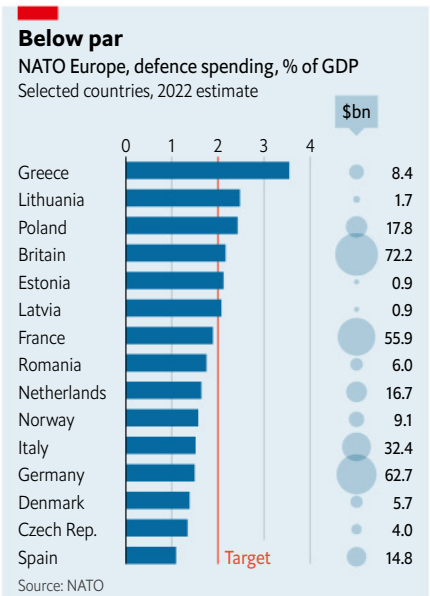
For decades after the fall of the Berlin Wall Europeans spoke of their peace dividend, a welcome freeing-up of money that seemed no longer needed for defence but could now be spent on pleasanter and more productive uses. Since Russia invaded Ukraine, all that should have changed. Yet in the 14 months since then, the picture across the continent when it comes to actually putting money where mouths are is still patchy. European defence spending went up overall by an impressive-sounding 13% last year, according to SIPRI, a think-tank in Sweden. But two-thirds of that was eaten up by inflation—and anyway it included Russia and Ukraine.

Look first at **Germany**. Three days after the invasion its chancellor, Olaf Scholz, promised a *Zeitenwende*, a historic shift. His main measure was a €100bn ($110bn) debt-funded special fund for the modernisation of the country's armed forces. But the fund is so far almost untouched. That is partly because the defence minister for most of that time, Christine Lambrecht, was out of her depth. Her successor, Boris Pistorius, who took over in January, has brought a new dynamism to the job.

Some €30bn has been earmarked for big-ticket items, such as 35 F-35 fighter jets. But most of this will not be delivered until near the end of the decade, and little money has yet found its way into actual contracts. Besides, Germany's procurement process is unwieldy. It took until the end of last year just to prepare contracts for the parliament's budget committee, which must approve any purchase bigger than €25m. And as the government is a coalition, it finds it hard to agree on how to spend the money.

Moreover, the fund will be used to help Germany's otherwise frozen €50bn defence budget limp towards the NATO goal whereby each member country should spend at least 2% of its GDP on defence. Germany will not reach that figure until 2024, ten years after Angela Merkel made her pledge when Russia annexed Crimea in 2014. The budget could then fall again.

Worse still, the longer the money sits around, the more it is eroded by inflation and the less it will buy, notes Bastian Giegerich of the International Institute for Strategic Studies, a British think-tank. Rafael Loss of the European Council on Foreign Relations reckons that if you include VAT, the sum of money left to spend on hardware may be only €50bn-70bn. Mr Giegerich thinks that up to €20bn of that may have to be spent on bringing Germany's stock of munitions up to the level expected by NATO. At present, the Bundeswehr may have only enough for two days of high-intensity warfare.



In that respect **Britain** is barely better off. It has about eight days' worth, according to simulations in a war game held in 2021: stocks have since been further depleted by the £2.3bn ($2.9bn) worth of military support it has given Ukraine (the most generous contribution in Europe). But the problems for the armed forces of the country with the second-biggest defence budget in NATO (about £50bn a year) run deeper than that. Decades of cuts to the army have called into question its ability, in a conflict involving NATO, to field even one heavy division: about 30,000 soldiers with tanks, artillery and helicopters.

Bring back Bonaparte

Just 76,000-strong and with more cuts in the pipeline, Britain's army is at its smallest since the Napoleonic era. It has to manage with ancient armoured vehicles and will not get new ones for years because of successive procurement disasters that have cost billions. The defence secretary, Ben Wallace, a former army officer, describes his forces as "hollowed out".

The British army's lack of claws reflects how the defence budget has been skewed away from the contingencies of a European land war and towards "out of area" expeditions. Two large aircraft-carriers, embarrassingly often inoperable, have recently come into service, both needing escorts and a version of the F-35 to fly from them.

The other big drain on the British budget is the nuclear deterrent's modernisation. Four new Dreadnought ballistic-missile submarines are being built to replace ageing Vanguards at a cost of at least £31bn. Britain is also expanding its arsenal of Trident missile warheads. It has already exceeded the NATO spending target, but it is unlikely to fulfil a promise to hit 2.5%.

France, too, invests heavily in its nuclear deterrent but is unlikely to start replacing its four Triomphant submarines until well into the 2030s. In January President Emmanuel Macron pledged to boost spending over seven years starting in 2024 to €413bn, a 40% cash increase from the last budget cycle that began in 2019. That should exceed NATO's target. Mr Giegerich notes that Ukraine will not determine the kind of investments that France is likely to make: "It still looks at the threat environment more in terms of the southern flank and the so-called 'arc of instability' than the eastern flank and Russia."

Italy, under Giorgia Meloni's new right-wing government, seems unlikely to spend more on defence. Despite earlier promises to get to 2% of GDP by 2028, it will probably come in at just below 1.5% this year, according to Francesco Vignarca, a military-budget analyst. Italy's biggest security concern is irregular migration and turmoil in its Mediterranean near-abroad.

By stark contrast **Poland**'s equally right-wing government under Mateusz Morawiecki aims to spend 4% of GDP this year. No country in Europe, not even the Baltic states of **Estonia**, **Latvia** and **Lithuania**, which all promise to up their military spending to 3% of GDP, has felt more threatened by Mr Putin. Despite their membership of NATO, ordinary Poles believe that if he prevails in Ukraine, they will be next. Polish analysts fear that Russia is capable of reconstituting its land forces within just a few years.

So Poland's shopping list is huge: $10bn for 18 HIMARS rocket launchers; $4.6bn for F-35 jets and 96 Apache helicopters; $4.9bn for 250 Abrams tanks; six more Patriot air-defence batteries, and much else. Poland plans to double its army to 300,000 within 12 years, making it probably the strongest land force in Europe. Quite how it will pay for all this muscle is less clear.

Russia's invasion of Ukraine has given Europe a collective shock. NATO has renewed energy and purpose. Across the continent, defence budgets are starting to rise. But the test will be how long this sense of urgency will endure. ■

Charlemagne | When bear-hugging goes wrong

Once Russia's best friend in the West, Austria is facing troubles both at home and abroad

TAKE A WRONG turn or two in the labyrinthine Austrian federal chancellery and you might end up in a small room sporadically used for press conferences. Only the plush carpet and glistening chandeliers betray the Kongresssaal's past glories. From September 1814 to June 1815, assorted emperors, dukes and ambassadors crammed inside in a bid to restore continental order in the wake of Napoleon's wars. The Congress of Vienna turned into a nine-month orgy of masked balls and lavish banquets with occasional interruptions for diplomatic chit-chat. By adroitly balancing power between rival nations, the agreement (mostly) kept the peace in Europe for just shy of a century.

Once the centre of an empire spanning from Italy to Ukraine, Vienna is now merely the capital of the EU's 14th-biggest member state. Notwithstanding the loss of its empire, in recent decades Austria thought it had found itself a role: as a member of the West, but with a special relationship with the Soviet bloc, then with Russia. The strategy had a certain dubious rationale—at least until Vladimir Putin, Russia's pound-shop Bonaparte, launched a failed full-scale invasion of Ukraine a year ago. But things in Austria have steadily got worse. A slew of corruption scandals has rumbled on nearly uninterrupted since 2019. Confidence in the country's body politic has collapsed: the chancellorship has changed hands five times in the past six years, a rate not even Italy nor Britain has been able to match.

Austria's domestic woes have links to Russia. In 2019 a leaked video showed the then vice-chancellor, Heinz-Christian Strache, chilling in Ibiza with what he thought was the niece of a pro-Kremlin businessman. In it, Mr Strache, then also the leader of the migrant-bashing Freedom Party, suggested that his new chums should take over Austria's most popular tabloid and turn it into a hard-right mouthpiece; in return, they would be granted juicy government contracts. As if to prove his own point, Mr Strache added: "We have decadence in the West."

Ensuing official investigations have revealed a veritable *matryoshka* doll of interlocking state misdeeds. Text messages sent by political grandees reportedly paint a picture of a clannish elite indulging in everything from dodgy party financing to placing pals in lucrative jobs, bribing journalists or steering tax authorities to their advantage. Dozens of top figures in the fields of politics, business and the media are being probed. The scandals have dragged in Sebastian Kurz, a political wunderkind, who stepped down as chancellor in October 2021, aged just 35 (he now works for a Silicon Valley firm, and denies any wrongdoing).

Mr Kurz had accumulated near-unchecked levels of power, and his departure from the political scene left Austria politically rudderless, says Marcus How of VE Insight, a consultancy in Vienna. This first became apparent during covid-19. The authorities imposed harsh measures such as compulsory vaccinations—and then failed to enforce them. But the war in Ukraine has proved a still greater challenge. Some consequences, such as voters left grouchy by high energy prices, can be found across Europe. But Austria's links to Russia pose unique problems.

"There has long been a feeling in Austria that we could hug the Russian bear," says Thomas Hofer, a political analyst in Vienna. Having narrowly dodged being on the wrong side of the Iron Curtain (like Germany, Austria was partitioned after the second world war, but Soviet troops moved out in 1955), it saw itself as a bridge between the rival blocs. Neutral Austria, a rare western European country to be outside NATO, played the geopolitical field to its advantage. In 1968, it became the first Western country to import Soviet gas, inspiring Germany and others later on. An anti-American bent among the population helped justify business entanglements in the unfree world.

Politically, the links with Moscow could sometimes merely be eyebrow-raising, as in 2018, when the foreign minister joyfully waltzed away with Mr Putin at her own wedding, even as other Western countries had imposed sanctions on Russia. Occasionally it looked downright dodgy, such as when former chancellors took jobs with large Russian energy and rail concerns. Vienna is rumoured to be crawling with Russian spooks: at one point Austrian intelligence services were deemed to be so compromised that their European allies refused to share information with them.

Bridge to nowhere

The war caused several European countries to rethink their ways. Finland and Sweden rushed to join NATO; Germany has weaned itself from Russian gas and is bolstering its armed forces. Austria for its part has proved slow to pivot. True, it has signed up to wide-ranging EU sanctions, and promised to spend more on defence. But it remains wedded to the idea of neutrality, making it look ambivalent during a conflict its neighbours think poses an existential threat. It is still importing oodles of Russian gas, citing "contractual obligations". Its second-biggest bank, Raiffeisen, generated over half its profits from Russia last year. In April last year the current chancellor, Karl Nehammer, became the first Western leader to visit Mr Putin since the start of the war, unsuccessfully playing the card of a bridge-builder between Russia and its foes.

Austrians like to paint themselves as mini-Germans living in a well-run Alpine type of place. The way things are going, the more apt analogy may soon be Hungary, its erstwhile partner-in-empire, which under Viktor Orban has also grown queasily close to Russia. The hard-right Freedom Party—the very one that prompted the Ibiza imbroglio, and which retains close links to Russia—has surged to a wide poll lead ahead of elections due next year. Its members of parliament showily walked out of a recent video address by Ukraine's Volodymyr Zelensky. That hardly bodes well. Vienna was once where diplomats gathered to assuage continental tensions. It may soon contribute to them instead. ■

The opioid disaster

Supply-side epidemic

BEIJING, MEXICO CITY AND SAN DIEGO

Fentanyl trafficking tests America's foreign policy, and seems to defy disruption

AT THE FAR south-west corner of America lies the busiest border crossing in the western hemisphere. People and goods constantly cruise through the port of San Ysidro, which connects Tijuana in Mexico with San Diego in California. But more nefarious things cross too. Nearly half of the fentanyl, a potent synthetic opioid, seized by Customs and Border Patrol agents since 2020 has been captured near San Diego. "I'm ground zero," says Todd Gloria, the mayor of the city.

America's 20-year opioid epidemic has been shaped by changes in supply. First pharmaceutical companies blanketed the country in legal painkillers. Doctors expanded the use of opioids against chronic pain, such as backache, in the false belief that the risks of addiction were extremely low. By the time OxyContin was reformulated in 2010 to make it harder to abuse, Mexican traffickers were peddling cheap heroin sent to addicts' doorsteps. Around 2014, more Americans started fatally overdosing on fentanyl, 50 times more potent than heroin, which traffickers had mixed in with heroin or cocaine. Overdose deaths rocketed (see chart on next page).

Fentanyl is the deadliest drug threat America has faced. It killed nearly 108,000 people in the 12 months to August 2022, more than the number of Americans who died fighting wars in Vietnam, Korea, Iraq and Afghanistan combined. Ever more seems to be entering the country. Nearly 14,000 pounds of fentanyl was seized between October and March, almost as much as the total for fiscal-year 2022. Most of the people convicted of fentanyl trafficking between 2018 and 2021 were American citizens, not Mexicans or asylum-seekers.

The epidemic is mutating again. Fentanyl is being mixed with xylazine, or tranq, an animal tranquilliser that can amplify its effects. According to the Drug Enforcement Administration (DEA), 23% of fentanyl powder and 7% of pills seized in 2022 contained xylazine. Because tranq is not an opioid, an overdose cannot be reversed with naloxone, a live-saving antidote. Officials in California are worried about addicts shifting from ingesting pills to smoking fentanyl powder. Modelling from the Stanford-Lancet Commission on the North American Opioid Epidemic suggests that 1.2m more people could die by 2029.

Last month American prosecutors indicted 28 people involved in the fentanyl trade, including the "Chapitos", the sons of Joaquín "El Chapo" Guzmán, the former leader of Mexico's Sinaloa cartel who is serving a life sentence in a Colorado prison. The charges provide a rare glimpse into the cartel, which prosecutors suggest is the biggest trafficker of fentanyl into America. The Chapitos deny the indictments' allegations.

The documents support some things already widely suspected: that Mexican cartels order the precursor chemicals for fentanyl from China. The chemicals are flown or shipped to Mexico, sometimes via countries such as Germany or Guatemala, then cooked into fentanyl in clandestine laboratories in the mountains of Sinaloa. The fin-

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ished product is transported by land, sea, air and even tunnels to safe houses in Los Angeles, Phoenix and El Paso, to be distributed across America.

But some details shed new light on just how brutal and lucrative the fentanyl trade can be (see Americas section). The DEA reckons the cartel can make a fentanyl pill for ten cents. The charges suggest that the Chapitos can then sell pills wholesale for 50 cents in America, which dealers will hawk for several dollars on the street. The documents allege that just one cartel operative in Los Angeles managed to launder $24m in roughly two years.

Fentanyl is testing America's relations with Mexico and China. Andrés Manuel López Obrador, Mexico's president, often known as AMLO, has denied that fentanyl is made in his country, and suggested that the epidemic reflected a "lack of love" within American families.

Lower-level Mexican and American officials continue to collaborate, though not as closely as they did during the presidency of Felipe Calderón, who launched Mexico's war on organised crime in 2006. This month Mexico's Congress approved a strict new law mandating ten- to 15-year prison sentences for those convicted of producing fentanyl or providing precursor chemicals.

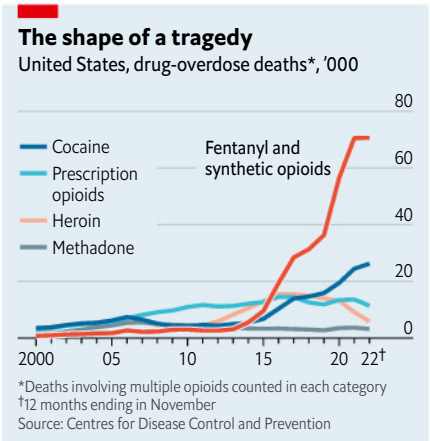
AMLO's defensiveness is in response to calls by some Republican politicians to designate Mexican cartels as terrorist organisations, and to send American forces to fight them—with or without Mexico's permission. Some Mexicans worry that the issue may become a litmus test for Republican presidential hopefuls. "It's going to become a political piñata," warns Arturo Sarukhan, who was Mexico's ambassador to America from 2007 to 2013. "They're going to try and out-Trump Trump to see who is the hardliner on what to do with Mexico."

War, what is it good for?

Increased attention to the epidemic is welcome. Drug overdoses have claimed 1m American lives since 1999, and the policy response has been sluggish and disorganised. But Republicans may have a second, more cynical, reason for their bellicose rhetoric. It is good politics.

In 1972, a year after declaring the war on drugs and weeks before an election, Richard Nixon said heroin-dealers "must be hunted to the end of the Earth". In 2016 Donald Trump touted his border wall as a way to stop not just migrants but drugs, too. President Joe Biden seems alert to the political threat. As well as the indictments of the Chapitos, and new sanctions on their suppliers, his administration is splashing out on more border-patrol agents and high-tech scanners at border crossings.

The epidemic has proved deadly south of the border, too: the cartels' turf wars have led to horrific violence. Mexican officials warn America that its inability to crack down on gun-smuggling means it is arming the cartels. America's Bureau of Alcohol, Tobacco and Firearms found that 70% of guns recovered in Mexico between 2014 and 2018 came from the United States. Mexico has sued gunmakers in America for $10bn in damages. Some small progress is being made. The gun-control law Congress passed in 2022 made it a federal crime to purchase a gun for criminals, and increased arms-trafficking sentences.



The DEA is focused on taking out the Sinaloa cartel and the Jalisco New Generation cartel (CJNG), the other big player in the fentanyl trade. "Tackling these two cartels is job one for the American people today," says Anne Milgram, the DEA's boss.

What about China? The Trump administration successfully lobbied Xi Jinping in 2019 to ban the illicit production and sale of fentanyl. Sales of the drug from China to America all but stopped, but shipments were routed through Mexico instead. As tensions rose between China and America, Chinese officials saw no reason to co-operate on drugs. China ended any remaining counter-narcotics collaboration after Nancy Pelosi, then speaker of the House of Representatives, visited Taiwan in 2022.

A report from America's Treasury Department suggests criminal groups from China launder cash for the cartels by selling the drug dollars to rich Chinese who want to evade China's capital controls. Joni Ernst, a Republican senator from Iowa, recently said she thinks China is "intentionally poisoning" Americans. The Biden administration seems to suspect gross negligence rather than asymmetric warfare.

American officials are struggling with how to disrupt trafficking while also recognising the failures of the war on drugs, not least the harm done to African-Americans, who were disproportionately imprisoned for low-level and non-violent drug crimes. The DEA wants to rebrand the effort. "We talk about this as not a war on drugs but a fight to save lives," says Ms Milgram.

The trouble is that trying to disrupt drug-trafficking is akin to battling a Hydra. In Greek mythology, when Hercules severed one of the serpent's heads, two more grew in its place. If China stops exporting precursor chemicals, more will come from India. If the DEA destroys the Sinaloa cartel, the CJNG may become public enemy number one. If San Diego's border crossings become impassable, Tucson in Arizona may take over as the channel—indeed, that may be happening already. "We are not making progress," says David Trone, a Democratic congressman from Maryland who co-chaired a bipartisan commission on synthetic-opioid trafficking.

But there are things that lawmakers can do, even without help from Mexico or China, to reduce deaths. States could legalise fentanyl-test strips, which are considered drug paraphernalia, so people can know if they are consuming the deadly drug. Congress could expand access to buprenorphine and methadone, drugs that help treat opioid addiction. The Biden administration recently made naloxone available over the counter.

"Keep people alive," says Mr Trone, who lost his nephew in 2016 to a fentanyl overdose. "That's the answer." With more than 100,000 dead each year, even marginal gains may save thousands of lives. ■

After Title 42

Awaiting chaos at the border

MEXICO CITY AND WASHINGTON, DC

What to expect as an emergency measure to limit migration ends

SINCE MARCH 2020 migrants trying to cross America's south-west border have been expelled nearly 2.8m times using Title 42, a pandemic-inspired measure. Little wonder that President Joe Biden is prepared for chaotic scenes when the policy ends on May 11th. He has ordered 1,500 troops to the border to back up Customs and Border Protection (CBP) agents. Several border cities in Texas, including El Paso and Laredo, facing a surge of migrants for processing, have already declared a state of emergency. The result will be tough for migrants—and, assuming their numbers stay high, politically miserable for Mr Biden.

Title 42 allowed CBP to rapidly process and expel migrants on public-health grounds, either to their own country or, in some cases, to Mexico, which had agreed to

Listen to our podcast

Learn more about the fentanyl epidemic at **economist.com/opioids-podcast**

take back some nationalities as well as its own. Mr Biden first tried to end Title 42 in April 2022, but wrangling in the courts by Republican-led states, which have stressed border security, kept it alive until now. The regime that will replace it is an expansion of a stick-and-carrot approach that America has been trialling since late last year: expanding legal pathways while clamping down on those who do not use them.

America will continue a policy, which dates to January, of letting in up to 30,000 asylum-seekers a month in total from Cuba, Haiti, Nicaragua and Venezuela if they apply through CBP One, an app, rather than crossing illegally (this is a tiny fraction of those hoping to enter). It will also take a total of up to 100,000 people from El Salvador, Guatemala and Honduras through a family-reunification process. Title 8, the normal immigration law, will take the place of Title 42. It is a bigger stick. Anyone trying to enter America illegally will be banned from applying for entry for five years. Under Title 42 migrants could try to cross multiple times; now they could face felony charges for trying to re-enter.

America's plan relies on Mexico's willingness to take back migrants from some countries with which America's diplomatic relations are so bad that there are no deportation flights. This is a "vulnerability", notes Theresa Cardinal Brown of the Bipartisan Policy Centre, a think-tank in Washington, DC. Relations with Mexico have not been helped by bellicose comments from the Drug Enforcement Administration and some Republicans, who blame Mexico for America's opioid crisis because Mexican gangs traffic fentanyl across the border.

The friction has seeped into migration co-operation. The political cost of being seen to do America's dirty work is rising, says a Mexican official. President Andrés Manuel López Obrador is thinking twice since the head of Mexico's immigration agency, a close ally, was charged in April with negligence over a fire in a migrant detention centre in northern Mexico, in which 40 people died. On the ground, few Mexican agents want to find themselves in the same position, so many are simply waving through migrants on their way north rather than detaining them. Only on May 2nd, nine days before Title 42 ended, did Mexico agree to continue to take back under Title 8 the same nationalities it had agreed to under Title 42.

Migration-policy experts praise Mr Biden's package as the best for years. But sheer numbers are likely to engulf it. A record number of people are trying to migrate. Border apprehensions have risen six-fold since 2018, to 2.4m last year. The combination of legal pathways and harsh penalties has so far failed to be as strong a deterrent as the administration hoped. The number of Venezuelans caught trying to cross the border illegally plummeted between October last year, when the legal pathway was opened to them, and February 2023, but has since crept up again.

Even where migrant encounters have dropped, it is not because people have stayed home; rather, they are in limbo elsewhere in the region. Thousands are waiting in northern Mexico to try their luck once Title 42 goes. The Biden administration estimates that up to 13,000 people a day will seek asylum.

With an eye to this, the United States is also trying to tackle migration closer to the source. It plans to open regional processing centres, starting in Guatemala and Colombia, to identify vulnerable people and lay out their options. In April the administration announced a 60-day plan to tackle people-smuggling through the Darién Gap, a treacherous stretch of jungle between Colombia and Panama that migrants must cross as they head north. (More than 87,000 people, including Chinese and Indians, crossed there in the first three months of this year, up from fewer than 14,000 in the same period last year.) But the plans are vague. And tackling root causes in Central America, such as a lack of jobs, will take years to pay off, if they do at all. ■

Horse-racing

Beyond Derby day

NEW YORK

A struggle for survival for horses and courses

At Churchill Downs on May 6th Mage, a 15-1 shot, came from behind to win the Kentucky Derby, America's pre-eminent horse race. The Derby, with its popularity, pageantry and mint juleps, is not typical. "The greatest two minutes in sports" is the only two minutes of horse-racing many Americans watch.

The industry's popularity has been waning for decades. Attendance at racetracks is abysmal. New York's Aqueduct, which opened in 1894, will soon close, like dozens of tracks since 2000. In 1989, there were 74,071 races; last year, just 33,453. Only 17,300 thoroughbred foals were registered last year, according to the Jockey Club. In 1990 it was 40,333.

Gambling on horses was once the only legal form of betting in many parts of the country. Now casinos and online gambling are more convenient than a trek to the track. Growth in e-sports and fantasy-sports gambling have also siphoned away potential new fans. Apart from the jockeys, it is unusual to see anyone under 50 at the track.

Mage's moment

Scandals on safety and doping have not helped. Medina Spirit, the winner of the Kentucky Derby in 2021, failed a post-race drug test and was disqualified last year. His trainer, Bob Baffert, who has denied any wrongdoing, was banned from the Derby for two years. In the 2018-19 season, 49 horses died at Santa Anita track in California.

In 2020 Congress intervened, passing legislation on equine-safety standards. The Horseracing Integrity and Safety Authority began enforcing them last July. The industry is already seeing the results. In 2022 the Equine Injury Database reported a record-low rate of 1.25 fatalities per 1,000 starts. Its drug-control programme begins this month.

But the going is still rough. Some tracks have become "racinos", with slot machines. Several have poker tables. The parent company of the Churchill Downs track has created its own online-gambling site and is investing in historical racing machines, a sort of slot machine.

Owners can make more money from siring than from racing. Kathy Guillermo, a lawyer with PETA, an animal-rights group, points out that horses are no longer bred to race, they are raced to breed. The top horses run a handful of races, retire at three or four and are sired out. Owners worry that if they keep racing them the horses will break a leg and they will lose out on stud money.

Some are calling for an end to racing. Seven horses died at Churchill Downs before the Derby. Four were euthanised after catastrophic leg injuries and one after a neck fracture. Racing's survival in America is far from a safe bet.

American banks

Mighty minnows

CANANDAIGUA AND MANHATTAN

What America's small banks do, and why it has so many of them

CANANDAIGUA AND Manhattan's Chinatown are about as different from each other as two places in the same state can be. One is a small town in the bucolic Finger Lakes region, where almost everyone is a white English-speaker. Chinatown packs nearly ten times as many residents, many of them foreign-born and Chinese-speaking, into a much smaller space. What links them, and many other small towns and neighbourhoods across America, is financial services: both host community banks that cater to local needs.

Some see such institutions, generally defined as having less than $10bn in assets, as inefficient historical relics. They account for as much as 97% of the total number of America's banks, but less than 14% of assets and deposits. Some may wonder about their future, if more banks get caught up in the crisis that began with Silicon Valley Bank. For many small businesses and farms, however, these banks are a vital source of credit.

Their detractors get one thing right: the large number of American banks—over 4,100 at the end of last year, compared with 325 in Britain and some 80 in Canada—is an artefact of history. Early Americans' suspicion of federalism translated into suspicion of big banks and a national banking system. Alexander Hamilton established a sort of central bank in 1791; it lasted just 20 years, as did its successor, which closed in 1836. The 19th century was awash with banking crises. As many as 1,600 banks issued their own banknotes.

The government tried to stabilise America's financial system with the Federal Reserve Act of 1914, which gave America its first central bank in almost a century. But banks tended to be small and local. Not until 1994 were they allowed to open branches outside the state in which they were chartered or had their main office.

Having so many banks makes America an outlier, but by historical standards the current number is low: in 1921 America had over 30,000 banks, and in 1984 it still had almost 15,000. Mergers and bank failures, especially from the savings-and-loan debacle of the 1980s and the 2007-09 financial crisis, have since reduced the tally.

Many of the banks that have survived serve small towns and rural communities. Canandaigua National Bank & Trust (CNB), for instance, has 25 branches across a 65-mile strip of upstate New York. It offers most of the services—mortgages, business loans, wealth management—that a bigger bank provides, but with a stronger focus on the community it serves.

Charles Vita, the bank's chief lending officer, says he or someone from his team visits the site of every business loan they make. Karen Serinis, who heads CNB's retail-banking operations, notes that the lending committee meets twice a week, in person, and that loans "aren't just a piece of paper going to Buffalo or New York where they just look at the numbers. We go talk to the owner...Our customers have a shot to sell their character and their dream, because the decision-maker hears it."

Knowing their customers

This approach is not unique to CNB. According to a report from the Federal Deposit Insurance Corporation, a regulator, community banks account for 36% of all small-business loans, and 31% of farm-sector debt. They tend to rely more heavily than larger commercial banks on interest for their revenue (rather than revenue from investment banking, wealth management and service fees). That has tended to mean less earnings volatility, and greater pressure when rates fall: the opposite problem faced by midsized regional lenders today.

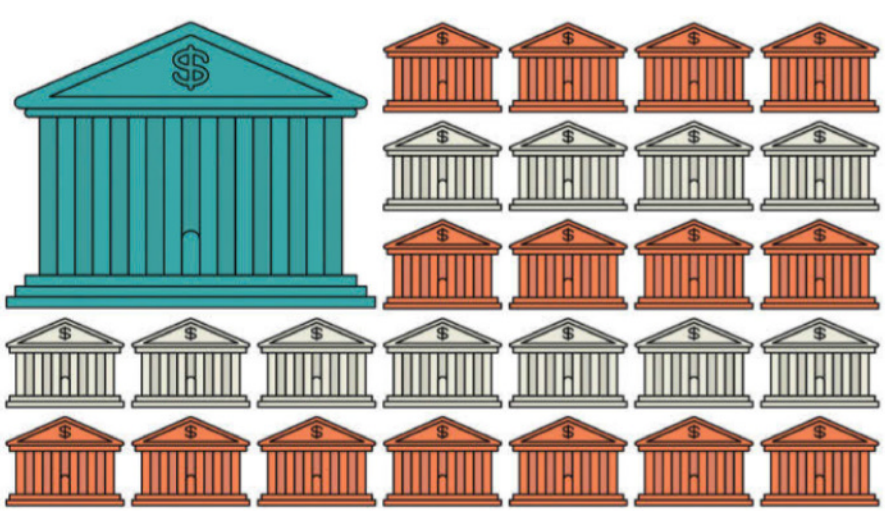
Other community banks serve specific populations. Thomas Sung, an immigration lawyer who came to New York from Shanghai, started Abacus Bank in 1984 to make residential and commercial property loans to new immigrants. It has branches in Chinese neighbourhoods in Manhattan, Brooklyn and Queens, as well as one each in New Jersey and Philadelphia.

Mr Sung's daughter Jill now runs the bank. Community banks are often family-run. CNB has had just five presidents since its founding in 1887; Frank Hamlin, who currently fills the role, is the founder's great-great-great grandson.

At Abacus, Jill Sung says that many customers prefer old-fashioned banking services, such as safe-deposit boxes, that big banks either downplay or no longer reliably provide. Many new immigrants buy multifamily homes as an investment; bigger banks often see these as higher-risk, but, says Ms Sung, "we don't price it up for our customers because that's what people want to buy here." Such discernment is labour-intensive, explains Mr Sung, but it is part of their mission: "We spend so much time subsidising banking operations in ways that a normal bank that's just cash-oriented would not consider doing."

CNB and Abacus both say that fallout from the failures of Silicon Valley Bank and Signature Bank has not materially affected them. Mr Hamlin says his customers were much more anxious during the pandemic: one wanted to come in and take $2m out of his account in cash; Mr Hamlin negotiated him down to $500,000 and a home delivery by Brinks truck. Of the billions that have moved from smaller banks to the behemoths, it is unclear how much has come from true community banks. A larger risk may be the outsize share of commercial-property loans on their books, though whether rural areas and small towns are as imperilled by the shift to remote work as are offices in big cities is also unclear.

Should any one community bank fail, it would be too small to pose a systemic risk. But research suggests that when a larger bank acquires a smaller one, small-business loans in the area served by the target decrease. Trouble in the sector would make things tough for homeowners, farmers and small businesses across America. ■



Chicago

Let's go Brandon

CHICAGO

The Windy City's new mayor has one of the trickiest jobs in politics

FOODIES IN CHICAGO have no shortage of options. Yuppies flock to the West Loop, where the restaurants mostly serve "modern American" small plates. The old school head to steakhouses downtown, and the more adventurous take cabs out to Devon Street or 26th Street for Indian or Mexican food. Yet for visiting dignitaries, a relatively new establishment on the South Side, the Bronzeville Winery, has become a favoured location. The reason why is less what it serves, though the food and wine list are both excellent, but what it represents: a hint that Chicago's deep racial and geographical divides can be lessened.

Named after its location, the winery opened last year in the heart of a neighbourhood that was, in the 1920s, the core of black Chicago, home to Ida B. Wells, a pioneering journalist, and Louis Armstrong, a jazz musician. After 1945 racist housing policies turned Bronzeville into an overcrowded ghetto, and in the 1960s new highways and public housing separated it from much of the city. By the 1970s and 1980s the population was plummeting.

Yet now Bronzeville is recovering. New housing is sprouting on empty lots. Newcomers are moving in. The winery's founders, two black entrepreneurs, Eric Williams and Cecilia Cuff, say they opened the restaurant when they realised that people in the area had money to spend but had to travel to other parts of the city to do so.

On May 15th Brandon Johnson, a former public-school teacher and union organiser, will become mayor of Chicago. He is arguably the most left-wing leader the city will ever have had, and he takes over at a time when national attention will be turning to it. Next year Chicago will host the Democratic National Convention for the first time since 1996. Democrats will be hoping to show off a city recovering fast from the pandemic under their leadership. On Fox News, meanwhile, every local problem, and especially crime, is picked on as evidence of the opposite.

Mr Johnson campaigned on a promise not just to govern well, but to "end the tale of two cities" that defines Chicago, and to redistribute resources from the wealthy core to people in poorer neighbourhoods. But that will not be easy. What is happening in places like Bronzeville hints at his best chance of success. Other cities across America will be watching closely.

For now, Mr Johnson faces a more imminent task: that of reassuring residents and business people that he takes the problem of crime seriously, while bringing a demoralised and hostile police department on board. A hint of what the summer might hold came on an unusually hot weekend in mid-April, when hundreds of teenagers turned up in the Loop, the downtown business district, and crowds attacked some visitors. Two boys were shot. Several people later alleged that the police stood by and did nothing.

Enter Johnson, stage left

Rank-and-file police overwhelmingly backed Mr Johnson's opponent in the election. Though the murder rate in the city has declined so far this year, it is still far higher than it was in 2019, before the pandemic. Residents even in lower-crime neighbourhoods still worry about carjackings and spontaneous shootings, notes Roseanna Ander, of the University of Chicago's crime lab.

Mr Johnson has sought to calm nerves. He has appointed a retired head of patrol as his interim police chief, and he has promised to create more summer jobs to get teenagers out of the way of violence, as well as to train more detectives. But the problems are deep. "At the structural level trust between the police and the community is broken," says Arne Duncan, a former secretary of education who now runs a violence-prevention charity in the city.

Cops think they are overworked, and do not get enough political support for the risks they take. A 24-year-old off-duty officer was murdered on May 6th. But many residents think that they are at best ineffective, and at worst, racist and violent.

Some politicians on the right argue that Mr Johnson will kick the city into a death spiral, as wealthy residents leave in response to tax increases and crime. "When the last business leaves Chicago, turn off the lights," tweeted Scott Walker, a Republican former governor of neighbouring Wisconsin, in response to his election. In fact, the pattern of the past few decades has been of the city adding graduates from big Midwestern universities, who get jobs in a booming professional-services sector, while losing older working-class residents (particularly black ones), who often used to have jobs in factories. Data from the state of Illinois show that in March 2022 there were 14,000 more private-sector jobs in Chicago's central business district than there were in March 2019.

Yet Mr Johnson, who was elected with the enthusiastic support and money of the teacher's union, still faces a big fiscal challenge. Public services are creaking. The trains and buses run far less reliably than they used to, because of staff shortages. Teachers are spread thinly across too many schools. The city's pension contributions are to ramp up, while federal support linked to covid-19 is already winding down. And the new mayor's revenue-raising ideas look unrealistic. Dick Simpson, at the University of Illinois, Chicago, says that Mr Johnson may succeed in imposing a transfer tax on the sales of expensive properties. But other plans, such as a new head tax on downtown employees or a new tax on financial services, will be blocked either by the city council or by the state.

Chicago's politics have long been colourful. On May 2nd residents got a hint of how things used to work when a jury found four people—two lobbyists and two former executives of the local electricity firm, ComEd—guilty of, in essence, arranging political bribes for Mike Madigan, a former speaker of the Illinois House. Things are blander now. In policy terms at least, in the end, Mr Johnson's mayoralty may not differ that much from that of his immediate predecessor, Lori Lightfoot.

South Side story

Part of the reason the district of Bronzeville is growing again is its proximity to downtown, and its appeal in particular to incoming black graduates. But another reason is the work of Ms Lightfoot, whose signature programme, INVEST South/West, tried to use city money as a lever to bring private investment into neglected neighbourhoods. To undo entrenched racial inequality, attempting to crowd in private investment is one of the few ideas that the city's government can afford. That is true not only of Chicago but of most of America's most racially divided cities. ■

Lexington | The Trump show

CNN's town hall revealed just how dangerous and degrading the former president remains

And so American politics came to this: the day after a jury concluded in a civil case that Donald Trump had committed sexual abuse and then defamed his victim, he preened on national television as the front-runner for the presidential nomination of the party of family values and law and order, of American greatness and American pride. Mr Trump's gall should not surprise anyone, of course, not after his success for seven years in defining Republican values down. Yet what a degrading spectacle it was.

When Mr Trump attacked his accuser all over again, calling her a "whack job", members of the audience of Republicans and independents, convened on May 10th by CNN for a town hall in the early primary state of New Hampshire, laughed and applauded. They laughed again when he insisted that "crazy Nancy Pelosi", not he, was responsible for the mayhem during the insurrection of January 6th 2021 at the Capitol. He called that "a beautiful day" and said that he was inclined to pardon many of the convicted rioters, who had "love in their heart".

Armoured in his shamelessness, Mr Trump lied again and again, as CNN's moderator, Kaitlan Collins, valiantly cut him off and tried to fact-check him in real time. "You're a nasty person," Mr Trump eventually told her, to further whoops and laughter.

Mr Trump did emit one truth, flashing a light into the depths of his cynicism. After he demanded that Republican legislators refuse to raise the debt limit without "massive cuts" to the budget from President Joe Biden, Ms Collins noted Mr Trump once said the debt ceiling should not be a negotiating tool.

"That's when I was president," Mr Trump said.

"So why is it different now?" Ms Collins asked.

"Because now I'm not president," he replied with a smirk. That brought down the house. How hilarious that he would baldly proclaim he would wreck America's credit purely for politics.

Even as the town hall was under way, CNN came in for a hail of criticism on Twitter and elsewhere for permitting Mr Trump its platform, particularly with a friendly studio audience. Mr Trump probably did help himself with primary voters. In appearing on CNN for the first time since 2016—for years he has attacked it as "fake news"—he was taking the fight to his fans' enemies and showing up rivals like Governor Ron DeSantis of Florida, who play it safe with friendly journalists. Ms Collins challenged Mr Trump about his lies about election fraud as forcefully as any journalist to date. But the perverse rules of polarisation, including that of of the media, meant her tenacity probably earned him support.

Yet CNN did the country a favour by showing Americans just how dangerous Mr Trump remains. Until now he has been running an effective campaign, one suggesting a disturbing capacity to learn from past mistakes. While battering Mr DeSantis before he has even announced his candidacy, Mr Trump has been methodically posting three-minute videos in which he describes his own policy positions. The online publication Politico recently reported that Mr Trump has been courting party leaders in states such as Louisiana who are likely to be delegates at the 2024 convention.

And he has been pitching his message to a general-election audience as well as a primary one. A new Trump advertisement, released on May 10th, deploys video of Mr Biden, who is 80, stumbling on the steps of *Air Force One* and falling off a bicycle. A *Washington Post*-ABC News poll published on May 7th showed Mr Trump beating Mr Biden in a head-to-head matchup.

But, unfiltered by his aides, Mr Trump damaged himself in the town hall for purposes of a general-election campaign. Mr Biden was fundraising off the event as it ended ("Do you want four more years of that?" he asked on Twitter) and within half an hour his team released an ad interleaving Mr Trump's musings about the beauty of January 6th with images of violence that day. Should Mr Trump win the nomination, his boasts about overturning abortion rights would haunt him, along with many other remarks, some of which may also enhance his growing legal jeopardy.

The jury verdict on the eve of the town hall came in a civil case, in federal court in New York, brought by E. Jean Carroll, a writer. She accused Mr Trump of raping her in the 1990s, and then of defaming her after she made her accusations in 2019, while he was president. By a preponderance of the evidence—the standard for a civil case—the jury found that Ms Carroll did not prove rape, but did prove the other accusations. It ordered Mr Trump to pay her $5m. He said he would appeal.

The primary imperative

Mr Trump declined to appear in his defence, but in a videotaped deposition he confirmed he believed what he said in the "Access Hollywood" video released in 2016, that stars could get away with grabbing women by their genitals. He called that statement "largely true, unfortunately or fortunately". That last adverb, like the jury's ruling, will not help Mr Trump win back the suburban women he lost to Mr Biden by 19 points. "Fortunately or unfortunately for her," he said in the town hall, by way of awful clarification.

Mr Trump was twice impeached, and in April he was indicted in New York on 34 felony counts of falsifying business records. Potentially more serious state and federal charges may lie ahead. So far, such censure has solidified his Republican support. That is because so few Republican leaders stand up to him. Most of his current and likely opponents for the nomination, including Mr DeSantis, repeated that mistake after the jury delivered its decision for Ms Carroll, ducking questions about it.

But after the town hall, the political action committee backing Mr DeSantis called it "an hour of nonsense that proved Trump is stuck in the past". That is more like it. Mr Trump's opponents will not beat him by waiting for someone else to do the job. They should show some respect for the country, their party and themselves by standing up for the rule of law, and simple decency. ■

The problem of gangs

Beyond drugs

MORELIA

Mexico's gangs are becoming criminal conglomerates

On May 3rd Mexico introduced a law applying strict controls on the import of chemicals used by Mexico's gangs to make synthetic drugs. The law is backed by harsh criminal penalties. This is a striking move by Andrés Manuel López Obrador, Mexico's populist president, who has shied away from tackling the country's gangs, preferring to blame drugs and disorder on family breakdown over the border and poverty at home. In truth, under his tenure gangs are increasingly powerful and diversified.

Mexico's cartels have always been adaptable. In the 1980s they trafficked marijuana and then cocaine from Colombia to the United States. But in the past decade they have mutated into a much wider array of groups, with their tentacles reaching beyond the drugs trade into extortion, people-smuggling, arms-selling and illegal mining. "We look at organised crime trends through a drug-cartel lens, when today in Mexico we have a mafia-like criminal landscape," says Romain Le Cour Grandmaison of the Global Initiative Against Transnational Organised Crime, an NGO based in Switzerland.

However, the government response continues to be shaped by a focus on narcotics, not least because of the United States and its war on drugs. The pressure has only increased with the recent crisis surrounding fentanyl (see United States section). The head of the US Drug Enforcement Administration (DEA) last month described the Sinaloa cartel and the Jalisco New Generation cartel (CJNG), Mexico's two biggest groups, as the "greatest drug threat our nation has ever faced".

Drugs continue to make up a large part of the business, especially for the two main gangs. Production of cocaine, cultivated in South America and trafficked through Mexico, has more than doubled since 2014, says the UN's Office on Drugs and Crime, while the price has not dropped. The pivot to synthetics such as methamphetamine, which is sold locally, and fentanyl, which is sent north, has only made business more lucrative. The indictments in the United States in April of the "Chapitos", the four sons of Joaquín Guzmán, known as "El Chapo", the head of the Sinaloa cartel who is now in prison in Colorado, have shed light on the changing shape of the trade.

The DEA estimates that a pill that costs ten cents to make in Mexico can be sold to a wholesaler for 50 cents. Unlike marijuana or cocaine, no land is needed for synthetics: the chemicals are imported through Mexican airports or ports from China. Gangs drop them off to labs, sometimes family kitchens in northern states, before pressing them into pills to take north. Perhaps 40% of the Sinaloa cartel's income comes from drugs, estimates one official, half of which come from synthetics.

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War on everything

Gangs have diversified for several reasons. First, "El Narco", as Mexicans call them, is simply "a monster that eats everything it can," says Ioan Grillo, an author. But official policy has exacerbated the problem. The war on drugs, begun in 2006 by the then president Felipe Calderón, caused groups to splinter and multiply. By 2020 the number of gangs had increased to more than 200, from 76 in 2010, according to the International Crisis Group (ICG), a think-tank based in Brussels. Not all have the ability or connections to traffic or make drugs: the DEA recognises only nine major drug-trafficking organisations in Mexico.

Second, the security policies of Mr Ló-

pez Obrador, who is often known as AMLO, have given gangs room to expand. His approach to security is known as "*abrazos no balazos*" ("hugs not bullets"), a policy that seeks to tackle root causes, but does little to confront existing gangs.

This has let the groups deepen their expansion, which started a decade ago, into the legal economy, says Vanda Felbab-Brown of the Brookings Institution, an American think-tank. The biggest source of income after drugs is "without a doubt" extortion, says Eduardo Guerrero of Lantia Intelligence, a consultancy. Groups extort money from everyone, whether taco-stand owners or pilgrims, some of whom, over Easter, were forced to pay to take part in processions. In 2022 almost double the number of Mexicans reported having money extorted than did five years before (see chart). Only a tiny minority report.

The big money comes, however, from "taxing" businesses in sectors such as agriculture and mining. Avocados, Mexico's "green gold", are a good example. The country provides almost a third of global supply, most of which is grown in the western state of Michoacán. The $3bn-worth of them exported every year to the United States is a huge source of income for the producers and also for gangs. For the past three years Erick Rodríguez, a farmer, has paid an annual "fee" of 10,000 pesos ($560) per hectare to Familia Michoacana, a local criminal group. Mr Rodríguez (not his real name) says the gang comes with data about the size of his farm and tells him to hold back stock to push up prices. Ms Felbab-Brown's fieldwork in Mexico shows how gangs also force fishermen to sell their catch at a cut price, which they then sell for a profit to restaurants. They also dictate the terms of when and what they can fish.

Smuggling people is another area of expansion. Criminal groups used to leave this to small-time smugglers known as *coyotes*. As the border has tightened and the number trying to cross has risen, so has the cost, making it even more attractive to the gangs. The US border police apprehended migrants trying to cross illegally 2.2m times last year, a six-fold increase on a decade earlier. The cost to transit Mexico and cross into the United States can now be as high as $12,500 per person, according to a study supported by BBVA, a Spanish bank. Gangs also kidnap migrants to extort money from their richer relatives north of the border. Mexico's immigration agency freed over 2,000 kidnapped migrants last year. Many more are never found.

Meanwhile, a growing percentage of the 25 people who disappear every day in Mexico are 12- to 15-year-old girls, many of whom are likely to be trafficked into prostitution. And, though guns are tightly regulated in Mexico, gangs smuggle them in from the United States.

Trafficking natural resources is lucrative, too, says the Global Initiative Against Transnational Organised Crime. In 2014 Mexico's government acknowledged for the first time that gangs illegally mine and export iron ore from Michoacán. A report by Insight Crime, an investigative outfit, last year found the activity is thriving now under the CJNG. In the state of Jalisco gangs control the timber market. Demand for Mexican animals, though a niche business, is growing, too. Most are believed to be sent to China, sometimes in exchange for chemicals for drugs.

Oil is also a target industry. Gangs siphon it off, sometimes cutting deals with corrupt officials at Pemex, the state oil company. They steal and sell water in the states of Mexico and Nuevo León.

Taking over the land

One result of this expansion is a rise in violence. Drug trafficking requires little more than someone corruptible at a border, but today's activities are only possible where groups control territory, causing violent clashes across the country. They are particularly fierce in Michoacán, where at least 35 groups compete for resources, now using military-grade weapons bought with income from the drugs trade.

Homicide figures are alarming, but a poor measurement of the impact. Murders fell by 7% from 2021 to 2022, to a still shocking total of almost 31,000 (see chart). But disappearances, most of which are murders with no body, have risen. "Unlike in the past when gangs were only involved in the illegal economy, today every citizen and business is exposed to being controlled by them," says Ms Felbab-Brown.

AMLO has only made things worse. After the United States arrested Salvador Cienfuegos, a former head of Mexico's armed forces, the president in 2021 enacted a national-security law to curtail the DEA's ability to operate in Mexico. Relations have subsequently improved, and the government has been carrying out more strikes against gang operatives, as well as co-operating on financial investigations. Yet taking out kingpins, a policy popular under Mr Calderón, has had little effect. The president has spread out the National Guard, a federal police force he created in 2019, to reassert the state's presence. But in many places he has ordered them to stay in the barracks. His tenure has been marked by a general passivity towards security and corruption, notes Mr Guerrero.

Killing and looting
Mexico

Sources: National Citizen Observatory; Igarapé Institute; national statistics

This has led to a second consequence: deeper corruption within the state, which allows gangs to diversify further. Officials have always struck deals with organised crime. But under the Institutional Revolutionary Party (PRI), which ruled Mexico for 71 years until 2000, the government called the shots. Democratisation and the decentralisation of power have tilted the balance of power in favour of the criminals.

The recent conviction in the United States of Genaro García Luna, Mexico's security minister under Mr Calderón, for taking bribes from the Sinaloa cartel to facilitate drug-trafficking, was a rare proven case involving a federal official. Criminal groups are deeply entwined with local police, mayors and politicians, who can be threatened or bought. This gives them access to more sources of revenue through public contracts to build roads and other infrastructure. More worryingly, rather than just threatening elected officials, gangs are gaining unprecedented influence over elections. Before midterm polls in 2021, nearly 40 candidates were killed.

Gangs are having a greater impact on businesses and society, as well. Some firms see no option but to employ the groups to protect them, notes Teresa Martínez of Tec de Monterrey, a university. Extortion by gangs is one reason for Mexico's sluggish economic growth. Small-business owners say they struggle to pay up or do not want to grow so big as to attract attention. For the most part the gangs show little interest in building ties with the communities they prey on. But some do engage. On Children's Day, a festival at the start of May, the CJNG even handed out toys. "We are seeing the transformation not only from drug-trafficking organisations to multi-commodity ones, but now to actual local strongmen exercising political control," says Falko Ernst of the ICG.

Mexico's gangs have sprawled to such an extent that Mr Grillo and others have started calling the situation "an insurgency". Certainly their mutation makes everything harder to tackle. It requires a broad national response, including weeding out corruption, creating a functioning justice system and re-establishing the remit of the state (as well as tackling drug consumption in the United States). But with the damage being wrought by fentanyl, a shift from the narrow focus on drugs, north and south of the border, looks unlikely. ■

Mexican politics

AMLO v the court

MEXICO CITY

The judges and the president do battle

MEXICO'S SUPREME COURT has ruled that elements of a series of laws hastily pushed through by President Andrés Manuel López Obrador to change the electoral system were unconstitutional. The laws imposed looser limits on how public officials, many of them members of the president's Morena party, can campaign.

The legislation was part of a package of reforms that the president, often known as AMLO, said would reduce the cost of elections and strengthen democracy. In reality the laws would endanger it. If allowed to stand, they could affect the vote to pick governors in two states later this year and the outcome of the general election scheduled for mid-2024. Tens of thousands of people have protested against them since they were passed in February.

On May 8th nine of the court's 11 justices ruled that the reforms had been passed so quickly as to violate due process. (A supermajority of eight justices is needed to declare a law unconstitutional.) One judge noted that lawmakers in Congress had passed the reforms in a single night in less than three hours.

The ruling comes after one last month which ordered the president to restore civilian control over the National Guard, a federal police force he created in 2019 to replace the regular force that he disbanded on taking power. In line with the unprecedented power AMLO has given to the armed forces, he has made up the new National Guard almost entirely with soldiers and moved authority over it to the defence ministry. The Supreme Court ruled this was in breach of the constitution.

The court has heard cases about, and struck down, policies by all governments since it was strengthened during the country's transition to democracy in the 1990s and early 2000s. Yet never have so many parts of a president's agenda come before it as today. This is because many of AMLO's reforms involve issues enshrined in the constitution. Though Morena, with its allies, enjoys a majority in both houses of congress, it does not have the supermajority needed to amend the constitution. So the president has tried to make his reforms under regular legislation that only requires a simple majority.

The rest of the new electoral laws may now also be overturned by the Supreme Court in coming weeks. This is even more important, because the laws would cut the funding of the National Electoral Institute (INE) and would lead to thousands of staff members being fired. INE is a vital institution that has helped nurture Mexican democracy by policing campaigning and elections. It is one of the few bodies (apart from the Supreme Court itself) that holds AMLO to account. He has called it corrupt and inefficient.

The Supreme Court's reputation as a bastion of democratic oversight has been bolstered since January by a new president, Norma Piña, who has been willing to take on cases from which her predecessor shied away. Under her, the court is also looking at the president's use of national-security laws to conceal information about large infrastructure projects. And the ruling that rushing legislation violates due process could open up more laws to challenge. Last month the Senate approved 20 laws in a matter of hours, with Morena senators voting outside the main chamber after opposition senators occupied it to protest at the lack of debate.

AMLO is not quietly bowing to the court's authority. On May 9th he called the judges *podrido*, or rotten, and said he wanted to make sure they are elected and not appointed. He has told his cabinet not to answer telephone calls from clerks wanting to set a date for the transfer of power over the National Guard. He is also urging voters to give his party a supermajority in elections in 2024, so his successor can have another go at passing the reforms. Without that, his grand plans to transform Mexico look unlikely to come to pass. ■

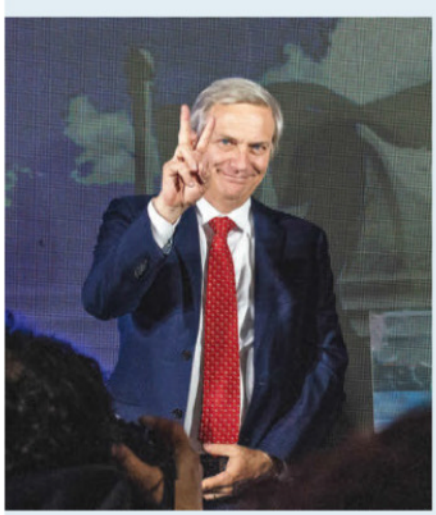
Chile's constitution

In the swing

Conservatives dominate the constitutional assembly this time around

THE PENDULUM of Chilean politics has swung a long way in a short time. In October 2019 millions took to the streets to demand better education, health care and pensions. To quell the protest, politicians offered to rewrite the country's constitution, adopted in 1980 under Augusto Pinochet, a military dictator. Left-wing activists won the most seats in a convention called in 2021 to draft the new charter. Later that year Chileans voted in Gabriel Boric, a left-wing former student leader, as president.

Then came the swing. In 2022, 62% of Chileans rejected the charter the convention had drafted. Mr Boric's approval ratings tumbled. And on May 7th conservative parties won the biggest share of seats in a new convention tasked with producing another draft constitution.



The die is Kast

Last year's draft was widely seen as too left-wing: liberalising abortion, watering down property rights and giving trade unions an almost unfettered right to strike. Yet a majority of Chileans continued to demand a new constitution, so Congress was persuaded to call for the new convention. To prevent excesses, legislators devised a set of rules that cannot be modified, such as respect for private property and a bicameral Congress. In spite of all that, hardliners trounced moderates again, but this time from the other flank. A final draft will be put to a national vote in December.

The Republican Party was the biggest winner, with 23 of the 51 seats in the assembly. The party was founded in 2019 by José Antonio Kast, a conservative Catholic who was defeated for the presidency by Mr Boric in 2021. Other conservatives won another 11 seats. A coalition aligned with Mr Boric took just 16.

Mr Kast has spoken admiringly of Pinochet. His views have become popular amid concerns about crime and migration. The greatest danger for his party, however, may not be that it does too much in the convention, but too little. It has repeatedly said it does not believe Chile needs a new constitution. It launched candidates for Sunday's vote only when it sensed the pendulum swinging its way. After the vote, Mr Boric said "the previous process...failed...because we did not know how to listen to each other", and he called on the Republican Party "not to make the same mistake we made".

Conflict in Africa

War and peacemaking

JUBA

What the West gets wrong about diplomacy in Sudan and South Sudan

THE WAR in Sudan is causing relief, fear and déjà vu in Juba, the capital of its southern neighbour. Relief because South Sudan, which seceded from Sudan in 2011, seems somewhat insulated from the chaos. Fear because Sudan's violence may nevertheless spill over the border between the two, exacerbating the conflicts that still rage in the world's newest country. And déjà vu because what is happening in Sudan today looks like a repeat of events in South Sudan in its years after independence, when the West's well-intentioned attempts at peacemaking and state-building ended in war and anarchy.

The complex causes of wars in the two Sudans date back decades, if not centuries. The men who choose to butcher their countrymen are most directly responsible. Yet since two rival armies went to war over Khartoum, Sudan's capital, on April 15th there has been a tsunami of criticism of the diplomacy employed by the West and regional governments in their failed bid to avert conflict. Much of it has been self-recrimination, with diplomats and former officials agonising over missteps and whether they could have done things differently. But a feeling is afoot that the very model of "conflict resolution" widely employed in such cases is flawed. If these mistakes are not addressed, the latest efforts to silence the guns in Sudan, which began in Saudi Arabia on May 6th, are doomed.

At the heart of peacemaking in Sudan was an effort to get two military strongmen to share power after their coup in April 2019. This was triggered by sustained street protests that led to the toppling of Omar al-Bashir, who had ruled Sudan as a dictator since 1989. But it was a half-finished revolution. Seeing Mr Bashir was about to fall, his armed forces booted him out and grabbed power for themselves.

The putsch was led by General Abdel Fattah al-Burhan, the head of the Sudanese Armed Forces (SAF), and Muhammad Hamdan Dagalo (better known as Hemedti), who led a militia-turned-paramilitary group known as the Rapid Support Forces (RSF). To break the will of demonstrators, the security forces massacred more than 100 people in June 2019. Soon after this, diplomats cobbled together a power-sharing deal hoping to prevent more bloodshed. Ostensibly it was for a "civilian-led" transition to democracy, but in fact all the power was still held by the army and RSF.

The strategy of focusing on the men with guns was well meaning, if also expedient. With no clear leadership among the bouquet of "resistance committees" that had blossomed in Khartoum, it was not easy to know which civilians to include in the talks. This difficulty was exacerbated by a risk-averse culture that tends to keep diplomats in conference rooms and cock-

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tail parties rather than on the streets. "Of course not," an American diplomat said in 2019, when asked whether he had mingled with protesters. "We would not be allowed." Perhaps the biggest flaw was that the deal was premised on the idea that General Burhan and Mr Dagalo could be trusted when they told negotiators that they would hand over power to civilians.

They could not be. Both blocked attempts to reform Sudan's kleptocratic economy by Abdalla Hamdok, an economist drafted in as a technocratic prime minister. In October 2021, five hours after telling Jeffrey Feltman, who was then America's envoy to the Horn of Africa, that they were happy with yet another rewritten deal that would have further delayed the handover of power, General Burhan and Mr Dagalo ousted Mr Hamdok in a coup. In April this year they made similar promises to diplomats but just days later went to war with each other instead.

Stressed are the peacemakers

"[The] international community adopted what, we told ourselves, was the only realistic approach: dealing with the warlords themselves," Mr Feltman recently noted. "We considered ourselves pragmatic. Hindsight suggests wishful thinking to be a more accurate description."

Behind the naivety lay flawed assumptions about the incentives of General Burhan and Mr Dagalo. Sudan, like many fragile countries, can be understood as a political marketplace where the main currency is violence. The SAF and RSF were "two protection rackets trying to corner the market", says a former Western diplomat. The coup in 2021 was prompted by fears in the army that efforts to crack down on the military's economic interests were gathering pace—and, simultaneously, by concerns that Mr Dagalo would profit from any fire-sale of assets held by the army's vast networks, says the diplomat.

In negotiations, notes Cameron Hudson, a former American diplomat, it is easy to become deluded that "other actors are playing along in a way that you would play along". Envoys dangled incentives such as aid spending on education in exchange for political or anti-corruption reforms, which the two military leaders saw as a direct threat. "You are offering them a route to unemployment," argues Mr Hudson.

The latest fighting seems to have been sparked by talks aimed at merging the RSF into the SAF. Yet in pushing the two to share power, diplomats created a "zero-sum logic" that was a "formula for an explosion", argues Alex de Waal of the London School of Economics. "Violence is not a breakdown of the system but part of a natural sequence," adds Clionadh Raleigh of the Armed Conflict Location & Event Data Project (ACLED).

Her research shows how, across Africa, there has been a steady rise in the number of militias and the violence they perpetrate. This trend is because of the incentives inherent in fragile or "transitional" democracies, where bigwigs use violence to bargain for power that is then made formal in peace deals. Looming over these peace talks is not so much Chekhov's gun as Chekhov's Kalashnikov.

Similar mistakes were made in South Sudan (sometimes by the same people). At the heart of the new government in South Sudan was—and still is—a power-sharing deal between Salva Kiir, the president, and Riek Machar, the first vice-president. In 2013 the two took their young country back to civil war, at a cost of about 400,000 lives. Though it nominally ended in 2018, localised violence continues. In April a UN report accused various prominent politicians of responsibility for murder, rape and sexual slavery. "The country is peaceful," argues Rizik Zakaria Hassan, a cabinet ally of Mr Kiir. "Or at least 90% of it is."

The strongmen there have not held a general election since independence in 2011, despite repeated promises to do so. A demoralised diplomatic corps in Juba holds out little hope that a vote due by the end of next year will take place.

South Sudan was never going to be Sweden. But the unintended consequences of promoting "stability" have harmed the country, argues Peter Ajak, a South Sudanese academic. "When the elites stay in power only through violence and corruption, there cannot be true stability." One of five vice-presidents, Mr Machar is a product of a system that rewards warlordism with power. "We are quick to blame the politicians," says a Western diplomat. "But we should spend more time looking in the mirror."

Away from the compounds full of well-paid aid workers in Juba, life is often dangerous and miserable. In Otalo, in the east of South Sudan, children are sporadically abducted by a rival tribe. There are no paid teachers at the local school. All that the "clinic" can do is hand out donated nutrition sachets to starved infants. Last year flash flooding wiped out most of the crops and cattle. Ojwok Lero, a community leader, says he is "very disappointed in independence". The root cause, he says, is the "political business...first you rebel, then you are rewarded by the government."

Like Sudan, South Sudan seems beholden to two would-be big men. In March, in the latest twist of their long-running drama, Mr Kiir fired his defence minister, who happens to be Mr Machar's wife. Wani, a student in Juba, explains that "we have a problem with our leaders: they both want a job that cannot be divided." He fancies a political career himself. "You come, you grab what you can eat, then go," he says. "That's why everyone wants to be president—even me."

There is now a belated realisation that in both countries outsiders have not done enough to bolster the power of civilian institutions. "We have seen many times in Africa that you cannot help build democracies by excluding civil society and being lenient on the generals," argues Amjed Farid, a former official in Sudan's transition government. Nor did America under the Trump administration help things by cajoling Mr Hamdok to sign a peace deal with Israel at a cost to his political capital and to his valuable time. Another fatal mistake was not giving Mr Hamdok sufficient financial support—such as through the World Bank and IMF—early enough. "If you don't get food to people in time, they die," says the former diplomat. "Here if you don't get money to civilian governments in time, then politics dies."

Some analysts go even further, arguing that the very process of appeasing armed groups can block the natural flow of politics. In "When Peace Kills Politics", a book by Sharath Srinivasan, based on the Cambridge academic's research in the Sudans, he argues that peacemaking as promoted by Western diplomats quashes the sort of bottom-up political movements that toppled Mr Bashir in 2019. Setting up forums where spoils are divvied up among those with guns and parachuting in technocrats such as Mr Hamdok sidelines the politicians with real constituencies who should be at the table.

Mr Ajak, the South Sudanese economist, adds that America should be wary of eroding what should be its biggest advantage in an age of geopolitical competition. America ought to be a model for aspiring democracies. But if it is seen as propping up warlords in fragile states, "How are you going to compete with China?" he asks. "The only difference between the two is that when Africans deal with Americans they come back with empty promises rather than bags of money." ■

The looted Benin bronzes

Oba v Obaseki

An ownership ruling may delay the return of the Benin bronzes

THE SACKING of Benin City by a heavily armed expeditionary force in February 1897 was said to be an act of revenge in a bitter trade dispute between Britain and the Kingdom of Benin, east of Lagos. Over the course of a fortnight, the city was burned to the ground. Its royal ruler, the Oba, was eventually imprisoned and the magnificent collection of plaques and statues made from brass, wood and ivory was ripped from the walls of his palace and sold to museums and private collectors in Britain, Europe and America.

The dispersal of the Benin bronzes around the world did much to cement their historical and aesthetic reputation as some of the finest artworks ever made in Africa. But views about how they were acquired have changed. The destruction of Benin City has come to be seen as one of the low points of British imperialism, the looting of its sculptures as indefensible.

The case for their return is so morally clear that it has been widely taken up by those arguing for the restitution of artworks seized during the colonial period. A concerted campaign by artists, activists and curators has begun to yield results. In the past two years museums in America, Britain, France and Germany, as well as at least three universities, have all signed pledges to return their Benin bronzes to Nigeria's National Commission for Museums and Monuments (NCMM).

Those efforts are now being turned upside down—by the Nigerian government. President Muhammadu Buhari, who leaves office this month, recently announced that returned bronzes will not be handed to the NCMM, but to the current Oba, Ewuare II (pictured), "as the original owner and custodian of the culture, heritage and tradition of the people of Benin Kingdom". Ewuare II is the great-great-grandson of Oba Ovonramwen Nogbaisi, from whom the bronzes were first seized.

The announcement caught the NCMM completely by surprise, as it did many of its museum partners in Britain and Europe, which now fear the returned pieces will end up in a private collection rather than being put on public display, as promised. Last year the German government signed an agreement with the NCMM to return 1,100 artefacts from museums including those in Berlin, Cologne, Hamburg, Leipzig and Stuttgart. "What politicians thought of as the return of cultural heritage to the Nigerian 'nation' has instead turned into a present to a single royal family," Brigitta Hauser-Schäublin of Göttingen University wrote in the *Frankfurter Allgemeine Zeitung* this month. A meeting between officials from the NCMM and the Museum of Archaeology and Anthropology in Cambridge to transfer ownership of 116 objects in the museum's collection (and hand over the first dozen pieces) has been postponed.

Man of bronzes

Museum-watchers see Mr Buhari's decision to favour the Oba over Nigeria's own federal museum authorities as the latest move in a power play between the Oba and Godwin Obaseki, the governor of Edo State, of which Benin City is the capital. Mr Obaseki wants all restituted bronzes to be put on display in a new museum he is planning, the Edo Museum of West African Arts (EMOWAA). This is to be designed by Sir David Adjaye, a celebrated British-Ghanaian architect. A storage facility and study facility are already under construction.

Yet some Nigerians fret over the federal government's poor record as custodian. In 1973 Nigeria's military dictator gave a rare bronze head—which was looted by the British in 1897, then returned to the National Museum of Nigeria after the second world war—to Queen Elizabeth. It is now in the Grand Vestibule at Windsor Castle.

The Oba, who is the Edo people's traditional ruler and keeper of the Edo culture, wants to house all the bronzes in his palace. Mr Obaseki, who ends his second and final term in office in 2024, does not have long to assert his authority. He will need to lengthen his stride if his view has any chance of prevailing. ■

The Palestinians

A fading dream of independence

RAMALLAH

First of all, the Palestinians need an election—and new leaders

FEW EXPERIENCES are more humiliating for Palestinians than plodding through the Israeli checkpoint at Qalandiya, where the West Bank's administrative headquarters at Ramallah are separated from the Palestinians' would-be capital in east Jerusalem. Young Israeli conscripts bark orders at middle-aged labourers queuing to cross. Meanwhile the Palestinian workers can hear the roar of Israeli commuters who live in settlements on nearby Palestinian land zooming along a four-lane motorway barred to Palestinians, en route to jobs in Tel Aviv. "The humiliation is a tax I have to pay to feed my six children," says a day labourer trudging to work in Israel.

Seventy-five years after the UN voted to divide Palestine into an Arab and a Jewish state, Palestinians are still waiting for one. While Israelis celebrate May 14th 1948 as their day of independence, Palestinians mourn their *naqba*, or catastrophe, when some 700,000 of them were forced from their homes or just fled.

Israel now rules over 7m Palestinians, including those in Israel and in the West Bank and the Gaza Strip, which are internationally regarded as the basis of an independent Palestinian state. Another 7m are strewn across the Arab world and beyond, about half registered as refugees (see map on next page). Palestinians are a slight overall majority in the territories controlled by Israel and in Israel proper. But they are divided over how to build a future.

At times statehood has beckoned. In 1993 Israel and the Palestinian Liberation Organisation (PLO), the Palestinians' representative body, signed the Oslo accords that provided for Palestinian self-rule in Gaza and the West Bank under a Palestinian National Authority (PA) and an end to Israel's occupation within five years. It never happened. Israel withdrew its forces and settlers from Gaza in 2005 but since 1993 it has more than quadrupled the tally of Jewish settlers in the West Bank to over half a million, excluding East Jerusalem.

Meanwhile the PA has rotted. Hamas, an armed Palestinian Islamist movement, won a general election in 2005 and set up a separate administration in Gaza, leaving an enfeebled PA to run bits of the West Bank. Jewish settlers there, including Bezalel Smotrich, the finance minister, have become a menacing power behind Binyamin Netanyahu's coalition government.

It has withheld tax revenues that fund the PA. Foreign donors, discouraged by corruption within the PA, have cut aid. America's Congress, viewing the PA as an instrument of terrorism, have long been loth to fund it. The West Bank's 3.2m Palestinians, by contrast, resent the PA for seeming to acquiesce in Israel's occupation.

The PA's ailing 87-year-old president, Mahmoud Abbas, and his Fatah party have stifled democracy. Nineteen years into a five-year term, he has repeatedly postponed elections. In 2007 he closed down the parliament. In 2018 he dissolved it.

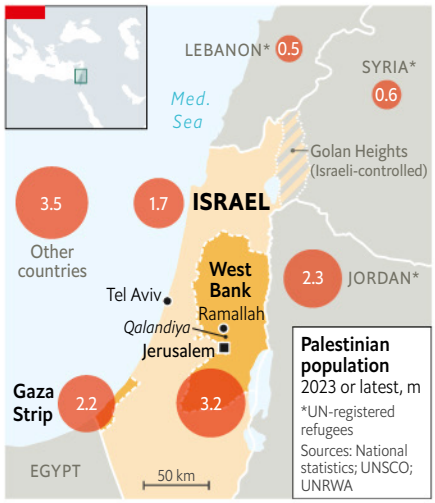
A recent opinion poll said 77% of Palestinians wanted him to resign; four-fifths consider his regime corrupt. The West Bank's economy has festered. Frustration is rising. A new *intifada*, or uprising, could erupt. Last year's West Bank death toll from violence was the highest since the end of the previous deadly *intifada* in 2004. This year's rate so far has been higher.

Gaza is more hopeless still. "It's practically a separate state," says a former head of Israeli intelligence, Tamir Hayman. Israel controls its borders, sea and air space so its 2.2m people feel besieged, as if in an open-air prison. Income per person is less than a third that of the West Bank. Hamas rules with a heavy hand, by decree. It is officially wedded to armed struggle but, since Israel has smashed it whenever it fires too many rockets into the Jewish state, it has practised a measure of restraint.

It repeatedly negotiates ceasefires with Israel, including one earlier this month after Islamic Jihad, another armed Islamist faction, fired scores of rockets and mortars to protest against the death of a Palestinian hunger-striker in an Israeli jail. In the past few days Israel's air force has hit Islamic Jihad targets, killing at least 25 Palestinians. Hamas has been under local pressure to respond but knows that that would provoke an even fiercer, lethal Israeli response.

So despair overwhelms Gaza and the West Bank. With no prospect of negotiations and foreign mediation, over 40% of Palestinians favour violence against Israel, according to a poll conducted by Zimam, a Palestinian NGO in Ramallah, and funded by the EU. Nearly 40% say they dislike the main Palestinian parties. Over 70% have lost hope in a two-state solution, with Israel and Palestine co-existing side by side.

Palestinian support for a two-state deal is highest among Israel's 1.7m Arab citizens. Their income of $36,500 a head (measured in 2019) is eight times what Palestinian West Bankers earn and 30 times that of Gazans, at the last count. Alone among Palestinians under Israel's control, they can vote and carry the same passports as Jewish Israelis. An Arab-Israeli party was part of Israel's previous coalition government.



But the rise of Israel's far right horrifies Arabs on both sides of Israel's security barrier (in large stretches it is a six-metre-high concrete wall). Mr Smotrich says there is "no such thing as Palestinians" and has called for "finishing the job", a euphemism for expelling Arab Israelis.

Let's have the whole lot back

A growing number of Palestinians in the diaspora, including refugees, are paying less heed to the official PLO leadership under Mr Abbas. Instead they have begun to call for a one-state solution, where Jews and Arabs between the Jordan river and the Mediterranean would live together in a single democratic state—and where Arabs would have a slender overall majority.

Some Palestinians are looking again to regional leaders. Mr Abbas visited Saudi Arabia in April for the first time in years. A Hamas delegation has recently been there after an absence of eight years. The United Arab Emirates, which signed the Abraham accords that normalised relations with Israel in 2020, may be cooling towards it as Mr Netanyahu's government lurches even further to the right. Meanwhile Mr Abbas's refusal to appoint a deputy prompts fear of a power struggle within Fatah that could turn violent when he goes.

Opinion polls suggest that the vast majority of Palestinians want a true democracy. Some of the Western donors on whom the Palestinians rely have urged Mr Abbas to hold presidential and parliamentary elections that might bring Gaza and the West Bank back together under a single authority. It could rejuvenate its leadership and legitimise it, in the event of negotiations with Israel. Even Hamas, still ostracised as a terrorist organisation by most Western countries, has told diplomats it would accept a limit to the size of its representation in a new Palestinian parliament and would not bid for the presidency.

Indeed, elections might break the hold of both Hamas and Fatah over Palestinian politics. Opinion polls suggest that over 40% of voters—and a majority in the West Bank—want "none of the above", preferring a pragmatic leadership to tackle the poverty and corruption currently winked at by what they see as brutal Israeli overlords. For the moment neither model—one state or two—looks remotely feasible. The essential first step before Palestinians can contemplate the distant future is to revive a democratic Palestinian Authority. ■

The undemocratic side

East Asian security

Will Japan fight?

MISAWA, OKINAWA, TOKYO AND WASHINGTON, DC

America's ally is nervous about using its armed forces to defend Taiwan

THE ROAR of the Japanese F-35 fighter jets above Misawa, in northern Japan, is formidable. At the base, which houses Japanese and American forces, pilots from the two countries practise flying together. The risk of war with China over Taiwan has made those preparations ever more urgent. Japan plans to double its defence budget by 2027 and acquire long-range missiles to make its Self-Defence Forces (SDF) fiercer. But it has not fired a shot in battle since 1945. Will Japan fight?

Geography puts Japan on the front line: its westernmost island sits 111km from Taiwan. Conflict is probably less likely if China believes Japan would join the fray. If war does break out, keeping Taiwan from falling may hinge on Japanese support and firepower. "Japan is the linchpin," concluded a recent war game by the Centre for Strategic and International Studies, a think-tank in Washington. At a minimum, America would need to use its bases in Japan. And if Japan's forces engaged in combat, success would be far more likely.

If a crisis around Taiwan were to occur, "there's no way Japan won't be involved," says Otsuka Taku, a lawmaker with the ruling Liberal Democratic Party. In such a scenario, "we will fight with the US". Yet the extent of that involvement is less clear. Much like America, Japan maintains ambiguity over its potential role. Unlike America, Japan has no legal commitment to help Taiwan defend itself. Despite forceful talk from politicians, Japan's official policies towards the island have not changed. Interpreting its security-policy reforms "to mean that Japan is all-in on a Taiwan fight" is a mistake, says Christopher Johnstone, a former American security official.

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In a time of war, the alliance between America and Japan would face several tests. If America came to Taiwan's defence—itself hardly a given—it would need approval from Japan to use its bases there, which host 54,000 American troops. Would Japan accede? China might offer not to harm Japan if it refused. But America would remind Japan of the long-term consequences. "If we don't say yes, the alliance is over," says Kanehara Nobukatsu, a former Japanese official.

Then Japan would have to decide whether to act itself. The Diet, Japan's parliament, would probably at least consider the situation to have "important influence", a legal designation that authorises non-combat support, such as providing fuel, medical care and logistical assistance. Entering combat would be trickier. The SDF is allowed to use force if Japan itself is attacked. Those powers would be invoked if China fired missiles at American bases in Japan, or launched a simultaneous assault on the Senkaku/Diaoyu islands, which Japan controls but China claims. A law passed in 2015 also permits the use of force if another country is attacked and the Diet deems it "survival-threatening" for Japan. This construct makes it easy, with enough political will, to unshackle the SDF. Yet it also creates every opportunity not to.

If Japan decided to fight, it would have to choose where and in what capacity. Japanese law limits any use of force to "the

minimum extent necessary". Planners foresee Japan largely as the shield to America's spear—defending its own territory and American bases, freeing America to take on China. "Japan takes care of itself, and America defends Taiwan," says Kawano Katsutoshi, a former chief of Japan's joint staff. That might involve dispatching its diesel-powered submarines to choke points in the East China Sea. But it probably does not mean venturing into the Taiwan strait. Even so, Japanese and American forces would have to operate around each other, especially in the air, says Zack Cooper of the American Enterprise Institute, another think-tank in Washington.

The alliance between Japan and America was not designed for such fighting. Japan was seen less as a military partner than as a platform from which America could project power, as it did during wars in Korea and Vietnam. Unlike the NATO charter, which enshrines the principle of collective defence, the US-Japan Security treaty of 1960 obliges America to protect Japan in exchange for bases in the country, but not the other way around. Japanese and American troops have parallel chains of command. This is unlike America's alliance with South Korea, where the forces answer to a single combined command boasting the mantra "fight tonight".

Being ready for a fight would require revamping the alliance's institutions. The lack of a combined American-Japanese command means that the forces answer to different sets of orders and follow different rules of engagement. Military units have found ways to work together. At Misawa, a rare example of a jointly used base, the two countries' pilots can sync up in the air. But if missiles fly, the two forces will need a way to sync their "sensors" and "shooters" at scale. "We need more efficient and real-time situational awareness," says Isobe Koichi, a retired lieutenant-general.

Experts are searching for models. The Sasakawa Peace Foundation USA, a think-tank, recently studied examples, including the command structure America and Britain used during the second world war and multinational counter-drug operations in the Caribbean. "The Americans and Japanese need to be working shoulder to shoulder, even if they don't have a combined command," says Jeffrey Hornung of the RAND Corporation, another think-tank.

Japan plans to create permanent joint headquarters, which are expected to serve as a counterpart to America's Indo-Pacific Command (INDOPACOM). Yet that may take years. America also needs to make changes: United States Forces Japan, the American headquarters in the country, is empowered to manage the alliance and keep troops ready, but has no real operational role. The American warfighting commanders are currently at INDOPACOM, far away in Hawaii. It will be hard to co-ordinate with Japanese forces if Tokyo is under attack, and doubly so if America's own communications are mucked up.

And any proposed changes will confront political realities. Japan fears abandonment by America, but is wary of too much entanglement. Japan's prime minister, Kishida Fumio, has assured the Diet he is not considering sharing command authority, or transferring it to America.

Polling finds robust support for the alliance in Japan. But the public remains opposed to a more active military role for the SDF. One survey offered respondents choices for how to react to a conflict between America and China: 27% said the SDF should not work with America at all; 56% said it should limit itself to rear-area support; and just 11% said Japan should fight alongside America. "No one knows the truth" about how such choices would pan out, says Michishita Narushige of the National Institute for Defence Studies in Tokyo. If Japan and America are forced to find out, they will already have failed. ■

South Korean tattooists

Art in the dark

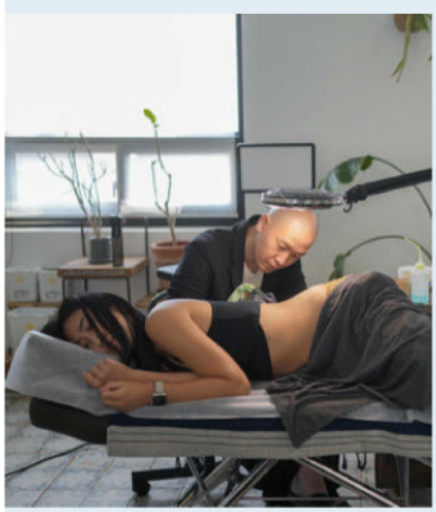
SEOUL

Korean tattoo artists are lauded abroad and locked up at home

THE UNMARKED grey door in central Seoul could lead to just another office in South Korea's capital. Yet behind it Kim Do-yoon creates intricate artwork that has garnered commissions from K-pop stars, *chaebol* bosses and Hollywood royalty, including Brad Pitt. Better known as Doy, the tattooist is careful not to advertise the presence of his studio. For each of his artworks is also a crime.

Worth some 200bn won ($151m) a year according to the Korea Tattoo Association (KTA), South Korea's tattoo industry is small but culturally significant. Spring brings blooms of colour as short sleeves and skimpy tops reveal the inked-up arms of the country's hipsters. Outside South Korea, the reputation of its artists has grown alongside the taste for the country's other cultural exports. A tattoo from a South Korean artist confers a similar level of cool as a taste for South Korean music or cinema.

Yet its artists are forced to work underground. In 1992 a South Korean court ruled that tattooing creates health risks and ought to require a medical licence. Tattooists without that qualification can receive a fine of 50m won ($38,000) or up to five years in prison. Doy reckons a couple are locked up every year. The ban also means that tattooists are vulnerable to blackmail, exploitation or sexual assault because they cannot report perpetrators for fear of incrimination.



Being inked by Doy

Young politicians have tried to drag the industry into the mainstream. Ryu Ho-jeong, a 30-year-old MP, introduced a bill in 2021 that would improve working conditions and allow tattooists to report their income. Doy has taken a more aggressive approach, frequently appearing in court for the past four years to appeal a conviction and draw attention to the plight of less famous colleagues.

South Korean society is increasingly siding with Doy and Ms Ryu. The elderly still disapprove of tattoos, considering them signs of criminality. Yet over half of South Koreans as a whole and more than four-fifths of those in their 20s believe qualified tattooists should be allowed to ink up customers. Far from "a deviant act", for young people a tattoo is just another consumer product, says Ha Ji-soo of Seoul National University.

Unsurprisingly, the tattooists' main adversaries are doctors, who claim it is risky to let non-doctors tattoo. They stand to lose a lucrative sideline: in 2022 the market for semi-permanent tattoos, used mostly for cosmetic procedures, was worth as much as 1.8trn won ($1.4bn), reckons the KTA.

The South Korean government, usually keen to promote its culture, has so far been hesitant to upset this powerful lobby. Yet that may be changing: apparently aware of tattooists as a potential source of revenue, the government has already assigned them a tax code.

Politics in Pakistan

An arresting moment

ISLAMABAD

The jailing of Imran Khan threatens to push the country over the edge

When he travelled from Lahore to Islamabad to appear before the Islamabad High Court on May 9th, Imran Khan may have been expecting an uneventful day in court. It was not to be. Thirteen months after he was ousted as Pakistan's prime minister in a vote of no confidence, Mr Khan was bundled off the court's premises and into a car by paramilitary toughs and deposited in the custody of the country's anti-corruption bureau. Rather than contest early elections, which he has been demanding for months, Mr Khan may have to watch general elections scheduled for later this year unfold from a jail cell—provided they are held at all.

The stated reason for Mr Khan's arrest is alleged graft. On May 10th, before being taken back into judicial custody, he was charged with and pleaded not guilty to corruption in connection with a land deal. Yet the arrest appears more likely to be related to his escalating quarrel with Pakistan's armed forces. On May 6th Mr Khan claimed at a public rally that Major-General Faisal Naseer of the army's intelligence service was plotting to murder him. Mr Khan had earlier blamed Shehbaz Sharif, who replaced him as prime minister, and other senior officials for an attempt on his life in November, when he was shot in the leg.

In a rare public statement, the army called Mr Khan's latest allegations "extremely unfortunate, deplorable and unacceptable". That did not stop Mr Khan from repeating them in a video recorded en route to the court in Islamabad, where he was arrested shortly afterwards.

The arrest has escalated a political and constitutional crisis that has dragged on for months. Mr Khan has never accepted his removal from the premiership last year as legitimate. In January he tried to force the government to hold early national elections by getting his party, Pakistan Tehreek-e-Insaf (PTI), to effect the dissolution of two provincial assemblies it controlled, including the one in the crucial province of Punjab. But Mr Sharif wants polls in all four provinces and the centre in October, after parliament completes its term. The crisis turned constitutional when the Supreme Court ordered elections to be held in Punjab on May 14th, as demanded by Mr Khan, an order the central government and parliament have rejected.

Mr Sharif and his government appear keen to buy time to improve the economy before elections are held. Inflation hit an annual rate of 36.4% in April. Food-price inflation is running at 48.1%. GDP growth is projected to be a dismal 0.5% this year. With an estimated $77.5bn in loan repayments due by June 2026, and no sign that the IMF will soon agree to resume a lending programme worth $6.5bn, Pakistan remains in danger of defaulting, despite bilateral support from China. On a visit to Islamabad over the weekend China's foreign minister called on the country to sort out its chaotic politics and focus on improving the economy.

Not your average day in court

The more immediate risk is a breakdown of law and order. At least eight people have been killed in violent protests since Mr Khan was nabbed; hundreds have been arrested. The government has shut down mobile internet and social media, declared a state of emergency across much of the country and called in the army to quell unrest.

Unusually, given the respect for and fear of the army in Pakistan, protests have been directed at military sites. In Lahore the usually heavily fortified residence of the city's top military commander was breached by stick-wielding protesters, who smashed windows, set furniture alight and made off with household objects. One protester was seen cradling a peacock. "I took it from the corps commander's house. It is the people's money. What they stole, we're taking back," the protester said. Other fans of Mr Imran also breached the gate of the army's headquarters in the garrison city of Rawalpindi.

There is nothing new about a political leader falling out of favour with Pakistan's army. What is new is Mr Khan's willingness to take the fight to the generals. Mr Sharif and his government may fancy their odds of staying in power as their rival skirmishes with the army. But Pakistan could be closer to the edge than they realise. ■

India's competitive federalism

My state is shinier than yours

VISAKHAPATNAM

Luring investors is only part of the point of an investment summit

Driving from Visakhapatnam airport into the city in March, it was hard to spot a billboard advertising anything other than the serenely smiling face of Y.S. Jagan Mohan Reddy. At just one roundabout, your correspondent counted at least 13 billboards with his image, each bearing the words "Advantage Andhra Pradesh: Global Investors Summit 2023".

Mr Reddy is the chief minister of Andhra Pradesh (AP), the rump of a bifurcation in 2014 that cleaved off a new state, Telangana, which took with it AP's erstwhile capital of Hyderabad. That left AP without its economic powerhouse, so Mr Reddy's desire to attract investment is understandable. But he is not the only chief minister to lay out the red carpet (literally—there was one at the airport, with dancers and musicians to welcome delegates). Investment summits have become the norm in Indian states, from thriving economies ("Magnetic Maharashtra"; 2019-20 GDP: $340bn) to some of the weakest ("Investgarh Chhattisgarh"; $43bn).

The model was established in 2003 by Narendra Modi, now India's prime minister. The previous year the state of Gujarat had witnessed religious riots in which more than 1,000 people were killed, mostly Muslims. The episode turned Mr Modi, the state's chief minister at the time, into a pariah. With the support of sympathetic CEOs, he organised the first "Vibrant Gujarat" summit, now a biennial event, to remake himself as a business- and development-friendly leader. In that, at least, it was a resounding success. Mr Modi won the national election in 2014 in part because Indians believed he would make them richer.

At the Visakhapatnam event, held in air-conditioned tents on a dusty university ground, Mr Reddy and assembled business leaders sat in armchairs on a stage as each made speeches extolling the virtues of the state government. At the end of the hours-long session, CEOs lined up to sign a "memorandum of understanding" (MOU) with Mr Reddy. In two days, the state agreed 352 MOUs totalling 13trn rupees ($159bn) with the potential to create 600,000 jobs, reported one business newspaper.

Such numbers attract headlines and make voters feel good. But enterprising journalists combing through data have pointed out that the actual investment coming in is a fraction—usually a quarter ▸▸

to a third—of the announced figures.

Yet that may be missing the point. Summits serve at least three functions other than signing deals. The first is marketing. After 1991, when India started opening up and liberalising investment rules, policy action shifted to the states, says Suyash Rai of Carnegie India, a think-tank in Delhi. As India's 28 states compete among each other, such events remind companies of the states' ease-of-doing-business rankings, their growth and the incentives they offer. The summits are a sign that what Indian policymakers like to call "competitive federalism" is working.

A second function is to show state bureaucracies that the political leadership is serious about investment. Government departments are roped into organising summits. Leaders expect civil servants to follow up on promises to grant speedy licences and permits. Summits are "a starting point", says Sonal Varma, chief India economist at Nomura, a bank. "But ultimately the aggregate business climate is going to determine whether companies invest."

Third, the summits are a way to understand the needs of businesses. One CEO at the Visakhapatnam event says that following through on MOUs is contingent on a host of actions from the state government, and signing one is a way for the state's functionaries to engage more closely in the nuts and bolts of what companies say they require in order to invest and expand.

There are spillover effects too. Attracting a firm may lure its competitors. The presence of one or two companies in a particular sector could help seed a cluster. If nothing else, the summits, as Visakhapatnam's streets showed, are great business for billboard-advertising companies. ■

Banyan End of a parlour game

A clear winner has emerged in the old rivalry between Singapore and Hong Kong

DINNER-PARTY conversations across Asia have often been animated by an old debate. In economic dynamism, the state of the urban fabric and the vibrancy of civic life, which city comes top: Hong Kong or Singapore? Until not long ago, it was obvious to Banyan, who spent a decade working there, that Hong Kong won hands down. But recently the balance shifted. There is clearly no contest anymore. It is game over in favour of Singapore. As a consequence, Banyan has moved there.

Hong Kong and Singapore, once dirt-poor, have astonishing success stories to tell. Both are hubs for international finance, trade, transport and tourism. Both have attracted the brightest professional minds. Both built world-beating universities. Nothing tops the drama of Hong Kong's topographical setting. It is hard to think of a cleaner, greener city than Singapore.

The imposition of a draconian national-security law in 2020 marked the obvious break in Hong Kong's trajectory. The law ended any prospect of more representative government and curtailed the space for civic expression. Dozens of activists, lawyers and politicians are in jail. Stringent pandemic travel restrictions compounded the sense of claustrophobia. Some 200,000 expatriates have left Hong Kong in the past three years, along with even more Hong Kongers. By contrast, in 2022 the number of foreign professionals in Singapore grew by 16%, Banyan among them.

But a deeper divergence has occurred in economic performance, on which leaders in both places have always asked to be judged above all. In 1997, the year of Hong Kong's return to China, the two cities' GDP per person was remarkably similar ($26,376 in Singapore, $27,330 in Hong Kong). Today Singapore's is 1.7 times higher than Hong Kong's. Singapore's economy has grown by one-seventh since 2017; Hong Kong's not at all.

In reality, Hong Kong was never as freewheeling as it claimed. Cartels or oligopolies operate in power, construction and supermarkets, among other sectors. Singapore's economy is more innovative and diversified. Given China's economic slowdown, Singapore is now in a more vibrant region.

Yet the biggest divergence is in governance—defined by Donald Low at the Hong Kong University of Science and Technology, writing in *Jom*, a new Singaporean magazine, as "the capacity to anticipate, plan and prepare for the future". By that test, Hong Kong fails dismally. The government's answer to poor job prospects is to urge Hong Kong's young to seek work across the border.

Its strict "zero-covid" policy, mimicking mainland China, undermined its standing as an international financial centre. Like the mainland, Hong Kong bungled, failing to vaccinate the old quickly enough. Excess deaths per 100,000 people were nearly three times higher than in Singapore.

Hong Kong is also a harder place to live in the literal sense. The presence of rich foreigners pushing up property prices calls for big public-housing programmes. Yet so strong is the grip of Hong Kong's property tycoons that less than 50% of the population lives in public housing, for which there is a six-year wait. In Singapore, the figure is over 80%. Private rents, high in both places, are even steeper in Hong Kong, for worse flats.

Singapore is no paradise. The pleasantness of its urban fabric is thanks mainly to the toil of the foreign migrant workers who make up nearly a third of the workforce. Their contribution is a curious blind spot. Meanwhile, politics is tightly constrained, as is civil society: you may be arrested for holding up a placard with a smiley face. The media is cloyingly tame, while foreign journalists, it is made clear, are here on sufferance. With nearly 500 executions in the past three decades, 70% of them for drug offences, Singapore's use of capital punishment is grotesque.

Still, a far brighter future beckons for Singapore's young than for their counterparts in Hong Kong. They are slowly pushing at Singapore's rigid boundaries. This month, in a first, a few hundred activists gathered on Labour Day to call for greater rights for, among others, foreign workers. The launch of *Jom* reflects a growing desire for independent voices. In Hong Kong, by contrast, a transport-news website promoting road safety, of all things, this week became the latest target of the authorities and was forced to close. Singapore is at a crossroads. Hong Kong has hit a dead end.

Syria returns to the Arab League

Welcoming back a war criminal

DUBAI

President Bashar al-Assad is no longer a pariah

No one enjoys Arab League meetings. Morocco was scheduled to host a summit in 2016 but decided not to bother, calling the event a waste of time. Muhammad bin Salman, the Saudi crown prince, procured a doctor's note to skip last year's gathering in Algeria. Heads of state are sometimes spotted falling asleep.

No one enjoys them—except Bashar al-Assad, the Syrian dictator, who will relish his next Arab summit. Syria has been suspended from the league since 2011, when Mr Assad began a brutal crackdown on anti-government protests that plunged the country into civil war (see map on next page). On May 7th, however, the body agreed to readmit Syria and said it would invite Mr Assad to a summit in Saudi Arabia on May 19th.

An invitation from a dull talking shop crammed with dictators may seem hollow. For Mr Assad, though, it is the culmination of a long effort to end his Arab isolation—and, he may hope, another step towards acceptance in the West.

His regime has done nothing so far to merit a renewed embrace: neither making concessions towards political reform nor taking accountability for war crimes, nor trying to bring home Syria's 6m refugees, most of them in neighbouring countries. Before the war the country had some 22m people; roughly half of them had to flee either abroad or elsewhere in Syria because of it. He rules a kleptocracy that floods the Gulf with illicit drugs and maintains close ties with Iran, an arch-rival to some Arab states. Poverty is widespread. Yet even the bloodiest dictator, it seems, can find a road to diplomatic redemption—if he simply causes enough problems for others.

That is one lesson from his return to the world stage. Another is that the autocrats and warlords who court Russian support are likely to end up disappointed. Mr Assad needs the Arab world—and the wealthy Gulf states in particular—because Russia cannot rebuild his ruined country.

Better still, for him, would be a rapprochement with the West, which has placed his regime under sanctions meant to deter reconstruction. Those on the energy sector, for example, bar firms from building new power plants or supplying equipment. Would-be investors in the Gulf are even jittery about small-scale solar-energy projects, fearing they might run afoul of the measures. So a rapprochement seems unlikely. But talk of one raises an unsavoury question, one that has echoes from Venezuela to Zimbabwe: if a regime endures and sanctions fail to force change, should they be maintained despite their toll on civilians?

Mr Assad was never entirely a pariah in his own region. Algeria declined to cut ties with his regime. Egypt briefly did, under its short-lived democratic government, but restored them after a military coup in 2013. Still, the past decade was lonely. When Mr Assad arrived in the United Arab Emirates (UAE) for an official visit last year, it was his first trip to an Arab country in 11 years.

The UAE was among the first to break his isolation when it reopened its embassy in Damascus in 2018 and urged allies to do the same. The massive earthquakes that struck Syria (and Turkey) in February gave a larger jolt to Syria's diplomatic standing. Many Arab leaders had wanted to reach out to Mr Assad; the disaster gave them an excuse, as they called to offer condolences and co-ordinate aid.

There are several reasons why they sought normalisation. One is a broader spirit of detente. The Saudis struck a deal in March with Iran to restore diplomatic ties and reopen embassies. After years of ▸▸

proxy wars in Syria, Yemen and elsewhere, both sides were keen to lower tensions and shore up their positions at home. Turkey and Egypt, mired in mutual economic crises, are trying to end a decade of animosity. Gulf states have ended their embargo of Qatar, their tiny, wayward neighbour on the Arabian peninsula, which accomplished little. Old foes across the region are keen to pretend they are friends.

When it comes to Syria, however, they want something bigger in return. Its neighbours hope to get rid of millions of Syrian refugees. The 2m or so in Lebanon, with a population of just 5m, are seen as a burden, blamed unfairly for the country's economic collapse. In Turkey the mood has also turned hostile. Kemal Kilicdaroglu, the main opposition candidate in the election on May 14th, vows to send Syrians packing within two years if elected.

Some also wager that closer ties with Mr Assad could peel him away from Iran. After relying for years on Iranian military support, his country is now a base for the Islamic Revolutionary Guard Corps, Hizbullah and other armed groups linked to Iran. Their presence is unsettling for countries including Saudi Arabia and Jordan, which see Iran as a menace.

No one should be too hopeful. Some in the sprawling Syrian diaspora have built decent lives in their adopted countries, although others are consigned to squalor, living in tents and surviving on handouts. Few, however, wish to return to Syria. They are unlikely to—at least not by choice—unless the regime makes both political reforms and progress on reconstruction.

As for Iran, it is hard to imagine Mr Assad booting out the forces that kept him in power. When Ebrahim Raisi, the arch-conservative Iranian president, visited Damascus this month, he was treated to a musical number extolling Iran. Many Syrians doubt that their president, whose capital is ringed by Iranian militias, would even have the power to push them out.

Still, Syria may make a few gestures. It has become the world's leading producer of Captagon, an amphetamine that is a popular recreational drug in the Gulf. Authorities in the UAE seized almost 36m tablets in 2020, hidden inside a shipment of electric cables. The following year Saudi customs officials found 20m pills in a cargo of grapefruit. Jordan says it intercepted 17m pills in the first four months of 2022, up from 15m in all of 2021 and just 1.4m in 2020. Border guards have been killed in shoot-outs with armed smugglers.

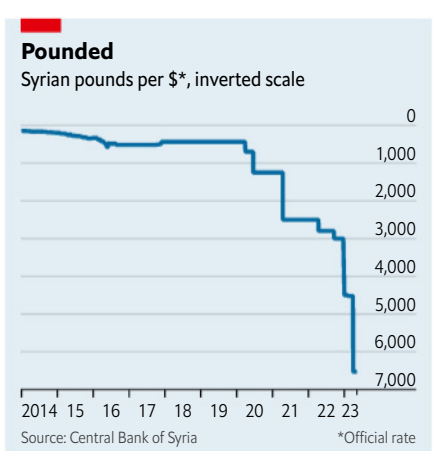
For every high-profile bust, many shipments go undetected. The scale of the Captagon trade is often exaggerated. The British government put its annual value at $57bn, a patently absurd figure, larger than the GDP of Jordan or the combined annual revenue of Mexico's drug cartels. The real

figure is probably an order of magnitude smaller—but that is still large enough to make it Syria's top export.

The past 12 years have been good for the small clique of drug dealers and war profiteers around the president. For everyone else in Syria, they have been miserable. The Syrian pound, stable at around 50 to the dollar before the war, now trades at around 6,500 according to an official rate published by the country's central bank (see chart) and at 8,700 on the black market. Official statistics are unreliable, but annual inflation is probably above 100%. Syria exports just $1bn-worth of licit goods a year, down from $11bn before the war. The government is able to provide only a few hours of electricity a day.

Mr Assad owes his survival partly to Russia, which in 2015 sent thousands of troops and dozens of warplanes to back his regime. What it helped destroy, though, it has done little to rebuild. In 2019 and 2020, with much fanfare, Russian officials announced projects worth billions of dollars for Syria: a modernised electricity network, a grain hub at the port of Tartus, a cross-country railway. Years later the country still endures blackouts and wheat shortages; its trains sit idle.

Lately Russia has stopped making even empty promises. Bogged down in Ukraine,



mired in its own sanctions, it has little to offer. Vladimir Putin has secured his own narrow interests in Syria: a naval base at Tartus and some phosphate-mining concerns, among other things. Those interests do not extend to providing homes and jobs for impoverished Syrians.

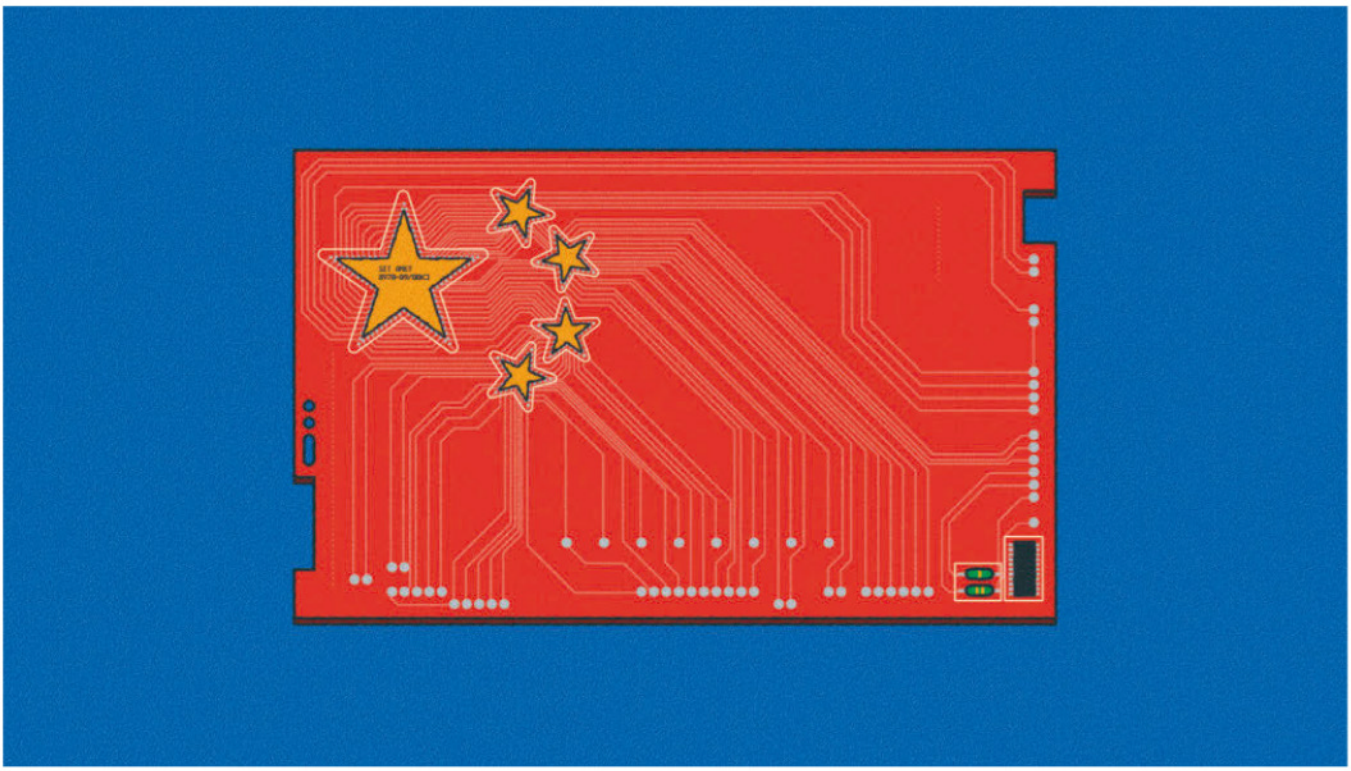
Other aspiring presidents-for-life should take note. The Wagner Group, a mercenary outfit that fought in Syria, also has a presence in Sudan, where it oversees a gold-mining operation. It works closely with Muhammad Hamdan Dagalo (known as Hemedti), a warlord whose paramilitary Rapid Support Forces are now fighting the Sudanese army for control of the country (see Middle East & Africa section). Russia has been happy to send men and munitions to support his fighters; it is unlikely to kick in much for reconstruction.

If Syria is to be rebuilt, the money will have to come from elsewhere. Western governments, understandably, are loth to foot the bill. The Gulf states might be more willing—if it wins them either political influence or economic returns.

Officially, America opposes this: it wants Mr Assad to remain a pariah. Antony Blinken, the secretary of state, called his Jordanian counterpart on May 4th and reiterated that America would not recognise the regime and "does not support others normalising". The EU has also maintained a tough line, even though some countries in central and southern Europe would prefer to restore ties (in the hope of getting rid of their Syrian-refugee populations). In private, though, Arab diplomats say the Americans gave them a "yellow light" to reach out to the Assad regime. Try it, they were told—but make sure you get something out of it.

The Captagon crisis shows why this is a fraught endeavour. Western officials make a straightforward argument: since Mr Assad created the problem, restoring ties with his regime would reward him for flooding the region with drugs. Arab leaders think the diagnosis is correct but the prescription is not. If Mr Assad is using drugs as leverage, they say, the only solution is to work with him. They risk endless blackmail. Perhaps Mr Assad will stem the flow—but he can easily turn it back on when he wants further concessions.

At the same time, though, Western policy is fanciful. America wants Mr Assad to abide by UN Security Council resolution 2254, which calls for a ceasefire, a new constitution and free elections in Syria. A less odious Syrian government would probably not want the country to be a narco-state. Unsurprisingly, though, Mr Assad has shown no interest in such reforms in what has been a hereditary dictatorship since 1971. Arab states are probably too optimistic about what their outreach can achieve—but shunning him has already failed. ■



Artificial intelligence

Model socialists

Just how good can China get at generative AI?

If you listen to the bombast in Beijing and Washington, America and China are engaged in an all-out contest for technological supremacy. "Fundamentally, we believe that a select few technologies are set to play an outsized importance over the coming decade," declared Jake Sullivan, President Joe Biden's national security adviser, last September. In February Xi Jinping, China's paramount leader, echoed the sentiment, stating that "we urgently need to strengthen basic research and solve key technology problems" in order to "cope with international science and technology competition, achieve a high level of self-reliance and self-improvement".

No technology seems to obsess policymakers on both sides of the Pacific more right now than artificial intelligence (AI). The rapid improvements in the abilities of "generative" AIs like ChatGPT, which analyse the web's worth of human text, images or sounds and can then create increasingly passable simulacrums, have only strengthened the obsession. If generative AI proves as transformational as its boosters claim, the technology could give those who wield it an economic and military edge in the 21st century's chief geopolitical contest. Western and Chinese strategists already talk of an AI arms race. Can China win it?

On some measures of AI prowess, the autocracy pulled ahead some time ago (see chart 1 on next page). China surpassed America in the share of highly cited AI papers in 2019; in 2021, 26% of AI conference publications globally came from China, compared with America's share of 17%. Nine of the world's top ten institutions, by volume of AI publications, are Chinese. According to one popular benchmark, so are the top five labs working on computer vision, a type of AI particularly useful to a communist surveillance state.

Yet when it comes to "foundation models", which give generative AIs their wits, America is firmly in front (see charts 2 and 3). ChatGPT and the pioneering model behind it, the latest version of which is called GPT-4, are the brainchild of OpenAI, an American startup. A handful of other American firms, from small ones such as Anthropic or Stability AI to behemoths like Google, Meta and Microsoft (which part-owns OpenAI), have their own powerful systems. ERNIE, a Chinese rival to ChatGPT built by Baidu, China's internet-search giant, is widely seen as less clever. Alibaba and Tencent, China's mightiest tech titans, have yet to unveil their own generative AIs.

This leads those in the know to conclude that China is two or three years behind America in building foundation models. There are three reasons for this underperformance. The first concerns data. A centralised autocracy should be able to marshal lots of it—the government was, for instance, able to hand over troves of surveillance information on Chinese citizens to firms such as SenseTime or Megvii that, with the help of China's leading computer-vision labs, then used it to develop top-notch facial-recognition systems.

That advantage has proved less formidable in the context of generative AIs, because foundation models are trained on the voluminous unstructured data of the web. American model-builders benefit from the fact that 56% of all websites are in English, whereas just 1.5% are written in Chinese, according to data from w3Techs, an internet-research site. As Yiqin Fu of

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Stanford University points out, the Chinese interact with the internet primarily through mobile super-apps like WeChat and Weibo. These are "walled gardens", so much of their content is not indexed on search engines. This makes that content harder for AI models to suck up. Lack of data may explain why Wu Dao 2.0, a model unveiled in 2021 by the Beijing Academy of Artificial Intelligence, a state-backed outfit, failed to make a splash despite its possibly being computationally more complex than GPT-4.

The second reason for China's lacklustre generative achievements has to do with hardware. Last year America imposed export controls on technology that might give China a leg-up in AI. These cover the powerful microprocessors used in the cloud-computing data centres where foundation models do their learning, and the chipmaking tools that could enable China to build such semiconductors on its own.

That hurt Chinese model-builders. An analysis of 26 big Chinese models by the Centre for the Governance of AI, a British think-tank, found that more than half depended on Nvidia, an American chip designer, for their processing power. Some reports suggest that SMIC, China's biggest chipmaker, has produced prototypes just a generation or two behind TSMC, the Taiwanese industry leader that manufactures chips for Nvidia (see chart 4 on next page). But SMIC can probably mass-produce only chips which TSMC was churning out by the million three or four years ago.

Chinese AI firms are having trouble getting their hands on another American export: know-how. America remains a magnet for the world's tech talent; two-thirds of AI experts in America who present papers at the main AI conference are foreign-born. Chinese engineers made up 27% of that select group in 2019. Many Chinese AI boffins studied or worked in America before bringing expertise back home. The covid-19 pandemic and rising Sino-American tensions are causing their numbers to dwindle. In the first half of 2022 America granted half as many visas to Chinese students as in the same period in 2019.

The triple shortage—of data, hardware and expertise—has been a hurdle for China. Whether it will hold Chinese AI ambitions back much longer is another matter.

Take data. In February local authorities in Beijing, where nearly a third of China's AI firms are located, promised to release data from 115 state-affiliated organisations, giving model-builders 15,880 data sets to play with. The central government has previously signalled it wants to dismantle Chinese apps' walled gardens, potentially liberating more data, says Kayla Blomquist, an American former diplomat in China now at Oxford University. The latest models are also able to transfer their machine learnings from one language to another. OpenAI says that GPT-4 performs remarkably well on tasks in Chinese despite scarce Chinese source material in its training data. Baidu's ERNIE was trained on lots of English-language data, notes Jeffrey Ding of George Washington University.

In hardware, too, China is finding workarounds. The *Financial Times* reported in March that SenseTime, which is blacklisted by America, was using middlemen to skirt the export controls. Some Chinese AI firms are harnessing Nvidia's processors through cloud servers in other countries. Alternatively, they can buy more of Nvidia's less advanced wares—to keep serving the vast Chinese market, Nvidia has designed sanctions-compliant ones that are between 10% and 30% slower than top-of-the-range kit. These end up being costlier for the Chinese customers per unit of processing power. But they do the job.

China could partly alleviate the dearth of chips—and of brain power—with the help of "open-source" models. Such models' inner workings can be downloaded by anyone and fine-tuned to a specific task. Those include the numbers, called "weights", which define the structure of the model and which are derived from costly training runs. Researchers at Stanford used the weights from LLAMA, Meta's foundation model, to build one called Alpaca for less than $600, compared with perhaps $100m for training something like GPT-4. Alpaca performs just as well as the original version of ChatGPT on some tasks.

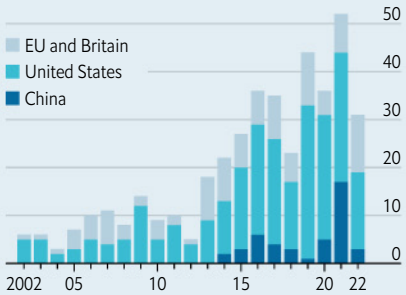
Chinese AI labs could similarly avail themselves of open-source models, which embody the collective wisdom of international research teams. Matt Sheehan of the Carnegie Endowment for International Peace, another think-tank, says that China has form in being a "fast follower"—its labs have absorbed advances from abroad and rapidly incorporated them into their own models, often with flush state resources. A prominent Silicon Valley venture capitalist is more blunt, calling open-source models a gift to the Communist Party.

Such considerations make it hard to imagine that either America or China could build an unbridgeable lead in AI modelling. Each may well end up with AIs of similar ability, even if it costs China over the odds in the face of American sanctions. But if the race of the model-builders is a dead heat, America has one thing going for it that may make it the big AI winner—its ability to spread cutting-edge innovation throughout the economy. It was, after all, more efficient diffusion of technology that helped America open up a technological lead over the Soviet Union, which in the 1950s was producing twice as many science PHDs as its democratic adversary.

China is far more competent than the Soviet Union ever was at adopting new technologies. Its fintech platforms, 5G telecoms and high-speed rail are all world-class. Still, those successes may be the exception, not the rule, says Mr Ding. Particu-

Off to the races 2

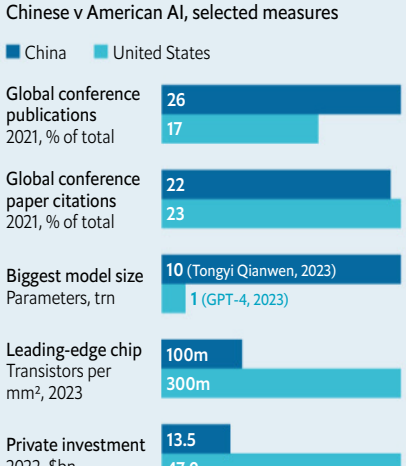
Number of new significant machine-learning systems



Source: Stanford AI Index

Show your cards 1

Chinese v American AI, selected measures

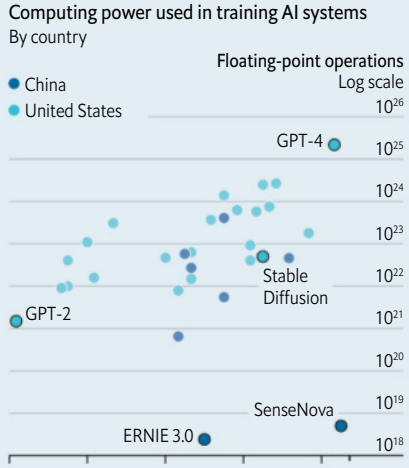


Sources: *Nikkei Asia*; SCSP; Stanford AI Index; CSET; WikiChip

It's time to duel 3

Computing power used in training AI systems

By country



Source: Bernstein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At BNP Paribas, we undertook 6 billion transactions for clients in 2022*. My role is to prevent any potential threats and take quick actions in the event of an anomaly. Given the ever-increasing numbers of cyber attacks, I protect my clients' banking data on a day-to-day basis.
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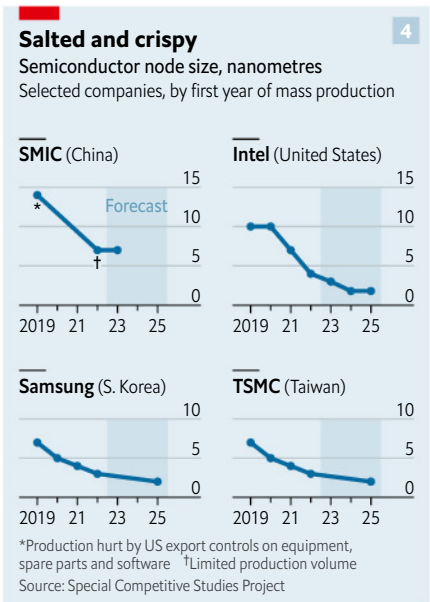


larly, China has done less well in deploying cloud computing and business software—both complementary to AI.

And though American export controls may not derail all Chinese model-building, they constrain China's tech industry more broadly, thereby slowing the adoption of new technology. Moreover, Chinese businesses as a whole, and especially small and medium-sized ones, are short of technologists who act as conduits for technological diffusion. Swathes of the economy are dominated by state-owned firms, which tend to be stodgy and change-averse. Parts of it are dodgy. China's "Big Fund" for chips, which raised $50bn in 2014 with a view to backing domestic semiconductor firms, has been mired in scandals. Many of the thousands of new AI startups are AI in name only, slapping on the label to get a slice of the lavish subsidies doled out by the state to the favoured industry.

As a consequence, China's private sector may struggle to take full advantage of generative AI, especially if the Communist Party imposes strict rules to prevent chatbots from saying something its censors dislike. The handicaps would come on top of Mr Xi's broader suborning of private enterprise, including a two-and-a-half-year crackdown on China's tech industry.

Although the anti-tech campaign has officially ended, it has left deep scars, not least in the AI business. Last year private investments in Chinese AI startups amounted to $13.5bn, less than one-third of the sum that flowed to their American rivals. In the first four months of 2023 the funding gap appears only to have widened, according to PitchBook, a data provider. Whether or not generative AI proves revolutionary (see Finance & economics section), the free market has placed its bet on who will make the most of it. ■

Steelmaking

An iron will

SALZGITTER

One of Europe's dirtiest industries has ambitious plans to go green. It won't be easy

At the steelworks near the German city of Salzgitter, ironmaking is a dramatic affair. Red-hot molten metal pours forth from the bottom of towering blast furnaces. The noise is deafening. Sparks fly everywhere. Soon things will be much more sedate. Seven wind turbines already tower over the site, run by a firm called Salzgitter AG. In a few years the electricity they generate will power banks of electrolysers, container-sized machines that split water into oxygen and hydrogen. The hydrogen will replace coke in reducing iron ore to iron in a new type of furnace, which will operate at much lower temperatures. Instead of CO_2, the process will emit H_2O.

The fireworks will be gone—but the climate will be grateful. Conventional steelmaking emits carbon dioxide twice over: first to generate the intense heat needed to force the coke to react with the ore in the blast furnace; then in the chemical reaction itself, as the coke snatches oxygen atoms from the ore to form iron and CO_2 as a by-product. As a result, steelmakers account for between 7% and 9% of annual global carbon emissions, about as much as India and not much less than road transport. The Salzgitter steelworks alone contribute around 1% of Germany's total emissions. No global net-zero goal will be possible to attain if the industry's belching is not radically reduced, says Julia Reinaud of Breakthrough Energy, a fund which invests in climate-friendly technology.

Good news, then, that global demand for green steel is growing. Rich-world consumers increasingly expect manufacturers to strive for carbon neutrality. The makers of cars, appliances and other products that use steel have thus started to look seriously for ways to decarbonise their supply chains, and are willing to pay extra for the clean stuff. Pre-sale deals of H2 Green Steel, a Swedish startup, imply a premium of 20% and 30% over the dirty metal.

Many governments are trying to chivvy the steel transition along. To bring down the cost of hydrogen, the making of which contributes two-thirds to the cost of green steel, America's Inflation Reduction Act, a mammoth climate law passed last year, offers a production tax credit of $3 per kilogram of the gas. It also supports renewables. Not to be outdone, governments in Europe are footing part of the bill for their steel firms' new equipment, which would run to $130bn if all of the continent's blast furnaces were to be replaced, according to Morgan Stanley, a bank. Salzgitter's transformation is being subsidised to the tune of €1bn ($1.1bn). Thyssenkrupp, a big German rival, may receive a similar sum.

More handouts may be on the way. On May 5th Germany's economy ministry announced plans to subsidise 80% of the electricity cost for energy-intensive firms, a group that includes steelmakers, if they

Playing their roll in the climate battle

pledge to go net-zero by 2045. Think-tanks like Agora Industrie suggest favouring green steel in public procurement. Ideas such as "carbon contracts" to pay firms the difference between what it costs to make grey steel and the green sort are making the rounds in European capitals.

Europe's steelmakers have one more strong incentive to get decarbonising. Under the EU emissions-trading system, they are currently awarded 80% of their allowances for CO_2 emissions free of charge in order to remain competitive with dirtier producers in places like China and India. Over the next ten years the EU will phase out these freebies and replace them with a carbon tariff on dirty imports. If EU steelmakers stay grey, calculates Morgan Stanley, their profits could sink by up to 70%.

Add it all together, explains Ms Reinaud, and it becomes clear why European steel firms are talking of upgrading their facilities. Besides Salzgitter and Thyssenkrupp, another German firm called Stahl-Holding-Saar wants to turn some of its mills green. ArcelorMittal, the world's second-largest steel company, based in Luxembourg, has plans for seven such projects, mostly in Europe. At least four start-up steelworks—H2 Green Steel; Hybrit, another Swedish firm; GravitHy, a French one; and Blastr, from Norway—want to give the incumbents a run for their money.

The Energy Transitions Commission (ETC), a think-tank, recently identified 28 green-steel projects globally. Most of them, like Salzgitter's, involve ripping out old blast furnaces and replacing them with new ones to make "direct-reduced iron" using hydrogen. Together, they would produce 60m tonnes of green steel a year.

Though nothing to sneeze at, this is far less than the 190m tonnes a year needed by 2030 for Europe's steel industry to be on track for net-zero emissions by mid-century, according to the ETC—and a drop in the bucket next to the nearly 2bn tonnes produced each year around the world. What is more, so far only three companies on the ETC's roster have moved from the talking phase to actual investment: H2 Green Steel, Salzgitter and ArcelorMittal, which is erecting a green-steel mill in Canada.

Getting more such initiatives off the ground requires overcoming a number of hurdles. Replacing old blast furnaces with cleaner equipment is the easy part. The transformation requires companies to find investors, placate regulators, and secure enough energy and resources. They must also attract enough skilled workers for their mills and, crucially, enough willing buyers for their products.

H2 Green Steel is a case in point. Financing the project involved fancy footwork. The pre-sale agreements serve as collateral to raise €5bn in debt and equity needed to cover the plant's cost. In April the firm confirmed it was seeking €1.5bn in funding. Though it is clearing the ground for construction, it still awaits the final go-ahead from local regulators to start building. This is expected in early June.

Meeting the energy, resource and labour needs will be no less daunting. Direct reduction with hydrogen consumes 15 times more electricity than coking, according to one estimate. At full capacity, H2 Green Steel's and Hybrit's plants in Sweden will between them need nearly as much power as the entire country generates today. They also need purer iron ore, because it does not melt fully in hydrogen-powered furnaces, making it more difficult to skim off contaminants. With green hydrogen still in short supply and no pipelines to get it to northern Sweden, H2 Green Steel is building what it says will be one of the world's biggest hydrogen plants. But finding enough electrolysers, which are only beginning to be mass-produced, is hard.

And although northern Sweden is as good a starting point as any for such projects, thanks to the proximity of many hydroelectric dams and mines, it isn't ideal for attracting a workforce of 2,000 professionals and their families. H2 Green Steel is taking a page from Krupp, a German steel pioneer that in the 19th century built whole towns to house its workers. But that adds to the project's cost and complexity.

Then there is the demand side. Morgan Stanley estimates that a premium of $115 per tonne will be needed for green steelmakers to break even, nearly 20% of the current market price for conventional steel. Although buyers are splurging for now, they may not be willing to pay such hefty markups for ever. H2 Green Steel's pre-sale agreements come with the expectation that prices will be lower in the next round of contracts.

Industries often take time to gain traction, at which point they accelerate, before slowing again as they mature. Green steelmaking is still in the first phase of this maturity "S-curve", says Marc van Gerven, who advises big utilities and miners on the energy transition. But the inflection point may be nigh. Sources of renewable power are multiplying. The EU expects local manufacturing capacity for electrolysers to grow ten-fold by 2025.

As the industry moves up the S-curve, the steelmaking process may be decoupled, with the energy-hungry early stages done near sources of cheap renewables and the rest closer to where the buyers are. H2 Green Steel already intends to build another mill, probably near Sines, a city in Portugal. That site would chiefly produce not finished steel but an intermediate product called sponge iron, to be shipped to Europe's industrial heartlands for refining. If other steelmakers follow suit, that would be quite the industrial revolution. ■

Chinese carmakers

The Thais that bind

SINGAPORE

As Chinese carmakers expand abroad, Thailand is playing a crucial role

SIX DECADES ago, when Japan's carmakers were minnows outside their home market, the future giants of global car manufacturing—Toyota, Nissan and Honda among them—began to expand production in Thailand. The South-East-Asian country's early presence in the automotive supply chains means it is the tenth-largest producer of cars in the world, surpassing countries like France and Britain.

Today Thailand is once again a waypoint for the international ambitions of carmakers—this time from China. Chinese companies have been announcing investments in Thai factories left and right. In March BYD, which in the first quarter overtook Volkswagen as the best-selling car firm in China, broke ground on an EV factory in Rayong, already a carmaking hub. In April Changan unveiled a $285m investment to make its first right-hand-drive vehicles outside China. And on May 6th Thai officials said that Hozon, another Chinese firm, will produce its mass-market NETA V electric model in Thailand.

As their home market matures, domestic competition stiffens and China's economic growth becomes more sedate (see China section), carmakers' cost of acquiring new Chinese customers is becoming "just so high", says Tu Le of Sino Auto Insights, a consultancy in Detroit. In recent months a price war has broken out in China between EV marques. Many carmakers

Plugging Thailand into the EV supply chain

see foreign expansion as the surer route to growth. China exported $21bn-worth of cars in the first quarter of 2023, 82% more than in the same period last year.

Given the rising geopolitical and commercial tensions between China and the West, Chinese manufacturers are seeking a neutral ground from which to stage their global expansion. Thailand, as an American ally and member of the Regional Comprehensive Economic Partnership, which loosens restrictions on trade in intermediate goods, looks particularly appealing.

Some of the Chinese companies' Thai-made cars will be sold in South-East Asia, where the economy is helpfully growing at a fast clip. Car sales in the region rose by 23% last year, to 3.4m. But the carmakers also have designs on the lucrative Western markets. Research by Allianz, a German insurer, finds that Chinese firms accounted for about 4% of battery-EV sales in Germany between January and March, three times the share a year earlier. Some, including BYD, are even attempting to conquer the American market, as Japanese firms had done before them (though sour relations between the two governments and America's protectionist subsidy regime for EVs complicate this effort).

Whether or not the Chinese car companies' Thai plans succeed in their ultimate goal, the investments reinforce China's already dominant position in Asian supply chains. Last year Thailand received $3.4bn in foreign direct investment from companies in China (including Hong Kong), more than it did from America or Japan. Even among American allies like Thailand, the commercial benefits from closer ties to the world's second-biggest economy are too juicy to ignore. ■

Bartleby Soft skills, hard questions

The hiring process is not well designed to select for social aptitude

SOFT SKILLS matter to employers. Writing in the *Harvard Business Review* last year, Raffaella Sadun of Harvard Business School and her co-authors analysed almost 5,000 job descriptions that Russell Reynolds, a headhunter, had developed for a variety of C-suite roles between 2000 and 2017. Their work showed that companies have shifted away from emphasising financial and operational skills towards social skills—an ability to listen, reflect, communicate and empathise. Other research has reached similar conclusions about jobs lower down the pay scale: being able to work well with people is seen not as some fluffy bonus but as a vital attribute.

The trouble is that soft skills are hard to measure. Worse still, the conventional process for recruiting people is often better at picking up on other qualities. The early phases of recruitment focus on filtering candidates based on their experiences and hard skills, since these are the criteria that are easiest to assess at a distance. Putting the words "team player" on a cover letter or a CV is proof of nothing save unoriginality. Smiling a lot at a camera for a taped video message demonstrates mainly that you can smile a lot at a camera. Self-reported empathy questionnaires sometimes seem to be testing for species-level traits (if you agree that "In emergency situations I feel apprehensive and ill at ease", many congratulations: you are a human).

The later phases of recruitment, when candidates and employers meet each other and engage in actual conversation, are better suited to assessing an applicant's softer skills. But even then, think of how fundamentally unsocial the situation is. Candidates are expected to talk, not listen; to impress, not empathise. Firms are feted for asking interviewees oh-so-clever Fermi questions like "How many piano-tuners are there in Guangdong?" or "How many cinnamon swirls would it take to fill the Reichstag?" Structured interview scripts enable like-for-like comparisons but they also squeeze the space for spontaneity. No wonder Professor Sadun et al reckon that hiring processes need to get a lot better at winkling out social skills.

Research is finding some shortcuts for identifying softer skills. Two recent studies of what makes for a good team member converge on what might be described as an ability to read the room. They also suggest ways to test for this trait.

Research by Siyu Yu of Rice University and her co-authors found that people who can accurately gauge which members of a team wield influence are in possession of a magic power they call "status acuity". Such room-readers reduce group conflict and improve team performance. As part of their study they devised a test, in which participants watched a video of a group performing a task. The participants then rated members of the group based on how much esteem each was held in. People whose ratings were closest to the assessments of the team members themselves had the quality of status acuity.

In another study Ben Weidman and David Deming of Harvard University also found that certain individuals consistently made their groups perform better than expected. Such people, they argued, are genuine team players, capable of making the whole greater than the sum of the parts. These wonderful creatures did not stand out from their peers on IQ or personality tests. But they did significantly better on the "Reading the Mind in the Eyes" test, a standardised assessment in which participants are shown pictures of various facial expressions and then have to pick the word that best describes what each person is feeling.

Better tests are not the only way to elicit more information about social skills. Don't just have people higher up the food chain ask interview questions: it is good to see how applicants get on with a range of colleagues. Ask the people who interact casually with applicants, from the assistants who arrange appointments to the receptionists on the day, what they thought of them. Find out what genuinely worries candidates about the job: lots of research suggests that humility is associated with better performance.

Hiring for soft skills will spawn new risks. They are squishier than technical skills, which may make it easier for people to fake their way through the process. And there may be more room for interviewers' biases to creep in. Finding someone irritating may be a signal that someone lacks social skills. But it may also mean that they are nervous, that you are grumpy or that the two of you are not that alike. Recruitment is set to change. It is not going to get easier.

Schumpeter | The Netflix strike

Writers beware: Hollywood has changed for ever

You cannot see the Hollywood sign from the picket line outside Netflix's compound on Sunset Boulevard. It is obscured by an office tower with a busty advertisement for a "Bridgerton" spin-off splashed on the wall. Yet Hollywood, with its arcane paraphernalia, is all around you. The Writers Guild of America (WGA), which called the strike, traces its roots back to cinema's early days. The language that the strikers use is steeped in history. They talk of "rooms" where writers gather to work on a script and of "notes", the often brutal feedback they receive from studio executives. In Los Angeles, Hollywood still confers cachet. You can tell from the horns blasting out in support of the strikers from passing cars.

It is a town, and an industry, in upheaval, though. The strike, the first in 15 years, is the latest manifestation of that. Cinemas are still struggling to lure audiences back after the pandemic. Media companies are drowning in debt. Amid a surfeit of TikTok celebrities and minor Hollywood glitterati, only a few old warhorses like Tom Cruise are guaranteed to bring out the crowds. The main cause of the turmoil is streaming. Its firehose of content keeps people at home, rather than going to the multiplex. Its shows cost the film industry a fortune to make. And they are served up with such blink-and-you-miss-them rapidity that it is harder than ever to create universal cultural icons. Yet as leisure activities go, there are few better ways to get a bang for 15 bucks or less.

Streaming hasn't just changed the way people watch TV. It has changed the business model, too. With studios and streamers under the same roof, what used to be a value business driven by hits has turned into a volume business driven by subscriptions. MoffettNathanson, a media-focused consultancy, vividly illustrates this with a quote from a talent agent: "Streaming turned an industry with a profit pool that looked like New York's skyline into the Los Angeles skyline." In other words, a few monumental hits, with a sprawl of minor hits and misses in between. Over this landscape, no streamer stands taller than Netflix. Not for nothing is Hollywood calling this "the Netflix strike".

Netflix may not have single-handedly changed Hollywood; HBO, a maker of edgy TV, deserves a screen credit. But its success shows there is no going back. At the end of March it had 232.5m subscribers worldwide. That gives it a huge base for absorbing the costs of shows. Unlike its rivals, its streaming service is profitable, which allows it to reinvest in better content. Its geographic reach lets it take low-budget series from local markets, as it did in 2021 with "Squid Game", a dystopian South Korean satire on inequality, and turn them into global hits. Its new cheap ad-supported tier offers huge potential to increase revenue and subscriber growth.

Given its strength, one might think it could afford to splash out on writers. Perish the thought. In a volume business, cost is key. Its ability to control production expenses helped bolster its cashflow in the first quarter. Investors loved it. Writers, once accustomed to more lavish treatment, did not. Their retort, visible on the picket lines outside Netflix offices: "Fists up. Pencils down."

Talk to the strikers and it is hard not to feel sympathetic. In the pre-streaming era, writing for a moderately successful film or TV series guaranteed a steady income. Writers' rooms, with at least eight scribes firing off each other, were common when working in pre-production, on set and during editing. Helping write a 26-episode TV show could take up most of the year. Once a film was released, or a TV show broadcast, there was a lucrative aftermarket, including home video and syndicated sales, which brought in residual royalties. It was easy to measure success. Third-party firms reported ratings, box-office numbers and after-sales.

The early days of streaming were, if anything, even better. Not only did Netflix, and deep-pocketed tech giants such as Apple and Amazon, spray cash on content to attract subscribers. They made payments up front, regardless of success (they kept most of the viewing figures to themselves). They gave writers unusual creative freedom. The streaming wars gave rise to a golden age of TV.

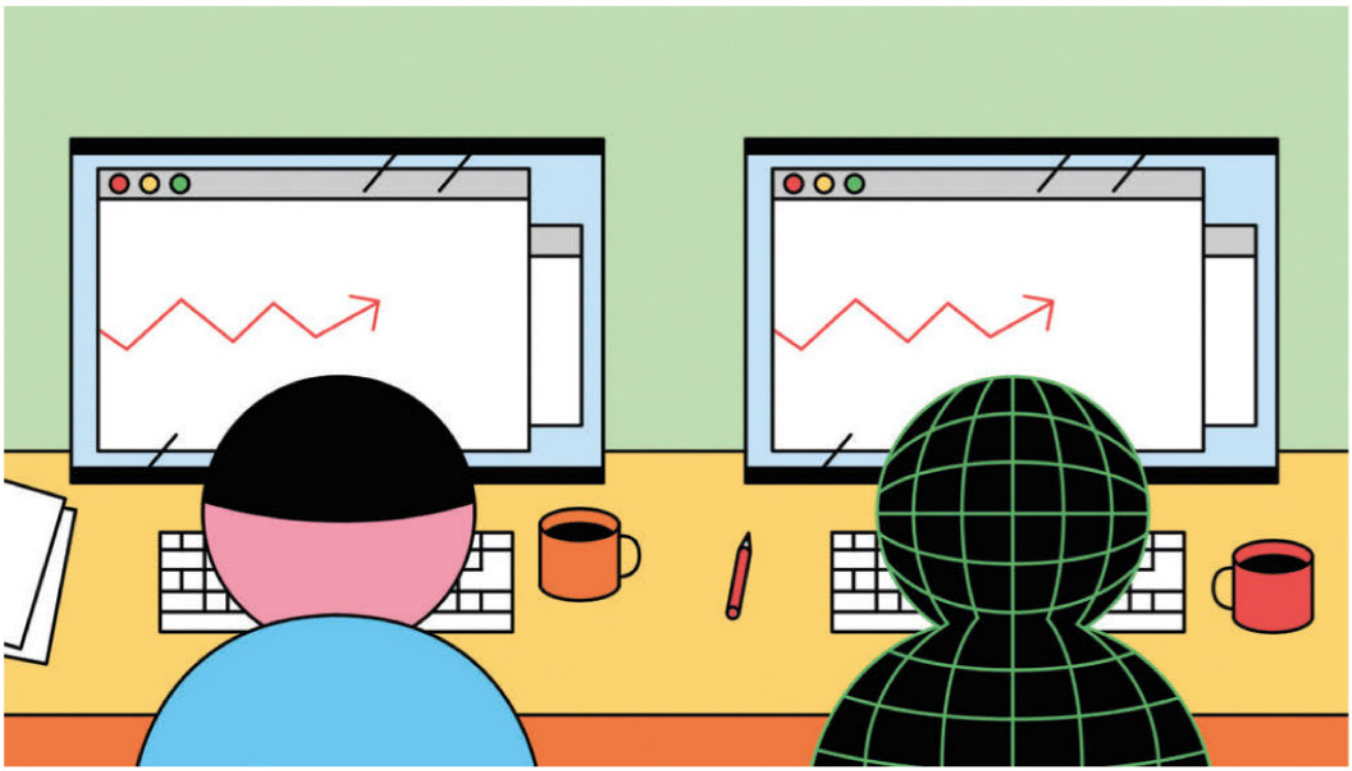
But since investors have taken fright at the ballooning budgets, the money-spigot has been turned off. Shows are shorter than in the pre-streaming era, and work is intermittent. Writing after pre-production has virtually ground to a halt, says Danielle Sanchez-Witzel, union captain and writer for Netflix, whose comedy show, "Survival of the Thickest", comes out this summer. She says she was shocked at how intransigent the platform was when she asked for more writers on set. "It's led to a lot of soul-searching."

It isn't just the WGA. Directors and actors are starting separate contract negotiations with the Association of Motion Picture and Television Producers (AMPTP), which represents the studios, ahead of a June 30th deadline. They, too, have concerns about pay, staffing and residuals. In the background lurks artificial intelligence, and the question of whether it will change the economics of the movie industry as much as—or more than—the internet did.

Sunset Boulevard, sunset industry

Given such seismic changes, it would not be surprising if the guilds dig in their heels. They have loud voices on social media. The lavish salaries studio bosses pay themselves, while cutting costs elsewhere, make for easy targets.

Yet the strikers' leverage is limited. Netflix's rivals could have offered more generous terms to win the war for talent. They didn't, instead joining under the AMPTP umbrella. Netflix may be one of the strike's biggest targets, but it has a large slate of releases ready to go that may insulate it better than its peers from a lack of new scripts. The global reach of the streamers could undercut American content creators; there are plenty of non-unionised foreigners keen to step into their shoes. This is a world where unscripted fare, including YouTube and TikTok, competes with traditional media for viewers' attention. The skyline has changed. It is foolish to think Hollywood will not change with it. ■



The future of work

Your new colleague

SAN FRANCISCO

Artificial intelligence is about to turn the economy upside down. Right?

THE AGE of "generative" artificial intelligence has well and truly arrived. OpenAI's chatbots, which use large-language-model (LLM) technology, got the ball rolling in November. Now barely a day goes by without some mind-blowing advance. An AI-powered song featuring a fake "Drake" and "The Weeknd" recently shook the music industry. Programs which convert text to video are making fairly convincing content. Before long consumer products such as Expedia, Instacart and OpenTable will plug into OpenAI's bots, allowing people to order food or book a holiday by typing text into a box. A recently leaked presentation, reportedly from a Google engineer, suggests the tech giant is worried about how easy it is for rivals to make progress. There is more to come—probably a lot more.

The development of AI raises profound questions. Perhaps most pressing, though, is a straightforward one. What does this mean for the economy? Many have grand expectations. New research by Goldman Sachs, a bank, suggests that "widespread AI adoption could eventually drive a 7% or almost $7trn increase in annual global GDP over a ten-year period." Academic studies point to a three-percentage-point rise in annual labour-productivity growth in firms that adopt the technology, which would represent a huge uplift in incomes compounded over many years. A study published in 2021 by Tom Davidson of Open Philanthropy, a grantmaking outfit, puts a more than 10% chance on "explosive growth"—defined as increases in global output of more than 30% a year—sometime this century. A few economists, only half-jokingly, hold out the possibility of global incomes becoming infinite.

Financial markets, however, point to rather more modest outcomes. In the past year share prices of companies involved in AI have done worse than the global average, although they have risen in recent months (see chart 1 on next page). Interest rates are another clue. If people thought that the technology was going to make everyone richer tomorrow, rates would rise because there would be less need to save. Inflation-adjusted rates and subsequent GDP growth are strongly correlated, notes research by Basil Halperin of the Massachusetts Institute of Technology (MIT) and colleagues. Yet since the hype about AI began in November, long-term rates have fallen. They remain very low by historical standards. Financial markets, the researchers conclude, "are not expecting a high probability of...AI-induced growth acceleration...on at least a 30-to-50-year time horizon."

To judge which group is right, it is helpful to consider the history of previous technological breakthroughs. This provides succour to investors. For it is difficult to make the case that a single new technology by itself has ever radically changed the economy, either for good or ill. Even the industrial revolution of the late 1700s, which many people believe was the result of the invention of the spinning jenny, was actually caused by all sorts of factors coming together: increasing use of coal, firmer property rights, the emergence of a scientific ethos and much more besides.

Perhaps most famously, in the 1960s Robert Fogel published work about America's railways that would later win him a Nobel Prize in economics. Many thought

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that rail transformed America's prospects, turning an agricultural society into an industrial powerhouse. In fact, it had a very modest impact, Fogel found, because it replaced technology—such as canals—that would have done just about as good a job. The level of per-person income that America achieved by January 1st 1890 would have been reached by March 31st 1890 if railways had never been invented.

Of course, no one can predict with any certainty where a technology as fundamentally unpredictable as AI will take humans. Runaway growth is not impossible; nor is technological stagnation. But you can still think through the possibilities. And, so far at least, it seems as though Fogel's railways are likely to be a useful blueprint. Consider three broad areas: monopolies, labour markets and productivity.

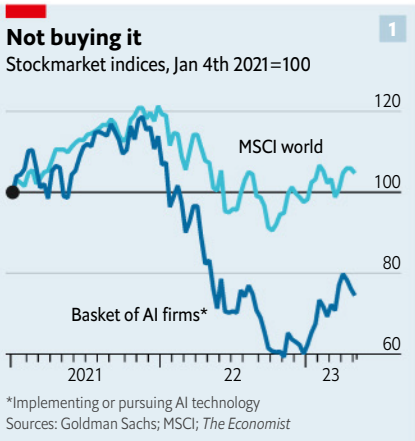
A new technology sometimes creates a small group of people with vast economic power. John D. Rockefeller won out with oil refining and Henry Ford with cars. Today Jeff Bezos and Mark Zuckerberg are pretty dominant thanks to tech.

Many pundits expect that before long the AI industry will generate huge profits. In a recent paper Goldman's analysts estimate in a best-case scenario generative AI could add about $430bn to annual global enterprise-software revenues. Their calculation assumes that each of the world's 1.1bn office workers will adopt a few AI gizmos, paying around $400 in total each.

Any business would be glad to capture some of this cash. But in macroeconomic terms $430bn simply does not move the dial. Assume that all of the revenue turns into profits, which is unrealistic, and that all of these profits are earned in America, which is a tad more realistic. Even under these conditions, the ratio of the country's pre-tax corporate profits to its GDP would rise from 12% today to 14%. That is far above the long-run average, but no higher than it was in the second quarter of 2021.

These profits could go to one organisation—maybe OpenAI. Monopolies often arise when an industry has high fixed costs or when it is hard to switch to competitors. Customers had no alternative to Rockefeller's oil, for instance, and could not produce their own. Generative AI has some monopolistic characteristics. GPT-4, one of OpenAI's chatbots, reportedly cost more than $100m to train, a sum few firms have lying around. There is also a lot of proprietary knowledge about data for training the models, not to mention user feedback.

There is, however, little chance of a single company bestriding the entire industry. More likely is that a modest number of big firms compete with one another, as happens in aviation, groceries and search engines. No AI product is truly unique since all use similar models. This makes it easier for a customer to switch from one to another. The computing power behind the models is also fairly generic. Much of the code, as well as tips and tricks, is freely available online, meaning that amateurs can produce their own models—often with strikingly good results.



"There don't appear, today, to be any systemic moats in generative AI," a team at Andreessen Horowitz, a venture-capital firm, has argued. The recent leak purportedly from Google reaches a similar conclusion: "The barrier to entry for training and experimentation has dropped from the total output of a major research organisation to one person, an evening, and a beefy laptop." Already there are a few generative-AI firms worth more than $1bn. The biggest corporate winner so far from the new AI age is not even an AI company. At Nvidia, a computing firm which powers AI models, revenue from data centres is soaring.

Yeah, but what about me?

Although generative AI might not create a new class of robber barons, to many people that will be cold comfort. They are more concerned with their own economic prospects—in particular, whether their job will disappear. Terrifying predictions abound. Tyna Eloundou of OpenAI and colleagues have estimated that "around 80% of the US workforce could have at least 10% of their work tasks affected by the introduction of LLMs". Edward Felten of Princeton University and colleagues conducted a similar exercise. Legal services, accountancy and travel agencies came out at or near the top of professions most likely to face disruption.

Economists have issued gloomy predictions before. In the 2000s many feared the impact of outsourcing on rich-world workers. In 2013 two at Oxford University issued a widely cited paper that suggested automation could wipe out 47% of American jobs over the subsequent decade or so. Others made the case that, even without widespread unemployment, there would be "hollowing out", where rewarding, well-paid jobs disappeared and mindless, poorly paid roles took their place.

What actually happened took people by surprise. In the past decade the average rich-world unemployment rate has roughly halved (see chart 2). The share of working-age people in employment is at an all-time high. Countries with the highest rates of automation and robotics, such as Japan, Singapore and South Korea, have the least unemployment. A recent study by America's Bureau of Labour Statistics found that in recent years jobs classified as "at risk" from new technologies "did not exhibit any general tendency toward notably rapid job loss". Evidence for "hollowing out" is mixed. Measures of job satisfaction rose during the 2010s. For most of the past decade the poorest Americans have seen faster wage growth than the richest ones.

This time could be different. The share price of Chegg, a firm which provides homework help, recently fell by half after it admitted ChatGPT was "having an impact on our new customer growth rate". The chief executive of IBM, a big tech firm, said that the company expects to pause hiring for roles that could be replaced by AI in the coming years. But are these early signs a tsunami is about to hit? Perhaps not.

Imagine a job disappears when AI automates more than 50% of the tasks it encompasses. Or imagine that workers are eliminated in proportion to the total share of economywide tasks that are automated. In either case this would, following Ms Eloundou's estimates, result in a net loss of around 15% of American jobs. Some folk could move to industries experiencing worker shortages, such as hospitality. But a big rise in the unemployment rate would surely follow—in line, maybe, with the 15% briefly reached in America during the worst of the covid-19 pandemic in 2020.

Yet this scenario is unlikely to come to pass: history suggests job destruction happens far more slowly. The automated telephone switching system—a replacement for human operators—was invented in 1892. It took until 1921 for the Bell System to install their first fully automated office. Even after this milestone, the number of American telephone operators continued to grow, peaking in the mid-20th century at around 350,000. The occupation did not (mostly) disappear until the 1980s, nine decades after automation was invented. AI will take less than 90 years to sweep the labour market: LLMs are easy to use, and many experts are astonished by the speed at which the general public has incorporated ChatGPT into their lives. But reasons for the slow adoption of technology in workplaces will also apply this time around.

In a recent essay Mark Andreessen of Andreessen Horowitz outlined some of them. His argument focuses on regulation. In bits of the economy with heavy state involvement, such as education and health care, technological change tends to be piti-

fully slow. The absence of competitive pressure blunts incentives to improve. Governments may also have public-policy goals, such as maximising employment levels, which are inconsistent with improved efficiency. These industries are also more likely to be unionised—and unions are good at preventing job losses.

Examples abound. Train drivers on London's publicly run Underground network are paid close to twice the national median, even though the technology to partially or wholly replace them has existed for decades. Government agencies require you to fill in paper forms providing your personal information again and again. In San Francisco, the global centre of the AI surge, real-life cops are still employed to direct traffic during rush hour.

Au revoir!

Many of the jobs at risk from AI are in heavily regulated sectors. Return to the paper by Mr Felten of Princeton University. Fourteen of the top 20 occupations most exposed to AI are teachers (foreign-language ones are near the top; geographers are in a slightly stronger position). But only the bravest government would replace teachers with AI. Imagine the headlines. The same goes for cops and crime-fighting AI. The fact that Italy has already temporarily blocked ChatGPT over privacy concerns, with France, Germany and Ireland said to be considering the option, shows how worried governments are about the job-destructive effects of AI.

Perhaps, in time, governments will allow some jobs to be replaced. But the delay will make space for the economy to do what it always does: create new types of jobs as others are eliminated. By lowering costs of production, new tech can create more demand for goods and services, boosting jobs that are hard to automate. A paper published in 2020 by David Autor of MIT and colleagues offered a striking conclusion. About 60% of the jobs in America did not exist in 1940. The job of "fingernail technician" was added to the census in 2000. "Solar photovoltaic electrician" was added just five years ago. The AI economy is likely to create new occupations which today cannot even be imagined.

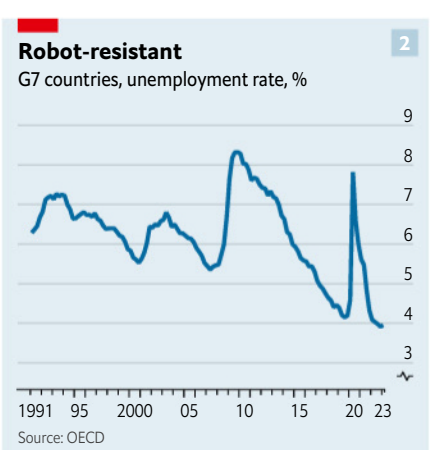
Modest labour-market effects are likely to translate into a modest impact on productivity—the third factor. Adoption of electricity in factories and households began in America towards the end of the 19th century. Yet there was no productivity boom until the end of the first world war. The personal computer was invented in the 1970s. This time the productivity boom followed more quickly—but it still felt slow at the time. In 1987 Robert Solow, an economist, famously declared that the computer age was "everywhere except for the productivity statistics".

The world is still waiting for a productivity surge linked to recent innovations. Smartphones have been in widespread use for a decade, billions of people have access to superfast internet and many workers now shift between the office and home as it suits them. Official surveys show that well over a tenth of American employees already work at firms using AI of some kind, while unofficial surveys point to even higher numbers. Still, though, global productivity growth remains weak.

AI could eventually make some industries vastly more productive. A paper by Erik Brynjolfsson of Stanford University and colleagues examines customer-support agents. Access to an AI tool raises the number of issues resolved each hour by 14% on average. Researchers themselves could also become more efficient: GPT-X may give them an unlimited number of almost-free research assistants. Others hope AI will eliminate administrative inefficiencies in health care, reducing costs.

But there are many things beyond the reach of AI. Blue-collar work, such as construction and farming, which accounts for about 20% of rich-world GDP, is one example. An LLM is of little use to someone picking asparagus. It could be of some use to a plumber fixing a leaky tap: a widget could recognise the tap, diagnose the fault and advise on fixes. Ultimately, though, the plumber still has to do the physical work. So it is hard to imagine that, in a few years' time, blue-collar work is going to be much more productive than it is now. The same goes for industries where human-to-human contact is an inherent part of the service, such as hospitality and medical care.

AI also cannot do anything about the biggest thing holding back rich-world productivity growth: misfiring planning systems. When the size of cities is constrained and housing costs are high, people cannot live and work where they are most efficient. No matter how many brilliant new ideas your society may have, they are functionally useless if you cannot build them in a timely manner. It is up to governments to defang NIMBYs. Technology is neither here nor there. The same goes for energy, where permitting and infrastructure are what keep costs uncomfortably high.



It is even possible that the AI economy could become less productive. Look at some recent technologies. Smartphones allow instant communication, but they can also be a distraction. With email you are connected 24/7, which can make it hard to focus. A paper in 2016 by researchers at the University of California at Irvine, Microsoft Research and MIT found that "the longer daily time spent on email, the lower was perceived productivity". Some bosses now believe that working from home, once seen as a productivity-booster, gives too many people the excuse to slack off.

Generative AI itself could act as a drain on productivity. What happens, for instance, if AI can create entertainment perfectly tailored to your every desire? Moreover, few people have thought through the implications of a system that can generate vast amounts of text instantly. GPT-4 is a godsend for a NIMBY facing a planning application. In five minutes he can produce a well written 1,000-page objection. Someone then has to respond to it. Spam emails are going to be harder to detect. Fraud cases could soar. Banks will need to spend more on preventing attacks and compensating people who lose out.

Just what we need

In an AI-heavy world lawyers will multiply. "In the 1970s you could do a multi-million-dollar deal on 15 pages because retyping was a pain in the ass," says Preston Byrne of Brown Rudnick, a law firm. "AI will allow us to cover the 1,000 most likely edge cases in the first draft and then the parties will argue over it for weeks." A rule of thumb in America is that there is no point suing for damages unless you hope for $250,000 or more in compensation, since you need to spend that much getting to court. Now the costs of litigation could fall to close to zero. Meanwhile, teachers and editors will need to check that everything they read has not been composed by an AI. OpenAI has released a program that allows you to do this. It is thus providing the world a solution to a problem that its technology has created.

AI may change the world in ways that today are impossible to imagine. But this is not quite the same thing as turning the economy upside down. Fogel wrote that his argument was "aimed not at refuting the view that the railroad played a decisive role in American development during the 19th century, but rather at demonstrating that the empirical base on which this view rests is not nearly so substantial as is usually presumed". Some time in the mid-21st century a future Nobel prizewinner, examining generative AI, may well reach the same conclusion. ■

Meaty mystery

Kebab consumption

ZIBO

What a barbecue craze says about China's economic-growth prospects

Over the past few decades, the small, industrial city of Zibo has been best-known for its petrochemical output. In recent months, however, it has become the centre of a national barbecue craze and social-media phenomenon unlike anything China has seen before. Tourists have flooded the city in the central province of Shandong in the hope of munching its mythical kebabs, posting videos on Douyin, the local version of TikTok, and then departing. Arenas have been converted into makeshift dining halls in order to cope with the massed crowds. To ease constraints on the supplies of meat and grills, local banks have started handing out low-interest loans designed specifically for merchants in barbecue-related industries.

During the recent May Day holiday, one of the most important weeks of the year for domestic shopping and entertainment spending, the chemicals hub was listed as a top tourist destination alongside other popular places such as the Great Wall and the Terracotta Warriors. A widely shared internet meme jokes that the last time this many people showed up in the city was during the Siege of Qi, a famous battle that took place in the area in 284BC.

This frenzied activity in Zibo should be helping China recover from its disastrous zero-covid era. Analysts have highlighted consumption as a bright spot in the Chinese economy this year amid a gloomier outlook for construction and manufacturing. Indeed, at first glance activity during the recent holiday appears to be strong. The resumption in tourism has been stunning. A record 274m people travelled, up 19% from before the pandemic. Just months ago, a short jaunt could land you in a quarantine camp for weeks.

Yet other data reveal a more modest recovery—only to levels last seen in 2019, before covid-19, and not beyond them. Although more people travelled this year, spending per head was down by more than 10% against 2019, according to HSBC, a bank. As a consequence, domestic tourism revenues were up by a mere 0.7% on four years ago. "Chinese consumers are not back to normal," warns the boss of an asset-management firm. They are focused on food and fun, not big-ticket items like cars, he says. Auto sales were down 1.4% year on year in the first four months of 2023.

Young folk are going out of their way to spend less. Since the end of zero-covid, many tourists have described themselves as "special-ops" travellers. This alludes to dropping into a location, spending as little time and money as possible, and then moving on to the next spot—much as an elite military outfit might pass through a location unnoticed. The activity has become something of a sport, where young people visit a list of popular places and check them off by posting pictures on social media. Zibo's kebabs have been one of the top items to tick off from the list.

It is not, though, just youthful frugality behind weak consumption figures. Urban disposable incomes barely grew, at least by Chinese standards, in the first three months of the year, up just 2.7% in real terms compared to the same period a year ago, notes Raymond Yeung of ANZ, a bank. A fifth of youngsters are now out of work, double the rate in April 2019, he adds.

Zibo kebabs are the perfect treat for a budget traveller. They are consumed at low tables with a small stove, heated by coal. When the fat starts to drip, the meat is scraped into a thin pancake and dipped first into a garlic and chilli paste and then into a salty mixture of sesame and peanut. A bottle of the city's local beer, called Lulansha, comes to less than three yuan ($0.40). Four people can eat and drink for hours on less than 350 yuan. The craze is about more than the simple food. One barbecue purveyor who has operated a shop for several years in the city's Linzi district points out that anyone can sell *chuan'r*, as the dish is called locally. It is Shandong's big-hearted hospitality that people across the country are seeking out in Zibo.

Yet the cheap eats have stirred controversy among social commentators. Wu Xiaobo, a popular author, wrote recently that viral internet trends playing out on the streets of cities such as Zibo are evidence of a robust free-market economy at work in China. His article, however, generated such a backlash that it has been censored.

Others are less sanguine. One widely circulated article, by Liu Yadong, a professor, asserts that the trend is evidence of social decay in China, with young people fixated on online fads that hold little cultural value. Another article, by Wang Mingyuan, a think-tank researcher, suggests that the barbecue hype is a sign of the end of a decades-long economic cycle. The small cities where most of China's population dwell have run out of more standard drivers of growth; the demographic dividend is running low, as the country's population ages. Thus local officials must leap on whatever passing internet craze comes their way. How much longer, Mr Wang asks, can the barbecue party continue? ■

Asian finance

Credible

MUMBAI

India's once-troubled banks are generating enormous profits

People looking for tips on how to run a bank do not often head to Mumbai, and for good reason. On May 2nd India's Supreme Court ruled that the fraud-investigation office could prosecute auditors for their role in the collapse in 2018 of an infrastructure-finance firm backed by state banks. Last year four bosses at Indian Bank, a state lender, were jailed for fraud. Prosecutions of those at three other banks are grinding through the country's courts.

Yet Indian banks' recent annual earnings have been spectacular. State lenders have led the way: Canara Bank's net earnings jumped 87% against last year, Union Bank of India's 61% and IDBI's 49%. Private banks are hardly laggards: ICICI's earnings rose by 37%, Kotak Mahindra's 28% and HDFC's 19%. JPMorgan Chase, global banking's benchmark for excellence, offers a return on equity of 14%. India's state-owned banks generate, on average, over 11% and private banks almost 15%. In a development few, if any, predicted, Indian banks are among the world's most profitable.

During the first half of the 2010s, Indian banks reported numbers that were strong—but unbelievably so. The practice of rolling over bad loans to avoid recognising losses was rampant, particularly with those made by state banks to borrowers with political connections. Reality would have intruded eventually; an accelerant came in the form of scandals over the allocation of government licences in industries including coal, which concluded with the Supreme Court cancelling hundreds of mining permits in 2014, and telecoms, with the surprising exoneration of defendants in 2017. Approvals for projects froze, undermining their financial viability.

Outside expertise helped the process along. In 2015 Raghuram Rajan, a professor at the University of Chicago who was then the head of India's central bank, initiated an "asset-quality review". Write-downs and failures followed, notably in energy, steel and telecoms. Political and business leaders faulted Mr Rajan for pushing reforms, which they saw as throwing a wrench into the economy. His tenure did not extend to a second term.

In time, however, even critics have reconsidered Mr Rajan's stint at the Reserve Bank of India. It took more than five years for the benefits of his review to emerge, but they did so at an extremely helpful time: just as covid-19 hit. Rather than collapse under lockdowns, India's banks built on early signs of improvement. Non-performing loans peaked at 16% of corporate lending in 2018. They have since fallen sharply. By early 2024, predicts Crisil, a ratings agency, they should drop below 2%.

Narendra Modi's government also deserves credit. Bankruptcy reforms in 2016 have sped up the liquidation of failing firms, and prodded delinquent businesses to pay up. In 2019, as part of the seemingly endless mop-up of Indira Gandhi's banking nationalisation half a century ago, the government announced that 27 state-owned banks would become 12, with many branches closing. According to Boston Consulting Group, state banks have also written off $91bn in bad loans in the past

Financial turmoil

How bad does it look?

A glimpse at the balance-sheets of America's regional banks

More people are paying attention to America's regional banks than ever before. But it is difficult to work out the state of their balance-sheets. Recent data from the Federal Financial Institutions Examination Council, a regulator, offer a glimpse. Our analysis suggests several regional banks are struggling with flighty deposits, interest-rate mismatches and pricey borrowing. Even if none are about to collapse, the outlook is grim.

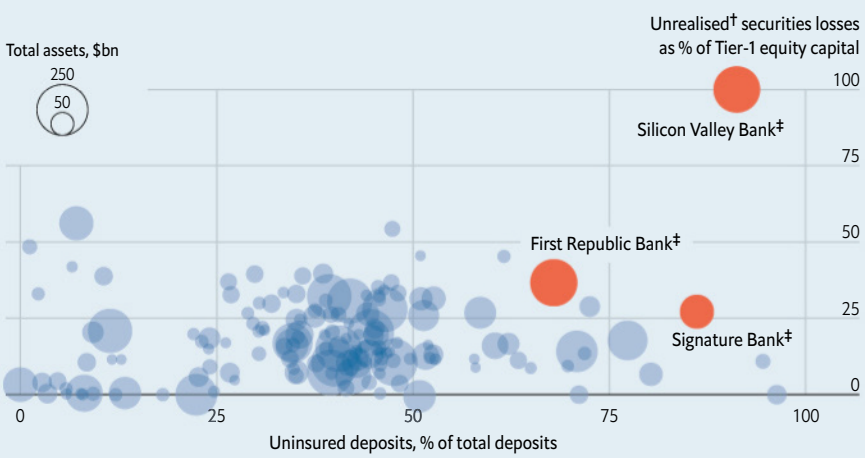
Start with deposits. Before the panic in March, savers were moving money to high-yielding money-market funds. The fall of Silicon Valley Bank (SVB) sped up the trend. Accounts with balances over the $250,000 federal-insurance limit fell by nearly 5% across the banking system—and by more than 11% at midsized lenders. At PacWest, an institution in California, total deposits dropped by 17% and uninsured ones by more than half.

Many banks are still sitting on billions in unrealised losses. The data show that America's banks in aggregate have more than $500bn in such losses on their securities portfolios. Charles Schwab, a broker that has seen its share price fall by two-fifths this year, holds more than $21bn in paper losses through its banking subsidiaries. When SVB collapsed, unrealised losses on its securities amounted to 100% of core equity capital (see chart).

Outstanding borrowing at American banks reached $1.3trn in the most recent quarter, up more than 40% on the previous one. At large institutions, borrowing rose by 26%; at midsized ones, it more than doubled. Schwab reported $39bn of short-term advances from the Federal Home Loan Banks (FHLB), up from $12bn in the previous three months. KeyBank, an Ohio-based lender, borrowed $19bn in short-term FHLB loans, up from $11bn. Such loans come at today's high interest rates. Banks that rely on them might survive the crisis. But they will probably see their profits suffer.

Unrealised losses, real problems

United States, regional banks*, March 31st 2023



*With assets of $10bn or more †In regulatory capital ‡December 31st 2022

Sources: Federal Financial Institutions Examination Council; *The Economist*

five years—just a little less than their combined worth. Many survived thanks to an infusion of 2.6trn rupees ($31bn) from the state, in return for shares, over the past three years. Such infusions have more recently been curtailed, as banks have learned how to stand on their own feet.

The process has both accelerated and benefited from India's economic growth. The IMF expects the country to be the fastest-growing major economy this year. As the system has become healthier, banks have lent more. Annual credit growth slowed to 3% in 2017. It is now up to 18%. Interest rates have risen less sharply than in America, helping limit stress.

Nonetheless, investors are not entirely convinced by the clean-up at state banks. HDFC, Kotak Mahindra and ICICI, three private-sector banks, trade at triple their book value. Many state-owned institutions still trade at just a fraction of theirs, meaning they are worth more dead than alive. One reason for this lack of confidence is that India has made similar steps before, notably in 1993, when other bankruptcy reforms passed, and in 2002, when a law made it easier for banks to go after deadbeats. Both instances, ultimately, proved to be blips in longer-term decline.

The state still retains enormous influence over the country's state banks. Senior appointments must go through the government. Bosses often serve two- to three-year terms, undermining long-term planning. Fear had its uses: when the banks were in trouble, ministers were forced to aim for solvency rather than use them for political ends. But as it ebbs, will a laxer era now begin? Only continued success for the state banks will show that Indian finance has truly changed. ■

Buttonwood Bills, bills, bills

Investors brace for a painful crash into America's debt-ceiling

Most of the time, the impossibility of America defaulting on its sovereign bonds is taken as a fundamental axiom of the financial system. The country issues the world's reserve currency, so investors always stand ready to lend it money. And if you are able to borrow more, you can pay back your debts.

Yet Washington is once again reminding the world that, through sheer mulishness, a default is indeed possible. Every now and again—as in 2011, 2013 and today—America smacks into its "debt ceiling", a political device that places a hard limit (currently $31.4trn, or 117% of GDP) on gross government borrowing. Congress must then agree to raise or waive the ceiling in order to prevent the Treasury from failing to make bond payments or meet spending obligations. This time Janet Yellen, the treasury secretary, has warned that the government may run out of cash and accounting manoeuvres as soon as June 1st. And so on May 9th, congressional leaders gathered in the Oval Office with President Joe Biden for the very first stage of negotiation. They are a long way from a deal.

The stage is thus set for a game of brinkmanship in which a Republican-controlled House of Representatives tries to wring concessions from Mr Biden, as the nation's creditworthiness hangs in the balance. The two sides should find a way to avoid catastrophe. But as Washington's staring contest intensifies, Wall Street's finest are less inclined to get involved. The merest hint of a default has already set traders to work looking for ways to protect their investments.

To understand why, consider what a default would mean. Short-term Treasuries, or "T-bills", are the closest thing there is to a risk-free asset. This makes them a favourite of corporate cash managers (who want an ultra-safe return) and any trader needing to post collateral (which must hold its value and be easy to sell). If the government stiffs corporate treasurers, companies will miss payments to one another and the wheels of commerce will grind to an agonising halt. Make traders' collateral vanish, and financial contracts of all stripes will start to fall apart, unleashing chaos in global markets.

Small wonder, then, that investors are rushing to protect themselves. A clamour for T-bills maturing before any possible default has given rise to wild swings in the yield of the world's safest asset. One-month bills yielded 4.7% at the start of April. Over the next three weeks that fell to 3.4%, even as the Federal Reserve prepared to raise its interest rate to 5-5.25%. But one-month bills now mature after June 1st, when the Treasury might have exhausted its cash. And so demand has cratered, with their yield soaring by more than two percentage points in a matter of weeks. One trading boss describes having her team attempt to manually override their settlement software, to ensure that bills which mature without being paid do not simply vanish from the system.

Longer-term Treasuries have so far seemed safer, under the assumption that an actual default would shock politicians out of their stubbornness, and would be quickly rectified. Yet even they are not immune. The cost of insuring five-year Treasuries against default, once the very definition of throwing away money, has quadrupled over the past 12 months (a fact admittedly explained in part by the market's lack of liquidity).

What next? For investors who think there is no chance of Washington careening over the precipice, it is time to snap up T-bills at a discount and sell pointless bond insurance to the nervous. But even optimists have cause for concern. Since the Treasury would have run down its cash reserves to virtually nothing, a deal would be followed by a glut of issuance to rebuild the buffer. Even the best-case scenario would drain liquidity from the market and may push yields higher.

The stockmarket, meanwhile, looks shaky either way. Analysts at PIMCO, an asset manager, note that over the past dozen years, the S&P 500 index has fallen by an average of 6.5% in the month running up to a debt-ceiling deadline—even though these have always been met. Under a default it would fare much worse. In 2013, during a previous debt-ceiling stand-off, Fed officials simulated the effects of a month-long default. They estimated that stock prices would fall by 30% and the dollar by 10%.

In the meantime, expect traders to get even more jittery. America's politics will prevent an early deal, and it could well take the markets freaking out to force one at all. Default remains the least likely outcome. But as investors are acutely aware, it is no longer unthinkable.

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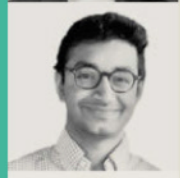

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The Economist

Free exchange | Remember trade-offs

By all means, prioritise security and climate change. But don't forget the lessons of economics

After the cold war, America and Europe established an economic order based upon open markets, global trade and limited state meddling in the economy. Climate change was a distant threat. Allowing countries like China or Russia into the global economy was widely seen to be beneficial for both them and their Western trading partners. As the two countries grew they would surely adopt market economics and, ultimately, democracy. Other things mattered. But economic considerations took precedence.

Not anymore. Policymakers on both sides of the Atlantic have come to the conclusion that national security and climate change must now come first. In Brussels talk is of "economic security" and "strategic autonomy"—policymakers want the bloc to be able to chart its own course. Ursula von der Leyen, president of the European Commission, recently said that she wants to "derisk" relations with China. Officials in Washington have similar ambitions. They believe that the old world order allowed America's industrial base to wither, created economic dependencies that could be exploited for geopolitical gain, left the climate crisis unaddressed and increased inequality in a manner that undermined democracy. Yet pursuing greater security, tackling climate change and seeking to counter the threat of China involves all manner of trade-offs. Even if economic considerations are no longer dominant, the discipline of economics still has much to offer.

In order to make sensible use of an economic weapon such as sanctions, for instance, national-security types must accurately gauge their costs. Russia's invasion of Ukraine last year provided a test case. At the time, debates raged in the EU about whether to ban imports of Russian gas. The fear—forcefully voiced by businesses and industrial unions—was that an embargo would be a brutal economic hit not to Russia, but to Europe instead. When a group of economists, including Ben Moll at the London School of Economics and Moritz Schularick at the University of Bonn, analysed the likely impact of such measures at the time, they forecast a hard, if less severe, hit, as they expected the economy to adjust swiftly to the shock. And the EU did avoid a recession, even though gas consumption in the 12 months to February was 15% lower than a year earlier. In a new paper, three economists from the group that provided the initial forecast argue that Europe could even have withstood an immediate gas embargo in April 2022, instead of the later cut-off over the summer. A forthcoming paper by Lionel Fontagne of the Paris School of Economics and others, which studies energy-price shocks in France over the past couple of decades, comes to a similar conclusion: firms adapt quickly, and only in part by cutting employment and production.

What about an economic clash between the West and a bigger, more powerful rival, such as China? Using the same model as the group above—and looking solely at intermediate inputs, such as semiconductors or engine parts, rather than finished products—researchers at the European Central Bank divide the world into two blocs: "East" and "West". If the blocs were to return to the limited trade of the mid-1990s, the analysis finds that the short-term hit, before the world economy has adjusted, would be large, at about 5% of global GDP. But over time the loss would fall to about 1%. The hit to America and China would be relatively small, compared with more globally integrated economies like the euro zone. Small open economies, like South Korea, would bear the brunt.

An intriguing aspect of an East-West clash is technological diffusion, a crucial ingredient in economic growth. Less trade means fewer learning opportunities, especially for poorer countries. Carlos Goes of the University of California, San Diego, and Eddy Bekkers of the WTO look at the impact a breakdown in relations may have on such diffusion. They find that the consequences for the American economy, as the technological leader, are again manageable. The impact on China or India is considerable, since both countries would miss out on opportunities to advance.

Trade-offs may be more painful when it comes to climate change. President Joe Biden has set aside more than $1trn over the next decade for green stimulus and manufacturing. Already there have been high-profile investments by large firms. But these could very well be plans that have been brought forward to secure subsidies. Meanwhile, evidence on intervention to boost industrial employment is decidedly mixed. Chiara Criscuolo of the OECD and others have analysed the EU's previous efforts. They find that the bloc's schemes do support employment, but only at small firms. Large firms tend to take the payment without adding jobs.

Other countries are responding with their own green subsidies, and are likely to add more—which may be unwise. The world needs every bit of economic efficiency to maintain a stable climate, as resources are limited and government budgets increasingly strained. In a new working paper Katheline Schubert of the Paris School of Economics and others look at different combinations of carbon taxes and green subsidies. They find, in line with earlier research, that relying on subsidies to green an economy entails large costs compared with a carbon price.

The danger of consensus

Dani Rodrik of Harvard University, a critic of the old "Washington" consensus, welcomes much of the new era. But in a recent essay on industrial policy, he describes just how difficult such intervention is to get right, and warns that trying to achieve multiple goals (say, to tackle climate change, boost industry and enhance security) with a single lever raises the chance of failure. What's more, any paradigm that becomes conventional wisdom is in danger of promoting one-size-fits-all solutions, writes Mr Rodrik. In the eyes of its critics, the old Washington consensus fell short when it came to fairness and growth. Now it is easy for economists of all stripes to see the dangers of the new consensus. Policymakers would be wise to listen. ■

Battlefield ingenuity

War on the fly

KYIV

How Ukrainians modify civilian drones for military use

In February 2022, four days after Russia's invasion of Ukraine, a man who goes by the pseudonym "Swat", and who lives in Kyiv, switched on a 3D printer in his garage and began to make plastic tailfins. The idea was to attach them to hand grenades, turning them into miniature bombs that can be dropped from drones.

A year on, Swat (which means "go-between" in Ukrainian) helps run a network called Druk ("Printing") Army, which coordinates the output of over 300 3D printers across the country. A similar network run from Latvia, Swat says, has about 150 members. Following a trail blazed by the likes of Hizbullah and Islamic State, they specialise in converting civilian drones designed for hobbyists, film-makers and farmers into lethal weapons of war.

The machines tend not to last long. Russian jamming causes many crashes, says a Ukrainian soldier with the call-sign "Bilyy", who flies drones near the occupied city of Donetsk. He loses a couple of machines a day. Yet the role of drones in the defence of Ukraine is growing. A colonel in Kyiv, speaking on condition of anonymity, says that, counting their role as reconnaissance machines for artillery, the flying robots now play a part in more than 70% of Russian casualties. The hacked-together drones tend to be cheaper, and in some cases more effective, than some purpose-designed military machines. The result, says the colonel, is a "new level of war".

March of the makers

The work itself combines ingenuity with frugality. One early hurdle was devising a way to allow civilian drones to drop grenades. Hobbyists worked out a clever solution by connecting a 3D-printed clamp to an electric motor. The motor is connected to a photo-receptive sensor, which is positioned, in turn, under a light that comes as standard on many consumer drones. (The lights are intended to allow flying at night, and to make drones more visible.) When an operator turns the light on, the motor turns, the gripper opens and the payload drops away. "Mag", a young man from Kyiv who has made around 2,000 of these gizmos, says each costs him about $10.

Once a grenade has been dropped, it has to be persuaded to explode. In the years after Russia's seizure of Crimea in 2014, hand grenades were squeezed into glass jars that would hold their handles closed. When dropped, the glass would shatter, releasing the handle and detonating the grenade. The drawback, says Bilyy, the drone operator, is that glass is heavy, and does not always break.

These days the handles are held with a ring of printed plastic designed to snap even when landing on soft ground. For grenades designed to be fired from a launcher, rather than thrown by hand, the fuse is replaced with a 3D-printed tip that holds a nail. Impact pushes the nail into the grenade's detonator, causing it to explode.

Engineers describe the work as exciting. Feedback from users comes quickly. Many of the best creations are distributed to other workshops by organisers like Swat. He points to a computer file that instructs 3D printers to make a plastic encasement full of ball bearings. Designed to fit around an anti-tank mine, it converts it into an anti-personnel weapon that can be dropped from bigger drones.

Some of the work involves augmenting the drones themselves, rather than simply fashioning clever payloads for them to carry. A workshop in Kyiv that calls itself Eyes

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of Army specialises in turning eight-rotor drones designed for crop-dusting into what a member calls "heavy" bombers. The machines carry four mortar rounds. Each weighs 3kg and can, if aimed properly, destroy a tank. The trick is getting close enough. The cropdusters are loud enough to be heard half a kilometre away, so the team installs quieter transmission systems and rotors. An infrared sensor is also added, as are long-range radios made by Dragon Link, an American firm.

The Eyes of Army crew spends part of its time at the front, flying combat missions at night with the permission of Ukrainian commanders. When donations allow, they can produce a full attack package for other civilian warriors. Besides the modified drone, this $35,000 kit includes an off-road vehicle with light armour, a control computer with goggles, and multiple battery packs to allow the drone to fly several sorties in quick succession.

Russia flies drones of its own, which Ukrainian soldiers are keen to knock out. In one Ukrainian city a rocketry hobbyist nicknamed "Rocketrin" builds, on a workbench at home, his second version of such a system. Dubbed Moskit, it launches from a tube. Unlike most surface-to-air missiles, which are destroyed along with their target, Moskit uses compressed air tanks in its nose to eject a net designed to entangle the enemy drone. A parachute saves the interceptor for reuse.

Rocketrin 3D prints most parts. That allows quick design changes, he says, so it is good for prototyping. But printing a tricky component can take ten hours, and demand along the front for drones is "endless". So he plans to set up, probably in a car mechanic's shop, a production line equipped with conventional tools.

All of this improvisation saves money. Eyes of Army reckons its octocopters cost a fifth of what an imported military drone with similar capabilities might cost. In another workshop elsewhere in Ukraine, a team of 30 volunteers is cutting carbon fibre with lasers to produce kamikaze quadcopters that deliver 1.5kg of explosives to targets up to 8km away. Each UAV-7, as they are known, costs about $2,000 including its control console. The comparison is imperfect, but the Switchblade 300, a suicide drone with a similar payload and range made by AeroVironment, an American firm, is reported to cost roughly $6,000.

Ukrainian troops fly both machines in the heavily jammed airspace around Bakhmut, an embattled eastern city. Operators there tell the workshop's boss, whose pseudonym is Boevsskiy, that the UAV 7 is more resistant to Russian electronic warfare than the Switchblade 300—though they will not go into the technical details. One advantage is a clever signal repeater that greatly extends the UAV-7's range.

Secrecy is vital, lest a Kremlin supporter decides "to take revenge", as Swat notes. One way to produce military drones discreetly is to do so in an existing factory that makes civilian goods. Last year the owner of one such factory near Kyiv quietly asked some employees to turn Mavic 3s, a hobbyist quadcopter sold by DJI, a Chinese company, into bombers. Today, 15 of the firm's employees produce roughly 5,000 quadcopter bombers a month.

The street finds its own use for things

One weak link, says the firm's owner, is his reliance on electric motors imported, at a cost of $16 each, from China. He fears China, which has refused to condemn Russia's invasion, might restrict supply. The company's engineers are developing an electric motor of their own, projected to cost just $5. The design is "primitive", admits the owner. But with attrition rates as high as they are, he says, components need not last long. Businessmen friends defray his costs with monthly donations totalling tens of thousands of dollars.

Outside Ukraine, firms sympathetic to the cause need not be so secretive. Ivan Tolchinsky, the CEO of Atlas Aerospace, a maker of civilian drones based in Riga, says he has looked into mass-producing converted civilian craft for use in the fighting. The required paperwork put him off. But he notes that a handful of Atlas engineers, working on their own time, are assisting Ukraine's improvisers with technical drawings and advice. One says he has sent designs for better radios, and helped to calculate how much payload the cobbled-together drones might carry.

As one Ukrainian soldier in Kyiv points out, the national culture is fertile ground for homespun engineering. Ukraine's education system emphasises both mathematics and engineering. The same is true in Russia, but Ukraine, he says, encourages personal initiative in ways that Russia's more authoritarian system does not.

Kostyantyn Leonenko works for Tolocar, a charity based in Hamburg that aims to foster "innovation by mass collaboration" in Ukraine. He notes that, in the rich West, tinkering is often playful. In a middle-income country like Ukraine, let alone one at war, it is a more pragmatic business. Tolocar's teams teach people to insulate their homes, replace broken windows, and make things like electric heating mats.

A visit to Ostriv, a "maker lab" in Kyiv, is illuminating. Mr Leonenko and a colleague, on their way to teach bicycle-making in Chernihiv, are installing a computerised milling machine. The warren of rooms already hosts a carpentry shop, a metalworking space and equipment for laser cutting, sewing and 3D printing. Kos Kuchabskiy, who runs the place, says that its tinkerers have made bulletproof vests, medical bags and beds for people displaced by the war. For a while, four members built suicide drones, before decamping to a workshop that specialises in such things.

Back at headquarters, the colonel in Kyiv thinks this duct-tape-and-baling-wire ecosystem a marvel. Elements of it could be incorporated into the Ukrainian defence ministry's procurement process. Mag, the maker of dropping mechanisms, is already receiving official letters with orders for items, albeit without payment.

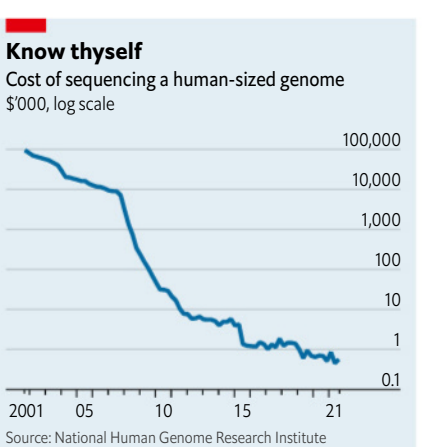
Russia's army, for its part, is fielding more modified commercial drones, too. But its effort is relatively nascent, and its civilian techies far less motivated to support the war effort. As a result, the impact of Russia's makeshift drones has been less striking, experts say. The big question is if that will change. ■

Genomics

47 genomes are better than one

A new repository aims to capture the genetic diversity of humanity

THE HUMAN GENOME PROJECT, which published its results 20 years ago last month, was a landmark in biology. It was also somewhat misleadingly named. After all, there is no such thing as "the" human genome. Instead, there are 8bn individual humans, each of whom share the vast majority of their DNA—but not all of it. The genome published by the Human Genome Project in 2003 was put together from a dozen anonymous blood donors in and around Buffalo, in New York state.



But there is more to life than Buffalo. That, in essence, is the motive behind the publication this week, in *Nature*, of a set of 47 new "reference" genomes taken from individuals on four continents (Africa, both of the Americas, and Asia). The idea of the Human Pangenome Project, the organisation behind the publications, is that rather than relying on a single "reference" genome, it would be better to have several, and to ensure that between them they capture as much of the genetic diversity of *Homo sapiens* as possible.

Compared with the total size of the genome, the amount of diversity in question is small. Two people picked at random will share around 99.6% of their DNA. That similarity is why the original genome produced by the Human Genome Project has proved so useful. Its annotated strings of genetic code serve as a baseline. Other genomes can be compared with it to look for variations, whether harmful or beneficial.

Yet although humans are mostly alike, their differences do matter. A relatively recent mutation, for instance, means adults with ancestors from northern Europe, or some parts of India and the Middle East, are more likely to be able to digest lactose (a sugar found in milk) than those from elsewhere. Which variation deserves to be treated as the standard?

Sometimes, the limits of using a single reference have direct medical consequences. A set of genes called HLA, for instance, are involved in running the immune system. They are highly variable, and mutations in them have been associated with autoimmune diseases such as type-1 diabetes. One study, published in 2015, found that, because many gene-sequencing technologies are not perfectly accurate, comparing readouts from the region with the single reference genome led to mistakes around 20% of the time. Another paper, published in 2022, found that relying on the reference genome meant that the details of some gene variants found in people with African ancestry, and seemingly associated with cancer, are poorly understood.

In an age of home gene-testing kits, powered by falls in the cost of sequencing (see chart on previous page), 47 genomes may not sound that impressive. But existing sequencing technologies produce incomplete results. They rely on reading short snippets of DNA, and do not deal well with the long, repetitive regions that dot the genome. As Evan Eichler, a geneticist at the University of Washington, told a press conference: "There are complex forms of [genetic] variation where we know the existing technology doesn't do a good job...it misses about two-thirds of those." The Pangenome Project uses newer, more accurate methods. That allows researchers to spot variants that might otherwise be missed, and to glean a better understanding of how, exactly, mutations arise.

The new genomes, then, represent a big improvement on the status quo. But gaps remain. All the genomes were drawn from material donated to the 1,000 Genomes Project, a collection of anonymised samples which began in 2008. It suffers from a shortage of donations from the Pacific islands and the Middle East. The researchers plan to fix that. But maximising diversity is unlikely to mean sampling every part of the world equally. Most human genetic diversity is found within Africa, the species' ancestral homeland. (People in the rest of the world are descended from a relatively small band who migrated outwards between 50,000 and 70,000 years ago.)

The researchers do not intend to catalogue every genetic variation there is. That would be a Sisyphean task: as Tobias Marschall, a computational geneticist at Heinrich Heine University, noted, every baby is born with dozens of mutations possessed by neither of its parents. Benedict Paten, a geneticist at the University of California, Santa Cruz, and one of the authors of this week's clutch of papers, says the aim instead is to reach 350 high-quality genomes. That should allow the researchers to capture the vast majority of the genetic variation that is thought to be out there. That will give humanity a much more representative picture of one of its favourite research subjects—itself. ■

Smell-O-Vision 2.0

Bringing scents to the metaverse

VR enthusiasts turn their attentions to an evocative, but neglected, sense

It was one of those many inventions that never quite took off. In 1960, audiences watching the film "Scent of Mystery" got to experience the wonders of "Smell-O-Vision". Mounted under the cinema seats, the system pumped out 30 different scents—from salty ocean breezes to whiffs of wine—at crucial moments in the plot. The system had its quirks. Those in the balcony complained that the smells reached them too late. Others found the scents to be too faint, or else irritatingly persistent. More novel than effective, Smell-O-Vision never really took root in Hollywood.

These days the cutting-edge of entertainment is video games and virtual reality, not films. Several groups are trying to bring scents to virtual worlds.

You could just go outside

In one paper published this week in *Nature Communications*, Xinge Yu at City University of Hong Kong and Yuhang Li at Beihang University describe two wearable "olfaction interfaces". The first is the size of a plaster, and is affixed to the skin, like a fake moustache, under the user's nose. The second, more capable version is a flexible face mask.

Both rely on heating tiny tiles of paraffin wax that have been impregnated with various liquid perfumes. The smaller version of the system uses two such tiles; the bigger one has nine. The researchers claim that they can generate a scent, such as mint or green tea, in as little as 1.44 seconds. The nine generators on the mask can combine to produce hundreds of possible odours.

Drs Li and Yu have been beaten to market by OVR, a startup based in Vermont. Its headset uses a system of refillable cartridges, each of which can make thousands of scents. The firm's newest product, the "ION3", will be released later this year, and can be tied into existing game-creation tools with minimal fuss.

Getting smells right could make virtual worlds more compelling. Odours are famously evocative. The part of the brain that processes them connects directly to parts associated with emotions and memory. But the science is tricky. Unlike colour or sound, where wavelengths and frequencies combine in predictable ways, smell is not so straightforward. Altering a single chemical bond can shift a scent from sweet to rancid. Whether smelly VR will do better than smelly films remains to be seen. But perhaps one day users will be able to stop, swipe and smell the virtual roses. ■

Race in America

The last Founding Father

Martin Luther King junior remains one of the greatest and most misunderstood figures in American history

King: A Life. By Jonathan Eig. *Farrar, Straus and Giroux; 688 pages; $35. Simon & Schuster; £25*

SIX MONTHS after Florida's board of education banned "critical race theory" (CRT)—in essence, the study of structural racism—from its classrooms, Ron DeSantis, the governor, introduced legislation further restricting what his state's teachers could say about race. He invoked an unlikely ally: "You think about what MLK stood for," he told a crowd last year. "He didn't want people judged on the colour of their skin, but on the content of their character." Kevin McCarthy, the speaker of the House of Representatives, invoked King too: CRT, he said, "goes against everything Martin Luther King junior taught us—not to judge others by the colour of their skin."

The phrase "content of their character", which King used in his "I Have a Dream" speech, delivered at the March on Washington of 1963, has become one of his best known. Out of context, it seems to advocate colour-blindness towards individuals above all else, even to suggest that policies which take account of racial inequities are themselves unfairly biased. That is a misunderstanding of King's views—and it is far from the only one in wide circulation. The reverence with which Americans of all political stripes view him today obscures how deeply divisive he was in his time.

King was a thorny, prophetic, demanding thinker. He struggled to balance his optimistic patriotism against self-doubt and, later in his life, against his creeping pessimism about America's ability to overcome its demons. Jonathan Eig's magnificent new biography is an overdue attempt to grapple with King in all his complexity.

His book will inevitably draw comparisons with "America in the King Years", a three-volume history by Taylor Branch. But that trilogy was sprawling and expansive—almost 3,000 pages long, and as much about America between 1954 and 1968 as about King. Mr Eig's is a more traditional biography, and the book benefits from its narrower focus. It gives the reader more insight into the multifaceted man himself.

For though King was a great man, he was not a saint. He plagiarised, philandered, was unkind and sometimes cruel to his wife, and seems to have suffered from what is now recognised as depression. He was also funny, fond of good food and politically shrewd. A doting father, he had a gift for friendship and extraordinary reserves of patience and discipline. Mr Eig makes his courage and moral vision seem all the more exceptional for having come from a man with ordinary flaws.

King was the product of a middle-class upbringing, and of a family ensconced in Atlanta's black bourgeoisie. His father, affectionately known as "Daddy King", was strong-willed and stern; he preached at Ebenezer Baptist Church, making it one of the city's more prominent black churches. King attended Morehouse College, then as now one of America's best historically black universities, before moving on to seminary in Pennsylvania and graduate school in theology at Boston University.

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Now remembered for his oratory, as a young seminarian, Mr Eig notes, "he earned As in his philosophy classes and Cs in public speaking." Mr Eig speculates that some of his northern, white professors "were not enthralled with the black Baptist style". The high marks in philosophy, however, are unsurprising: King was a student of ideas for his entire life. Written in 1963, his "Letter from Birmingham Jail" is renowned for its moral force and lucid prose. It also bristles with allusions—to the Old and New Testaments, but also Thomas Aquinas, Reinhold Neibuhr, Martin Buber and others. (It did not mention Mohandas Gandhi, whose philosophy of non-violent resistance was perhaps the single greatest influence on King's life and work.)

He found his voice as a political leader on December 5th 1955, when he was just 26 and a newly installed pastor in Montgomery, Alabama. At Holt Street Baptist Church that evening, four days after the arrest of Rosa Parks for refusing to give up her seat on a bus to a white passenger, he addressed a crowd of black Alabamans. They were concerned about the response that their boycott of Montgomery's buses might provoke from the city's whites.

Mr Eig explains that King "needed to embolden without embittering". He had to acknowledge his audience's justified anger yet persuade them to protest righteously and hopefully. Speaking without notes, he advanced a reassuring argument deeply rooted in American and Christian traditions. "We are not wrong," he declared. "If we are wrong, the Supreme Court of this nation is wrong. If we are wrong, the constitution of the United States is wrong. If we are wrong, God Almighty is wrong."

Like a mighty stream

They were not wrong—and that may have been the mid-century civil-rights movement's greatest strength. King's efforts to overturn legal segregation were at once radical, because African-Americans had been second-class citizens since America's founding, and based on straightforward American ideals. He understood that the country's promises of freedom and equality were hollow if geography or skin colour could invalidate them.

Moral suasion was not enough. King also led the most successful pressure campaign in American history, enduring beatings, bombings, imprisonment, scorn, the arms'-length caution of John F. Kennedy, Lyndon Johnson's two-faced truculence, and illegal monitoring and harassment by the FBI. Within a decade of his address in Holt Street, Johnson signed the Civil Rights Act and the Voting Rights Act. He signed the Fair Housing Act, outlawing discrimination in housing, a week after an assassin's bullet ended King's life in 1968.

Yet by the time King died many considered him yesterday's man. His opposition to the war in Vietnam alienated some of his compatriots. The civil-rights movement had splintered, as more radical voices, such as Stokely Carmichael's, grew louder. Many white Americans saw ending segregation as the movement's goal, when, for King, it was just the start: his aim was brotherhood and equality. As the 55 years since his death have shown, achieving those through policy is fiendishly difficult.

A difficult goal can be worth striving for, however. And it does King and his quest an injustice to suggest he called only for colour-blindness and not, as he put it in 1967, "a reconstruction of the entire society", perhaps involving the nationalisation of industry and a guaranteed basic income. Such ideas may be discomforting, including for those who would enlist King as an opponent of CRT: always sceptical of "the tranquillising drug of gradualism", he came to believe that most Americans "are unconscious racists". But those were still his views, even if expressing them could spell trouble for a teacher in Florida. ■

Debut fiction

Phoenix rising

A History of Burning. By Janika Oza. *Grand Central Publishing; 400 pages; $29. Chatto & Windus; £16.99*

THE TITLE of Janika Oza's highly accomplished debut novel suggests a detailed chronicle of destruction and suffering. This impression is only partly accurate. "A History of Burning" is a multi-stranded, intergenerational, polyvocal epic that charts the struggles of an Indian family over the course of almost a century. Its members endure discrimination and displacement, but refuse to be broken. This is less a tale of woe than of endurance against the odds.

The ambitious story opens in 1898, on 13-year-old Pirbhai's final day in India. While out looking for work, he is tricked and taken by dhow to Kenya. There he is forced into servitude, helping build the railway to Lake Victoria. One morning he is tasked with burning down the huts of a village and thereby removing some "obstructions"—an act that will haunt him throughout his life.

Years later, after the railway is complete, Pirbhai marries Sonal, another Indian in Kenya, and the pair move to Uganda to help run a pharmacy and make a new life. They start a family and their fortunes change when their son Vinod proves successful in a company trading tea and coffee. Vinod and his wife Rajni produce three daughters. The eldest, Latika, falls for her parents' paying guest, Arun, who introduces her to the student-protest movement.

Across continents and a century

They, too, marry, this time against both sets of parents' wishes. Latika finds her voice and speaks her mind as a journalist, reporting on the feverish state of the nation. The family's luck runs out when Idi Amin seizes power and declares that "Asians have milked the cow but did not feed it." Driven out of the country, many of the characters flee to Canada. But after her husband is arrested, Latika opts to stay behind, learning the hard way that "every choice has a shadow."

Ms Oza's novel captivates from the outset. Her depiction of Pirbhai's plight is moving; she generates tension by embroiling her characters in real historical dramas—as in Rajni's escape from ethnic clashes in Karachi in 1947 to a seemingly safer existence in Kampala, Uganda's capital. When the family faces persecution in its adopted African homeland, the momentum of the narrative gathers propulsively.

The author lives in Toronto; her own family was expelled by Amin. She dramatises this moment of history in a series of well-drawn scenes that convey terror, injustice and brutality. Vinod pithily sums up his clan's predicament: "Too Indian for Africa, too African for India."

For a while it seems that the stakes are lower in the story's final section in Canada. But when a long-lost daughter resurfaces, and racism flares up, the novel blazes fiercely once again.

Vladimir Putin's delusions

Graveyard of empire

The Russo-Ukrainian War. By Serhii Plokhy. *W.W. Norton; 400 pages; $27. Allen Lane; £25*

As the reader picks up this useful account of the origins and early progress of Russia's war against Ukraine, the conflict hangs in the balance. Ukraine's commanders are about to launch their long-prepared counter-offensive against the invaders who have occupied around a sixth of their country. No one can know whether the Russians will break and flee, as they have done before when faced with determined Ukrainian attacks, or dig in and hold on to their gains. The ink will hardly be dry on the first edition before a second will be needed.

But this book is still very much worth reading now. Those who are familiar with "The Gates of Europe", Serhii Plokhy's history of Ukraine, might be inclined to skip the first six chapters; but those who aren't will find laid out an excellent survey of unresolved regional tensions, going all the way back to the Kyivan Rus of the late ninth century, but focusing on the 20th. These issues, and Vladimir Putin's inability to deal with them peacefully, drove the first phase of the current conflict: the seizure of Crimea and the eastern Donbas in 2014. The same unresolved questions in the minds of Russian nationalists produced the invasion on February 24th 2022.

"Where Russia begins and ends, and what territories the historical 'gathering of the Russian lands' should encompass, are old questions that have preoccupied Russian thinkers and statesmen for generations," Mr Plokhy, a Ukrainian historian at Harvard, writes. For all its benefits to mankind, the dissolution of the Soviet Union renewed that debate; and it left some 30m Russian-speakers outside the new Russia's borders, a large proportion of them in now-independent Ukraine.

For Mr Putin, these questions became all-consuming, perhaps because they are a distraction from his failure to develop Russia as anything other than a hydrocarbon reservoir—just as the age of hydrocarbons is coming to an end. Mr Plokhy describes the models for the restoration of some version of the Russian empire that have tempted Russia's president: the "Eurasia" model, which involved reconstituting almost the entire Soviet Union in the guise of a trading union (minus the Baltic states, which revanchists are less likely to see as part of Moscow's patrimony); "big Russia", a tighter union of Russia, Belarus and Ukraine; and "Greater Russia", a version of Russia only, but with the addition of swathes of eastern and southern Ukraine.

The first of these ideas fizzled out long ago. The second is undoubtedly what Mr Putin was after when he decided to invade last year. The third, more or less, is what he has ended up with for now.

"The Russo-Ukrainian War" is stronger at explaining the war's antecedents than it is as a history of the conflict itself. One problem with a book written this quickly is that it has not given Mr Plokhy much time to engage in original research. Especially as the events become more recent, too much of it becomes just a competent assemblage of press cuttings.

But he rounds the book off with some thoughtful observations about geopolitics. Russia went into this war, indeed into the whole period since the first flush of post-cold-war enthusiasm for the West began to fade, with the hope of creating a multipolar world. Instead, the author writes, "the conflict presaged a return to the bipolar world of the cold war, now centred not on Washington and Moscow, but on Washington and Beijing." A well-done chapter sketches (but only sketches) what looks like the terrible failure of Mr Putin's China policy, and the transition from a friendship "without limits", as he and Xi Jinping once put it, to something that places Russia firmly in a submissive posture.

And as for Ukraine, the book notes, Mr Putin has achieved something remarkable. When he was first elected president in 2000, Ukraine was deeply divided between its Russia-facing and Europe-oriented elements. He has united it in loathing for him and Russia itself. Mr Putin's real legacy will be to have destroyed for ever the dream of an imperial restoration. ■

The pity of war

Museums on the move

La Madonna è mobile

FLORENCE

The Uffizi is taking its art to the people

Painted by Raphael in the early 16th century, the "Madonna of the Baldacchino" has had an adventurous life. An altarpiece originally intended for the basilica of Santo Spirito in Florence, it subsequently travelled west in Tuscany to the cathedral of Pescia. Later it went back to Florence and from there to Paris, before returning again to Florence—where it has hung in Palazzo Pitti since 1813.

Now Raphael's early masterpiece is on the move once more. It will be on display in Pescia's cathedral (again) from May 11th to July 30th, alongside a copy by Pier Dandini that was commissioned to replace it in the 1690s. This time its voyage is part of an innovative experiment in curation.

The show is the latest to be staged by the Uffizi galleries, which include Palazzo Pitti, in a project that their director, Eike Schmidt, has dubbed the "Uffizi diffusi" (the "extended" or "scattered" Uffizi). The aim is to give the public a chance to see paintings and sculptures in places where they have a special relevance. Often the art on display would otherwise be hidden away in the Uffizi's storerooms (though that is not the case with the "Madonna of the Baldacchino").

In the first such exhibition, in 2021, artworks associated with Napoleon Bonaparte were shown at Portoferraio on the island of Elba, to which the French emperor was exiled in 1814 (he escaped the following year). Another was held in the village where Andrea del Castagno was born and featured his portrait of Dante Alighieri. The Tuscan hill town of Anghiari, site of a battle between Florence and Milan in the 15th century, was chosen for a show on the links between culture and warfare. "Some places just want to have an exhibition," comments Mr Schmidt. "In other cases, the authorities want us to leave the works behind indefinitely."

Now, after more than 30 such shows, the project is entering a new phase: the creation of a network of permanent satellite museums in various parts of Tuscany. To an extent, the Uffizi is following the examples of the Louvre, which has opened a branch at Lens, and the Victoria and Albert Museum in London, which now has an outpost in Dundee. But Mr Schmidt's scheme is both more local and more ambitious. Within a few years, he plans to inaugurate satellite Uffizis in up to four locations in Tuscany, each with a particular ▸▸

Raphael's much-travelled Madonna

speciality and together displaying hundreds of works.

The first in line to open is the Villa Ambrogiana at Montelupo Fiorentino, which overlooks the River Arno west of Florence. As Mr Schmidt explains, this was one of the biggest of the villas owned by the Medicis, the dynasty that ruled Florence for three centuries, "yet the only one not on UNESCO's World Heritage List, because it was not accessible to the public". Until 2017 the huge villa, which has a tower at each of its four corners, served as a psychiatric prison. It is currently undergoing a €24m ($26m) restoration. After that, the plan is to bring back several hundred paintings and sculptures that were taken to the Uffizi in the 18th century.

Another Medici villa, in the Florentine suburb of Careggi, is also being restored with a view to becoming a part of the Uffizi network. And Mr Schmidt has set his sights on a couple of former health spas: the Terme Excelsior at Montecatini Terme, which might house some of the Uffizi's works from the late 19th and early 20th centuries, and the Terme del Corallo in Livorno, on the Tuscan coast, which has been earmarked for an "Uffizi of the Sea".

The project has already been the subject of a scholarly study, published in the *International Journal of Cultural Policy*. "It could provide a model for regional museums in other parts of Italy and indeed the world," says the study's author, Serena Giusti of the Scuola Superiore Sant'Anna in Pisa. But much remains to be done. The Livorno scheme requires what Mr Schmidt blithely terms "a reconfiguration of the centre of the city". And the site is in a deplorable state. "When we first went there, it was full of mud," says Mr Schmidt, turning to German Romantic painting for a worthy simile: "Like...well...a landscape with ruins by Caspar Friedrich." ■

Inventing an idyll

The coast and utopia

Famous names and historical forces collide in a chronicle of the French Riviera

The Once Upon a Time World. By Jonathan Miles. *Pegasus Books; 464 pages; $29.95. Atlantic Books; £22*

IN THE SUMMER of 1922 Gerald Murphy, an American artist and collaborator with Sergei Diaghilev on the Ballet Russes, was invited to visit Cole Porter, an old friend from Yale, in the south of France. The following year, having enjoyed the deserted beaches, Murphy, his wife Sara and their three children booked into a hotel which had, unusually, stayed open for the summer season. Only two other families were there, one of which was Pablo Picasso's. Sara and Picasso probably had an affair; soon afterwards another friend, F. Scott Fitzgerald, used the Murphys as the model for the fraught marriage of Dick and Nicole Diver in his novel "Tender is the Night".

This myth of origin for the glitz and glamour of the French Riviera is almost perfect in its mix of rich, name-droppingly famous and talented people having fun in the sun. Murphy, "whose great gift was to embellish the tiniest gesture with panache", in effect invented this slice of Provençal coast as the supreme summer destination for the smart set, and in due course for a wider demographic. But as Jonathan Miles explains in his entertaining and comprehensive history, the Riviera had been a fashionable haunt long before then, albeit in a different season and for a different crowd.

As far back as the 1830s the seashore was being tamed in anticipation of promenades and *croisettes*, and the hills behind it were filling up with grand villas, hotels and tennis courts. Then the new owners were mostly British aristocrats seeking restorative exposure to the winter sun. As one French observer noted a few decades later, Cannes had become a place to "build a reproduction of Windsor and live for ever". When Queen Victoria visited Menton in 1882, the British influence was still strong enough for the town's signage to be predominantly in English. The local pastor was none other than the inventor of rugby football, William Webb Ellis.

The Riviera's evolution from a winter to a summer venue saw a new aristocracy taking over from the old. Writers, artists and film stars (Brigitte Bardot in St Tropez, Princess Grace in Monaco) were followed by rock stars (the Rolling Stones in the early 1970s and, 40 years later, Bono of U2 thanking the mayor of Nice for trying to make it "a green city under blue skies"). The celebrities paved the way for post-Soviet oligarchs, tech bros and other fixtures of the 21st-century plutocracy.

Yet there have been many less predictable visitors and encounters. Karl Marx came to Monte Carlo to see a doctor (he found the hotel workers there "devoid of class consciousness"). Harpo Marx, meanwhile, struck up an unlikely holiday

Au revoir tristesse

friendship with George Bernard Shaw in Cap d'Antibes. Friedrich Nietzsche inspected 40 boarding houses before finding one that was satisfactory; Vladimir Lenin stayed at the same *pension* as Anton Chekhov had before him.

If world history largely took place elsewhere—with the harrowing exception of the second world war—seemingly all the people who made that history passed through at some stage. Distant conflicts, revolutions and financial crises, as much as the oscillations of Paris fashion, all echoed on the Côte d'Azur. Mr Miles chronicles all this with a keen eye for piquant details: from the procedure for removing those who couldn't pay their debts from the casino at Monte Carlo (they were photographed for posterity and dispatched on a train in second class), to the annual gift of decorated cushions from King Gustav of Sweden, "an enthusiastic embroiderer", to the mayor of Cannes.

In a study that focuses on the great, the good and the not-so-good, the experiences of ordinary tourists and residents are, unsurprisingly, less well documented. Still, at the elegiac close of his book, Mr Miles describes depredations wrought on the coast that affect everyone: not just the rampant building, but the accompanying organised crime, corruption and social tensions. These are among the by-products of a remarkable experiment in the generation of human pleasure.

The Murphys left France in 1929 when one of their children became ill. Two would die prematurely. When Gerald wrote to Fitzgerald he reflected on their shared seasons in the sun, concluding that "only the invented part of our life—the unreal part—has had any scheme, any beauty." ■

Johnson When in Kyiv

Making an effort when pronouncing foreign names is better than the alternative

A JOURNALIST NAMED Antonio Mendoza—played by Jimmy Smits, an actor with Puerto Rican heritage—walks into a new job at a television station. The room of (non-Hispanic) old hands begin discussing "our coverage of *Nicaragua*", with a preposterously Spanish pronunciation of the country's name. Someone offers Antonio "*enchiladas*", again with an absurdly overdone Spanish accent. Another brags that he learned to love Latino food in "*Los Angeles*" in the same vein.

Antonio begins to get irritated, and asks, "What do you call the kind of storm you get with high winds and a big funnel cloud?" "A *tor-NAH-do*, why?" And on it goes. The sketch from "Saturday Night Live" is considered a bit of a classic.

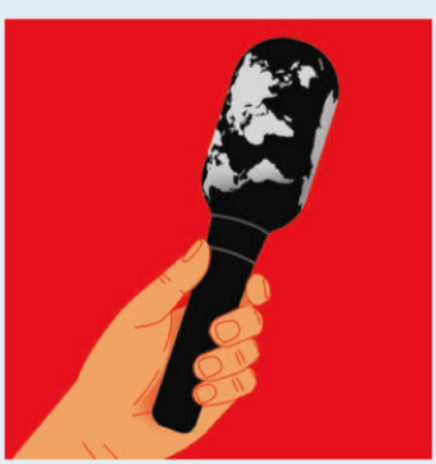
But it is not just comedy. Viewers and listeners of broadcast journalism write in with genuine annoyance when they notice journalists saying names of the places and people they cover as if they were natives. The same scorn adheres to the gap-year traveller just back from "*Barthelona*" or "*Budapesht*". Some think it is an emerging trend, perhaps even a cousin to leftish virtue-signalling.

This, however, is a long-standing gripe. That "Saturday Night Live" sketch originally aired in 1990. The problem has recurred ever since for a simple reason: finding a perfect solution for pronouncing foreign names is not always easy. A reporter working in another country and fluent in its language might have heard prominent names (the president, the capital, etc) pronounced in English many times. But they may have heard of smaller places or less familiar names only in the local language.

That means that when speaking English, they naturally tend to use the only pronunciation they have heard. Listeners who would prefer a "natural" English pronunciation are really asking for the journalist to devise a new and unaccustomed one, overriding the most comfortable version. In such cases, journalists using native-like pronunciations are not really being accused of trying too hard. They are, in effect, decried for not trying hard enough, by avoiding the extra effort to make foreign names sound English.

This is to say nothing of the fact that, though some foreign sounds are easy to adapt to English equivalents, others have no close analogue. This widens the gap between the only two options: an English-inflected pronunciation that sounds nothing like the original, or an accurate one by foreign standards that gives rise to accusations of swottery, or even snobbery.

For example, the last syllable of the surname of the French president, Emmanuel Macron, sounds like *ohn*, only without the tongue quite touching the teeth as with a usual *n*-sound. (It is in fact a nasalised vowel, an *oh*-sound made with the air coming from the nose.) English has nothing particularly close. This leaves a few bad options. Pronouncing "Macron" as though it were English, rhyming with "micron" (with first-syllable stress, too) distorts the name considerably. And if you pronounce the *-on* as French, you might find it odd to use an English-style *-r-* in the middle of the name, and so adopt the uvular French one. Now you are back to a gap-year accent, open to criticism for showing off.



Attempts at authentic native pronunciation can go wrong, too. Ukraine has asked that its capital be called Kyiv, as in the Ukrainian language, and not Kiev, as in Russian (and, heretofore, in English). Many reporters want to show they are on team Kyiv, and pronounce the name as unlike "Kiev" as possible, coming out with "*Keev*". But that isn't quite right, either. Like "Kiev", Kyiv in Ukrainian is properly pronounced with two vowels back to back. But they are something like the *i* in "fish" followed by the first *e* in "Steve". This unusual combination doesn't exist in English, and so many outsiders mangle it.

As "*Keev*" hints, there really is such a thing as trying too hard, so getting the wrong result by any standard, whether that of native accuracy or natural English. Barack Obama liked to showcase his worldliness; the former president pronounced "Pakistan" as Pakistanis do, with two broad *a*'s (as in "father"). But he did the same with the *a* in "Copenhagen", which is not how Copenhageners say it in English. (The Danish "Koebenhavn" is another matter.) Thus he unwittingly called the city by its German name.

Still, trying your hand at foreign pronunciations is a sign of openness and accommodation. It is often impossible to please everyone. In a world torn by national antagonisms, it is no great crime to make an effort. Save your scorn for those who do not try at all.

Courses

Economic data

	Gross domestic product, % change on year ago: latest		quarter*	2023†	Consumer prices, % change on year ago: latest		2023†	Unemployment rate, %		Current-account balance, % of GDP, 2023†	Budget balance, % of GDP, 2023†	Interest rates: 10-yr gov't bonds, latest,%		change on year ago, bp	Currency units: per $ May 10th	% change on year ago
United States	1.6	Q1	1.1	0.7	4.9	Apr	4.2	3.4	Apr	-3.1	-5.2	3.4		44.0	-	
China	4.5	Q1	9.1	5.7	0.1	Apr	1.7	5.3	Mar‡§	1.7	-2.9	2.5	§§	-4.0	6.92	-2.9
Japan	0.4	Q4	0.1	1.1	3.3	Mar	2.2	2.8	Mar	3.2	-5.8	nil		-8.0	134	-3.1
Britain	0.6	Q4	0.5	-0.2	10.1	Mar	6.0	3.8	Jan††	-2.9	-5.4	3.8		181	0.79	2.5
Canada	2.1	Q4	nil	0.7	4.3	Mar	3.3	5.0	Apr	-1.0	-1.5	2.9		-10.0	1.34	-3.0
Euro area	1.3	Q1	0.3	0.8	7.0	Apr	5.8	6.5	Mar	1.2	-3.5	2.3		129	0.91	4.4
Austria	2.6	Q4	-0.1‡	1.0	9.8	Apr	6.9	4.5	Mar	1.4	-2.8	3.0		144	0.91	4.4
Belgium	1.3	Q1	1.6	0.5	5.6	Apr	5.4	5.9	Mar	-2.6	-4.9	3.0		141	0.91	4.4
France	0.8	Q1	0.7	0.5	5.9	Apr	5.5	6.9	Mar	-1.9	-5.3	2.9		124	0.91	4.4
Germany	-0.1	Q1	0.2	0.3	7.2	Apr	6.2	2.8	Mar	4.7	-2.5	2.3		129	0.91	4.4
Greece	4.5	Q4	5.6	2.0	3.0	Apr	3.9	10.9	Mar	-8.0	-2.3	4.2		68.0	0.91	4.4
Italy	1.8	Q1	2.0	0.8	8.3	Apr	6.8	7.8	Mar	-0.6	-5.0	4.2		118	0.91	4.4
Netherlands	3.2	Q4	2.6	1.2	5.2	Apr	4.8	3.5	Mar	6.9	-2.4	2.7		137	0.91	4.4
Spain	3.8	Q1	1.9	1.8	4.1	Apr	4.1	12.8	Mar	1.0	-4.4	3.4		120	0.91	4.4
Czech Republic	0.1	Q4	0.4	-0.2	15.0	Mar	11.4	2.5	Mar‡	-1.7	-4.8	4.6		-45.0	21.4	10.9
Denmark	1.9	Q4	2.3	0.8	5.3	Apr	5.0	2.8	Mar	9.0	0.5	2.6		123	6.79	4.0
Norway	1.3	Q4	0.8	1.4	6.4	Apr	4.6	3.7	Feb‡‡	20.0	11.4	1.4		76.0	10.5	-7.6
Poland	0.8	Q4	-9.3	0.9	14.7	Apr	13.1	5.3	Apr§	-1.3	-4.0	5.8		-117	4.12	7.8
Russia	-2.7	Q4	na	-2.2	3.5	Mar	7.3	3.5	Mar§	6.0	-4.4	10.9		50.0	76.1	-8.6
Sweden	0.3	Q1	0.8	-0.6	10.6	Mar	6.1	7.7	Mar§	3.9	-0.3	2.4		39.0	10.2	-1.8
Switzerland	0.8	Q4	0.1	0.9	2.6	Apr	2.6	1.9	Apr	7.6	-0.7	1.1		14.0	0.89	11.2
Turkey	3.5	Q4	3.8	2.8	43.7	Apr	42.2	10.2	Mar§	-4.5	-4.2	13.7		-863	19.5	-21.9
Australia	2.7	Q4	1.9	1.6	7.0	Q1	4.6	3.5	Mar	1.7	-2.3	3.5		-12.0	1.48	-2.7
Hong Kong	-4.2	Q4	nil	3.4	1.6	Mar	2.4	3.1	Mar‡‡	3.5	-1.4	3.3		25.0	7.83	0.3
India	4.4	Q4	-3.4	6.1	5.7	Mar	5.6	8.1	Apr	-1.4	-5.7	7.0		-26.0	82.0	-5.7
Indonesia	5.0	Q1	na	4.5	4.3	Apr	4.0	5.5	Q1§	0.7	-2.6	6.4		-95.0	14,725	-1.1
Malaysia	7.0	Q4	na	3.5	3.4	Mar	2.3	3.5	Feb§	3.1	-5.0	3.8		-56.0	4.46	-1.8
Pakistan	6.2	2022**	na	1.5	36.4	Apr	30.3	6.3	2021	-2.9	-5.8	15.1	†††	231	290	-34.9
Philippines	6.4	Q1	10.0	4.8	6.6	Apr	5.7	4.8	Q1§	-3.3	-6.4	5.8		-20.0	55.7	-5.9
Singapore	0.1	Q1	-2.7	1.7	5.5	Mar	5.2	1.8	Q1	18.3	-0.1	2.8		-8.0	1.33	4.5
South Korea	0.9	Q1	1.1	1.5	3.7	Apr	2.8	2.8	Apr§	2.6	-2.1	3.3		-6.0	1,325	-3.7
Taiwan	-3.0	Q1	-6.4	1.6	2.3	Apr	1.9	3.6	Mar	11.9	-2.2	1.2		-21.0	30.7	-3.4
Thailand	1.4	Q4	-5.9	3.8	2.7	Apr	2.2	1.0	Mar§	2.1	-2.7	2.6		-62.0	33.7	2.6
Argentina	1.9	Q4	-6.0	-3.6	104	Mar	106.5	6.3	Q4§	-2.4	-4.6	na		na	228	-48.8
Brazil	1.9	Q4	-0.9	1.5	4.7	Mar	5.3	8.8	Mar§‡‡	-2.7	-7.6	12.3		-28.0	4.96	3.8
Chile	-2.3	Q4	0.2	0.3	9.9	Apr	8.1	8.8	Mar§‡‡	-4.9	-2.5	5.5		-127	788	10.4
Colombia	2.9	Q4	2.7	1.6	12.8	Apr	11.9	10.0	Mar§	-4.7	-4.4	11.4		40.0	4,555	-10.2
Mexico	3.9	Q1	4.5	1.4	6.3	Apr	5.9	2.8	Mar	-1.0	-3.7	8.8		-34.0	17.6	15.8
Peru	1.7	Q4	-2.0	1.8	8.0	Apr	6.5	6.7	Mar§	-3.6	-1.6	7.3		-83.0	3.68	3.8
Egypt	3.9	Q4	na	3.0	30.5	Apr	25.0	7.2	Q4§	-3.0	-6.9	na		na	30.9	-40.2
Israel	2.7	Q4	5.3	2.8	5.0	Mar	4.0	3.9	Mar	4.2	-2.2	3.6		107	3.65	-5.2
Saudi Arabia	8.7	2022	na	2.0	2.7	Mar	2.2	4.8	Q4	5.0	0.6	na		na	3.75	nil
South Africa	0.9	Q4	-4.9	0.5	7.3	Mar	5.2	32.7	Q4§	-2.1	-4.7	10.6		31.0	18.9	-14.4

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.

Markets

In local currency	Index May 10th	% change on: one week	Dec 30th 2022
United States S&P 500	4,137.6	1.1	7.8
United States NAScomp	12,306.4	2.3	17.6
China Shanghai Comp	3,319.2	-0.1	7.4
China Shenzhen Comp	2,029.3	-1.3	2.7
Japan Nikkei 225	29,122.2	-0.1	11.6
Japan Topix	2,085.9	0.5	10.3
Britain FTSE 100	7,741.3	-0.6	3.9
Canada S&P TSX	20,499.3	0.7	5.7
Euro area EURO STOXX 50	4,306.8	-0.1	13.5
France CAC 40	7,361.2	-0.6	13.7
Germany DAX*	15,896.2	0.5	14.2
Italy FTSE/MIB	27,264.8	1.6	15.0
Netherlands AEX	748.3	0.5	8.6
Spain IBEX 35	9,167.7	1.0	11.4
Poland WIG	63,573.4	1.2	10.6
Russia RTS, $ terms	1,052.4	4.4	8.4
Switzerland SMI	11,447.2	-0.5	6.7
Turkey BIST	4,494.5	0.2	-18.4
Australia All Ord.	7,452.3	0.9	3.2
Hong Kong Hang Seng	19,762.2	0.3	-0.1
India BSE	61,940.2	1.2	1.8
Indonesia IDX	6,811.9	nil	-0.6
Malaysia KLSE	1,425.7	nil	-4.7

	index May 10th	% change on: one week	Dec 30th 2022
Pakistan KSE	41,075.0	-2.4	1.6
Singapore STI	3,242.3	-0.6	-0.3
South Korea KOSPI	2,496.5	-0.2	11.6
Taiwan TWI	15,641.8	0.6	10.6
Thailand SET	1,569.6	2.4	-5.9
Argentina MERV	310,497.2	7.8	53.6
Brazil BVSP*	107,448.2	5.6	-2.1
Mexico IPC	55,534.7	1.1	14.6
Egypt EGX 30	17,494.7	1.2	19.8
Israel TA-125	1,794.6	0.1	-0.4
Saudi Arabia Tadawul	11,293.2	2.0	7.1
South Africa JSE AS	77,775.0	-0.6	6.5
World, dev'd MSCI	2,822.6	0.9	8.4
Emerging markets MSCI	979.6	1.0	2.4

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 30th 2022
Investment grade	160	154
High-yield	509	502

Sources: Refinitiv Datastream; Standard & Poor's Global Fixed Income Research. *Total return index.

Commodities

The Economist commodity-price index, 2015=100	May 2nd	May 9th*	% change on month	year
Dollar Index				
All Items	147.2	148.9	-3.4	-16.0
Food	137.9	139.0	-1.7	-12.8
Industrials				
All	155.9	158.1	-4.8	-18.5
Non-food agriculturals	109.5	110.4	-7.9	-40.4
Metals	169.7	172.3	-4.2	-12.3
Sterling Index				
All items	180.3	180.1	-4.8	-18.0
Euro Index				
All items	148.7	150.7	-3.8	-19.2
Gold				
$ per oz	2,012.5	2,026.1	1.1	9.8
Brent				
$ per barrel	75.4	77.5	-9.6	-24.4

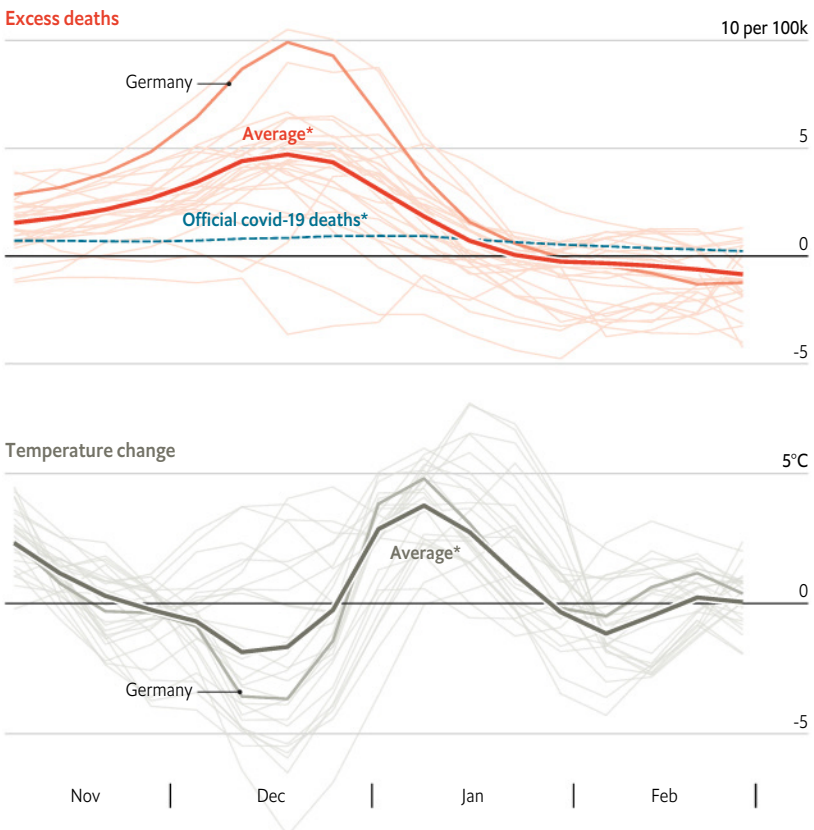
Sources: Bloomberg; CME Group; Cotlook; Refinitiv Datastream; Fastmarkets; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional.

For more countries and additional data, visit **economist.com/economic-and-financial-indicators**

→ **Europe's winter was mild, yet high energy prices may still have caused thousands of additional deaths**

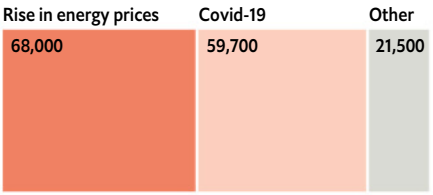
Excess deaths v average temperatures

Winter 2022-23 compared with 2015-19, three-week moving average



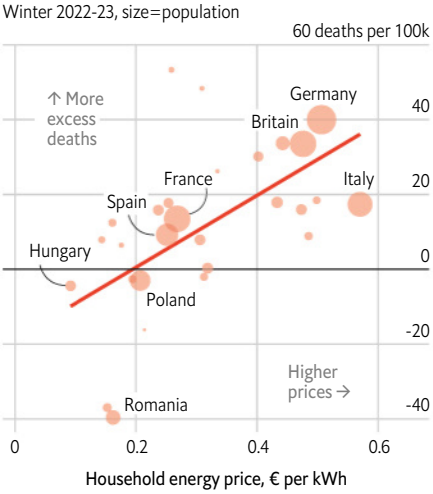
149,000 total excess deaths, winter 2022-23

Explained by:



Total non-covid excess deaths v energy prices

Winter 2022-23, size=population



*EU-27 (except Malta and Cyprus) plus Britain, Norway & Switzerland

Sources: *The Economist*'s excess-deaths tracker; Copernicus; HEPI

Out in the cold

Expensive energy may have killed more Europeans than covid-19 last winter

After Russia invaded Ukraine in February 2022, Vladimir Putin weaponised his country's energy supplies: cutting gas exports to Europe and causing prices to surge. Although wholesale costs have now fallen across the continent, the prices of domestic electricity and gas, compared with two years earlier, were up by an eye-watering 69% and 145% last winter.

High energy prices can cost lives. They discourage people from heating their homes properly, and living in cold conditions raises the risk of cardiac and respiratory problems. In November *The Economist* predicted that expensive power might result in between 22,000 and 138,000 deaths during a mild winter. Unfortunately, we appear to have been correct.

To assess how deaths last winter compare to previous ones we have used a common measure of mortality: excess deaths. Comparing actual deaths with the number we might expect given mortality in the same weeks of 2015-19, we found that deaths across Europe were higher than expected. Across 28 European countries we investigated, there were 149,000 excess deaths between November 2022 and February 2023, equivalent to a 7.8% increase.

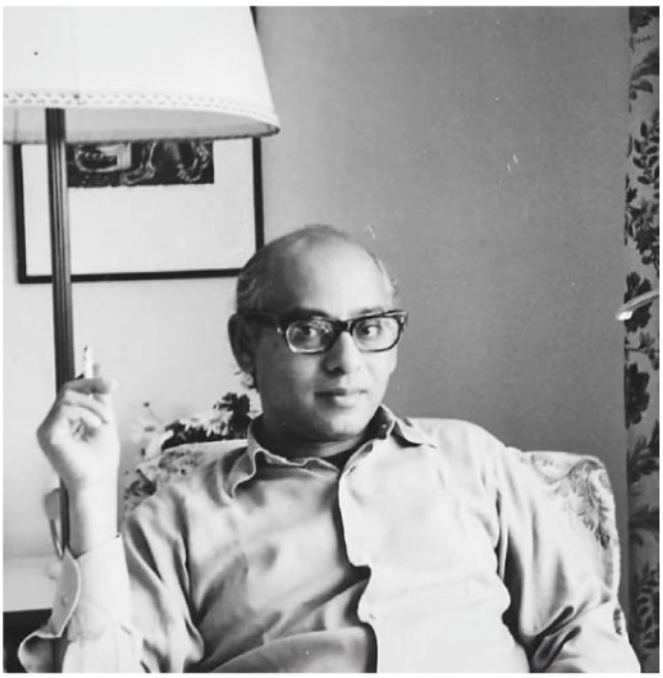
Several factors might explain this rise. Among those that died last winter, nearly 60,000 were recorded as covid-19 deaths. The disease probably contributed—directly or indirectly—to more, but it is unlikely that it can account for all of last winter's surge. Between March 2020 and September 2022 the official covid death count was 79% of total excess deaths among our 28 countries. Last winter it was 40%.

The weather has also affected the number of deaths. A cold snap in December was accompanied by a rise in mortality. A drop of 1°C (1.8°F) in the average temperature over a three-week period is associated with a 2.2% rise in total deaths. However, last winter was milder than the average of 2015-19, so the cold alone cannot be responsible for the additional deaths.

It appears that high energy prices might have had an effect. Looking across countries reveals that those with the highest excess deaths typically experienced the biggest increases in fuel costs. To disentangle energy costs from covid and temperature changes we have built a statistical model. Our model also accounts for a country's demographics, the number of covid deaths prior to last winter and historic under-reporting of those deaths.

We estimate that a price rise of around €0.10 per kwh—about 30% of last winter's average electricity price—was related to an increase in a country's weekly mortality of around 2.2%. If electricity last winter had cost the same as it did in 2020, our model would have expected 68,000 fewer deaths across Europe, a decline of 3.6%.

Deaths in Europe might have been higher had governments not intervened in energy markets (although lower prices bid up demand, causing problems elsewhere in the world). Using data from Vaasaett, a consultancy, we have estimated how many excess deaths would have occurred had bills not been reduced by price caps or lower sales taxes. Across 23 countries our model finds that these subsidies saved 26,600 lives. As wholesale energy prices fall and temperatures rise, the immediate threat may be over, but it is clear Mr Putin's energy weapon was deadly. ■



Bottom-up history

Ranajit Guha, a Bengali historian who revolutionised the study of India's past, died on April 28th, aged 99

THE THREE short depositions, written in rustic Bengali in 1849, told the story of a young woman named Chandra. Pregnant as a result of an illicit affair, and in danger of being banished from her village, she was given poison one night by her mother and her sister. After several hours she expelled a small bloody fetus, and then, just before dawn, she died. "I administered the medicine in the belief that it would terminate her pregnancy," her sister declared to the village scribe who'd been put to work by local law-enforcers. "I did not realise it would kill her."

The depositions amounted to no more than a few dozen lines. But the historian who found them saw far more there than the scant details of a young life cut tragically short. He teased out what the wider context revealed about the Indian subcontinent: about its strict caste rules, its legal frameworks, its ways of disciplining transgression, the mores and pressures of its village elders (almost always men) and the unspoken solidarity among women that underpinned so much of rural life in Bengal then.

His essay, "Chandra's Death", is still widely quoted. It appeared first in 1987 in the fifth volume of "Subaltern Studies: Writings on South Asian History and Society", a series started by a soft-spoken, balding academic working in Manchester, Sussex and then Canberra rather than at the Oxbridge colleges that had long dominated the study of India's grand past. "How is one to reclaim this document for history?" he asked. That question lay at the root of the movement he launched with a group of younger scholars, both Indian and British. Most of them had studied in the West, and were keen to throw off the conservatism of other historians.

"Subaltern Studies" would become a manifesto for a new kind of Indian history written outside the mainstream of the ideas of both the colonial period and the era of Jawaharlal Nehru's leadership. These were stories of India from the bottom up, or as one fellow academic liked to call it: "insurgent history". Through the six volumes of "Subaltern Studies" that he edited between 1982 and 1989, he showed over and over how change in India had not been, as many historians would have you believe, a case of elites acting first, with the peasantry always following obediently behind. The poor and marginalised had their own ideas about the change they wanted and had always been prepared to fight for it, whether it was the indigo revolt of 1859 or the many Dalit movements of the mid-20th century. Edward Said, no slouch himself when it came to revisionist essays about colonial history, called Ranajit Guha's writing "a brilliant example of revolutionary historical method".

He had alighted upon the term "Subaltern" in the prison diaries of Antonio Gramsci. A founder of the Italian Communist Party, Gramsci wanted a word that corresponded to Marx's proletariat, but which was better suited to an agrarian society like Italy. Though the word had come to mean a young British officer in India, it also means lower status. The double meaning appealed to Mr Guha's sense of humour. Using unorthodox sources, including songs and plays, and writing from the vantage of India's "subalterns"—the slum-dwellers, tribespeople and women of all classes, but especially poor rural women—the Indian historian repurposed Gramsci's term for the post-colonial world, giving it an entirely new life.

That he was almost 60 when the first "Subaltern Studies" came out didn't bother him. Nor was he troubled by the fact that he was retired when, at last, he became a cult figure among historians, anthropologists and cultural theorists the world over. Non-conformity was something he'd been preparing for all his life. He was born the son of a middling land-owning family in what is now Bangladesh, but found the life of an entitled upper-caste Hindu intolerable, even though his grandfather taught him Sanskrit and he spent hours reading English literature in his father's library.

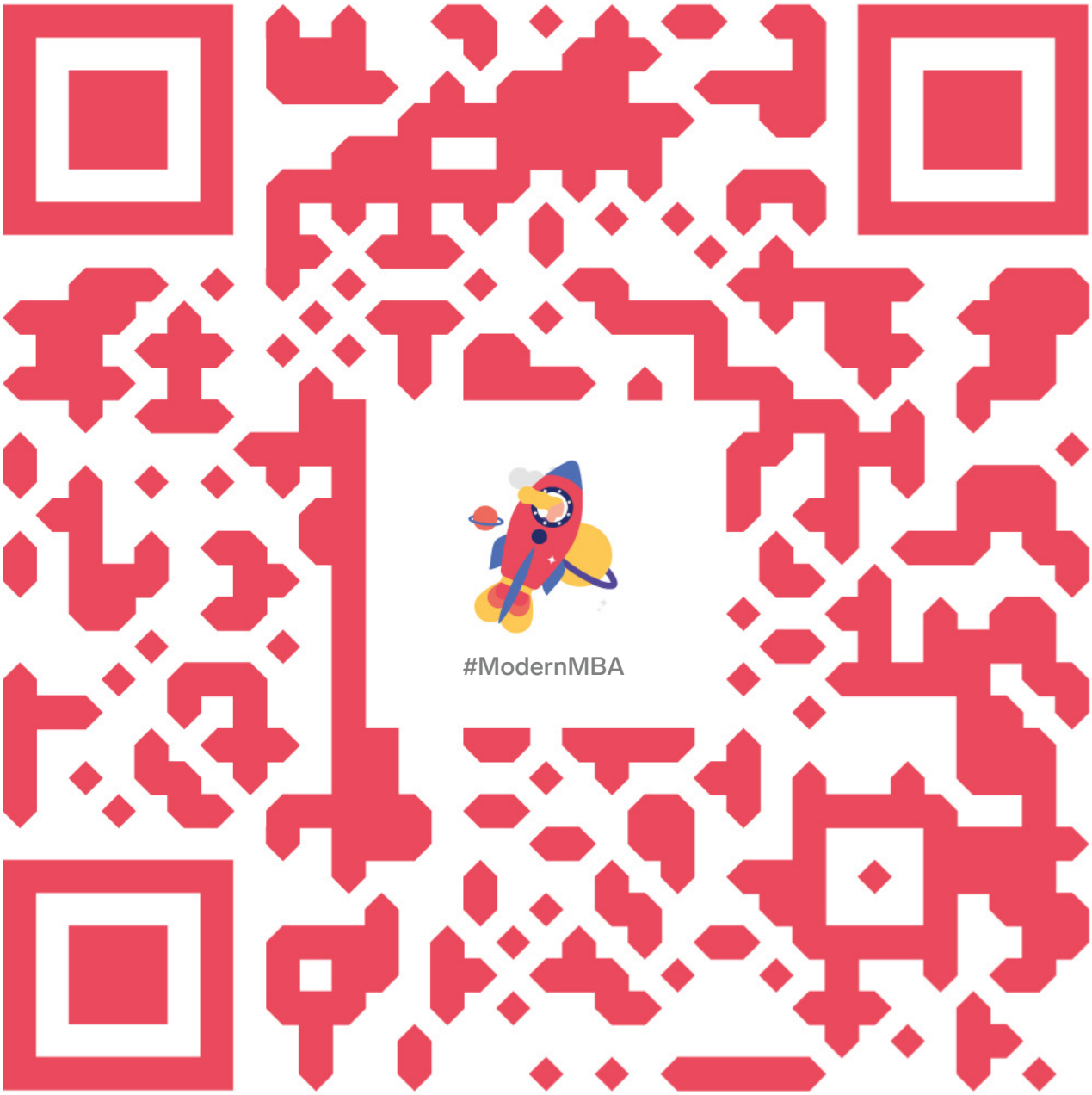
A new essay by Partha Chatterjee, a distinguished political theorist and close friend of Mr Guha's, explains how he was affected by his background. When the family tenants came to his grandfather's house "they would never sit down and would touch the feet of even the children of the master's family". Like many young Bengalis then, he joined the Communist Party and later went on to work for it full-time. The party offered new opportunities. He told Mr Chatterjee that he travelled to Paris, freshly liberated from Nazi occupation, to eastern Europe and across Russia by train in one of the first foreign groups to visit China after the revolution. But when the Soviet Union invaded Hungary in 1956, he resigned from the party and found a home at the new Jadavpur University in what was then called Calcutta.

There he turned to Bengal's feudal system. As Mr Chatterjee explains, Mr Guha wanted to understand how laws introduced in the late 18th century to create enterprising farmers instead ended up producing the hated *zamindari* system of extracting heavy rents from tenant farmers. Other historians were not convinced by his argument that it was what Mr Chatterjee calls "a necessary consequence" of British colonial rule. His doctoral thesis was turned down, though it was eventually published in 1963 as "A Rule of Property for Bengal". That book, Mr Chatterjee writes in his essay, is now "a classic of modern Indian history".

Revolting peasants

He took a job teaching at Sussex University. He wrote about the brutality of Indira Gandhi's government. And then he became fixated during a year spent in India on the crushing of the communist Naxalite movement and its aftermath. Returning to England, he studied the long history of peasant revolts. The creation of "Subaltern Studies" was the obvious next step.

After years battling historical orthodoxy, he found a fresh insight in his late 70s, says Mr Chatterjee: that the truth of human life was not to be found in history, but in literature and in the words of ordinary people—people like the young woman who was poisoned for being pregnant. ■



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